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# Relation between Chinese consumers' ethical perceptions and purchase intentions

## A perspective on ethical company/brand management strategies

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Chinese consumers' ethical perceptions

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### Abstract

**Purpose** – Most business-related studies on ethics focus on consumers in developed western economies but ignore developing economies. Therefore, to fill this void in the literature and address the concerns of prior studies, the purpose of this paper is to examine the ethical perceptions of Chinese consumers as an example of effective and efficient management of company/brand strategies in an economy experiencing rapid socioeconomic growth.

**Design/methodology/approach** – This study examines 328 Chinese consumers' purchase intentions based on their ethical perceptions toward Apple and P&G through mediating (i.e. consumer–corporate identification (CCI) and brand trust) and moderating (i.e. consumer gender, age, education and residence) effects. Structural equation modeling is used to analyze the constructs and overall model.

**Findings** – The ethical perceptions of consumers translate into purchase intentions, both at the corporate and product brand levels. Similarly, a significant direct relationship between CCI and brand trust reveals that corporate-level ethical identification is a trivial matter to customers, although these perceptions do apply to product brands under a corporate umbrella. Furthermore, to identify target groups of Chinese consumers who are receptive to ethical appeals, moderating variables were found to be useful.

**Originality/value** – The results confirm that the mediating role of CCI is more influential in the context of Chinese consumers' ethical perceptions, followed by brand trust. In relation to demographics, ethical perceptions affect CCI and brand trust more positively in females and highly educated consumers in China. Similarly, the relationship between consumers' ethical perception and their trust in brand is revealed more influential in urban residents than they do in rural. This broadens the applications and contexts of this research model. The results provide managerial guidance on enhancing potential ethical perceptions.

**Keywords** Purchase intention, Brand trust, Consumer ethical perception, Consumer–corporate identification, Moderating variable

**Paper type** Research paper

### 1. Introduction

Ethical consumerism has emerged as a concept with an important impact on (Shaw and Shiu, 2002). The scope of ethical consumerism has broadened from its cultural bounds to its more recent conventional association (Shaw *et al.*, 2006), wherein quality, price, social behavior, innovation and ethical standpoints are driving consumer choices (Bussey, 2006). Studies have investigated how corporate misconduct has a negative impact on consumer responses as well as its relationships with the company's brand and products (Sen and Bhattacharya, 2001). Moral evaluation plays an important role in creating a corporate reputation (Bromley, 2001). Therefore, how a brand is perceived ethically is inherently related to the company's overall reputation (Worcester and Dawkins, 2005). Creyer and Ross (1997) confirmed that an increasing number of consumers consider corporate social responsibility (CSR; or ethics) to be a factor in their purchasing decisions. Negotiation tactics assume even greater importance when backed with ethical content (Al-Khatib *et al.*, 2016).

Recent studies (Shea, 2010; Brunk, 2010a) emphasized the concept of consumers' ethical perceptions in developed western economies. Thereafter, Brunk (2010b) recommended that



further research should be conducted to determine the link between consumers' perceived ethicality and buying behavior. Recent academic research has concentrated on ethical brand identity, importance of CSR and consumers' ethical perceptions and outcomes (Worcester and Dawkins, 2005; Sen and Bhattacharya, 2001).

Furthermore, a study conducted in Germany and the UK by Brunk (2010a) identified six domains of consumer-perceived ethicality based on the gap between the ethical perceptions of a business and its consumers. These domains convey how a corporation interacts with other businesses, local and overseas communities, employees, the environment and consumers. Shea (2010) noted Brunk's effort to encompass consumers' cognitive dimensions in their perceptions of companies' unethical/ethical behavior, and emphasized the need to explore the intentional dimensions (e.g. purchase intention) of ethical perception. In a later study conducted among consumers from the UK, Brunk (2012) suggested that future research should determine whether perceived ethicality is related to other constructs (e.g. consumer–corporate identification (CCI)) to which it may be linked.

Researchers such as Donoho *et al.* (2001) have recommended that business ethics are important throughout the world. However, till date, studies on ethical perceptions of consumers (Brunk, 2010a, b, 2012; Shea, 2010; Sierra *et al.*, 2017), which is a recent addition to the literature on business ethics, have been conducted mostly in developed western economies. Despite having vast areas of underdevelopment (Troianos, 2015), ethical awareness is now emerging as a key concern in transitional economies such as China, from the viewpoint of managing the operations of a company (Fox *et al.*, 2005).

Many unethical issues, such as the use of gutter oil, lean meat powder, malachite green and melamine have attracted ethical concerns, and have promoted ethical consumption among Chinese consumers (Deng, 2015). Furthermore, environmental issues, such as resource depletion, deforestation, coastal reclamation, desertification, climate change, pollution (water, air) and energy overuse, are all evident in modern China (Wu *et al.*, 2015). These issues risk China's economic sustainability, public health, social stability and international reputation (Zhu and Sarkis, 2016).

Therefore, consumers are gradually changing their approach, behavior and attitude, understanding the severity of environmental deterioration (Biswas and Roy, 2015) and other ethical concerns. Lu *et al.* (2015) commented that environmental, health and moral perspectives have been declared the antecedent variables of green or ethical buying behavior by academic researchers. Consumers can only be satisfied with the overall activities of a company when they believe that business organizations deal fairly with them and generally care about them. This situation will further lead them to perceive a company as ethical/unethical (Lu *et al.*, 2015).

Investigating green issues in China, Zhu and Sarkis (2016) commented that future studies may incorporate broader issues, such as ethical, societal or moral marketing in China from consumers' perspectives. To predict the link between CSR (i.e. ethical) perception of consumers and corporate marketing outcomes among Korean consumers, Kim *et al.* (2015) suggested in a recent study that future research should include specific dimensions of CSR such as ethical perception and its interaction through demographic (gender, age, education and residence) and brand trust characteristics. We believe the current research addresses the concerns of the above-mentioned studies by incorporating the ethical perceptions of consumers and their interaction through new constructs such as CCI as well as brand trust and demographic variables.

Sierra *et al.* (2017) stated that very few studies examine the crossroads of business ethics and corporate brand management. The corporate level is responsible for decisions on investment in ethical activities (e.g. donations and CSR) and ethical initiatives (e.g. no exploitation of labor, environmentally friendly production, etc.), while consumers may respond to such activities of a corporation at the product level through purchases.

