



# Article Market Sustainability: A Globalization and Consumer Culture Perspective in the Chinese Retail Market

# Farman Afzal <sup>1,\*</sup>, Yunfei Shao <sup>1</sup>, Muhammad Sajid <sup>2</sup> and Fahim Afzal <sup>3</sup>

- <sup>1</sup> School of Management and Economics, Center for West African Studies, University of Electronic Science and Technology of China, Chengdu 611731, China; shaoyf@uestc.edu.cn
- <sup>2</sup> School of Management, Royal Holloway, University of London, London TW20 OEX, UK; muhammadsajid@gmx.co.uk
- <sup>3</sup> Business School of Hohai University, Hohai University Nanjing, Nanjing 210029, China; fahimafzal@hhu.edu.cn
- \* Correspondence: farmanafzal@gmail.com

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Abstract: Consumer behavior is becoming increasingly heterogeneous due to the changing culture patterns and effects of globalization. This phenomenon increases the importance of focusing on the social dimension of sustainability in a consumer market. This research contributes to the body of knowledge by emphasizing the consequences of individual cultural values and individual materialistic values in the Chinese consumer market. In this endeavor, Hofstede's framework of individual culture with materialistic effect is applied to understand consumer behavior in a processed food market. Rigorous research activity was conducted at the point of sale in different supermarkets to record the responses of random consumers. The results of multi-variate covariance-based structure equation modeling show that individual materialistic values have emerged as a key determinant, which reflects the individual culture for consumer buying behavior in a state of globalization. Power distance, long-term orientation, and uncertainty avoidance were found to be important measures of individual culture. The findings of the study are useful in assisting the industry for product launching and marketing strategies to achieve future sustainability in the processed food market. In the pursuit of a sustainable processed food market, the focus should shift toward individual cultural values away from national and group cultures.

**Keywords:** individual culture; consumer behavior; materialism; sustainable market; processed food; globalization

# 1. Introduction

Achieving market sustainability has been a vast area of research, being a significant challenge in emerging markets, including meeting customer needs and achieving sustainable consumption [1]. *Globalization* has emerged as a key indicator of economic prosperity in emerging markets [2]. Economic development, an increase in consumer base, and changing patterns in retail sales present opportunities for many international retailers. This attractive prospect for business expansion also presents challenges for business growth [3]. As multiple cases have shown, many challenges surround different cultural forces in achieving sustainable market practices [4].

Living is becoming gradually synonymous with consumption patterns [5]. People do not only employ consumption for their basic physiological needs but to create self-actualization and define one's role in society [6]. Adhering to these materialistic thoughts, consumption has become a source of identification and self-realization for people because they consume the symbolic meaning of those

products, an "image", to pursue happiness and the acquisition of success [7]. An increase in living standard has modernized the traditional business processes, and attention has been diverted to retailing [8,9]. *Culture* is a crucial topic, since the emergence of globalization in the 21st century [10]. Adhering to individual cultural values (ICVs) profoundly influences the preferences and choices of a person when responding to marketing efforts [11]. A consumer's local culture generally resists foreign products in many societies. In the 21st century, despite an increase in urbanization, and decomposition of the traditional joint family system, the forces of globalization are influencing people's spending power [10].

This ecological change is reflected in individual decision-making behavior, especially in countries where the cultural background of the population is heterogeneous. These individuals have different attributes and behave differently than others [12]. Therefore, the growing consumer orientation of many societies around the world is expanding the occasions for taking advantage of consumer buying behavior (CBB) [13]. However, the extent of this behavior is ignored by marketers in term of ICVs and the materialistic thoughts of consumers, which are transforming rapidly in developing countries [3]. Such cultural differences are an important aspect of achieving consumer market sustainability. A sustainable global market is influencing consumer desire for better nutrition and lifestyle because people are migrating and sharing cultural values across countries [11]. Consequently, for the development of a sustainable market, it is essential to understand the role of ICVs and the materialistic thoughts of people on buying decisions in marketplaces [11,14,15]. Business managers are trying to determine the optimal level of marketing standardization in the world food market [15]. The marketers mainly focus on persistently studying individual culture (IC) because it has a direct and important relationship with the consumers, who are changing their interest from conventional food to processed food [16].

Several attempts have been made to develop an integrated view of consumer culture. The efforts to measure consumer behavior (CB) through IC and materialism have increased significantly, where society does not influence decision making and individual decisions are pre-dominated. Though, decision making varies from society to society and product to product as well. When imported products are available in a market and are intensively promoted, consumers' materialistic values (MVs) tend to reflect the cultural value (CV) of whether or not to adopt the new product [17]. However, current models of CB and culture do not offer a comprehensive framework firmly grounded in theory, or do not include sufficient explanations of how IC dimensions affect specific CB traits [12].

Gupta [10] empirically investigated the impact of globalization on changing MVs in Indian consumers. In that study, consumers' predisposition toward foreign brands and their MVs were found to be significantly positively correlated. Kiran [11] determines the factors that lead to the purchase of processed, packaged, ready to use, and branded food products. Kiran's study further suggests addressing the role of IC and globalization in market growth. Similarly, Monga and William [5] conducted a study on cross-cultural styles of thinking and their influence on CB. Their study focused on international retail food chains and demonstrated the key role of local culture in consumer decisions. The study shows that cross-cultural styles tend to emerge due to increasing globalization. Sobol et al. [15] conducted a longitudinal study on globalization, culture, and CB of Dutch consumers. The study extended this body of research by illustrating culture's varying effects on food consumption and suggested contextualizing the consumption pattern of processed food at the local level.

The basic assumption underlying this current study is that consumers' decisions in the market are influenced by increasing globalization, and the effect of transforming ICVs [12]. However, individual materialism resists external pressure and gradually changes ICVs. Culture is considered to be crucial in developing a marketing strategy. ICVs, and the extent to which people adhere to their values, profoundly influence how consumers make choices and decisions in a market. This cultural diffusion is rapidly transforming nations from collectivism to individualism and appears to be a critical challenge for contemporary business managers. In the past, business managers have contended to achieve an optimal level of market standardization when managing the global market [15], though many products

failed due to misalignment of consumer decisions with the cultural impact on products. It is essential to align products with culture for future sustainability and competitiveness in the consumer market. The present research is an attempt to address the following research question (RQ): How is CBB at an individual level influenced by individual materialistic values (IMVs) that reflect the cultural beliefs and values of consumers within the environment of globalization for the sustainable future market? Specifically, we investigated the influence of changing IC and materialism patterns of people on buying behavior (BB) in an emerging market in China. This cultural transformation is due to the impact of globalization. Thus, this phenomena is being reflected in the consumer market at the retail level in

a different category of products, particularly in food products [12]. While, looking for the essence of a sustainable market system, it is important to achieve sustainability to enable a better consumer lifestyle. The first stage in improving lifestyle is people's preferences of retail products, like processed food, and their willingness to adopt this change.

We focused on Hofstede's five dimensions of culture at an individual level [17,18] and synthesized previous research that evaluated the impact on CB [9] and materialism [7] as a moderator that signifies the relationship between CB and ICVs [10]. This study shows that ICVs lead toward changes in CBB while changing IMVs; people first change their internal inherent state of mind then allow their culture to be reflected in consumption decisions. We extend our contribution to the existing literature to address the key role of IMVs as a moderator in the consumer decision-making process for developing a sustainable market. The study findings provide additional insights for business managers for designing product development plans in emerging markets. Similarly, the study findings highlight the variant features of culture and materialism involved in buying processed food, which are profoundly influential in developing a sustainable market in the changing globalization scenario. We start with a discussion of the emergence of a retail market in China and the cultural role in consumer decisions, and then examine the importance of ICVs and IMVs for consumers in the globalization scenario. Finally, we revisit the previous conceptualizations of consumer behavior and offer novel contributions to the current literature on how to increase understanding in the broader context of ICVs and IMVs for consumers under the proxy of globalization.

