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THE IMPACT OF CUSTOMER INVOLVEMENT IN THE COOKING PROCESS ON DINING SATISFACTION

A Thesis

Submitted to the Faculty

of

Purdue University

by

Unji Baek

In Partial Fulfillment of the

Requirements for the Degree

of

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저는 특별히, 퍼듀의 2 년이 고스란히 담긴 이 논문에서 이곳에서 저의 가족이 되어주고 친구가 되어주신 많은 분들께 감사를 전하고 싶습니다. HTM 교수님들, 동기분들과 선후배님들 모두 고맙습니다. 저를 키워주고 지켜준 실로암은 단연 저의 퍼듀 생활의 가장 큰 부분 중 하나였습니다. 또한 저의 막바지퍼듀생활을 활기로 채워주신 HTM 점심모임 식구들에게 감사드려요.

낯선 땅에서 힘이 되어주신 첫 조장님 준화오빠와 천사 희영언니 (케이터링아이디어 짱!), 내겐 언제나 공부모델 소영언니 (통계 도움 감사!), 디폴트 친구현규, 동안 조장짱 은영언니 (디펜스 케이터링 감사!), 부갈루 파트너 민화언니, 의리남 형아 앤드류 성운오빠 (애니메이션 짱!), 능력있는 전 회장님 아빠 원국오빠, 컴퓨터 전문가 성환오빠 (도표 땡큐!), 한국사랑 Stacey 민경이 (리뷰 고마워~), 큰선물 인라인쌤 진학오빠, 당찬 새 회장님 슬이언니, 자상한 느끼남 정훈오빠, 퍼듀첫 이웃 도혁오빠, 살뜰한 병국오빠, 의지의 최고오빠, 한국에서도 바로 함께할다원언니, 한결같은 은진언니, 이 편지의 아이디어 신태오빠, 휴식같은 동갑 범철, 동빈, 희진이. 나의 두 노트북 수영오빠, 좋은 아빠 대환오빠, 실로암의 울타리이상일 목사님과 채수정 사모님, 멋진 프로젝트그룹 F1, 성가대분들, KOSTA에서의 소중한 만남 기문오빠, 석환오빠, 재은이, 혜경이, 원경이, 원회. 그리고 HTM의 든든한 한국가족 장수청 교수님, 지은언니, 송이언니, 윤경언니, 소연언니, 진경언니, 주연언니, 상철오빠, 광민오빠, 슬기오빠, 진후오빠, 그리고선배님 정국오빠. 너무나 감사할 분들이 많아 이곳에 채 전하지 못한 분들까지모두, 다시 한 번 너무나 감사드립니다. 한국 오실 때 꼭 연락주세요~^^

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ABSTRACT

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In contrast to western styles of food preparation and service, traditional Asian food preparation and service styles have often included participation in the dining process, allowing customers the opportunity to cook the food as part of the dining experience. This study suggested that the customers' involvement in the cooking process as an attribute for greater dining satisfaction, through a Chinese hot pot dining experiment. A total of 86 people participated in the experiment, which was conducted in a local Chinese restaurant. The study investigated dining satisfaction attributes and the factors influencing them. It also investigated hedonic and utilitarian evaluation, and positive and negative affectivity. Satisfaction categories from the dining experience were used in the study. Factor analysis, t-test, analysis of variance, and correlation analysis were conducted for data analysis. The results indicated that the involvement in the cooking process had a positive impact on dining satisfaction. It was also found that the involvement had a positive influence on both hedonic evaluation and positive affectivity. However, there were no correlations found either between involvement and utilitarian evaluation, or involvement and negative affectivity. The outcomes of the study help in understanding the expectations of American customers toward Asian food and finding strategies to increase satisfaction. In addition, this study provides some valuable marketing implications regarding customer profiles and the dining experience.



CHAPTER 1. INTRODUCTION

1.1. Introduction

Eating out and consuming a variety of American and ethnic foods is on an upward trend as a popular cultural phenomenon in the United States (Tian, 2001). The National Restaurant Association (NRA, 2004) reported that almost half of American food expenditure was spent on dining at restaurants.