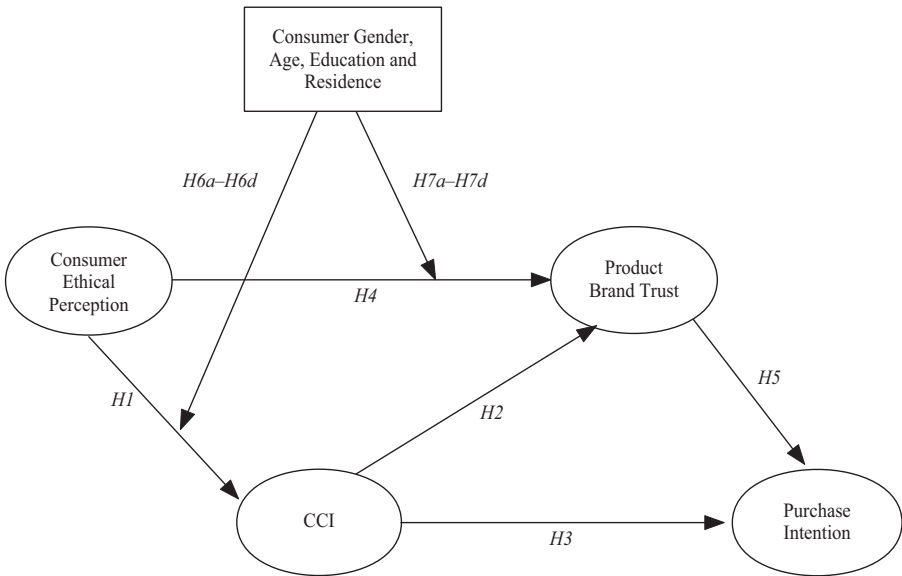
Thus, we need to examine the influence of perceived ethicality by consumers on their purchase intentions at both the corporate and product brand levels.

Researchers recommended that the relationship between consumers and company should be grounded on trust (Kang and Hustvedt, 2014). Most studies on brand trust focus on the results of trust (e.g. loyalty) rather than its predictors (Kang and Hustvedt, 2014). What builds consumers trust remains mostly unrequited. Consumers' ethical judgments are generally built at the corporate level in response to corporation activities (e.g. environmental-friendly initiatives, no exploitation of labors, fair production, CSR activities, etc.) and they can convey their positive/negative feelings regarding a corporation's such activities while interacting with its product brands. These views encourage us to fill the void in the current literature, as we incorporate consumers' trust toward brands on the basis of perceived ethicality/unethicality.

Furthermore, the Chinese are somewhat different in terms of their values and personality traits from people in developed western economies (Woodbine, 2004). This may result in different outcomes, in terms of ethical choices (Huang and Snell, 2003). Contrary to western consumers, Chinese consumers tend to obey others' expectations, and follow the influence of social norms (Deng, 2015). East Asians consider harmonious relations with others important; as they see their own significance and meaning in relationships with other people (Hashimoto *et al.*, 2011). While investigating consumers' green purchasing preferences in the developing nations of the east, Biswas and Roy (2015) explored social recognition or peer group identity as the strongest influence on consumers' green purchasing choice. It is worthwhile to incorporate CCI to best express the social identity factor of Chinese consumers in responding to their perceived corporate ethicality/unethicality.

Moreover, as companies with higher ethical standards provide accurate and complete information about a product or service and offer an extensive code of conduct (Park *et al.*, 2017), a company's morality, as perceived by consumers, is critical for communication between a product or service provider and its consumers. Ki and Kim (2010) suggested that such communication has constructive effects on the overall ethical circumstance of corporates. To boost consumers' purchase intention during communication, companies apply different strategies to present their products and services, such as associating their product or service with their corporate ethical standard. This makes sense, as previous studies (Berens *et al.*, 2005; Sen and Bhattacharya, 2001) have suggested that the ways customers associate with a company often have different influences on their evaluation (identification and trust) of the company. This evaluation influences purchase intention (Marin *et al.*, 2009b). Thus, our study proposes and examines CCI and brand trust as the main mediators of perceived ethicality on purchase intentions. CCI refers to how consumers use their relationships with a corporation to satisfy their social-identity needs (i.e. identity similarity) (Bhattacharya *et al.*, 1995). Consumers' trust in a brand is defined as their confidence in a brand's honesty and credibility (Wang, 2002). Thus, to understand consumers' purchase intentions, CCI and consumers' trust in a brand are both important. For example, Keh and Xie (2009) demonstrated that corporations with a successful CCI that have a positive reputation as a result of building consumers' trust achieve positive consumer purchasing intentions.

Furthermore, Oh and Yoon (2014) recommended that to identify target consumer groups that are receptive to ethical appeals, products should be segmented based on lifestyle or demographic variables (e.g. gender, age, education and residence). Although these variables are useful in determining consumer behavior and ethical perceptions, somehow, existing empirical studies have not recognized their role sufficiently (Srnrka, 2004; Kim *et al.*, 2015). Hence, it is important to hypothesize the moderating effect of demographic variables on the impact of consumers' ethical perceptions on their responses (i.e. CCI and brand trust; see Figure 1).



**Figure 1.**  
Research model  
(proposed model)

To achieve our research objectives in the context of an emerging economy, we investigated the main hypothesized model on the basis of a structured questionnaire with the following research questions:

- RQ1.* Is consumer trust toward product brands positively influenced by the perceived ethical perceptions of their respective corporation?
- RQ2.* Does the CCI, which has been considered important in the context of Chinese culture, has any effect on ethical perceptions? Does this corporate-level social identity (CCI) have further impact on consumers trust at the product brand level?
- RQ3.* Do the corporate- (CCI) and product-brand-level (brand trust) mediation successfully transform perceived consumers ethical perceptions into their intention to purchase?
- RQ4.* If so, what was the role of these two factors?
- RQ5.* Furthermore, is the role of Chinese consumers' demographics different or similar to their western counterparts in translating ethical perceptions into their intention to purchase?

It is an understudied phenomenon to address the business ethics issues from consumers' perspectives; therefore, this study is suitable from a managerial as well as academic perspective.

**2. Theoretical background and hypothesis**

First, we define consumers' ethical perceptions, guided by the mediating roles of CCI and product brand trust on the impact of these perceptions on purchase intentions within different domains.