#### 2. Emergence of the Retail Market in China

Existing studies show that consumers in emerging markets, such as China, Brazil, and India, are better engaged in sustainable buying behavior than the consumers in developed economies [19]. Despite economic growth, these emerging markets have been experiencing cultural transformation and changes in demographics with a consequent increase in the retail market [20]. The growth in the Chinese retail sector since the early 1990s is evidence of convergence with international trends, making the retail market less distinguishable from those in Western countries [21]. Traditional retailing (i.e., family-owned stores and markets) are declining and new retail system supermarkets are expanding. Wang [21] identified the drivers of retail transformation in China: (1) retail deregulations, (2) desertion of state monopolies, and (3) foreign direct investment in the retail sector. The expansion of this retailing format occurs as this new format is quickly copied by Chinese retailers. Another aspect of this transformation is the changing consumer choices and preferences in the new generation due to increased access to international media, communication technology, and products [22]. These individuals are often more acquainted with Western lifestyles and ambitiously aim to improve their lifestyle. They make purchasing choices as an indication of both status and aspiration [2,23,24]. This new middle-class generation, with a growing interest in foreign products and higher income level, is a potential target market for the international business community [1]. A transformation in consumer culture is also reflected in a number of other aspects, such as cross-culture migration due to business, work, education, and tourism [3,25]. Now, the cultural consumption values in the Chinese retail market are rapidly transforming into Western values of consumption, which is also a key driver of success in retail market success [26].

#### 3. Market Sustainability and Culture

Sustainable marketing—derived from sustainable development—extends marketing theory into creating ecological, social, and economic balance in a market [27]. Similarly, sustainable marketing strives to build a sustainable relationship with customers and maintain the balance of the social and natural environments [25]. Sustainable marketing is perhaps a society-driven process, as society transforms the meaning of marketing, which also evolves [4,28]. Arguably, developing a sustainable market is derived from sustainable marketing efforts in a society. Though the notion of sustainability is strictly associated with the culture of traditional societies, economic prosperity and changing materialistic tendencies have transitioned traditional societies into a culture that is the antithesis of market sustainability [1,29]. This is all occurring due to the dominance of neo-liberal theory of consumption, which is being fueled by the effects of globalization [2]. To stop exacerbating process of traditional marketing, it is essential to understand the influence of IC traits of consumers in fulfilling their needs and wants. The remainder of the sections briefly explain the role of the IC dimension in determining consumer culture within a proxy of globalization. We also examined how marketers can incorporate the changing patterns of consumer culture into marketing strategies to achieve sustainability in a market.

#### 3.1. Hofstede's Individual Cultural Framework

Hofstede is renowned for his work on different aspects of culture and presenting the four-dimensional model for behavior decision [17]. Hofstede's model was challenged by McSweeney's critique in 2002, and McSweeney suggests that national culture is a questionable systematic casual factor of behavior [30]. Still, Hofstede's cultural framework is widely used by researchers to study cultural impact on the consumer market [18].

Hofstede's cultural framework includes dimensions of individualism, including (1) power distance (PD), (2) collectivism (COL) vs. individualism (IND), (3) masculinity (MAS) vs. femininity (FEM), (4) uncertainty avoidance (UA), and (5) long-term orientation (LTO) vs. short-term orientation (STO). This model measures the score of all dimensions on a scale from 0 to 100 for each country [17]. Table 1 illustrates the Hofstede's IC dimensions that have been used in different studies to address consumer preferences and choices in the market.

Author(s)/Year	Item	Dimension	Reference
Chipulu et al., 2014; De Mooij & Hofstede, 2002; Gentina et al., 2014; Hofstede & Bond, 1984; Kim, 2017; Teimourpour & Hanzaee, 2011; Venaik & Brewer, 2013; Yoo et al., 2011	PD	Power distance (high vs. low)	[6,14,17,18,31– 34]
Eckhardt & Mahi, 2012; Gentina et al., 2014; Hofstede & Bond, 1984; Kacen & Lee, 2002; Kim, 2017; McSweeney, 2002; Monga & Williams, 2016; Sobol et al., 2018; Venaik & Brewer, 2013; Yoo et al., 2011	UA	Uncertainty avoidance (high vs. low)	[5,13–15,17,18, 30,32,33,35]
Eckhardt & Mahi, 2012; Kacen & Lee, 2002; Kim, 2017; McSweeney, 2002; Monga & Williams, 2016; Sobol et al., 2018; Yoo et al., 2011	COL vs. IND	Collectivism vs. individualism	[5,13,15,18,30, 32,35]
Craig & Douglas, 2006; Eckhardt & Mahi, 2012; Kacen & Lee, 2002; Kim, 2017; McSweeney, 2002; Samuel et al., 2009; Teimourpour & Hanzaee, 2011; Venaik & Brewer, 2013; Yoo et al., 2011	LTO vs. STO	Long-term orientation vs. short term orientation	[6,13,18,26,30, 32,33,35,36]
Eckhardt & Mahi, 2012; Hofstede & Bond, 1984; Kacen & Lee, 2002; Monga & Williams, 2016; Seregina, 2014; Sobol et al., 2018; Venaik & Brewer, 2013	MAS vs. FEM	Masculinity vs. feminist	[5,13,15,17,33, 35,37]

Table 1. Dimensions of Hofstede's individual cultural framework used in different studies.

*Power distance* is related to the extent of power distribution in which the less powerful members of the society feel that power is not equally distributed in a society. This is a fundamental issue in all societies, and everyone accepts this unequal hierarchy in class. Some people hold large PD, and some hold a small PD tendency. China has been ascribed a high accrued score of 80% in believing that unequal distribution in society is acceptable [38]. *Collectivism* is related to the way in which individuals

in a specific society belong to a group in terms of their thinking and actions. Conversely, *individualism* is the extent to which individuals are encouraged to make decisions independently. According to Hofstede [33], the business environment in China is inclined toward COL, as the people tend to prefer group needs over individual needs. However, due to rapid economic development, recent market trends show that individualism now tends to dominate the Chinese consumer market, particularly in the younger generations [38]. Masculinity is the extent of the distribution of roles between the men and women in society. The index values of MAS indicate that, in some societies, men are powerful in role performance, and in other societies, women dominate role performance. China shows a favorable score of 66%, indicating that women have more power than men in role performance [30,32]. Uncertainty avoidance is the extent to which a society shows avoidance behavior in tolerating the uncertainty. People with low UA are relatively open-minded and show tolerance behavior at the workplace, whereas people with high UA are more conservative because society tries to minimize the uncertainty and ambiguity through rules and regulations. China has a low UA score of 30%, which shows Chinese are comfortable with uncertainty in the marketplace. The dynamics of UA in China are changing, and the degree of UA is relatively higher in young generations [30,32]. Long- vs. short-term orientation is the extent to which society shows a future-oriented perspective and is pragmatic rather than a short-term or conventional/historical perspective. Chinese people with LTO perspective think over a longer term rather on the short term and the Hofstede scale shows a score of 87%, which is higher than in Western countries [6,38]. These IC dimensions are adhered to by individuals in the decision-making process. However, the wave of globalization has changed the mindset of individuals, and younger generations are now more optimistic in their response to change in a market [7]. This transformation of the IC dimensions plays a significant role in individuals' choices and preferences in the marketplace [5,15].

#### 3.2. Globalization and Culture

#### 3.2.1. Consumer Culture

Since the late 1990s, globalization has received a considerable amount of attention in the consumer market, and is defined as a process that includes economy, society, culture, technology, and other exchanges to effectively integrate regional economies and societies for shared resources [35]. *Culture* depicts the people of a certain region. Researchers have defined culture as a group or community in which members share common experiences that shape their understanding of the world [39]. Studies have investigated cultural change from the perspectives of globalization and global consumer culture [10,35]. The impact of culture on CB has been found to be static; perhaps globalization's effect on societies is progressively shaping consumption practices [7,15].