Food is one of the most basic, but important, things necessary to sustain human life (Belasco, 1997). At the same time, food plays a variety of roles in a social context. Diverse restaurant concepts have emerged in response to different consumer demands for tasty food, convenient food, ethnic food, fusion food, vegetarian food, organic food, or healthy food (Asp, 1999). In particular, Roseman (1996) has suggested that the three factors that influence the restaurant industry are (1) changes in lifestyle (2) changes in employment patterns and (3) increase or decrease in disposable income.

The number of restaurants in most developed countries is almost saturated (Belonax, 1997), thereby creating the need for a strong competitive advantage in order to survive today's fierce competition. Belonax (1997) explained that food consumption in developed countries is an activity that satisfies higher levels of Maslow's hierarchy of needs. The physiological need for food, releasing hunger and providing energy, is initiated first, but as disposable income increases, the desire for higher levels of the pyramid is applied to food. Different meanings that food represents include energy content, nutrient content or health properties, taste, status or prestige properties, environmental, political, or ethnical properties, and time or convenience attributes (Fischer, 2005; Mitchell, 2004). Also, food functions indirectly in providing an opportunity to bring



people together to relax or be used as a social function. That may explain why customers often consider atmosphere, convenience, and quality of service as important as food quality and taste.

With heightened competitive pressures in terms of diversity and number of establishments, customers have more options of where to go and their expectations have increased. It becomes increasingly important that restaurateurs are more aware of these changes in consumer attitudes and behavior, not only to attract new customers, but also in retaining their present customers. In achieving competitiveness, it is essential that restaurant operators use a targeted strategy to increase satisfaction of the customers who are most likely to choose their establishment (Gregoire, Shanklin, Greathouse, & Tripp, 1995).

In contrast to western styles of food preparation and service, traditional Asian food preparation and service styles have often included participation in the dining process. Meals such as Chinese Huo guo, Korean Jeon gol, and Japanese Shabu shabu integrate the customers into the cooking process by bringing raw ingredients to the table and allowing customers the opportunity to cook the food as part of the dining experience. A higher level of subject involvement creates an experiential perspective.

The experiential view has been investigated in areas such as retailing, branding, and events marketing (Holbrook & Hirschman, 1982). Tourism and hospitality sectors however appear to be much slower at engaging the theoretical issues involved (Williams, 2006). The experiential view, however, seems to be well suited to applications in tourism and hospitality due to its distinct characteristics with regard to experience.

A restaurant is one of the places that can adapt concepts easily, as dining is an active, subjective behavior that incorporates many facets of the human senses. The purpose of this study is to further the current body of knowledge concerning experiential dining with respect to the involvement of the customers in the cooking process and its impact on overall dining satisfaction. The effect will



be measured by a quantitative method, using Asian cuisine as an example of experiential dining. Information discovered will assist restaurateurs in future marketing strategies.

1.2. Statement of Problem

Over the last decade, the development of service marketing theory has explored the role of customer involvement in service-based (rather than goods-based) transactions (Cermak & File, 1994). To date however, there is limited research investigating the effects of customer's physical involvement on satisfaction combined with service interaction in a restaurant setting.

Dining, though essentially experiential in nature (Smith, 1989), is a less studied area from the perspective of experiential view. An experiential strategy may be one way to increase customer satisfaction and improve the success of a business. Before this strategy is implemented however, certain questions should be answered. When customers dine in a restaurant, how much of a positive/negative affect does customer involvement in the cooking process elicit? Does customer involvement in the cooking process influence hedonic/utilitarian evaluation and, if so, how much? Does the involvement also affect satisfaction and again, if so, how much?

This study addressed two main issues. First, it attempted to gauge the Americans' response to involvement in the cooking process. Second, it identified the potential influence of involvement in the cooking process on overall dining satisfaction. The outcome of the study can help restaurateurs understand the expectations of American customers toward Asian food and find a strategy to heighten satisfaction. In addition, this study may provide some valuable marketing implications regarding customer profile and the dining experience.

1.3. Objectives of the Study

The purpose of this study is to explore the impact of customer involvement in the cooking process on overall dining satisfaction. The study will suggest more effective marketing strategies, appealing to more diners, and test if the Asian dining style's effect is applicable to Americans, and, if so, how.

This research attempts to address the following research questions:

- (1) Are customers more satisfied when they are more involved in the cooking process when dining out?
- (2) Does the involvement lead to arousal of the hedonic or utilitarian value?
- (3) Does the involvement influence positive or negative affect?
- (4) Which dining factor is influenced by the involvement if it is?

