A Multilevel Investigation of China’s Regional Economic Conditions on Experience Co-Creation and Dining Outcomes

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Abstract

Purpose: This study investigated how presence of other customers in restaurant social settings becomes a resource (referred to as “customer-to-customer interaction” or “C2CI”) to co-create an escape dining experience and stimulate dining outcomes, namely, food attachment and dining frequency. The relationships are further tested under the effects of regional economic conditions.

Design/methodology/approach: Data were collected by using a multi-step approach. The first dataset was obtained through a personally administered survey, which included a sample of 356 Chinese tourists who dined at fine Western (i.e., Portuguese) restaurants in Macau. The second dataset concerned economic statistics and was obtained from the statistics departments of mainland China and Taiwan. A multilevel design with hierarchical linear modeling was used to test the proposed model. Multilevel mediating and moderating effects were also examined.

Findings: Results suggest that customer escape dining experience significantly mediated the relationship between C2CI and food attachment, while food attachment fully mediated the relationship between customer escape experience and dining frequency. The multilevel effect of regional economic conditions played a significant role in moderating the C2CI–escape experience relationship in that the effect of C2CI was more salient for tourists from less economically developed regions in China. The experience–food attachment relationship was also contingent on the regional economic conditions in that the relationship was stronger for tourists from less economically developed areas. A multilevel mediating effect was also presented in the study.

Practical implications: The restaurant management should realize how C2CI, as a resource beyond management control, can become a resource for customers to co-create an escape dining experience. This escape experience contributes to the frequency of consumption of a certain cuisine through attachment with the food.

Originality/value: The study contributes to the literature on experience co-creation in restaurant dining by exploring and testing the possibility of the presence of other customers to become a resource of experience co-creation, which is currently overlooked in the restaurant dining literature. The study advances the concept of co-creation by including the presence of...
other customers and restates the active role of diners in creating experiences. It also considers the existence of structural patterns in individualized experiences.

**Keywords:** co-creation, escape, food attachment, restaurant dining, Chinese tourists
Introduction

In the contemporary world, economic value has increasingly relied on experiences (Pine and Gilmore, 1998). A plethora of studies have been conducted to understand the creation of experience (Cutler and Carmichael, 2010, Prahalad and Ramaswamy, 2003, Prahalad and Ramaswamy, 2004). The first generation of ideas suggested “staging” as a solution (Pine and Gilmore, 1998) while the second generation argues that experiences should be jointly created by consumers and service providers through a process called “experience co-creation”. Consumers are value creators and service providers are facilitators (Meuter et al., 2000). Defined from the social construction perspective, “experience co-creation” in this study refers to the manner in which customers construct the meanings of the encounters in a social context to create new and personal experiences (Grönroos, 2011, Edvardsson et al., 2011). Experience co-creation is regarded as customer-centric (Prahalad and Ramaswamy, 2004) and a socially constructed concept (Edvardsson et al., 2011).

The “experience” concept has been explored in the restaurant dining context (Arora and Singer, 2006, Njite et al., 2008, Walter et al., 2010, Chang et al., 2011, Kim et al., 2016, Ji et al., 2016, Zhang et al., 2013). However, a number of areas remain unexplored.

First, a common characteristic of existing studies is that they only identify the variables/attributes (e.g. Chang et al., 2011) or experiential cues involved in dining/meal experiences (e.g. Kim et al., 2016). Although the word “experience” is used, existing studies do
not reflect the customer-centric essence of experience co-creation. A meal experience is reduced to countable objects, elements, and attributes. The core of a co-created experience, i.e., the active sense-making of the diners, is often overlooked. Several researchers advocate drawing on the social characteristics of the restaurant setting to explore the possibilities of experience co-creation. Although the presence of other customers is explicitly included in the social setting, no attempt has been made to test how such a setting becomes a resource for customers to co-create a dining experience (Andersson and Mossberg, 2004, Morgan et al., 2008, Gustafsson, 2004, Gustafsson et al., 2006).

Second, experience co-creation is a basis for value creation and value is perceived as embedded in experiences (Grönroos, 2011). Despite being a controversial concept, value in this study is defined by the social construction perspective as uniquely and phenomenologically determined by the customers (Edvardsson et al., 2011). The value is idiosyncratic, experimental, contextual, and laden with meaning (Pels and Vargo, 2009). However, existing studies on restaurant provided slight consideration for the possible outputs of the co-created experience. The majority are concerned with behavioral outcomes, including satisfaction, word-of-mouth, and revisit intention, which are not the same as the co-created experience per se (Park, 2004, Ryu et al., 2010, Jensen and Hansen, 2007). In other words, the question of what experiences are co-created by restaurant dining is relatively unexplored.
A third aspect that has been taken for granted is the excessive emphasis on the individualized characteristics of an experience (Merz et al., 2009). (Prahalad and Ramaswamy, 2004) commented that experience co-creation is primarily established on “personalized interactions based on how each individual wants to interact with the company”. According to (Bourdieu, 1984), however, societies segregate into different groupings that can be classified in terms of economic and non-economic criteria. Consumption continues to represent a potent site for the reproduction of social groupings in the current postmodern society (Holt, 1998). This definition demonstrates a potential for structural analysis of individualized experiences. In this study, the analysis is conducted on the basis of regional economic conditions. Understanding structural influences provides useful insights into managing experience co-creation on a highly systematic level.

