Understanding Chinese Consumer Behaviour Towards New Products

By Franziska Götze

Despite an increasing interest in the Chinese market by Western companies, few studies have analysed the behaviour of Chinese consumers. The application of Western consumer behaviour models to explain Chinese consumer behaviours involves some methodological problems that can be solved by operationalising latent constructs in a culturally meaningful way. This study expands on a theory of the reasoned action-based adoption intention model, integrating the Chinese values of "group conformity" and "face consumption." The influence of innovativeness and the experience of consumers is also investigated. The survey object are consumer electronics (iPhone). To test the model, a sample of 382 Chinese university students from Shanghai participated in an online survey. The analysis was accomplished through structural equation modelling. The results show strong evidence of the culture-specific adoption model and confirm the strong influence of face consumption on the consumer adoption intention. Finally, the implications for marketers and researchers are discussed.

1. Introduction

Due to its rapid economic development and Open Door policy, China has become an attractive market for Western companies that have to face decreasing market demand in their home countries. Although China offers many opportunities for Western companies, the Chinese market presents obstacles to Western managers as well. Many of these barriers originate from the Chinese culture, which can be difficult for Western managers to understand. The culture influences consumer buying and adoption behaviours, and Western managers are challenged to gain insight into the Chinese consumer. A study by the consulting firm McKinsey reveals that Western managers lack consumer insight on the various determinants of adoption decisions by Chinese consumers (St. Maurice/Suessmuth-Dykerhoff/Tasai 2008, p. 7). Many foreign companies have experienced the unsuccessful market entry of their products into the Chinese market because of a lack of understanding of the Chinese consumer (Cui/Lui 2001, p. 87). Chinese consumers differ in their purchasing motivations and have different attitudes towards new products compared with Western consumers (Anderson/He 1998). Therefore, Western managers will only be successful in introducing new products into the Chinese market if they possess an in-depth understanding of the Chinese consumer’s perceptions and behaviours.

The intention to adopt a new product is generally analysed through innovation theory (Rogers 2003), the theory of reasoned action (Fishbein/Ajzen 1975), the technology acceptance model (Davis/Bagozzi/Warshaw 1989), or extensions of these theories and models. Previous studies have focused on Western consumer behaviours. However, due to the globalisation of the world economy, increasing research efforts are being devoted to examining China, which has become attractive for Western companies. Recent studies have analysed the adoption intention of Chinese consumers. Most of these studies were conducted in an organisational context. Deriving useful implications for Chinese consumer adoption behaviours from these studies is difficult (Calantone/Griffith/Yalcinkaya 2006; Mao/Palvia 2006). Adoption decisions in organisations differ from individual adoption decisions. Some researchers have applied the theory of reasoned action to understand the behaviour of Chinese consumers (Eves/Cheng 2007; Fisher/Price 1992; Lee 1990). However, the application of the Western-based theory of reasoned action to a Confucian society could be problematic due to the theory’s origin in learning theory.
The theory of reasoned action has received broad support in the social psychology and marketing literature (Sheppard/Hartwick/Warshaw 1988). The theory asserts that a behavioural intention positively influences actualised behaviour and that a behavioural intention is modelled as a weighted sum of the attitude towards the specific behaviour and certain subjective norms. Attitude and subjective norms are determined by underlying belief structures (i.e., attitudinal and normative beliefs). Attitude is formed from the attitudinal belief that performing a specific behaviour will lead to a particular outcome. This term is weighted by an evaluation of the desirability of that outcome. The subjective norm is formed in response to the belief that a specific referent approves or does not approve of a particular behaviour. Normative beliefs are weighted by the motivation to comply with that referent.

Lee and Green (1991) conducted a study based on the theory of reasoned action to analyse the determinants of the buying intentions of Korean consumers relating to sneakers. They found empirical support for a larger influence of the subjective norm construct on buying intentions in the Korean sample compared with the U.S. sample. Chan and Lau (1998) investigated the buying intentions of Westernised Hong Kong consumers and traditional Peking Chinese consumers for a traditional gold ring by means of the core theory of the reasoned action model. In another survey, Eves and Cheng (2007) analysed the adoption intention of healthy, convenient and ethnic food products by Chinese and United Kingdom (U.K.) consumers and extended the core model by the personal innovativeness construct. However, they could not find any empirical support for an impact by the innovativeness construct on the attitude towards new food product adoption. Furthermore, the authors found a stronger influence of attitude towards adoption on behavioural intentions compared with the impact of subjective norms. Dai and Palvia (2009) analysed the mobile commerce (m-commerce) adoption trends of Chinese and U.S. consumers. They found that innovativeness, perceived usefulness, perceived ease of use, perceived costs and perceived subjective norm positively affect the adoption intention. Interestingly, they state that the influence of the subjective norm is higher for the Chinese sample compared with the U.S. sample, although the causal influence of the subjective norm on the adoption intention is higher in the U.S. sample than it is in the Chinese sample. Lee, Qu and Yoo (2006) found empirical support for the positive influence of innovativeness on the intention of Korean consumers to use online shopping in a tourism context.

