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Fast food consumption among tourists and residents in Macau: A means-end chain analysis

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ABSTRACT

Fast food restaurants are important for both residents and tourists in Macau because they serve as a common cultural and organizational entity. The objective of this study is to identify the attributes, consequences, and value of fast food consumption among tourists and residents in Macau and to compare hierarchical value maps between the two different groups. Data were collected in fast food restaurants in Macau. A hard laddering method was utilized based on Means-end chain theory, in order to identify how attributes of fast food are connected to consumers' final values. The findings indicate that good taste, brand reputation, and restaurant ambience are important attributes shared among tourists and residents. While brand familiarity and the lack of a language barrier were more important attributes to tourists, reasonable prices were the most important attribute that residents appreciated. This study provides useful insights that will enable fast food operators to develop and efficiently communicate their value propositions to their target customers.

KEYWORDS

Fast food; Means-end chain theory; tourist; resident; hard laddering

Introduction

Fast food (FF) consumption has become a ubiquitous global phenomenon (Joseph et al., 2015). Previous studies have revealed that factors such as attractive appearance, great taste, and the role of advertisement cajole people to FF outlets (Allamani, 2007; Dixon et al., 2007). Globally, the FF market has grown significantly, reaching \$2,849,950.5 in 2015 (Marketline, 2016). It is equally significant to note that FF occupies the second largest segment of the market (22%) globally in the foodservice industry (Marketline, 2016). FF, takeaways, and take-out are used interchangeably to describe 'out-of-home' foods (Janssen et al., 2018). 'Fast food' further encapsulates food supplies from food chains such as Subway, Burger King, McDonald's, and Pizza Hut, and is a form of inclusive dining (Bauer et al., 2012; Richardson et al., 2011).

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The FF industry has witnessed tremendous growth over the past two decades, due to China's enviable economic growth and shifts in social norms (Wang et al., 2016). The FF industry also provides opportunities for families, friends, and tourists to combine eating with other leisure and recreational activities. According to Wang et al. (2016), there is a constant demand for Western FF among young people and this has cascading effects on FF markets in China, including in Macau. The FF industry is critical for any destination that thrives on the tourism industry. For instance, according to Y. G. Kim et al. (2013), popular tourist destinations such as Barcelona in Spain and York (a city in the UK) are noted for their many restaurant choices that include fast-food restaurants. Barcelona offers a variety of food experiences, including specialized local restaurants, ethnic restaurants, and fast-food restaurants. This is analogous to York, which has famous foodie attractions such as ethnic restaurants and fast-food restaurants.

Macau in particular is one of the top tourism destinations in Asia. Before the pandemic, approximately 35 million tourists visited Macau in 2018, where the population of residents accounts for less than 650,000 (DSEC, 2021). According to Greenwood and Dwyer (2017), Macau is noted for its gaming and tourism industries. However, Macau also relies heavily on food designed for both local and tourist consumption. Among the diverse restaurant sectors in Macau, fast food restaurants (e.g., McDonald's) are important for both residents and tourists, in that they serve as common cultural and organizational entities (Osman et al., 2014). Systematic investigations of consumer evaluations based on attributes, consequences, and values when consuming fast food are necessary. The fast food restaurant industry in Macau is a potential beneficiary of any conclusive evidence of hierarchical value maps among both tourists and residents.

Previous studies that have developed hierarchical value maps of food consumption have mainly focused on particular food products, such as Japanese food (Tey et al., 2018), couscous as a novel food product (Barrena et al., 2015), and organic food products (Zanoli & Naspetti, 2002). However, fewer studies have examined hierarchical value maps of FF consumption and compared these among tourists and residents as two distinct groups. Ha and Jang (2013) investigated the attributes, consequences, and consumer values of fast food, casual dining, and fine dining restaurants, but their focus was not on comparing differences in attributes, consequences, and consumer values among tourists and residents.

Fast food restaurant companies that operate in places such as Macau, where the number of tourists is far more than the number of residents, need to strategically develop marketing strategies for their customers. Therefore, this study explores the hierarchical value maps of FF consumption among tourists and residents in Macau based on the Means-end chain theory. Means-end chain theory explores how consumers link the product/service that they choose to the desired final state (Walker & Olson, 1991).

In doing so, this research contributes to stakeholders' knowledge of the food industry and Destination Management Organizations' (DMOs') ability to appreciate the nuances between tourists and residents, and to strategise accordingly. In response to this gap in the literature, this study addresses the following research questions: First, this study identifies the attributes, consequences, and values of fast food consumption among tourists in Macau; second, this study identifies the attributes, consequences, and values of fast food consumption among residents in Macau; and, third, this study compares hierarchical value maps between tourists and residents.

Literature review

Means-end chain theory

Consumers attribute different meanings to different services or products, and these meanings form the basis of consumers' purchasing decisions. These meanings have intrinsic value for the individual. Means are activities or things, such as goods, with which people engage. The end goal is to obtain a value status, such as happiness, safety, or achievement (Gutman, 1982). For consumers, the meaning of the product is determined by their perceptions. The importance of that meaning, in turn, is based on consumers' personal values. This progression of attributes, consequences, and values represents the chain of connections that consumers use to determine the end value through the means of attributes. This chain can be used to explain how consumers derive meaning from a product or service and, hence, why they buy a particular product. It is important to note that attributes comprise both concrete elements (Lin & Fu, 2018a, 2017; Patrick & Xu, 2018) and abstract elements (Olson & Reynolds, 2001). Moreover, consequences may be functional or psychosocial in nature (Olson & Reynolds, 2001). Ultimately, values are classified into instrumental and terminal values (Olson & Reynolds, 2001). For example, one of the attributes of local food in a destination to tourists can be "delicious food." This attribute, "delicious food," can make tourists "discover something new" as a positive consequence. When tourists discover something new, they achieve "personal happiness," which reflects consumers' ultimate end-states of existence (S. Kim et al., 2022).