The present study proposes to narrow the outlined research gaps by investigating the following:

(1) the manner by which the presence of other customers becomes a resource for customers to co-create new experiences (referred to as “customer-to-customer interaction” or “C2CI”),

(2) the nature of the co-created experience, and

(3) the effects of regional economic conditions on individual experience.
These questions were contextualized in Chinese tourists’ dining experience in full-service Western (i.e., Portuguese) restaurants in Macau. Drawing on sociological research, the current study argues that the presence of other customers reinforces anonymity (Finkelstein, 1989, Lupton, 1996, Long, 2004) and provides “pure sociability” (Rosenbaum, 2006, Rosenbaum et al., 2007, Oldenburg and Brissett, 1982), thereby contributing to the co-creation of an escape dining experience. By strengthening the association between the escape experience and the food characteristics, tourists’ interest in the cuisine is cultivated and results in dining frequency. Furthermore, the study tests the moderating effects of regional economic effects on the relationships.

The aforementioned propositions are presented in Figure 1. The hypothesized model is called multilevel because it combines the experience on individual and regional levels. The individual-level experience is expressed by the effects of C2CI on dining outcomes through tourists’ escape experience. The regional-level experience is expressed in the moderating effects of regional economic conditions on the individual-level experience.

The study contributes to the experience co-creation literature regarding restaurant dining in the following ways. It explores and tests the possibility of the presence of other customers to become a resource of experience co-creation, which is currently overlooked in the literature on restaurant dining. It advances the concept of co-creation by including the presence
of other customers and restates the active role of the diners in experience creation. It also considers the existence of the structural patterns in individualized experiences.

**Literature Review**

*Experience Co-creation: S-D Logic and Social Construction*

The concept of experience co-creation is principally underpinned by the “service-dominant logic” perspective or S-D logic (Vargo and Lusch, 2008). S-D logic essentially states that service is the basis of all economic exchanges where service is defined as the application of resources linked to competence (knowledge and skills) for the benefit of an actor (Edvardsson et al., 2011). The resources do not have value per se; rather, the value is created with customers when resources are used. Furthermore, S-D logic suggests that value is always co-created with the customer during interaction with and activation of a set of resources. Two broad categories of resources can be distinguished: (1) operand resources that are typically physical, and (2) operant resources that are typically human (skills and knowledge of customers and employees), informational (knowledge on markets and competitors), organizational (routines, culture, and competencies), and relational (with suppliers, competitors, and customers) (Hunt and Derozier, 2004). Competitive advantage is primarily created through operant resources because knowledge and skills operate on resources to solve
problems, fulfill needs, and produce a favorable customer experience (Vargo and Lusch, 2004).

The S-D logic fundamentally premises experience co-creation as a framework of reciprocal resource provision. However, such an understanding of experience co-creation has limitations. It attaches significant importance to the resources input by customers and providers (Pels et al., 2009). Other resources that are relevant but beyond the domain of customers and suppliers are excluded (Edvardsson et al., 2011). (Edvardsson et al., 2011) suggested adopting social construction theory to conceptualize resources as provided by social settings so that resources beyond the focus of S-D logic can be included.

In essence, social construction theory explains how actors on social, group, and individual levels internalize, create, and reproduce social situations and structures (Giddens, 1984). The theory suggests that resources in the context of experience co-creation should be understood as social constructions (Edvardsson et al., 2011). On the one hand, various resources within social structures, including the actors’ roles, positions, and social interactions, are relevant for the co-creation of meaning. They can, for example, potentially create “social consensus” indicating desired behavior so that the social structure can be reproduced by conforming to the desired behavior. On the other hand, individuals are resources because they are embodied with interpretative capabilities to make sense of the social structure. They can
construct meanings unique to themselves, which may or may not conform to the social structures.

Following this line of thinking, “value” in this study is conceptualized as “value in a social context” and understood as a collective and intersubjective dimension (Edvardsson et al., 2011). “Co-creation” concerns the customer sphere and the customers’ meaning-making capabilities. “Experience co-creation” is defined as the way in which customers construct the meanings of their encounters in a social context to create new and personal experiences (Grönroos, 2011, Edvardsson et al., 2011). Essentially, experience co-creation is regarded as customer-centric (Prahalad and Ramaswamy, 2004) and a socially constructed concept (Edvardsson et al., 2011).

**Restaurant Dining and Research Gaps**

A review of the existing studies on restaurant dining experiences reveals several overlooked aspects. First, the current studies take an operational perspective with a focus on the resources provided by the suppliers. (Chang et al., 2011) summarized six attributes that affect the evaluation of dining experience including variety and diversity of food, service encounter, and tourists’ own food culture. (Zhang et al., 2014) contended that customer satisfaction is developed from food taste, physical environment, and employee service, whereas (Kim et al., 2016) regarded an authentic dining experience as derived from the taste of
the food and the quality of service. The common concern of researchers highlights how external factors can exert an influence on dining but ignores how diners internalize these cues to co-create their own experiences. The researchers overlook the fact that the resources provided by the suppliers are facilitators of experience co-creation (Vargo and Lusch, 2008); the customers create the ultimate values by integrating their resources into the interactive process (Grönroos, 2011). In other words, the role of diners as value creators is given minimal attention in the existing studies. Thus, restating the importance of meaning-making capabilities in the consumer sphere is imperative.