Although the aforementioned studies show the validity of the theory of reasoned action in a Confucian context, the explained variance of the adoption intention was considerably smaller in the Confucian samples compared with Western samples. Thus, recent criticism has questioned the universal application of behavioural intention models and has called for a culturally sensitive (emic) measure of universal (etic) latent constructs (Malhotra/McCort 2001). Other normative influence constructs such as the image considered in the technology acceptance model 2 (Moore/Benbasat 1991; Venkatesh/Davis 2000) might also not be useful in the Chinese context.

The theory of reasoned action originated from learning theory and information processing theory (Davidson/Thompson 1980). Cross-cultural psychologists argue that transferring a theory developed in one culture to another could be biased by ethnocentric aspects in reasoning processes (Pepitone/Triandis 1987). Tuten and Urban (1999) state that the theory of reasoned action has a Western cultural bias concerning the nature of evaluation and normative influence. Due to the ethnocentric bias, ethic latent constructs should be operationalised in a culturally meaningful way (Hui/Triandis 1985).

Lee (1990) suggested modifying the subjective norm in regards to the Korean Confucian cultural environment because cultural influence is directly transmitted through norms (Triandis 1972). Lee (1990) argues that the subjective norm construct is unable to display the specific social pressure of referent opinions on Korean consumers and thus integrates face saving into the theory of reasoned action. Ting-Toomey (1988) states that face-saving pressure is an important cultural value that influences human behaviour in Confucian societies. Although face is a universal phenomenon, the way people shape its meaning differs from culture to culture (Li/Su 2007). Face refers to the personal perception of someone living up to the standards of one’s own position (Lee 1990). By integrating the face-saving pressure construct into the theory of reasoned action, this personal norm can be mirrored. Furthermore, the “motivation to comply” construct does not capture the social impetus, which results from a highly collective culture (Lee 1990). Lee (1990) integrates group-conformity pressure as a second traditional Confucian value into the theory of reasoned action.

Malhotra and McCort (2001) investigated consumer behaviour of Chinese students by means of the Lee-model and three other consumer behavioural models. The authors could not find a significant effect of the face-saving-pressure construct on the intention to buy sneakers. Thus, they called for further research on the normative influence on Chinese consumers (Malhotra/McCort 2001, p. 259). Similarly, Chung and Pysarchik (2000) empirically tested the Lee-model in the context of buying intentions of national and imported televisions, sweaters and video recorders. Only face-saving pressure (but not group conformity) influenced consumers’ buying intentions in this study. These studies show heterogeneous results due to imprecise conceptualisations of Chinese cultural values and the omission of different construct dimensions.

The goal of this study is to analyse the influence of face and group-conformity constructs on the adoption intentions of Chinese consumers. Although some researchers have previously recognised the importance of Chinese
values in understanding Chinese consumer behaviour, the research remains limited and heterogeneous in terms of empirical results. The inconsistency of the empirical results may be ascribed to the conceptualisation of the face and group conformity constructs. The face construct needs to be conceptualised more accurately, taking the specific context of empirical studies into consideration. A better understanding of which dimensions or facets of the face construct are relevant in a specific context is important (Li/Su 2007, p. 252). Moreover, face and group conformity have not been analysed with regard to consumer adoption intentions in a Chinese context. Previous studies have often analysed direct causal effects but have seldom tested the moderating effects. The moderating effects of the psychographic characteristics of the adopter have been empirically supported in previous studies (Holak 1988). The consideration of these effects may help improve the understanding of Chinese consumer adoption decisions.

This paper presents a Chinese-specific adoption model and includes the following:

- This study conceptualises Chinese values for the adoption context by considering their relevant facets.
- This study integrates Chinese values into a theory of reasoned action-based adoption intention model to portray Chinese-specific social influences on adoption intentions.
- This study tests for the moderating effects of the psychographic characteristics of the adopter.
- This study empirically tests the Chinese-specific adoption model in a Chinese context.

The study focuses on the determinants of new product adoption intentions for Chinese consumers towards high-involvement products with medium innovativeness. For the empirical study, the Apple iPhone was chosen as the research object as a representative of the product class of smartphones and consumer electronics in general.

2. Theoretical background and development of the hypotheses

2.1. Attitude towards adoption

The theory of reasoned action states that a positive attitude has a positive influence on the behavioural intention. The following hypothesis is proposed:

H1: A positive attitude towards adoption has a positive impact on the adoption intention.

2.2. Chinese cultural influence

Malhotra and McCort (2003) argue that no construct equivalence of the subjective norm construct in a Chinese context exists. Culture is deeply involved in the formation of social norms. Cultural reasoning processes influence the nature of the underlying normative constructs and their most appropriate measures (Hui/Triandis 1985). Lee (1990) emphasised the importance of face saving and group conformity for understanding Confucian consumer behaviours. He criticised the one-dimensional approach of the social influence construct in the theory of reasoned action because it may not be able to capture both aspects of social influence on Confucian consumers. The impact of face saving and group conformity on the behavioural intention may widely vary, depending on the specific context.