The core principle of Means-end chain theory is that the meaning of products, which is structured and stored in customers' memories, is composed of hierarchical links between related elements (Walker & Olson, 1991). The formation of a link begins when product knowledge elements, or product attributes, relate to consumers' personal values and self-concepts through the perceived ends of the benefits of a product. Means-end chain theory constructs and explains the 'attribute-ends-value' connection between a consumer and a product, and how mutual connections form a chain.

Means-end chain models can connect the characteristics of a specific product with consumers' demands, and thereby explain what drives their purchase purposes. Means-end chain models use a laddering process to elucidate the unobservable inner worlds of consumers.

Food attributes

Previous studies have shown that food attributes are characteristics of a food or service that differentiate it from others (Frash et al., 2015). Previous studies indicate that price, safety, taste, quality, location, and parking convenience were found to be primary reasons why customers choose fast food (Barrena & Sánchez, 2013; Ha & Jang, 2013; Kim, 1996; Zanolli & Naspetti, 2002). These studies suggest that there is agreement to a large extent with regard to attributes that influence the consumption decisions of consumers.

In examining the significance of food attributes on customer satisfaction, several researchers have suggested that customer satisfaction involves specific features of the products themselves (Namin, 2017; Ramaraj, 2017; Sulek & Hensley, 2004). Namin (2017) found that service quality, food quality, and price-value ratio indirectly affect behavioral intentions via satisfaction in FF restaurants. In other words, behavioral intention in FF restaurants could be enhanced through customer satisfaction as an intermediary, while service quality, food quality, and price-value ratio are antecedents. Similarly, price and service are key attributes that motivate consumers to eat at fast food venues; price in particular is a means of measuring food, services, and other values of the restaurant experience (Mattila & O'Neill, 2003). Layout, lighting, hygiene, decor, and music may further influence consumers' choices in restaurants (Ha & Jang, 2010).

Alternatively, some studies have underscored that "tangibles" affect customer satisfaction in restaurant industry. For example, Nguyen et al. (2018) concluded that "tangibles" such as "easily seating availability," "clean and comfortable dining areas," and "well-dressed staff members" play an important role in stimulating customer satisfaction. Similarly, Heung et al. (2000) found that "tangibles" such as "comfortable dining areas," "clean dining equipment," "comfortable seats," and "attractive menu" are critical to generating customer satisfaction in restaurants. These studies show that restaurant attributes are linked to consumers' highly ranked values (e.g., satisfaction).

Benefits sought from food consumption

According to Andersson et al.'s (2017) study, food and meal experiences are influenced by one's personal, cultural, and social orientations, and this extends to individuals' traveling behavior and consumption. To some, food serves the functional purpose of filling the stomach (Andersson et al., 2017). In a related

study, Therkelsen (2015) contended that food and meals provide benefits such as pleasure, social bonding, health, and a sense of place among tourists. Pleasurable exposure refers to the taste, texture, smell, and visual elements of the food in question. Included in pleasurable exposure is a sense of stimulation, which covers the interactions between service staff and other tourists (Gustafsson et al., 2014). Second, food builds and strengthens interpersonal relationships among travelers as a result of meeting and eating together. As Warde and Martens (1998) argued, conversation and relationships have been identified as critical reasons why people eat out at restaurants. Third, health considerations and the nutritional qualities of food equally are important to tourists (Andersson et al., 2017). Finally, food and meals provide people with a sense of place, as identified in numerous food tourism studies (Bardhi et al., 2010; Hjalager, 2004; Mak et al., 2012).

Several studies have identified the benefits and consequences inherent in consumers' perceptions of fast food. Benefits that consumers gain through fast food consumption include saving time, which is particularly important for many travelers (Kim & Huh, 1998). Costa et al. (2007) analyzed the motives that guide food purchasing and found that the main advantage of takeaway meals for consumers was saving time that would otherwise be spent shopping and cooking. Similarly, Jaworowska et al. (2013) indicated that eating fast food may save both time and money. In addition, using laddering interviews, Urala and Lähteenmäki (2003) examined the factors that influence consumers' food choices. This research found that ethical considerations were key in consumers' food choices.

The above review of food benefits reveals that timesaving is one of the most obvious benefits of eating at fast food venues (Costa et al., 2007; Jaworowska et al., 2013; Kim & Huh, 1998). In Macau, tourists may wish to save time eating to gain time that can be spent at casinos, shopping malls, or other places, when they travel for entertainment. In their respective studies, Lynch et al. (2011) highlighted the benefit of value for money. The benefit of saving money is further emphasized by many scholars (Barrena & Sánchez, 2013; Ha & Jang, 2013; Wadolowska et al., 2008).

Besides, Lynch et al. (2011) and Barrena and Sánchez (2013) have stated that the convenience of food consumption is reflected in the convenience of parking and drive-through services when eating out. Several studies have found that customer service and comfort are considered by travelers (Ha & Jang, 2013; Wadolowska et al., 2008).

Perceived value of food consumption

Personal value reflects consumers' 'ultimate end-states of existence' (Vinson et al., 1977, p. 44) and values are often reflected in food consumption. Value theory has been developed since Rokeach (1973) established the Rokeach

Value Survey (RVS). The original RVS comprises 36 items capturing various elements, such as responsibility, intellectualism, capability, logic, self-control, wisdom, pleasure, happiness, and freedom. Kahle (1983) developed the nine-item List Of Values (LOV) to measure consumer value; it consists of sense of belonging, excitement, fun and enjoyment, warm relationships with others, self-fulfillment, being well respected, a sense of accomplishment, security, and self-respect. It should be noted that these types of highly ranked values are different from value for money (e.g., Lai, 2015) or consumption value (e.g., Choe & Kim, 2018) in the literature.

The existing literature has suggested that traditional, cultural, social, cognitive, and physiological factors have influenced consumers' food choices (Martins & Pliner, 2005; Mela, 2007). Barrena et al. (2015) studied food choices based on personal and cultural values, and found that consumers in different cultures emphasize different values with respect to food. Similarly, Antin and Hunt (2012) have suggested social identity and fulfillment as factors when studying food choices from a multidimensional perspective.