Based on these research questions, the primary objective of this research is to understand the preference of involvement in the cooking process for an American customer. The more specific objectives are:

- (1) Finding a relationship between involvement in the cooking process and overall dining satisfaction
- (2) Comparing measured hedonic/utilitarian value, positive/negative affect, and dining satisfaction between two different involvement groups
- (3) Finding correlations among hedonic/utilitarian value, positive/negative affect, dining satisfaction and involvement level
- (4) Fining factors influencing dining satisfaction and factors influenced by involvement level
- (5) Applying existing literature to the measurement of hedonic/utilitarian value and positive/negative affect in a restaurant setting and dining experience

1.4. Organization

This study is organized and presented as follows: Chapter 1 describes the background and justification of this research. Chapter 2 reviews literature relevant to the main concepts of this research. Subjects discussed in this chapter are experiential view, involvement, familiarity, hedonic/utilitarian value, positive/negative affect, and satisfaction. Chapter 3 presents the methodology and the procedures of this study. Included in the chapter are research design, research framework, data, sample, variables and analytic method. Chapter 4 comprises the analysis and findings of this research, including results of descriptive statistical analysis, factor analysis, one-way analysis of variance, and correlation analysis. Finally, Chapter 5 provides a summary of the research and conclusions. Limitations and recommendations for further study are also discussed.

CHAPTER 2. LITERATURE REVIEW

2.1. Experiential View

Researchers say eating is already an experiential activity as it combines several human senses (Smith, 1989). However, eating is the basic behavior of consuming food, thus the simple eating process is hard to describe as "experiential". So how can the experiential value work with dining?

According to Smith (1989), to be truly "experiential" – all five senses must be involved: sight, sound, taste, touch and smell. In order to fulfill his view in terms of what can be classified as experiential, a restaurant may be one of the best places to conduct experiential research because it includes the sense of taste. Largely taken for granted, sight, taste and smell are factors derived from food. If restaurant music is included, sound is added as another factor. However, touch is the last one that can be obtained from restaurant experience.

Otto and Ritchie (1996) defined experience as "the subjective mental state felt by participants during a service encounter" or "events that engage individuals in a personal way". The word 'experience' is widely used in many service sectors to describe the essence of what customers are seeking and paying for (Morgan, 2006). Recently, more focus has been placed on the active or direct involvement of a customer in this experiential perspective.

Santich (2004) focuses on 'participating in' and 'relating to' a culture and environment in tourism perspective. Restaurant customers were dealt with primarily as uninvolved "observers" conventionally in the cooking process, and the function of other senses in their experience, aside from vision, was generally neglected (Urry, 1990). Experientialism is moving consumption away from "the gaze" (Urry, 1990), as consumers are increasingly concerned with 'not just being



"there", but with participating, learning and experiencing the "there" they visit'. A holistic view of experiences is important, as customers' experiences and subsequent satisfaction are influenced by many subjective elements including their emotional responses, thoughts and attitudes (Mcintosh & Siggs, 2005).

Pine and Gilmore (1999) suggested that buying an experience is to "pay to spend time enjoying a series of memorable events that a company stages to engage the customer in a personal way". According to Petkus (2002), contemporary economies have evolved from the delivery of commodities to the delivery of experiences. From goods to services, from services to experiences, the delivery of experiential market offerings includes engaging customers in a memorable way. Pine and Gilmore (1998) explained experiences across two bipolar constructs: customer participation ranging from active to passive; and a connection ranging from absorption to immersion. Synthesizing, one of the essences of experience is combined with engagement of customers (involvement/participation) in a physical way.

Participants are more actively involved, acquiring new skills or increasing those they already have. Restaurant customers traditionally have been excluded from the cooking process in any way, except perhaps visual. Therefore a dining experience with participation/physical involvement in the cooking process is a more 'experiential' encounter, allowing customers to be more active and directly engaged compared to general restaurant experiences.