2.2.1. Group conformity

The collectivism of the Confucian Chinese culture leads to a group-centred perspective for all activities. Individuals subordinate their preferences and their needs to those of the group (Malhotra/McCort 2001, p. 241). Chinese people possess an in- and out-group thinking, which results from social identity and social categorisation processes (Tajfel 1974; Triandis 1989). According to Triandis (1989), to shape their collective self, persons behave according to the attitudes, norms and beliefs of the in-group. Chinese consumers must also adapt their consumer behaviours to group norms so as not to be excluded (Li/Su 2007). The cultural environment does not allow for much individual diversity and flexibility because this is usually considered as deviating from group norms (Lee 1990, p. 32). The “motivation to comply” mirrors the respondent’s belief that a specific referent approves or does not approve of a particular behaviour and does not display the social pressure or collectivistic force that results from disapproval. To address this characteristic, Lee (1990) devised the group-conformity pressure construct. The group acceptance of a new product will be an essential forerunner of acceptance in the marketplace (Lee/Green 1991). According to Lee (1990, p. 35), group conformity positively influences buying intentions. Thus, the following hypothesis is proposed:

H2a: The higher the group conformity is of Chinese consumers, the more intense their adoption intention will be.

2.2.2. Face saving and face consumption

The subjective norms construct of the theory of reasoned action possess a Western cultural bias and cannot mirror the personal moral aspect of decision-making by Chinese consumers. Ho (1976) defines face as “the respectability and/or deference, which a person can claim for himself from others, by virtue of the relative position he occupies in his social network and the degree to which he is judged to have functioned adequately in that position as well as acceptably in his general conduct” (Ho 1976, p. 883). Bao, Zhou and Su (2003, p. 736) define face consciousness as “people’s desire to enhance, to maintain and to avoid losing face in relation to significant others in social activities.”

Chinese consumers are more concerned with other people’s perceptions of themselves and with the mainte-
nance and enhancement of their own status rather than with the realisation of their own wishes. Face is lost when conduct falls below the minimum acceptable standard (Ho 1977). Thus, the Chinese have a high motivation not to lose face, which is also reflected in their consumption behaviours (Lee/Green 1991, p. 292). Chinese consumers do not regard consumption as an activity but view it as a tool to serve higher-order social needs (Li/Su 2007, p. 214). Li and Su (2007, p. 242) conceptualised a new construct, face consumption, due to the prevalent influence of face on consumption in China. Face consumption is defined as “the motivational process by which individuals try to enhance, maintain or save self-face as well as show respect to others’ face through the consumption of products.” Self-positioning by means of impression management is more important for Chinese consumers than it is for consumers in individualistic cultures, such as the United States (Bao/Zhou/Su 2003; Yabuchi 2004, p. 272). Consumers in Confucian societies are exposed to strong social pressures to conform to the social expectations of their reference group and to express their social position by doing “face work” (Lee 1990, p. 33). They buy products in which the price, brand and package match their social position and reputation to not lose face (Lee 1983). Researchers should consider this specific social influence in consumer behaviour models to understand the decision processes of Chinese consumers better (Bao/Zhou/Su 2003; Li/Su 2007).

Malhotra and McCort (2001) tested an extended version of the theory of reasoned action, which includes group conformity and face saving in a Chinese context. The buying intentions of Chinese students in relation to sneakers were investigated. Face saving showed no significant influence on buying intentions. The authors stated that further research on the influence of normative constructs on Chinese consumer behaviour is necessary (Malhotra/McCort 2001, p. 259). A study by Chung and Pysarchik (2000) similarly was unable to find empirical support for the impact of group-conformity pressure on buying intentions for TVs, video recorders and sweaters. Because Chung and Pysarchik used Korean students who studied several years in the USA as respondents, the cultural influence from their home country already may have been diminished due to the students’ adaptation to their new environment.

Face saving is measured in many different ways. Where-as Lee (1990) conceptualised face saving as a one-dimensional construct, Hu (1944) and Li and Su (2007) regard face as a multi-dimensional construct. Lee (1990) understands face as the hurting or improving of one’s reputation. Hu (1944) differentiates between two facets of the face saving construct: lien and mien-tzu. Lien represents “the confidence of society in the integrity of ego’s moral character” (Hu 1944, p. 45). Lien depends on the attitude of other persons toward an individual (Ho 1976, p. 875). The loss of lien can lead to exclusion from society. Moral face is another term for lien. Mien-tzu which is also called mianzi represents the reputation that a person can claim because of their social achievements, wealth, abilities and success (Hu 1944, p. 45). Other researchers use the term “social face” to describe the mien-tzu dimension of the face saving construct. A person will only be able to raise his or her mien-tzu by showing success through impression management, which derives from symbolic interaction theory (Hu 1944; Yau 1988). By receiving compliments from others or by buying high-quality products, Chinese consumers can raise their mien-tzu (Li/Su 2007; Yau 1988, p. 50). A loss of mien-tzu equals a loss of pride. A loss of mien-tzu generally leads to a loss of lien (Lee 1990, p. 31). Thus, both face dimensions are closely connected. The conceptualisation by Hu (1944) only considers the mien-tzu dimension of the face construct.

Li and Su (2007) were the first authors to conceptualise face in a consumer behaviour context. The authors analysed face consumption (but not face saving). Three dimensions were identified: other-oriented face consumption, distinctiveness face consumption and conformity face consumption. Other-oriented face consumption refers to the attention that the Chinese give to another’s social face (e.g., gift giving). This behaviour corresponds to face saving. Distinctiveness face consumption is the willingness of the Chinese to pay higher prices for face products. This dimension equals the mien-tzu dimension of Hu’s face conceptualisation (1944), and corresponds to face enhancing. Conformity face consumption refers to Chinese consumers acting in accordance with external expectations to function as an integral part of the social network. With conformity face consumption, consumers can maintain their face. Li and Su (2007, p. 252) found empirical evidence (for Chinese consumers compared to American consumers) for a stronger inclination to associate product brands with face and a greater likelihood to consider the prestige of products. Li and Su (2007) state that market research should further investigate the specific purchasing behaviours associated with the different dimensions of the face consumption construct.