In addition, Lee et al. (2014) adopted means end-chain theory to examine how Chinese customers consider the attributes, consequences, and consumer values of healthy drinks. Dreezens et al. (2005) examined which specific values affect individuals' attributions of genetically modified food (GMF) and organically grown food (OGF). Both studies utilize the Schwartz Value Survey to measure consumer value. The identification of such end-state values is necessary, particularly in developing hierarchical value maps.

Numerous researchers have indicated that the value of belonging is an indispensable element in food consumption (Ha & Jang, 2013; Hauser et al., 2013; Wardle et al., 2004). Moreover, the role of confidence in food choices is influenced by security and has been found to be vital to consumers' values in regard to food consumption (Bredahl, 1999; Schiöth et al., 2015). These studies show that, if food products are designed in line with customers', consumers', and tourists' values, the hospitality industry will succeed (Phau et al., 2014; Roustae & Jamshidi, 2020).

Food behaviors among tourists and residents

Evidence in the extant literature regarding food tourism suggests that personality traits among tourists shape their food-related decisions, perceptions, and attitudes at destinations (Getz et al., 2014; Seo & Yun, 2015). Two of these influencing traits are food neophilia (willingness to try novel food) and food neophobia (reluctance to try/the avoidance of novel food; Ji et al., 2016). Tourists who are food neophilic tend to seek novelty, authenticity, and local experiences in their food consumption, while tourists who are food neophobic seek familiar food and try to find more international food (Hsu & Scott, 2020).

Travelers' budgets also influence their food behavior in destinations. Tourists traveling on a high budget are likely to eat at fine or casual dining restaurants, while budget travelers are more likely to eat at cheaper alternatives, such as fast food restaurants (Ha & Jang, 2013).

The local food environment and personal food preferences are known to influence residents' food behaviors. The presence and proximity and the variety of food available in supermarkets in neighborhoods encourage food purchasing (Walker et al., 2012), as opposed to eating out. Work schedules also influence food behaviors among residents. For instance, residents with tight work schedules and long working hours may eat out more often than they cook at home (Baig & Saeed, 2012; Habib et al., 2011). In addition, Walker et al. (2012) identified several factors that influence residents' food behavior. Among them are budget considerations, such as income and household composition, special occasions, and health consciousness.

Laddering

The laddering method, as proposed by Reynolds and Gutman (1988), can be used together with Means-end chain models. Laddering is an approach to collecting data entailing the use of one-to-one, in-depth interviews to explore how customers' understandings of product attributes form a link between consumers' personally meaningful results and abstract values (Veludo-de-Oliveira et al., 2006). The present study identifies the relationships among attributes, consequences, and values using hard laddering. In soft laddering, researchers use free extraction to allow consumers to give unrestricted answers. Meanwhile, hard laddering uses a structured questionnaire to gather information by limiting the response order. In hard laddering, respondents need to answer layers of ladders in the order of attributes, results, and then values, and complete a self-administered questionnaire (Walker & Olson, 1991).

Methods

Questionnaire development

First, items of fast food attributes were extracted from previous food studies (Barrena & Sánchez, 2013; Ha & Jang, 2013). Second, items representing benefits of FF consumption were operationalized based on the previous literature (Choe & Kim, 2018; Ha & Jang, 2013). Finally, the values used in the questionnaire are based on the List of Values (LOV) proposed by Kahle et al. (1986).

To ensure that the developed questionnaire included all the information needed for the main survey, a soft laddering method with three consumers eating fast food at one of the fast food restaurant outlets in the Venetian Macau

was conducted. All interviews were recorded. After conducting this soft laddering process for the final questionnaire, several elements associated with fast food consumers were added to the pre-developed questionnaire. For example, attributes such as “no language barrier,” and “Near to other locations (e.g., shopping mall, casino)” were newly added on the hard laddering questionnaire. Consequences such as “I can save money so I can spend more money on gambling,” and “I can save time so that I can go back to casinos quickly” were also added after the soft laddering interviews. Since the fast-food restaurants were located in Integrated Resort (e.g., Venetian Macau), some measurement items reflect casino-related characteristics, and it was considered necessary to include them in the current study after conducting the soft laddering interviews.

Next, the pilot test was conducted using hard laddering interviews with 32 fast food consumers at the Galaxy Macau and Venetian Macau. The pilot test was executed to analyze whether or not the questionnaire was valid and reliable for application in the main survey. After the pilot test, several questions were revised, merged, or eliminated based on respondents’ answers, formulating the final version of the questionnaire. To be specific, in the case of attributes, “quality” was revised to “consistent quality” since respondents mentioned that “quality” sounds too abstract. “Appearance” and “label information” were removed because almost no one chose those items as their important attributes. Regarding consequences, “I feel I’m doing the right” was removed. In the case of values, “dignity and self-respect” was merged into “self-satisfaction and achievement.” Other than these, respondents understood the questions well and were able to answer without problems. The final questionnaire used for the main survey consisted of 13 attributes, 12 consequences, and eight values (see, [Table 1](#)).

While a sample of 20 to 25 people is advised to interview to achieve validity in the soft laddering method (C.-F. Lin & Fu, 2018b; Olson & Reynolds, 2001), there is no unified or consistent approach to the sample size in the case of hard laddering method (Borgardt, 2020). For example, Chen et al. (2015) investigated 300 shoppers to understand their choice of organic food using the hard laddering method. B. Kim et al. (2016) examined 104 tourists to investigate their value orientations of religious tourism using the hard laddering method. In Russell et al.’s (2004) hard laddering survey, 46 participants were recruited to explain the motivation of food choices. Existing literature was taken into consideration to estimate the sample size of the current study, and time and financial constraints were also considered. Therefore, we aimed to gather approximately 100 samples. The main survey was conducted at the Galaxy Macau and Venetian Macau with 115 fast food consumers. The questionnaires were randomly distributed to diners. In the main survey, we targeted consumers of all ages who eat fast food, regardless of nationality. The aim was to achieve a wide demographic distribution of all groups in the results.

