Consumer attitudes towards European food versus traditional Chinese food in selected urban settings in China

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CONSUMER ATTITUDES TOWARDS EUROPEAN FOOD VERSUS TRADITIONAL CHINESE FOOD IN SELECTED URBAN SETTINGS IN CHINA

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王鸥

2015 年 12 月 7 日

比利时 根特

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List of abbreviations

AF	Availability and Familiarity
AMOS	Analysis of Moment Structures
ATE	Attitudes Towards European Food
ATT	Attitudes Towards Traditional Food
CA	Correspondence Analysis
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
EF	European Food
FCM	Food Choice Motive
FCQ	Food Choice Questionnaire
FSC	Food Safety Concern
HC	Health Concern
HIR	Highest Income Region
IFI	Incremental Fit Index
M	Mood
NC	Normed Chi-square
NHIR	Non-Highest Income Region
PCA	Principal Component Analysis
PLSR	Partial Least Squares Regression
PPA	Perceived Product Attribute
RMSEA	Root Mean Square Error of Approximation
RQ	Research Question
SA	Sensory Appeal
SEM	Structural Equation Modelling
SPSS	Statistical Package for the Social Sciences
TF	Traditional Food
TMS	Time or Money Saving
WTBE	Willingness To Buy European Food
WTBT	Willingness To Buy Traditional Food

Chapter 1

Introduction, objectives and outline of the thesis

1.1. General introduction

This doctoral research seeks to address the lack of understanding concerning Chinese consumer behaviour, attitudes and perceptions in relation to European food. It also explores Chinese consumer behaviour, attitudes and perceptions in relation to their own traditional food in order to compare and contrast with that for European food. In this doctoral research, 'European food' is defined as 'local food imported from Europe or food with a European style or flavour available for in-or-out home consumption in China'. This introduction will present the rationale for conducting the research, the conceptual framework, the research design, and the thesis structure.

China is one of most important food/beverage import markets in the world, with a huge import value of 46.21 billion U.S. dollars in 2013 (National Bureau of Statistics of the People's Republic of China, 2014). Its packaged foods/beverage imports experienced an annual growth rate of 27.3% between 2008 and 2012 (Alice, 2013). This is the result of China's increasing income levels, changing dietary habits with greater experience of non-Chinese foods from abroad, Westernization of food consumption patterns, accession to the World Trade Organization in 2003, and severe domestic food security situation. China's per capita annual income of urban households increased from 239 U.S. dollars in 1990 to 4656 U.S. dollars in 2013 (based on the exchange rate on 21st October 2015: 1 U.S. dollar = 6.346 China's Yuan) (National Bureau of Statistics of the People's Republic of China, 2014). This allows Chinese consumers to spend more money on high-valued food products such as eating out and imported food/beverage products (Asia Perspective, 2014; Gale & Huang, 2007). More experiences with foods of non-Chinese origin are being brought back to China because of the enormous amount of Chinese who study, work or have tours overseas: around one hundred million person-trips in 2013 (first place in the world) (Yan, 2014); almost 450 thousand students were studying abroad in 2013 (first place in the world) (Netease, 2013). China is also experiencing a dietary consumption pattern inclined towards Westernization, with increasing consumption towards meat, dairy product, temperate zone food and processed

convenience food (Curtis, McCluskey, & Wahl, 2004; Pingali, 2007). The accession to the World Trade Organization (WTO) has made mainland China open its markets for the importation of almost all agricultural products, and foreign companies can now directly exploit this market (Curtis et al., 2004;Hu, Cox, & Edwards, 2007). A great number of food safety events in recent years lead to a ruined trust to domestic food industry and a strong demand to imported high-quality food products by Chinese consumers (e.g. the huge demand of infant formulas from Western countries after the San Lu milk scandal in 2008) (Ortega, Wang, Wu, & Olynk, 2011; Qiao, Guo, & Klein, 2012; Zhou, Tian, Wang, Liu & Cao, 2012; Zhou, 2012). To summarize, all these developments above are boosting China to become the most potential market for local food products around the world.

This provides a significant opportunity for European food producers to exploit this attractive market. Europe possesses plenty of local food resources, which are an essential part of the European culture and culinary heritage (Guerrero, Guardia, Xicola, Verbeke, Vanhonacker, Zakowska-Biemans, & Hersleth, 2009). Each European country has traditional eating cultures and habits relating to specific local food products, leading to a wide variety of local food resources (Jordana, 2000). The European food industry is mainly composed of small and medium-sized enterprises, and these enterprises still face the challenge of maintaining or expanding their market share in this extremely competitive era of globalization (Banterle, Cavaliere, Stranieri, & Carraresi, 2009; Guerrero et al., 2009). The rise of Chinese food markets will provide an unlimited ‘new world’ for European food producers to expand the market share for their products.

Food trades between China and Europe have started since centuries ago. In 1785 over 15 million pounds of tea were imported from China and sold in England (Greenberg, 1951). While in 21st century, there is a huge potential and much more developed transportation infrastructure for food trades between Europe and China. Many European countries have become members of the Asian Infrastructure Investment Bank (Zhang, 2015). China has also officially applied for a membership of the European Bank for Reconstruction and

Development (Wheatley, 2015). These will be helpful for the further development of transportation infrastructure between Europe and Asia. Together with China's strategy of One Belt And One Road, these factors may pave a road between the East and the West on the Eurasian Continent in a way not previously experienced in human history (Prodi & Gosset, 2015; Pavlićević, 2015). As a result, European food marketers will have better and more convenient channels through which to sell their products to Chinese consumers. A recent event is the best proof of this viewpoint: the longest rail link in the world (between Yiwu, China and Madrid, Spain) was opened for cargo train in 2014 (Mount, 2014). Furthermore, Chinese government is setting more free-trade zones that will reduce tariffs for European food products to enter the huge market (Kazer, 2015).

European Union (EU) is now the largest food import partner for China, with a value of 6.609 billion U.S. dollars in 2014 (based on the exchange rate on 21st October 2015: 1 U.S. dollar = 0.882 Euro) and a growth rate of 7.5% from 2013 to 2014 (European Commission, 2015; Li, 2015). Milk and cereal preparations, wine, milk powders and pig meat are top food products, exported from the EU to China (DG Agriculture & Rural Development: Agricultural Trade Policy Analysis unit, 2014). As the rise of Chinese middle-class in recent years, European high-valued food products have been becoming popular in China (Diana, 2015; Olivier, 2015). China now represents the biggest wine export market for the EU, with rapidly growing imports that have increased from 64 million litres in 2009 to 257 million litres in 2012 (Alinna, 2013). European countries shared 77.2% of China's beer import value (232 million U.S. dollars, including both lager and non-lager beers) in 2013: Germany 59.1%, Belgium 7.2%, Netherlands 4.7%, France 4.0% and Spain 2.2%; with a fast growth pace in 2014: Germany 57.40%, Netherlands 905.88%, Belgium 103.16%, France 160.86% and Spain 141.74% (Chen, 2015; China In Out, 2015; Lu, 2014). Therefore, the Chinese food market is likely to become even more oriented towards European high-valued foods in the future.

Contrary to this trend, European food producers face challenges from the differences between East and West. China is one of East Asian countries. East Asia (so-called the East) includes

China (including mainland China, Taiwan, Hong Kong and Macro), Japan and two Koreas (Oh, Murata, Kim, Murata, & Jones-Rooy, 2013). The region accounts for 22% of the population, 7% of the territory and 22% of the GDP (2014) of the World (International Monetary Fund, 2015; Oh et al., 2013; Worldometer, 2015). East Asian countries/regions have similar dietary traditions, cultures and habits, sharing strongly influences from Ancient China (Brown & Brown, 2006; Ebrey & Walthall, 2006; Oh et al., 2013). Although experiencing a dietary Westernization in East Asia (e.g. increased consumption of meat and dairy products per capita), there are still great disparities between East Asian and Western countries in dietary cultures and habits (e.g. using chop-sticks in East Asia and using knife and folks in Western countries) (Civitello, 2011; Chang, Kivela, & Mak, 2010; Pingali, 2007; Sun & Collins, 2004; Wan, 1995). By a long history of agricultural civilization, traditional Chinese or East Asian foods are often plant-based; while Western countries inherit more meat or dairy-based traditional foods from a long history of nomadic civilization (Li, 2007). Comparing to the plenty of food-related consumer research in Western countries, studies of food-related behaviour in East Asia, especially in mainland China, are still rare, and this is caused by the actuality that food consumption patterns in East Asia could hardly be analyzed by models formed from Western countries (Grunert, Perrea, Zhou, Huang, Sørensen, & Krystallis, 2011).

Currently there is a gap in available information on Chinese consumer behaviour, attitudes and perceptions in relation to European food. Although previous empirical studies have looked at consumer behaviour, attitudes and perceptions towards Western food products in East Asian countries/regions, there has been little specific focus on European food. The limited available information deals with different Western or European food categories and/or different East Asian countries/regions' population groups. Lin, Marshall, and Dawson (2009) pointed out that *good quality* and *familiar brand* were important determiants for consumers' positive attitudes towards European retailer's private brand food products in Taiwan (China). Curtis, McCluskey, and Wahl (2007) found that 'taste' has a substantial impact on Chinese consumers' preferences for Western-style convenience foods. Li, Lai, Harrill, Kline, and

Wang (2011) indicated that tourists from China were very sensitive to the *cleanliness / safety* and *price* of local foods when visiting Western countries and their impressions towards Western local food were *too sweet*, *low in fruit and vegetables*, *high in calories*, *with too many uncooked or cold dishes* and *too much fried food*. Chinese tourists mainly looked for assurances that food would be appetizing and have a familiar flavour when choosing Australian local food (Chang et al., 2010). Furthermore, many empirical studies exploring East Asian consumer behaviour, attitudes and perceptions towards Western alcoholic beverages have used wine as their focus. Chinese consumer's wine consumption is negatively influenced by product attribute *Price* and positively influenced by the product attributes: *Origin*, *Brand* and *Taste* and by socio-demographic factors such as *Gender*, *Age* and *Personal income*, which man, young or high income people consume more wine in China (Balestrini & Gamble, 2006; Camillo, 2012; Goodman, 2009; Hu, Li, Xie, & Zhou, 2008; Pan, Fang, & Malaga, 2006; Somogyi, Li, Johnson, Bruwer, & Bastian, 2011; Wen, Tong, & Yao, 2010; Wilson & Huang, 2003; Yu, Sun, Goodman, Chen, & Ma, 2009; Yu et al., 2009). *Health-oriented*, *Age*, *Pursuit of knowledge*, *Pursuit of aggressive consumerism* and *Pursuit of quality life* are driven factors for South Korean consumers to purchase wine (Lee & Chang, 2014; Yoo, Saliba, MacDonald, Prenzler, & Ryan, 2013). Japanese consumers have moderate levels of *Country of origin brand loyalty* for wine, and they consider *taste*, *variety* and *price* as the most important attributes for wine purchase (Bruwer & Buller, 2012; Bruwer, Buller, John Saliba, & Li, 2014). To the author's knowledge, no consumer research has been done specifically with European food in mainland China- the most important East Asian market, with 87% of the population and 70% of the GDP (2014) of the East Asia (International Monetary Fund, 2015; Oh et al., 2013; Worldometer, 2015).

European food producers also confront competitions from Chinese traditional food producers. Chinese cuisine is one of world's "Three Grand Cuisines" (Wolf, 2010). There is a wide variety of traditional food resources in China, with different cuisine styles from that in Western countries and a great influence on modern Chinese dietary consumption patterns (Cai & Situ, 2006; Zhang, Zhang, Tang, Zou, & Su, 2009; Zhao, 2003). The production process of

traditional Chinese food has been modernized in recent decades, leading to a huge consumption market for modernized traditional Chinese food products (e.g. frozen dumpling) in China (Sun & Wang, 2013).

There is still a lack of understanding with regard to Chinese consumers' perceptions, attitudes and behaviours towards their own traditional food. Consumer-based traditional food studies have mostly been conducted within Europe (Almli, Verbeke, Vanhonacker, Næs, & Hersleth, 2011; Cerjak, Haas, Brunner, Tomić, Griffith, & Renko, 2014; Guerrero, Claret, Verbeke, Enderli, Zakowska-Biemans, Vanhonacker, & Hersleth, 2010; Guerrero, Claret, Verbeke, Vanhonacker, Enderli, Sulmont-Rossé, & Guàrdia, 2012; Guerrero et al., 2009; Pieniak, Verbeke, Vanhonacker, Guerrero, & Hersleth, 2009; Vanhonacker, Lengard, Hersleth, & Verbeke, 2010; Vanhonacker, Verbeke, Guerrero, Claret, Contel, Scalvedi, L., & Hersleth, 2010). European consumers define traditional food through the following dimensions: *sensory*, *health*, *elaboration*, *heritage*, *variety*, *habit*, *origin*, *simplicity*, *special occasions* and *marketing* (Cerjak et al., 2014; Guerrero et al., 2010; Guerrero et al., 2009; Vanhonacker et al., 2010b). The study by Almli et al. (2011) showed that product attributes related to *sensory*, *health* and *quality* issues helped European consumers to create a positive image of traditional foods, whereas product attributes like *convenience* or *price*, had a negative effect on their perception. Pieniak et al. (2009) reported that the most important motives for European consumers to choose traditional foods were *Weight control, Convenience, Familiarity, Healthiness* and *Natural content*. However, there is no consumer-based empirical study to explore Chinese consumers' behaviours, attitudes and perceptions towards traditional food. Chinese scholars' publications related to traditional food were mostly literature reviews. They defined the characters of traditional Chinese food as follows: *having a long history*; *created alongside local cultures and customs*; *made based on a wealth of experience*; *accepted by the general population*; *often eaten during festivals* (Li, 2007; Tan, Cheng, Zhang, & Xue, 2009; Tan, Cheng, & Zhang, 2009).

Given the aforementioned research gaps, it is necessary to increase our knowledge of consumer behaviour, attitudes and perceptions towards European food versus traditional Chinese food in China. The information will be useful for European food producers, marketers and policy-makers to improve their policies and marketing strategies for the huge Chinese market. Therefore, this doctoral research will discuss Chinese consumer perceptions, general images, important food choice motives, attitudes or purchasing behaviour in relation to European food (as a general food type) and a specific European food category- imported European beer. It will also discuss the differences and similarities between the perceptions and important food choice motives in relation to European food versus traditional Chinese food (as general food types).

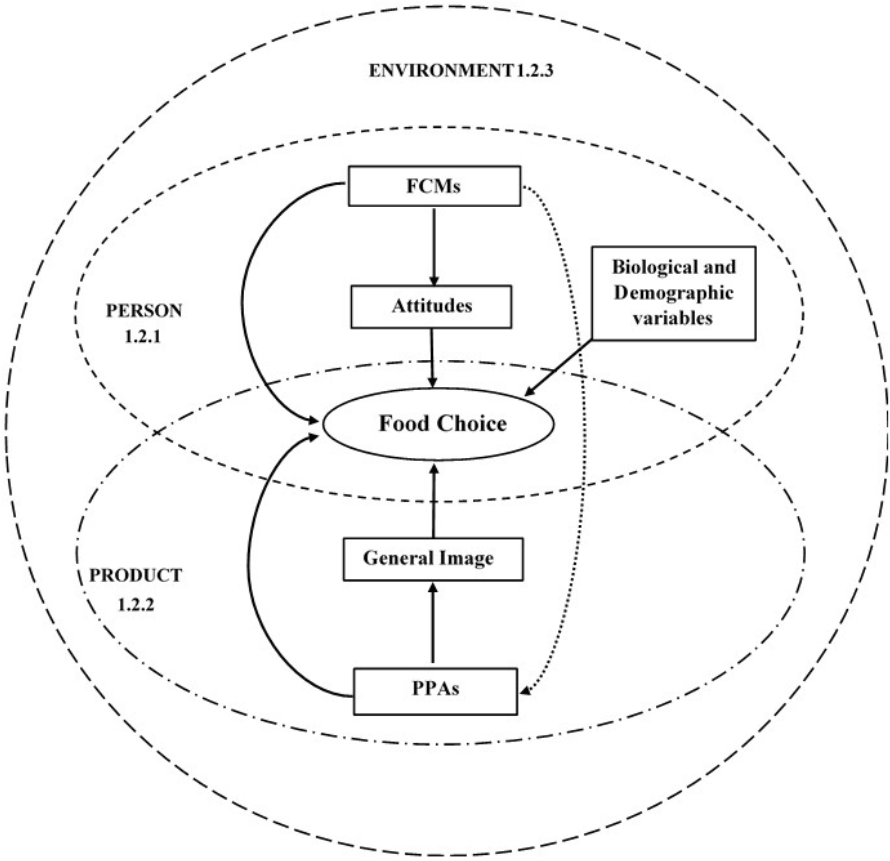

Figure 1.1 Conceptual framework

1.2. Conceptual framework

A conceptual framework for this doctoral dissertation is proposed in Figure 1.1. This framework is based on a classical classification with three types of influencing factors for food choice: environmental factors (environment), person-related factors (person) and properties of the food (product) (Steenkamp, 1997). These three types of influencing factors affect consumers throughout their decision-making for food choice (Verbeke, 2000).

1.2.1. Person-related factors (Person)

The person-related factors include demographic variables, psychological factors and biological factors (Pilgrim, 1957; Shepherd, 1990; Steenkamp, 1997). For this PhD study, interest goes to all of these factors. The psychological factors of this study include food choice motives (FCMs) (Steptoe, Pollard, & Wardle, 1995) and consumer attitudes.

Previous studies have recognized the influences of demographic and biological factors on consumer choice behaviours towards different food categories, including imported food. In general, consumers with younger ages, higher income and educational levels are more like to choose imported food products than those with older age, lower income and educational levels (Juric & Worsley, 1998; Hung, Gu, & Yim, 2007; Wang, He, & Li, 2013). Furthermore, imported food consumption can also be influenced by consumers' overseas experiences, which can evoke their memories of trips to foreign countries (Verbeke & Lopez, 2005). Therefore, the demographic and biological factors have an impact on consumer food choice in the conceptual framework (Figure 1.1).

A model (Figure 1.1) has been developed building upon the theoretical models on consumers' FCMs, attitudes and food choice (purchase intentions or consumption). FCMs have a direct impact on consumer attitudes and food choice. Meanwhile, FCMs also indirectly influence food choice through attitude (Ajzen, 1991; Chen, 2007; Pieniak et al., 2009; Steptoe et al., 1995; Zakowska-Biemans, 2011; Žeželj, Milošević, Stojanović, & Ognjanov, 2012).

Attitude represents a summary evaluation (positive or negative) of a psychological object, and it guides behaviour towards that object (Žeželj et al., 2012). Attitudes have been used to predict behaviour or behavioural intentions for different food categories such as traditional food and the foods with health claims (Honkanen & Frewer, 2009; Pieniak et al., 2009; Žeželj et al., 2012).

Motives lie behind daily food choices, and reorganization of these motives and their relationships into specific dietary behaviours enables better understanding of consumer choices (Pula, Parks, & Ross, 2014). Better understanding of consumers' food choice motives is helpful for a wide range of decisions, such as product development, market introductions and public policy planning for healthier eating habits (Januszewska, Pieniak, & Verbeke, 2011).

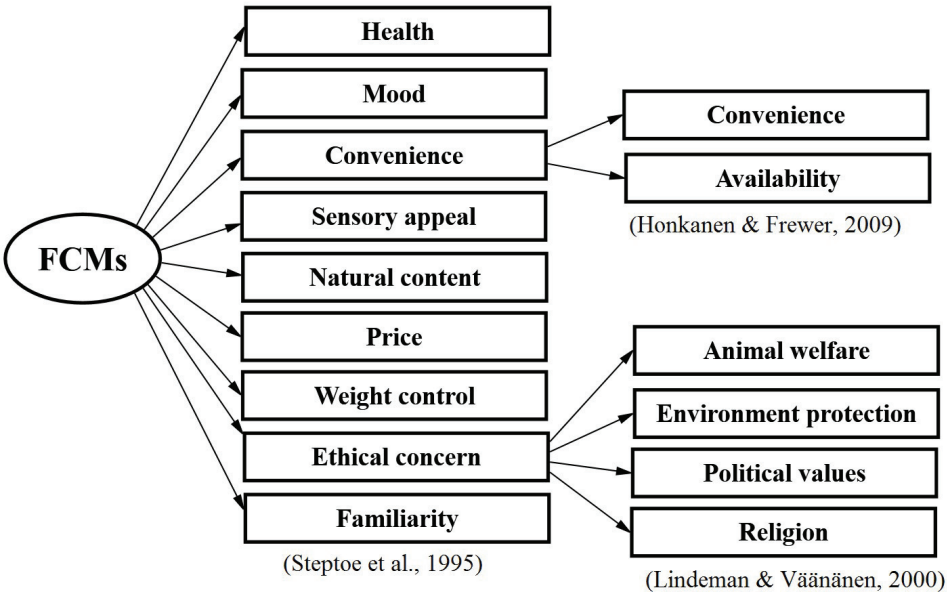

Figure 1.2 Food choice motives

Steptoe et al. (1995) developed a food choice motive (FCM) model to explore people's motives for daily food choices in their Food Choice Questionnaire (FCQ), with a nine-dimension construct (Figure 1.2): *Health (in relation to general nutrition and well-being and the prevention of chronic disease), Mood (in relation to general alertness, general mood, relaxation and stress control), Convenience (in relation to food purchase and preparation), Sensory appeal (in relation to sensory attributes such as taste and smell), Natural content (in relation to concern over the use of additives and natural ingredients), Price (in relation to food purchase cost), Weight control (in relation to dietary restraint and the preference for being slim), Familiarity (in relation to preference for familiar diet),* and *Ethical concern (in relation to environmental and political issues)*. Furthermore, scholars later developed extra FCM dimensions based on the original nine-dimension FCM construct. A study by Lindeman and Väänänen (2000) split the original dimension *Ethical concern* into three new dimensions *Ecological Welfare* (with sub-dimensions *in relation to Animal Welfare* and *Environment Protection*), *Political Values* and *Religion*. Honkanen and Frewer (2009) suggested that a new dimension *Availability* in relation to purchase convenience should be added in the FCM .

The FCM model includes a wide variety of psychological motives for daily food choices. By comparing mean values of FCM variables, researchers found that *Sensory appeal*, *Availability*, *Price*, *Natural content* and *Weight control* were often rated as important motives for daily food choices by consumers (Honkanen & Frewer, 2009; Januszewska et al., 2011; Milošević, Žeželj, Gorton, & Barjolle, 2012; Prescott, Young, O'Neill, Yau, & Stevens, 2002; Roos, Lehto, & Ray, 2012; Steptoe et al., 1995; Sproesser, Strohbach, Schupp, & Renner, 2011; Zakowska-Biemans, 2011).

Furthermore, researchers also explored the relationships between the FCMs and consumers' attitudes and purchase/ purchase intentions towards specific food products through segment analysis, regression or path analyses. Chen (2011) found that *Mood*, *Sensory appeal*, *Price*, and *Familiarity* had positive impacts on consumer attitudes towards genetically modified foods, but Natural content had a negative impact on this in Taiwan (China). Honkanen and

Frewer (2009) observed that consumer segments based on FCMs differed in relation to their attitudes towards healthy food. Johansen, Næs, and Hersleth (2011) found that three FCM items ('low in fat', 'keeps me healthy' and 'tastes good') were the most important factors for choice of calorie-reduced dairy products, using a cross-cultural sample from Norway, Denmark and California. Pieniak et al. (2009) found that *Weight control*, *Convenience*, *Familiarity* and *Healthiness* were major factors influencing consumers' attitudes towards and/or consumption of traditional food. It was observed by Pohjanheimo, Paasovaara, Luomala, and Sandell (2010) that *Mood* and *Price* were important for hedonistic consumers and *Natural content*, *Familiarity* and *Health concern* were important for traditional consumers when they chose bread. Tobler, Visschers, and Siegrist (2011) pointed out that *Taste* and *Environmental motives* had influences on consumer choice in relation to seasonal fruits and vegetables, and *Health* and *Ethical motives* influenced meat consumption. Vyth, Steenhuis, Vlot, Wulp, Hogenes, Looije and Seidell (2010) observed that *Weight control* influenced consumer choice for food products with a front-of-pack nutrition logo. Zakowska-Biemans (2011) found that Polish consumers with *Convenience* and *Price* orientation were less likely to choose organic food products. Žeželj et al. (2012) found that *Healthiness* was the most important food choice motive in the choice of functional foods.

In addition, previous studies have shown that the applicability of FCM constructs according to the cultural setting (Pula et al., 2014). A FCM construct should exclude the original FCM dimensions *Weight control* and *Ethical concern* and should include two new dimensions *Environmental protection* and *Impression management,* according to a US sample (Pula et al., 2014). In a sample of Western Balkan countries, the original FCM dimensions *Health* and *Natural content* were combined into one dimension; the dimensions *Familiarity* and *Ethical concern* were combined within another dimension; the dimension *Convenience* were separated into two dimensions *Preparation convenience* and *Purchase convenience* (Milošević et al., 2012). FCM underlying constructs differed between Western urban populations in Canada, Belgium and Italy, with divergences of FCM dimensions *Natural content*, *Health* and *Ethical concern* (Eertmans, Victoir, Notelaers, Vansant, & Van den Bergh,

2006).

Until now, there is no previous FCM-based study to explore the important motives for daily food choice by mainland Chinese consumers, and to examine the relationships between the FCMs and the attitudes or consumption behaviour towards traditional food, Western or European food (as general food types) by East Asian consumers. Consequently, this PhD study first assesses the generalizability of the original FCM construct, and then explores the relationships between the FCMs and the consumer attitudes and purchase intentions (choices) towards traditional Chinese food and European food (as general food types) for a mainland Chinese sample (Chapter 4). The study also explores the influences of demographic and biological factors on Chinese consumers' choice behaviours towards European food (as a general food type) and imported European beer (Chapter 3 and 5).

1.2.2. The properties of food (Product)

The properties of food refer to physiological effects and sensory properties (Pilgrim, 1957; Shepherd, 1990; Steenkamp, 1997). Two concepts related to product properties are included in this PhD research: product image and perceived product attributes (PPAs) (Almli et al., 2011; Mitchell & Olson, 1981; Oude Ophuis & Van Trijp, 1995; Vanhonacker et al., 2010b).

Another model (Figure 1.1) has been developed based on the theoretical models for PPAs, general image and choice behaviour (Almli et al., 2011; Fitzsimons, Chartrand, & Fitzsimons, 2008; Grunert, Bredahl, & Brunsø, 2004; Guinard, Uotani, & Schlich, 2001; Mitchell & Olson, 1981; Oude Ophuis & Van Trijp, 1995; Pohjanheimo & Sandell, 2009). PPAs have a direct impact on consumers' general image and food choice. Meanwhile, general image has a direct influence on food choice. Finally, consumer perceptions of marketing stimuli for a product are influenced by motives (Hawkins & Mothersbaugh, 2009), and this relationship is shown by the path from the FCMs to the PPAs.

Product image relates to consumers' total beliefs about products from a particular region (Wang, Li, Barnes, & Ahn, 2012). Consumers often have stereotypical beliefs for particular attributes relating to the product image from a given region (Almli et al., 2011; Wang et al., 2012). Product image has a strong influence on consumer behaviour, and a positive image results in positive consumer expectations that leads to purchase (Almli et al., 2011).

Features of the product that are in line with consumer demand are subjectively perceived product attributes that are a different concept from the objective product characteristics (Becker, 2000; Bernués, Olaizola, & Corcoran, 2003). Perceived product attributes have a powerful influence on food consumption behaviour, and they are the main cues for consumers to evaluate the quality of a food product (Bernués et al., 2003; Dekhili, Sirieix, & Cohen, 2011; Nielsen, Bech-Larsen, & Grunert, 1998; Oude Ophuis & Van Trijp, 1995; Steenkamp, 1990). Understanding the relative significance of perceived product attributes influencing food choice is important to the success of product development (Enneking, Neumann, & Henneberg, 2007).

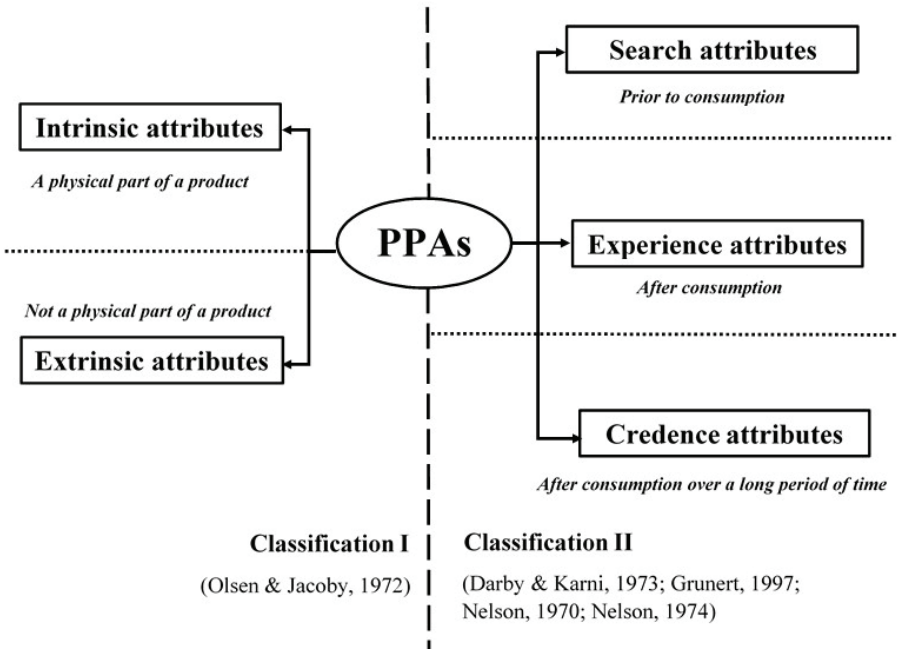

Figure 1.3 Classifications of perceived product attributes

The classifications of PPAs can be found in the literature (Figure 1.3). First, a two-dimensional classification has been identified between *Intrinsic and Extrinsic attributes*: *Intrinsic attributes* are a physical part of a product and cannot be changed (e.g. appearance, colour and shape); *Extrinsic attributes* relate to a product, but do not physically belong to it (e.g. price, origin, leanness and place) (Olsen & Jacoby, 1972). Second, a three-dimensional classification has been recognized between *Search*, *Experience* and *Credence attributes*: *Search attributes* can be recognized via the senses prior to consumption (e.g. colour, price and package); *Experience attributes* can only be recognized after consumption (e.g. taste, convenience and freshness); *Credence attributes* are more difficult to confirm even after consumption over a long period of time (e.g. health, naturalness and environmental friendliness) (Darby & Karni, 1973; Grunert, 1997; Nelson, 1970; Nelson, 1974).