Considering the influence of global product flows, researchers [13,35,36] have observed that, in today's world, cultural products and the way of life in the developed world are affecting developing and under-developing countries. This is due to the contact of people through traditional media (e.g., television and film), and new media (e.g., the Internet, electronic social networking, and blogs) [37]. Similarly, the rituals of one culture are being adopted by those of other cultures [36]. Belk [40] empirically showed how forces of globalization are changing consumer culture and explained the macro consumer issues. The major consequence of globalization and multicultural effects include a growing appreciation of the global food industry by the consumers in Asia, and particularly in China [7]. As a result, this is bringing new challenges for business managers in creating sustainability within a culturally diversified food market [12].

# 3.2.2. Consumer Culture and Behavior

Consumer culture influences differences in choices, purchases, and product usage [41]. Figure 1 explains the effect of culture on consumer choices, which ultimately determines purchase behavior. National wealth can have prominent differences in income levels and has emerged as an explanatory variable for buying decisions [13]. When investigating consumer decisions and reactions, a few other

variables are rooted in order, including sociology, economics, and ecology, resulting in additional behavioral reactions by an individual [37]. Culture largely motivates people and affects their behavior: the different purchases people make are affected by whether their decisions are based on group or individual decisions, and their choices and emotions affect market choices [16]. Likewise, many researchers have presented other aspects of cultural influence on different facets of CB in different scenarios [37,42,43].

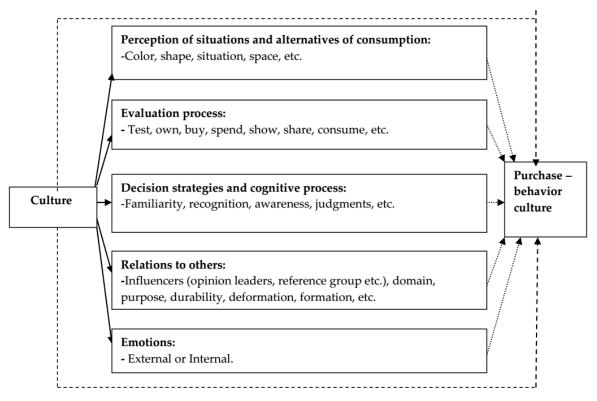


Figure 1. Consumer choices and buying behavior (Source: Bathaee, 2013, [41] p. 12).

Cultural values (CVs) influence how consumers process information and their choices because they play a vital role in almost all fields of management [44,45] and marketing [46]. The importance and ordering of these values have relative meaning to groups, individuals, and societies. CVs influence consumers when comparing purchases among substitutes in the marketplace [46]. People differentiate brands by remembering benefits or attributes, to build a strong position for brands and motivation to buy within a value system [37]. Few studies have found no significant differences between CB and culture under special circumstances or in a certain category of products [36]. The majority of researchers [18,37] followed the cultural differences approach and think that cross-cultural characteristics of behavior are consistent and exclusively formed due to shared values, norms, beliefs, and learned behaviors within or across national boundaries over time, all influencing on CB [12].

Many studies [7,32,37] focused on ICVs to determine CB. Chen and Ree [7] illustrated the local and global sources of individualism for modernity and globalization. Kacen and Lee [13] also examined the influence of ICVs on consumer impulsive buying behavior. CB involves three factors: (1) cognitive (i.e., beliefs), (2) affective (i.e., attitudes), and (3) conative (i.e., intentions) [38,43]. Some important dimensions of CB are: purchase (PUR), repurchase (REP), and positive word-of-mouth (PWM) [9]. CB, in achieving sustainability, is also expressed through the tendency of behavior toward economic development, living standards, and lifestyle [5,11,14,47]. An individual's behavior depends on the ICV system for a particular situation. ICV systems develop over time as they are socialized into a particular group [37].

#### 3.2.3. Materialism

Researchers have explained the forces of globalization that are transforming consumer culture [39,48,49]. One dimension that influences culture and CB is *materialism*. Burroughs et al. [48] illustrated that materialism is an expression of unmet inner psychological needs and insecurities. Yakobovitch and Grinstein [50] compared MVs with Schwartz's self-enhancement values of power, position, and achievement [51]. According to Yakobovitch and Grinstein [50], materialism is an inner value system that is reflected in the global consumer culture. People focus on the material goods and services prominently displayed in retail stores [8], by social media [52], advertisement [46], and by individuals [53]. People in societies understand the image of consumption as the standard of living and as a way of extending their personalities [39,50]. Burroughs et al. [48] and Gupta [10] expanded upon the three dimensions of materialism that reflect culture and CB: (1) acquisition as the pursuit of happiness (AH), which means acquisitions and possessions are necessary to materialists' satisfaction and well-being in life; (2) possession-defined success (PS), whereby materialist people judge their own and other's success by the number and quality of possessions gathered; and (3) acquisition centrality (AC), meaning materialist people place possessions and their acquisitions at the center of their lives [12,40,50]. Table 2 illustrates the dimensions of individual materialism addressed in previous studies that reflect the consumer decisions in market places.

Table 2. Dimensions of materialism for buying behavior used in different studies.

Author(s)/Year	Item	Dimension	Reference
Belk, 1985; Chaplin et al., 2014; Chen & Ren, 2016; Gupta, 2011	AH	Acquisition as the pursuit of happiness	[7,10,40,54]
Burroughs et al., 2013; Gupta, 2011; Yakobovitch & Grinstein, 2016	PS	Possession-defined success	[10,48,50]
Belk, 1985; Chen & Ren, 2016; Csikszentmihalyi, 2004; Gupta, 2011; Yakobovitch & Grinstein, 2016	AC	Acquisition centrality	[7,10,40,50,55]

Materialism has emerged as a significant research area among scholars across a broad range of disciplines since the late 2000s [48]. Researchers have empirically exhibited that materialism has evolved as a component of consumer culture that varies across different societies and countries [10]. MVs involve strong beliefs in the importance of pursuing the culturally-sanctioned goals of attaining financial success, having possessions, portraying the right image, and high status (defined mostly by income and wealth and the scope of one's possessions) [7]. Understanding materialism is a distinct feature in addressing the role of ICVs and CBB in global market [50].

#### 4. Theoretical Framework and Hypotheses Development

CBB is influenced by external factors including CVs, economic forces, and personal forces, such as IMVs [7]. Changing CVs are determined by IMVs, which indicate the acceptance of any external change in behavior [47]. In the decision-making process, CB is powerfully linked with one's culture and materialism [10,47]. People tend to respond to the globalization effect according to materialistic thoughts. For example, buying behavior changes when people acquire happiness, success, and centrality [7,10,50]. In terms of the cultural impact on CB, many studies have been carried out, but most analyzed the effect of either national culture [30,34,37] or performed a cross-cultural comparison between two or more countries [12,30,34,37]. Few studies [7,10,47] addressed the impact of culture (at an individual level) and materialism on CBB toward foreign brands within a proxy of globalization and market sustainability.

Based on the considerations outlined above, a conceptual framework to measure the moderating effect of IMVs on the relationship between IC dimensions and CBB was developed. Figure 2 illustrates the theoretical framework of Hofstede' ICVs and its impact on CBB.

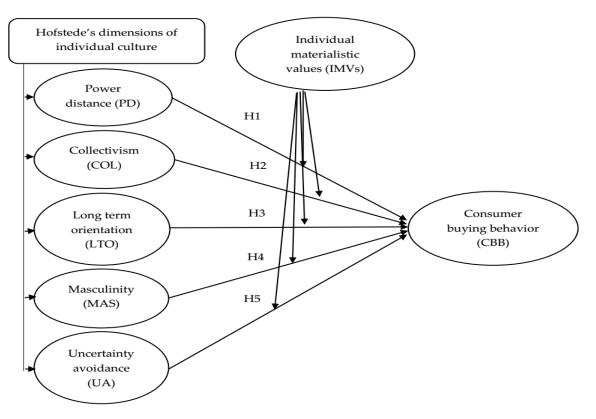


Figure 2. Theoretical framework.