By purchasing prestigious products, a person can raise his or her mien-tzu (Zhou/Nakamoto 2001, p. 163). Therefore, consumers are willing to spend more money on face products (Li/Su 2007). Doran (1997, p. 129) empirically proves the symbolic effect of televisions in China. New products can have a symbolic or conspicuous meaning and thereby express a person’s social position (Doran 1997, p. 129; Zhou/Nakamoto 2001, p. 163). Samson and Hornby (1989) empirically proved that Chinese consumers buy mobile phones for face consumption. Consumers use innovative products for impression management (Leung/Wei 2001, p. 310). Consequently, the consumer can express his or her identity and social position by buying new products (Leung/Wei 2001, p. 313). Because consumers can raise the mien-tzu dimension of the face construct by purchasing new products, the distinctiveness-face-consumption dimension is relevant for the adoption context.
2.2.3. Differences between face consumption and prestige

Researchers often use prestige and face interchangeably, which Ho (1976) criticises. In contrast to prestige, face also depends on the behaviour of other persons and can be designed to show respect to others’ faces (Ho 1976, p. 883, Li/Su 2007). Therefore, the social face (not the individual face) must be maintained or raised (Li/Su 2007). Status-seeking consumers buy conspicuous products because they are willing to do so, but Chinese consumers buy face products because they must do so (Li/Su 2007). Not all face consumption is intended for conspicuous consumption, but it can be used to save or maintain face (Li/Su 2007). Because of these facts, researchers should not use face and prestige synonymously (Ho 1976, p. 268).

Based on the aforementioned theory and literature, a positive relationship between distinctiveness face consumption and the adoption intention is proposed (Li/Su 2007). Conformity in consumption can help consumers stabilise their face. For that reason, this study hypothesises a positive relationship between group conformity and distinctiveness face consumption (Li/Su 2007, p. 243; Yau/Chan/Lau 1999, p. 99). The preceding arguments lead to the following hypotheses:

H2b: The higher the motivation for distinctiveness face consumption is by Chinese consumers, the more intense is their adoption intention.

H2c: The higher the group-conformity pressure is on Chinese consumers, the higher their motivation is for distinctiveness face consumption.

Fishbein and Ajzen (1975) do not consider crossover effects between the normative and attitudinal constructs of the theory of reasoned action. In the adoption context, this kind of crossover effect can occur because adopters assume the attitude of other relevant consumers as a substitute for their own product knowledge and experience (Taylor/Todd 1995). Lee (1990, p. 36) emphasises that face-consumption pressure will affect the formation of personal attitudes. The following hypothesis is inferred:

H2d: Distinctiveness face consumption positively influences consumer attitudes on the adoption intention.

2.3. Innovativeness

Previous studies showed that the innovativeness of consumers is an essential psychological construct for understanding adoption decision processes (Hirschmann 1980, p. 285; Manning/Bearden/Madden 1995, p. 342). Rogers (2003, p. 280) defines innovativeness as the readiness of a person to adopt an innovation earlier than other persons in a social system. In this context, Rogers (2003) distinguishes between innovators, early adopters, early majority, late majority and laggards. Each group can be characterised by socio-demographic factors, personality characteristics and a specific communication style (Rogers 2003, p. 282). Many researchers criticise Rogers’ innovativeness definition because it resembles a categorisation instead of a definition (Midgley/Dowling 1978, p. 230; Steenkamp/Hofstede/Wedel 1999, p. 56). Midgley and Dowling (1978) and Hirschmann (1980) applied the innovativeness construct to consumer behaviour research. Midgley and Dowling (1978, p. 235) define innovativeness as the independency of the decision-making process of a consumer, whereas Hirschmann (1980, p. 285) defines innovativeness as the desire to seek new information. Manning, Bearden and Madden (1995) combine both innovativeness definitions and link them to the phases of the adoption process. The authors empirically prove that in early stages of the adoption process, the desire to seek new information is most important for the adoption intention. In later stages, the independency of the adoption decision gains influence (Manning/Bearden/Madden 1995, p. 342).

The innovativeness construct is conceptualised for different levels of abstraction. Midgley and Dowling (1978) distinguish between three different innovativeness forms: general innovativeness, product-specific innovativeness and actualised innovativeness. These three conceptualisations differ in the duration of the innovativeness and in the perceptibility of an innovativeness-specific behaviour. Because this study focuses on the early stages of the adoption process, innovativeness is defined as the desire to seek new information. Given that the object of the survey (iPhone) was not introduced into the Chinese market at the time of the data acquisition, innovativeness is conceptualised as the disposition to adopt an innovation. Furthermore, smartphones, as a product class, have been on the Chinese market for only a short time. Therefore, a general innovativeness conceptualisation, which is not product-class-related, is used in this study.