Previous studies have shown *Origin*, *Price*, *Brand* and *Visual appearance* to be primary *Search attributes* for specific food choices. Consumers use *Country-of-origin* information to infer the quality of a specific product, as they are unable to assess a product's quality before purchase (Juric & Worsley, 1998; Maheswaran, 1994). Many studies emphasize the importance of *Origin cues* in consumer choice for food products, especially for foreign food products (e.g. Chinese consumer choice in relation to wine) (Balestrini & Gamble, 2006; Bouhlal & Capps, 2012; Chryssochoidis, Krystallis, & Perreas, 2007; D'Alessandro & Pecotich, 2013; Dekhili et al., 2011; Hu et al., 2008). *Price* is what is paid to obtain a product, and is an important product attribute for a product to be consumed by consumers, especially amongst low-income consumers (Steenhuis, Waterlander, & De Mul, 2011; Zeithaml, 1988). A brand can be defined as the matching of functional and emotional values made by a firm with the performance and psychosocial benefits pursued by consumers (De Chernatony & Dall'Olmo Riley, 1998). Brand trust influences consumer loyalty to a product (Delgado-Ballester & Luis Munuera-Alemán, 2001). *Brand* is a driving factor for consumer choice in relation to food products, especially for alcoholic beverages (Atkin & Block, 1984; George & Swinnen, 2011). *Visual appearance* often gives consumers their first impression of a food product, and it includes all the visible information about the product and its

environment (Hutchings, 1977). *Colour* often replaces *visual appearance* as the description of the total visual perception of foods (Hutchings, 1977). *Visual appearance* can modify subsequent flavour perception and food acceptability (Imram, 1999). "Looking good" is a standard adopted by the Chinese to determine the excellence of a food (Dang, 2010; Wan, 1995).

Taste and *Convenience* are commonly studied *Experience attributes* for choice of food products. *Taste* has a primary role as the factor that generally directs consumers' food choices (Verbeke, 2006). Food taste preferences are closely linked to cultural development, and they partly reveal the consumer's social and cultural origins, social ambitions and the cultural capital acquired (Wright, Nancarrow, & Kwok, 2001). Sensory pleasure, especially taste, is considered of great importance for food preferences by Chinese consumers (Dang, 2010; Wan, 1995). *Convenience* as a factor influences food choices globally because of the general lack of time, knowledge, skills and ability to prepare household meals (Olsen, Scholderer, Brunsø, & Verbeke, 2007). Convenience foods are identified as modern and Western in style. They have become more and more popular among consumers with the Westernization of food consumption patterns in China (Curtis et al., 2007; Pingali, 2007).

According to *Credence attributes*, *Healthiness* and *Safety* frequently appear in the literature on studies about organic food, GMO food, safe food and functional food (Aertsens, Verbeke, Mondelaers, & Huylenbroeck, 2009; Barrios, Bayarri, Carbonell, Izquierdo, & Costell, 2008; Mondelaers, Verbeke, & Huylenbroeck, 2009; Hoefkens, Verbeke, Aertsens, Mondelaers, & Van Camp, 2009). In recent years, a huge number of food safety incidents have revealed the unsafety for the consumption of many food products in China such as *vegetables contaminated by pesticides*, *fish feed by cancer-causing antimicrobials*, *fake eggs*, and *reused "drainage oil"*, and this has led to increased concerns by consumers with regard to the *Safety* attribute of food products (Ji, Wong, Cai, & Liu, 2014; Liu, Pieniak, & Verbeke, 2013; Liu, Pieniak, & Verbeke, 2014; Ortega et al., 2011; Wang, Mao, & Gale, 2008).

Due to no previous study in Chinese or East Asian consumers' perceived product attributes for European food and traditional food (as general food types), this PhD research first elicits Chinese consumers' perceptions towards traditional food and European food through a qualitative study (Chapter 2). The qualitative perceptions are later quantified as the perceived product attributes of European food for Chinese consumers in chapter 3. The chapter 3 assesses relationships between the perceived product attributes and general image of European food by Chinese consumers. A segment analysis is also conducted by using the perceived product attributes of European food as segmentation variables. Additionally, chapter 5 examines the associations between the beer product attributes and European beer consumption by Chinese consumers. The selection of the beer product attributes is based on literature review.

1.2.3. Environmental factors (Environment)

Environmental factors involve marketing stimuli, economic variables, socio-cultural influences and situational influences (Pilgrim, 1957; Shepherd, 1990; Steenkamp, 1997). This PhD study considers regional diversity as an important environmental influencing factor for food choice in China.

Food cultures can be categorized on country or regional levels (Askegaard & Madsen, 1998). Specific cuisines often originate from typical ingredients and methods belonging to a certain country or region (Fieldhouse, 1986). The country or regional diversity of food cultures results in different dietary habits and consumption patterns between regions or countries (Askegaard & Madsen, 1998; Fieldhouse, 1986). A difference can be found between East Asian and Western countries in food habits, with the more plant-based traditional foods in the East Asia from a long history of agricultural civilization and the more meat or dairy-based traditional foods in the West from a long history of nomadic civilization (Civitello, 2011; Chang et al., 2010; Li, 2007; Sun & Collins, 2004; Wan, 1995). A Westernized food consumption pattern indicates more meat, fish, dairy, temperate zone and processed convenience food products than a traditional Asian one (Pingali, 2007).

China is the world's largest country by population (19.24% of the world's total population) and second largest country by land area (6.2% of the world's total land area), with regional diversity in dietary habits and consumption patterns (Central Intelligence Agency, 2011; He, 2013; Sun & Collins, 2004; Sun, 2012; Worldometer, 2015; Zhao, 2003). Zhao (1995) classified the whole China into twelve diet-cultural circles, with obvious differences in dietary customs, dietary histories and traditional food resources (Figure 1.4).

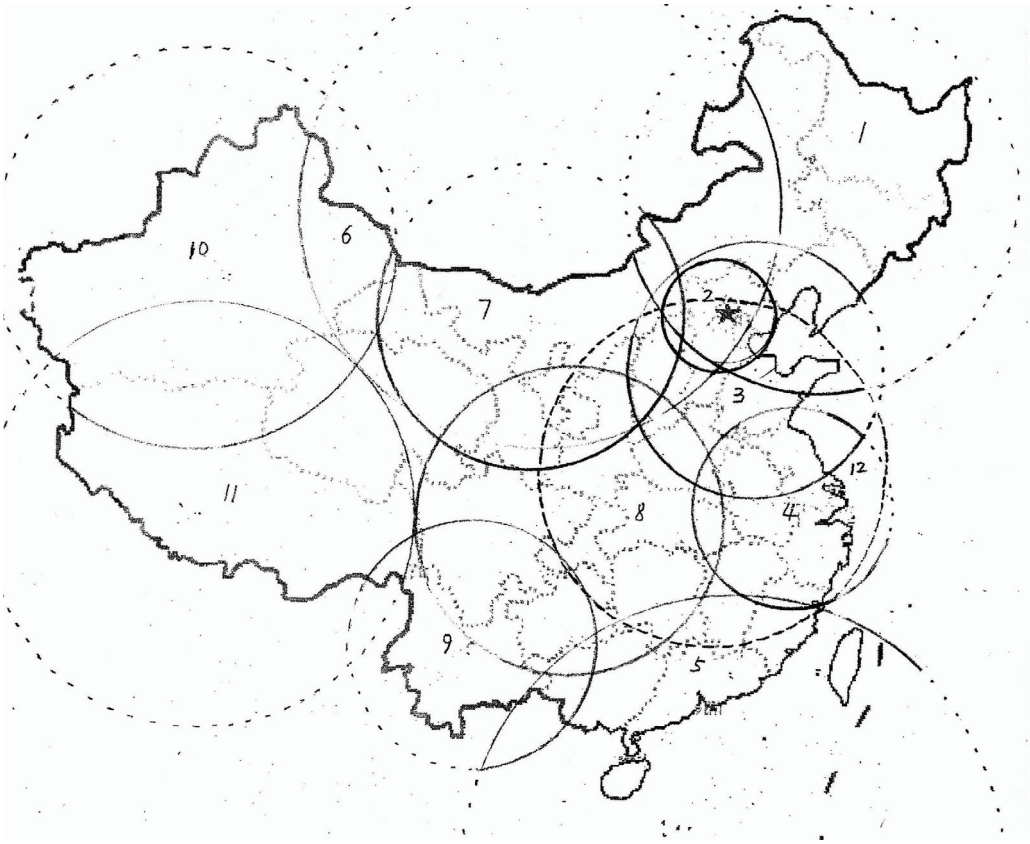

Figure 1.4 Diet-cultural circles in China (Zhao, 1995)

Note: 1=the northeast diet-cultural circle; 2=the Beijing and Tianjin diet-cultural circle; 3=the diet-cultural circle of Yellow river downstream region; 4=the diet-cultural circle of Yangtze river downstream region; 5=the southeast diet-cultural circle; 6=the north-central diet-cultural circle; 7= the diet-cultural circle of Yellow river midstream region; 8=the diet-cultural circle of Yangtze river midstream region; 9= the southwest diet-cultural circle; 10= the northwest diet cultural circle; 11=the diet-cultural circle of western highlands; 12= the vegetarian diet cultural cycle (the map is provided by Prof. Zhao, with an authorization letter in Appendix II).

Researchers also pointed out the big differences of dietary traditions and customs between northern and southern China (He, 2013; Sun & Collins, 2004; Sun, 2012). In general, northern people eat flour-based staple food and more livestock-product-based (e.g. pork, beef and mutton) dishes, while southern people eat rice-based staple food and more aquatic-product-based (e.g. fish and shrimp) dishes in China (He, 2013; Sun, 2012).

China is also a country with regional imbalance in economic development. Chinese cities and provinces can be classified into four tiers in terms of their development in economy, education, health, and the environment (Liu, Smith, Liesch, Gallois, Ren, & Daly, 2011). The first-tier cities (e.g. Beijing, Shanghai, Guangzhou and Shenzhen) have much higher levels in economic development and per capita income than cities and provinces in other tiers (Liu et al., 2011; National Bureau of Statistics of the People's Republic of China, 2014). Consumers have more opportunities with exposure to Western (food) cultures in the first-tier cities than those in other tier cities in China (He, 2013; Liu et al., 2011; Sun & Collins, 2004; Sun, 2012).

To summarize, the regional diversity is an important environmental influencing factor for food choice regionally in China. This factor is considered in the quantitative part of this PhD research (Chapter 3, 4 and 5). Two cities are selected for data collection, in different diet-cultural circles, development levels, and southern or northern China. More details about the city selection will be presented in Section 3.2.

1.3. Research objectives and research questions

The overall objective of this research is to understand Chinese consumer behaviours, perceptions and attitudes towards European food versus traditional Chinese food. This study focuses on the influences of Chinese consumers' important FCMs, PPAs, demographic and biological characteristics, and regional diversity on their attitudes, purchase intentions or general image towards European food (as a general food type). Additionally, it also compares similarities and differences in Chinese consumers' perceptions and important FCMs towards European food and traditional Chinese food (as general food types). Furthermore, European

beer is included as a case study to explore important PPAs, demographic and biological characteristics, and regional diversity, for consumers' consumption in relation to a specific European food category in China. Specifically, four main research objectives have been determined, leading to nine research questions.

1.3.1. Research objective 1: Explore consumer's perceptions of European food versus traditional Chinese food in China (Chapter 2)

There is a huge marketing potential for European food products in China – the largest East Asian country (Alinna, 2013; Balestrini & Gamble, 2006; Lu, 2014). However, there is no study in relation to Chinese or East Asian consumers' perceived product attributes towards European food (as a general food type). Perceptions are often considered to be the most important perceptual qualities for a product (Greenacre & Blasius, 1994). Meanwhile, a product will succeed in a market if it matches consumer expectations of its perceived attributes (Hawkins & Mothersbaugh, 2009; Stolzenbach, Bredie, & Byrne, 2013). Therefore, it is first necessary to increase our knowledge of Chinese consumers' perceptions towards European food. As the strong influence of traditional Chinese foods on modern Chinese dietary consumption patterns (Cai & Situ, 2006; Zhang et al., 2009; Zhao, 2003), European food producers may face competitions from Chinese traditional food producers. It is also necessary to understand the differences and similarities of perceptions when Chinese consumers define European food and their own traditional food. However, there is no previous study in rlation to consumers' perceptions towards traditional food (as a general food type) in China or East Asia.

The first research question (RQ1) is: *What are the Chinese consumers' perceptions for European food, and its differences and similarities with that for traditional Chinese food*?

1.3.2. Research objective 2: General image of and product beliefs about European food in China (Chapter 3)

Consumers' general image and product attribute beliefs towards a product have a strong influence on their purchase and consumption behaviours (Almli et al., 2011; Mitchell & Olson, 1981). There is no study in relation to Chinese or East Asian consumers' product attribute beliefs and general image towards European food (as a general food type). Increased knowledge is therefore needed in terms of the general image and the associated product attribute beliefs of European food in China.

The second research question (RQ2) is: *What are the Chinese consumers' general image and product attribute beliefs towards European food*?

Perceived product attributes influences consumers' general image towards a food product (Almli et al., 2011; Fitzsimons et al., 2008; Grunert et al., 2004; Guinard et al., 2001; Mitchell & Olson, 1981; Oude Ophuis & Van Trijp, 1995; Pohjanheimo & Sandell, 2009).

The third research question (RQ3) is: *How do the product attribute beliefs affect the general image of European food by Chinese consumers?*

Demographic and biological characteristics influence consumer choice behaviours towards imported food products (Juric & Worsley, 1998; Hung et al., 2007; Verbeke & Lopez, 2005; Wang et al., 2013). China is a huge country with regional diversity in dietary habits and consumption patterns (He, 2013; Sun & Collins, 2004; Sun, 2012; Zhao, 2003).

The fourth research question (RQ4) is: *Do different segments of Chinese consumers exist for the choice behaviour of European food, and what are the differences in terms of demographic, biological and geographic characteristics among them?*

The fifth research question (RQ5) is: *How does the regional diversity affect the general image, the product attribute beliefs and the association between the product attribute beliefs and the general image of European food by Chinese consumers?*

1.3.3. Research objective 3: Motives for Chinese consumers' choice of European food versus traditional Chinese food (Chapter 4)

Reorganization of FCMs and their relationships with specific dietary behaviours enables better understanding of consumer choices (Pula et al., 2014). The applicabilities of FCM constructs vary according to different cultural settings (Pula et al., 2014). There is no FCM-based study by using a mainland Chinese sample. Thus, it is necessary to understand mainland Chinese consumers' FCM construct.

The sixth research question (RQ6) is: *What are the FCM construct for mainland Chinese consumers, and its similarities and differences comparing to those for consumers in other cultural settings?*

FCMs affect consumer attitudes and choice behaviours towards a food product (Ajzen, 1991; Chen, 2007; Pieniak et al., 2009; Steptoe et al., 1995; Zakowska-Biemans, 2011; Žeželj et al., 2012). It is thereafter necessary to understand and the relationships between Chinese consumers' FCMs and their choice behaviours towards European food and traditional Chinese food (as general food types).

The seventh research question (RQ7) is: *How do Chinese consumers' FCMs affect their attitudes and purchase intentions in relation to European food, and its differences and similarities with that for traditional Chinese food*?

Considering the regional diversity in dietary habits and consumption patterns, the eighth research question (RQ8) is: *How does the regional diversity affect the association between Chinese consumers' FCMs and their attitudes and purchase intentions towards European food*

and traditional Chinese food?

1.3.4. Research objective 4: Determinants of consumer preferences for imported European beer in China (Case study, Chapter 5)

Beer is world's most consumed alcoholic beverage in either consumption value or volume (Colen & Swinnen, 2015). Europe is the birthplace of modern beer and a major producer and exporter of non-lager beers with a vast range of tastes, appearances and other sensory characteristics, that are due to the different local ingredients and brewing traditions used (Persyn, Swinnen, & Vanormelingen, 2011; Poelmans & Swinnen, 2011; Swinnen & Vandemoortele, 2011; Tremblay, Tremblay, & Swinnen, 2011). Although imported beer had a tiny market share of less than 0.3% in 2013, it experienced a strong growth from 2013 to 2014 (85.59%) in China (China In Out, 2015; Lu, 2014). European countries shared 77.2% of China's beer import value in 2014 (Chen, 2015; China In Out, 2015).

China has a strong beer consumer base, as it is the largest beer production and consumption country in the World (Colen & Swinnen, 2011; Colen & Swinnen, 2015). However, Chinese brewers mainly produce a relatively homogeneous range of pale lagers sharing the characteristics of mild taste, pretty meager alcohol content, large bottle size and low price (Bai, Huang, Rozelle, Boswell, & Swinnen, 2011; Vernon, 2013). This is a big difference from imported European (non-lager and lager) beers. Most of Chinese consumers and beer trade or bar /restaurant professionals are lack of knowledge about non-lager beers, due to the tiny market share of imported beer in China (less than 0.3% in 2013) (Chen, 2015; Lu, 2014). The homogenization also results in the current market saturation for domestic beers and the quickly growth of imported (lager and non-lager) beers in China (Chen, 2015; Lu, 2014; Bai et al., 2011). Therefore, European beer (either lager or non-lager) has obvious European characteristics and style to Chinese consumers.

Many empirical studies exploring Chinese consumer behaviour, attitudes and perceptions towards Western alcoholic beverages have used wine as their focus. However, to our

knowledge, there is no study understanding with regard to Chinese consumer behaviour, attitudes and perceptions towards another typical Western alcoholic beverage – European beer, although the global consumption value and volume of beer are much higher than for other alcoholic beverages; and China's European beer imports are increasing rapidly (Chen, 2015; Lu, 2014; Swinnen & Vandemoortele, 2011).

In this PhD research, European beer is selected as a specific product category to represent European food in a case study, to explore the determinants of Chinese consumer preferences for specific European food products. Previous studies show that consumers' beer choice behaviours are influenced by product attributes, demographic, biological and geographic characteristics (see Section 5.1).

The ninth research question (RQ9) is: *How do PPAs, demographic, biological and geographic variables affect consumers' consumption for imported European beer in China?*

1.4. Research design and data sources

Information required to meet the research objectives and to answer the research questions has been obtained through both qualitative and quantitative research procedures based on the exploration of primary data sources. Table 1.1 presents an overview of the nature of the data sources and the different research designs used in the research areas for this doctoral study.

1.4.1. Qualitative study

In order to gain preliminary insight into Chinese consumers' perceptions towards European food versus their own traditional food, qualitative data was collected by means of a web-based free word association test in June 2012. A valid sample of 302 participants was obtained. All participants were involved in cooking, food buying or food preparation at home. More details about this qualitative study will be presented in Section 2.2.

1.4.2. Quantitative study

Primary data used in Chapters 3–5 were collected through an online survey in December 2013 in two Chinese cities: Shanghai and Xi'an. These two cities were selected in order to enable the identification of similarities and differences in the consumer behaviour, perceptions and attitudes towards European food versus traditional Chinese food, between the Chinese regions with different local dietary customs, development levels and degrees of influence by foreign cultures. A total of 541 valid responses were obtained for this study, 259 from Shanghai and 282 from Xi'an. More details about the survey and the selection of the two cities will be presented in Section 3.2.

Table 1.1 Research design and data sources

	Data sources	**Research design**		***Subject***
		Qualitative	***Quantitative***	
Chapter 2	Primary	Web-based free word association test (n=302)		Perceptions
Chapter 3			Online survey (n=541)	Image and product attribute beliefs
Chapter 4				Food choice motives
Chapter 5				Imported European beer

1.5. Thesis outline

This doctoral thesis consists of a compilation of papers that have been published or submitted as contributions to international peer-reviewed journals, spanning the scientific disciplines of agriculture, food marketing and consumer behaviour. The thesis comprises six chapters in total. Figure 1.5 shows the positioning of the different chapters relative to the conceptual framework.

Chapter 2 provides qualitative insights into Chinese consumers' perceived product attributes (perceptions) for European food versus their own traditional food (as general food types).

Primary data is obtained from a web-based free word association test in order to identify Chinese consumers' perceptions in relation to these two different food types.

Chapter 3 focuses on the general image of and product attribute beliefs about European food in China. It quantifies the qualitative findings about the perceptions of European food in Chapter 2 and another qualitative study in Appendix I. Primary data is obtained from an online survey. It investigates the most important product attribute beliefs driving the composition of the image of European food in Chinese consumers' minds. It also explores consumer segments based on the product attribute beliefs. Furthermore, it explores consumers' perceived character profiles of people who often consume European food in China. Moreover, it recognizes the differences and similarities between consumers from a developed and southern city - Shanghai and a developing and northern city - Xi'an, based on their general images and product attribute beliefs towards European food.

Chapter 4 explores the applicability of the original FCM construct, and the relationships between the FCMs and the attitudes and purchase intentions towards European food versus traditional Chinese food for the mainland Chinese sample. Appropriate and relevant FCM dimensions are selected from the original FCM construct, based on the perceptions of traditional food and European food, associated by Chinese consumers in Chapter 2. A novel and more suitable FCM construct is identified for the mainland Chinese sample, characterized by six FCM dimensions. These dimensions are associated with the Chinese consumers' attitudes and purchase intentions towards traditional Chinese food versus European food using path analysis in order to identify the significant relationships. Furthermore, the study also examines the differences and similarities of the relationships between consumers from Shanghai and Xi'an.

Chapter 5 is a case study to explore the important product attributes, demographic, biological and geographic characteristics for the consumption of imported European beer in China. Thirteen product attributes that influence beer consumption are summarized based on a

literature review. Chinese consumers' consumption of imported European beer are linked to their perceived importance of beer product attributes, demographic, biological and geographic characteristics by Ordered Logistic Regression Analysis in order to find the determinants for the European beer consumption in China. It also recognizes the countries associated with European beer by Chinese consumers. Additionally, the study examines the differences and similarities of the important product attributes for European beer consumption between sub-sample groups of cities, genders and country association groups.

Finally, Chapter 6 provides the general discussion and conclusions. The most important findings of this doctoral research are discussed, with the combination of conclusions, contribution, originality, implications and recommendations from different parts of the research.

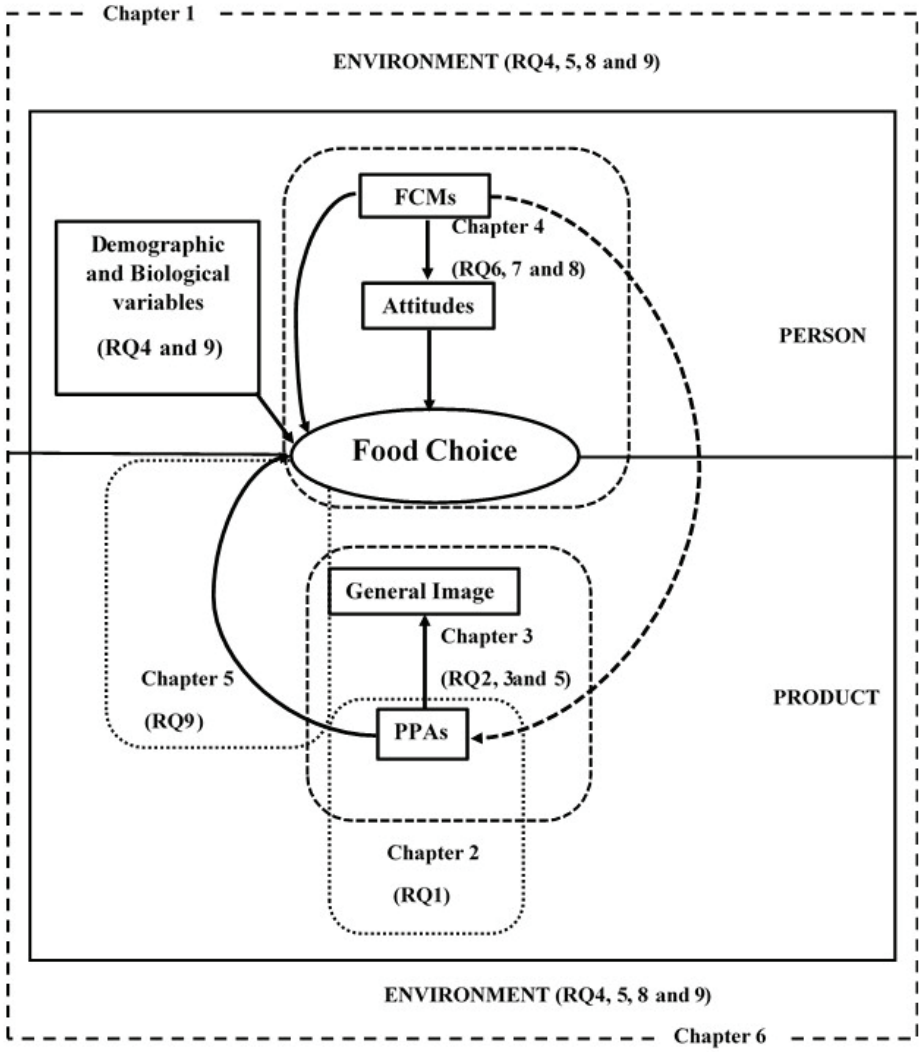

Figure 1.5 Thesis structure related to the conceptual framework

Chapter 2

Perceptions associated with traditional food and European food by Chinese consumers

This chapter is based on:

Wang, O., Gellynck, X., & Verbeke, W. Perceptions associated with traditional food and European food by Chinese consumers. Working paper Ghent University, Department of Agricultural Economics. Ghent: Ghent University.

Abstract

This Chapter explores Chinese consumers' perceptions in relation to both traditional and European food. A web-based free word association test was administered to 302 consumers in China. They were asked to give the first three words that came into their minds when they were presented with each of two stimulus words, 'traditional food' and 'European food'. Three researchers grouped the elicited words into different classes and then into dimensions. Descriptive analysis was used to measure whether there were statistically significant differences in the frequencies of classes and dimensions for the two food concepts between each socio-demographic groups. The findings show that Chinese consumers define traditional food and European food through ten similar dimensions: *Sensory appeal*, *Health*, *Origin*, *Marketing*, *Safety*, *Variety*, *Heritage*, *Symbolic meaning*, *Simplicity* and *Mood*. Additionally, they associate traditional food with the dimensions *Elaboration*, *Celebration* and *Habit*, as well as linking European food to the dimensions *Convenience* and *New*. Although ten dimensions are the same, obvious differences can be identified by comparing the classes for the two food concepts. Further, there are significant differences in the class associations for European food between age groups and in the dimension associations between gender groups.

2.1. Introduction

The aim of this study is to identify Chinese consumers' perceptions in relation to traditional food and European food. The work will provide information on the meanings that foods from Eastern and Western dietary civilisations (Chinese traditional food and European food) hold in the minds of Chinese consumers. Similarities and differences can be identified by comparing the meanings of the two food types. With this in mind, the current qualitative study has been conducted to elicit the perceptions associated with traditional and European foods by Chinese consumers using a web-based free word association test.

2.2. Material and methods

2.2.1. Web-based free word association test

The word association test is a popular projective technique for quickly and simply evaluating consumers' concepts, beliefs or perceptions towards a product (Ares, Giménez, & Gámbaro, 2008; Donoghue, 2000; Guerrero et al., 2010). Researchers have started to conduct free word association tests online. For example, a web-based free word association test has been successfully carried out in a consumer research study about healthy eating, integrated within a web-based survey (Chrysochou, Askegaard, Grunert, & Kristensen, 2010). Online qualitative research tools have the advantage of being able to overcome geographic, demographic and temporal constraints, as well as saving the time and cost involved in data collection (Kohler, 2010; Shepherd, 2003). In our study, a web-based free word association test was conducted in June 2012. Participants were all aged over eighteen years and involved in cooking, food buying or food preparation at home.

The test included four web pages in Chinese. To help participants quickly understand the procedure, a guidance was provided on the first web page. Participants were told that two food names would be separately given on the following two web pages. They were asked to provide the first three words that came into their minds when they were presented with the stimulus word on each page. They were told to avoid brand names, particular foods or dishes,

illustrated by incorrect examples such as jiaozi, baozi, hamburger or pizza (Guerrero et al., 2010). Then, the two stimulus words, traditional food and European food, were separately presented on the second and third web pages to decrease response bias between the two food types by participants. Finally, the fourth web page probed participants' socio-demographics including their gender, age, and current residence.

2.2.2. Participants

The link for the word association test was randomly sent to members on the sample panel of a Chinese research agency, with strict confirmation for their socio-demographic characteristics (such as national ID card) and region distributions (through IP addresses). Respondents who provided special dish/food names or did not complete the test were deleted before further data analyses. Finally, a valid sample of 302 participants was obtained who carefully completed the word association test and followed the guidance on the first webpage, with an average completion time of 185.21 seconds. Table 2.1 shows the geographic and demographic characteristics of the respondents. Due to the online data collection approach, the sample was biased towards young people, with 62.58 of participants who were or younger than 30.

Based on the geographic distribution of the sample, participants were classified into two regional groups, the north and the south. Southern and northern regions of China have obvious differences in terms of cultural history, dietary habits and lifestyles (He, 2013; Sun, 2012). In addition, as 93.7% of participants were from urban areas, they were also divided into another two regional groups High income region and Non-high region, based on their local urban personal income, above and below 4727.38 U.S. dollars (based on the exchange rate on 21st October 2015: 1 U.S. dollar = 6.346 China's Yuan) in the whole year of 2012 (National Bureau of Statistics of the People's Republic of China, 2014). High-income regions have higher development levels in education, economy, health and environment, as well as more purchasing power and exposure to Western cultures and products than low-income regions in China (Liu et al., 2011; Sun & Collins, 2004).