Table 1. Identification of attributes, consequence, and values.

Attributes (A)		Consequences (C)		Values (V)	
A1	Good taste	C1	I can save time	V1	Personal happiness
A2	Prompt service	C2	I can save time so I can go back to casinos quickly	V2	Self-fulfillment
A3	Reasonable price	C3	I can save money	V3	Love for friends and/or family
A4	Consistent quality	C4	I can save money so I can spend more money on gambling	V4	Fun and enjoyment of life
A5	Various menus	C5	I can get good value for my money	V5	Self-satisfaction and achievement
A6	Friendliness of staff	C6	I can relax with family and/or friends	V6	Belonging
A7	No language barrier	C7	I enjoy convenience	V7	Joy and pleasure
A8	Long business hours	C8	I feel comfortable	V8	Security
A9	Take-out service	C9	I can enjoy excellent customer service		
A10	Familiarity with brand	C10	I get exactly what I want		
A11	Restaurant ambience	C11	I'm in a good mood		
A12	Brand reputation	C12	I can eat food that I know in a familiar place		
A13	Near to other locations (e.g., shopping mall, casino)				

Findings and discussion

Basic data of the participants

The frequency analysis indicated that 41.7% of the participants were male, while 58.3% were female (see, [Table 2](#)). Moreover, 71.3% of respondents were tourists. 85% of the tourists were from mainland China, and the rest came from Taiwan, Hong Kong, and Europe. Meanwhile, 28.7% of the samples were residents. The average approximate monthly household (family) income was below HKD \$20,000 for 54.8% of respondents; 23.5% of respondents earned between HKD \$20,000 and HKD \$39,999; 14.8% earned between HKD \$40,000 and HKD \$59,999; 1.7% earned between HKD \$60,000 and HKD \$79,999; and 5.2% earned above HKD \$80,000.

Constructing the implication matrix

A total of 1,710 valid attribute-consequence-value chains were collected in fast food restaurants in July 2019 using input from 115 fast food consumers. The number of chains between the attributes, consequences, and values is presented as the figure for ladders, as shown in the implication matrix. All the direct and indirect connections are shown in the implication matrix. Direct connections indicate that attributes were directly

Table 2. General profile of respondents (N = 115).

Particulars	Classification	No. of Respondents	Percentage (%)
Residency Status	Residents	33	28.7
	Tourists	82	71.3
Gender	Male	48	41.7
	Female	67	58.3
Monthly household family income (HKD)	Below 20,000	63	54.8
	20,000–39,999	27	23.5
	40,000–59,999	17	14.8
	60,000–79,999	2	1.7
	Above 80,000	6	5.2

linked to consequences (A–C) or consequences were directly linked to values (C–V). There is no intervening hierarchical relationship between the components. Indirect connections indicate an attribute-to-consequence-to-value (A–C–V) relationship.

As can be seen in the A–C implication matrix (see, Table 3), the most common concern of consumers when dining at fast food restaurants is A1, ‘good taste,’ which is linked to C5, ‘I can get good value for my money.’ This response occurred 47 times. A3, ‘reasonable price,’ was mentioned 37 times and was linked to C3, ‘I can save money.’ In addition, A11, ‘restaurant ambience,’ occurred 35 times and was linked to C11, ‘I’m in a good mood’.

The C–V implication matrix (see, Table 4) illustrates the implications matrix for respondents’ perceptions of the relationship between consequences and values. More specifically, V1, ‘personal happiness,’ was the factor most often mentioned by the customers, showing a strong connection (46 times) with C5, ‘I can get good value for my money.’ This was followed by 41 times between C11, ‘I am in a good mood,’ and V1, ‘personal happiness.’ In addition, C10, ‘I get exactly what I want’ occurred 39 times and was linked to V1, ‘personal happiness.’

Table 3. Respondents’ A–C implication matrix (N = 115).

Attribute	Consequence											
	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
A1	4				47	4	1	3		21	3	2
A2	13	1	1		1		10	5	3	2	2	
A3	8		37	2	18		1	5	1	1		1
A4			3		5		1	5		3		1
A5		1			1	5	1			12	3	2
A6	1							8	10	1	16	
A7	3			1		2	16	9		14		
A8	5		2			1	14			2		
A9	2	1				1	7	3				
A10	1		1		1		10	10	1	15	1	30
A11						2	1	18			35	1
A12					1	4	6	11	4	25		11
A13	2	1				1	5	2			2	8

Table 4. Respondents’ C–V implication matrix (N = 115).

		Value							
		V1	V2	V3	V4	V5	V6	V7	V8
Consequence	C1	17	5	1	8	2	1	5	
	C2	1			1			2	
	C3	28	2	1	2	5		6	
	C4					1	2		
	C5	46	19	1	1	2	1	3	1
	C6	3	1	10	3		1	2	
	C7	9	3	1	29	4	2	24	1
	C8	31		1	9	7	10	17	4
	C9	1			5		1	12	
	C10	39	9		13	7	2	20	6
	C11	41			2	1		17	1
	C12	2	2	1	5	2	27	5	12

Table 5. Tourists’ A–C implication matrix (N = 82).

		Consequence											
		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
Attribute	A1	4				28	4		1		16	2	2
	A2	10						7	4	1	1	2	
	A3	7		17	2	17		1	2	1			1
	A4			1		3		1	5		1		
	A5		1				4	1			2	2	2
	A6								7	2	1	14	
	A7	3			1		2	13	6		12		
	A8	2		1			1	12			2		
	A9	1						7	2				
	A10					1		10	8	1	13	1	26
	A11							1	1	11		25	
	A12							3	5	10	4	25	
	A13	2	1					1	5	2		2	8

Construction of a hierarchical value map (HVM)

The construction of a hierarchical value map (HVM) was based on the implication matrix. An HVM is a graphic model of the dominant links between elements (Reynolds & Gutman, 1988). Before developing an HVM map, the cutoff criterion must be defined in order to limit the information included in the map (Leppard et al., 2004). A high cutoff point means that less information is contained in the HVM; too little information, however, may oversimplify the map. In contrast, a low cutoff point may lead to an excess of information and, as a result, an HVM that is challenging to analyze. It is essential to set an optimal cutoff value to produce a simple and clear HVM (Reynolds & Gutman, 1988).