In societies with small PD, powerful people try to make decisions and influence others in a group. China possesses a PD score of 80, Malaysia has the highest PD score of 92, Mexico scores 81, the United States scores 40, and Sweden scores 31. This means Western countries have a small score of PD, meaning power distribution in society is less unequal. People make individual decisions in terms of change acceptability. The PD percentage of PD is negatively correlated with consumption expenditures [34]. However, due to the effect of globalization, this consumption pattern is not static, particularly in China. The PD score is much lower than 10 years prior, and people are willing to accept change and desire a better lifestyle [15,38]. This behavioral change was first reflected by the inner state of materialism, which further allows changing cultural beliefs to accept change. As such, our first hypothesis (H1) is:

**Hypothesis 1 (H1).** The relationship of consumers' individual power distance (PD) and consumer buying behavior (CBB) is moderated by individual materialistic values (IMVs) in achieving a sustainable global food market.

Several studies [30,34,44,56] highlighted the importance of investigating the influence of collectivism and individualism in different societies at the individual level as well as at the national level. In European collectivist cultures, people spend a higher percentage of their wages on food than people in individualistic cultures, maybe because food has an important social function in collectivist cultures [34]. As mentioned earlier, Chinese culture is now shifting from collectivism to individualism, though buying decisions are reflected in the food market. Looking at the social benefits of food, people are spending time buying food products. Similarly, choices are made according to materialist values of happiness, success, and centrality. This leads to our second hypothesis (H2):

**Hypothesis 2 (H2).** The relationship of consumer's individual collectivism (COL) and consumer buying behavior (CBB) is moderated by individual materialistic values (IMVs) in the case of achieving a sustainable global food market.

LTO cultures are often found in East Asia, and STO cultures are found in the Western world [34]. China possesses the highest LTO score of 87, Brazil scores 65, the United Kingdom scores 25, and the United States has 29. Another important aspect of LTO, suggested by De Mooij and Hofstede [34] and as noted by other researchers [18,31], is the difference in willingness to pay for convenience, which is likely to be important for CBB. Therefore, people with a high LTO score show more interest in the buying decision process compared with high STO scores. People's attitudes are shifting from STO to LTO in order to buy food products. This is happening due to the globalization effect in global retail markets [39]. These findings led us to our third hypothesis (H3):

**Hypothesis 3 (H3).** The relationship of consumers' individual long-term orientation (LTO) and consumer buying behavior (CBB) is moderated by individual materialistic values (IMVs) in achieving a sustainable global food market.

Yoo et al. [32] and Chipulu et al. [31] indicated that, in masculine cultures, there is an important role variation between men and women; whereas in feminine societies, there is less role differentiation. For example, Japan has the most masculine culture and scores 95, the United States scores 62 scores, and Sweden has the lowest score of 5. In most of the countries, consumption of food items can be used as an indicator of one's success as it demonstrates a gradual shift in improving living standard. This is likely more attractive to members of masculine cultures than to members of feminine cultures [18]. Monga et al. [5] studied the cross-cultural impact on CB and explained the impact of thinking style on behavior in cross-cultures, arguing that analytical thinkers are more likely to accept change in society and be more willing to buy products after looking for perceived benefits. Hollebeek et al. [38] demonstrated the role of cognitive and emotional aspects on customer engagement with masculine cultural traits. Sobol [15] and Yakobovich [15] presented longitudinal studies on the role of materialism in masculine societies and found a significant role of materialism in defining the role performance of individuals in society. These findings led us to our fourth hypothesis (H4):

**Hypothesis 4 (H4).** The relationship of consumers' individual masculinity (MAS) and consumer buying behavior (CBB) is moderated by individual materialistic values (IMVs) in achieving a sustainable global food market.

Darley et al. [45] have found that in cultures of strong UA, people have a habit to be better groomed than in cultures of weak UA. However, it is one way of facing a threat to the world. For example, purity of food is an important aspect in cultures with high uncertainty avoidance. Globalization has influenced people's lifestyle and has influenced people to compare lifestyle across different cultures [7]. Consequently, the UA scores are changing in different societies, particularly in Chinese culture. People need more clarity about the perceived benefits of products, though they are willing to accept change in the marketplace. Therefore, high UA enables individuals in societies to make better decisions for personal benefits, whereas individuals with low UA show ambiguous or avoidance behavior toward brands [14,15]. This situation led us to our fifth hypothesis (H5):

**Hypothesis 5 (H5).** The relationship of consumers' individual uncertainty avoidance (UA) and consumer buying behavior (CBB) is moderated by individual materialistic values (IMVs) in achieving a sustainable global food market.

The moderating effect of materialism (i.e., happiness, success, and centrality) determines the transitional change in IC when people show buying behavior (i.e., purchase, repurchase, and positive word-of-mouth). People react in the marketplace differently beyond their beliefs and values, as they desire to be happy and to achieve success. The hypotheses mentioned above measures this phenomenon and attempts to determine the cultural aspect in market development and sustainability.

The following section explains the research design, including the sampling process, constructs measurement, and the study process.

#### 5. Research Design

Conclusive studies focus on cause and effect relationships. In the positivism paradigm approach, survey methodology is adopted for data collection with a valid questionnaire [57]. The information used for this research was grounded in logic and observations. The role of the researchers in this study was to analyze and quantify the data.

#### 5.1. Constructs Measurement

A seven-point Likert-scale questionnaire, comprising 38 items, was adopted from prior studies [10,17,30–32,34,37,42,50], and the same scale was used for the data collection. To measure the dependent variable CBB, a set of three questions was adopted from the studies of Chipulu et al. [31] and Seregina [37]. They studied behavior in terms of PUR, REP, and PWM and their impact on economic development, living standards, and lifestyle. To determine the impact of culture, various studies used the same constructs of CBB toward the purchase of foreign brands [5,11,14,47]. The constructs of culture were taken from the measurement of Hofstede's five dimensions of culture at an individual level, and discussed in various studies. Hofstede and Bond [17] distinguished five dimensions of IC: (1) high vs. low PD, (2) COL vs. IND, (3) MAS vs. FEM, (4) high vs. low UA, and (5) LTO vs. STO [32]. Table 3 explains the constructs of the IC dimensions item-by-item used in various studies. For the moderator (i.e., MVs), a set of nine items (Table 4) was taken from Gupta [10] and related constructs from other studies were used [7,10,55].

**Table 3.** Dimensions of Hofstede's individual cultural framework along with the constructs of each dimension.

Item	Content	Reference
PD	Power Distance	[6,14,17,18,31–34]
PD1	People in higher positions should make more decisions without consulting people in lower positions.	
PD2	People in higher positions should not ask the opinions of people of lower positions too frequently.	
PD3	People in higher positions should avoid social interactions with people in lower positions.	
PD4	People in lower positions should not disagree with decisions by people in higher positions.	
PD5	People in higher positions should not disagree with delegating an important task to people in lower positions.	
UA	Uncertainty avoidance	[5,13–15,17,18,30,32,33,35]
UA1	It is important to have instructions spelled out in detail so that I always know what I am expected to do.	
UA2	It is important to closely follow instructions and procedures.	
UA3	Rules and regulations are important because they inform me of what is expected of me.	
UA4	Standardized work procedures are helpful.	
UA5	Instructions of operations are important.	
COL	Collectivism	[5,13,15,18,30,32,35]
COL1	Individuals should sacrifice self-interest for the group.	
COL2	Individuals should stick with the group even through difficulties.	
COL3	Group welfare is more important than individual rewards.	
COL4	Group success is more important than individual success.	
COL5	Individual should only pursue their goals after considering the welfare of the group.	
COL6	Group loyalty should be encouraged even if individual goals suffer.	
LTO	Long-term orientation	[6,13,18,26,30,32,33,35,36]
LTO1	Careful management of money (thrift).	
LTO2	Going on resolutely in spite of opposition (persistence).	
LTO3	Personal steadiness and stability.	
LTO4	Long-term planning.	
LTO5	Giving up today's fun for success in the future.	
LTO6	Working hard for success in the future.	