Table 2.1 Socio-demographic details of the sample in the web-based word association test

		Total sample (n=302)
Gender		
	Male	40.4%
	Female	59.6%
Age		
	Range	18-55
	18-25	25.83 %
	26-30	36.75 %
	31-35	19.21 %
	36-40	11.59 %
	≥41	6.62 %
Settlement type		
	Urban	93.7%
	Rural	6.3%
Region division one		
	North	33.1%
	South	66.9 %
Region division two		
	High income	52.9%
	Non-high income	47.1%

2.2.3. Data processing and analysis

The Chinese words elicited were translated into English through a process of back-translation (Brislin, 1970). Double answers for one food type from the same participant were deleted before data analysis.

A grouping approach was employed to increase the reliability of this qualitative study (Guerrero et al., 2010; Roininen, Arvola, & Lähteenmäki, 2006; Rozin, Kurzer, & Cohen, 2002). Three researchers were selected to join in the grouping process. They were bilingual and familiar with Chinese dietary cultures. They received training to enable them to fully understand and master the grouping method. First, they independently performed the grouping work with naming classes and dimensions; thereafter a best version was determined through group discussion.

Data saturation is crucial to the quality of the information collected in a qualitative research, to confirm that no new information can be gained through newly sampled units (Morse, 1995; Sandelowski, 1995). The participants were classified into three subsample groups based on the time order in which they completed the word association test: the early group (n=100), the intermediate group (n=100) and the last group (n=102). We monitored the numbers of classes and dimensions that appeared in these three subsample groups. If new class and dimension for the two food concepts are not found in the sample units with later time orders (the intermediate or the last group in this study), our data will have reached theoretical saturation (Guest, Bunce, & Johnson, 2006; Sandelowski, 1995).

Chi-square test for the contingency table was employed to measure whether there were statistically significant differences in the frequency of elicited classes and dimensions for the two food concepts between each socio-demographic group (gender: male and female; age: ≤30 and >30; southern and northern regions; high and non-high income regions) (SPSS 22.0). Further, the relative frequency of elicited classes and dimensions for each socio-demographic group were calculated and imported into XLSTAT 2014 for simple correspondence analysis (CA), to identify the main differences in the class and dimension associations between the socio-demographic groups (e.g. only the statistically significant difference was shown in this study) (Greenacre & Blasius, 1994; Guerrero et al., 2010).

2.3. Results and discussion

2.3.1. Approach by grouping the elicited words into different classes

Among the 869 and 813 valid elicited words for the two stimulus words ‘traditional food’ and ‘European food’, respectively 322 (37%) and 283 (34.8%) words were different. The elicited words for traditional food were dominated by *Tasty* (n= 78), *Delicious* (n= 76), *Classic* (n=33) and *Healthy* (n=26) (Figure 2.1). For European food, the most frequently elicited words were *Expensive* (n= 49), *High calorie* (n=27), *Fashion* (n=26), *Tasty* (n=26), *Delicate appearance* (n=21), *Safe* (n=20) and *Import* (n=20) (Figure 2.2). These elicited words had frequencies equal to or higher than 20.

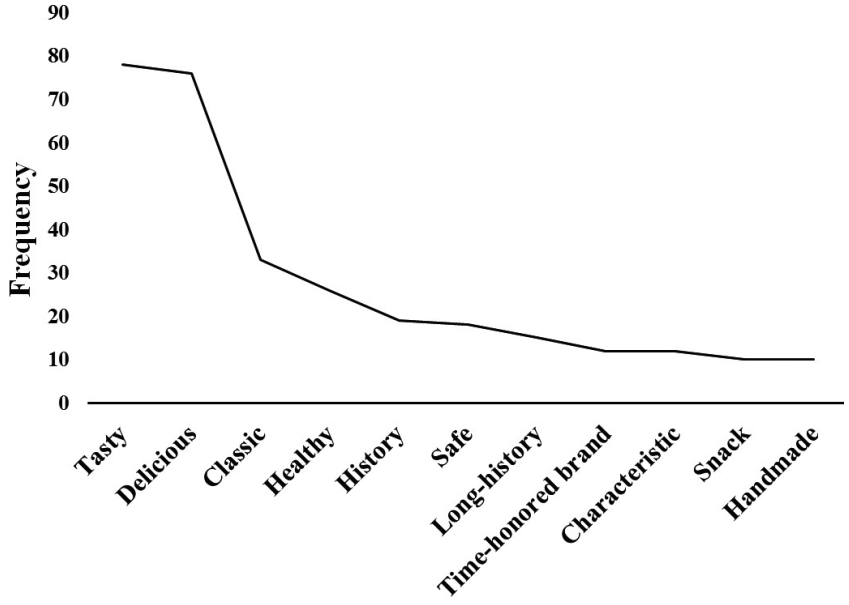

Figure 2.1 Most frequently elicited words in the web-based word association test using 'traditional food' as stimulus (n≥10 for 302 participants)

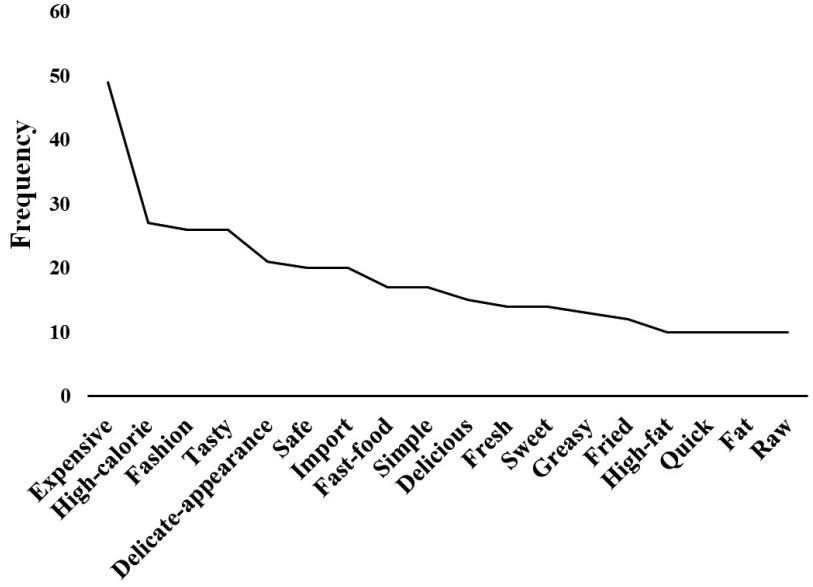

Figure 2.2 Most frequently elicited words in the web-based word association test using 'European food' as stimulus (n≥10 for 302 participants)

Table 2.2 shows the examples of elicited words grouped into classes. Most of the elicited words could be directly grouped based on their meanings (e.g. *Tasty*, *Delicious food* and *Good taste* were grouped into the class *Tasty* for traditional food). Furthermore, some words were grouped into different classes for traditional food and European food based on both their meanings and word frequencies. For example, the class *Sweet* (n=19) for European food included a high frequency word *Sweet* (n=14) and other elicited words with very similar meanings such as *Sweet food* and *Too sweet*. In comparison with European food, the word *Sweet* had a low frequency (n=7) for traditional food. There was no other elicited word with the meaning 'sweet'. Therefore, it was grouped into the class *Taste* for traditional food, together with other low frequency words which had the meanings for 'different tastes' such as *Spicy*, *Taste*, *Heavy taste* and *Sauce taste*. However, some elicited words were more difficult to group. They were finally grouped on the basis of some concepts of food consumer behaviour identified in previous publications. For example, the class *Mood* was identified for both traditional food and European food, incorporating similar words such as *Happy*, *Joyful*, *Like*…, relating to a Food Choice Motive-Mood (Steptoe et al., 1995). Taking another example, for European food, some words (e.g. *Strange*, *Unaccustomed*, *Unsuited*, *Weird*…) were grouped into the class Neophobia, according to the concept of Food Neophobia (Pliner & Hobden, 1992).

The elicited words were finally grouped into thirty-six classes for traditional food and thirty-five classes for European food, shown in Figure 2.3 and 2.4. Regarding traditional food, *Tasty* (n=148) was the most frequent class, with a frequency much higher than other classes (e.g. the secondly frequent class *Local-characteristics* only had a frequency of 44). According to European food, *Expensive* (n=59) was the most frequent class. While the frequency gap between the firstly and secondly (*Safe*, n=46) frequent classes for European food was not such big as that for traditional food.

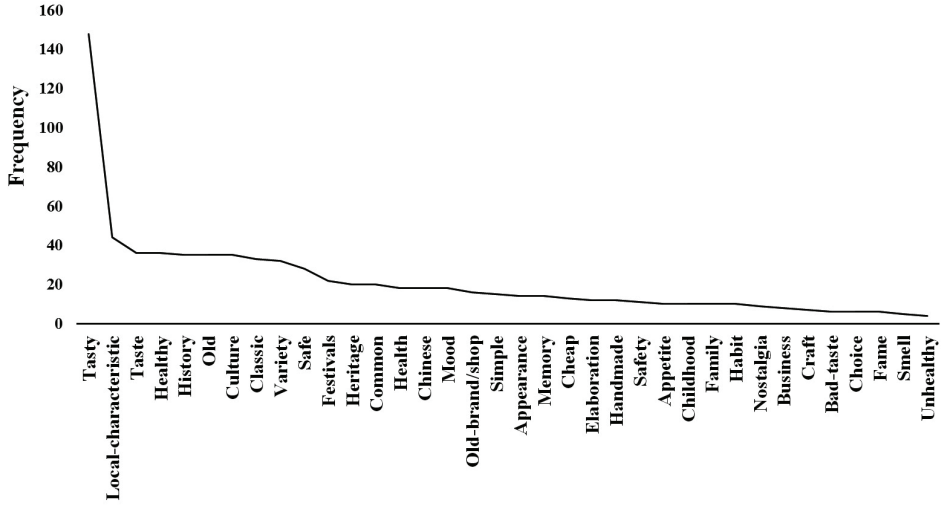

Figure 2.3 Frequency of elicited classes in the web-based word association test using 'traditional food' as stimulus

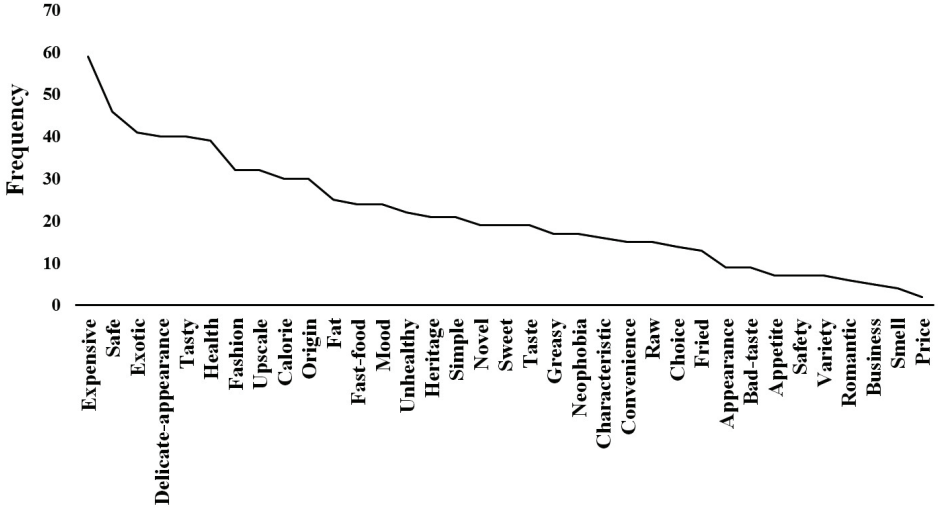

Figure 2.4 Frequency of elicited classes in the web-based free word association test using 'European food' as stimulus

Table 2.2 Examples of elicited words grouped in the same classes in the web-based word association test using 'traditional food' and 'European food' as stimulus by three researchers

Class	Words	
	Traditional food	European food
Tasty	Tasty, delicious, delicious-food, good-taste…	Tasty, delicious, delicious-food…
Taste	Sweet, spicy-and-hot, heavy-taste, sauce-taste…	Taste, special-flavour, rich-in-flavour, taste-of-milk…
Sweet		Sweet, sweet-food, too-sweet…
Variety	Variety, pickled, cooked-wheaten-food, snack…	Made-with-milk, grill, snacks…
Choice	Abundant, various, numerous…	Various, abundant, dull, similar…
Festivals	Spring festival, mid-autumn-festival…	
Heritage	Inheriting, heritage, spreading…	Knife-and-fork, royal food, have--a-long-history, well-known…
Culture	Culture, customs, chopsticks…	
Family	Reunion, family-love, family…	
Neophobia		Strange, unaccustomed, weird…
Mood	Like, good-feeling, happiness…	Enjoy, like, leisure, interesting…
Business	Brand, marketplace, expensive…	Brand, restaurant, brand-guarantee…
Expensive		Expensive, high-price…
Price		Price
Cheap	Cheap, affordable, economical…	
Local-characteristic	Local, Hunan cuisine, characteristic…	
Origin		UK, France, Italy…
Exotic		Import, imported-foods, foreigner…

Table 2.3 Chi-square test of frequency of elicited classes in the web-based word association test using 'traditional food' and 'European food' as stimulus

Socio-demographic group	Traditional food		European food	
	$\chi 2$	p	$\chi 2$	p
Gender	45.441	0.111	39.125	0.251
Age (≤30 and >30)	33.857	0.523	54.465	0.014
Southern and northern regions	38.644	0.308	25.648	0.848
High and non-high income regions	41.530	0.207	36.257	0.364

Figure 2.5 Main difference of elicited classes for the stimulus word 'European food' between age groups obtained by simple correspondence analysis
Note: Classes with squared cosines lower than 0.5 in both the first two dimensions are not shown; ≤30= younger than 30 and 30; >30= older than 30.

Regarding the three subsample groups based on the time order, the early group (n=100) included thirty-six classes for traditional food and thirty-four classes for European food; the intermediate group (n=100) included thirty-six and thirty-five classes for the two food concepts; and the last group (n=102) included thirty-four classes both for them. All classes appeared in the associations by the first 100 participants for traditional food and by the first 200 participants for European food. No new class can be found in newly sampled units (in the intermediate and the last groups for traditional food and in the last group for European food).

Therefore, our sample size supported data saturation for the class associations by the Chinese participants.

Chi-square tests for the contingency tables (e.g. thirty-six × two for traditional food and thirty-five ×two for European food) revealed a significant difference between age groups (≤30 and >30) for the class associations of European food (Table 2.3). No significant difference was found between the age groups for that of traditional food and between other socio-demographic groups for that of both traditional food and European food (Table 2.3).

Figure 2.5 demonstrates the main difference in the class associations for European food between the two age groups, based on the results of simple correspondence analysis. Participants who were 30 or younger than 30 were close to the classes *Fat*, *Raw* and *Upscale*. While participants older than 30 were inclined towards *Sweet*, *Business*, *Origin*, *Fashion*, *Appearance* and *Safety*. This is in line with the reality that young people are the main driving force behind foreign product consumption comparing to their old counterparts in China (Hung et al., 2007; Wang et al., 2013). Therefore, there is difference in the perception associations for European food between young and old people in China.

2.3.2. Approach by grouping the classes into different dimensions

The classes were further grouped into thirteen dimensions for traditional food and twelve dimensions for European food. Table 2.4 shows the dimensions and their classes for the two food types. Ten dimensions were elicited for both traditional food and European food: *Sensory appeal*, *Heritage*, *Origin*, *Symbolic meaning*, *Health*, *Variety*, *Safety*, *Marketing*, *Mood* and *Simplicity*. In addition to these, *Habit*, *Celebration* and *Elaboration* were also elicited for traditional food. *New* and *Convenience* were two other dimensions obtained for European food.

All dimensions appeared in the associations by the first 100 participants for both traditional food and European food. No new dimension can be found in newly sampled units (in the

intermediate and the last groups for both of the two food concepts). Therefore, our sample size supported data saturation for the dimension associations by the Chinese participants.

Figure 2.6 shows the frequencies of dimension associations for the two food conceptions. For both traditional food and European food, *Sensory appeal* is the most frequently occurring dimension identified by Chinese consumers. This corresponds with the dominance of sensory issues in food preference by the Chinese (Dang, 2010; Wan, 1995). In accordance with Chinese tradition, a good food needs to be excellent in terms of colour, aroma and taste (Wan, 1995). Within this dimension, Chinese consumers define these two food concepts by using some similar classeses such as *Tasty*, *Taste*, *Appearance* and *Smell*. However, European food is also linked to a *Delicate appearance,* as well to two specific tastes - *Sweet* and *Greasy*.

Heritage is a dimension with a high frequency in relation to traditional food, including several classes such as *History*, *Culture*, *Heritage*, *Old* and *Fame*. It is not a high frequency dimension for European food, with only one class identified - *Heritage*. In both Europe and China, traditional food is an important part of the cultural heritage (Cai & Situ, 2006; Cerjak et al., 2014; Guerrero et al., 2010; Guerrero et al., 2009; Vanhonacker et al., 2010a; Vanhonacker et al., 2010b; Zhang et al., 2009; Zhao, 2003). Compared to traditional food, European food or Western food is a totally new concept and belongs to another dietary civilisation from the viewpoint of Chinese consumers. They have less knowledge about Western dietary history, culture, heritage and customs. Chinese consumers, especially young consumers, view the consumption of Western foods as being fashionable (Curtis et al., 2007; Zhou & Hui, 2003). Therefore, it is reasonable that *Heritage* is an important dimension for the Chinese consumer to define traditional food; whereas it is not directly linked to European food by most Chinese consumers.

Origin is also a high frequency dimension for both food concepts. Origin is an important attribute for consumers to evaluate a regional product before buying it (Kelly, Heaton, & Hoogewerff, 2005; Van der Lans, Van Ittersum, De Cicco, & Loseby, 2001). 'Local',

'regional' or 'national' are sub-dimensions which reflect the origin attribute of a food product (Vanhonacker et al., 2010b). Our findings show that Chinese consumers define the origin attributes of traditional and European foods through all of the three sub-dimensions (e.g. The classes *Local characteristic* and *Characteristic* are in line with the classes 'local' and 'regional'; the classes *Chinese* and *Exotic* are related to the class 'national').

The *Marketing* dimension is present for both of the two food concepts, but differed in terms of interpretation. In relation to the class *Price*, traditional food is associated with *Cheap* (n=13). Conversely, European food is linked to *Expensive* (n=59). This reflects the fact that Western-style foods, or imported Western food products, have high prices, and are therefore considered to be upscale foods by Chinese consumers (Curtis et al., 2007; Zhou & Hui, 2003). This is obviously different from the range of economical traditional foods which the Chinese consume on a daily basis (Tan et al., 2009a; Zhao, 2003). Furthermore, *Old brand/shop* is another obvious *Marketing* 'sign' for traditional food. This is a reflection that Chinese consumers often gain experience of traditional foods from long established local food shops or brands. This relates to the viewpoint that Chinese 'old brands/shops' inherit traditional techniques, products or services, acquiring a well-deserved reputation and are widely recognised by Chinese communities (Wang, Fan, & Mei, 2009).

The dimension *Symbolic meaning* was also identified for both of the two food concepts. *Symbolic meaning* has been mentioned in some previous studies. This symbolic meaning relates to the added value formed in consumers' minds based on their early memories or impressions of certain special foods (Lupton, 1994; Vanhonacker et al., 2010a; Verbeke & Lopez, 2005). The dimension *Symbolic meaning* for traditional food includes the classes: *Memory*, *Childhood*, *Family* and *Nostalgia*. In China, family relationships are at the foundation of traditional culture and the origin of social relationships. The 'family' has also strongly influenced the development of Chinese diet culture (Zhuo, 1997). The *Symbolic meanings* of traditional food to Chinese consumers are closely linked to this 'family culture'. However, this dimension for European food incorporates different classes: *Romantic*, *Upscale*

and *Fashion*. The *Symbolic meaning*s of European food are related to the documented Chinese consumer behaviours towards Western products. The Chinese consider the consumption of western foods, or other products, as being fashionable, aesthetically pleasing and a sign of high social status (Curtis et al., 2007; Zhou & Hui, 2003).

In recent years, there has been an unusually high number of food safety incidents in China, leading to increased concern by consumers with regard to food safety (Liu et al., 2013; Liu et al., 2014; Ortega et al., 2011; Qiao et al., 2012). It is therefore logical that this study has identified the dimension of *Safety* for both traditional and European food. Chinese consumers have positive safety-perceptions towards both traditional food and European food, as *Safe* is the most frequent class for the *Safety* dimension of the two food concepts, and only two participants and no participant contributes negative elicited word to the *Safety* dimensions of traditional food and European food. Additionally, more Chinese participants have 'safe' impressions towards European food (n=48) than that for traditional Chinese food (n=28).

A dimension *Health* was identified for both of the two food concepts. Many Chinese participants have negative health-perceptions towards European food, as they contribute high frequent classes related to 'unhealthy' meanings *Unhealthy* (n=22), *Fat* (n=25) and *Calorie* (n=30). While only four participants associate traditional food with 'unhealthy'. This might be caused by the different dietary cultures and histories between China and Western countries. Under a long history of agricultural civilization, traditional Chinese foods are often plant-based; while Western countries inherit more meat or dairy-based traditional foods from a long history of nomadic civilization (Li, 2007).

Traditional and European foods are both associated with the dimension *Variety*. Local dietary cultures and flavour preferences are formed based on local geography, climate, ingredients and dietary resources. This leads to a wide variety of food products among different regions (Cheng, 1994). China as a whole has an outstanding global image for its dietary culture, and this vast diet-cultural system incorporates within it several local diet-cultural systems with

different dietary cultures, flavour preferences and food varieties (Zhao, 2003). Europe also owns a number of local food resources (Jordana, 2000). With regard to the dimension *Variety*, our findings show that European food has some specific expressions about its *Variety* in Chinese consumers' minds, such as *Fried* and *Raw*.

The dimension *Simplicity* has been identified for both traditional and European foods. The meaning of *Simplicity* for a food product is about its uncomplicated, basic, natural, pure and low processed character (Guerrero et al., 2009). In our study, *Simplicity* is not an obvious dimension for either of the two food concepts, and occurs with low frequency.

Traditional and European foods are both linked to the dimension *Mood*. *Mood* is related to people's emotional feelings towards food or eating (Steptoe et al., 1995). For the two food concepts, this dimension includes similar elicited words such as *Happy*, *Joyful* and *Enjoy*.

In addition to the ten dimensions, *Habit*, *Celebration* and *Elaboration* were also identified for traditional food. This is in line with the perceptions of traditional food by European consumers (Cerjak et al., 2014; Guerrero et al., 2010; Guerrero et al., 2009). Traditional food is considered to be elaborately handmade using traditional methods (*Elaboration*), accepted by the general population who habitually eat it (*Habit*) and linked with special occasions (*Celebration*) (Guerrero et al., 2009).

New and *Convenience* are two other dimensions identified for European food. The dimension *New* comprises two classes *Novel* and *Neophobia*. European food is a new thing for Chinese consumers in comparison with their own traditional food. Chinese consumers treat this 'new' attribute of European food in two opposing ways. Some of them consider it as a 'novel thing'. This can be a reason for them to try it. However, some others indicate that it is unfamiliar or they are unaccustomed to it. This is a reflection of food neophobia for European food among those consumers (Pliner & Hobden, 1992). Chinese consumers link European food to *Convenience*. This fits with the point of view that Western-style food is often considered as

being more convenient than conventional food in China (Curtis et al., 2007; Veeck & Veeck, 2000). Many Chinese participants consider European food as *Fast-food* (n=24).

In general, and by abstracting different cultural emphases within the interpretation, we can conclude that the perceptions with "dimension level" associated with traditional food by Chinese consumers bear strong similarities to the perceptions European consumers associate with traditional (European) food, as identified in previous publications (Cerjak et al., 2014; Guerrero et al., 2010; Guerrero et al., 2012; Guerrero et al., 2009; Pieniak et al., 2009; Vanhonacker et al., 2010b). This indicates that the perceptions for traditional food surpass cultural differences, even between the East and the West. Further, three new dimensions have been identified from the Chinese sample in the current study. These are: *Safety*, *Mood* and *Symbolic meaning*. Guerrero et al. (2010) pointed out that the translation and grouping results for the data of a word association test depended on the researchers who participate in the translation and grouping processes. The translation and grouping processes in this study were completed by Chinese researchers, who had different dietary culture background in comparison with that for European researchers (Chang et al., 2010; Sun & Collins, 2004; Wan, 1995; Zhang, Guo, Zhao, Sun, Zeng, Lu, & Ren, 2011). This might cause in the three new dimensions for traditional food, elicited from the current study. Additionally, until now, we have been unable to find any qualitative or quantitative study relating to Chinese consumers' perceptions towards the concept "European food". The dimensions and their classes for European food contain information which is closely aligned with documented Chinese consumers' impressions and the determinants for their preferences towards Western food (Chang et al., 2010; Curtis et al., 2007; Li et al., 2011). These commonalities suggest that Chinese consumers have a rather general image of food products from Western countries (within and outside Europe).

As shown in Table 2.5, using the Chi-Square tests (e.g. thirteen × two for traditional food and twelve ×two for European food), no statistically significant difference ($p>0.05$) was found for the dimension associations for the two food concepts between northern and southern regions,

between the high and non-high income regions, and between the two age groups. While a significant difference between gender groups was observed for traditional food. This is in line with the gender difference in the dimension associations for traditional food by European consumers in a previous study (Guerrero et al., 2010). Figure 2.7 demonstrates the difference in the perceptual dimension associations for traditional food between men and women, based on the results of simple correspondence analysis. Men were close to the dimensions *Health* and *Marketing*, whereas women were inclined towards *Simple*, *Origin* and *Celebration*. Gender difference is common in food consumer studies, especially in domains of attitudes, behaviour and health concern (Guerrero et al., 2010).

Table 2.4 Elicited classes grouped in the same dimensions in the web-based word association test using 'traditional food' and 'European food' as stimulus by three researchers

Dimension	Class	
	Traditional food	European food
Sensory appeal	Tasty, taste, appearance, smell, appetite and bad-taste	Bad-taste, smell, appetite, tasty, taste, sweet, greasy, appearance and delicate-appearance
Heritage	History, old, classic, culture, heritage and fame	Heritage
Origin	Local-characteristic and Chinese	Origin, characteristic and exotic
Symbolic meaning	Memory, childhood, family and nostalgia	Romantic, upscale and fashion
Health	Healthy, health and unhealthy	Health, unhealthy, fat and calorie
Variety	Variety and choice	Fried, raw, choice and variety
Safety	Safe and safety	Safe and safety
Marketing	Business, old-brand/shop and cheap	Expensive, business and price
Mood	Mood	Mood
Simplicity	Simple	Simple
Habit	Common and habit	
Celebration	Festivals	
Elaboration	Elaboration, handmade and craft	
New		Neophobia and novel
Convenience		Convenience and fast-food

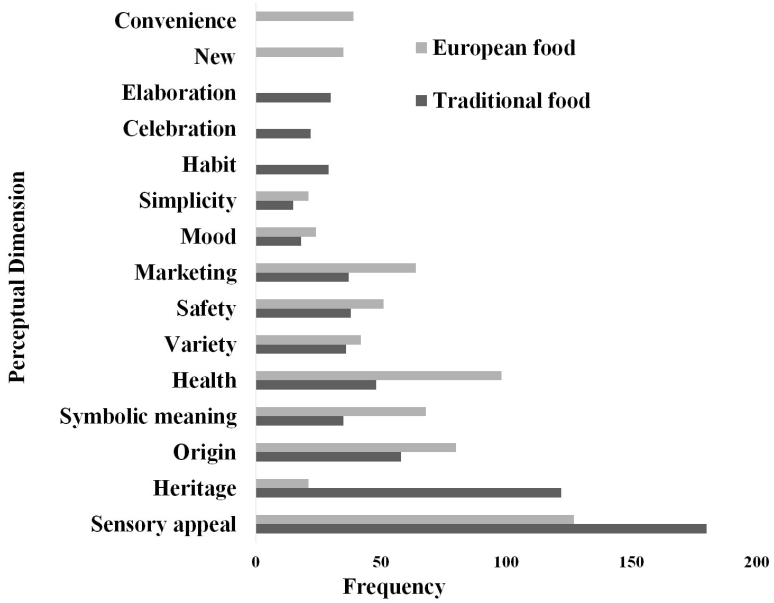

Figure 2.6 Frequency of elicited dimensions in the web-based word association test using 'traditional food' and 'European food' as stimulus

Table 2.5 Chi-square test of frequency of elicited dimensions in the web-based word association test using 'traditional food' and 'European food' as stimulus

Socio-demographic group	Traditional food		European food	
	$\chi 2$	p	$\chi 2$	p
Gender	29.543	0.003	12.195	0.349
Age (≤30 and >30)	11.795	0.462	17.650	0.090
Southern and northern regions	10.975	0.531	9.047	0.618
High and non-high income regions	10.543	0.568	8.790	0.641

2.4. Conclusions

By a grouping approach with three researchers and a sample size that achieves data saturation, this qualitative study has identified Chinese consumers' perceptions for traditional and European food with a high level of reliability and high quality in terms of the information collected. In summary, Chinese consumers have clear perceptions of the two food types, with thirteen dimensions for traditional food and twelve dimensions for European food. Although

ten dimensions are the same, obvious differences can be identified by comparing the classes for the two food concepts (e.g. Chinese consumers' health-perceptions of traditional food are more positive than that of European food; on the contrary, their safety-perceptions of European food are more positive than that of traditional food). In any case, the empirical findings provide valuable insight towards the lack of understanding of the two food types in Chinese consumers' minds.

Given the qualitative nature of this study, our sample does not fully represent the demographic characteristics of China. Future research should focus on quantifying the qualitative results of this study based on Chinese consumers' geographic and demographic characteristics. Furthermore, our test design using two stimulus words may have an order bias, in that the first stimulus word may have an impact on the elicited words from the second stimulus word.