The cutoff point was set according to the total number of frequencies appearing in regard to links in this study. According to the sample size, an adequate frequency was based on 50% of the total times that a connection appeared. The researchers collected data using an ‘Association Pattern Technique (APT)’ questionnaire, a pencil-and-paper hard laddering technique. The purpose of the APT is to realize the associated connections between

attributes, consequences, and personal values. A cutoff value of 20 was chosen for the AC matrix and 15 was chosen for the CV matrix when drawing the HVM for all respondents. Next, a cutoff value of seven was chosen for the AC matrix and the CV matrix when drawing the HVM for residents. Finally, a cutoff value of 12 was chosen for the AC matrix and 15 was chosen for the CV matrix when drawing the HVM for tourists. The resulting HVMs were constructed to identify the values of all respondents who dine in fast food restaurants (see, Figure 1).

From the overall results, it can be seen that the most common concerns of consumers when dining are ‘good taste’ (A), ‘I can get value for my money’ (C), and ‘personal happiness’ (V). This result demonstrates the association between the experiential taste of food and the perceived happiness of consumers.

The second most important group of concerns for customers when dining in fast food restaurants consists of ‘reasonable prices’ (A), ‘I can get value for money’ (C), and ‘personal happiness’ (V). This connection depicts the way in which cost-benefit evaluations are a critical factor in fast food purchasing. The third significant connection is between ‘restaurant ambience’ (A), ‘I am in a good mood’ (C), and ‘personal happiness’ (V). This connection reveals that customers have a stronger tendency to dine at restaurants with good ambience (environment) and are particular about their emotions (mood) during the dining experience.

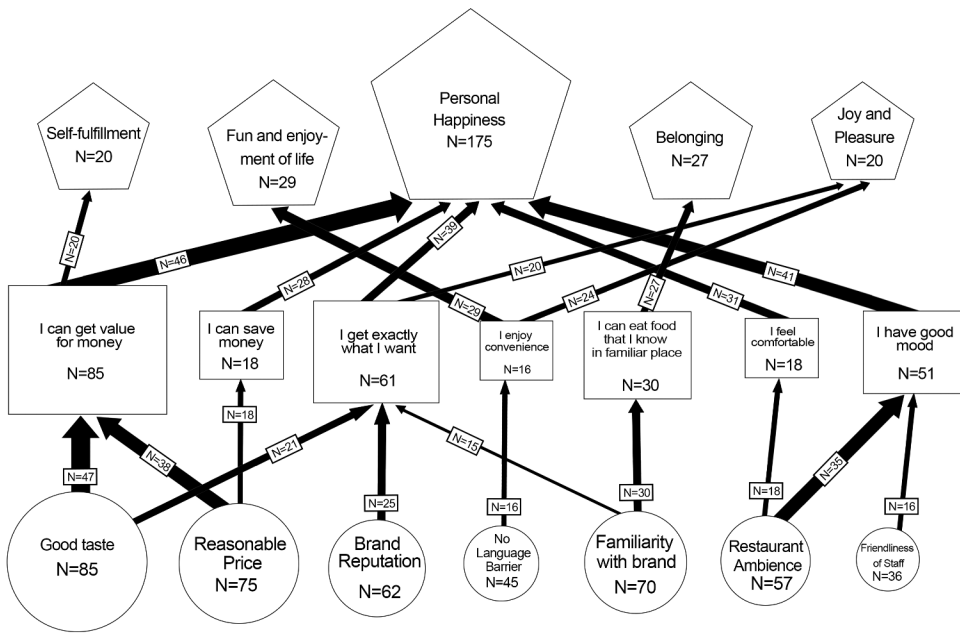


Figure 1. Respondents' hierarchical value map.

Table 6. Tourists’ C–V implication matrix (N = 82).

		Value							
		V1	V2	V3	V4	V5	V6	V7	V8
Consequence	C1	9	5	1	6	2	1	5	
	C2	1						1	
	C3	7	1	1	2	4		4	
	C4					1	2		
	C5	31	13	1	1		1	1	1
	C6	2		9	2		1	2	
	C7	6	2		26	3	1	24	1
	C8	20		1	4	6	8	15	4
	C9				1			8	
	C10	32	7		11	4	2	13	4
	C11	35				1		11	1
	C12	2	1	1	4	2	18	3	10

Table 7. Residents’ A–C implication matrix (N = 33).

		Consequence											
		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
Attribute	A1					19		1	2		5	1	
	A2	4	1	1		1		3		2	1		
	A3	1		20		1			3		1		
	A4			2		2					2		1
	A5					1	1				10	1	
	A6								2	8		2	
	A7							3	3		2		
	A8	3		1				2					
	A9	1	1				1		1				
	A10	1		1					2		2		4
	A11						1		7			10	1
	A12					1	1	1	1				9
	A13												

For the sake of achieving the main objectives of the current study, the whole sample was divided into tourists and residents. Tables 5 and 6 illustrate the implication matrices for tourists’ perceptions of the relationship between attributes and consequences, and the relationship between consequences and value, respectively. In addition, Tables 7 and 8 illustrate the implications matrices for residents’ perceptions of the relationship between attributes and consequences, and the relationship between consequences and value, respectively.

Comparing and analyzing the similarities and differences between tourists and residents is conducive to producing a comprehensive and objective reflection on the current attitudes of consumers from multi-level and multi-angle viewpoints. In turn, the results may help managers to determine the causes of problems, as well as effective countermeasures.

The similarities between tourists and residents

It can be observed from the various A–C–V connections that the most strongly linked association was between ‘good taste’ (A), ‘I can get good value for my money’ (C), and ‘personal happiness’ (V). Both residents and tourists think

Table 8. Residents' C–V implication matrix (N = 33).