*2.1 Ethical perception, CCI, brand trust and purchase intention*

In general, ethics refers to the moral patterns, values or principles that affect public behavior, and business ethics refers to moral principles that go beyond legal issues and define right or wrong in a business (Ferrell, 2004). Research into consumers' perceptions of

ethical business practices, as well as their effects on business growth, has developed owing to the competitive advantages associated with these concepts (Chabowski *et al.*, 2011) mainly in western developed economies, whereas the economic growth in China caused significant social change and placed extraordinary pressure on the natural environment and the well-being of its citizens (Zhu and Sarkis, 2016). Similarly, the Chinese economy is undergoing a dramatic transformation from an export-oriented to domestic-led consumption economy (Wang *et al.*, 2014). This social change and economic industrial and market evolution is under investigation both in China and globally (Zhu and Sarkis, 2016). Marketing literature recommends that a company/brand should perform ethically to secure its interest (Story and Hess, 2010). An ethical brand has the following characteristics: respect, honesty, responsibility, quality, integrity, diversity and accountability. Moreover, an ethical brand promotes itself without harming the people's goods (Fan, 2005).

Regardless of the fundamental motive, as consumers begin to prefer goods offered by ethical companies/brands to those by non-ethical ones, ethical behavior will lead to better performance. Chinese consumers have supported companies that have acted ethically in response to disasters and boycotting of pirated goods (Deng, 2015). Therefore (company) brand stakeholders and consumers are demanding that brands consider their ethical concerns, resulting in greater challenges (Maxfield, 2008). In this context, a recent study emphasized that the perception of a company/brand as honest, accountable and responsible toward its stakeholders results in consumers' perceived ethicality (Brunk, 2010a, b).

Ethical behavior includes an extensive code of conduct, accurate and complete information about a product and service (Park *et al.*, 2017) and involvement of corporations in CSR (i.e. ethical) activities (Vlachos *et al.*, 2009; Godfrey, 2005). Many studies have demonstrated the positive influence of ethicality or CSR initiatives on CCI (Lii and Lee, 2012; Martínez and Bosque, 2013; Marin *et al.*, 2009a).

Similarly, Bartels and Onwezen (2014) found that those who identify themselves as organic consumers prefer ethical and environment-friendly products. Therefore, an individual may use a brand for self-expression, for example, to represent success, which encourages a positive attitude toward the company (Park *et al.*, 2006). Thus, CCI refers to a consumer's identification with a brand, to the extent that the corporate brand describes traits in which the consumers believe (Dutton *et al.*, 1994). Furthermore, CCI (i.e. identification with the image of a firm by its consumers) is the main psychological substrate used by marketers to build meaningful, deep and committed relationships with consumers (Bhattacharya and Sen, 2003). Bhattacharya and Sen (2003) proposed that perceived CCI would determine consumers' response (e.g. brand trust). Similarly, Keh and Xie (2009) demonstrated that corporations with a successful CCI will be able to build consumer trust. Thus, the higher the level of CCI, the more impact it has on consumer trust toward a brand.

Moreover, CCI includes a psychological association between a corporation and its consumers (Bhattacharya and Sen, 2003), and the degree to which consumers identify themselves with a corporation relies on whether this identification contributes to their self-esteem (Dua *et al.*, 2007). Thus, consumers may identify themselves with corporations that provide good products or services (Scott and Lane, 2000). Hence, past research has demonstrated a positive influence of CCI on consumers' purchase intentions (Wu and Tsai, 2007). Furthermore, a previous study found that consumers' attitude toward CSR (i.e. ethical activity) indirectly affects their purchases mediated by CCI (Lichtenstein *et al.*, 2004). Therefore, we propose the following hypotheses:

- H1. The higher the level of consumers' ethical perceptions at the corporate level, the greater is the impact on CCI.
- H2. A higher level of corporate identification makes consumers want to trust a product brand, in the context of ethical perceptions.

- H3. The level of corporate identification among consumers of a product brand in the context of ethical perception has a direct effect on their intention to purchase.

Trust is an essential element in the consumer–brand relationship. Bart *et al.* (2005) states that all intangible activities that generate trust in a brand are symbol of assurance. Trust is the only variable that thoroughly influences intergroup and interpersonal behavior (Golembiewski and McConkie, 1975). There are two dimensions of trust in a brand: the ability to keep promises and fulfill a consumer needs and good intentions in terms of consumer welfare and interests. A consumer's trust in a brand has been demonstrated as a significant construct in sustaining a buyer–seller relationship (Bart *et al.*, 2005).

McKnight *et al.* (2002) defined three basic tenets of trust: integrity, benevolence and ability. We further explain these tenets in the context of the consumer–brand relationship. Here, integrity refers to brands that follow ethical and moral principles, while benevolence refers to brands that demonstrate goodwill toward consumers. Finally, ability refers to brands that have the expertise to fulfill consumers' needs. Thus, a firm's ethical approach to business activities is an important non-monetary factor that can enhance consumers' trust (Valenzuela *et al.*, 2010). A positive relationship between the ethical perception of consumers and brand trust was empirically confirmed by Singh *et al.* (2012).

Brand trust is a serious construct in terms of understanding long-standing relationships, because trust drives fruitful relationships. Consumers' trust in a brand could result in not looking for alternatives, which may ultimately affect their long-term relationship (Gundlach *et al.*, 1995). Therefore, consumers develop trust through their positive expectations, belief in the stated performance of products and organizational behavior.

According to Liu *et al.* (2011) (product) brand trust has a significant mediating effect on purchasing, and it is considered important in strengthening the consumer–brand relationship. For instance, trust in sales people and suppliers has a positive influence on purchase choice (Doney and Cannon, 1997). Here, trust is conceptualized as a consumer's belief, and it has been shown to have a direct effect on a consumer's purchase intention (Bhattacharjee, 2002). Similarly, a positive association between brand trust and consumer commitment was proposed by Delgado-Ballester and Munuera-Alemán (2001). Kang and Hustvedt (2014) studied if consumers' perceptions of a corporation's efforts to be socially responsible (i.e. ethical) positively influenced their trust and purchase intentions. Thus, the literature finds that consumers' perceived trust in a brand increases their purchase intention:

- H4. The higher the level of consumers' ethical perceptions of a brand at the corporate level, the greater is its influence on their trust of that product brand.