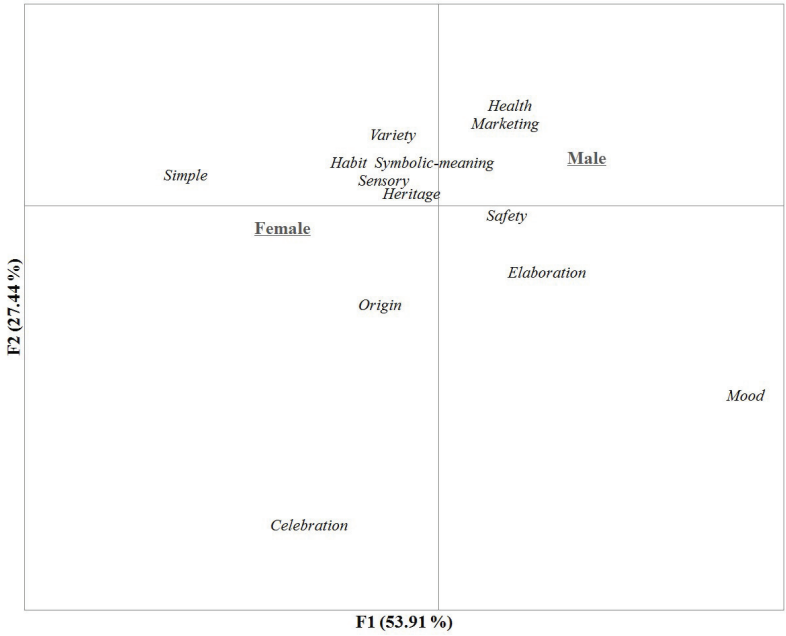

Figure 2.7 Main difference of elicited dimensions for the stimulus word 'traditional food' between gender groups obtained by simple correspondence analysis

Chapter 3

General image of and beliefs about European food in two Chinese cities: Shanghai and Xi'an

This chapter is based on:

Wang, O., Gellynck, X., & Verbeke, W. (2015). General image of and beliefs about European food in two mainland Chinese cities: Shanghai and Xi'an. *British Food Journal*, 117(5), 1581-1595.

Abstract

The purpose of this Chapter is to provide a picture of the current image and consumer beliefs of European food in Chinese consumers' minds. A web-based survey was conducted for data collection in December 2013 with 541 participants from two Chinese cities: Shanghai and Xi'an. The participants reported about the image of European food and characterized European food according to 14 items for product-related beliefs and 18 items for perceived character profiles. Descriptive Analysis, cluster analysis and Partial Least Squares Regression (PLSR) were employed for data analyses. Findings show that European food has a clearly positive image among Chinese consumers. Three consumer segments were distinguished based on attribute beliefs about European food: a positive-beliefs segment, a slightly-positive-beliefs segment and a negative-beliefs segment. The characteristics of typical European food consumers were high income, having rich overseas experiences or living in a big and developed city. In addition, *Safe* and *Upscale* were the most important attribute beliefs driving Chinese consumers to have a positive image of European food; while *Unfamiliar* and *Sweet* were the most negative drivers of European food's image. These insights can help European food marketers to better understand Chinese consumers and the current image of their products in China so that they can develop effective marketing strategies for this huge and potential food market.

3.1. Introduction

The rise of Chinese food markets will provide an unlimited 'new world' for European local food producers to expand the market share of their products. A need exists for European local food producers and marketers to comprehensively understand Chinese consumers. It is necessary to gain knowledge in terms of the general image of and beliefs about European food by Chinese consumers, because consumers' general image and beliefs towards a product have a strong influence on their purchase and consumption behaviours (Almli et al., 2011; Hawkins & Mothersbaugh, 2009; Mitchell & Olson, 1981). Knowledge about these issues is the basis for marketers to develop appropriate marketing and communication strategies for their products (Hawkins & Mothersbaugh, 2009).

This study aims at providing comprehensive knowledge about Chinese consumers' general image of and beliefs towards European food. According to the beliefs, two dimensions are explored in this study. The first dimension is related to product beliefs, which refer to what Chinese consumers believe a European food is. The second dimension relates to the perceived character profiles of people who often consume European food in China (consumer beliefs) (Almli et al., 2011; Vanhonacker et al., 2010a; Vanhonacker et al., 2010b). Furthermore, association between the general image of European food and the product beliefs is also examined to identify the most important product beliefs driving the composition of the image of European food in Chinese consumers' minds. In addition, consumer segments are recognized by cluster analysis based on the product attribute beliefs.

To achieve the objectives of this study, a web-based questionnaire was designed and distributed for data collection in two Chinese cities: Shanghai and Xi'an. Descriptive analysis, cluster analysis and Partial Least Squares Regression (PLSR) were used.

3.2. Materials and methods

3.2.1. Participants and procedures

Quantitative data were collected during December 2013 through an online consumer survey. A mainland Chinese research agency was hired for the fieldwork data collection. Two cities, Shanghai and Xi'an, were selected for data collection in order to allow recognizing the similarities and differences of consumers' product beliefs, perceived character profiles and general image of European food, between Chinese regions with different local dietary customs, development levels and degrees of influence by foreign cultures. Shanghai is an international metropolis and one of the China's first tier cities with the greatest exposure to Western cultures and products like imported beers, and has the highest level of development and personal income compared to other Chinese cities (Liu et al., 2011; National Bureau of Statistics of the People's Republic of China, 2014; Zhao, 2003). Conversely, Xi'an is a second-tier, traditional and historic city, which is less developed and has much lower levels of personal income with less exposure to Western cultures and products (Liu et al., 2011; National Bureau of Statistics of the People's Republic of China, 2014; Zhao, 2003). Additionally, Shanghai belongs to southern China and the diet-cultural circle of Yangtze river downstream region, with a local dietary habit of rice-based staple food and a variety of aquatic-product-based and light-tasty dishes (He, 2013; Sun & Collins, 2004; Sun, 2012; Zhao, 1995; Zhao, 2003). While Xian belongs to northern China and the diet-cultural circle of Yellow river midstream region, with a local dietary habit of pasta-based staple food and a variety of livestock-product-based and 'hot and sour'-tasty dishes (He, 2013; Sun & Collins, 2004; Sun, 2012; Zhao, 1995; Zhao, 2003).

Participants were asked to complete a web-based questionnaire. They were members of a consumer panel of the mainland Chinese research agency, with strict confirmation for their socio-demographic characteristics, such as national ID card and IP address. An online questionnaire was sent to participants with limits on gender, age and city distributions. Respondents whose IP addresses did not belong to the two cities were removed by the system

of questionnaire distribution automatically. Further, the system could identify if participants carefully completed the questionnaire through completion time and trap questions (e.g. same question with different expressions of question stem and orders of answer categories). Respondents who had very short completion time or who made random answers for the trap questions were also removed automatically. Only those participants, who had carefully completed the questionnaire, were kept by the online system and received a monetary incentive from it. Finally, a total of 541 valid response were obtained for this study, 259 from Shanghai and 282 from Xi'an. Table 3.1 presents the detailed socio-demographic characteristics of the total sample and the regional subsamples, including age, gender, single status, city, occupation, education and financial situation of household. Based on previous studies (Almli et al., 2011; Pieniak et al., 2009; Vanhonacker et al., 2010a; Vanhonacker et al., 2010b), the financial situation of households was subjectively assessed by the study participants on a 7-point scale arranging from 'difficult' to 'well off'. Due to the online data collection approach, the sample was biased towards highly educated people, with 80.6% of respondents having bachelor or above degrees.

This study also assessed participants' overseas experiences in terms of region and duration levels (Table 3.1). Information about the duration of their overseas experience was gathered through an 8-point scale ranging from 'never' to 'longer than five years'. Information about the region where overseas experience was gained was gathered by using a multiple choice question with options of six continents: Asia (outside China), Europe, Northern and Southern America, Oceania and Africa. Generally speaking, participants from Shanghai were more overseas experienced than their counterparts from Xi'an, with a lower percentage of people who had never gone abroad before, and a higher share of people having overseas experience of long-term and a wide-range of foreign regions. This matches with the level of development and income of the two cities included in the study.

Table 3.1 Socio-demographic details and overseas experiences of the sample in the quantitative survey

		Total sample	Shanghai	Xi'an
Sample size (N)		541	259	282
Gender (%)				
	Male	42.7	38.6	46.5
	Female	57.3	61.4	53.5
Single status (%)				
	Yes	29.6	23.9	34.8
	No	70.4	76.1	65.2
Age				
	Mean	35.63	37.16	34.23
	SD	9.12	8.68	9.31
	Range (years)	19- 68	19- 59	19-68
	19- 30 (%)	32.2	24.3	39.4
	31-40 (%)	31.2	34.4	28.3
	> 40 (%)	36.6	41.3	32.3
Financial Situation (%)				
	Difficult- Moderate	10.4	5.4	14.9
	Moderate	24	20.1	27.7
	Moderate-Well off	65.6	74.5	57.4
Education (%)				
	Junior college and below	19.4	20.5	18.4
	Bachelor degree	61.6	61.4	61.7
	Master degree and above	19	18.1	19.9
Occupation (%)				
	Managing employee	31.8	36.7	27.3
	Salaried employee	34.6	44.0	25.9
	Student	17.7	5.4	29.1
	Worker (skilled and unskilled)	6.5	7.3	5.7
	Others (Self-employed, unemployed, retired, housewife/man and others)	9.4	6.6	12.1
Experience aboard (%)				
	Never	43.8	31.3	55.3
Duration				
	Less than one week	12.8	13.9	11.7
	One week to one month	24.8	30.1	19.9
	More than one month	18.6	24.7	13.1
Region (multiple choice)				
	Asia (outside China)	54.2	65.3	44
	Europe	27.9	35.9	20.6
	Other regions	22	29.3	15.3

3.2.2. Questionnaire content and pretest

Participants to this study were probed about their attribute beliefs towards and general image of European food. Before answering questions about European food, participants were presented the following definition of European food: "local food imported from Europe or food with a European style or flavour available for in-or-out home consumption in China".

The questionnaire was translated from English into Chinese. Two rounds of pretests were performed. Eight and ten Chinese participants joined in the online pretests in round one and two, respectively. Based on their responses, the arrangements and the Chinese expressions of questions on the questionnaire were modified.

3.2.3. Measures

The selection of product attribute beliefs for European food by Chinese consumers was mainly based on the findings of the qualitative study in Chapter 2. To deal with the age bias towards young people of the sample in Chapter 2, another qualitative study was conducted to elicit the perceptions of European food associated by Chinese consumers who were older than 40 using an online asynchronous discussion group in June 2012 (see Appendix I). Based on the insights from these two qualitative studies, 14 items (shown in Table 3.2) were selected to examine participants' product attribute beliefs about European food in a quantitative way in the present study. Participants were asked to indicate their degree of agreement t with each of the statements presented in Table 2 on a 7-point Likert agreement scale, with response categories: 1= disagree strongly, 2= disagree moderately, 3= disagree slightly, 4= neither agree nor disagree, 5= agree slightly, 6= agree moderately, and 7= agree strongly.

Participants' general image towards European food was measured by the question: "When you think about the image you have of European food in general, how would you describe your personal feelings about it?" The answer categories were presented on a 7-point interval scale: 1= very negative, 2= moderately negative moderately, 3= slightly negative, 4= neither negative nor positive, 5= slightly positive, 6= moderately positive, and 7= very positive. This

design was adopted from the study by Almli et al. (2011), who examined the general image of traditional food in European consumers' minds.

Table 3.2 Attribute beliefs about European food

Attribute belief	Measurement Item
Expensive	European foods are expensive.
Delicate appearance	European foods have delicate appearances.
Safe	The safety of European food is trustworthy.
Sweet	European foods are too sweet.
Wide assortment	There is a wide assortment of European foods.
Romantic	When eating or thinking about European foods, it brings you romantic feeling.
Convenience	It is convenient to prepare or eat European foods.
Simple preparation	It is simple to cook or prepare European foods.
Tasty	European foods are tasty.
Fashionable	Eating European food is fashionable.
European heritage	European food is cultural heritage of Europe.
Upscale	European food is upscale.
Healthy	Eating European foods is good for health.
Unfamiliar	European food is unfamiliar.

Table 3.3 Character profiling variables

People who have stayed in overseas for a long time	Housewives/Housemen
People who have experience going abroad	Females
People who visited Europe	Males
Families with high income	Old people
Families with middle income	Middle aged people
Families with low income	Young people
Couples	People living in big city
Single people	People living in small city
Busy people (occupied)	People living in rural area

To assess participants' perceived character profiles about European food, 18 character profiling variables were included in the study, as shown in Table 3.3. Participants were asked to indicate to what extent they thought the typical user (or non-user) of European food in China would possess these characteristics A seven-point scale with response categories from 7= "typical to a user of European food" to 1= "typical to a non-user of European food". The design was inspired by a study by Vanhonacker et al. (2010a), who measured the projected image of a (non-)traditional food consumer in European consumers' minds.

3.2.4. Data analysis

Data analyses were performed using the statistical software tools SPSS 22.0 and Unscrambler X 10.3. First, the perceived character profiles of typical user (or non-user) of European food was analyzed by descriptive analysis (SPSS 22) using the mean values of the character profiling variables (Table 3.3), both for the total sample and the subsamples of the two cities. Second, in a similar vein, descriptive analyses were conducted for the data of participants' general image and product attribute beliefs of European food. Percentages of participants' scores on the general image scales were also calculated for the total sample and the subsamples of the two cities as a part of descriptive analyses. Cross-tabulation with $\chi 2$ tests and Independent Samples T-test (confidence interval = 95%) (SPSS 22) were conducted to recognize significant differences of the attribute belief and general image scores across the city sub-samples. Third, cluster analysis (SPSS 22) was conducted using the product attribute beliefs (Table 3.2) as segmentation variables. It followed a two-step design: hierarchical clustering with Ward's method and squared Euclidean distance was performed, followed by a K-means cluster analysis with the initial cluster centers from the first step (Milošević et al., 2012; Vanhonacker et al., 2010b). Cross-tabulation with $\chi 2$ tests were applied to recognize significant differences across segments, based on socio-demographic variables and variables of overseas experience. Fourth, partial least squares regression (PLSR) (Unscrambler X 10.3) was employed to associate participants' product attribute beliefs of European food with their general image of European food (Almli et al., 2011). Three models were built for the total sample and the subsamples of the two cities, with the full cross validation and the Jack-knife uncertainty testing of 95% confidence interval (Almli et al., 2011; Thybo, Kühn, & Martens, 2004; Vanhonacker et al., 2010a).

3.3. Results and discussion

3.3.1. Perceived character profiles of European food (non-)users

Figure 3.1 shows the participants' perceived character profiles of typical users (or non-users) of European food in China both for the total sample and the subsamples of the two cities. Generally speaking, the three analyses result in very similar mean values. The perceived character profile of typical users of European food is most strongly linked to 'people who have stayed overseas for a long time' (mean values exceeded 6 for all of the three samples). It is also strongly associated with 'people who have experience going abroad', 'families with high income', 'people who visited Europe', 'young people' and 'people living in big city'(values above 5.5). Only a slight difference is found in the mean values between 'couples' and 'single people' (around 5) as well as between 'females' and 'males' (around 4.5). Participants also associate 'busy people (occupied)' and 'families with middle income' with the typical user of European food (values between 4 and 4.9).

The perceived character profile of non-users of European food is most strongly linked to 'people living in rural areas', 'family with low income' and 'old people' (values below 3). Meanwhile, 'middle aged people', 'people living in a small city' and 'housewife/houseman' are also linked to non-users of European food (values below 4).

In sum, the perceived character profiles of typical users of European food are: having overseas experiences, having high income, young or living in a big city. This is in line with the finding by Verbeke and Lopez (2005) that ethnic food consumption is influenced by consumers' overseas experiences. Furthermore, the perceived character profile is similar with the profile of Western-style food consumers in China as identified by Curtis et al. (2007) and Zhang, Dagevos, He, Van Der Lans, and Zhai (2008): high income, residence in large cities or young adults. Moreover, there are large gaps of development and average income levels between rural and urban areas as well as between big and small cities in China. The finding fits with the social reality that Chinese consumers living in large cities have more

opportunities of exposure to foreign cultures than their counterparts in small cities or rural areas (Liu et al., 2011; Sicular, Ximing, Gustafsson, & Shi, 2007; Wang & Shi, 2011).

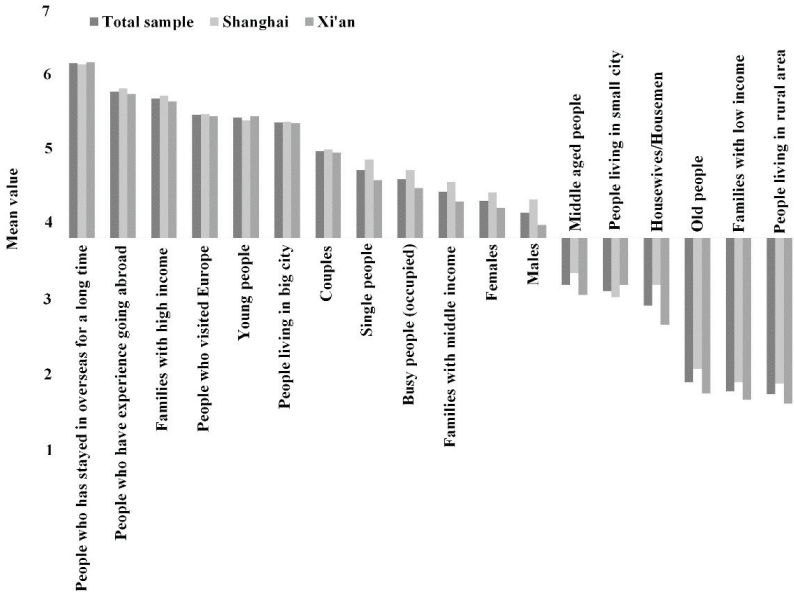

Figure 3.1 Perceived character profiles of typical user (or non-user) of European food in China by participants (mean values, both for the total sample and the subsamples of the two cities)

Note: The X-axis is located at the scale's midpoint in order to recognize the differences between segment profiling variables perceived as belonging to typical users of European food (mean value> 4) and non-users of European food (mean value< 4).

3.3.2. General image of European food

Figure 3.2 shows a clearly positive image of European food among Chinese consumers. Most of the participants (80%) have chosen the positive response categories from 'slightly positive' to 'very positive'. None of the participants have chosen the response category 'very negative'. Cross-tabulation with $\chi 2$ test reveals a significant difference between the two city sub-samples ($\chi 2$= 34.58, p=0.000<0.0001). Participants were more likely to report a positive image of European food in Shanghai (85.3%) than in Xi'an (75.2%). This finding fits with the perceived character profiles of typical users of European food, namely 'people living in big

cities', as Shanghai is a city bigger and much more developed than Xi'an.

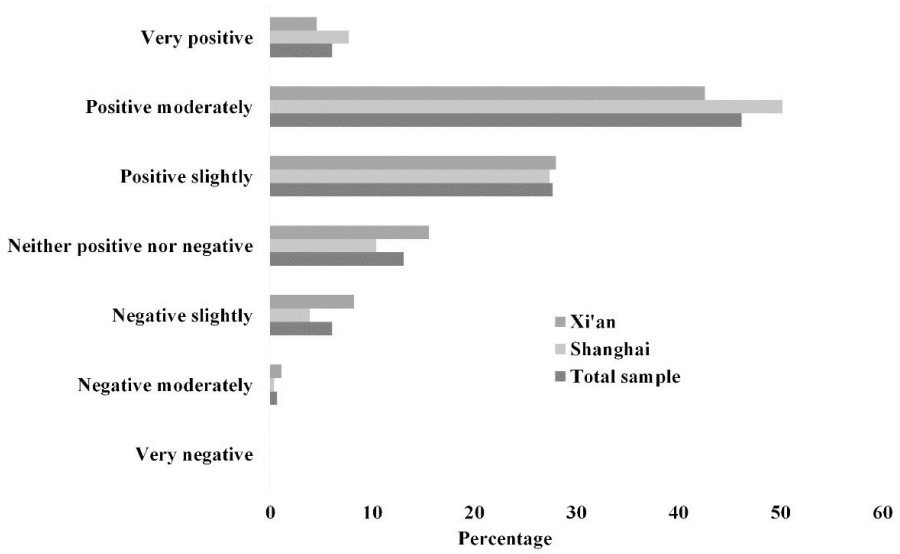

Figure 3.2 Percentages of the frequencies of participants' scores on general image scales for the total sample and the subsamples of the two cities

3.3.3. Attribute beliefs about European food

The mean values of attribute belief items for European food range from 4.58 to 5.70 for the total sample, from 5.84 to 4.44 for Shanghai and from 5.56 to 4.49 for Xi'an (Figure 3.3). A Cronbach's α of 0.83 reveals a good internal reliability of the 14 items included in the study. The highest mean values are found for *Expensive* and *Delicate-appearance*; while *Healthy* and *Unfamiliar* have lowest mean values in the total sample. Independent Samples T-tests reveal significant differences between the two cities for attribute beliefs *Expensive*, *Safe*, *Sweet*, *Wide assortment*, *Tasty*, *Fashionable*, *Upscale*, *Healthy* and *Unfamiliar*, while no significant differences have been found for *Delicate-appearance*, *Romantic*, *Convenience*, *Simple preparation* and *European heritage*. It shows that consumers are more likely to consider European food as being expensive, safe, with a wide assortment, tasty, fashionable, upscale and healthy in Shanghai than that in Xi'an. Meanwhile Xi'an's consumers are more likely to define European food as being sweet and unfamiliar comparing to their counterparts

in Shanghai. This may be caused by that consumers in Shanghai have more opportunities of exposure to European food products so that they can define it more comprehensively than consumers in Xi'an. While consumers in Xi'an have less opportunities of exposure to European food products, so they are less familiar with it and have a monotonous impression for its taste- sweet comparing to consumers in Shanghai.

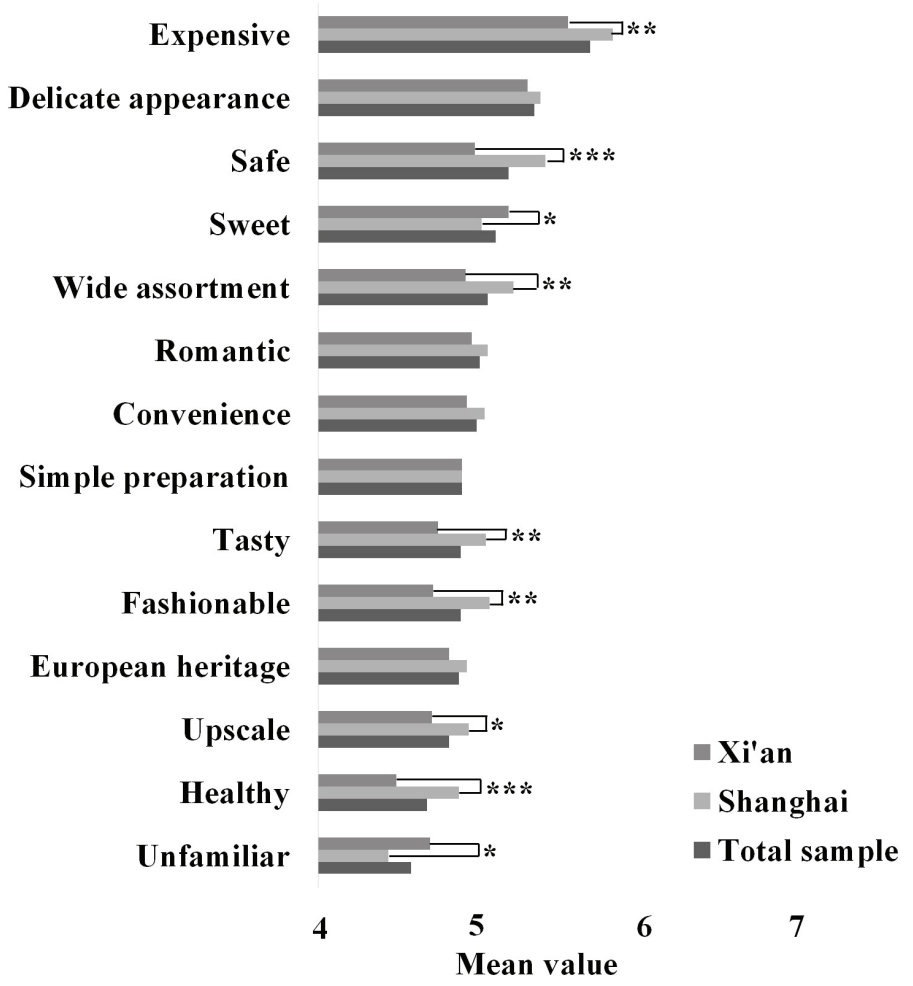

Figure 3.3 Mean values of attribute beliefs for the total sample and the city sub-samples
*Note: *** p<0.001; ** p<0.01; * p<0.05*

Table 3.4 Sizes and mean scores of consumer segments

	Segment 1	Segment 2	Segment 3	F	*p*-Value
Attribute beliefs	Positive	Slightly-positive	Negative		
Delicate appearance	6.04 a	5.43 b	4.46 c	128.078	0.000
Simple preparation	5.61 a	4.66 b	4.51 b	49.817	0.000
Tasty	5.86 a	4.83 b	3.94 c	213.446	0.000
Healthy	5.92 a	4.40 b	3.77 c	290.021	0.000
Fashionable	6.04 a	4.86 b	3.66 c	294.302	0.000
Expensive	6.08 a	5.76 b	5.15 c	35.134	0.000
Sweet	5.34 a	5.15 a	4.79 b	12.533	0.000
Safe	6.17 a	5.17 b	4.17 c	202.19	0.000
Romantic	5.78 a	5.17 b	3.87 c	171.061	0.000
Wide assortment	5.76 a	5.18 b	4.10 c	98.697	0.000
Convenience	5.62 a	4.83 b	4.55 c	51.637	0.000
European heritage	5.70 a	4.81 b	4.08 c	94.370	0.000
Unfamiliar	4.25 a	4.78 b	4.59 a b	6.858	0.001
Upscale	5.79 a	4.95 b	3.52 c	262.711	0.000
Segment size (% of sample)	29	44.6	26.4		

Note: a - c indicate significantly different means.

3.3.4. Consumer segments of European food

The cluster analysis resulted in a three-segment solution. Participants were clustered based on the 14 attribute belief items. Table 3.4 shows the size and mean score per segmentation variable for the total sample.

Segment 1 contains 29% of the sample. Its mean scores of 13 items (except *Unfamiliar*) are higher than those of the other two segments, especially for four items with at least one score point more: *Tasty*, *Healthy*, *Fashionable* and *Safe*. Therefore, participants of this segment have a good impression on the safety, health and taste of European food. They are more likely to consider 'consuming European food' as being *Fashionable*, *Romantic* and *Upscale*. Overall, participants in this segment have positive impressions towards European food. Therefore, segment 1 is labeled as 'positive-beliefs' as the members of this segment reported the most positive attribute beliefs about European food.

Segment 2 is the largest segment, accounting for 44.6% of the sample. The mean scores of 13 items (except *Unfamiliar*) for this segment are between those of the other two segments. All the mean scores situate in the range of the positive scale anchor (above 4). However, its mean scores of four items have at least one score point less than that in Segment 1: *Tasty*, *Healthy*, *Fashionable* and *Safe*. Its mean score of *Unfamiliar* is higher than that for segment 1. Therefore, segment 2 is named 'Slightly-positive-beliefs', as the members of this segment reported the attribute beliefs about European food which are less positive than that by members in segment 1.

Segment 3 includes 26.4% of the sample. By contrast with segment 1, its mean scores of 13 items (except *Unfamiliar*) are lower than that of the other segments, especially with five items having mean scores situated in the range of the negative scale anchor (below 4): *Tasty*, *Healthy*, *Fashionable*, *Romantic* and *Upscale*. As a result, segment 3 is named 'negative-beliefs' as the members of this segment reported mostly negative attribute beliefs about European food.

Regarding socio-demographic characteristics (Table 3.5), cross-tabulation with $\chi 2$ tests reveal significant differences across the three segments for city ($\chi 2= 11.5$, $p=0.03<0.05$), single status ($\chi 2= 14.7$, $p=0.001<0.05$) and financial situation ($\chi 2= 66.6$, $p<0.001$), while no significant differences have been found for gender and age ($p>0.05$). The participants in Shanghai, being non-single or having a household financial situation of 'moderate-well off' have the highest percentage in the positive-beliefs segment, and the least percentage in the negative-beliefs segment. By contrast, the participants in Xi'an, being single or having a household financial situation of 'difficult-moderate' have the highest percentage in the negative-belief segments, and the least percentage in the positive-beliefs segment.

Table 3.5 Socio-demographic characteristics and overseas experiences of consumer segments

	Segment 1	Segment 3	Segment 3
	Positive (%) (n=157)	Slightly-positive (%) (n=241)	Negative (%) (n=143)
City			
Shanghai	55.4	49.8	36.4
Xi'an	44.6	50.2	63.6
Gender			
Male	41.4	41.5	46.2
Female	58.6	58.5	53.8
Single status			
Yes	19.1	30.7	39.2
No	80.9	69.3	60.8
Age			
19-30	25.5	32.0	39.9
31-40	37.6	30.3	25.9
> 40	36.9	37.8	34.3
Financial Situation			
Difficult- Moderate	3.2	12.0	15.4
Moderate	14.6	25.3	32.2
Moderate-Well off	82.2	62.7	52.4
Experience aboard			
Never	26.1	42.3	65.7
Duration			
Less than one month	42.7	41.1	25.9
More than one month	31.2	16.6	8.4
Region (multiple choice)			
Asia (outside China)	68.8	55.6	35.7
Europe	49.7	23.2	11.9

Concerning overseas experience, cross-tabulation with $\chi 2$ tests indicate significant differences among the three cluster segments for all variables shown in Table 3.5: duration ($\chi 2= 68.5$, $p<0.001$); Asian ($\chi 2= 33.4$, $p<0.001$) and Europe ($\chi 2= 57.8$, $p<0.001$). The positive-beliefs segment is typified by the largest percentage of participants who have overseas experience of 'more than one month' and/or have visited Europe and Asia among the three segments. This segment contains also the smallest percentage of participants who have never gone abroad. Further, the negative-beliefs segment contains the largest percentage of participants with no overseas experience as well as the smallest percentage of participants who have overseas experiences for either duration or region. Obviously, these findings confirm the strong

influence of overseas experiences on Chinese consumers' product beliefs about European food. The positive product beliefs of European food are more likely to be made by those Chinese consumers who have rich overseas experiences.