Persons with high innovativeness usually perceive innovations as more advantageous and less complex compared with persons with low innovativeness (Eagly/Chaiken 1993, p. 204; Dekimpe/Parker/Savary 2000, p. 69; Ostland 1974, p. 24). Therefore, persons with high innovativeness possess a more positive attitude towards innovations and have a higher intention to adopt them. Limayen, Khalifa and Frini (2000) and Lee, Qu and Tso (2006) showed empirical evidence for the positive influence of the innovativeness construct on the attitude towards adopting online shopping. Dai and Pulvira (2009) found a positive impact of innovativeness on the m-commerce usage intention. The following hypotheses are derived:

H3a: Innovativeness positively influences the adoption intention.

H3b: Innovativeness positively influences the attitude towards the adoption.

The need for Chinese consumers to do face work by face consumption could have a positive influence on their

https://doi.org/10.15358/0344-1369-2011-2-147
Das Erstellen und Weitergeben von Kopien dieses PDFs ist nicht zulässig.
novativeness. New products can have a symbolic or conspicuous meaning and thus express a person’s social position (Doran 1997, p. 129; Zhou/Nakamoto 2001, p. 163). Consumers can use innovations for impression management (Leung/Wei 2001, p. 310). Thus, a positive causal influence from distinctiveness face consumption on attitude towards adoption is proposed (Li/Su 2007, p. 243; Yau 1988, p. 52).

H2e: The higher the distinctiveness face consumption of Chinese consumers is, the higher their innovativeness is as well.

2.4. Moderating effects of experience with an innovation

An important moderator variable for the adoption of new products is the experience of consumers with the product (Bagozzi/Baumgartner/Li 1992, p. 514; Glasman/Albarracín 2006, p. 779; Srite/Karahanna 2006, p. 690). In this study, persons who have already used a Smartphone or who have a smartphone belong to the group of the experienced consumers. Respondents who are unaware of smartphones or had recently heard about them are classified as inexperienced consumers. Experience is a category-moderating variable. Experienced consumers normally base their adoption decisions on their own knowledge rather than the attitude of other persons (Bagozzi/Baumgartner/Li 1992, p. 514; Glasman/Albarracín 2006, p. 779; Srite/Karahanna 2006, p. 690). Therefore, the causal impact of attitude on the adoption intention should be higher for experienced consumers compared with inexperienced ones. Consumers lacking experiences concerning a specific product often rely on the opinion of others because they can save time and cognitive effort (Venkatesh/Davis 2000). Due to that reliance, social influence should be a stronger determinant for the adoption intention of inexperienced consumers compared with attitudinal influence.

HM1: Experience positively moderates the impact of attitude on the adoption intention.
HM2: Experience negatively moderates the impact of distinctiveness face consumption on the adoption intention.

Fig. 1 shows the Chinese-specific adoption intention model.

3. Empirical study

3.1. Data collection and participants

For the Chinese translation of the questionnaire, an iterative cooperative process with German-speaking Chinese researchers was chosen following the approach of Douglas and Craig (2006). In addition to translations, this process includes discussions between the bicultural researchers about the item content. It thus enhances the validity of the questions. A pre-test was conducted among 29 Chinese students of the Tongji University in Shanghai, which led to a reformulation of several questions. For data acquisition, this study used an online survey. The link for the questionnaire was placed on the central homepage of Tongji University, and 2,000 flyers were given to students on the campus. Respondents could win a small prize in a lottery as an incentive to participate in the survey. The Web-questionnaire was online for four weeks in February 2009. Of the 992 Chinese students who started answering the questionnaire, 382 students fully completed it. The survey completion rate was
38.5%. The average completion rate of online surveys lies between 10% and 20% (Herrmann/Homburg 1999). A sufficient completion rate and a sufficient number of cases for structural equation modelling were achieved (Madden/Dillen 1982).

Chinese students were selected for the sample because data acquisition in China is problematic. Generally, the Chinese State Commission of Statistics must give approval for a survey. The researchers suggested cooperation with Chinese universities for data acquisition proposals (Calantone/Griffith/Yalcinkaya 2006). The data were preliminarily gathered for a cross-cultural comparison of adoption intention models. For this purpose, matched samples were necessary to exclude the influences of other constructs (than the underlying model constructs) on the adoption intention. In addition, student samples are appropriate for cross-cultural research.

The online questionnaire included a four-minute movie about the most important features and the usage of the iPhone. This approach helped enhance the validity of the answers because the respondents did not know much about the new product when taking part in the online survey. True-false questions about the product’s attributes were included in the questionnaire. This test served as a manipulation check to ensure that the respondents comprehended the product’s attributes. The brand of the smartphone was not mentioned in the questionnaire to omit the possible influence of brand loyalty. Additionally, price information was not given to the respondents.

Data analysis was conducted by means of structural equation modelling using the AMOS program. Multiple measures were used to assess the model fit. A two-step model building approach was applied, which specified that the measurement model of the latent constructs must be assessed before the structural model (Anderson/Gerbing 1988).

### 3.2. Measures

This study used multiple items and bipolar scales for all of the construct measures. All seven-point scales used the descriptors: “extremely negative, quite negative, slightly negative, neither, slightly positive, quite positive or extremely positive.” All measurement models are reflective.