- H5. A higher level of brand trust leads consumers to take action in the form of product purchase intention.

## 2.2 Moderating variables (demographic)

Market segmentation generates competitive advantages and identifies target consumers. This allows marketers to customize marketing strategies for individual consumer groups. Dividing a market by gender, age, education, income, marital status, occupation, nationality or religion is referred to as demographic segmentation (Assael, 2005). These features are connected to shoppers' demands and needs, and affect their buying behavior.

Researchers on company/brand ethics consider gender to be an important demographic variable in terms of swaying consumers' ethical perceptions. The social structural theory, proposed by Eagly (1987), states that people act based on their association with the social characters they inhabit. For example, females are considered more relationship-oriented, caring and nurturing, while males are considered more results-oriented, independent and aggressive (Roxas and Stoneback, 2004). In fact, most previous studies, such as Ang *et al.* (2001), agreed that females are more sensitive to ethical issues than males. The positive effect

of consumers' ethical perception on CCI and brand trust has been found to be particularly strong in females. This is because men's views on moral issues are based on a "justice perspective" (e.g. individuals' rights, contractarian societal rules and fair treatment), while women's views are based on a "caring perspective" (e.g. empathy and harmony) (Robin and Babin, 1997). Thus, in light of the above discussion, we propose the following hypotheses:

*H6a.* The influence of ethical perceptions on corporate identification will be greater among females than among males.

*H7a.* The impact of ethical perceptions on product brand trust will be greater among females than among males.

To explain the differences among individuals' ethical perceptions, prior studies have also considered consumers' age groups. According to Kelley *et al.* (1990), people can better understand what constitutes wrong or right as they get older; similarly, the consequences of ethical practices are better understood by older consumer groups. Similarly, Serwinek (1992) suggested that older people are more likely to accept ethical standards because they have been exposed longer to such standards. Prior studies, such as Fullerton *et al.* (1996) and Muncy and Vitell (1992), have empirically confirmed the higher ethical sensibility of the elderly toward business behavior. Thus, we hypothesized as follows:

*H6b.* The influence of ethical perceptions on corporate identification will be greater among older consumers than among younger consumers.

*H7b.* The impact of ethical perceptions on product brand trust will be greater among older consumers than among younger consumers.

Consumers' education level is widely used to explain the ethical perceptions of individuals. Researchers such as Goolsby and Hunt (1992) and Kohlberg (1984) reported that poorly educated consumers have less understanding of ethical behavior than do highly educated consumers. A prior study found that poorly educated people tend to be more tolerant of ethical issues than highly educated people (Goolsby and Hunt, 1992). A positive relationship between the level of consumer education and the ability to make moral judgments was also shown by Kohlberg (1984). Consequently, we hypothesized as follows:

*H6c.* The impact of consumers' ethical perceptions on corporate identification will be greater for more educated consumers than for less educated consumers.

*H7c.* The influence of ethical perceptions on product brand trust will be greater for more educated consumers than for less educated consumers.

Researchers have also relatively ignored where consumers live (i.e. urban or rural) as a criterion to explain their ethical perceptions. Only a few studies, such as Sun and Wu (2004) and Jones *et al.* (1999), showed that consumers living in rural areas are less sensitive to ethical activities and brand practices of companies than those living in urban areas. According to the "differential exposure theory," urban residents are more sensitive to irresponsible business practices than rural residents, because the former are more exposed to social, environmental and ethical problems (Jones *et al.*, 1999). People living in urban areas have higher expectations with regard to suppliers' ethical levels, owing to complex commercial activities (Sun and Wu, 2004). Furthermore, the higher literacy rate in urban areas is an important factor, making people more conscious of their past experiences of ethical/unethical behavior. Therefore, the exposure of urban residents to ethical matters may have greater implications for CCI and brand trust than in case of rural residents:

*H6d.* The impact of ethical perceptions on CCI will be greater among urban consumers than among rural consumers.



### 3. Research methodology and results

We first discuss the sampling methods and data, then the reliability and validity of the measures and model constructs and check for discriminant validity.

#### 3.1 Data collection and sample

Ethical perception is defined as an individual's evaluation of a corporation and its respective corporate brands. Therefore, it is not possible to assess the idea of ethical perception without referencing specific corporations and their respective brands when requesting consumer feedback. Hence, two specific companies with two brands each were referenced on the evaluation questionnaires used in this study (Ashraf and Merunka, 2013). To analyze our proposed model and meet the research objectives and to reduce non-systematic bias and have more options for consumers to respond, we include the product brands of iPhone and MacBook under the corporate umbrella of Apple, and Braun and Oral-B under that of P&G, among others.

One main reason for selecting technological items such as the above-mentioned brands is that many people use them, and their sensitivity and awareness of Apple and P&G, as corporations and their respective products, is relatively high. Furthermore, owing to concerns related to innovation and durability, this sector has become very important, particularly for young consumers, not only due to functional benefits but also psychological benefits (Javed *et al.*, 2014). Therefore, we proposed that consumers' perceived ethicality of Apple and P&G has the potential to influence the CCI (at the corporate level) and their trust in their brands (iPhone, MacBook, Braun, Oral-B and others, at the product brand level).

Central locations such as shopping malls, parks, cafeterias, sitting areas at universities and electronic markets were chosen for data collection, which lasted more than two months. After removing the invalid responses, 328 questionnaires were selected for further processing, based on Jackson's 20:1 ratio (20 participants per measured item), which is specifically suggested for a maximum likelihood estimation (Jackson, 2003).

A structured questionnaire (comprising questions with lists of pre-coded items) was used as the research tool. A seven-point Likert scale (strongly disagree = 1 to strongly agree = 7) was adopted to measure all items, other than the consumer demographics. The original questionnaire was developed in English, but it was translated into Chinese. The translation was performed by a Chinese PhD student at Sichuan University, which was then rechecked and confirmed by an expert who had studied in the UK for an advanced degree. Thus, a high level of accuracy was maintained in the translation. The questionnaire was initially pretested by 20 university students who had used these product brands and have sufficient knowledge about Apple and P&G. Based on their feedback, few measurement items underwent minor modifications.