2.2. Involvement

Involvement reflects the inherent need fulfillment, value expression, or interest that a consumer has in the product (Mano & Oliver, 1993). The definitions and measures of involvement are diverse due to the applications of the term (Zaichikowsky, 1985). Researchers studied customer involvement in different aspects such as product selection, marketing, and production process. Over the years, involvement has been shown to influence a number of behavioral



outcomes, including search behavior and information processing (e.g., Bloch, Sherrell, & Ridgway, 1986; Celsi & Olson, 1988; Mantel & Kardes, 1999).

Involvement and participation are very similar concepts. Dabholkar (1990) defined customer participation as "the degree to which the customer is involved in producing and delivering the service". In marketing and consumer behavior literature, theories on involvement have been long developed, whereas participation is less theory-based but more performance-focused. This study views involvement in the range of covering the meaning of participation and physical involvement, and thus the term involvement will be used throughout the contents for the overall consistency.

Customer involvement in the service delivery process has been researched for over a decade. For example, one aspect is emotional and affective attachment, where consumer psychological involvement relates to customer behavior and satisfaction (Bloch, 1981; Houston & Rothschild, 1977; Ladki & Nomani, 1996; Lastovicka, 1978). Involvement with products or services has been hypothesized to lead to a greater perception of attribute differences, perception of greater product/service importance, and greater commitment to brand choice (Howard & Sheth, 1969). From this aspect, involvement's influence on consumption experiences is best illustrated by the psychological consequences evoked by a product's heightened relevance to the consumer.

Another aspect of customer involvement is that customers may act the role of organizational members or partial employees, so called self-service. This aspect of involvement has been researched in terms of an efficiency perspective by customers contributing effort, time, or other resources to either the service design or performing some of the functions related to service delivery (Larsson & Bowen, 1989; Mills & Morris, 1986; Lovelock & Young, 1979; Tienhsieh & Yen, 2005). In fact, many researchers have studied customer involvement in production and/or delivery process in the service area.

Lovelock and Young (1979) suggested customers as a source of increased productivity for firms, and Kelley et al. (1990) explored the role of



customer involvement in the service production and delivery process. Schneider and Bowen (1995) urged firms to use customer talent to deliver superior service, and Lengnick-Hall (1996) suggested firms examine what customers can do in the service production process. Prahalad and Ramaswamy (2000) have advocated customers as a source of competence through co-opting. Bendapudi and Leone (2003) made a chronological literature review of customer involvement in production. Song and Adams (1993) viewed the benefit of customer involvement in two perspectives; one is the cost perspective, reducing labor cost and effort, as many self-services operators do, and the other is the path of product development, which means discovering extended opportunities as a product/service matures.

Physical involvement in an economic view allows transfer of a service role from employee to the customer, reducing the labor cost of the final product. Physical involvement in manufacturing the product, which in this research is the cooking process, is more carefully approached than self-service because it impacts the quality of the final product.

Quality of the product is one of the major factors influencing overall satisfaction. Researchers in marketing generally agree that satisfaction and perceived quality are highly interrelated (Bitner & Hubbert, 1994; Churchill & Surprenant, 1982) and assert that the quality is one of the core determinants of overall satisfaction (Fornell, et al., 1996; Oliver, 1997). Kelley, Donnelly, and Skinner (1990) described the potential outcome of inappropriate customer participation as a negative impact on the overall efficiency, productivity, and quality of the service delivered. However, the appropriate outcome of active, subjective involvement provides a more customized product and increases the customer's positive reaction and consequent satisfaction. Here correlations between involvement and affectivity, and involvement and satisfaction are suggested.

H1a: When customers dine in a restaurant, involvement will be positively correlated with positive affectivity.

H1b: When customers dine in a restaurant, involvement will be correlated with negative affectivity.

H2: When customers dine in a restaurant, involvement will be positively correlated with overall dining satisfaction.

In order to be more customized and experiential, the involvement of the subject, not only psychologically, but also physically, should be considered as an important factor contributing to the overall experience. On a general level, it is thought that people consume goods and services to gain cognitive and sensory experiences (Hirschman, 1984). Thus a consumer's choice can be attributed, in part, to experience seeking behavior or level of involvement. This experienceseeking behavior is thought to consist of three constructs: cognition seeking, sensation seeking, and novelty seeking (Hirschman, 1984). Cognition seeking relates to a person's desire to seek out factual, theoretical, or philosophical information (Hirschman, 1980; 1984). Sensation seeking relates to a person's desire for sensory stimulation (Hirschman, 1984). Novelty seeking behavior relates to a person's desire to seek out novel experiences, or new sources of stimulation. It is conceptualized as a willingness to try new things (Hirschman, 1984). It has been found that novelty seeking is a motivator in desiring to travel (Lee & Crompton, 1992). Involvement in a restaurant setting can provide a combination of experiences with these three constructs.