Second, as far as the identified attributes are concerned, current studies only consider explicit attributes, but the implicit social setting of restaurants has been overlooked. The social setting of a restaurant is outlined to include interactions between customers and service people and between customers and other customers (Grove and Fisk, 1991). However, the primary concern of existing studies is the former while the interaction with other customers is overlooked (Andersson and Mossberg, 2004, Morgan et al., 2008, Gustafsson, 2004, Gustafsson et al., 2006). Although several conceptual papers and quantitative studies acknowledge the role of the presence of other customers in restaurant dining, this factor has never been tested quantitatively. Therefore, researchers have to concentrate on the presence of other customers and investigate how it becomes a resource for diners to co-create experiences.
Third, the existing studies remain ambiguous on the nature of co-created experiences. The closest version explores the value outcomes from a dining experience. These values include excellence, harmony, emotional stimulation, acknowledgment and circumstance value (Jensen and Hansen, 2007), and utilitarian and hedonic value (Park, 2004, Ryu et al., 2010). Most of these concepts are drawn from psychological studies and drawing on other disciplines is necessary to explore the nature of co-created experiences. This study draws on sociological work and suggests that an “escape” experience can be attained. Furthermore, the co-created individualized experience is influenced by the wider social world and its collective views and structures (Bourdieu, 1984, Bourdieu, 2013). In the dining context, the economic condition of the customers is suggested to influence food choices (Bourdieu, 2013).

**C2CI and Escape Dining Experience**

The presence of other customers has been recognized as a common phenomenon in many service settings (Bitner, 1992) because customers often share the same service space and render part of the experience creation process (Chang and Horng, 2010). Behaviors of other patrons are noted to play a key role in delivering pleasant experiences (Yang, 2016, Huang and Hsu, 2009, Levy, 2010). The influence of other customers can result from direct interaction as in the case of verbal communication, or indirect interaction as in the case of observing and using body language. In the present study, C2CI refers to indirect interaction and is mostly
related to observation. C2CI is embedded in the social setting of a restaurant and its inherent symbolic values are increasingly acknowledged as a useful resource to create new experiences (Mossberg, 2007, Morgan et al., 2008, Andersson and Mossberg, 2004). C2CI represents social normative behaviors (Lugosi et al., 2014) and reinforces a consistent impression of the overall restaurant offerings (Mossberg, 2007). C2CI is particularly important to full-service restaurants because customers who patronize these restaurants are more involved and active in seeking social and intellectual experiences than satisfying their physical needs (Andersson and Mossberg, 2004). Diners are also willing to pay a premium for the presence of other appropriate customers (Andersson and Mossberg, 2004).

Drawing on sociological literature on dining, this study argues that C2CI can contribute to an *escape experience*. Escape is defined as the act of “[slipping] or [getting] away, as from confinement or restraint; [to] gain or regain liberty” (Dictionary.com) and accompanies the experience of relaxation, non-routine, and restoration. First, the environment of a Western (i.e., Portuguese) restaurant provides a setting where the customer can be anonymous, and the presence of other customers reinforces anonymity so that the customers’ identities and roles in their usual lives can be disguised (Finkelstein, 1989, Lupton, 1996, Long, 2004). Diners can also internalize rituals, manners, etiquette, and status as manifest in the manners of other customers; imitate each other; and act as if living the life of the others (Finkelstein, 1998, Finkelstein, 1989, Grove and Fisk, 1991). The diners view such imitation as pleasure and
entertainment (Finkelstein, 1989). Furthermore, dining in a Western restaurant enables the customers to escape many expected conventions. As the environment is exotic and can be linked to a stage set where the customer is free to play a role or part, the setting allows the co-creation of an experience beyond the ordinary self and way of behavior (Long, 2004).

Second, C2CI can create a space of pure sociability that contributes to an escape dining experience (Oldenburg and Brissett, 1982). The pure sociability is the gray area between home and work, the conceptualized two stops in daily modern existence, and is intensified by the presence of other customers. The pure sociability frees diners from being assessed by yardsticks of value, merit, and performance in the outside world, thereby creating an opportunity to break from workplace stress and household routines (Rosenbaum, 2006, Rosenbaum et al., 2007). Furthermore, pure sociability alleviates fatigue as expressed in “the antithesis of a ‘group therapy session’ and if souls are saved therein, as well they may be, it is only incidentally” (Oldenburg and Brissett, 1982). Based on the previous arguments, the following hypothesis is proposed:

**Hypothesis 1**: C2CI positively affects customer escape experience in full-service Western (i.e., Portuguese) restaurants.

*Escape Experience and Attachment to Food*
In this study, customers’ *attachment to food* is defined as the bond that connects a type of food and the customer (Park et al., 2010). The relationship between escape experience and consumer attachment has been identified but not in the restaurant literature. Consumers tend to develop attachment with products and services that offer a means of relaxation and an escape from daily routine and boredom (Pine and Gilmore, 1998, Rosenbaum and Wong, 2015). Tourists are also more attached to a particular place through emotional and experiential benefits (Pearce and Lee, 2005, Tsai, 2012).

In the context of restaurant dining, attachment to food is often observed as in the case of McDonald’s (Day, 2003). One may argue that the attachment to food is established by the McDonald’s brand, but the attachment is more related to the distinctive dining experiences at this fast food chain. The experience challenges all the aspects of a traditional Chinese meal, including the service types, food components (i.e., burgers, fries, and soft drinks), taste, and seating. These aspects are capable of offering an escape experience when compared with the routine Chinese meal (Lee and Shavitt, 2009). Such escape experiences reinforce the distinctive characteristics of the food and further develop customers’ attachment to the food. Customers are bonded to the food because of the escape experiences that McDonald’s can provide. The McDonald’s case highlights how attachment to Western cuisine can be established from an escape dining experience. It lays a foundation to understand the context of full-service Western restaurants. In full-service restaurants, apart from unconventional aspects
related to the food and service, C2CI also contributes to an escape experience, as discussed in this paper. The escape experience reinforces the characteristics of the Western food and stimulates the customers’ attachment to the food.