Respondents were informed of the purpose and procedure of the research. Therefore, the questionnaire began with a brief introductory statement about the corporations, Apple and P&G, which produce and sell electronics brands (iPhone and MacBook as well as Braun and Oral-B, respectively, among others) in the global marketplace. They were also informed about the ethical initiatives (e.g. donations and investment in CSR) and ethical standards (e.g. accurate and complete information about products and services, and an extensive code of conduct) adopted by these corporations. Moreover, at the beginning of the survey, respondents were informed orally that the research will investigate their ethical perceptions at the corporate level (e.g. CCI) and product brand level (e.g. brand trust) for different brands of Apple and P&G and how well these perceptions result in successful purchase intention.

Finally, we requested demographic information from the participants. Detailed analysis of the demographics is presented in Table I.

Based on previous literature, this study uses latent constructs as a scale of development. Modified items are used instead of original items, based on the research objectives. Specifically, consumers' perceived ethicality, which comprises of four items, is borrowed from Brunk (2012). The scale for the CCI is adapted from Bhattacharya and Sen (2003) and Einwiller *et al.* (2006). Consumers' trust in a brand is taken from Wu and Wang (2011). A four-item construct referring to consumers' response, called purchase intention, is taken from Liljander *et al.* (2009) and Grewal *et al.* (1998). The consumers' demographic factors are operationalized using the following categorical scales: gender (male and female), age ( $< 18$ ,  $18 < 30$ ,  $30 < 40$ ,  $40 < 50$  and  $> 50$ ), education (high school certificate or diploma, bachelor degree, master's or doctorate degree) and residence (urban and rural).

### 3.2 Empirical results

We apply a maximum likelihood estimation to estimate values for the parameters in a covariance matrix using LISREL 8.80 (Jöreskog and Sörbom, 1989). Hence, we follow a two-step procedure: testing the measurement model and using a structural regression model. Since each variable's proportion to the missing values was  $< 1$ , the data had nearly no missing values. These missing values are measured as random values and are added using SPSS maximum likelihood.

We evaluate the goodness of fit before interpreting the results using structural equation modeling (SEM). Standard global fit indexes (e.g.  $\chi^2$ , comparative fit index (CFI), normed fit index (NFI), root mean square error of approximation (RMSEA) and standardized RMR) indicate a fairly good fit, as reasonable restrictions are released on some correlations among the elements of the confirmatory factor analysis.

The final measurement model (see Table II) reports  $\chi^2(98) = 172.98$ ,  $p < 0.001$ , and is statistically significant. Similarly, all values are shown to be acceptable, within generally acknowledged critical levels. In addition, alternative fit indexes as outcomes showed a good model fit (Byrne, 2006). Specifically,  $\chi^2/df = 1.76$ , CFI = 0.98, NFI = 0.95, RMSEA = 0.06 and standardized RMR = 0.05. All other global indexes show better results.

To evaluate for internal consistency, Cronbach's  $\alpha$  is measured and found to be within an acceptable range of 0.78–0.85 recommended by Fornell and Larcker (1981). Convergent validity is incorporated to assess the positive correlation of the same construct with other measurements. Three major methods are used to measure convergent validity: loading factors, average variance extracted (AVE) and composite reliability (CR). The values of all three methods are significant and above the relevant critical level. For example, the factor loadings and AVE are  $> 0.50$ , and the CR is  $> 0.70$  (Fornell and Larcker, 1981; Hair *et al.*, 2009).

Moderating variables	Categories	Frequency	Percentage
Consumer gender	Male	152	46.0
	Female	176	54.0
Consumer age	$< 18$	35	11.0
	$18 < 30$	115	35.0
	$30 < 40$	21	6.0
	$40 < 50$	96	29.0
	$> 50$	61	19.0
Consumer education	High school or diploma	148	45.0
	Bachelor degree	75	23.0
	Master or doctorate degree	105	32.0
Consumer residence	Urban	170	52.0
	Rural	158	48.0

**Table I.**  
Respondents'  
demographics

## APJML

Factors	Standardized loadings	Cronbach's $\alpha$	SEV	AVE	CR
<i>Consumers' ethical perception</i>					
CEP1	0.76 <sup>a</sup>	0.81	0.42	0.66	0.89
CEP2	0.83 (11.29)		0.30		
CEP3	0.83 (11.23)		0.30		
CEP4	0.84 (11.44)		0.28		
<i>Consumer–corporate identification</i>					
CCI1	0.82 <sup>a</sup>	0.80	0.31	0.67	0.89
CCI2	0.80 (4.88)		0.37		
CCI3	0.79 (4.85)		0.40		
CCI4	0.86 (4.97)		0.25		
<i>Brand trust (BT)</i>					
BT1	0.81 <sup>a</sup>	0.85	0.33	0.75	0.92
BT2	0.93 (15.54)		0.12		
BT3	0.90 (14.67)		0.19		
BT4	0.82 (12.89)		0.31		
<i>Purchase intention (PI)</i>					
PI1	0.74 <sup>a</sup>	0.78	0.41	0.62	0.87
PI2	0.79 (7.74)		0.36		
PI3	0.81 (7.78)		0.36		
PI4	0.82 (7.83)		0.32		

**Table II.**

Results of the measurement model

**Notes:** SEV, standard error variance; AVE, average variance extracted; CR, composite reliability. *t*-values in parentheses are un-standardized answers. <sup>a</sup>Item fixed to scale

Discriminant validity is used to measure how well a construct is represented by its measured variables and how distinct it is from others (Hair *et al.*, 2009). Since the square roots of the AVE (diagonal elements in italic) are all greater than the off-diagonal elements (the relationship between each pair), our results confirm discriminant validity (see Table III).

### 3.3 Results of the main hypotheses

An SEM is used to test the first five hypotheses, with the final structural model reporting  $\chi^2(99) = 173.32$ ,  $p < 0.001$ , which indicates a better fit to the data (e.g.  $\chi^2/df = 1.75$ ; CFI = 0.98; NFI = 0.95; RMSEA = 0.06; standardized RMR = 0.05). The fit statistics, standardized regression and *t*-values for each relationship are presented in Table IV. Remarkably, all five hypothesized relationships are found to be significant. The analysis provides support for *H1*, in which consumers' perceived ethicality is positively related to CCI ( $\gamma = 0.73$ ,  $t = 4.53$ ). This indicates that a higher level of ethical perception has a greater impact on identification with the corporation.