The findings in this section are generally in line with the perceived character profiles of typical users of European food: having high income, living in a big city or having rich overseas experiences.

3.3.5. Association between general image and attribute beliefs

Three PLSR models were built to explore the relationships between the attribute belief items and the general image of European food, both for the total sample and the subsamples of the two cities. All results are shown for two PLSR components models. As shown in Table 3.6, the three models explain from 34% to 39% (cross-validations from 27% to 34%) of the variations for the general image of European food. The variances of the models are not high. This reveals that the associations between the general image and the product beliefs are very individual so that no common model will be suitable for all participants (Almli et al., 2011).

Table 3.6 presents the weighted (statistically significant) regression coefficients of the three models. Twelve product belief items are positively linked to the general image of European food except *Sweet* and *Unfamiliar*. The coefficient for *Safe* is higher than other items for the all three models. This indicates that *Safe* is the most important attribute belief linked to a positive image of European food by Chinese consumers. This fits with the severe food safety situation in China and consumers' related concerns (Liu et al., 2013, 2014). In recent years, a great number of food safety events suddenly emerged in China, leading to a ruined trust by Chinese consumers to domestic food industry (Zhou, Tian, Wang, Liu & Cao, 2012). By contrast, Western food products are often considered as having reliable guarantee of food safety by Chinese consumers. This is particularly the case in the past years as China has seen an huge demand of infant food formulas from Western countries after the San Lu milk scandal in 2008 (Zhou, 2012).

Unfamiliar correlates with negatively image of European food in all of the three models. Familiarity is an important motive for consumer's choices of food products in general (Steptoe et al., 1995) and for openness to using new or novel foods in particular (Verbeke, 2015). Chinese consumers' unfamiliarity with European food is a big obstacle for them to form a positive image and attitude.

Upscale, *Fashionable* and *Romantic* contribute positively to the image of European food in the models for the total sample and the subsamples of the two cities. The three items reflect the symbolic values of European food to Chinese consumers. Symbolic values are the extra values formed in consumers' minds based on their early memories or impressions towards a special food product such as ethnic or exotic foods (Lupton, 1994; Vanhonacker et al., 2010a; Verbeke & Lopez, 2005). The three symbolic values of European food are in line with the extra values of Western-style food products for Chinese consumers mentioned by some scholars: the consumption of Western food or other Western imported products is considered as being fashionable, a status symbol and an aesthetic and emotional pleasure by Chinese consumers (Curtis et al., 2007; Zhou & Hui, 2003).

Regarding sensory attribute beliefs, *Delicate appearance* (all the three models) and *Tasty* (the models for the total sample and the subsample of Xi'an) are positively associated to the general image of European food. While the *Sweet* taste is a negative driver for it (the models for the total sample and the subsample of Xi'an). The monotonous taste, sweetness in particular is another obstacle for Chinese consumers to have a positive image of European food.

Additionally, *European heritage* (all the three models) and *Healthy* (the models for the total sample and the subsample of Shanghai) positively influence the general image. *Simple preparation*, *Wide assortment* and *Convenience* are positively linked to the general image in only the model for the subsample of Shanghai. Only the item *Expensive* does not show a significant influence on the general image in each of the three models.

In general, the model for Shanghai shows more significant relationships (twelve) than that (eight) of Xi'an. This indicates a more complicated construct of attribute beliefs related to the general image of European food by consumers in Shanghai compared to Xi'an. The construct for consumers in Shanghai includes the attribute beliefs which can be obtained directly from consumption experiences such as cooking experiences (e.g. *Simple preparation* and *Convenience*) or eating experience (e.g. *Tasty*) (Oude Ophuis & Van Trijp, 1995). By contrast, the construct for consumers in Xi'an contains the product beliefs which can be gained without consumption experiences (e.g. *Symbolic values*, *European heritage*, *Safe*, *Unfamiliar* and *Delicate appearance*), and it also includes the attribute belief related to sweetness (Oude Ophuis & Van Trijp, 1995).

Table 3.6 Weighted regression coefficients and model explanations of PLSR for the three models

Attribute beliefs (X)	General image of European food (Y)		
	Total sample	Shanghai	Xi'an
Delicate appearance	0.096	0.081	0.091
Simple preparation	ns	0.028	ns
Tasty	0.084	0.092	ns
Healthy	0.077	0.089	ns
Fashionable	0.084	0.072	0.120
Expensive	ns	ns	ns
Sweet	-0.099	ns	-0.099
Safe	0.197	0.103	0.191
Romantic	ns	0.055	0.088
Wide assortment	ns	0.063	ns
Convenience	ns	0.031	ns
European heritage	0.066	0.051	0.099
Unfamiliar	-0.138	-0.044	-0.120
Upscale	0.134	0.094	0.132
Model explanation	36%	34%	39%
Cross-validation	34%	27%	34%

Note: ns= no significant; Y= dependent variable of PLSR; X= independent variable of PLSR.

3.4. Conclusions

The demand for imported food products is growing dramatically in China. This brings a great opportunity for European food marketers to exploit this huge and promising market so that they can expand their market share in an extremely competitive globalization era. This is the first study to present information about consumer beliefs, general image and consumer segments in relation to European food in China. European food has a strongly positive image among Chinese consumers. Furthermore, the characteristics of consumers of typical European food in China are high income, having at least some overseas experience, having visited Europe or living in a big and developed city. In addition, *Safe* and *Upscale* are the most important attribute beliefs driving Chinese consumers to have a positive image of European food; while *Unfamiliar* and *Sweet* are the most negative drivers of European food's image.

The findings can enlighten European food marketers to develop effective product positioning and marketing strategies in the Chinese food market. Efforts should be done to keep or strengthen the advantages of European food such as 'safety assurance', as well as to improve its disadvantages such as 'monotonous (sweet) taste' and 'unfamiliarity' to Chinese consumers. Such efforts will help more Chinese consumers to know what the real European food is, and to familiarize with it. This will become the solid basis for European food marketers to succeed with traditional European products in China.

This study focused on European food as a general type of food, without any specific food product at the forefront. Future studies could involve specific food products or product categories and assess Chinese consumers' attitudes, preferences and behaviours towards European food. Given the nature of our survey, i.e. the use of an online questionnaire, and the relatively small sample does not fully represent the demographic characteristics of China as well as the two cities involved. Besides, this study used single items to measure the attribute beliefs. This might result in measurement bias comparing to a construct with multiple measurement items.

Chapter 4

Motives for consumer choice of traditional food and European food in two Chinese cities: Shanghai and Xi'an

This chapter is based on:

Wang, O., De Steur, H., Gellynck, X., & Verbeke, W. (2015). Motives for consumer choice of traditional food and European food in mainland China. *Appetite*, 87, 143- 151.

Abstract

This Chapter examines the determinants of Chinese consumers' choice of traditional food and European food. A web-based survey was administered with 541 consumers from two cities: Shanghai and Xi'an. Thereby, the Food Choice Motives model, predominantly used thus far in a European or developed context, is applied to mainland China in order to address the lack of knowledge on food choice motives of its consumer market, and to detect associations between these motives and mainland Chinese consumers' attitudes, and purchase intentions towards European food versus traditional Chinese food. Factor analysis resulted in an adjusted Food Choice Motive construct that is considered more appropriate within the context of mainland Chinese consumers, encompassing six dimensions: *Health concern*, *Time or money saving*, *Sensory appeal*, *Availability and familiarity*, *Mood* and *Food safety concern*. Path analysis demonstrated that *Time or money saving* was negatively associated with attitude towards traditional food on the one hand and purchase intentions towards European food on the other hand. *Availability and familiarity* had a positive association with attitude towards traditional food. *Mood* was a positive factor driving attitude towards European food. For both food types, *Sensory appeal* and *Attitude* were positively linked to purchase intentions. Furthermore, *Mood* was negatively linked to the purchase intention towards traditional food in Shanghai. *Food safety concern* was positively associated with attitudes towards traditional food in Xi'an.

4.1. Introduction

The aim of this study is to examine the association between FCMs and Chinese consumers' attitudes and purchase intentions towards their own traditional food versus European food (as general food types). This allows for comparison of consumer behaviour and attitudes for the two distinct food types in China. Figure 4.1 shows a hypothetical model, developed based on the FCM model and theoretical models on food choice motives and consumer behaviour (attitudes, purchase intentions, consumption) (Ajzen, 1991; Chen, 2007; Pieniak et al., 2009; Zakowska-Biemans, 2011; Žeželj et al., 2012). FCMs are assumed to have a direct impact on consumer attitudes and purchase intentions (willingness to buy) of traditional food and European food. Meanwhile, FCMs are also expected to indirectly influence the purchase intentions through attitude. As previous studies have shown that the applicability of FCM constructs differs according to the cultural setting (Honkanen, 2010; Honkanen & Frewer, 2009; Milošević et al., 2012; Pula et al., 2014; Zakowska-Biemans, 2011; Žeželj et al., 2012), the current study assessed the generalizability of the original construct of FCMs (Steptoe et al., 1995) to a consumer sample obtained from mainland China.

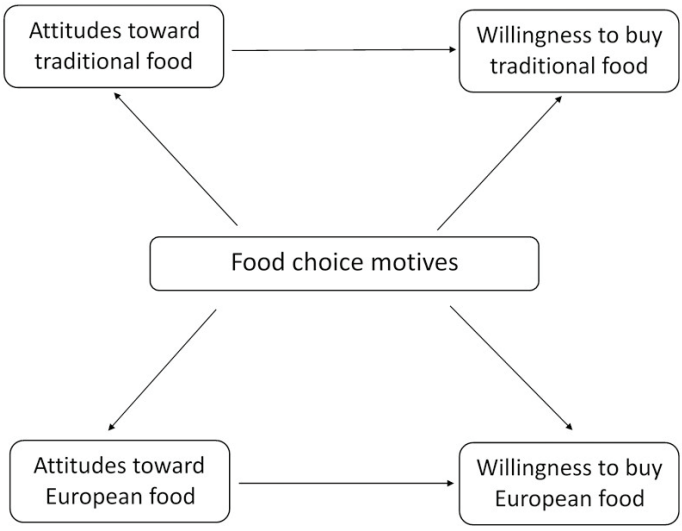

Figure 1. Hypothetical model associating FCMs with attitudes and purchase intentions towards traditional food and European food

4.2. Materials and methods

4.2.1. Participants and procedures

This part were presented in Section 3.2.1.

4.2.2. Measures

FCMs were based on the original FCQ (Steptoe et al., 1995), but not all original FCM items were considered in this study. We have followed the selection strategy of Pieniak et al. (2009), in which only the most appropriate and relevant FCM dimensions and items are included based on a prior qualitative study. Prior to this study, a word association test was conducted to explore Chinese consumer perceptions of traditional food and European food in 2012 (Wang, Gellynck, & Verbeke, 2014). In line with Hawkins and Mothersbaugh (2009), who pointed out that consumer perceptions of marketing stimuli of a product are influenced by motives, items and dimensions were selected based on the frequencies of the terms that participants associated with the stimulus words 'traditional food' and 'European food'. For example, because none of the participants related both stimulus words with ethical concern, political issues and environmental protection issues, the overall FCM dimension of *Ethical concern* and its underlying items were excluded in the present study. As a consequence, eight FCM dimensions from the original FCQ were included to examine participants' motives for food choices: *Sensory appeal*, *Convenience*, *Mood*, *Weight control*, *Natural content*, *Price*, *Health* and *Familiarity*. This results in a total of twenty-seven original FCM items (Table 4.1). Participants were asked to self-evaluate the importance of these items for their daily food choice ('*It is important to me that the food I eat on a typical day is/contains…'*), on a seven-point Likert scale: 1= disagree strongly, 2= disagree moderately, 3= disagree slightly, 4= neither agree nor disagree, 5= agree slightly, 6= agree moderately, and 7= agree strongly (Prescott et al., 2002).

Table 4.1 Selected FMC items and original dimensions

Code	Item and dimension
	Health
FCM1	Contains a lot of vitamins and minerals
FCM2	Keeps me healthy
FCM3	Is high in fiber or roughage
	Weight control
FCM4	Is low in fat
FCM5	Helps me control my weight
FCM6	Is low in calories
	Convenience
FCM7	Can be bought in shops close to where I live or work
FCM8	Is easily available in shops and supermarkets
FCM9	Takes no time to prepare
FCM10	Is easy to prepare
FCM11	Can be cooked very simply
	Sensory appeal
FCM12	Smells nice
FCM13	Tastes good
FCM14	Looks nice
FCM15	Has a pleasant texture
	Familiarity
FCM16	Is familiar
FCM17	Is what I usually eat
FCM18	Is like the food I ate when I was a child
	Mood
FCM19	Helps me cope with stress
FCM20	Cheers me up
FCM21	Helps me relax
	Natural content
FCM22	Contains natural ingredients
FCM23	Contains no artificial ingredients
FCM24	Contains no additives
	Price
FCM25	Is cheap
FCM26	Is not expensive
FCM27	Is good value for money

Participants' attitudes towards traditional food and European food were assessed by respectively three seven-point semantic differential scales using bipolar adjectives: unhappy/happy, dull/excited, and terrible/delighted (Table 4.2). This method had been employed in previous FCQ-based studies assessing consumers' general attitudes towards food products (Pieniak et al., 2009; Žeželj et al., 2012).

Items measuring purchase intentions (willingness to buy) were derived from a study by Klein, Ettenson, and Morris (1998), which examined Chinese consumers' purchase intentions (willingness to buy) towards Japanese products. Participants were asked to indicate their agreement with the statements: (1) '*I would never buy a [food category] (R).*' (2) '*Whenever available, I would prefer to buy [food category].*' and (3) '*Whenever possible, I would avoid buying [food category] (R).*' (Table 4.2). Each of these three statements were asked for traditional food and European food, and assessed on a seven-point interval scale with the same response categories as in the evaluation part of the FCMs. The two reverse-scored items were recoded before data analysis.

Table 4.2 Measurement items for attitudes and purchase intentions towards traditional food and European food

Code	Item and dimension
ATT	**Attitudes towards traditional food**
ATT1	unhappy/happy
ATT2	dull/excited
ATT3	terrible/delighted
ATE	**Attitudes towards European food**
ATE1	unhappy/happy
ATE2	dull/excited
ATE3	terrible/delighted
WTBT	**Willingness to buy (purchase intentions) traditional food**
WTBT1	I would never buy a traditional food (R).
WTBT2	Whenever available, I would prefer to buy traditional food.
WTBT3	Whenever possible, I avoid buying traditional food (R).
WTBE	**Willingness to buy (purchase intentions) European food**
WTBE1	I would never buy a European food (R).
WTBE2	Whenever available, I would prefer to buy European food.
WTBE3	Whenever possible, I avoid buying European food (R).

4.2.3. Data analysis

The statistical software tools SPSS 22 and AMOS 21 were used for performing all analyses in this research. With respect to the generalizability of the original construct of FCMs (i.e. the eight dimensions, as shown in Table 4.1) for the specific case of our Chinese sample, the analysis methods were similar as in the FCQ-based studies presented by Eertmans et al. (2006) and Milošević et al. (2012). First, confirmatory factor analysis (CFA) was used to examine

whether the original FCM construct has a good fit with the pooled sample and the samples of the two cities (AMOS 21); second, as the construct did not fit well with the samples, exploratory factor analysis was conducted to explore the appropriateness of the construct of FCMs for the specific Chinese sample. Principal component analysis (PCA) with varimax rotation was used (SPSS 22); third, mean values for consumers' self-reported FCMs (adjusted FCM dimensions) were calculated (SPSS 22).

Structural equation modeling (SEM) was used to assess the association between the FCM variables of the new FCM construct and the attitude and purchase intention variables related to traditional food and European food, based on two previous FCQ-based studies (Pieniak et al., 2009; Žeželj et al., 2012). Path analysis for the pooled sample and multi-group path analysis for the two city subsamples were conducted to detect significant relationships among the latent variables of FCM dimensions, attitudes and purchase intentions as well as to identify if the data of the two cities were suitable to analyze them together (AMOS 21) (Wu, 2009).

As Rigdon (1995) indicated that Chi-square may not be an appropriate measure of goodness-of-fit for a SEM, due to the complicated structure, large amount of variables or the use of data from the real world, and because Wu (2009) pointed out that Chi-square is not suitable to evaluate the goodness-of-fit of a SEM collecting data from questionnaire survey with a sample size above 200, we evaluated the goodness-of-fit by four other indices, considering the complexity of the SEM and the sample size in current study: (1) Root Mean Square Error of Approximation (RMSEA), the value of acceptable fit is below 0.08; (2) Comparative Fit Index (CFI), the value of acceptable fit is above 0.9 (with 'above 0.95' as ideal); (3) Incremental Fit Index (IFI), the value of acceptable fit is above 0.9; (4) Normed chi-square (NC = Chi-square / Degrees of freedom), the recommended value is between 1 and 3 (Hu & Bentler, 1999; McDonald & Ho, 2002; Pula et al., 2014; Wu, 2009).

4.3. Results

4.3.1. Confirmatory factor analysis

The 27 FCM items belong to eight dimensions of the original FCQ construct (Steptoe et al., 1995). In this study, CFA was used for the pooled sample and the samples of two cities to determine if the original FCM construct is apprpriate for our Chinese sample. As shown in Table 4.4, the goodness of fit is poor for either the pooled sample or the samples of two cities. The values of all indices were outside of what is acceptable. Values of RMSEA were above 0.08, CFI and IFI values were below 0.9, and NC values were above 3. Therefore, the original FCM construct is not suitable for our specific sample.

Besides, in a CFA, factor loadings (standardized regression weights of items) should be between 0.5 and 0.95 for items to actually reflect the theoretical latent construct they are designed to evaluate (Hair, Black, Babin, & Anderson, 2014; Wu, 2009). In our case, the item '*Is good value for money*' had very low factor loadings in either the pooled sample or samples of the two cities (pooled sample 0.362, Shanghai sample 0.387, Xi'an sample 0.335). The factor loadings of the other 26 items varied between 0.502 and 0.845 for the pooled sample, between 0.443 and 0.841 for the Shanghai sample and between 0.503 and 0.843 for the Xi'an sample (Table 4.3). The low factor loading of '*Is good value for money*' FCM in the dimension *Price* is in line with previous FCQ-based studies (Honkanen & Frewer, 2009; Januszewska et al., 2011; Milošević et al., 2012; Pieniak et al., 2009; Pohjanheimo et al., 2010; Roos et al., 2012). It seems that this item should not be considered as an appropriate survey question for examining the FCM dimension *Price*. Therefore, *Price* and *Value for money* were treated as two separate food choice motive dimensions in the study by Brunner, Van Der Horst, and Siegrist (2010). Kornelis, Herpen, Lans, and Aramyan (2010) also pointed out that the item '*Is good value for money*' did not contribute to the measurement of the price dimension, because of its focus on the price-quality assessment, as compared to the price assessment of two other items. As a consequence, we did not include this item in our statistical analyses.

Table 4.3 Factor loadings (standardized regression weights) for the CFA

Item and dimension	Factor loading		
	Total sample	Shanghai	Xi'an
Health			
Contains a lot of vitamins and minerals	0.799	0.774	0.810
Keeps me healthy	0.749	0.816	0.711
Is high in fiber or roughage	0.718	0.732	0.701
Weight control			
Is low in fat	0.799	0.778	0.799
Helps me control my weight	0.754	0.784	0.745
Is low in calories	0.773	0.848	0.717
Convenience			
Can be bought in shops close to where I live or work	0.502	0.474	0.508
Is easily available in shops and supermarkets	0.505	0.481	0.524
Takes no time to prepare	0.534	0.499	0.564
Is easy to prepare	0.726	0.766	0.711
Can be cooked very simply	0.725	0.749	0.698
Sensory appeal			
Smells nice	0.623	0.529	0.704
Tastes good	0.753	0.443	0.732
Looks nice	0.550	0.760	0.645
Has a pleasant texture	0.711	0.724	0.678
Familiarity			
Is familiar	0.614	0.680	0.565
Is what I usually eat	0.599	0.694	0.546
Is like the food I ate when I was a child	0.522	0.521	0.503
Mood			
Helps me cope with stress	0.650	0.626	0.656
Cheers me up	0.666	0.685	0.661
Helps me relax	0.797	0.737	0.834
Natural content			
Contains natural ingredients	0.650	0.774	0.609
Contains no artificial ingredients	0.740	0.679	0.741
Contains no additives	0.845	0.774	0.846
Price			
Is cheap	0.677	0.656	0.692
Is not expensive	0.840	0.841	0.843
Is good value for money	0.362	0.387	0.335

Table 4.4 Goodness-of-fit indices for the CFA

	Pooled sample	Shanghai	Xi'an
Chi-square	1442.138	940.833	910.213
DF	296	296	296
NC	4.872	3.178	3.075
CFI	0.815	0.792	0.808
RMSEA	0.085	0.092	0.086
IFI	0.816	0.796	0.811

Note: $p<0.001$ for the pooled sample and the samples of each city.

Table 4.5 Summary of the PCA, with rotated factor loadings (>0.50) of items and the Cronbach's α scores of dimensions

Code	Item and dimension	Rotated factor loading	Cronbach's α
HC	**Health concern**		0.894
FCM1	Contains a lot of vitamins and minerals	0.756	
FCM4	Is low in fat	0.754	
FCM5	Helps me control my weight	0.747	
FCM3	Is high in fiber or roughage	0.746	
FCM6	Is low in calories	0.732	
FCM2	Keeps me healthy	0.701	
FCM22	Contains natural ingredients	0.667	
TMS	**Time or money saving**		0.775
FCM25	Is cheap	0.796	
FCM26	Is not expensive	0.739	
FCM9	Takes no time to prepare	0.657	
FCM10	Is easy to prepare	0.587	
FCM11	Can be cooked very simply	0.555	
SA	**Sensory appeal**		0.739
FCM12	Smells nice	0.722	
FCM13	Tastes good	0.713	
FCM14	Looks nice	0.659	
FCM15	Has a pleasant texture	0.637	
AF	**Availability and familiarity**		0.678
FCM16	Is familiar	0.677	
FCM7	Can be bought in shops close to where I live or work	0.601	
FCM17	Is what I usually eat	0.574	
FCM8	Is easily available in shops and supermarkets	0.550	
M	**Mood**		0.743
FCM19	Helps me cope with stress	0.746	
FCM20	Cheers me up	0.739	
FCM21	Helps me relax	0.731	
FSC	**Food safety concern**		0.826
FCM23	Contains no artificial ingredients	0.783	
FCM24	Contains no additives	0.661	

Note: FCM1-FCM25=the codes of FCM items (see Table 4.1); HC, M, TMS, SA, AF and FSC=the codes of six FCM dimensions.

4.3.2. Principal component analysis (PCA)

A PCA with varimax rotation was conducted to explore the construct of 26 FCM items for the pooled sample. An adjusted construct with six dimensions was identified. The item '*Is like the food I ate when I was a child*' did not load well on any dimension (with factor loadings below 0.50). This item may be more suitable for examining the concept 'Symbolic value of a food to

people', an extra value of some special food products, such as traditional food or ethnic food (Lupton, 1994; Vanhonacker et al., 2010a; Verbeke & Lopez, 2005; Zhou & Hui, 2003). None of the other 25 items were related to the *Symbolic value* dimension. Therefore, the item '*Is like the food I ate when I was a child*' was deleted from the adjusted FCM construct and was not incorporated in the analyses.

The six adjusted FCM dimensions consist of 25 items as shown in Table 4.5. Reliabilities of these six dimensions are relatively high given that they all have a Cronbach's α score above 0.60 (Žeželj et al., 2012).

There are similarities and differences between the new and original FCM constructs. First, the dimensions *Sensory appeal* and *Mood* of the new construct contain the same items as in the original FCM construct.

Second, the new dimension *Health concern* included all items of the original FCM dimensions *Health* and *Weight control*, and one item from the original dimension *Natural content*, namely '*Contains natural ingredients*'. It seems that there is no clear distinction between the concepts of *Health* and *Weight control* in Chinese consumers' minds.

Third, the other two items of the original dimension *Natural content*, namely '*Contains no artificial ingredients*' and '*Contains no additives*', loaded on a new dimension. These two items are semantically similar and deal with the topic of artificial ingredients in food products. In recent years, a huge number of food safety events suddenly emerged in China, leading to increased concerns of consumers with regard to food safety (Liu et al., 2013, 2014; Ortega et al., 2011; Qiao et al., 2012). Furthermore, some of these food safety events were specifically related to the problems of artificial ingredients or additives in food products (Tang, 2013; Zhang, An, & Zhang, 2013). To this end, we defined this new dimension as *Food safety concern*.

Fourth, similar with some previous FCQ-based studies, the five items of the original FCM dimension *Convenience* loaded on different dimensions in the new FCM construct (Honkanen & Frewer, 2009; Milošević et al., 2012). Among them, three items with a semantic meaning about preparing food in a simply way, loaded on a new dimension with two items of another original FCM dimension *Price*. We named this new dimension *Time or money saving*. This dimension reflects a food choice motive about purchasing simple and everyday food to gain time and reduce costs.

Finally, the two other items of the original FCM dimension *Convenience*, dealing with the availability to purchase food, loaded on another new dimension with two items from the original FCM dimension *Familiarity.* This new dimension is defined as *Availability and familiarity*, and represents a Chinese consumer food choice motive about buying daily foods which are familiar or available in familiar markets.

4.3.3. Mean values of adjusted FCM dimensions

The mean values of consumers' self-reported FCMs (adjusted FCM dimensions) ranged from 5.22 to 5.75 in the total sample; from 5.21 to 5.77 in Shanghai; from 5.23 to 5.74 in Xi'an. (Table 4.6). The highest mean values were found for *Availability and familiarity* and *Sensory appeal*; while the lowest ones were recognized for *Mood* and *Time or money saving*.

Table 4.6 Mean values for consumers' FCMs (adjusted FCM dimensions) in the total sample and the city sub-samples

Dimension	Mean value		
	Total sample (n=541)	Shanghai (n=259)	Xi'an (n=282)
Availability and familiarity	5.75 (1)	5.77 (1)	5.74 (1)
Sensory appeal	5.71 (2)	5.70 (2)	5.72 (2)
Health concern	5.52 (3)	5.48 (4)	5.56 (3)
Food safety concern	5.50 (4)	5.58 (3)	5.41 (4)
Mood	5.34 (5)	5.35 (5)	5.32 (5)
Time or money saving	5.22 (6)	5.21 (6)	5.23 (6)

4.3.4. Path analysis

A structural equation model (SEM) was built to assess the association between the FCMs and the attitudes and purchase intentions towards traditional food and European food (see Figure 4.2). The model included ten latent variables, the six new FCM dimensions and the attitudes and purchase intentions towards the two types of foods. These latent variables encompass 37 observed variables. The observed variables of the four latent variables about attitudes and purchase intentions have good internal reliabilities, with high Cronbach α scores: 0.859 for the *attitudes towards traditional food*, 0.675 for the *purchase intentions (willingness to buy) towards traditional food*, 0.928 for the *attitudes towards European food* and 0.796 for the *purchase intentions (willingness to buy) towards European food* (Žeželj et al., 2012).

Path analysis was conducted for the pooled sample. The SEM was modified through correlating the error variables between two FCM items '*Is cheap*' and '*Is not expensive*' because these items refer to a similar issue and because the values of modification indices were much higher than the values between other FCM items (Anderson & Gerbing, 1988; Byrne, 2001; Wu, 2009). Regarding the goodness-of-fit indices for the path analysis, the modification lead to a substantial decrease in Chi-Square value, which further justifies the modification (Antimiani, Carbone, Costantini, & Henke, 2012; Byrne, 2001; Wu, 2009). Table 4.7 shows the goodness-of-fit indices for this path analysis. The SEM performed well in the path analysis, as the values of all indices were within the acceptance limits: below 0.08 for RMSEA, above 0.9 for CFI and IFI and below 3 for NC (Table 4.7). Furthermore, multi-group path analysis was conducted for the samples of two cities based on the SEM after modification. The RMSEA and NC values indicated an acceptable fit for all restricted models (RMSEA, from 0.040 to 0.041; and NC, from 1.887 to 1.899); while only the CFI and IFI values were suboptimal (CFI, from 0.880 to 0.889; and IFI, from 0.880 to 0.891) (Žeželj et al., 2012). However, as Olsen et al. (2007) suggested, the RMSEA values of restricted models are a sufficient indicator for justifying the decision to pool the data. Moreover, RMSEA values are also considered a better indicator than other indices for model-fit evaluation (Marsh & Balla, 1994; Wu, 2009). This underpins our decision to pool our data in order to detect

significant paths between the FCM dimensions and the attitudes and purchase intentions towards traditional food and European food.