Item	Content	Reference
MAS	Masculinity	[5,13,15,17,33,35,37]
MAS1	It is more important for men to have a professional career than it is for women.	
MAS2	Men usually solve problems with logical analysis; women usually solve problems with intuitions.	
MAS3	Solving difficult problems usually requires an active, forcible approach, which is typical for men.	
MAS4	There are some jobs that men can always do better than women.	

Table 4. Dimensions of materialism for buying behavior, along with the constructs of each dimension.

Item	Content	Reference
	Acquisition as the pursuit of happiness	[7,10,40,54]
MV1	I would like to be rich enough to buy anything I want.	
MV2	I would be happier if I could afford to buy more things.	
MV3	It sometimes bothers me quite a bit that I cannot afford to buy all the things I want.	
MV4	It is really true that money can buy happiness.	
	Possession-defined success	[10,48,50]
MV5	I admire people who own expensive homes, cars.	
MV6	Things that I own say a lot about how well I am doing in life.	
	Acquisition centrality	[7,10,40,50,55]
MV7	Things that I own are very important to me.	
MV8	Acquiring material possessions is important in life.	
MV9	I like a lot of luxury in my life.	

#### 5.2. Sample Size Determination

The convenience sampling technique of non-probability sampling was employed to collect the data from 380 respondents in supermarkets [58,59]. The Asia Pacific region has the highest volume of food consumption in the world, due to its 3.6-billion-person population with rich cultural values and beliefs [60]. China is the largest country in the region, making it a more desirable market for Western food exporters. By 2018, China was expected to become the top importer of foreign food products, with the total value of food imports set to reach RMB 480 billion (USD \$77 billion). The data for this study were collected from three international supermarkets (Wal-Mart, Metro Cash & Carry, and Carrefour) located in different cities of China, including Beijing, Shanghai, Guangzhou, and Chengdu. The data were classified through a random sampling technique of probability sampling. Respondents were diversified, with varying demographic information in terms of age, sex, education, and income. Table 5 illustrates the demographic information about the respondents and the frequency of sampling in the three supermarkets. The respondents, who frequently visit supermarkets, represented different age groups, education, and income levels. These supermarkets carry different imported food brands, particularly in processed food. Processed food was classified into different categories, like fruit and vegetable products, grain and dairy products, and meat, poultry and fish products. Respondents were classified as actual users of imported processed food products. The data for the study were collected from a direct sales point—at the cash counter—and random consumers or shoppers (buyers) from different sex and age groups were asked to participate voluntarily in the survey process. A self-administered questionnaire was used for this survey process due to its ability to ask multiple complex questions, anonymity, and quality control [58].

Measure	Item	Metro Cash	& Carry	Wal-M	lart	Carrefour		Total	
Measure	nem	Frequency	%	Frequency	%	Frequency	%	Frequency	%
<u> </u>	Female	73	62.93	89	53.29	61	62.89	223	58.7
Gender	Male	43	37.07	78	46.71	36	37.11	157	41.3
	Less than 25 years	26	22.41	34	20.36	25	25.77	85	22.4
A	Between 25–35 years	45	38.79	53	31.74	32	32.99	130	34.2
Age	Between 35–45 years	24	20.69	44	26.35	22	22.68	90	23.7
	Above 45 years	21	18.10	36	21.56	18	18.56	75	19.7
	Undergraduate	29	25.00	46	27.54	40	41.24	115	30.3
Education	Graduate	63	54.31	69	41.32	37	38.14	169	44.5
	Postgraduate	24	20.69	52	31.14	20	20.62	96	25.3
	Public	17	14.66	23	13.77	13	13.40	53	13.9
Organization	Private	42	36.21	60	35.93	44	45.36	146	38.4
-	Business	57	49.14	84	50.30	40	41.24	181	47.6
	Less than 5000 RMB	16	13.79	26	15.57	23	23.71	65	17.1
Income	Between 5000–10,000 RMB	52	44.83	51	30.54	37	38.14	140	36.8
	Between 10,000–20,000 RMB	31	26.72	38	22.75	21	21.65	90	23.7
	More than 20,000 RMB	17	14.66	52	31.14	16	16.49	85	22.4

**Table 5.** Respondents' demographic information and frequency of sampling distribution across the three supermarkets.

# 6. Results

#### 6.1. Confirmatory Factor Analysis

To validate the measurement of the constructs, internal consistency and convergent and divergent validities were calculated. For construct validity, the Varimax with Kaiser Normalization method was used in exploratory factor analysis. The Kaiser–Meyer–Olkin Measure of sampling adequacy value was 0.872 and an eigenvalue greater than 1 was considered for factor loading [14]. Table 6 illustrates the pattern matrix loadings using principal component analysis of all indigenous variables [61]. Cronbach's alpha and composite reliability of all constructs exceeded 0.7, showing a good internal consistency of constructs. The critical z-ratios of all constructs were within  $\pm 1.96$  for kurtosis, which is mostly recommended for the structural equation modeling (SEM) to measure the normality of sample data [52]. Tables 7 and A1 show the normality test scores of all variables and constructs, respectively.

To evaluate whether the data confirmed our hypotheses, there is an effective set of indices in covariance-based SEM. These indices show to what extent indicators are connected with their own latent variables. In this study, the comparative fit index (CFI), adjusted goodness of fit index (AGFI), goodness of fit index (GFI), and root mean square error of approximation (RMSEA) were used to estimate the model fitness [62]. Confirmatory factor analysis (CFA) validates the structure model fitness by measuring the strength of latent variables [58]. The minimum sample discrepancy function (CMIN/DF) is a common evaluator to determine the overall fitness of the model. The value of CMIN/DF was 1.967 < 5, which shows a good fit under the recommended range [61]. The GFI is another common statistic of model fit in SEM.

Table 6. Factor loading of each constructs using the Varimax method of principal component analysis.

Items	Pattern Matrix								
items	1	2	3	4	5	6	7		
PD1	0.875								
PD2	0.904								
PD3	0.665								
PD4	0.797								
COL1		0.771							
COL2		0.745							
COL3		0.727							
COL5		0.516							

Items			Pattern Matrix											
items	1	2	3	4	5	6	7							
LTO1			0.830											
LTO2			0.849											
LTO3			0.834											
LTO4			0.550											
LTO5			0.601											
MAS1				0.570										
MAS2				0.921										
MAS3				0.921										
MAS4				0.926										
UA2					-0.804									
UA3					-0.818									
UA4					-0.816									
UA5					-0.724									
AC1						0.673								
AC2						0.729								
AC3						0.741								
PS2						0.532								
PUR							0.826							
REP							0.887							
PWM							0.869							

Table 6. Cont.

Table 7. Assessment of data normality of all variables.

Factors	Skewness	<b>Critical Ratio</b>	Kurtosis	Critical Z-Ratio
PD	-0.447	-0.494	-0.541	-0.298
UA	0.852	0.601	1.196	0.978
COL	0.279	0.332	-0.125	-0.440
LTO	0.607	0.556	1.585	1.210
MAS	0.265	0.369	-0.351	-0.821
MV	0.600	0.631	0.963	1.180
CBB	0.175	0.492	0.234	0.354

Table 8 illustrates the results of model fitness generated during the CFA process (Table A2). According to Hu and Bentler [63], a model is a good fit if its value is closer to 0.90 or higher, whereas the value of AGFI should be closer to 0.80 or higher. The measurement model is a good fit because its GFI value is 0.894 and AGFI is 0.868. CFI examines the covariance among all the variables as fixed to zero or no bonding among the input indicators. The value of CFI ranges from 0 to 1, where values nearer to 1 indicate a very good fit [63]. The results produced a CFI value of 0.946, which indicates a good fit. The root mean square error of approximation (RMSEA) is a punishment function for poor models. The value of RMSEA was 0.051, which confirms that the model is a good fit [14]. Figure 3 shows the CFA path model, considering all exogenous factors for model fit.