	CCI	BT	PI	CEP
Consumer–corporate identification (CCI)	<i>0.81</i>			
Brand trust (BT)	0.56	<i>0.86</i>		
Purchase intention (PI)	0.46	0.50	<i>0.78</i>	
Consumers' ethical perception (CEP)	0.65	0.67	0.46	<i>0.81</i>

**Table III.**

Discriminant validity

**Note:** Italic items are the square root of the average variance extracted

The analysis also provides enough support for *H2* ( $\beta = 0.68, t = 4.42$ ). Hence, it confirms that CCI has a direct effect on brand trust. In determining the direct effect of CCI on purchase intention, *H2* is accepted ( $\beta = 0.61, t = 3.92$ ).

In support of *H4*, ethical perceptions have a direct and highly significant impact on a consumer's brand trust ( $\gamma = 0.71, t = 5.93$ ). The relationship between a consumer's brand trust and purchase intention is supported in favor of *H5* ( $\beta = 0.55, t = 3.75$ ). This finding indicates that consumers' trust in a brand has a direct influence on their purchase intention.

### 3.4 Results of moderating variables

We use a multiple group analysis in LISREL to investigate the moderating (demographic) effects. Furthermore, adopting cut-off values, the samples are divided into two subgroups. For example, gender was divided into male and female; for consumer education, we broke down the sample into less educated (high school) vs more educated (university); for age, we separated the sample into younger ( $\leq 40$ ) and older groups ( $> 40$ ); the responses were also categorized into urban and rural groups based on consumers' residence. Moderating effects are commonly detected using the subgroup technique (Stone and Hollenbeck, 1989).

All hypothesized moderating effects are measured, and the two sub-samples are compared: first, the link influenced by the moderating variable (demographics) is fixed to one in a constrained model. Second, all links in the structural model are permitted to be freely assessed in a free model. The  $\chi^2$  difference ( $\delta\chi^2(1) = 3.98; p < 0.05$ ) between the two models suggests that the moderating variables have significant effects on the proposed relationship. The  $\chi^2$  value will always be higher for a restricted or nested model than for a free model. Hence, the findings show that the impact of consumers' perceived ethicality on CCI is significantly moderated by consumer gender as a demographic variable ( $\delta\chi^2(1) = 4.52, p < 0.05$ ) as well as by education ( $\delta\chi^2(1) = 4.95, p < 0.05$ ). Finally, our results show that consumer age and residence have no moderating effects on the relationship between consumers' perceived ethicality and CCI, and thus, we reject *H6b* and *H6d*.

Given the  $\chi^2$  difference ( $\delta\chi^2(1) = 4.31; p < 0.05$ ), we conclude that the moderating variables have a significant effect on the second link.

In accordance with *H7a–H7d*, an important relationship between ethical perception and brand trust is revealed through the moderating variables of consumer gender ( $\delta\chi^2(1) = 5.27, p < 0.05$ ), education ( $\delta\chi^2(1) = 5.11, p < 0.05$ ), age ( $\delta\chi^2(1) = 0.95, p > 0.05$ ) and residence ( $\delta\chi^2(1) = 5.03, p < 0.05$ ). These findings show that the effect of consumers' perceived ethicality on their trust in a brand is significantly moderated by three demographic variables, while consumer age has no moderating effect.

In conclusion, *H6a, H6c, H7a, H7c* and *H7d* completely moderated the link, while *H6b, H6d* and *H7b* are not supported. The results of this analysis are presented in Table V.

Hypothesis	Standard estimate ( <i>t</i> -value)	<i>p</i> -value	Hypothesis supported
<i>H1</i> . Ethical perception → C–C identification	0.73 (4.53)	0.00	Supported
<i>H2</i> . C–C identification → Brand trust	0.68 (4.42)	0.00	Supported
<i>H3</i> . C–C identification → Purchase intention	0.61 (3.92)	0.00	Supported
<i>H4</i> . Ethical perception → Brand trust	0.71 (5.93)	0.00	Supported
<i>H5</i> . Brand trust → Purchase intention	0.55 (3.75)	0.00	Supported

**Notes:** Goodness of fit statistics ( $\chi^2(99) = 173.32, p < 0.001$ );  $\chi^2/\text{df} = 1.75$ , RMSEA = 0.06, SRMR = 0.05, CFI = 0.98 and NFI = 0.95

**Table IV.**  
Standardized  
regression weights

<i>Gender</i>				
Link	Male ( <i>n</i> 1 = 152)	Female ( <i>n</i> 2 = 176)	$\delta\chi^2$ ( $\delta$ df = 1)	Hypothesis supported
CEP→CCI	$\gamma = 0.18$ $t = 1.81$	$\gamma = 0.39$ $t = 4.22^{**}$	4.52 ( $p < 0.05$ )	H6a supported
CEP→BT	$\gamma = 0.20$ $t = 1.98$	$\gamma = 0.52$ $t = 5.11^{**}$	5.27 ( $p < 0.05$ )	H7a supported
<i>Age</i>				
Link	Younger ( <i>n</i> 1 = 171)	Older ( <i>n</i> 2 = 157)	$\delta\chi^2$ ( $\delta$ df = 1)	Hypothesis supported
CEP→CCI	$\gamma = 0.20$ $t = 3.39^{**}$	$\gamma = 0.23$ $t = 3.46^{**}$	0.85 ( $p > 0.05$ )	H6b not supported
CEP→BT	$\gamma = 0.19$ $t = 3.22^{**}$	$\gamma = 0.17$ $t = 3.14^{**}$	0.95 ( $p > 0.05$ )	H7b not supported
<i>Education</i>				
Link	Less educated ( <i>n</i> 1 = 148)	More educated ( <i>n</i> 2 = 180)	$\delta\chi^2$ ( $\delta$ df = 1)	Hypothesis supported
CEP→CCI	$\gamma = 0.20$ $t = 1.89$	$\gamma = 0.44$ $t = 4.16^{**}$	4.95 ( $p < 0.05$ )	H6c supported
CEP→BT	$\gamma = 0.31$ $t = 1.34$	$\gamma = 0.58$ $t = 4.43^{**}$	5.11 ( $p < 0.05$ )	H7c supported
<i>Residence</i>				
Link	Rural ( <i>n</i> 1 = 158)	Urban ( <i>n</i> 2 = 170)	$\delta\chi^2$ ( $\delta$ df = 1)	Hypothesis supported
CEP→CCI	$\gamma = 0.03$ $t = 0.73$	$\gamma = 0.05$ $t = 1.17$	0.74 ( $p > 0.05$ )	H6d not supported
CEP→BT	$\gamma = 0.07$ $t = 1.22$	$\gamma = 0.41$ $t = 4.31^{**}$	5.03 ( $p < 0.05$ )	H7d supported
<b>Notes:</b> CEP, consumers' ethical perception; CCI, consumer–corporate identification; BT, brand trust. * $p < 0.05$ ; ** $p < 0.01$				