Table 4.7 Path analysis goodness-of-fit indices (pooled sample, n=541)

	Pooled sample
Chi-square	1515.278
DF	587
NC	2.581
CFI	0.901
RMSEA	0.054
IFI	0.902

Note: p<0.001

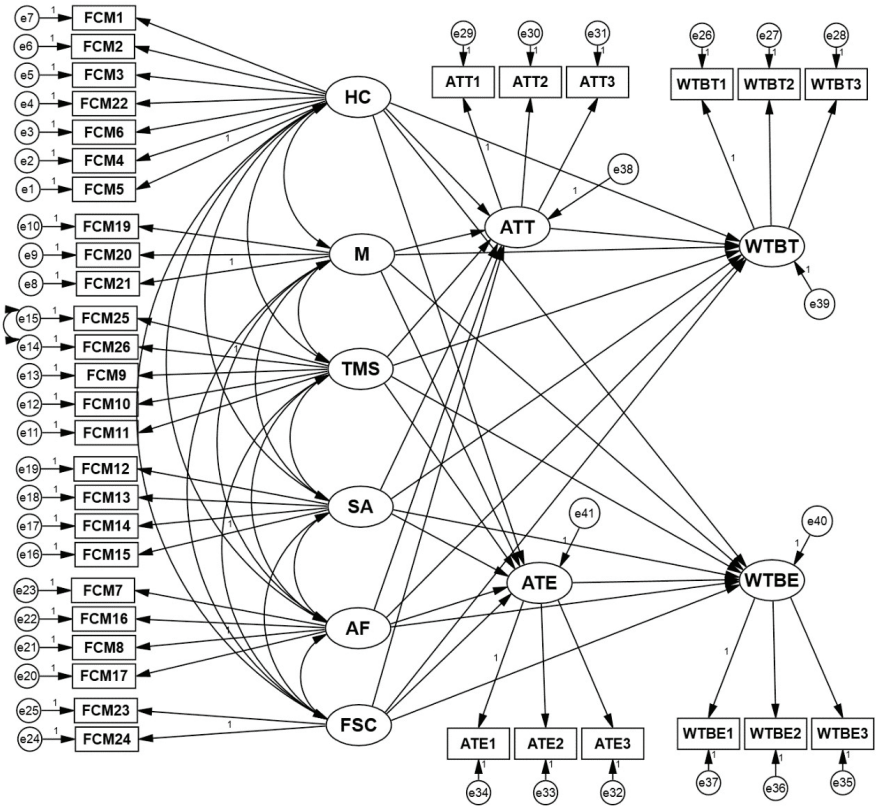

Figure 4.2 Structural equation model for path analysis using AMOS21

Note: *e1-e41= error variables; FCM1-FCM26 (without FCM 18 and 27)= the codes of the observed variables of FCM items, see Table 4.1 and Table 4.4; HC=Health concern, M=Mood, TMS=Time or money saving, SA=Sensory appeal, AF=Availability and familarity and FSC= Food safety concern ; ATT= Attitudes towards traditional food, WTBT=Willingness to buy traditional food, ATE=Attitudes towards European food, WTBE= Willingness to buy European food..*

Figure 4.3 shows the significant paths of the SEM, with standardized regression weights, for the pooled sample and the samples of two cities. Generally speaking, for either the pooled sample or the samples of two cities, consumers' attitudes were positively and strongly associated with their purchase intention towards both traditional food and European food. This means that the FCM factors, which directly influence consumers' attitudes, would also indirectly influence their purchase intentions towards both types of foods (Ajzen, 1991; Chen, 2007; Pieniak et al., 2009).

With regard to the pooled sample, consumers' attitude towards traditional food was positively linked to the FCM dimension *Availability and familiarity*, and negatively linked to *Time or money saving*. In other words, those Chinese consumers who attached more importance to daily food purchases in order to save time or money had less positive attitudes towards traditional foods. By contrast, people who preferred to buy familiar foods or foods in familiar market places had more positive attitudes towards traditional food. Furthermore, consumers' attitude for European food was positively associated with *Mood*. So, those Chinese consumers who often chose foods for relaxing or easing stress were more likely to have a positive attitude towards European food. Moreover, the FCM dimension *Sensory appeal* was recognized to have positively direct relationships with consumers' purchase intentions towards both traditional food and European food. In addition, *Time or money saving* had a negative direct relationship with the purchase intention towards European food.

According to the samples of the two cities, *Sensory appeal* was found to have strong, positive, and direct relationships with consumers' purchase intentions towards European food in both cities and towards traditional food in Shanghai in particular. Additionally, *Time or money saving* had negative direct relationships with consumers' purchase intentions towards both traditional food and European food in Shanghai. *Mood* was negatively linked to the purchase intention towards traditional food, while it was positively associated with the attitudes towards European food in Shanghai. Like the pooled sample, the FCM dimension *Availability and familiarity* was also positively related to consumers' attitudes towards traditional food in

Shanghai. Such significant paths were not found in the Xi'an subsample. Furthermore, *Food safety concern* had a positive association with consumers' attitudes towards traditional food in Xi'an. Here, no significant path was found in the sample of Shanghai consumers.

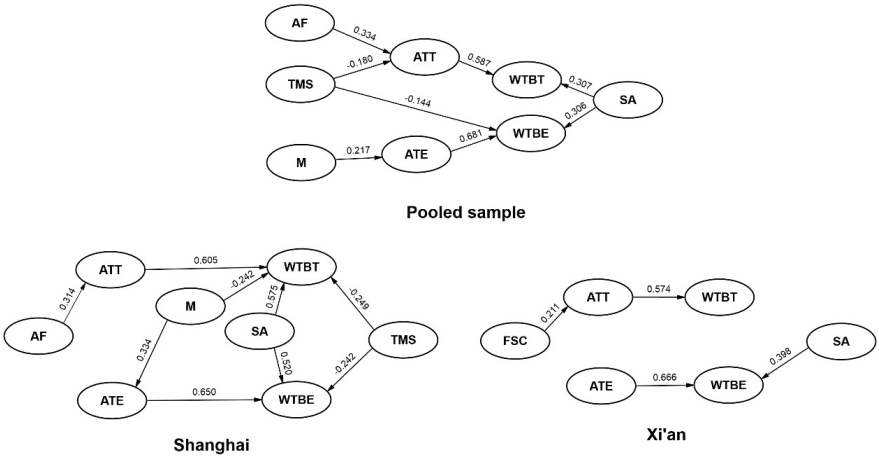

Figure 4.3 Significant paths with standardized regression weights for the three models
Note: HC=Health concern, M=Mood, TMS=Time or money saving, SA=Sensory appeal, AF=Availability and familarity and FSC= Food safety concern ; ATT= Attitudes towards traditional food, WTBT=Willingness to buy traditional food, ATE=Attitudes towards European food, WTBE= Willingness to buy European food.

4.4. Discussion

This study the uses the FCQ and its FCM dimensions to evaluate food choice motives with consumers from mainland China. Moreover, it evaluates its applicability by targeting two distinct food types, Chinese traditional versus European foods, and two different regions, Shanghai (Southern China, with high degree of development) and Xi'an (Northern China, with a lower degree of development and less developed). The original FCQ is considered a comprehensive and reliable tool to explore consumers' daily food choice motives, but was initially developed through research in a Western (European) setting (Fotopoulos, Krystallis, Vassallo, & Pagiaslis, 2009; Steptoe et al., 1995). As such, previous studies indicated that the FCM constructs of the original FCQ cannot be totally replicated across different countries or regions (Eertmans et al., 2006; Fotopoulos et al., 2009; Milošević et al., 2012; Pula et al., 2014). Indeed, the result of the CFA in this study confirmed that the original FCM construct

(dimension *Ethical concern* was not included) is not appropriate for analyzing FCMs in mainland China. By using exploratory factor analysis, an adjusted FCM construct was revealed for the mainland Chinese sample, characterized by six dimensions: *Health concern*, *Time or money saving*, *Sensory appeal*, *Availability and familiarity*, *Mood* and *Food safety concern*.

Table 4.8 Most important FCMs among countries/regions in literatures

Country/region	First important	Second important	Literature
Mainland China	Availability and familiarity	Sensory appeal	The current study
Russia	Sensory appeal	Availability	Honkanen & Frewer, 2009
Western Balkan Countries	Sensory appeal	Purchase convenience	Milošević et al., 2012
New Zealand	Sensory appeal	Price	
Malaysia	Health	Weight control	Prescott et al., 2002
Taiwan (China)	Natural content	Health	
Japan	Price	Health	
Finland	Health and natural content	Sensory appeal	Roos et al., 2012
Poland	Price	Sensory appeal	Zakowska-Biemans, 2011
U. K.	Sensory appeal	Health	Steptoe et al., 1995
Romania	Sensory appeal	Natural content	
Hungary	Sensory appeal	Natural content	Januszewska et al., 2011
Philippines	Health	Price	
Belgium	Sensory appeal	Health	

Table 4.8 shows the two most important FCMs among countries and regions, self-evaluated by consumers and based on the order in mean values of FCM dimensions in previous literatures. The most important motives for daily food choice across the countries/regions were *Availability (Purchase convenience)*, *Sensory appeal*, *Price*, *Health*, *Weight control* and/or *Natural content*. In our study, it was *Sensory appeal* and *Availability and familiarity* for mainland Chinese consumers. This is similar with those by consumers in Russia and Western Balkan countries (Milošević et al., 2012; Honkanen & Frewer, 2009). Interestingly, the most important FCMs by mainland Chinese consumers are quite different from that by consumers in other East Asian country and region- Japan and Taiwan (China) and in Southeast Asian countries- Malaysia and Philippines, despite that mainland China is geographically

close to these countries or regions (Prescott et al., 2002; Januszewska et al., 2011). Further, health-related issues (Health, Natural content and Weight control) are less important motives for mainland Chinese consumers to choose their daily food, in contrast to that for consumers in most of European countries and in Southeast Asian countries (Januszewska et al., 2011; Prescott et al., 2002; Roos et al., 2012; Steptoe et al., 1995).

Based on the adjusted FCM construct, a structural equation model for path analysis provided a good fit to identify associations between Chinese consumers' food choice motives and their attitudes and purchase intentions towards traditional food and European food. With respect to the motivation factors that influence Chinese consumers to choose traditional food, five factors had a direct or indirect effect, either in the pooled sample or a city subsample: *Time or money saving* (negatively related to the choice of traditional food), *Sensory appeal* (positively related), *Availability and familiarity* (positively related), *Mood* (negatively related in Shanghai) and *Food safety concern* (positively related in Xi'an). This is partially in line with previous consumer-based studies related to traditional food in Europe, where *Sensory appeal* and *the assurance of safety and quality* were key factors for European consumers, and *inconvenience* and *high price* were key barriers (Almli et al., 2011; Pieniak et al., 2009). It also corresponds with the positive association between traditional food consumption in Europe and the original FCM dimensions *Familiarity* and *Natural content*, although in our study two items of the dimension *Natural content* were classified into a new FCM dimension *Food safety concern*, while a negative link was found with the dimension *Convenience* (Pieniak et al., 2009). Not surprisingly, traditional food consumers prefer to spend a relative high percentage of income and a long time on (preparing) food, as compared to non-traditional food consumers (Almli et al., 2011; Pieniak et al., 2009; Vanhonacker et al., 2010a).

Some differences were found with respect to the choice motives for traditional food between European consumers (Pieniak et al., 2009) and Chinese consumers. Whereas *Weight control* and *Healthiness* were two negative factors for European consumers to choose traditional food (Pieniak et al., 2009), the dimension *Health concern* was not found to have a significant

relationship in our study. This may be due to differences in dietary patterns, culture and customs between China and Europe. A traditional Chinese dietary pattern, for instance, contains more vegetables, less meat, less calories and less fat than that of Europeans (Behar, 1976; Wan, 1995). This may have resulted in more traditional foods with less unhealthy ingredients in China. Furthermore, the dimension *Mood* was negatively linked to consumers' purchase intentions towards traditional food in Shanghai, while this FCM dimension was not included in previous FCQ surveys on European consumers' traditional food choice motives (Pieniak et al., 2009). As *Mood* reflects consumers' emotional feelings towards food products (Steptoe et al., 1995), this finding reveals that traditional food was not chosen by consumers for emotional reasons, such as stress relieve.

When looking at European food, three important motivation factors directly or indirectly influenced Chinese consumers' choice: *Mood* (positively related), *Sensory appeal* (positively related) and *Time or money saving* (negatively related). *Sensory appeal* was found to have a strong and direct influence on Chinese consumers' choice for European food. This confirms the importance of *appetizing or taste reassurance* in China in order to try or consume Western-style foods, as reported previously by other studies (Chang et al., 2010; Curtis et al., 2007). Further, *Mood* was an important reason for choosing European food. This corresponds with previous studies showing that Chinese consumers often consume Western-style foods for the aesthetic and emotional pleasures as well as to experience Western cultures (Curtis et al., 2007; Zhou & Hui, 2003). In addition, *Time or money saving* was considered as a barrier (negatively related) for purchase intentions towards European food, which fits with the current reality of Western-style foods in Chinese markets. The imported Western-style food products are often much more expensive than Chinese local food products. For most of Chinese consumers, such foods are not a crucial component of their daily diet. In this study, the concept of European food was defined as 'local food imported from Europe or food with a European style or flavour available for in-or-out home consumption in China ', rather than convenient or, even, fast foods. Participants may directly associate the concept of European food with the high-priced imported foods or the foods in high-end Western restaurants.

Therefore, it is reasonable that Chinese consumers who attach importance to saving money or time when buying food are less willing to choose European food.

There were also differences in consumer behaviour towards traditional food and European food between the two cities. *Mood* and *Time or money saving* appeared to be significant for consumers to choose both food types in Shanghai, while these two factors did not play a role in the Xi'an sample. This may be caused by the discrepancy between the development levels of the two cities or regions. Hence, *getting relaxed* or *saving time or money* from foods may become important for Shanghai people in order to deal with the high-pressure style of daily life.

For either traditional or European foods, *Sensory appeal* was a direct and strong factor driving Chinese consumers' purchase intention. Indeed, sensory pleasure, such as tasty, nice smell and good appearance, is considered of great importance for consumer food preferences in China (Dang, 2010; Wan, 1995). In this respect, when Western food marketers aim to exploit the Chinese consumer market, they could employ sensory-related marketing strategies, for instance, by adjusting the sensory attributes (e.g. taste and appearance) of their products in line with specific (regional) food patterns and consumer requirements. Similarly as our finding that one needs to adapt the FCM construct to the specific cultural setting, one needs also to adapt its marketing strategy when aiming to enter a different food market. By providing a better understanding of Chinese consumers' food choice motives, this study has contributed to provide an answer to both issues.

Nevertheless, our study has some important limitations. First of all, given the nature of our survey, i.e. an online questionnaire, and the relatively small number of participants involved, our sample did not fully represent the demographic characteristics of China as well as the two particular cities. Additionally, this study focused on FCQ-based items and dimensions. It is necessary for future research to also focus or integrate factors outside the FCQ, such as *Origin of food*, *Food neophobia* and *Symbolic values*. Furthermore, as we focused on traditional food

and European food as two general types of food, we did not analyze whether our adjusted construct is valid for specific food categories. Moreover, due to the fact that our FCM construct is based on PCA, our data should not be used for a CFA (Biddle & Marlin, 1987; Breckler, 1990; Wu, 2009). A CFA might be conducted for the adjusted construct in future FCQ-based studies for mainland China. In addition, given the scope of this study, our SEM model (Figure 2) was used for a path analysis to address the lack of understanding of Chinese consumers' motives for traditional food and European food, whereas developing a theoretical model for those food choices was not part of this study.

Chapter 5

Determinants of consumer preferences for imported European beer in two Chinese cities: Shanghai and Xi'an

This chapter is based on:

Wang, O., Gellynck, X., & Verbeke, W. Determinants of consumer preferences for imported European beer in two Chinese cities: Shanghai and Xi'an. Working paper Ghent University, Department of Agricultural Economics. Ghent: Ghent University.

Abstract

This Chapter explores the important factors (including product attributes, biological, demographic, geographic factors, beer consumption frequency, and the country association of European beer) in driving consumer preferences for imported European beer in China. The data (n= 541) were collected in two Chinese cities: Shanghai and Xi'an. Results of ordered logistic analyses show that the consumption of imported European beer is positively associated with product attributes *Origin*, *Brand*, *Colour* and *Texture*， and it is negatively linked to *Price* and *Alcoholic content* in the total sample or sub-sample models. Furthermore, male gender, living in Shanghai city, a good financial situation, frequent beer consumption and a high-level position have a significantly positive influence on European beer consumption in China. In addition, about two thirds of participants associate imported European beer with 'Germany'.

5.1. Introduction

There is a huge demand for Western alcoholic beverages, especially from Europe. China now represents the largest export market for wine from the European Union (EU), and above seventy percentage of its imported beer comes from Europe (Alinna, 2013; Chen, 2015; Lu, 2014).

The aim of this study is to explore the important factors driving Chinese consumers' consumption towards imported European beer. As basic cultural, dietary and consumer behaviour differs between China and Western countries (Chang al., 2010; Liu et al., 2011; Sun & Collins, 2004; Wan, 1995), understanding these determination factors is necessary for European producers of beer or other alcoholic beverages to develop their products for sale on this vast Chinese market. The study will emphasize the influences of product attributes and biological, demographic and geographic factors on the consumption behaviour for European beer in China. Besides, as country image or country-of-origin has a strong effect on purchase intention towards foreign products by Chinese consumers (Wang et al., 2012), this study will explore the countries linked to 'European beer' by Chinese consumers. We will also explore the effect of the country association and beer consumption frequency on their European beer consumption.

Previous studies show that beer consumer behaviour is influenced by the product attributes: *Price*, *Brand*, *Origin*, *Varied range*, *Alcohol content*, *Calorie content*, *Appearance*, *Colour*, *Taste*, *Availability*, *Smell*, *Hangover effect* and *Texture*. Lowing retail *price* can boost consumer demand for beer (Empen & Hamilton, 2013; Guinard et al., 2001). Consumers have *brand*-loyal in their preference for regional beers (Empen & Hamilton, 2013; Yang, Mizerski, Lee, Liu, Olaru, & Chua, 2012). Reasonable *price*, good *taste*, tolerable *alcoholic content*, no *hangover effect* and *availability* are self-reported reasons for consumers' shifting from local beer to sorghum based clear beer in Tanzania (Makindara, Hella, Erbaugh, & Larson, 2013). Product attributes related to sensory (including *appearance*, *colour*, *taste*, *smell* or *texture*)

have positive effects on consumers' beer preferences, especially for new varieties of beers (*varied range*) (Makindara et al., 2013; McCluskey, Shreay, & Swinnen, 2011; Mejlholm & Martens, 2006; Wright, Bruhn, Heymann, & Bamforth, 2008). Consumers concern the health attributes (including *calorie content*) when choosing alcoholic beverages such as wine and beer (Wright et al., 2008). *Origin* cue affects the beer evaluations by Australian consumers (Phau & Suntornnond, 2006).

Previous studies also show the differences of beer consumption behaviours between gender, age, income and region groups. Men are always the main beer consumer group comparing to female, shown in previous beer consumer studies using samples with different cultural backgrounds (Guinard, et al., 2001; Makindara et al., 2013; Yang. et al., 2012; McCluskey et al., 2011). Consumers with high incomes are willing to spend more money on a beer (Gabrielyan, McCluskey, Marsh, & Ross, 2014). Income growth has been linked to a dramatic growth in beer consumption in emerging market countries like China, Brazil and Russia (Colen & Swinnen, 2015). Younger consumers are influenced more by non-sensory attributes in their preferences for commercial lager beers than their older counterparts (Guinard, et al., 2001). Beer drinking is more common among young male people, and it has different preferences between southern and northern cities in China (Millwood, Li, Smith, Guo, Yang, Bian, & Collins, 2013).

In order to achieve our goal, this chapter aims to link consumers' consumption of imported European beer with product attribute importance, beer consumption frequency, country association, biological, demographic and geographic factors in China. Descriptive analysis and ordered logistic regression will be used.

5.2. Materials and methods

5.2.1. Participants and procedures

This part were presented in Section 3.2.1. Additionally, there is different beer consumption preferences between southern and northern (e.g. Xi'an) Chinese cities (e.g. Shanghai), beer drinking is more common in northern cities (Millwood et al., 2013).

5.2.2. Measures and description of variables

Participants were asked to evaluate the importance of thirteen product attributes for beer choice. These product attributes appeared in previous literature in relation with beer consumption behaviour (Empen & Hamilton, 2013; Makindara et al., 2013; McCluskey et al., 2011; Mejlholm & Martens, 2006; Mizerski et al., 2012; Guinard et al., 2001; Phau & Suntornnond, 2006; Wright et al., 2008; Yang et al., 2012) (Table 5.1). The question stated: "*... is important for me to choose a beer.*" A seven-point Likert agreement scale was employed for the response categories: 1= disagree strongly, 2= disagree moderately, 3= disagree slightly, 4= neither agree nor disagree, 5= agree slightly, 6= agree moderately, and 7= agree strongly. Mean values for product attribute importance ranged from 4.67 to 5.96 (Table 5.2). The highest mean values were observed for *Texture* and *Taste*; while the lowest mean values were observed for *Calorie content* and *Colour*.

Table 5.1 Product attributes of beer

Attribute	Explanation showed to participants
Price	
Brand	
Origin	Local, national or international
Varied range	Draft beer, fruit beer, stout beer…
Alcohol content	
Calorie content	
Appearance	Package and bottle
Colour	
Taste	
Availability	Convenience to buy
Smell	
Hangover effect	Hangover in morning or not
Texture	The weight of a beer as perceived in the mouth, such as thin or full texture

Participants were also asked to provide their beer consumption frequency in the past 14 days. The response categories were from '0 = 0 day' to '14 = 14 days'. It was turned into an ordinal variable with six categories, due to the less respondents in the original scales from 4 to 14 days. Table 5.2 shows that most of participants (66.7%) consumed beer in the past 14 days. Around a quarter of participants consumed it more than 4 days.

Participants' consumption experience for imported European beer was measured using the question: "*How would you describe your consumption of imported European beer?*" The response categories were: 1= I have never consumed and will never consume it, 2= I have never consumed it but I am open to consume it, 3= I stopped consuming and would never consume it again, 4= I stopped consuming it but consider to consume it again, 5= I consume it sometimes (less than once a month), 6= I consume it often (more than once a month). This design is employed, as imported European beer is not a common consumption product for Chinese consumers comparing to their domestic beer (Chen, 2015; Lu, 2014). This variable of European beer consumption was transferred into an ordinal variable with four categories *Never* (=1), *Stopped* (=2), *Sometimes* (=3) and *Often* (=4) *consumptions* (Table 5.2), due to the less respondents in the original categories of 'I have never consumed and will never consume it' and 'I stopped consuming and would never consumed it'. Most of the participants (74.7%) had consumed imported European beer. Among these European beer consumers, most of them consumed it sometimes (less than once a month) or stopped consuming it. Not many participants (8.1 %) consumed it often (more than once a month).

The financial situation of households was self-assessed by participants on a seven-point interval scale ranging from 'difficult' to 'well off' in line with a previous study (Pieniak et al., 2009). It was turned into an ordinal variable with five categories *Difficult-Moderate* (=1), *Moderate* (=2)*, Slightly good* (=3)*, Moderately good* (=4) and *Well off* (=5) (Table 5.2), due to the less respondents in the original scales between Difficult and Moderate. Most of participants (89.6%) reported their financial situations with 'moderate' or 'from moderate to well-off' levels.

The education was measured by a seven-point ordinal item with response categories: 1= Primary school and below, 2= Secondary school, 3= High school/Polytechnic school, 4= Junior college, 5= Bachelor degree, 6= Master degree and 7= Doctoral degree and above. It was transferred into an ordinal variable with three categories *Junior college and below*, *Bachelor degree (=2)*, and *Master degree and above* (=3) (Table 3.1 and 5.2), due to the less respondents in the original categories Doctoral degree and below Junior college.

Gender and City were turned into binary variables- 'Gender (male)' and 'City (Shanghai)', as the '1' values for male and Shanghai and the '0' values for female and Xi'an (Table 5.2).

The occupation measurement had eleven categories: 1= Self-employed farmer, 2= Self-employed in general, 3= Managing employee, 4= Salaried employee, 5= Skilled worker, 6= Unskilled worker, 7= Student, 8= Retired 9= Unemployed or on leave, 10= Housewife/houseman, 11= Other. It was turned into a five-point category variable, due to the none or less respondents in the original categories of Self-employed famer, Skilled worker, Unskilled worker, Retired, Unemployed or on leave, Housewife/houseman and Other. These less response categories were combined in the 'Other' category (=0), shown in Table 5.2.

An open-ended question was used to elicit participants' country associations for imported European beer: "When you thought about imported European beer, which country does first come into your mind?" They were asked to input only one country's name for it. As country associations were dominated by 'Germany' (64.7% of total sample, Figure 5.1), it was transferred into a binary variable- 'Country association (Germany)', with 1= Germany and 0= non-Germany (Table 5.2).

Table 5.2 Variable description for ordered logistic regression analyses, frequency and mean (SD)

Variable	Type	Description	Frequency (%)
Dependent variables			
European beer consumption	Ordinal (1-4)	Never (=1)	25.3
		Stopped (=2)	39.4
		Sometimes (=3)	26.6
		Often (=4)	8.7
Independent variables			
Beer consumption (in the past 14 days)	Ordinal (1-6)	0 day (=1)	33.3
		1 day (=2)	15
		2 days (=3)	14
		3 days (=4)	12.6
		4 to 6 days (=5)	12.9
		7 to 14 days (=6)	12.2
Financial situation	Ordinal (1-5)	Difficult- Moderate (=1)	10.4
		Moderate (=2)	24
		Slightly good (=3)	32.7
		Moderately good (=4)	24.8
		Well off (=5)	8.1
Gender (male)	Binary (0,1)	Female (=0), Male (=1)	
City (Shanghai)	Binary (0,1)	Xi'an (=0), Shanghai (=1)	
Country association (Germany)	Binary (0,1)	Non-Germany (=0), Germany (=1)	
Educational level	Ordinal (1-3)	Junior college and below (=1), Bachelor degree (=2), Master degree and above (=3)	
Occupation	Category (0-4)	Managing employee (=4), Salaried employee (=3), Student (=2), Worker (=1), Others (=0)	
		Mean	SD
Age	Scale (19-68)	35.63	9.125
Texture	Scale (1-7)	5.96	0.982
Taste		5.93	0.957
Availability		5.67	0.918
Brand		5.64	0.984
Varied range		5.63	1.080
Hangover effect		5.59	1.221
Smell		5.43	1.041
Origin		5.27	1.121
Alcoholic content		5.21	1.198
Price		4.82	1.322
Appearance		4.81	1.202
Calorie content		4.66	1.295
Colour		4.61	1.306

Note: Please see Table 3.1 and 5.4 for the frequencies of gender, city, occupation, educational level and country association groups.

5.2.3. Data analysis

The statistical software tools SPSS 22.0 and Stata 14 were used to perform all the data analyses in this study. First, descriptive statistics were presented in mean values, standard deviations, percentages or frequencies for product attribute importance, European beer consumption, country associations, beer consumption frequency or socio-demographic groups (SPSS 22.0). Next, cross-tabulation with $\chi 2$ was used to test statistical differences in country association groups and European beer consumption between socio-demographic groups (SPSS 22.0). Finally, seven ordered logistic regression models were carried out by using Stata 14, depending on the ordinal natures of the dependent variable - European beer consumption. Unstandardized coefficient, standard error and Pseudo R^2 were reported for all models (De Boer, Schösler, & Aiking, 2014; Eboli & Mazzulla, 2009). Models 1 was used to associate the European beer consumption with product attribute importance, country association groups, beer consumption frequency, biological, demographic and geographic factors for the total sample. Models 2 to 7 were built to link the consumption with only the product attribute importance for the sub-samples of gender, city and country association groups.

5.3. Results

5.3.1. Country associations for imported European beer

A total of 18 European countries were collected from the country association test (Figure 5.1). Germany dominated the country associations; this country was mentioned by 350 participants (64.7% of total sample). None of the other countries was mentioned which reached a share of more than 10% of the sample.

Participants were classified into two sub-sample groups based on their country associations: Germany and Non-Germany. Table 5.3 provides the socio-demographic characteristics of these two sub-sample groups, including age, gender, region, financial situation, occupation and education. Cross-tabulation with $\chi 2$ tests reveal significant differences across the two sub-sample groups for gender and occupation. The sub-sample group Germany has an even gender distribution, with a higher percentage of managing employee participants and a lower

percentage of worker participants than that for the group Non-Germany. Besides, the Non-Germany group has a high percentage of female participants (67%).

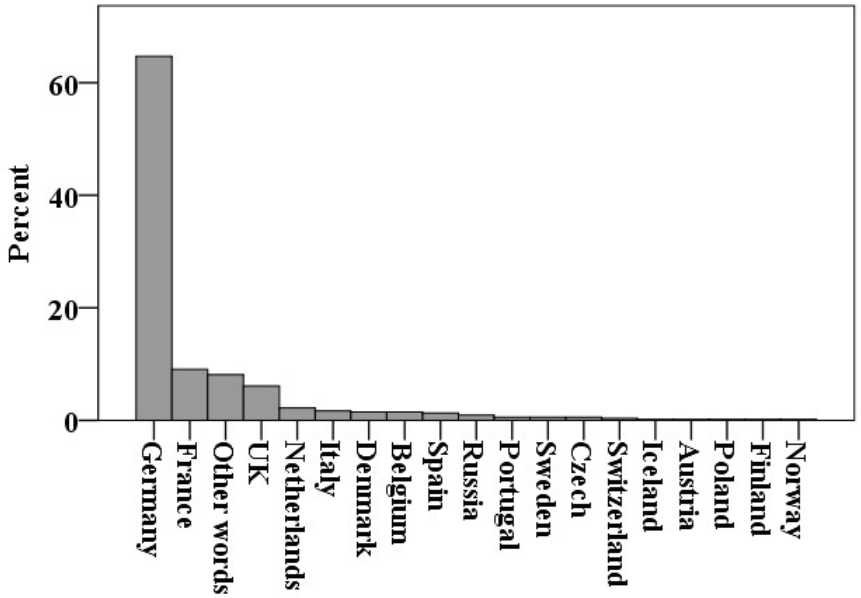

Figure 5.1 Frequency of countries associated with 'European beer' by Chinese consumers (Percentage, n=541)

Table 5.3 Socio-demographic characteristics of country association groups

	Country association group (%)		χ^2	p
	Germany (n=350)	Non-Germany (n=191)		
City			2.310	0.129
Shanghai	50.3	43.5		
Xi'an	49.7	56.5		
Gender			11.387	0.001
Male	48	33		
Female	52	67		
Age			0.839	0.657
19-30	31.4	33.5		
31-40	30.6	32.5		
> 40	38	34		
Financial Situation			0.160	0.923
Difficult- Moderate	10.3	10.5		
Moderate	24.6	23		
Moderate-Well off	65.1	66.5		
Education			4.699	0.095
Junior college and below	19.1	19.9		
Bachelor degree	59.1	66		
Master degree and above	21.7	14.1		
Occupation			10.855	0.028
Managing employee	34.9	26.2		
Salaried employee	33.4	36.6		
Worker (skilled and unskilled)	4.3	10.5		
Student	18.3	16.8		
Other (Self-employed, unemployed, retired, housewife/man and others)	9.1	9.9		

Table 5.4 Results of ordered logistic regression model 1: Unstandardized coefficient (standard error) for the total sample

Independent variables	European beer consumption (Dependent variable, n= 541)
Price	-0.364*** (0.076)
Taste	0.028 (0.125)
Brand	0.075 (0.113)
Appearance	-0.079 (0.086)
Hangover effect	-0.024 (0.083)
Availability	-0.084 (0.112)
Alcoholic content	-0.024 (0.085)
Colour	0.184* (0.087)
Smell	-0.053 (0.125)
Origin	0.482*** (0.103)
Calorie content	0.070 (0.085)
Texture	0.149 (0.129)
Varied range	0.011 (0.108)
Age	-0.006 (0.009)
Gender (male)	0.450* (0.186)
City (Shanghai)	0.685*** (0.179)
Educational level	0.246 (0.143)
Financial situation	0.547*** (0.089)
Beer consumption frequency	0.562*** (0.057)
Country association (Germany)	0.662** (0.191)
Pseudo R^2	0.2362

*Note: *** p<0.001; ** p<0.01; * p<0.05*

5.3.2. Regression results of the total sample model (Models 1)

Table 5.4 shows the results of the ordered logistic Model 1, with the imported European beer consumption as dependent variable, conducted for the total sample (n= 541). Its independent variables includes fourteen interval variables (product attribute importance and age), three binary variables (gender, city and country association groups) and three ordinal variables (beer consumption frequency, education and financial situation). The model had a Pseudo R^2 value of 0.2312.