Five items adopted from Fishbein and Ajzen (1980, p. 109) and a free elicitation procedure that used focus groups measured the attitude towards the adoption. For measuring the mien-tzu construct, the distinctiveness-face-consumption dimension from Li and Su (2007, p. 247) is implied. The scale for the Chinese value of group conformity consists of three items (Lee 1990, p. 41). This study uses the innovativeness scale of Aliwadi, Neslin, and Gedenk (2001, p. 81). The four-item experience scale originates from previous studies (Bagozzi/Baumbgartner/Li 1992, p. 512; Glasman/Albarracín 2006, p. 779; Srite/Karahanna 2006, p. 690). All operationalisations are displayed in the appendix.

### 3.3. Results

#### 3.3.1. Sample characteristics

Tab. 1 gives an overview of the sample’s characteristics. On average, the respondents are between 23 and 26 years of age and have a master’s degree. The majority of respondents are male, which is realistic because technological products are more interesting for male consumers, who purchase electronic products more frequently compared to female consumers.

<table>
<thead>
<tr>
<th>Age</th>
<th>Younger than 19 years old</th>
<th>19-22 years old</th>
<th>23-26 years old</th>
<th>27-30 years old</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 (5.5%)</td>
<td>89 (23.3%)</td>
<td>216 (56.5%)</td>
<td>75 (19.6%)</td>
<td>382</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Female</th>
<th>Male</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>120 (31.4%)</td>
<td>262 (68.6%)</td>
<td>382</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Bachelor</th>
<th>Master</th>
<th>Sum (2 n/a)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>140 (36.6%)</td>
<td>240 (62.8%)</td>
<td>380</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disposable income (converted in €)</th>
<th>0 to 49 €</th>
<th>50 to 99 €</th>
<th>100 to 199 €</th>
<th>200 to 299 €</th>
<th>300 to 399 €</th>
<th>Sum (5 n/a)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 (2.6%)</td>
<td>181 (47.4%)</td>
<td>130 (34.0%)</td>
<td>31 (8.1%)</td>
<td>25 (6.5%)</td>
<td>377 (5 n/a)</td>
</tr>
</tbody>
</table>

Table 1: Characteristics of the sample
pared to female consumers (Gilbert/Lee-Kelly/Barton 2003).

Because common method variance could be a potential problem, Harman’s one-factor test was used to examine the bias (Harman 1978). The principle component analysis indicates no problems with common-method variance because five factors with eigenvalues larger than 1 can be extracted, and no factor accounts for almost all of the variance. The statistical fit indicates that the measurement models show good results for all of the measures in terms of validity and reliability. In addition, all of the constructs are distinct according to the Fornell-Larcker criterion (Fornell/Larcker 1981). After the measurement models were assessed, the structural model was tested with multiple measures of model fit. Tab. 2 displays a summary of the Chi-squared statistic with the corresponding degrees of freedom (d.f.), goodness of fit statistic (GFI), adjusted-goodness-of-fit-statistic (AGFI), comparative fit index (CFI) and root mean square error of approximation (RMSEA) for the model.

The statistics indicate a good model fit. The Chinese-specific adoption intention model explains 76% of the variance in the intention to adopt the smartphone, and thus has good nomological validity.

3.3.2. Strength of causal relationships

Fig. 2 summarises the standardised path coefficients. The estimates of the path coefficients were used to test the hypothesised relationships.

The results show empirical evidence for all of the formulated hypotheses except for the hypothesis concerning the influence of group conformity on the intention to adopt the Smartphone (H2a could not be supported). Group conformity has an indirect effect on the adoption intention (total effect = .57), which is mediated by the distinctiveness-face-consumption construct. The distinctiveness-face-consumption construct (γ = .65) has the greatest impact on the adoption intention of Chinese consumers (H2b could not be rejected). Individuals in Westernised Shanghai participated in the survey, which is reflected in the consumers’ attitudes being important determinants of adoption intention (γ = .25, H1 could not be rejected). Innovativeness influences attitude (γ = .44, H3b could not be rejected) and adoption intention (γ = .15, H3a could not be rejected) positively and significantly, as Chinese consumers need to do face work to enhance their face. Buying new products is one way of enhancing their mien-tzu. In addition, distinctiveness face consumption has a positive impact on innovativeness (γ = .24; H2e could not be rejected) and attitude towards adoption (γ = .12, H2d could not be rejected). These results show that traditional Chinese values drive the openness of Chinese consumers concerning new products. In contrast to the traditional theory of reasoned action, crossover-effects between normative and attitudinal constructs have been shown to be relevant in the adoption context. Furthermore, a cross-cultural test with a German sample empirically proves the emic nature of the adoption intention model for the Chinese context because it has an R² smaller than 1% for the German sample. Due to a shortage of space, these findings cannot be reported in more detail.

3.3.3. Moderating Effects

This study examined the moderating effects of the experience construct on the attitude towards the adoption-
adoption and the distinctiveness face consumption-adoption intention relationships. Tab. 3 shows the results of the tests for the moderating effects using a multi-group approach.

Opposing the assumptions, the experience construct does not moderate the attitude towards the behaviour and the behavioural intention causal relationship. Another interesting finding is that it moderates the distinctiveness face consumption-adoption intention causal relationship positively (and not negatively as hypothesised). Due to the small differences of the loadings of the aforementioned causal relationship between the low and high experienced group, the interpretation of these findings is problematic. These findings contradict the results of Venkatesh and Davis (2001). Therefore, empirical evidence for HMI and HM2 is lacking. Thus, further research on the moderating impact of experience is needed.