Table 8. Summary of model fit statistics for confirmatory factor analysis (CFA).

Model Fitness Indices	CMIN/DF	CFI	GFI	AGFI	RMSEA
Measurements	1.967	0.946	0.894	0.868	0.051

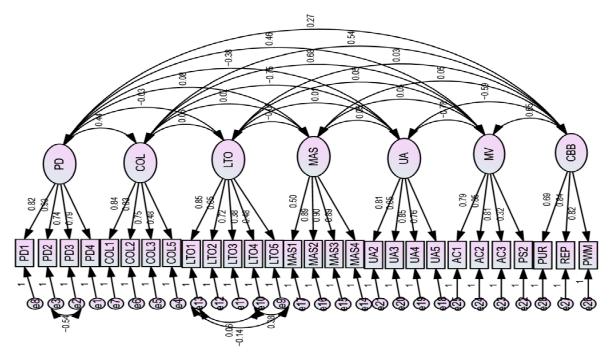


Figure 3. Model of confirmatory factor analysis.

## 6.2. Convergent and Discriminant Validity

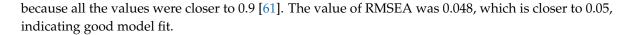
Convergent validity refers to the extent to which the test of the scores correlates with the scores of the other tests that are intended to assess the same construct. In the convergent validity, the value of average variance extracted (AVE) was greater than 0.5 (AVE > 0.5) [64]. Discriminant validity refers to the extent to which tests on the scores are not correlated with the scores of other tests and are not indented to assess the same construct. In discriminant validity, the value of AVE is considered to be greater than maximum shared variance (MSV) [65]. Table 9 shows the values of composite reliability (CR), AVE, and MSV of the variables. All the values fall within the acceptable ranges as mentioned.

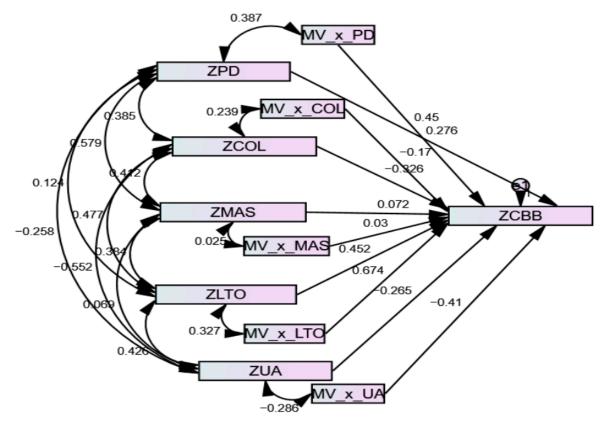
**Table 9.** Convergent and discriminant validity with factor correlation matrix with a square root of the average variance extracted (AVE).

Items	CR	AVE	MSV	1	2	3	4	5	6	7
1. Masculinity	0.823	0.761	0.256	0.837						
2. Power distance	0.736	0.639	0.181	0.189	0.902					
3. Collectivism	0.802	0.716	0.227	0.210	0.320	0.801				
4. Long-term orientation	0.928	0.804	0.311	0.448	0.208	0.075	0.910			
5. Consumer buying behavior	0.726	0.679	0.173	0.457	0.218	0.210	0.341	0.729		
6. Uncertainty avoidance	0.849	0.791	0.313	0.128	0.187	0.147	0.112	0.087	0.875	
7. Materialistic values	0.781	0.706	0.211	0.492	0.071	0.078	0.542	0.361	0.091	0.78

#### 6.3. Measurement Model

SEM explains the relationship between two or more latent variables and the complex relationship between unobserved and observed variables [61]. Second-order CB-SEM with the bootstrapping method was used to measure the significance of the path model. Small multivariate issues are resolved with bootstrapping with standardized z-score values of constructs (Table A3). The model in Figure 4 illustrates the path model of the dependent variables, including PD, UA, LTO, MAS, and COL, to measure the impact on CBB with an interaction of MVs. Table 10 shows the overall fitness of the model by using model fit indices. The value of CMIN/DF is 1.735, which shows the model fitness [64]. The values of GFI and AGFI were 0.911 and 0.889, respectively, which show the good model fitness





**Figure 4.** Structural equation modelling (SEM) path analysis showing a moderating effect of materialistic values (MVs).

Table 10. Summary of model fit statistics.

Model Fitness Indices	CMIN/DF	CFI	GFI	AGFI	RMSEA
Measurements	1.735	0.9275	0.911	0.889	0.048

Table 11 explains the relationship of the direct and indirect paths with their standard estimated  $\beta$ -values and *p*-values (Table A4). The results show that PD has a significant impact on CBB [31] to buy imported processed food with a  $\beta$ -value of 0.276. MVs significant affect the relationship between PD and CBB with a  $\beta$ -value of 0.450 [50], which reveals the presence of a moderating effect in the relationship.

The value of COL also has a significant negative impact on CBB with a  $\beta$ -value of -0.326 [34]. However, MVs do not have a significant impact on the relationship between COL and CBB as a moderator. This shows that people prefer to make decisions independently rather relying on group decisions. The value of MAS does not show any significant impact on CBB with a  $\beta$ -value of 0.072 [31]. Similarly, the MVs value does not show a significant impact as a moderator on the relationship [10]. Standard estimate values show that LTO has a strong significant impact on CBB with a  $\beta$ -value 0.452 [32]. And the moderating effect of MVs also show a strong significant impact on the relationship between LTO and CBB with a  $\beta$ -value of 0.674. UA has a significant negative impact on CBB with a  $\beta$ -value of -0.265 [18], and MVs have a significant negative impact on the relationship with a  $\beta$ -value of -0.410.

Path			Estimate	S.E.	C.R.	<i>p</i> -Value	Study Result
ZCBB	<—	ZPD	0.276	0.047	3.189	0.000 ***	Supported
ZCBB	<—	MV_x_PD	0.450	0.038	5.724	0.000 ***	Supported
ZCBB	<—	ZCOL	-0.326	0.058	-5.621	0.000 ***	Supported
ZCBB	<—	MV_x_COL	0.070	0.040	1.754	0.079 *	Not supported
ZCBB	<—	ZMAS	0.072	0.043	1.672	0.094 *	Not supported
ZCBB	<—	MV_x_MAS	0.030	0.042	0.716	0.474	Not supported
ZCBB	<—	ZLTO	0.452	0.043	5.812	0.000 ***	Supported
ZCBB	<—	MV_x_LTO	0.674	0.049	5.366	0.000 ***	Supported
ZCBB	<—	ZUA_mean	-0.265	0.056	-4.711	0.000 ***	Supported
ZCBB	<—	MV_x_UA	-0.410	0.038	-4.082	0.000 ***	Supported

Table 11. Standardized regression weights for direct and indirect paths with hypotheses results.

**Note:** p < 0.10, p < 0.05, p < 0.01; ZCCB = Z-score values of consumer buying behavior, ZPD = Z-score values of power distance, ZCOL = Z-score values of collectivism, ZUA = Z-score values of uncertainty avoidance, ZMAS = Z-score values masculinity, ZLTO = Z-score values of long-term orientation.