Furthermore, the attachment to food in this study is not tied to a particular location, i.e., a particular food and restaurants in Macau. Rather, the attachment to food can be carried away as tourists return to their country of origin.

**Hypothesis 2**: Customer escape experience positively influences food attachment.

Several studies have validated the various behavioral implications of co-created experience (Mathis et al., 2016). Pine and Gilmore (1998) assert that only memorable experiences last and result in a lasting customer commitment. By retaining the memorable experiences, customers continue to pay patronage to acquire the services (Wong, 2013, Grace and O'Cass, 2004, Mascarenhas et al., 2006). In the restaurant context, regardless of how “experience” is defined, (Rosenbaum, 2006) identified that consumers developed loyalty, including increased commitment and satisfaction, and reduced complaints as a result of the supportive experiences they obtained. (Ji et al., 2016) confirmed positive word-of-mouth and revisit intention following the customers’ satisfaction with their novelty pursuit from restaurant dining. Similarly, (Kim et al., 2010) noted the behavioral outcomes and revisit intention based
on a satisfactory dining experience. Furthermore, Rosenbaum (2006) explored the reason that customers develop a strong devotion to dining outlets; the findings posit that consumer loyalty is related to the sought experience. People who seek a shallow experience or to realize practical needs tend to be disloyal, while those who seek a higher level of needs and experiences, such as emotional support and escape from boredom, often develop a strong commitment to such places. This study argues that customers’ pursuit of escape is a deep experience and once such pursuit is attained, they are willing to dine in a restaurant more frequently.

**Hypothesis 3:** Customer escape experience positively influences dining frequency in full-service Western (i.e., Portuguese) restaurants.

Furthermore, the aforementioned behavioral consequences depend on positive emotions that are rendered by favorable customer experiences (Bagozzi et al., 1999, Pullman and Gross, 2004, Russell and Mehrabian, 1978). In this study, if consumers develop attachment to the food they eat, they would be more inclined to patronize the restaurants that provide similar food, thereby increasing dining frequency. In other words, we argue that customers do not simply patronize a specific restaurant for food (Ma et al., 2014, Kim et al., 2009), but such dining frequency is established on their affinity for the food (Tsai, 2012, Ji et al., 2016).
**Hypothesis 4:** Food attachment positively influences dining frequency in fine Western (i.e., Portuguese) restaurants.

*Moderating Effect of Regional Economic Conditions*

The aforementioned hypotheses, leading from C2CI and customer escape experiences to food attachment and dining frequency, express the co-created dining experiences on an individual level. Such an individualized perspective emphasizes personalized knowledge, skills, and competencies (Lugosi, 2008) but overlooks the fact that consumers’ ability to co-create experiences is subject to structural influences.

Bourdieu (1984) contended that various fields of consumption can reproduce structural factors such as sociocultural and economical and so can food consumption (Bourdieu, 2013). Warde and Martens (2000) further discussed that socioeconomic factors strongly influence the amount and range of ethnic food consumption. In the context of tourists eating local cuisines of a destination, their dining experience is a manifestation of and is determined by their social and economic conditions at home (Cohen and Avieli, 2004). This is because such dining experience depends on the tourists’ prior experiences on the similar cuisines in the home regions whilst their level of exposure to the cuisines is different which is primarily determined by their economic conditions. Only middle- and upper-middle prospective tourists can patronize these cuisines at home; those from low economic echelons have limited experiences.
with the cuisines, especially when such cuisines are not globally available (Cohen and Avieli, 2004). Thus, individualized tourists’ dining experience is influenced by their economic conditions at home, a broader structural factor. Albeit limited empirical research, Zhang et al. (2013) examined how regional economic factors affect customer satisfaction with food service and found an apparent difference in satisfaction across regions. In this study it can be inferred that C2CI and customer escape experience in the restaurant setting could also be contingent on economic conditions, thereby influencing consumer expectations and behaviors.

Whilst the impacts of economic conditions on dining experience have received little attention, tourists’ economic conditions are well observed in the general context of tourist behavior (Eugenio-Martin and Campos-Soria, 2014, Song and Lin, 2010). According to price-and-demand elasticity, as people’s income increases, they have a greater demand to consume, especially experiential products such as vacations (Fleischer et al., 2011). With more disposable income, tourists are inclined to travel to affluent destinations (Lim et al., 2008), express a greater need to acquire tourism products, and have greater desire to travel outbound (Kruger et al., 2012, Thrane and Farstad, 2012, Mok and Iverson, 2000).

The economic condition of a tourist source market moderates individual travel behaviors in the case of travel frequency and spending with the effect being stronger for the better economic condition (Wong et al., 2016). Furthermore, consumers who have experienced favorable economic conditions have higher expectations on quality and experience (Fleischer
et al., 2011, Lee, 2011), and they can be more critical when evaluating services (Zeithaml et al., 1993). Consumers would have more negative responses to, and be dissatisfied with, providers if the latter’s offerings fall short of the former’s expectations (Oliver, 1980). Accordingly, the following hypotheses are proposed:

**Hypothesis 5:** The effect of C2CI on customer experience is moderated by regional economic conditions and is weaker in markets with poor economic conditions.

**Hypothesis 6:** The effect of customer experience on food attachment and dining frequency in full-service restaurants is moderated by regional economic conditions and is weaker in markets with poor economic conditions.