**Table V.**  
Moderating  
variable's results

4. Discussion

In order to professionally and effectively manage company/brand strategies, one important challenge faced by current organizations is to describe the impact of ethical issues on consumer behavior, attitudes and beliefs (Ralston *et al.*, 1994). Although business ethics are important globally (Donoho *et al.*, 2001), research (Brunk, 2010a, b, 2012; Shea, 2010; Sierra *et al.*, 2017) in consumers' ethical perception, which is a recent addition to business ethics literature, has been conducted mostly in developed western economies. However, researchers such as Deng (2015) and Fox *et al.* (2005) have claimed that this phenomenon is now emerging as a key concern in transitional economies as well (e.g. China).

Due to the presence of many unethical issues, and the lack of constituencies and institutions for the provision of ethical goods in general, the adoption of ethical company/brand is more important to developing countries (e.g. China) than for western developed economies. With a collectivistic cultural orientation, Chinese consumers describe themselves in the context of central relations (Triandis, 1995) and this situation may lead them to be more worried about ethical and/or environmental concerns (Madden, 2010). Therefore, this is the first study in business ethics literature to examine ethical perceptions in a non-western country and confirms its indirect (through CCI and brand trust) impact on the purchase intentions of consumers. Researchers have demonstrated that consumer trust and social identity consist of emotional, cognitive and evaluative components (Ellemers *et al.*, 1999). These components result in the self-categorization of consumers, when they attribute themselves to a group to perform certain behaviors (Hogg and Terry, 2000).

Furthermore, CCI was incorporated to evaluate the relationship between consumers and a corporation, which was considered important due to its match with social or cultural values of Chinese consumers in order to express their social identity factor toward a

corporation's ethical activities. At this level, consumers observe an organization's business activities and ethical activities (e.g. environmentally friendly initiatives, no exploitation of labor, fair production, CSR activities, etc.), and regard those activities as ethical or unethical. Then perceived ethicality or unethicality is further assessed in the context of consumers' trust of product brands, as consumers can use it as a platform to express their trust/distrust in companies' ethical activities.

When compared to the studies conducted in western developed countries in the manifestation of consumer ethical perceptions, the findings of the current research reveal both differences and similarities. This study thus offers several important contributions to ethical business, in general, and to company or brand management, in particular. First, it sheds light on the impact of ethical perception on the CCI–purchase intention link. Ethical perceptions have a direct and positive impact on CCI, and this identity leaves positive impressions on consumers' in the form of purchase intentions. It reveals that Chinese consumers considered ethical activities important and would not only relate with and respond to an ethical firm's activities but also attribute themselves to a group in order to perform certain behaviors to fulfill the expectations of others.

Second, the findings show that ethical perception impacts a consumer's trust in the product brand–purchase intention link, predicted to be more effective owing to perceived ethicality and the influence of CCI. Upon measuring the link from ethical perception to brand trust through CCI, this study found that ethical perception has a direct and significant influence on a consumer's trust in a product brand, and CCI has a direct influence on brand trust. However, the statistically significant direct relationship between CCI and brand trust revealed that although corporate-level ethical perception is a trivial matter for customers, it does influence their trust in product brands under the corporate umbrella. In a study on Korean college students' ethical consumption behavior, Hee (2017) found that ethical judgments have different direct and indirect impacts on ethical consumption attitude. However, we have two paths to measure the effect of consumers' perceived ethicality on their purchase intention, namely, using CCI and brand trust.

Furthermore, a significant direct relationship between the mediators (CCI–brand trust) revealed that Chinese consumers who are more morally mature would make a greater cognitive effort from social identity to trust on product brands, for a smooth transformation from ethical perception to ethical intention.

The results also revealed that CCI was more influential in translating the ethical perception of Chinese consumers' to their intention to purchase, whereas prior studies (e.g. Singh *et al.*, 2012) found brand trust as a strongest influential factor in translating ethical perception to purchase decision among western (Spanish) consumers. It means that Chinese consumers consider social identity most important for ethical intention, which is an obvious result in accordance with Chinese culture. It demonstrates that the mediating effects of CCI should be embedded as a marketing strategy in China to influence the ethical perception of Chinese consumers and motivate them to purchase.

Although consumers from China and western developed countries reveal no difference with respect to their ethical perceptions, overall, consumers from both regions exhibited favorable attitudes toward an ethical company/brand. Thus, this study further emphasizes the important role of consumers' attitude toward ethical behavior of a company/brand in general.

Regarding moderating effects, prior studies (Fox *et al.*, 2005; Woodbine, 2004; Huang and Snell, 2003) have found that Chinese consumers differ in terms of lifestyle and personality traits. Thus, moderating variables also represent an effort to identify the circumstances through which a company/brand's ethical perceptions have the greatest positive effect on CCI and brand trust. Finally, we examine the association of cause and effect between the main constructs of our model.

For consumer demographics, the results show the moderating roles of education and gender on the relationship between consumers' ethical perception and CCI. Similarly, ethical perceptions have a more positive effect on CCI for educated consumers than in less educated consumers. In addition, a consumer's age and residence has no effect on the link.

The demographic results of the second link (ethical perceptions–brand trust link) show that female Chinese consumers are more conscious than male consumers about ethical perceptions and brand trust. However, it was found that the age of Chinese consumers has no moderating effect. Furthermore, the education level of consumers also moderates the link between ethical perception and brand trust. This reveals that consumers who are more educated have a strong base of ethical perception, which leads them to trust a brand. However, contrary to the ethical perceptions–CCI link, the residence of consumers revealed a significant moderating effect on the relationship between perceived ethicality and brand trust. Hence, Chinese consumers' ethical decisions are affected by demographic factors with respect to their level of perception.