#### 7. Study Findings and Discussion

Research, to date, often assumes a key role of culture in developing attitudes and behaviors toward foreign products [12]. Previous studies investigated the cultural impact on buying behavior across different countries and found an impact of cross-culture on buying decision making [5]. Consistent with this idea, we aimed to focus on sustainability in the market while examining the role of IC in CBB in Chinese supermarkets. This is all occurring due to the increase in globalization. Consumption patterns were anticipated to change due to key drivers of culture, and particularly MVs [7]. The empirical results of hypotheses testing highlight the significant role of IC and materialism in food market development at the retail level in China. The study findings contribute to the hypothesis that the purchase and repurchase behavior of customers in a market are not only reflected by culture, but also materialist thoughts (i.e., happiness, success, and centrality) that influence the culture in developing such behavior. China is rapidly growing economically, and this economic development is changing people's beliefs and values. These cultural aspects were also found to be important for the consumer retail market [47]. The results show that, in supermarkets, people are changing their traditional values of consuming imported products to modernized values [7,10]. Similarly, the study results show that MVs appear to be more effective in determining the relationship between ICVs and buying decision [48]. Consumers tend to change their inner inhibits first to adopt any cross-cultural change [35]. Materialism moderates the adaptation of foreign processed food products due to the globalization effect in local culture [50]. This decision-making process is also reflected by age, sex, education, and the income level of consumers [34]. The research findings reveal that ICVs are rapidly transforming in China, which is affecting the Chinese food market. The results are quite different from previous studies [14,15,17] as the index values of PD, UA, and LTO are changing, except for the MAS and COL index values. People in China are still living in feminist societies, and collective decisions are predominating in societies. Nevertheless, people's preferences regarding purchases are continuing to change. The study reveals that materialism strongly plays an important role in reflecting PD, LTO and UA in the decision-making process. Similarly, the low value of UA in Chinese culture negatively reflects materialism. This UA condition resists the aim of people to be happy and to achieve a goal. LTO and materialism have demonstrated their strong relationship in the Chinese food market.

Table 12 shows the demographic information of the study respondents. We found that cultural forces and the materialistic thoughts of a consumer in the Chinese consumer market seem to be demographically changing. People in younger age groups are holding more PD value than people in older age groups. The younger generations are more educated and enjoying freedom in society. Similarly, the UA score is higher in younger age groups than in older age groups. Again, the younger generation demands more clarity about products before they choose whether or not to use the product. The values of COL and MAS are high among older groups. This means that people still make family

decisions. The education and income levels of people are having a more significant impact on changing the trends of culture in the consumer market. With the increase in personal income and education, the values of LTO, UA, and PD are increasingly showing that people are becoming more powerful in society when making decisions. Consequently, the results of COL in income and education groups are showing that people are now shifting from collectivism beliefs to individualism in society.

### 7.1. Academic Implications

Other studies [7,15,35] on culture theories suggest that global and local culture traits have consistently impacted consumption behaviors over time. The current research extends the theory of culture beyond national identity to IC, which defines a purchase behavior to achieve sustainability in the processed food market. Furthermore, we argue that materialism reflects the IC in the retail market for buying behavior. Culture may not be able to reflect decisions alone until the inner state of mind, happiness, or success, allows culture to react accordingly. As such, we found a significant relationship between materialism and consumer culture in emerging markets that substantially contributes to consumer culture theories, while addressing the globalization effect on the consumer markets.

#### 7.2. Practical Implications

We outline several important managerial implications in business and marketing when entering the international food retail market. The study results reveal that people with high PD tend to make valuable purchases because they are considered more powerful, and status is important for them [32]. The value of PD indicates a person's readiness to accept the hierarchy; therefore, cultures with high PD play an important role when buying and consuming processed food for self-actualization. People with high PD also exhibit features of acquisition in happiness and goals achievements in decisions. They assign more value to self-pleasure and do not easily take risks in decisions. The findings suggest that the extent to which people share power in a hierarchy is reflected by materialism, particularly in the repurchase process. Multinational companies in the processed food products in China can niche their marketing strategies to target such consumers for brand recognition according to the demographic structure. The companies can sustain themselves in the retail market through brand loyalty if product usage and strong features are highlighted in marketing campaigns [16].

Masculine societies place greater importance on ambition, wealth, success, achievement, and materialism. Women are classified as early adopters because they purchase new products that enter the market to proclaim their interests and feel accomplished [32]. Due to globalization, materialism has much impact on feminine societies, where people do not only show interest in local products but also in international products. Consumers select international branded items to show off their wealth and success, which provides an opportunity for new entrants and existing brands/companies to enter in new markets [12].

Measure	Items	Hofstede' Individual Cultural Dimension				Materialism			
WiedSule	itenis	PD (β, <i>p</i> )	COL (β, <i>p</i> )	LTO (β, <i>p</i> )	MAS $(\beta, p)$	UA (β, p)	AH (β, p)	<b>PS</b> (β, <i>p</i> )	AC (β, p)
Gender	Female	0.624, 0.000 ***	0.587, 0.000 ***	0.321, 0.009 ***	0.488, 0.004 ***	0.215, 0.076 *	0.437, 0.010 ***	0.397, 0.006 ***	0.629, 0.000 ***
	Male	0.514, 0.000 ***	-0.458, 0.002 ***	0.588, 0.000 ***	-0.216, 0.082 *	-0.480, 0.003 ***	0.351, 0.008 ***	0.591, 0.000 ***	-0.189, 0.178
Age	Less than 25 years	0.756, 0.000 ***	-0.211, 0.099 *	0.634, 0.000 ***	0.520, 0.000 ***	0.681, 0.000 ***	0.705, 0.000 ***	0.693, 0.000 ***	0.480, 0.002 ***
	Between 25–35 years	0.593, 0.000 ***	0.357, 0.007 ***	0.579, 0.000 ***	0.683, 0.000 ***	0.489, 0.004 ***	0.658, 0.000 ***	0.471, 0.006 ***	0.583, 0.000 ***
	Between 35–45 years	0.493, 0.001 ***	0.625, 0.000 ***	0.417, 0.005 ***	0.661, 0.000 ***	0.321, 0.036 **	0.541, 0.000 ***	0.460, 0.002 ***	0.711, 0.000 ***
	Above 45 years	0.422, 0.005 ***	0.668, 0.000 ***	0.408, 0.006 ***	0.722, 0.000 ***	-0.209, 0.108	0.564, 0.000 ***	0.533, 0.000 ***	0.731, 0.000 ***
	Undergraduate	0.661, 0.000 ***	0.618, 0.000 ***	0.255, 0.125	0.606, 0.000 ***	0.355, 0.008 ***	0.399, 0.027 **	0.447, 0.005 ***	0.519, 0.000 ***
Education	Graduate	0.521, 0.000 ***	-0.599, 0.000 ***	0.388, 0.003 ***	-0.228, 0.120	0.469, 0.006 ***	0.441, 0.005 ***	0.593, 0.000 ***	-0.201, 0.133
	Postgraduate	0.483, 0.004 ***	0.443, 0.005 ***	0.569, 0.000 ***	0.188, 0.337	0.584, 0.000 ***	0.281, 0.049 **	0.507, 0.000 ***	-0.319, 0.036 **
Income	Less than 5000 RMB	-0.188, 0.173	0.233, 0.120	0.118, 0.207	0.331, 0.010 ***	-0.183, 0.153	0.444, 0.005 ***	-0.113, 0.212	-0.344, 0.005 ***
	Between 5000-10,000 RMB	0.455, 0.002 ***	-0.377, 0.006 ***	0.339, 0.010 ***	0.220, 0.180	0.334, 0.041 **	0.561, 0.000 ***	0.358, 0.008 ***	0.494, 0.000 ***
	Between 10,000-20,000 RMB	0.537, 0.000 ***	0.522, 0.000 ***	0.591, 0.000 ***	0.544, 0.000 ***	0.599, 0.000 ***	0.688, 0.000 ***	0.511, 0.000 ***	0.431, 0.004 ***
	More than 20,000 RMB	0.663, 0.000 ***	0.707, 0.000 ***	0.670, 0.000 ***	0.527, 0.000 ***	0.675, 0.000 ***	0.693, 0.000 ***	0.633, 0.000 ***	0.581, 0.000 ***

Table 12. Demographic impact of individual cultural dimensions and materialism.