*Insert Figure 1 here*

**Methods**

*Sample and Data Collection Procedure*

The research context was Portuguese restaurants in Macau, a competitive destination for gourmet food. Accompanying the development of casino business and leisure activities,
various eateries have flourished in Macau. Today, a plethora of international cuisines exist, ranging from French, Italian, and German to Japanese, Korean, Cambodian, Thai, and Indian. The most distinctive cuisine in Macau is Portuguese as a result of Portugal’s more than 400 years of colonial rule. The cuisine was inscribed in the Macau Intangible Cultural Heritage List in 2012 and eating Portuguese food has become one of the must-be-experienced tourist activities in Macau.

The study samples were mainland Chinese and Taiwanese, who constitute the major tourist markets in Macau. Mainland China and Taiwan have a vast heterogeneous market, and consumer behavior can be affected by the economic conditions as manifested in purchasing power, attitudes, lifestyles, media use, and consumption patterns (Cui and Liu, 2000, Sun and Wu, 2004). Thus, the profile of these respondents fits the research purpose of this study.

The data were acquired from two different sources: primary survey data were collected by the authors and secondary data were collected from the statistical authority in China and Taiwan (see details in subsequent sections). The survey procedure was conducted in several steps. First, a list of Portuguese restaurants was created; 23 full-service outlets were included in the study on the basis of accessibility, food authenticity, and popularity. Second, a quota sample was established from the selected restaurants by targeting 25–30 respondents for popular restaurants and 5–10 respondents for less popular ones. Then, field investigators were assigned to intercept diners outside the corresponding restaurants while exiting the venues after
finishing their meals. Respondents were greeted and introduced to the survey objective. A filter question was asked to ensure that subjects were tourists from mainland China or Taiwan. To reduce response bias, a systematic sampling method was used in which field investigators approached every third diner exiting a selected restaurant. Non-responders were replaced by the next available subject.

The questionnaire was originally designed in English and then translated into Chinese. It was modified based on multiple rounds of refinements; finally, it was back translated into English for accuracy. A pilot test was conducted with 12 respondents to improve the quality of the questionnaire.

**Measures**

Measures used in the current study were primarily adopted from the extant literature discussed. Refinement of these measures was made upon discussion with two experts in the food and tourism field. The questionnaire contains two major parts, with the first part including multi-item scales of interest. Each item was rated on a seven-point Likert-type scale with an anchor of 1 = strongly disagree and 7 = strongly agree. Scale validation was performed using both exploratory and confirmatory factor analyses. Results are presented as follows. The second part of the questionnaire contained demographic characteristics and dining behaviors.
C2CI in the restaurant dining context is defined as the indirect interaction between customers as in the case of observing other customers or sign language, and as opposed to the direct interaction in case of verbal communication. Drawing on social construction theory as outlined in the literature review, C2CI can bring symbolic values that are interpreted as a resource by customers to co-create new experiences, such as an escape experience as identified in this study. The two-item measurement scale was initially informed by the literature (Yi and Gong, 2013, Huang and Hsu, 2010), further refined by expert opinions and pilot tests, and fixed on the influence of the dining behavior of other customers. The survey questions are “Presence of diners with good manners in the restaurant improves the dining atmosphere” and “Presence of diners with good manners enhances my dining experiences”. The scale demonstrated good validity and reliability with standardized factor loadings $\geq .80 (t \geq 5.55, p < .001)$, $\text{AVE} = .70$, $\alpha = .84$, and composite reliability $= .82$.

Consumer escape experience is defined as “to slip or get away, as from confinement or restraint; gain or regain liberty” (Dictionary.com) and accompanies the experience of relaxation, non-routine and restoration, as outlined in the literature review. The scale was evaluated by a three-item measure adopted from the literature (Rosenbaum and Wong, 2015, Hartig et al., 1997, Pearce and Lee, 2005). Questions are “Dining at the restaurant gives me an escape experience,” “Dining at the restaurant gives me a good break from my daily routine,” and “Dining at the restaurant gives me a good opportunity to relax.” The scale exhibits
adequate validity and reliability with standardized factor loadings ≥ .90 (t ≥ 6.30, p < .001), AVE = .85, and both α and composite reliability = .95.

*Food attachment* is defined as diners’ emotional connection with a specific type of gourmet food, which is Portuguese in this research context. The scale was adopted from the literature (Prayag and Ryan, 2012, Keller, 2003) with refinement to suit the food domain based on expert opinions and pilot tests. The survey questions are: “Portuguese gourmet food is very special to me” and “Having Portuguese gourmet food is especially important to my travel experience.” The scale exhibited reasonable validity and reliability with standardized factor loadings ≥ .80 (t ≥ 5.93, p < .001), AVE = .66, α = .78, and composite reliability = .95.

In summary, the three preceding constructs exhibited adequate discriminant validity with their AVEs greater than the square of each pair of inter-factor correlation. The measurement model fit the data reasonably well with $\chi^2/df = 2.04$, comparative fit index = .99, goodness of fit index = .98, root mean square error of approximation = .05, and standardized root mean square residual = .02.