		Value							
		V1	V2	V3	V4	V5	V6	V7	V8
Consequence	C1	8			2				
	C2				1			1	
	C3	21	1			2		2	
	C4								
	C5	15	7			2		1	
	C6	1	1	1	1				
	C7	3	1	1	3	1	1		
	C8	11			5	1	2	2	
	C9	1			4		1	4	
	C10	7	2		2	3		7	2
	C11	6			2			6	
	C12		1		1		9	2	2

that good tasting food is important. Out of 82 tourists, 57 (69.5%) contend that good tasting food is important (Figure 3) and to Out of 82 tourists, 57 (69.5%) contend that good tasting food is important (Figure 2). These links demonstrate the association between price, perceived quality, and emotion. This finding is analogous to previous studies (Barrena & Sánchez, 2013; Ha & Jang, 2013; Kim, 1996; Zanolli & Naspetti, 2002) that concluded that price, taste, and quality are the primary reasons why customers choose fast food. In a similar fashion, Namin (2017) found that service quality, food quality, and price-value ratio indirectly affect behavioral intentions via satisfaction in regard to FF restaurants. The importance of perceived value in choosing fast food has been confirmed in the literature. Consumers generally compare the consequences and benefits of fast food with those of other kinds of food. Perceived value directly affects consumers' purchasing decisions (Tam, 2004). The association between the perceived value of fast food and the satisfaction of consuming it has been examined by Voon (2012). These advantages may be the reasons why fast food restaurants attract both tourists and residents of Macau. These findings accentuate the fact that quality and price (value for money) are critical in the decision-making processes of tourists and residents in regard to choosing FF restaurants.

The second strongest similarity between residents and visitors in choosing fast food attributes is reflected in brand reputation. Brand reputation is defined as 'the perception of quality associated with the name' (Selnes, 1993, p. 20). In the process of evaluation, customers choose restaurants with good brand reputations, with the ultimate goal of reducing the risk associated with customers' evaluation processes. For residents, the brand reputation of fast food restaurants enables them to decide to eat in a familiar place. Finally, residents feel a sense of belonging based on the brand reputation of fast food restaurants. However, for tourists, brand reputation is associated with 'I get exactly what I want' and is linked to their personal happiness. Tourists are not as familiar with the destination as residents are. Therefore, having food they

know and want is a very important benefit based on brand reputation. Studies (e.g., Foroudi et al., 2019; Wilkins & Huisman, 2015) have revealed that favorable brand reputation causes customers to develop positive attitudes toward an entity. This observation from the study is in line with previous studies, as brand reputation had a positive relationship with customers' attitudes toward an organization (including FF restaurants).

The third strongest similarity between residents' and tourists' preferences for fast food attributes is restaurant ambience. This attribute reflects the influence of store ambience on consumer sentiment, which has been confirmed by several researchers (Teichert et al., 2011). Ambience includes both the physical and soft environments of fast food restaurants. The physical environment includes visual elements, such as store facilities, merchandise displays, colors, neatness, and background stimuli, such as temperature, lighting, and music. Thang and Tan (2003) found that the atmosphere created by stores could affect customers' shopping moods, which in turn affects customer satisfaction. The soft environment can be considered as an intangible environment created by restaurant employees and other consumers. If this environment is welcoming and harmonious, it can promote consumers' integration into the restaurant, thereby increasing the possibility that consumers will dine there. During the meal, sensory pleasure is the basis for consumers having better consumption experiences.

In the current research, both tourists and residents chose the ambience of fast food restaurants as important attribute, which in turn affected their personal mood. The survey area is full of Macau tourist attractions, such as the Venetian Macau and the Galaxy Macau both of which have many restaurants. Among these restaurants, those with modern décor are more expensive than fast food stores. Therefore, comparing the same level of restaurants (from the perspective of price), the dining ambience of fast food restaurants seems to be cleaner and brighter than other restaurants. This is especially the case from the perspective of tourists, who were found to feel comfortable in the ambience of fast food restaurants. This observation aligns with Ha and Jang (2010), who contended that layout, lighting, hygiene, decor, and music may influence consumers' choices in restaurants.

The differences between tourists and residents

First, none of the residents thought brand familiarity was important, which was very different from tourists. Out of 82 tourists, 60 (73.2%) thought brand familiarity was important (Figure 2). It was observed that there is the strongest connection between 'familiarity with the brand' (A), 'I can eat food that I know in a familiar place' (C), and 'belonging' (V) from tourists' perspective.

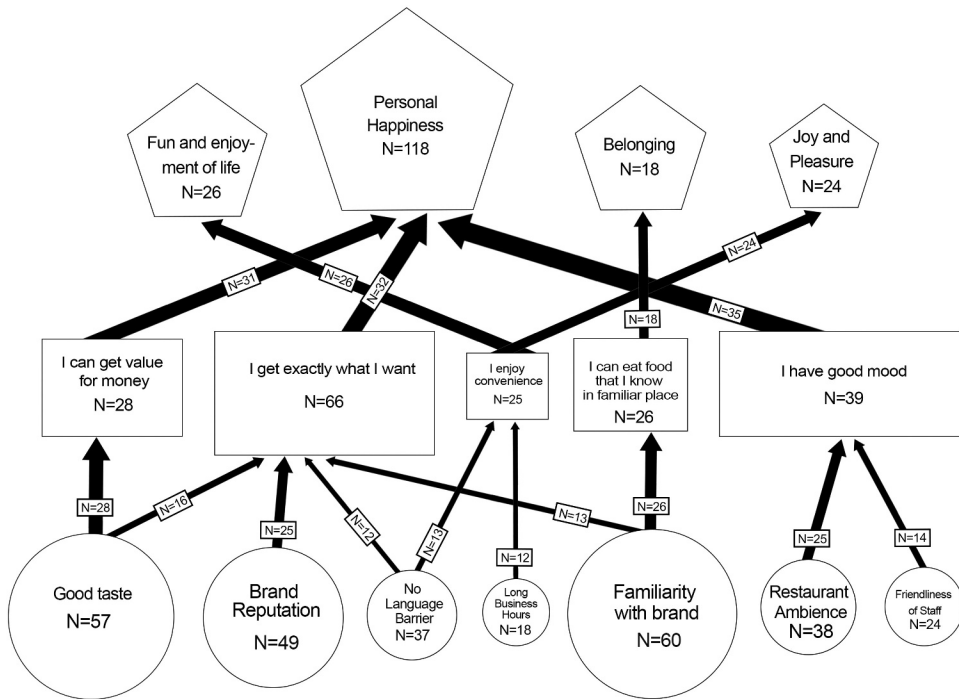


Figure 2. Tourists' hierarchical value map. Note: Cutoff level: seven for the AC matrix and seven for the CV matrix.