**Note:** p < 0.10, p < 0.05, p < 0.05, p < 0.01;  $\beta$  = standardized coefficient values; p = significant values; PD = power distance, COL = collectivism, MAS = masculinity, UA = uncertainty avoidance, AH = Acquisition as the pursuit of happiness, PS = Possession-defined success, AC = Acquisition centrality.

The negative relationship of UA with CB in the Chinese supermarkets shows that people still feel endangered by uncertainty and ambiguity, and try to avoid them. With high-value UA societies, people spend money after collecting relevant information about the product to avoid any insecurity. These kinds of customers choose alternative products if a certain brand does not meet its promised features. If a particular brand fulfills a consumer's needs, the consumer will not switch to other brands. Such consumers are more materialistic in terms of acquisition and possession of foreign products. Through materialistic thoughts, the impact of uncertainty on buying decision is avoided. UA dimension is related to PD, and this means that it would be difficult for new entrants to compete in a market that belongs to a culture with larger PD because their members of society are not willing to take risks by switching to an unknown brand. These people are found to be least interested in collectivism, and this is occuring due to the increase in PD and UA in Chinese culture. The index value of LTO shows a gradual shift from STO to LTO due to globalization. Globalization has empowered IC dimensions through materialism to shape consumers' decisions in local markets. Globalization has a major impact on materialism [10], as consumer culture has been changing due to inhibited MVs. These changes in IMVs indicate a certain positive expected change in IC buying decisions [7].

This work significantly contributes information for researchers and organizations that are currently in market research or planning to launch a new product in the near future, respectively. Similarly, the study provides a framework regarding consumer culture that explains the important indicators of IC in achieving market sustainability. The data provide insights into planning marketing campaigns demographically in selected markets. Globalization has changed the ways in which people behave, think, and do business. Therefore, to achieve successful marketing outcomes, this research helps marketers and business managers to better understand and analyze the essential reasons that encourage consumers to respond positively to marketing stimuli, and how they make choices. Each country has a different cultural background and marketing needs [35].

The current study provides detailed insight into the role of IC in CBB, which helps international retailers to enter, sustain, and expand their businesses in China. Sales seem to be an important factor as they play an essential role in a business becoming more profitable and expanding their business. To increase market share and profit, this research would help marketing managers to determine the correct market segmentation and target their customers based on cultural dimensions for developing sustainable food market in the future.

#### 8. Conclusions

This research contributes to the body of knowledge by emphasizing the transformation of culture in retail markets in China. Sustainable retail market development can perhaps be achieved by marketers when they properly address the current state of culture and materialism in a consumer market. Existing studies on consumer culture mainly focused on the role of national and individual level cultural forces in determining consumer preferences and choices regarding food products [11]. Materialism, which is an individual's state of mind in terms of achieving something in society, is ignored when addressing the impact of culture on behavior in a retail market [50]. Based on the discussion mentioned above, we suggest that cultural forces change when an individual's will to achieve happiness and success allow them to react accordingly. The study discussion emphasizes materialism and how it is affecting individual beliefs and values. The results show the significant impact of materialism on culture and people's bahavior when they buy food from the market. Similarly, bahavior traits, like purchase, repurchase, and positive word-of-mouth, are determined by the IC of a country.

Globalization leads to a change in the ICVs of Chinese consumers and the cross-cultural impacts are found in Chinese markets [15]. The PD, UA, and LTO dimensions are transforming rapidly, which impact buying behavior. Furthermore, we explored the role of IC and materialism on a processed food market system. Due to globalization's effects, markets are integrating and developing as a global market with shared resources [14,60]. So, studying the impact of culture on decision making is essential for market understanding and is beneficial for future sustainability. In conclusion, studying culture

and materialism is important for achieving market sustainability in retail markets while addressing their role in consumer decision making toward foreign brands. To generalize the research findings, the study can be extended to more cities and states in China to produce cross-comparative findings, as this study only covers four cities in China. Consumer behavior responds differently under different needs and conditions. As we only focused on Chinese culture, future research could be expanded to comparatively analyze changing cross-cultural values and materialism in different regions for foreign brands. This work is only limited to processed food products, but multi-products analysis could provide a better understanding of the impact of cultural values on product categories. Finally, ICVs and IMVs can be extended to different rich-culture countries to investigate their role in developing a sustainable global food market. The research can be enhanced by expanding the current framework. The role of materialism and cultural issues need to be investigated to add more depth to the model and its implications for market growth.

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# Appendix A

Variable	Min	Max	Kurtosis	C.R.
PUR	1	7	0.077	0.231
REP	1	7	0.175	0.783
PWM	2	7	0.224	0.810
AC1	2	7	0.131	0.610
AC2	1	7	0.315	1.202
AC3	2	7	-0.047	-1.185
PS2	1	7	0.167	0.693
UA2	1	7	0.483	1.921
UA3	1	7	0.450	1.811
UA4	1	7	0.225	0.879
UA5	1	6	0.379	1.498
MAS1	1	7	0.445	1.771
MAS2	1	7	-0.032	-0.149
MAS3	1	6	-0.106	-0.379
MAS4	1	7	-0.208	-0.707
LTO1	2	7	-0.497	1.980
LTO2	1	7	0.273	1.065
LTO3	1	7	0.294	1.170
LTO4	1	7	0.141	0.513
LTO5	2	7	0.364	1.471
PD1	1	7	0.029	0.115
COL1	2	7	0.492	1.900
COL2	1	7	0.125	0.529
COL3	1	7	-0.200	-0.795
COL5	1	6	-0.366	-1.48
PD2	1	7	-0.234	-0.933
PD3	2	7	0.225	0.813
PD4	1	7	0.110	0.440

Table A1. Scale reliability values generated during CFA.

	Path		Estimate
PD1	<—	PD	0.836
PD4	<—	PD	0.807
PD3	<—	PD	0.672
PD2	<—	PD	0.894
COL5	<—	COL	0.463
COL3	<—	COL	0.750
COL2	<—	COL	0.827
COL1	<—	COL	0.843
LTO5	<—	LTO	0.447
LTO4	<—	LTO	0.365
LTO3	<—	LTO	0.721
LTO2	<—	LTO	0.861
LTO1	<—	LTO	0.837
MAS4	<—	MAS	0.895
MAS3	<—	MAS	0.898
MAS2	<—	MAS	0.886
MAS1	<—	MAS	0.498
UA5	<—	UA	0.741
UA4	<—	UA	0.855
UA3	<—	UA	0.858
UA2	<—	UA	0.811

Table A2. Standardized regression weights of factor loading generated during structure modeling.

Table A3. ML discrepancy	results of bootstrapping.
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Results	Average Score	Sample Range Values
	527.834	*
	534.046	*
	540.257	****
	546.468	*****
	552.68	*****
	558.891	*****
	565.102	*****
N = 5000	571.314	*****
Mean = 559.593	577.525	****
S.E. = 0.157	583.737	***
	589.948	**
	596.159	*
	602.371	*
	608.582	I
	614.793	*
		I

Note: \* symbals show the range values of bootstraping results against the average scores of 5000 iterations.

Table A4. Correlation matrix of all constructs calculated during the measurement modeling process.

	Path		Estimate
ZMAS	<->	MV_x_MAS	0.025
ZUA	<->	MV_x_UA	-0.286
ZLTO	<->	MV_x_LTO	0.327
ZCOL	<->	MV_x_COL	0.239
ZPD	<->	MV_x_PD	0.387
ZUA	<->	ZPD	-0.258
ZUA	<->	ZCOL	-0.552
ZMAS	<->	ZUA	0.069
ZUA	<->	ZLTO	0.426
ZMAS	<->	ZLTO	0.384
ZCOL	<->	ZLTO	0.477
ZPD	<->	ZLTO	0.124
ZMAS	<->	ZCOL	0.412
ZMAS	<->	ZPD	0.579
ZPD	<->	ZCOL	0.385

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