*Dining frequency* is defined as the number of previous dining experiences at a specific type of restaurant, which is Portuguese in this research context. The variable was evaluated using a ratio scale. Values range from 0 (i.e., never had Portuguese gourmet before) to 11, with a mean of 2.70 and a median of 2.00.
Regional economic conditions (or economic conditions for short) were operationalized by multiple economic indicators at the regional level including gross regional product (GRP) per capita, average regional wage, and average regional household consumption. As the data were obtained at the regional level, the unit of analysis represents regional-level economic conditions. Data were obtained from the National Bureau of Statistics of China (2014) and National Development Council (2014). However, preliminary analysis indicated that correlations among these indicators were very high ($r \geq .84$, $p < .001$); thus, including all three indicators in the model would violate the independence assumption and cause multicollinearity. For parsimony, exploratory factor analysis was conducted to reduce the items into a single factor, as results warranted. A total of 32 regions were included in the analysis. The single-factor solution explained 92.88% of the total variance of economic conditions ($KMO = .70$ and Bartlett’s test of sphericity is significant at the .001 level with $\chi^2_{(3)} = 110.24$). The scale demonstrated reasonable validity and reliability with primary factor loadings $\geq .95$ and Cronbach’s alpha = .96. Then, a composite (i.e., summated) score was created based on the standardized values of the three indicators with a range between $-.78$ and $3.44$ of Z-score. The construct assessed the economic development and wealth of regions in greater China including Taiwan, but excluding Hong Kong and Macau. Taiwan, Beijing, Shanghai, and Tianjin had the highest scores in the sample and are indeed among the most developed and wealthy regions in China. By contrast, Yunnan, Gansu, Guizhou, Guangxi,
Henan, and Jiangxi had the lowest scores in the sample, which closely corresponds to their poor economic conditions in the country.

Data diagnostics were undertaken using several procedures. First, common method bias (CMB) was mitigated by using multiple sources. Although all measures at the individual level came from the same source, CMB could still be an issue. We adopted the single-factor method for CMB diagnostics. Results indicate that $\chi^2/df = 11.11$, which is above the 2.0 threshold, suggesting that CMB is not a limitation of the study. Second, multicollinearity was diagnosed based on the variance inflation factor (VIF). Results reveal that all VIFs are smaller than 1.20. Thus, collinearity is not a problem that may cause a spurious relationship.

**Findings**

Descriptive statistics and Pearson zero-order correlations are presented in Table 1. Results show that regional economic conditions are negatively correlated with C2CI ($r = -0.12$, $p < 0.05$), escape experience ($r = -0.17$, $p < 0.01$), and food attachment ($r = -0.09$, $p < 0.10$), but are positively related to dining frequency at Portuguese restaurants when the respondents travel abroad ($r = 0.10$, $p < 0.10$). However, this approach has two limitations. First, Pearson correlation analysis only accounts for bivariate relationships. Second, economic conditions are disaggregated at the individual level, thereby violating the independence of observation assumption. We further investigate these relationships by using a multilevel approach through
hierarchical linear modeling (HLM) 6.06. To match the individual- and regional-level data, a total of 25 dyadic data pairs were created. Prior to testing the proposed research framework, null HLM models, which include only the dependent measure without any predictor, were performed on three endogenous variables: escape experience, food attachment, and dining frequency. Results suggest that a significant portion of variance of each of the three variables can be explained by regional differences, with interclass correlations ranging between .04 and .07, thereby suggesting that 4%–7% of the variance of these variables resides at the regional level. In addition, $\chi^2(24)$ tests for the null models of the three dependent measures are significant at the .05 level. These results support the use of HLM. Furthermore, respondent characteristics such as gender and age were modeled as control variables for dining frequency.

Insert Table 1 here

Hypothesis 1 postulates a relationship between C2CI and escape experience. Results from Model 1a of Table 2 show a significant relationship between the two constructs ($b = .40$, $p < .001$), in support of the hypothesis. Hypotheses 2 and 3 posit a relationship leading from escape experience to food attachment and dining frequency. Results from Model 2a reveal a significant escape experience–food attachment relationship ($b = .25$, $p < .001$); however, the escape experience–dining frequency relationship is insignificant ($b = -.06$, NS) (see Model 3a). The results support Hypothesis 2 in that tourists who perceived dining at Portuguese restaurants as a means of escape and relaxation are more likely to find an emotional connection
with Portuguese gourmet food; however, a higher level of experience for escape and relaxation does not have a direct effect on tourist dining frequency at Portuguese restaurants during the respondents’ visit. Hypothesis 4, which postulates a relationship between food attachment and dining frequency, is supported, indicating a significant relationship between the two constructs \((b = .27, p < .05)\) (see Model 3a).

*Insert Table 2 here*

Hypothesis 5 proposes a moderating effect of regional economic conditions on the relationship between C2CI and escape experience. Results from Model 1b show that the cross-level direct effect of economic conditions is significant \((\gamma = -.19, p < .001)\), indicating tourists from more wealth regions are less likely to enjoy their dining experience. Model 1c further presents a significant multi-level C2CI \(\times\) economic condition interaction \((\gamma = -.12, p < .01)\) in support of the hypothesis.\(^1\) To illustrate the interaction effect from a graphical point of view, we followed Aiken and West’s (1991) simple slope approach by redefining the moderator and the

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\(^1\) For illustrative purpose, the following equations demonstrate the cross-level moderating effect of economic condition on the relationship between C2CI and escape experience. Equation 1 represents an OLS regression model with C2CI as the predictor of escape experience at the individual level. Equation 2 indicates a cross-level direct effect with economic conditions as a level 2 predictor of escape experience (i.e., intercept-as-outcome model). Equation 3 includes economic conditions as a level 2 predictor to emanate a cross-level moderating effect on the relationship between C2CI and escape experience (i.e., slope-as-outcome model). \(r_{ij}\) is a level 1 error term, while \(u_{0j}\) and \(u_{1j}\) are level 2 error terms.