### Table 3: Test of moderating effects

<table>
<thead>
<tr>
<th>Experience</th>
<th>Low or No Experience</th>
<th>High Experience</th>
<th>Results of the simultaneous estimation of both sub-samples</th>
<th>Fixation of the relationship between attitude and adoption intention</th>
<th>Fixation of the relationship between distinctiveness face consumption and adoption intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2$</td>
<td>191.75</td>
<td>170.93</td>
<td>$\chi^2 = 362.70$ d.f. = 164</td>
<td>$\chi^2 = 364.60$ d.f. = 165</td>
<td>$\chi^2 = 372.44$ d.f. = 165 nargin significant difference with 1 d.f. = -9.7 and therefore significant</td>
</tr>
<tr>
<td>$\chi^2$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\chi^2$ / d.f.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GFI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGFI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CFI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMSEA</td>
<td>.07</td>
<td>.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>76 %</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remarks: n.s. not significant; *** significant p < .01; ** significant at p < .05, * significant at p < .1

### 3.3.4. Comparison of the model with alternative adoption intention models

Alternative adoption intention models were analysed to test if the culture-specific model can better explain the adoption intention of Chinese consumers compared to other adoption intention models. Alternative model 1 is the theoretically derived model of this paper (baseline model), which implements the social influence factors of the traditional theory of reasoned action instead of Chinese values (i.e., distinctiveness face consumption, group conformity) (Ajzen/Fishbein 1980, p. 74). Alternative model 2 is the traditional theory of reasoned action. Tab. 4 displays the fit indices for all three models.

The significance of the Chi-squared difference between the baseline and both alternative models shows the superiority of the Chinese-specific adoption intention model

### Table 4: Model comparison between the baseline model and alternative adoption intention models

<table>
<thead>
<tr>
<th>Model</th>
<th>Fit indices</th>
<th>Chinese sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline model:</td>
<td>$\chi^2$ (d.f.)</td>
<td>248.53 (82)</td>
</tr>
<tr>
<td>Model for the explanation of Chinese adoption behaviour</td>
<td>$\chi^2$ / d.f.</td>
<td>3.03</td>
</tr>
<tr>
<td></td>
<td>GFI</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td>AGFI</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>CFI</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td>RMSEA</td>
<td>.07</td>
</tr>
<tr>
<td></td>
<td>$R^2$ adoption intention</td>
<td>76 %</td>
</tr>
<tr>
<td>Alternative model 1:</td>
<td>$\chi^2$ (d.f.)</td>
<td>367.20 (84)</td>
</tr>
<tr>
<td>Modification of the baseline model in which distinctiveness face consumption is replaced by normative beliefs from the theory of reasoned action</td>
<td>$\chi^2$ / d.f.</td>
<td>4.37</td>
</tr>
<tr>
<td></td>
<td>GFI</td>
<td>.89</td>
</tr>
<tr>
<td></td>
<td>AGFI</td>
<td>.84</td>
</tr>
<tr>
<td></td>
<td>CFI</td>
<td>.90</td>
</tr>
<tr>
<td></td>
<td>RMSEA</td>
<td>.09</td>
</tr>
<tr>
<td></td>
<td>$R^2$ adoption intention</td>
<td>71 %</td>
</tr>
<tr>
<td>Alternative model 2:</td>
<td>$\chi^2$ (d.f.)</td>
<td>650.12 (148)</td>
</tr>
<tr>
<td>Theory of reasoned action (Ajzen/Fishbein 1975)</td>
<td>$\chi^2$ / d.f.</td>
<td>4.9</td>
</tr>
<tr>
<td></td>
<td>GFI</td>
<td>.85</td>
</tr>
<tr>
<td></td>
<td>AGFI</td>
<td>.80</td>
</tr>
<tr>
<td></td>
<td>CFI</td>
<td>.81</td>
</tr>
<tr>
<td></td>
<td>RMSEA</td>
<td>.09</td>
</tr>
<tr>
<td></td>
<td>$R^2$ adoption intention</td>
<td>68 %</td>
</tr>
</tbody>
</table>

Table 4: Model comparison between the baseline model and alternative adoption intention models
over the other adoption intention models. Alternative model 1 has a significantly worse fit than the baseline model does. Alternative model 2 does not fulfill the necessary thresholds for the global fit indices and therefore has to be rejected for the Chinese sample.

4. Discussion

This study contributes to the understanding of Chinese consumer behaviour. Based on the criticism of the Western cultural bias in the theory of reasoned action, this study developed a China-specific adoption intention model. Due to the invariance of the social influence constructs of the theory of reasoned action in the Chinese context, this study integrated two Chinese values into the adoption intention model following the study by Lee (1990). Distinctiveness face consumption and group-conformity pressure constructs were found to be relevant factors for understanding Chinese consumer behaviour. Because previous studies showed heterogeneous empirical results due to imprecise operationalisations of these two values, this study conceptualised the face consumption construct for the adoption context. Face consumption oriented towards others corresponding to face saving and conformity face consumption, which relate to the maintenance of face, are not important for face conceptualisation in the adoption context. The empirical study reveals that distinctiveness-face consumption is the most important driver of the adoption intention for the Smartphone. Moreover, attitude and innovativeness positively influence Chinese consumers’ intentions to adopt a Smartphone. This study also tested for moderating effects but could not find empirical evidence for the proposed moderator hypotheses. Due to the small differences in the loadings of the aforementioned causal relationships between the less-experienced and high experienced groups, the interpretation of these findings is problematic. A test of alternative adoption intention models showed the superiority of the Chinese-specific model over the other models. The extension of the theory of reasoned action by Chinese values helped better understand the factors that impact Chinese consumer adoption intentions.