Three product attribute variables *Price*, Origin and *Colour*, three socio-demographic variables *Gender (male), City (Shanghai)* and *financial situation*, *beer consumption frequency* and *country association (Germany)* variables had statistically significant influences on the European beer consumption. *Price* was negatively linked to the consumption. While all other variables were positively associated with it.

5.3.3. European beer consumptions of sub-sample groups

Table 5.5 shows the European beer consumptions of gender, city and country association groups. Cross-tabulation with $\chi 2$ tests indicated significant differences between all of the three sub-sample groups. In terms of the differences, male had a higher percentage of respondents who were frequent European beer consumers compared to female. Table 6 shows that 43.3 % of male respondents consumed imported European beer often or sometimes. Female had less respondents for that, with a percentage of 29.3 % for frequent European beer consumers. Further, Shanghai and the Germany association group had more frequent European beer consumers (42% and 39.7%) than Xian and the Non-Germany association group (29% and 27.2%).

Table 5.5 European beer consumption of gender, city and country association groups

Consumption of European beer	Consumption (%)				$\chi 2$	p
	4	3	2	1		
City					25.158	0.000
Shanghai (n=259)	10	32	42.1	15.8		
Xi'an (n=282)	7.4	21.6	36.9	34		
Gender					13.559	0.004
Male (n=231)	12.6	30.7	35.1	21.6		
Female (n=310)	5.8	23.5	42.6	28.1		
Country association					8.796	0.032
Germany (n=350)	9.7	30.0	37.4	22.9		
Non-Germany (n=191)	6.8	20.4	42.9	29.8		

Note: 1= Never consume, 2= Stop consuming, 3= Consume sometimes (less than once a month), 4= Often consume (more than once a month).

5.3.4. Regression results of the sub-sample models (Models 2 to 7)

Models 2 to 7 were estimated to analyze the significant relationships between the European beer consumption and the thirteen variables of product attribute importance, for the sub-samples of gender, city and country association groups. Figure 5.2 shows the significant paths with unstandardized coefficient values, respectively for the sub-sample models. The Pseudo R^2 values of the models were from 0.0688 to 0.1284.

With regard to these models, male, female, Shanghai and the Germany group had three statistically significant relationships between the attribute importance and the consumption, similar to the model for the total sample: *Origin* (positive), *Price* (negative) and *Colour* (positive). Additionally, the European beer consumption had significant relationships with *Origin* (positive), *Price* (negative) and *Texture* (positive) in Xi'an and the Non-Germany group. It was also linked to *Brand* (positive) and *Alcoholic content* (negative) for the No-Germany group.

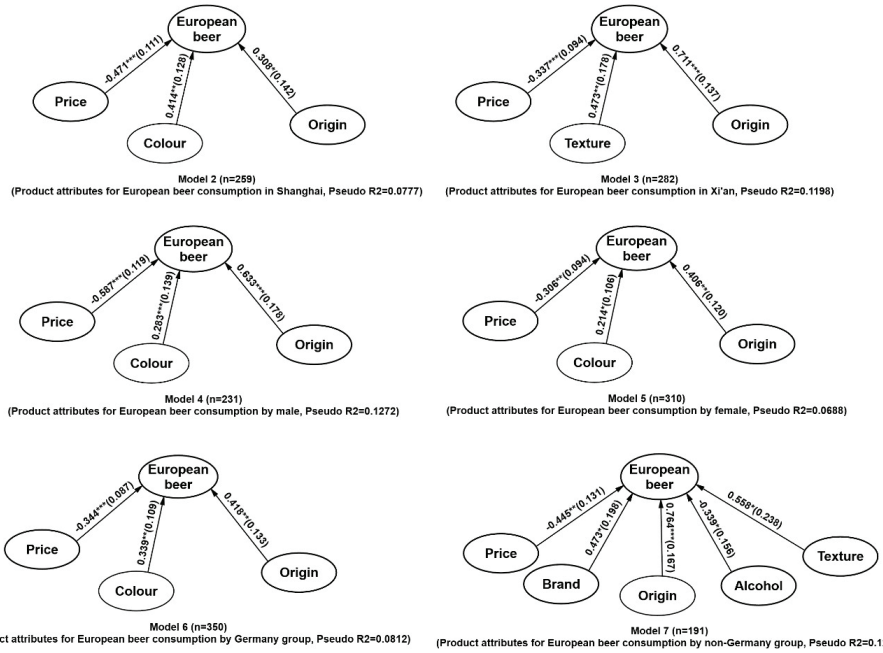

Figure 5.2 Results of ordered logistic regression model 2 to 7: Unstandardized coefficient (standard error) for the sub-samples of gender, city and country association groups
*Note: Shown by the significant paths with unstandardized coefficient; *** p<0.001; ** p<0.01; * p<0.05*

5.4. Discussion and conclusion

This study contributes to a better understanding of Chinese consumers as well as the key factors that play a role in their preferences for European beer - a common Western alcoholic beverage. As such, the findings could assist European or Western brewers when developing marketing strategies that would more effectively target Chinese consumers. With respect to the determinants of the consumption of imported European beer by Chinese consumers, the following factors are observed to have an effect across the total sample: *Price*, *Origin*, *Colour, Gender, City, Financial situation*, *Beer consumption frequency* and *Occupation* (e.g. different in *Country association groups)*. These determinants are similar to those that have been found to drive Chinese consumer choice in previous studies relating to wine: *Origin*, *Price*, *Brand*, *Taste*, *Gender*, *Age* and *Personal income* (Balestrini & Gamble, 2006; Camillo, 2012; Goodman, 2009; Hu et al., 2008; Pan et al., 2006; Somogyi et al., 2011; Wen et al.,

2010; Wilson & Huang, 2003; Yu et al., 2009). Furthermore, the European beer consumption is statistically linked to product attributes *Texture*, *Alcoholic content* or *Brand* in subsamples of Xi'an and the Non-Germany group.

Price and *Origin* are the most important product attributes driving Chinese consumers' European beer consumption, as having the statistically significant relationships with the consumption in all of the models. *Price* is negatively linked to the European beer consumption by Chinese consumers. This is in line with previous studies related to beer consumption, which lowing price can boost beer consumption by consumers (Empen & Hamilton, 2013; Guinard et al., 2001; Makindara et al., 2013). Additionally, it is also in line with the reality that imported beer is much more expensive than domestic beer, and it is mainly aimed at the high-end market in China (Bei, 2013; Lu, 2014). Therefore, *Price* is considered to be a barrier (negatively related) to the European beer consumption among common Chinese consumers. This barrier may be disappeared as the growth of personal income in China, the reduction of tariffs by the more free-trade zones established in China, and the improvement of transportation infrastructure for trades on the Eurasian Continent supported by international organizations and policies (Kazer, 2015; Mount, 2014; Prodi & Gosset, 2015; Pavlićević, 2015; Wheatley, 2015; Zhang, 2015).

Origin is an important factor driving Chinese consumers to buy imported European beer. This corresponds with the important impacts of *Origin* on consumer behaviour towards beer or other product, found in previous literatures. *Origin* cue affects the beer evaluations by Australian consumers (Phau & Suntornnond, 2006). *Origin* is an important factor for consumers to evaluate regional or foreign products before purchasing (Kelly et al., 2005; Van der Lans et al., 2001). It plays an important role in the Chinese wine market, and is the most important factor for Chinese consumers to assess wine quality for purchase (Balestrini & Gamble, 2006). Furthermore, most of Chinese consumers associate the country image of European beer with Germany. This reflects the great influence of 'country-of-origin' on Chinese consumers by German beer. It is in line with the dominant share of China's beer

imports by German beer in recent years (Chen, 2015; Lu, 2014), and the successful promotions of German beer culture in China, which for example the Munich Oktoberfest is very famous in China, and it represents German (or even European) beer culture in Chinese people's minds (Yang, Reeh, & Kreisel, 2011). As such, European brewers (non-Germany) should try to promote customs, cultures and 'country of origin' information related to their local beers to Chinese consumers. This can help Chinese consumers to familiarize the 'country of origin' knowledge about the beers so that they would be willing to consume it more frequently.

Chinese consumers' purchase of imported European beer is positively related to sensory attributes *Colour* and *Texture.* Although *Taste* and *Texture* are more important than other sensory attributes when consumers choose beer, reported in former literatures (Makindara et al., 2013; McCluskey et al., 2011; Mejlholm & Martens, 2006; Wright et al., 2008), our findings show that Colour is the most import sensory attribute for Chinese consumer to purchase imported European beer, as it has significant relationships with the consumption in models of the total sample and most of sub-samples. Furthermore, European beer consumption is driven by *Colour* in Shanghai and the Germany group; while it is driven by *Texture* in Xi'an and the non-Germany group. The Germany group has a higher percentage of managing employee participants and a lower percentage of worker participants than that for the group Non-Germany (Table 4). Therefore, the findings indicate the existence of different sensory determinants for European beer consumption between regions (e.g. Xi'an and Shanghai) and occupations (e.g. managing employee and worker) in China.

European beer consumption is positively linked to *Brand* in the Non-Germany group. This is in line with that *Brand* awareness and preferences are important for consumers to purchase alcohol beverages (Atkin & Block, 1984). Furthermore, it is negatively linked to *Alcoholic content* in the group. The Non-Germany group includes more participants who stop or never purchasing European beer than the Germany group (Table 6). As such, *Alcoholic content* is considered as a barrier for Chinese consumers to purchase imported European beer. This

might be caused by that Chinese common consumers are not adapted to European beer, a novel product with obviously higher alcoholic content than Chinese domestic pale lager (Bai et al., 2011; Vernon, 2013).

Results of the total sample model (Table 5) show male gender, living in Shanghai city, a good financial situation, frequent beer consumption and a high-level position (e.g. the Germany group including more managing employees and less workers) have a significantly positive influence on European beer consumption in China. This is in line with the characteristics of beer consumers in China or other countries: male and a higher income (Colen & Swinnen, 2015; Gabrielyan et al., 2014; Millwood et al., 2013). Furthermore, it fits with the truth of the imported beer aimed at the high-end market (e.g. managing employees) in China (Bei, 2013; Lu, 2014). Moreover, the findings also correspond the characteristics of typical European or Western food consumers in China: high income and living in a big and developed city (e.g. Shanghai) (Curtis et al., 2007; Zhang, Dagevos, Van der Lans, & Zhai, 2008; Wang, De Steur, Gellynck, &Verbeke, 2015; Wang, Gellynck, & Verbeke, 2015). In addition, although the existence of the big difference between Chinese domestic beer and European beer (lager and non-lager) (Bai et al., 2011; Chen, 2015; Lu, 2014; Vernon, 2013), frequent beer drinkers are still more likely to become imported European beer consumers than other people in China.

Our study does have some important limitations. First of all, as we focused on imported European beer as a general product, we did not look at specific European beer (lager and non-lager) varieties. Additionally, this study focused on the impacts of product attribute importance, social demographic factors, beer consumption frequency and country association on consumer behaviour towards imported European beer in China. Some of the models in this study have low Pseudo R^2 values. This means that future research would need to focus on, or integrate, other variables that may also influence Chinese consumer behaviour in relation to European beer. These might include Food Choice Motives, Consumer attitudes, Food Neophobia, Symbolic Values and Consumer Ethnocentrism. Further, given the online nature of the survey, our sample was biased towards highly educated people.

Chapter 6

General discussion and conclusions

Previous chapters have presented study-specific findings and discussed implications in detail. This final chapter (Chapter 6) provides a general discussion of the main findings and conclusions in the light of the proposed conceptual framework in Chapter 1. The Chapter 6 contains three sections. The first section (6.1) recapitulates the research procedure and the research questions outlined in Chapter 1 in response to the research objectives. The second section (6.2) offers a general conclusion of the main research findings. The third section (6.3) discusses the contributions of the PhD thesis. The final section (6.4) mentions the limitations of this doctoral research and the perspectives for further research.

6.1. Answering the research questions

The overall objective of this doctoral research was to address the lack of understanding of consumer behaviour, attitudes and perceptions for European food versus traditional Chinese food in China. Emphasis has been placed on Chinese consumers' image, perceived product attributes, attitudes, general image, important food choice motives, purchase intention and consumption towards European food (as a general food type), traditional Chinese food (as a general food type) or imported European beer. Analyses were conducted based on the conceptual framework developed in Chapter 1 established from the literature review. Based on the conceptual framework, four specific research objectives and eleven research questions were formulated. Data were collected through qualitative and quantitative research tools, served as input for statistical analyses.

6.1.1. Explore consumer's perceptions of European food versus traditional Chinese food in China (Chapter 2)

RQ1: ***What are the Chinese consumers' perceptions for European food, and its differences and similarities with that for traditional Chinese food*****?**

In order to answer RQ1, data were collected through a web-based free word association test to elicit Chinese consumers' perceptions towards traditional food and European food (as two

general food types). The analysis was performed on a sample of 302 Chinese consumers using a two-step grouping approach by three researchers. Consequently, twelve dimensions (from 35 word classes and 813 elicited words) were gained for Chinese consumers' perceptions of European food (as a general food type): *Sensory appeal*, *Heritage*, *Origin*, *Symbolic meaning*, *Health*, *Variety*, *Safety*, *Marketing*, *Mood*, *Simplicity*, *New* and *Convenience*. The qualitative production perceptions for European food contain information which is similar with documented Chinese consumers' impressions and the determinants for their preferences towards Western food (Chang et al., 2010; Curtis et al., 2007; Li et al., 2011). This indicates a rather general image of food products from Western countries (within and outside Europe) by Chinese consumers.

Regarding the perceptions of traditional Chinese food (as a general food type), thirteen dimensions were recognized (from 36 word classes and 869 elicited words): *Sensory appeal*, *Heritage*, *Origin*, *Symbolic meaning*, *Health*, *Variety*, *Safety*, *Marketing*, *Mood*, *Simplicity*, *Habit*, *Celebration* and *Elaboration*. These perceptions associated with traditional (Chinese) food bear strong similarities to the perceptions of traditional (European) food associated by European consumers in previous publications (Cerjak et al., 2014; Guerrero et al., 2010; Guerrero et al., 2012; Guerrero et al., 2009; Pieniak et al., 2009; Vanhonacker et al., 2010b). This indicates that the perceptions for traditional food surpass cultural differences, even between the East and the West.

In sum, ten dimensions are same between the perceptions of European food and traditional food associated by Chinese consumers. In line with the dominance of sensory issues in food preference by the Chinese (Dang, 2010; Wan, 1995), *Sensory appeal* was the most frequent dimension for the two food types.

Nevertheless, obvious differences can be recognized by comparing the word classes for the two food types. First of all, Chinese consumers had some specific expressions about the taste and variety for European food such as *Sweet*, *Greasy*, *Fried* and *Raw*, but not for traditional food. These specific impressions are quite similar with that for food product from other Western countries (outside Europe) by Chinese consumers in previous literature (Chang et al., 2010; Curtis et al., 2007; Li et al., 2011). Secondly, *Heritage* was a more important perception of traditional food than that of European food associated by Chinese consumers. This may be caused by that Chinese consumers have less knowledge about the dietary history, culture, heritage and customs in Europe than that in China. Thirdly, there were more Chinese consumers with a negative health-perception to European food than that to traditonal food. This might be caused by the differences of dietary cultures and habits between China (or East Asian countries) and Western countries. Under a long history of agricultural civilization, traditional Chinese (or East Asian) food products are often plant-based; while Western countries inherit more meat or dairy-based traditional food products from a long history of nomadic civilization (Li, 2007). Fourthly, more Chinese consumers had a positive safety-impression to European food than that to their own traditional food. This is in line with the fierce food safety situation in China in recent years, caused by a huge number of food safety incidents (Ji et al., 2014; Liu et al., 2013; Liu et al., 2014; Ortega, et al., 2011; Wang et al., 2008). By contrast, Western food products are often considered as having reliable guarantee of food safety by mainland Chinese consumers. This is particularly the case in the past years as China has seen an huge demand of infant food formulas from Western countries after the San Lu milk scandal in 2008 (Zhou, 2012). Fifthly, traditional food is associated with *Cheap*; in contrast, European food is linked to *Expensive* by Chinese consumers. This is in line with the high prices of Western-style food and imported Western food in contrast to the economical prices of traditional Chinese food in China (Curtis et al., 2007; Tan et al., 2009a; Tan et al., 2009b; Zhao, 2003; Zhou & Hui, 2003). Finally, different *Symbolic meanings* were found between traditional food and European food to Chinese consumers. These symbolic meanings of traditional food are closely linked to Chinese 'family culture' (Zhuo, 1997). The symbolic meanings of European food are related to the documented Chinese consumer

behaviours towards Western products:being fashionable, aesthetically pleasing and a sign of high social status (Curtis et al., 2007; Zhou & Hui, 2003).

6.1.2. General image of and product beliefs about European food in China (Chapter 3)

In order to answer RQ2, 3, 4 and 5, data were collected through an online survey targeting consumers in two mainland Chinese cites: Shanghai and Xi'an, with a total sample size of 541. It explored Chinese consumers' general image of and product beliefs about European food (as a general food type). The data were processed by using descriptive, cluster and PLSR analyses.

RQ2: ***What are the Chinese consumers' general image and product attribute beliefs towards European food*****?**

European food had a clearly positive image among Chinese consumers. Further, *Expensive*, *Delicate-appearance* and *Safe* were most important product attribute beliefs of European food for Chinese consumers (see Figure 3.3). This result is in line with the most frequent word classes associated with European food by Chinese consumers in Chapter 2 (see Figure 2.4). Thus, it confirms a high validity about the important PPAs associated with European food by Chinese consumers, through a measurement triangulation in this PhD research (Jick, 1979).

RQ3: ***How do the product attribute beliefs affect the general image of European food by Chinese consumers?***

The general image of European was positively linked to PPAs *Delicate appearance*, *Tasty*, *Healthy*, *Fashionable*, *Safe*, *European heritage* and *Upscale*, and negatively linked to *Sweet* and *Unfamiliar* by Chinese consumers. Additionally, *Safe* and *Upscale* were the most important attribute beliefs driving Chinese consumers to have a positive image of European food; while *Unfamiliar* and *Sweet* were the most negative drivers of European food's image.

RQ4: ***Do different segments of Chinese consumers exist for the choice behaviour of European food, and what are the differences in terms of demographic, biological and geographic characteristics among them?***

In order to answer RQ4, multiple methods were hired in Chapter 3. Firstly, the study explored Chinese consumers' perceived character profiles of typical users and non-users of European food in China. Typical users of European food were strongly linked to 'people who have stayed overseas for a long time', 'people who have experience going abroad', 'families with high income', 'people who visited Europe', 'young people' and 'people living in big city'. Typical non-users of European food were strongly associated with 'people living in rural areas', 'family with low income' and 'old people'. Secondly, three distinct consumer segments were identified on the basis of their product attribute beliefs for European food: consumers with 'positive beliefs' (29%), consumers with 'negative beliefs' (26.4%) and consumers with 'Slightly-positive beliefs' for European food (44.6%). The positive-beliefs segment represented the highest percentage of consumers who lived in Shanghai, were non-single, had a household financial situation of 'moderate-well off', and had rich overseas experiences. By contrast, the negative-beliefs segment represented the highest percentage of consumers who lived in Xi'an, were single, had a household financial situation of 'difficult-moderate', and had poor overseas experiences. This is generally in line with the perceived character profiles of typical users and non-users of European food in China. In sum, this PhD research confirms the characteristics of typical European food consumers: with high income, having rich overseas experiences or living in a big and developed city. These characteristics are similar with the profile of Western-style food consumers in China as identified by previous studies (Curtis et al., 2007; Zhang et al., 2008). It is also in line with the opinions by Verbeke and Lopez (2005) that ethnic food consumption is influenced by consumers' overseas experiences

RQ5: ***How does the regional diversity affect the general image, the product attribute beliefs and the association between the product attribute beliefs and the general image of European food by Chinese consumers?***

The findings show significant differences in the general image, the product attribute beliefs and the associations between the sub-samples of Shanghai and Xi'an. Consumers were more likely to have a positive image of European food in Shanghai than consumers in Xi'an. Futhermore, consumers were more likely to consider European food as being expensive, safe, with a wide assortment, tasty, fashionable, upscale and healthy in Shanghai than that in Xi'an. Meanwhile Xi'an's consumers were more likely to link European food with the monotonous taste- sweet and unfamiliar comparing to their counterparts in Shanghai. In addition, the image of European food was influenced by more product attribute beliefs among consumers in Shanghai than that among consumers in Xi'an. To summarize, consumers in Shanghai had a more positive image and a more comprehensive belief-construct towards European food than their counterparts in Xi'an. This may be caused by that consumers in Shanghai (one of the most developed cities in China) have more opportunities of exposure to European food products than consumers in Xi'an (a developing and traditional city in China).

6.1.3. Motives for Chinese consumers' choice of European food versus traditional Chinese food (Chapter 4)

In order to answer RQ6, 7 and 8, data were collected through the same survey in Chapter 3. It examined Chinese consumers' FCMs and their attitudes and purchase intentions towards European food versus traditional food (as two general food types) The data were processed by using descriptive, factor and path analyses.

RQ6: ***What are the FCM construct for mainland Chinese consumers, and its similarities and differences comparing to those for consumers in other cultural settings?***

A CFA recognized that the original FCM construct developed by Steptoe et al. (1995) was not suitable for the mainland Chinese sample in this PhD research. An adjusted FCM construct with six dimensions was identified for mainland Chinese consumers by EFA: *Sensory appeal*, *Mood*, *Health concern*, *Food safety concern*, *Time or money saving*, and *Availability and familiarity*. This is in line with the findings in previous literatures that the applicability of FCM constructs according to the cultural settings (Milošević et al., 2012; Pula et al., 2014; Eertmans et al., 2006). Furthermore, *Sensory appeal* and *Availability and familiarity* were found to be the most important FCMs for mainland Chinese consumers. This is similar with those by consumers in Russia and Western Balkan countries, and different from that in other East Asian country and region such as Japan and Taiwan (China), in Southeast Asian countries and in most of European countries (Milošević et al., 2012; Honkanen & Frewer, 2009; Januszewska et al., 2011; Prescott et al., 2002; Roos et al., 2012; Steptoe et al., 1995).

RQ7: *How do Chinese consumers' FCMs affect their attitudes and purchase intentions in relation to European food, and its differences and similarities with that for traditional Chinese food*?

Path analyses confirmed the significant relationships between Chinese consumers' FCMs and their attitudes and purchase intentions towards European food and traditional Chinese food. Three important FCMs influenced Chinese consumers' attitudes or purchase intentions for European food: *Mood* (positively related), *Sensory appeal* (positively related) and *Time or money saving* (negatively related). These findings are in line with previous studies showing the importance of *appetizing or taste reassurance*, the aesthetic and emotional pleasures as well as getting experience for Western cultures for Chinese consumers to try or consume Western-style foods (Chang et al., 2010; Curtis et al., 2007; Zhou & Hui, 2003). It also fits with the current reality of Western-style foods in Chinese markets, with a high price and not a crucial component of Chinese consumers' daily diets and the definition of European food in this PhD research in relation to the high-priced imported foods or the foods in high-end Western restaurants, rather than Western convenient and fast food.

Regarding the important FCMs influencing Chinese consumers' attitudes or purchase intentions towards traditional Chinese food, five FCMs were recognized: *Time or money saving* (negatively related to the choice of traditional food), *Sensory appeal* (positively related), *Availability and familiarity* (positively related)*, Mood* (negatively related in Shanghai) and *Food safety concern* (positively related in Xi'an). This is partially in line with previous consumer-based studies related to traditional food in European food, where *sensory appeal, natural content, familiarity and the assurance of safety and quality* were key factors for European consumers, and *inconvenience* and *high price* were key barriers (Almli et al., 2011; Pieniak et al., 2009). Whereas *Weight control* and *Healthiness* were two negative factors for European consumers to choose traditional food (Pieniak et al., 2009), the dimension *Health concern* was not found to have a significant relationship with Chinese consumers' choice behaviour for traditional Chinese food.

For either traditional or European foods, *Sensory appeal* was a direct and strong factor driving Chinese consumers' purchase intention. This is in line with the dominance of sensory issues in food preference by the Chinese (Dang, 2010; Wan, 1995) and the most frequent word dimension *Sensory appeal* for both traditional food and European food associated by Chinese consumers in Chapter 2.

RQ8: ***How does the regional diversity affect the association between Chinese consumers' FCMs and their attitudes and purchase intentions towards European food and traditional Chinese food?***

There were also differences in significant FCMs for consumers' attitudes and purchase intentions towards traditional food and European food between Shanghai and Xi'an. *Mood* and *Time or money saving* appeared to be significant for consumers to choose both food types in Shanghai, while these two factors did not play a role in the Xi'an sample. This may be caused by the discrepancy between the development levels of the two cities or regions. Thus,

getting relaxed or *saving time or money* from foods may become important for Shanghai people in order to deal with the high-pressure style of daily life.

6.1.4. Determinants of consumer preferences for imported European beer in China (Chapter 5)

RQ9: ***How do PPAs, demographic, biological and geographic variables affect consumers' consumption for imported European beer in China?***

The data used to answer RQ9 were collected through the same survey in Chapter 3 and 4. It recognized the important product attributes for beer choice, demographic, biological and geographic characteristics, beer consumption frequency, European beer consumption and the country associations for European beer by Chinese consumers. The data were processed by using descriptive and ordered logistic regression analyses. In general, the European beer consumption across the total Chinese sample was positively linked to product attributes *Origin* and *Colour*, and negatively linked to *Price*. Additionally, *male gender*, *living in Shanghai city*, *a good financial situation*, *frequent beer consumption* and *a high-level position* had a significantly positive influence on European beer consumption in China. These determinants are similar to those that have been found to influence Chinese consumer choice for wine in previous studies (Balestrini & Gamble, 2006; Camillo, 2012; Goodman, 2009; Hu et al., 2008; Pan et al., 2006; Somogyi et al., 2011; Wen et al., 2010; Wilson & Huang, 2003; Yu et al., 2009). That also fit with the important product attributes, demographic, biological and geographic variables that affect consumer choice for imported food products (e.g. origin and price) or beer (e.g. gender, price, sensory attributes and income) in previous literatures (see Section 5.4), as well as that for European food (as a general food type) in China found in Chapter 2, 3 and 4 (e.g. price, sensory attributes, income and regional diversity). Finally, the European beer consumption was also statistically linked to product attributes *Texture*, *Alcoholic content* or *Brand* in the subsamples of Xi'an and the Non-Germany group (consumers with the country associations of 'non-Germany countries' for 'European beer').

These two subsample groups had less of the frequent European beer consumers comparing to that of Shanghai and the Germany group (consumers with the country associations of 'Germany' for 'European beer').

6.2. General discussion and conclusions

As one of most important East Asian countries, China is experiencing a diet transformation from *income-induced diet diversification* to *diet globalization and Westernization*, with its rapid growth of personal income and the urbanization at an unprecedented rate (Chen, Liu, & Tao, 2013; Pingali, 2007; World Bank, 2014). This diet transformation togher with the huge population are driving China to become an important (potential) market for Western food products, especially food products from Europe - the birthplace of Western dietay civilizaion. However, European food producers face challenges from the differences between East Asian and Western countries in dietary cultures and habits (Civitello, 2011; Chang et al., 2010; Li, 2007; Pingali, 2007; Sun & Collins, 2004; Wan, 1995). They also confront competitions from Chinese domestic producers who produce modernized traditional Chinese foods that have a huge market in China (Cai & Situ, 2006; Sun & Wang, 2013; Zhang et al., 2009; Zhao, 2003). Before this doctoral research, no empirical study is available to understand mainland Chinese consumer behaviour, attitudes and perceptions towards European food, and its differences and similarities with that for their own traditonal food. This may be casued by the early stage of Chinese food consumer research as well as the actuality that food consumption patterns in East Asia could hardly be analyzed by models formed from Western countries (Grunert et al., 2011; Liu et al., 2013). This doctoral research addresses the lack of understanding of Chinese consumer behaviour, attitudes and perceptions towards European food versus traditional Chinese food by using research methods matured in a Western/European context. Findings are valuable for European governments and food producers to better understand Chinese consumers and to develop effective and appropriate export policies and marketing strategies for European food products on the vast Chinese market.