\(Level \ 1:\) \[ Escape \ Experience_{ij} = \beta_{0j} + \beta_{1j}(C2CI)_{ij} + r_{ij}, \]  
\(Level \ 2:\) \[ \beta_{0j} = \gamma_{00} + \gamma_{01}(Economic \ Conditions)_{j} + u_{0j}, \]  
\(Level \ 2:\) \[ \beta_{1j} = \gamma_{10} + \gamma_{11}(Economic \ Conditions)_{j} + u_{1j}. \]
independent variables into plus and minus one standard deviation from their corresponding means. As Figure 2 depicts, the effect of C2CI on escape experience is more salient in regions with poor economic conditions. In other words, C2CI is a more important predictor of customer dining experience for tourists whose origins are less wealthy and economically developed. The result may be attributed to the fact that tourists from more wealthy and developed regions have had extensive dining experiences, especially in Western-style restaurants. In fact, a strong relationship exists between the economic conditions of a region and catering stores ($r = .71, p < .001$), catering employees per capita store ($r = .66, p < .001$), and catering spending per capita store ($r = .78, p < .001$) in the region (National Bureau of Statistics of China, 2014).

*Insert Figure 2 here*

Hypothesis 6 postulates a moderating effect on the relationship leading from escape experience to food attachment and dining frequency. Results from Model 2b show a significant negative cross-level effect of economic conditions on food attachment ($\gamma = -.14, p < .05$), suggesting that tourists from wealthier regions are less attached to Portuguese food than those from poorer regions. Model 2c further reveals that the escape experience × regional economic condition multilevel interaction on food attachment is significant ($\gamma = -.07, p < .05$). Based on the graphical illustration procedure detailed in this paper, Figure 3 was depicted to show the interaction term. As the figure shows, the escape experience effect is more acute in regions
with poor economic conditions. In other words, tourists from such regions are more likely to develop an emotional connection with Portuguese gourmet food when they enjoy a high level of escape and relaxation during the service encounter in Portuguese restaurants. However, the escape experience × regional economic condition multilevel interaction on dining frequency is not significant (see Model 3c); while the cross-level direct effect of economic conditions on dining frequency is moderately significant ($\gamma = .22$, $p < .10$), indicating that tourists from wealthier regions dine at Portuguese restaurants more often than those from poorer regions (see Model 3b). These results partially support Hypothesis 6.

We further examined the mediating role of customer experience on the relationship between C2CI and food attachment through the Sobel test. Results reveal that the mediating effect is significant ($Z = 5.71, p < .001$). Then, the 2-1-1 (i.e., level 2 [regional level] – level 1 [individual level] – level 1) multilevel mediating effect of customer experience on the relationship between regional economic conditions and food attachment was explored. Results also indicate that the mediating effect is significant ($Z = -3.02, p < .01$). Finally, the 2-1-1 multilevel mediating effect of food attachment on the relationship between regional economic conditions and dining frequency was assessed, but no significant effect was found ($Z = -1.56, ns$). In summary, the proposed models explain 13% of the variances of escape experience and food attachment, but only 4% of the variance of dining frequency is accounted for by the model.
Discussion and Conclusion

Drawing on the social construction perspective, this study investigates how C2CI became a resource for diners to co-create an escape experience and explored the behavioral outcomes developed from such experiences, i.e., food attachment and dining frequency. The model utilizes a multilevel design in that the individual-level estimates focus the effect of C2CI on food attachment and dining frequency through the mediator of customer escape experience. The regional-level estimates concern the roles of regional economic conditions on C2CI and customer escape experience.

The present study contributes to the existing literature on restaurant dining in the following aspects: the overlooked customer-centric element of experience co-creation, the overlooked presence of other customers as a potential resource for experience co-creation, the nature of a co-created dining experience, and the economic impacts as a measure of structural influence on experience co-creation that excessively focuses on the individualized characteristics. Further details are as follows.

Theoretical Implications
First, the present study has re-established the question regarding who creates experience and how experience is created in the context of restaurant dining. Following the marketing literature on experience co-creation, the driving force for the co-creation relies on customers whereas the suppliers play a facilitating role (Cutler and Carmichael, 2010, Prahalad and Ramaswamy, 2003, Prahalad and Ramaswamy, 2004, Vargo and Lusch, 2008, Pels and Vargo, 2009). However, the existing studies on restaurant dining explore the experience co-creation from the supplier side and attribute the co-creation to various visible objects in the restaurant setting (Arora and Singer, 2006, Njite et al., 2008, Walter et al., 2010, Chang et al., 2011, Kim et al., 2016, Ji et al., 2016, Zhang et al., 2013). The co-created experiences have been mistakenly believed to be developed passively from taking on the visible objects. The present study investigated the co-created experience from the customer standpoint and the value that customers developed from the restaurant’s social settings. The present study solely considers the value of C2CI that is currently overlooked in the existing literature.

Second, existing studies have explored C2CI in various tourism and hospitality contexts, including coach tours (Holloway, 1981), backpackers (Murphy, 2001), tourists from different cultural backgrounds (Yagi and Pearce, 2007, Levy, 2010), cruise passengers (Huang and Hsu, 2009) and destination image co-creation (Yang, 2016). However, C2CI in the restaurant setting have not received equal attention. The present study drew on the sociology literature and tested how C2CI initiated a series of impacts on the dining experiences, that is,
from creating an escape experience to the attachment to food and behavioral outcomes.

Furthermore, the study of C2CI contributes to the conceptualization of experience co-creation, which is currently dominated by the resource-based perspective (Hunt and Derozier, 2004, Vargo and Lusch, 2004). The present study confirms the usefulness of adopting a constructive perspective to understand experience co-creation (Edvardsson et al., 2011, Pels and Vargo, 2009) and suggests that “resources” should come not only from both the customers and service providers (Vargo and Lusch, 2008) but also from other resources beyond the provider’s control.