### 5. Implications for management

The findings of this study confirm the positive effect of ethical perceptions on consumer trust in a brand, which encourages them to make purchase decisions. Hence, consumers' ethical perceptions can play an important role in building a successful consumer–brand relationship. Furthermore, these ethical perceptions can improve the market share of a brand in the era of globalization, in the presence of competitors, and even in periods of recession. Thus, this study introduces a key managerial implication that (Chinese) consumers care about not only price but also honesty and responsible attitude, as well as about whether products are from an ethical company/brand (Bussey, 2006). A brand that makes its customers happy will enjoy rewards in the form of customer commitment to the brand and purchase loyalty (Matzler *et al.*, 2006).

Retaining an existing consumer is easier than attracting a new one because a new consumer needs greater time, money and effort. Therefore, a brand's participation in ethical business practices and other ethical activities (e.g. investments in CSR) can significantly improve its image and performance. Engaging in CSR activities also strengthens ties with stakeholders, increases customer appeal and mitigates risks (Nybakk and Panwar, 2015).

This study also demonstrates that CCI has a direct positive relationship with consumers' brand trust. These findings highlight the importance of corporate identification and demonstrate that the explicit outcome of this phenomenon can account for positive consumer reactions in identified consumers, as proposed in the social identity framework. This confirmation has been missing in previous studies. Einwiller *et al.* (2006) argued that identified customers exhibit attitudes and behaviors in such cases. Thus, companies need to offer emotional and self-expression-related benefits in efficiently and effectively at the product brand level to improve and maintain long-term relationships with consumers.

Furthermore, the results also confirmed the mediating effects of CCI and brand trust through different paths from ethical perceptions to consumers' purchase intentions. This shows that managers should adopt flexible marketing strategies to establish CCI and to build consumers' trust in product brands. For example, Apple and P&G have several product brands, including the iPhone and MacBook as well as Braun and Oral-B, respectively. However, consumers may choose a product brand without knowing the corporation. Thus, marketers may wish to invest at the brand level in order to gain consumers' trust. In contrast, the name IBM is more familiar to information technology users than the names of its product brands (e.g. ThinkPad, ThinkCentre, and NetVista) (Zaichowsky, 2010). Therefore, managers should focus on building consumers' identification with the corporation rather than their trust in the brand.

Xu *et al.* (2016) discussed that buyers must determine the effectiveness of their interaction with the product or company as well as whether the seller is concerned about their welfare.

The relationship between a brand and its stakeholders can be harnessed through ethical business tactics. Similarly, Oh and Yoon (2014) recommended that ethical businesses should adopt new marketing tactics reflecting ethical appeals to reinforce consumers' belief in ethical consumerism (e.g. using promotions to demonstrate ethical obligations).

Encouraging customers to integrate the company (or its brand) in their social identities may be a profitable marketing strategy for companies. The more central a marketplace relationship, such as CCI, becomes for consumers' identity, the greater are their personal stakes in the company, its actions and the resulting consequences. Therefore, for corporate brands to be perceived as ethical, managers need to promote real corporate ethical behavior, which is transmitted to customers and all other external stakeholders in every interaction with the corporate brand or product brands of the corporation. Therefore, to manage operations of the company effectively and professionally, management needs to communicate the organization's ethical values to new employees during sales training and to existing employees in meetings (Ferdous and Polonsky, 2013). In addition, companies should focus on strategies that improve corporate identification through ethical perception. For example, companies should create promotional activities such as customer gatherings in shopping malls and/or picnic spots, which can promote their ethical standards and social initiatives (CSR or donations) for building CCI.

Moreover, management can identify and monitor target consumers methodically to determine how they perceive the company or brand's ethics. The demographic results of this study provide a clear picture of how to achieve this. As consumers' ethical decisions are significantly moderated by gender, education and residence (ethical perception–brand trust link), these demographics should be considered in designing marketing and business strategies effectively and efficiently.

## 6. Limitation and future research directions

The first limitation of this study is its generalizability due to the highly delimited nature of the subject sample in a single country setting. The inferences drawn from Chinese consumers may not be completely generalizable for consumers from other countries with a different culture. Nevertheless, future researchers can easily modify the research model, which is regarded as a benchmarking model in this study, to develop a more extensive model with their own localized mediators.

Second, the product brands did not represent a wide variation in consumers' perceived fit levels. A wider range, such as service brands, might offer deeper insights into the functioning of perceived ethicality.

Moreover, this study did not address institutional variables, such as organizational structure and firm profitability. Future scholars may try to improve upon these shortcomings by including more control variables, surveying consumers across countries and observing consumers across different time points to present the genuine influences of ethical perceptions on purchase intention and its mediators from a longitudinal aspect. In addition, different moderating variables (e.g. social variables) can be used, and comparisons can be made between consumers in developed and developing countries. Finally, it would be interesting to investigate high- and low-context cultures using the proposed model.

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## Appendix. Questionnaire

### Consumer's perceived ethicality

CEP1: Apple and/or P&G respect moral norms.

CEP2: Apple and/or P&G always adhere to the law.

CEP3: Apple and/or P&G are socially responsible companies (charity programs, environmental campaigns, donations, etc.).

CEP4: Apple and/or P&G are good corporations.

### Consumer-corporate identification

CCI1: I strongly identify with Apple and/or P&G when I discuss the company with others.

CCI2: My values are shared by Apple and/or P&G through their business concepts.

CCI3: I often talk favorably about Apple and/or P&G and their products with my friends and colleagues.

CCI4: I identify with the way in which Apple and/or P&G conduct their business.

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**Brand trust**

- BT1: Apple’s and/or P&G’s product brands meet my expectations.  
BT2: Overall, I feel confident about Apple’s and/or P&G’s product brands.  
BT3: Apple’s and/or P&G’s product brands will not disappoint me.  
BT4: Apple’s and/or P&G’s product brands guarantee satisfaction.

**Brand purchase intention**

- PI1: There is a high probability that I would consider Apple’s and/or P&G’s product brands.  
PI2: I would prefer Apple’s and/or P&G’s product brands.  
PI3: I would consider using Apple and/or P&G.  
PI4: There is a strong likelihood that I will buy Apple’s and/or P&G’s products.

Gender:            Male        Female  
Age:              < 18      18 < 30      30 < 40      40 < 50      > 50  
Residence:      Urban area      Rural area  
Education:      High school certificate or diploma      Bachelor degree      Master’s or doctorate degree  
E-mail (optional) \_\_\_\_\_

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