Providing good products or engaging in attractive promotions can increase consumer brand familiarity. Brand familiarity is the product knowledge that consumers gradually form and intensify through direct or indirect experience with branded products (Doyle et al., 2014). Brand familiarity represents the brand association set in consumers' memories and can execute a positive function in regard to purchasing intention and consumers' brand attitudes. The greater the consumer's familiarity with a brand, the greater their tendency to purchase a product from that brand.

Unfamiliarity with brands can cause tourists to think that consumption is risky, which is a perceived risk. This has been confirmed in research conducted by Lafferty (2009). Unlike tourists, residents are more familiar with local restaurants. Therefore, the perceived risk of restaurant consumption due to unfamiliar brands is lower than that of tourists. Tourists were more likely to eat at a fast food restaurant because they are familiar with the brand, due to the aim of reducing perceived risk. The fact that tourists and residents differ in their familiarity with brands leads to differences in their perceptions of consumption and, in turn, leads to differences in their choice of restaurant attributes.

Second, the connection between ‘a lack of language barriers’ (A), ‘I enjoy convenience’ (C), and ‘fun and enjoyment’ (V), and that between ‘a lack of language barriers’ (A), ‘I can get exactly what I want’ (C), and ‘personal happiness’ (V) show that language barriers are more important to tourists, which is different from residents. Language barriers have been identified in some studies as an aspect that significantly influences travel satisfaction (Mat et al., 2009). A tourism language is a communication tool for expressing feelings and communicating between tourists and local people. Tourist destination representatives can learn tourists’ needs through smooth communication and can thereby offer them a qualified tourism service.

Language barriers may be a hindrance to the enjoyment of travel products for tourists visiting Macau. Some staff in Macau stores have not mastered a language common among tourists, so tourists cannot communicate effectively with them during the consumption process. This failure in communication leads to misunderstandings and low levels of satisfaction. In contrast to workers in Macau stores, staff in fast food restaurants in Macau can often speak English, a global language, relatively well. Their ability to communicate in English gives visitors a sense of security. Tourists come to Macau from different countries and, hence, have many different first languages. However, at fast food restaurants, tourists do not need to worry about being unable to purchase food due to language barriers. Pleasant communication can help tourists to successfully complete their consumption of fast food, thus improving their travel satisfaction.

Moreover, the connection between ‘reasonable price’ (A), ‘I can save money’ (C), and ‘personal happiness’ (V) was found to be important for residents (Figure 3). This connection reflects the properties, results, and value of fast food in terms of price. This finding reinforces and accentuates Labensky et al.’s (2001) assertion that fast food is defined by its cheap price. Consequently, price has always been the main factor discussed by scholars in their focus on research related to fast food. A significant advantage of fast food is its low price. Price in this context indicates the monetary performance of fast food and is the cost that consumers must pay for a fast food product. There have been many studies, such as those of Voon (2012) and Samah et al. (2015), confirming that low prices are an important factor in fast food purchasing. Similarly, Gonçalves et al. (2016) and Lai (2015) noted that price, value for money, and quality are highly considered by consumers. This current empirical investigation also confirms this conclusion from residents’ perspective.

In addition to the above, this study revealed that the link between ‘friendly staff’ (A), ‘I am in a good mood,’ (C) and ‘personal happiness’ (V), and the connection between ‘long business hours’ (A), ‘I enjoy convenience’ (C) and ‘fun and enjoyment’ (V) were considered to be

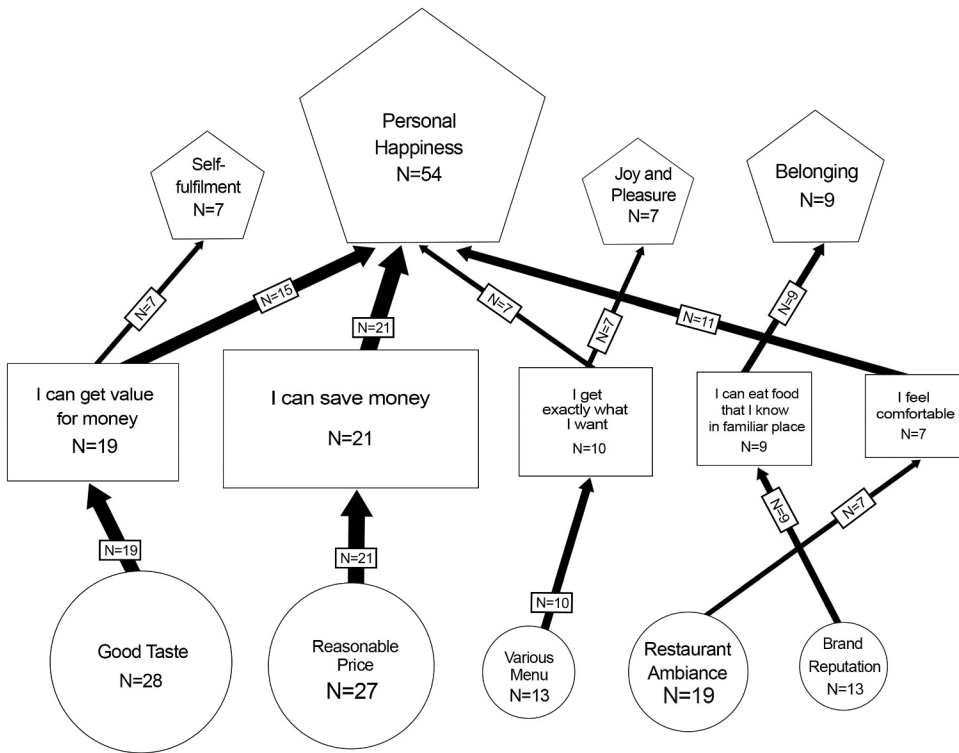


Figure 3. Residents' hierarchical value map. Note. Cutoff level: 12 for the AC matrix and 15 for the CV matrix.