Sensory is the first important factor driving consumer behaviour, attitudes and perceptions for a food product in China, which a good food needs to be excellent in terms of colour, aroma and taste (Dang, 2010; Wan, 1995). This dominance of sensory issues in food preference by Chinese has been confirmed by the findings of this doctoral research. First of all, *Sensory appeal* is the most frequently occurring dimension, for both traditional food and European food, identified by Chinese consumers in the qualitative study (Chapter 2). Secondly, *Sensory appeal* appears to be an important FCM among Chinese consumers, and at the same time it is positively associated with their purchase intentions towards both of traditional Chinese food and European food (Chapter 4). Thirdly, *Texture* and *Colour* are positively related to Chinese consumers' purchase of imported European beer (Chapter 5). Thus, marketers should choose and sell European food products that match the expectations of Chinese consumers for sensory appeal.

European food has a strongly positive image among Chinese consumers. Its advantages and disadvantages are shown in the findings of this doctoral research. *Safe* and *Upscale* are the most important attribute beliefs driving Chinese consumers to have a positive image of European food; while *Unfamiliar* and *Sweet* are the most negative drivers of European food's image (Chapter 3). Efforts should be done to keep or strengthen the advantages of European food, especially the safety assurance of European food products, because of the increased concerns of consumers with regard to food safety in China (Liu et al., 2013, 2014; Ortega et al., 2011; Qiao et al., 2012). For example, European marketers and governments should foster the implementation of the food safety management systems among all stakeholders within the value chain of food export to Chinese market, to measure and deal with its food safety risks timely (Mensah & Julien, 2011). Meanwhile efforts should also be done to make Chinese consumers more familiar with European food, and to change their impressions about the 'monotonous (sweet) taste' of it. This task can be completed by promoting the plenty of European local food resources (Jordana, 2000) to Chinese consumers.

Previous studies have shown the different consumption behaviours, dietary habits and lifestyle between highly developed regions and less developed regions in China (He, 2013; Liu et al., 2011; Sun & Collins, 2004; Sun, 2012). This is confirmed by the findings of this doctoral research. First of all, *Mood* and *Time or money saving* appeared to be significant for consumers to choose both food types in Shanghai, while these two factors did not play a role in the Xi'an sample (Chapter 4). Secondly, the construct of product attribute beliefs for the general image of European food by consumers in Shanghai is more complicated than that by consumers in Xi'an. The construct of Shanghai contains the attribute beliefs which can be obtained directly from consumption experiences such as cooking or eating; while the construct of Xi'an includes the product beliefs which can be gained without consumption experiences (Chapter 3). Thirdly, consumers in Shanghai are more likely to have a positive image of European food (as a general food type) (Chapter 3) and to become frequent drinkers of European beer (Chapter 5) than their counterparts in Xi'an. All the differences might be caused by the discrepancy of development levels between the two cities. Shanghai is an international metropolis and one of the China's first tier cities with the greatest exposure to Western cultures and products, and has the highest level of development and personal income among Chinese cities; while Xi'an is a traditional and historic city which is less developed and has much lower levels of personal income with less exposure to Western cultures and products (Liu et al., 2011; National Bureau of Statistics of the People's Republic of China, 2014; Zhao, 2003). Therefore, different marketing strategies should be used in Chinese regions with different development levels. European producers should improve their products by considering the consumer characteristics of developed cities in China (e.g. Shanghai), which *getting relaxed* or *saving time or money* from foods are important for them to deal with the high-pressure style of daily life. With regard to the less developed region (e.g. Xi'an), efforts should be done to create more opportunities for consumers' exposures to European food products and dietary cultures.

The results of the studies presented in Chapter 2, 3, 4 and 5 indicate that *Price* is a negative factor influencing consumers' attitudes, perceptions and choice behaviours towards European food (including European beer) in China. First of all, *Expensive* is one of the most important product attribute beliefs for European food, perceived by Chinese consumers (Chapter 2 and 3). Secondly, Chinese consumers who attach importance to *saving money or time* when buying food are less willing to choose European food (Chapter 4). Thirdly, *Price* is negatively linked to Chinese consumers' consumption towards imported European beer (Chapter 5). This reflects the reality that Western-style foods or imported Western food products often have high prices and mainly aimed at the high-end market in China (Bei, 2013; Curtis et al., 2007; Zhou & Hui, 2003; Lu, 2014). This 'barrier' may be disappeared as the growth of personal income in China, the reduction of tariffs by the more free-trade zones established by Chinese government, and the improvement of transportation infrastructure for trades between Europe and China which might be supported by the Asian Infrastructure Investment Bank, the European Bank for Reconstruction and Development, and China's strategy of One Belt And One Road in the future (Kazer, 2015; Prodi & Gosset, 2015; Pavlićević, 2015; Wheatley, 2015; Zhang, 2015).

Following the results of Chapter 5, *Origin* appears to be an important product attribute driving Chinese consumers to buy imported European beer. This is in line with the important impacts of *Origin* on consumer behaviour, attitudes and perceptions towards beer and foreign products (Balestrini & Gamble, 2006; Kelly et al., 2005; Phau & Suntornnond, 2006; Van der Lans et al., 2001). Interestingly, most of Chinese consumers associated 'European beer' with 'Germany' (Chapter 5). This fits well with the dominant share of China's beer imports by German beer in recent years (Chen, 2015; Lu, 2014), and the successful promotions of German beer culture in China, which for example the Munich Oktoberfest is very famous in China, and it represents German (or even European) beer culture in Chinese people's minds (Yang et al., 2011). As such, European food marketers should endeavour to promote dietary cultures and 'country of origin' information related to their products to Chinese consumers, for the future success of their products in Chinese markets.

The results of Chapter 3 and 5 indicate that the typical European food (as a general food type) users and the frequent European beer drinkers are both those Chinese consumers with a high income and/or living in a developed city (e.g. Shanghai). This is in line with the profile of typical Western-style food consumers in China identified by past studies (Curtis et al., 2007; Zhang et al., 2008). It also fits with the characteristics of China's middle-class consumers (Barton, Chen, & Amy, 2013). China now is the world's largest country by the number of middle-class consumers, 109 million in 2015 (Kersley & Stierli, 2015). As the rise of Chinese middle-class, European high-valued food/beverage products start to be popular in China (Diana, 2015; Olivier, 2015). Actually, the potential shows extremely huge in recent years, with the dramatic growth rates of China's beer import values from European countries between 2013 and 2014: Germany 57.40%, Netherlands 905.88%, Belgium 103.16%, France 160.86% and Spain 141.74% (Chen, 2015; China In Out, 2015; Lu, 2014). Consequently, European food marketers should meet the huge demand for European high-valued food/beverage products by Chinese middle-class consumers, and try to make their products successful in this unique 'Gold Mine'.

6.3. Contributions

6.3.1. Scientific contributions on research method

Comparing to the plenty of food-related consumer research in Western countries, studies of food-related behaviour in East Asia, especially in mainland China, are still rare, and this is caused by the reality that food consumption patterns in East Asia could hardly be analyzed by models formed from Western countries (Grunert et al., 2011). This doctoral research provides a good example about the usage of Western research methods and models to food consumer studies in East Asia, or even in other non-Western regions. First of all, the theoretical framework in Chapter 1 is based on a classical classification of influencing factors for food choice: environmental factors (environment), person-related factors (person) and properties of the food (product) (Steenkamp, 1997). Steenkamp (1997) presented this classification based on previous proposed models of Western consumer behaviour in relation to food. In this doctoral research with an East Asian/Chinese context, it makes the theoretical framework

clear and well organized, and supports the doctoral research to systematically examine the determinants for Chinese consumers' behaviours, attitudes and perceptions towards European food and traditional Chinese food.

Secondly, a web-based free word association test was applied in Chapter 2 for qualitative data collection. Prior to this doctoral study, to the author's knowledge, no study can be identified, used a web-based free word association test to collect qualitative data for food consumer science in China or East Asia. This doctoral research provides a good example for the usage of online qualitative tool in an East Asian setting.

Thirdly, the study in Chapter 4 examined the important food choice motives related to Chinese consumers' attitudes and purchase intentions towards European food versus traditional Chinese food, by using the FCM model (Steptoe et al., 1995), a comprehensive and reliable tool to explore consumers' daily food choice motives in previous European studies. It is the first study to use the FCM model for a sample in mainland China, an important East Asian country. The results demonstrate that the FCM model can be well applicable in a mainland Chinese context although its FCM construct needs to be rebuilt.

In general, these Western/European research techniques are successfully applied in this doctoral study with a Chinese context. This will encourage scholars to introduce more research methods and models matured in a Western/European context to food consumer studies in East Asian or non-Western countries.

6.3.2. Scientific contributions on knowledge

China is an important East Asian country, with dietary cultures and habits different from that in Western countries (Civitello, 2011; Chang et al., 2010; Pingali, 2007; Sun & Collins, 2004; Wan, 1995). Chinese cuisine is one of world's "Three Grand Cuisines" (Wolf, 2010). China has a wide variety of traditional food resources (Cai & Situ, 2006; Zhang et al., 2009; Zhao, 2003). However, prior to this doctoral study, there is no consumer-based empirical study

related to traditional Chinese food in China. The findings of this doctoral study fill the gap by contributing knowledge on Chinese consumers' attitudes, purchase intentions, important food choice motives and perceptions towards traditional Chinese food (Chapter 2 and 4).

There is also a lack of understanding of consumers' perceptions, attitudes and behaviours towards European food (as a general food type) in East Asia. This doctoral study addresses this gap and contributes to the scarce literature about consumers' perceptions, images, attitudes, purchase intentions, segments, and important food choice motives and socio-demographic characteristics in relation to European food in China (Chapter 2, 3, 4 and 5). Additionally, prior to this doctoral research, almost all researchers have used wine as their focus in studies related to East Asian consumers' attitudes, perceptions and behaviours towards Western alcoholic beverage, despite the global consumption value and volume of beer are much higher than for other alcoholic beverages (Swinnen & Vandemoortele, 2011). This doctoral study is the first to provide the knowledge on consumers' perceived product attributes, choice behaviour and important socio-demographic characteristics towards European beer- a typical Western alcoholic beverage in China (and East Asia)(Chapter 5).

This doctoral research also contributes to the limited research that focus on comparing and contrasting consumers' attitudes, perceptions and behaviours towards European food (or Western food) and their own traditional food in East Asia. The findings of Chapter 2 and 4 reveal the similarities and difference in Chinese consumers' perceptions, important food choice motives, purchase intentions and attitudes towards European food and their own traditional food (as general food types).

6.3.3. Marketing and policy implications

This doctoral research provides valuable inputs for European food producers, marketers and policy-makers who wish to improve marketing strategies and policies for European food products to be successful in the huge Chinese market. Based on the findings of this doctoral research, the following marketing strategies or policies are recommended. First of all,

European food products which are selected to sell in Chinese market should match the sensory expectations by its consumers. Secondly, European policy-makers, food producers and marketers should work hard to keep or strengthen the positive image of European food in Chinese consumers' minds. Efforts can be done to strengthen the advantage of European food such as its safety assurance in Chinese consumers' minds, and to make Chinese consumers more familiar with European food by promoting the plenty of European local food resources to them. Thirdly, due to the regional diversity in consumption behaviours, dietary habits and lifestyle, marketing strategies should be made differently for consumers between developed and less-developed regions in China. Fourthly, *Price* is a main factor against the European food consumption by Chinese consumers. This 'barrier' would disappear with the growth of Chinese consumer's personal income, the more free-trade zone established in China, and the improvement of transportation infrastructure on the Eurasian Continent. Fifthly, policies and marketing strategies should be made to promote European dietary cultures and the 'country of origin' information related to food in China, due to the important impact of *Origin* on the European food consumption for Chinese consumers. Finally, European police-makers, food producers and marketers should meet and exploit the huge demand for European high-valued food/beverage products, recently appeared among Chinese middle-class consumers.

6.4. Limitations and future research

The results of this doctoral research are undoubtedly valuable to address the lack of understanding of consumer behaviours, perceptions and attitudes for European food versus traditional Chinese food in China. Nonetheless, this doctoral research faces some limitations, and also opens up opportunities for future research. It will be discussed in the following paragraphs.

First of all, given the nature of our qualitative and quantitative data collections, i.e. the online questionnaires, and the relatively small number of participants involved, our sample did not fully represent the demographic characteristics of China. The sample were biased towards young people in the web-based free word association test (Chapter 2) and towards

high-educated people in the online survey (Chapter 3, 4 and 5). Furthermore, only two Chinese cities were selected for the quantitative data collection. Future studies should hire more representative consumer samples and survey regions to examine or further understand the generalization of the findings here for the entire China.

Secondly, the doctoral research focused on the European food and traditional Chinese food as two general food types (Chapter 2, 3 and 4) and the imported European beer as a general food category (Chapter 5), without differentiating between the different specific products of European food, traditional Chinese food and European beer from different food categories or origins (e.g. between European lager versus non-lager beers, Southern versus Northern traditional Chinese food products, or South European versus North European food products in China). As such, it will be interesting for future relevant studies to focus on specific product level, and to compare and contrast the findings with that in this doctoral research.

Thirdly, the responses of the web-based free word association test and all the questions of the online survey were self-reported by participants. The self-reported answers might deviate from actual behaviours, attitudes and perceptions, due to its subjectivity to social desirability, post-rationalisation, and cognitive dissonance or consonance (Pieniak et al., 2009). Therefore, future relevant studies should employ more objective research tools such as sensory analysis, experimental auction, eye-track experiment and so on.

Fourthly, this doctoral research focuses on consumers' perceived product attributes, attitudes, important food choice motives, general images, purchase intentions, and consumptions in relation to European food, traditional Chinese food or imported European beer in China. It is necessary for future studies to also integrate factors outside these items which might influence Chinese consumers' choice behaviours towards those two food categories (e.g. Food neophobia and ethnocentrism). Meanwhile, the doctoral research did not quantify the qualitative findings in Chapter 2 about Chinese consumers' perceptions towards traditional Chinese food, and did not include a variable of the consumption of European food as well as

the relationships between the perceived character profiles and the perceived product attributes of European food in Chapter 3. These will be interesting topics for future studies.

Fifthly, within the conceptual framework, environmental factors, person-related factors and properties of the food were recognized as the main influencing factor types for Chinese consumers' decision-making of choices of traditional Chinese food and European food (Verbeke, 2000; Steenkamp, 1997). However, future research related to Chinese consumers on these two food types or other food products should explore and involve additional parts in consumer decision-making process (including Information-processing, Decision-making process and Hierarchy of effects) (Verbeke, 2000).

Sixthly, regarding the web-based free word association test in Chapter 2, two stimulus words were included on two successive web-pages. This may have an order bias, in that the first stimulus word may have an impact on the elicited words from the second stimulus word. Further, the original elicited words have been translated using back-translation and grouped by three researchers. As mentioned by Guerrero et al. (2010), the translation and grouping results of a free word association test depend on the researchers who participate in the translation and grouping processes. There might be translation and/or grouping bias in the analysis processes. Thus, other qualitative tools (e.g. online or offline focus groups) should be hired in future studies with similar topic to check the robustness of the qualitative findings by this doctoral research.

Seventhly, there were also methodological limitations in the quantitative part of this doctoral research. Due to the fact that the FCM construct in Chapter 4 was based on a PCA, the data should not be used for a CFA (Biddle & Marlin, 1987; Breckler, 1990; Wu, 2009). A CFA should be conducted for the adjusted construct in future FCM model-based studies for mainland Chinese consumers. Additionally, single items were used to explore Chinese consumers' product attribute beliefs, general image, consumption, and product attribute importance in relation to European food or imported European beer (Chapter 3 and 5). This

might result in measurement bias. Future relevant studies should explore the factors by using multiple items to increase the measurement reliability. Further, some of the ordered logistic regression models in Chapter 5 had low R^2 values. This means that future research would need to focus on, or integrate, other variables that may also influence Chinese consumers' consumption towards imported European beer.

Finally, the scope of this doctoral research was to address the lack of understanding of consumer behaviours, attitudes and perceptions towards European food versus traditional Chinese food in China, with an exploratory nature. Further studies focusing on the development of theoretical models based on the findings in this doctoral research are recommended.

Appendix

Appendix I: Results of data analysis for an online asynchronous focus group discussion (for study design in Chapter 3)

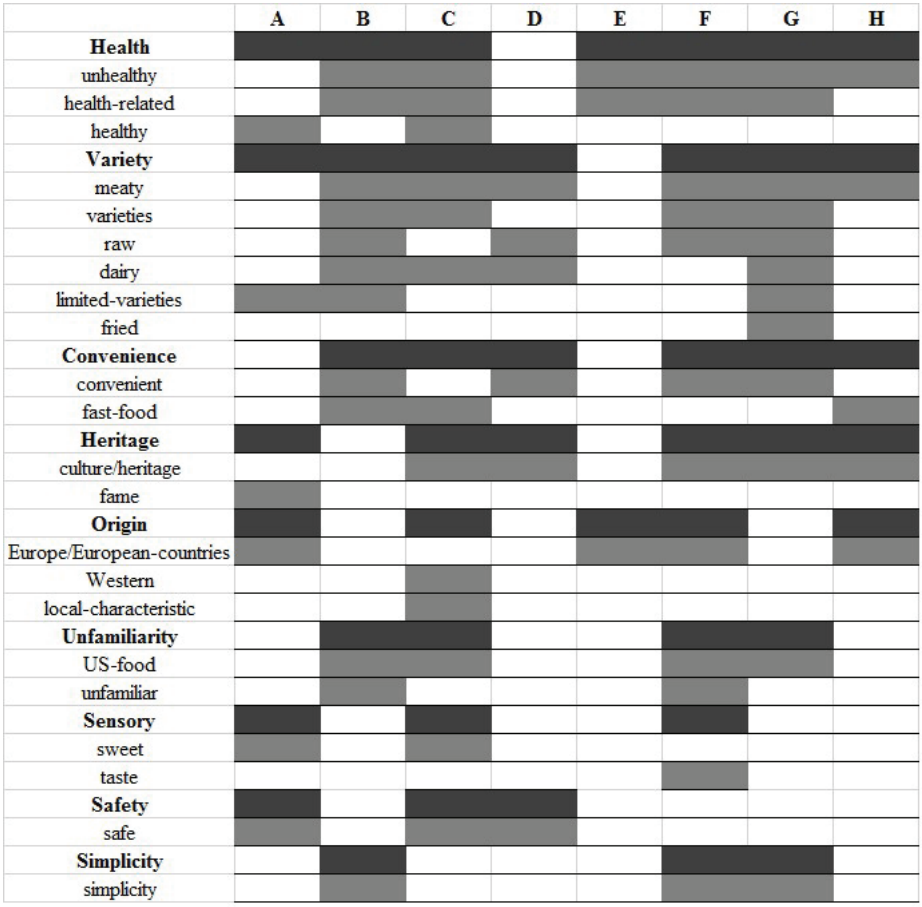

Figure I Elicited content nodes from an online asynchronous discussion using 'European food' as topic

Note: A, B, C, D, E, F, G and H= Group member codes; black or grey unit = content node contributed by a group member.

An online asynchronous focus group was conducted in June 2012, to elicit Chinese consumers' (older than 40) perceptions towards European food. This is to address the age bias of qualitative findings from the online word association test in Chapter 2. It had eight participants who were members of a consumer panel of the mainland Chinese research agency, with strict confirmation for their socio-demographic characteristics, such as national ID card

(all of them older than 40, four female and four male, from eight Chinese provinces). First, they were asked to provide their answers for two open questions about European food on a web-based questionnaire: (1) "*In your opinion, what is European food?*" and (2) "*In your opinion, what are the characters of European food?*" They were told to contribute their own opinions and not to read any related material. Then, they joined in an online virtual chat group, to discuss the responses collected from the web-based questionnaire. They were also allowed to contribute new comments or ideas about European food. They were continuously encouraged to respond by a moderator during one week. All group members received a monetary incentive. The transcript was broken down into sentences and phrases that were coded into content nodes, shown in Figure I. The findings were used for study design in Chapter 3.

Appendix II: Authorization letter for Figure 1.4

Contact Person	E-mail	Tel	Date
Prof. Zhao Rong-guang	zhaorongguang126@126.com	+86-0571-88071024-8473	25 - 02 - 2013

To whom it may concern,

I, Zhao Rong-guang, permit Mr Wang Ou, who studies in the Department of Agricultural Economics of UGent, to cite the distribution map of Chinese diet cultural cycles (中华食文化圈示意图) on his articles with academic purpose, which the map came out of my published article - *the Report on the Chinese food culture*(Zhao, R.G., 1995. Report on the Chinese food culture. Agricultural Archaeology, 242-253/ 赵荣光. 关于中国食文化的报告[J]. 农业考古,1995,01:242-253).

This permission is valid till 25 - 02 – 2016.

Regards,

赵荣光 Zhao Rong-guang

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Summary

The demand for imported food products is growing dramatically in China. This brings a great opportunity for European food marketers to exploit this huge and promising market so that they can expand their market share in an extremely competitive globalization era. However, there is still a lack of understanding with regard to consumer behaviour, attitudes and perceptions towards European food in China or East Asia. The overall objective of this research is to address this lack of understanding. Specifically, it focuses on: (1) Consumer's perceptions of European food versus traditional Chinese food in China; (2) General image of and product attribute beliefs about European food in China; (3) Motives for Chinese consumers' choice of European food versus traditional Chinese food; (4) Determinants of consumer preferences for imported European beer in China. This doctoral thesis is structured using a conceptual framework based on a classical classification with three types of influencing factors for food choice: environmental factors (environment), person-related factors (person) and properties of the food (product) (Steenkamp, 1997). Both qualitative (web-based free word association test) and quantitative (online survey in Shanghai and Xi'an) studies were conducted, with primary data input.

From the applied research, the following major conclusions are drawn:

- Twelve dimensions are considered by Chinese consumers when defining European food: *Sensory appeal*, *Heritage*, *Origin*, *Symbolic meaning*, *Health*, *Variety*, *Safety*, *Marketing*, *Mood*, *Simplicity*, *New* and *Convenience*. Ten of these dimensions are same with that of traditional food defined by Chinese consumers: *Sensory appeal*, *Heritage*, *Origin*, *Symbolic meaning*, *Health*, *Variety*, *Safety*, *Marketing*, *Mood* and *Simplicity*. Chinese consumers also associate their own traditional food with dimensions *Elaboration*, *Celebration* and *Habit*. Although ten dimensions are the same, obvious differences can be identified by comparing the classes for the two food concepts.

- European food has a clearly positive image among Chinese consumers. *Delicate appearance*, *Tasty*, *Healthy*, *Fashionable*, *Safe*, *European heritage*, and *Upscale* are important attribute beliefs driving Chinese consumers to have a positive image of

European food; while *Sweet* and *Unfamiliar* are two negative drivers of European food's image.

- The image of European food is influenced by more product attribute beliefs among consumers in Shanghai than that among consumers in Xi'an. This indicates a more complicated construct of attribute beliefs related to the general image of European food by consumers in Shanghai compared to Xi'an.

- Three distinct consumer segments were identified on the basis of their product attribute beliefs for European food: consumers with 'positive beliefs' for European food (29%), consumers with 'negative beliefs' for European food (26.4%) and consumers with 'Slightly-positive beliefs' with European food (44.6%). Consumers of these three segments differed in their city diversity, single status, financial situations and overseas experiences.

- The perceived character profiles of typical users of European food are: having overseas experiences, having high income, young or living in a big city.

- An adjusted FCM construct with six dimensions was identified for mainland Chinese consumers: *Sensory appeal*, *Mood*, *Health concern*, *Food safety concern*, *Time or money saving*, and *Availability and familiarity*. Chinese consumers' choice of European food is influenced by *Mood*, *Sensory appeal* and *Time or money saving*. Their choice of traditional Chinese food is influenced by *Time or money saving*, *Sensory appeal*, *Availability and familiarity, Mood,* and *Food safety concern.*

- *Sensory appeal* is a direct and strong food choice motive driving Chinese consumers' purchase intentions towards their own traditional food and European food. *Mood* and *Time or money saving* appeared to be significant for consumers to choose both food types in Shanghai, while these two factors did not play a role in the Xi'an sample.

- European beer consumption is positively associated with product attributes *Origin*, *Brand*, *Colour* and *Texture*， and it is negatively linked to *Price* and *Alcoholic content* by Chinese consumers.

- Male gender, living in Shanghai city, a good financial situation, frequent beer consumption and a high-level position have a significantly positive influence on European beer consumption in China.

Samenvatting

De vraag naar geïmporteerde voedingsproducten groeit significant in China. Dit brengt kansen met zich mee voor de Europese voedingsmarketeers door deze veelbelovende markt te exploreren zodanig dat ze hun marktaandeel kunnen vergroten in deze competitieve globaliserende tijd. Maar weinig is gekend over consumentengedrag, attitudes en percepties ten opzichte van Europese voedingsproducten in China of in het algemeen Oost-Azië. Het globale doel van dit onderzoek is dan ook om een antwoord te formuleren op dit gebrek aan informatie. Meer bepaald focust dit onderzoek op: (1) De consumentenpercepties over Europese versus traditionele Chinese voedingsproducten in China; (2) Het algemene imago en productattributen perceptie van Europese voedingsproducten in China; (3) Motieven van de Chinese consumenten met betrekking tot Europese voedingsproducten versus traditionele Chinese voedingsproducten; (4) Determinanten van de voorkeur voor geïmporteerd Europees bier in China. Dit doctoraat is gestructureerd op basis van een conceptueel framework gebaseerd op klassieke classificatie met drie types beïnvloedende factoren voor voedingskeuze, namelijk: omgevingsfactoren (omgeving), persoon-gerelateerde factoren (persoon) en voedingseigenschappen (product) (Steenkamp, 1997). De primaire data is waren verzameld tijdens op kwalitatieve (web-gebaseerde vrije woord associatie test) als kwantitatieve (online vragenlijst in Shanghai en Xi'an) studies.

De volgende voornaamste conclusies kunnen genomen worden na het uitvoeren van dit onderzoek:

- Chinese consumenten nemen twaalf dimensies in beschouwing bi het definiëren van Europese voedingsproducten : sensorische aantrekking, cultureel erfgoed, afkomst, symbolische waarde, gezondheid, variatie, veiligheid, marketing, stemming, eenvoud, nieuw en gemak. Tien van deze dimensies zijn dezelfde als de dimensies voor traditionele voedingsproducten: sensorische aantrekking, cultureel erfgoed, afkomst, symbolische waarde, gezondheid, variatie, veiligheid, marketing, stemming en eenvoud. Chinese consumenten associëren hun eigen traditionele voedingsproducten ook met de dimensies gedetailleerdheid, feest en gewoonte. Hoewel tien dimensies hetzelfde zijn, kunnen er

duidelijke verschillen gedefinieerd worden bij het vergelijken van de groepen voor de twee voedingsproductentypes.

- De Chinese consumenten hebben een duidelijk positief beeld over Europese voedingsproducten. *Verfijnde uitstraling*, *Smakelijk*, *Gezond*, *Populair*, *Veilig*, *Europees erfgoed* en *Opschaling* zijn belangrijke attribuutkenmerken dat Chinese consumenten naar een positief beeld over Europese voedingsproducten drijven; terwijl *Zoet* en *Onbekend* twee negatieve drijfveren zijn voor het beeld over Europese voedingsproducten.

- Het beeld over Europese voedingsproducten wordt beïnvloed door meer productattributen bij consumenten in Shangai dan bij consumenten in Xi'an . Dit wijst op een meer gecompliceerd construct van attributengeloof gerelateerd tot het globale beeld van Europese voedingsproducten door consumenten in Shangai in vergelijking tot Xi'an.

- Drie verschillende consumentensegmenten zijn geïdentificeerd op basis van hun geloof in productattributen van Europese voedingsproducten: consumenten met 'positieve overtuigingen' voor Europese voedingsproducten (29%), consumenten met 'negatieve overtuigingen' voor Europese voedingsproducten (26.4%) en consumenten met 'lichte-positieve overtuigingen' voor Europese voedingsproducten (44.6%). De consumenten in deze drie segmenten zijn verschillend op vlak van stedelijke diversiteit, single status, financiële status en overzeese ervaring.

- De kenmerken van typische gebruikers van Europese voedingsproducten zijn: het hebben van overzeese ervaring, het hebben van een hoger inkomen, jong zijn en leven in een grote stad.

- Een aangepast FCM construct met zes dimensies is geïdentificeerd voor Chinese consumenten die op het platteland leven, namelijk: sensorische aantrekking, stemming, bezorgdheid over gezondheid, bezorgdheid over voedselveiligheid, tijd – of geld besparing, beschikbaarheid en vertrouwdheid. De keuzen van Chinese consumenten voor Europese voedingsproducten wordt beïnvloed door stemming, sensorische aantrekking en tijd – of geld besparing. De keuzen van Chinese consumenten voor traditionele voedingsproducten wordt beïnvloed door stemming, sensorische aantrekking en tijd – of geld besparing, beschikbaarheid en vertrouwdheid, bezorgdheid over voedselveiligheid.

- *Sensorische aantrekking* is een directe en sterke motivatie voor Chinese consumenten met betrekking tot koopintenties ten opzichte van hun eigen traditionele voedingsproducten en Europese voedingsproducten. *Stemming en tijd – of geld besparing* zijn significante factoren met betrekking tot het kiezen van beide voedingsproductentypes in Shanghai, in tegenstelling tot in Xi'an waar deze factoren geen rol spelen.

- Europese bierconsumptie is door de Chinese consumenten positief geassocieerd met de volgende productattributen: afkomst, merk, kleur en textuur, en is negatieve geassocieerd met prijs en alcoholgehalte.

- Man zijnde, leven in Shaghai-stad, een goede financiële situatie, frequente bierconsumptie en een hoge positie hebben een significante positieve invloed op Europese bierconsumptie in China.

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Curriculum Vita

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Journal articles (Published and under process)

Wang, O., De Steur, H., Gellynck, X., & Verbeke, W. (2015). Motives for consumer choice of traditional food and European food in China. *Appetite*, 87, 143- 151 (A1).

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Conference proceedings

Wang, O., Gellynck, X., & Verbeke, W. (2015). Perceptual dimensions of traditional food and European food among Chinese consumers, Oral presentation, 11th Pangborn Sensory Science Symposium, Sweden (FWO and CWO conference grants).

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Other research activities

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