Third, the present study has explored the nature of a co-created dining experience. To co-create a dining experience is not to co-create behavioral outcomes as emphasized in the existing studies (Arora and Singer, 2006, Njite et al., 2008, Walter et al., 2010, Chang et al., 2011, Kim et al., 2016, Ji et al., 2016, Zhang et al., 2013). The co-created experience has unique meanings or values and is specific to the activity (Grönroos, 2011). This study suggests that an escape experience can be developed from a dining experience. Understanding the meaning of a co-created experience is important because it provides relevant guidelines for the practice to initiate a behavioral change.

Fourth, the co-creation literature emphasizes that co-created value and experience is individualized (Dong et al., 2008, Chathoth et al., 2013). In fact, individual behavior is often socially constructed and influenced by higher forces at the socioeconomic level and so does the
process of experience co-creation. Through a multilevel analysis, the present study elaborates how individual experience co-creation is contingent on regional economic factors. The findings show that the C2CI–escape experience relationship is more salient for tourists from less economically developed regions in China. The escape experience–food attachment relationship is also contingent on the regional economic conditions in that the relationship is stronger for tourists from less economically developed areas. Thus, the present study enriches the hospitality literature by illustrating that experiences can still be subjective to structural influences and that co-created experience can be managed at a collective level.

Another unique contribution of the study is that it provides an example with empirical evidence showcasing how regional differences could be systematically assessed through a multilevel design. Rather than conceptualizing and operationalizing such difference by conventional approaches through group differential techniques, such as $t$-test and ANOVA (Zhang et al., 2013), this study defines the discrepancy through a continuum of economic conditions. This definition is particularly important in socioeconomically diverse countries, such as China, where sociocultural and economic diversity exist to a great extent. For example, 56 different ethnic cultural groups live in China. The economic disparity with respect to gross regional per capita, for example, ranges from RMB $22,921 to RMB $99,607 (National Bureau of Statistics of China, 2014). This study opens new avenues for further research with regard to value or experience co-creation and intra-regional factors.
Managerial Implications

From a practical perspective, as C2CI can become a relevant resource to experience co-creation, restaurant management should pay attention to the behavior of the diners. Although C2CI seems to be beyond the supplier’s control, the management may use dress codes or other indicators to disseminate expected behaviors among diners, especially in full-service restaurants. Furthermore, as regional economic conditions are found to affect individual experiences, experiences can be understood or managed at the collective level. If collecting consumer data is already practiced, the restaurant management may consider including the place of origin with respect to the regional economic conditions of diners so that experiences can be managed based on who come from economically wealthy and less developed regions.

The present study suggests that attachment with food can be established based on an escape experience that is not necessarily based on the food per se. Although this finding confirms the existing research on the experience economy, it reminds restaurant managers to promote the restaurant by promoting an experience not simply through the products and services. Lastly, because the context of the present study is mainland Chinese tourists dining in Portuguese restaurants in Macau and developing attachment with the food, the study suggests that when these tourists return to China, they are likely to maintain that food attachment. Thus,
they may want to eat Portuguese cuisine in China. This condition indicates that an emerging market is necessary to establish Portuguese restaurants.

**Limitations and Future Research Directions**

Although this study uses multiple sources with a multilevel design, it has limitations that warrant future research. First, the study was conducted in Macau in the context of Portuguese restaurants visited by Chinese tourists. Thus, generalizability could be limited to such a setting. Second, the C2CI construct only assesses the cooperative behaviors among customers, as we believe that such behaviors are fairly important, while intense interactions among customers is a rarity in the full-service dining service encounter. Likewise, customer experience focuses on the escape experience germane to restaurant dining. Third, this study examines regional socioeconomic factors using economic measures such as GRP per capita, regional wage, and household consumption. Future research is encouraged to explore the effects of other economic and social factors such as regional tourism indicators, as well as regional cultural values, lifestyles, and preferences.
References


Figure 1. Multilevel Model of Intra-Regional Economic Condition on Customer-to-Customer Co-Creation of Restaurant Experience

- Regional-Level
  - Economic Conditions

- Individual-Level
  - Co-Creation Process
    - C-2-Customer Interaction (C2CI)
      - H1
      - Customer Escape Experience
        - H2
        - Behavioral Outcomes
          - Food Attachment
            - H4
          - Dining Frequency
            - H3
          - H5
          - H6
Figure 2. C-2-C Interaction × Regional Economic Conditions on Customer Escape Experience

Figure 3. Customer Escape Experience × Regional Economic Conditions on Food Attachment
Table 1. Descriptive Statistics, Correlations, AVE, and Reliabilities

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<td>5. Regional economic conditions\textsuperscript{a}</td>
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<td>.96\textsuperscript{b}</td>
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<td>-.17***</td>
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<td>-.09†</td>
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Note: † p < .10, *** p < .001.

SD = standard deviation, AVE = average variance extracted.

*Cronbach’s alpha and (composite reliability)* are reported on the diagonals.

a. The variable is disaggregate at the individual level for correlation analysis.

b. Mean and standard deviation for regional economic conditions are calculated at the regional level.
### Table 2. Results of Hierarchical Linear Model Parameter Estimation

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<th>Model 1b</th>
<th>Model 1c</th>
<th>Model 2a</th>
<th>Model 2b</th>
<th>Model 2c</th>
<th>Model 3a</th>
<th>Model 3b</th>
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<td>-.19**</td>
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Note: † p < .10, * p < .05, ** p < .01, *** p < .001.
Parameters are unstandardized.