5. Limitations and future research

Although this study provides relevant and interesting insights into the Chinese consumer behaviours concerning the adoption of new products, several limitations were associated with this study. Three clusters of limitations suggest approaches to improve future studies.

Methodology limitations

- The inclusion of cultural values could lead to social desirability bias. This study tried to minimise the problem of social desirability using an anonymous online survey. Future studies could control for social desirability.

Nomological aspects

- Moderating influences (e.g., experience, gender, age, education and susceptibility to normative influence) could provide further insights into Chinese consumer adoption behaviour and could reveal different consumer segments.

- Future studies may analyse the influence of perceived usefulness, ease of use, entertainment and costs on the intention to adopt the iPhone. A product test would be required to gather valid answers from potential respondents (Mao/Palvia 2006).

External validity

- The study could be replicated in other major cities throughout China because Shanghai is relatively Westernised.

- The use as of other high-involvement products as survey objects that are either more or less observable by other consumers can give insight into the generalisation of the survey results. The model could be tested with more than one product.

- Additional consumers should be used as respondents because the generalisations from these findings are based on the responses of students.

The field of Chinese consumer adoption decisions is only beginning to develop, and further research is needed. The preceding limitations suggest approaches for further investigations on Chinese consumer adoption behaviours.

6. Managerial implications

The empirical results show that new prestigious products, such as the iPhone, possess a conspicuous and symbolic value. Chinese consumers adopt them for face consumption proposes. Commercials should include the possibility of distinctiveness face consumption by Chinese consumers, thereby marketing the symbolic and conspicuous impact of the new products. Socially different target groups should be considered because a new product must fit into the social position of Chinese consumers. Marketers should adapt the new product (diversification) and commercials to specific target groups.

Testimonials can substitute for the acceptance of the in-group. Chinese consumers rely on informal channels of communication (Yau 1988). Online communities are informal channels of communication in which participants exchange information through collective e-word-of-mouth. Thus, the e-opinion leadership concept should be implemented.
## Appendix

### Construct measurements

<table>
<thead>
<tr>
<th>Attitude</th>
<th>I like/dislike the idea of buying and using a Smartphone.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I think the buying and usage of a Smartphone is a good/bad idea.</td>
</tr>
<tr>
<td></td>
<td>The buying and usage of a Smartphone for enhancing my social status is a good idea.</td>
</tr>
<tr>
<td></td>
<td>The buying and usage of a Smartphone for facilitating my studies is a good idea.</td>
</tr>
<tr>
<td>Group conformity</td>
<td>My parents expect me to comply with their decisions.</td>
</tr>
<tr>
<td></td>
<td>Intending to buy a Smartphone, I am influenced by knowing that my parents would also buy it.</td>
</tr>
<tr>
<td></td>
<td>Possessing a Smartphone would make me fit in with my parents.</td>
</tr>
<tr>
<td>Distinctiveness face consumption</td>
<td>Buying a Smartphone is a good way to distinguish myself from others.</td>
</tr>
<tr>
<td></td>
<td>Buying a Smartphone should be consistent with my social status.</td>
</tr>
<tr>
<td></td>
<td>Buying a Smartphone can bring me a sense of prestige.</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>If I see a product that is different from others, I usually test it.</td>
</tr>
<tr>
<td></td>
<td>Usually I am among the first persons who test a new product.</td>
</tr>
<tr>
<td></td>
<td>I like to test new and different things.</td>
</tr>
<tr>
<td>Experience</td>
<td>I don’t know anything about Smartphones.</td>
</tr>
<tr>
<td></td>
<td>I have heard of Smartphones.</td>
</tr>
<tr>
<td></td>
<td>I already use a Smartphone.</td>
</tr>
<tr>
<td></td>
<td>I possess a Smartphone.</td>
</tr>
<tr>
<td>Adoption intention</td>
<td>I intend to buy a Smartphone during the next four months.</td>
</tr>
<tr>
<td></td>
<td>I intend to buy a Smartphone during the next four months to enhance my social status.</td>
</tr>
<tr>
<td></td>
<td>I intend to buy a Smartphone during the next four months to facilitate my studies.</td>
</tr>
</tbody>
</table>

## References


Das Erstellen und Weitergeben von Kopien dieses PDFs ist nicht zulässig.


Götze, Understanding Chinese Consumer Behaviour Towards New Products

**Keywords**

Adoption intention, theory of reasoned action, Chinese consumer, face consumption, group conformity.

---

https://doi.org/10.15358/0344-1369-2011-2-147


Das Erstellen und Weitergeben von Kopien dieses PDFs ist nicht zulässig.