more important to tourists than residents. This finding supports Edward (2006) in his application of an attribute approach to measuring service quality dimensions in a tourist destination. In his attempt to measure service quality in Kerala in India, he based his analysis on attributes such as friendliness, staff language, activities relating to fun and excitement, and accessibility. This points to the fact that tourists are particular about the friendliness of staff, accessibility (especially long business hours), and fun and enjoyment in their decision-making processes.

It is important to note that these differences can help fast food brands to establish the core values of the brand differently for residents and tourists, so that consumers can clearly identify and bear in mind the brand's personality and interests. These differences have also become the main driving force behind consumers identifying with, accepting, and developing loyalty to a brand. Therefore, fast food brands should differentiate their own brand's core values according to the different consumption motivations of residents and tourists, to more effectively market to these two groups of people.

Implications

Theoretical implications

This study contributes to the body of literature regarding food consumption values among consumers, specifically the fast food consumption values among tourists and residents. It provides background insights for food and hospitality researchers regarding hierarchical value maps for fast food consumers.

While previous studies have examined consumer dining values and fast food consumption among consumers, only a few studies have combined the two and developed a hierarchical value map of fast food consumption. This is even less the case in terms of comparisons between tourists and residents. Utilizing a Means-end chain method, this study revealed a more comprehensive illustration of the various fast food attributes that result in the underlying values customers pursue when purchasing and consuming fast food. This study therefore validates the relevance of Means-end chain theory in understanding how customers link product attributes to their pursued values.

Furthermore, this study used Means-end chain theory to highlight and underscore new and unique attributes, consequences, and values. It found 13 new and unique attributes, consequences, and values on food and FF research. The study found new important attributes of FF industry such as “brand reputation,” “no language barrier,” “familiarity with brand,” “restaurant ambiance,” and “friendliness of staff.” On consequences, it found that “I get exactly what I want,” “I enjoy convenience,” “I can eat food that I know in a familiar place,” “I feel comfortable,” and “I am in a good mood” were new and unique contributions to Means-end chain theory. Values such as ‘self-fulfillment’ “fun and enjoyment of life” are found to be important in the current study, which are in line with previous studies (e.g., Kahle et al., 1986; Russell et al., 2004).

Practical implications

The current research provides some managerial implications for fast food restaurants. The findings may help fast food brands to establish the core value of their brand for all customers (regardless of tourists or residents) as well as residents and tourists differentially, in order to specifically market to these two groups of people. Hence, the study positions the practical implications in terms of marketing to all customers versus segmenting the customer base (residents and tourists) based on the findings.

First, from the perspective of marketing to all customers by fast food restaurants, consumers that eat fast food are concerned with the taste of the food, the reputation of the brand, and the ambience of the restaurant. Fast food restaurants should promote fast food consumption by enhancing the dining environment and maintaining the quality of products that differentiate them from other restaurants. Furthermore, operators should focus on the

physical and soft environments of fast food restaurants because they are key to enhancing the dining experience of consumers and improving their satisfaction with fast food restaurants. Companies should also attempt to enhance the reputation of fast food brands.

Second, on the basis of segmenting the market by fast food restaurants, companies should differentiate their brands' core values according to the different consumption preferences of residents and tourists. For example, for tourists, fast food restaurant operators should provide high-quality products or offer attractive promotions to develop consumers' product knowledge of the brand, thereby increasing tourists' tendency to eat fast food. The operators should also hire staff members who speak English, so they can communicate effectively with tourists. Pleasant communication can help tourists to successfully consume fast food, thus improving their overall travel satisfaction. For residents, this study also found that low prices were attractive because they can give visitors the sense that they are saving money. The differences between residents and tourists can also be further used to guide future fast food marketing strategies.

Conclusion

This study ascertains fast food consumption attributes, consequences, and values among tourists and residents in Macau. The study uses hierarchical value maps, together with a laddering technique, to uncover the similarities and differences between tourists and residents in their consumption preferences in fast food settings. In addition to this, it conducts a comparative analysis of the consumption values among tourists and residents as two distinct groups in Macau.

The findings indicate that good taste, brand reputation, and restaurant ambience are important attributes shared among tourists and residents. However, brand familiarity and a lack of language barrier are more important attributes to tourists than to residents. Conversely, it was observed that reasonable prices are a more important attribute to residents than to tourists. This study provides useful insights that can enable fast food operators to develop and efficiently communicate their value propositions to their target customers.

Limitations and future research

First, the size of the sample in this study is relatively small and there are differences in the sample sizes of tourists and residents. This is because fewer residents choose to eat fast food. The use of roughly the same sample size for each customer segmentation is recommended in future studies. Second, a structured questionnaire was used to collect data because the current study adopted a hard laddering method. Future studies could employ a soft

laddering approach to elicit responses from tourists and residents in FF settings. Third, in the future studies, it would be valuable to investigate HVMs for fast food restaurants, casual restaurants, and fine dining restaurants, and compare the results. Fourth, the current study gathered data from Macau only, so it is hard to apply our findings to other regions. Most tourists in Macau are from mainland China, therefore not representing global tourists. Thus, future research is required to collect data from different regions with samples from diverse cultural backgrounds. Fifth, in the future study, considering the characteristics of Macau, hierarchical value maps between gamblers non-gamblers can be compared. Lastly, in the current study, the sample size between tourists (N = 82) and residents (N = 33) is not well balanced. In the future study, to achieve more valid results, equal distribution of the sample size is necessary to compare the two groups.

Disclosure statement

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