2.3. Familiarity

According to Alba and Hutchinson (1987), familiarity can be defined as "the number of experiences related to a product that have been accumulated by the consumer". Researchers have studied familiarity with a product or service as to its influence on the consumers' decision-making process (Desai & Hoyer, 2000; Johnson & Russo, 1984; Gefen & Straub, 2004). The more frequently



consumers use a product, the more they feel familiar with the product and uncertainty is reduced in a future purchase situation (Flavian et el. 2005). Consumer's perceived value about the product differs according to their level of familiarity (Soderlund, 2002). In addition, it was also found that consumers with high familiarity tend to repurchase more and spread positive word-of-mouth (Soderlund, 2002).

Cooking at the tableside and having freshly prepared hot dishes is common in some Asian countries for certain menu items. Customers play an active role in the meal preparation and perceive it as a very natural, ordinary way of having the dish. However, other than a few self-service style restaurants, cooking at a table by diners is not a common restaurant concept for Americans. Once customers are familiar with a certain style of eating, the amount of uncertainty and perceived risk related to cognitive aspects in a future purchase situation is reduced (Alba & Hutchinson, 1987). However, a lack of familiarity, for instance, if they do not know how to cook and how to eat, leads consumers to feel awkward and embarrassed (Dahl et al., 2001).

Hedonic value reflects novelty, fun, and entertainment aspects (Park, 2004). One of the major purposes of visiting ethnic restaurant is seeking novelty in dining experiences at a restaurant reflecting a traditional culture. Hirschman and Holbrook (1982) suggested that hedonic value formed strong trust and commitment about products or services by creating emotional bonding between customers and shopping/dining experiences, thereby causing a positive effect especially for new patrons.

The utilitarian value of dining is related to cognitive aspects, such as food quality or menu prices (Park, 2004). Rao (1988) suggested that consumers with low familiarity are more likely to use extrinsic cues, such as presentation of food or decoration of a restaurant, in product utility assessment, due to lack of comparative information attained from real experiences. In contrast, consumers with higher familiarity with a product or service have accumulated knowledge about the product quality based on the previous experience, and thus are more



likely to feel a strong utilitarian value associated with their dining experience (Rao, 1988). Therefore familiarity questions were therefore included in this study to control any potential impact that familiarity has on other variables.

2.4. Two Dimensions of Evaluation

In consumer research, the two dimensions of evaluation are utilitarian value, resulting from some type of conscious pursuit of an intended consequence, and hedonic value, related more to spontaneous emotional responses (Barbin, Darden, & Griffin, 1994). Batra and Ahtola (1991) also suggested two basic reasons why consumers purchase goods and services, and engage in consumption behaviors. They include pleasure or hedonic reasons, and also for instrumental, or so-called utilitarian reasons. This reflects the distinction between performing an act 'to get something' as opposed to doing it because 'you love it' (Triandis, 1977). Batra and Ahtola (1991) developed a measurement scale for utilitarian and hedonic value.

Consumers often face a conflict when making a choice among various alternatives. In the past, consumer behavior was focused on the rationality of the consumer when making a choice. People decide to buy something and do so when they need it; mainly because of a functional reason. It is called the "information process model" (Bettman, 1979), and this explains the utilitarian dimension. The traditional economic view of consumer behavior states that consumers are so rational that they always choose an option that maximizes their utility (Skouras et al., 2005). However, the psychological perspective of consumer choice is more complicated. Park (2004) applied the two dimensions of evaluation to dining out; a value related consumer's fun, entertainment, interest, and novelty is hedonic while a value related to functional and economical aspects of dining is utilitarian.

Improved quality of life makes people's motivations gravitate toward their emotions, feelings, and personal enjoyment. Modern society creates more stress and thus the trend toward the 'hedonic' value and the desire to have fun and



escape from the ordinary is growing. The growth of research on leisure, entertainment, and the arts reflects a shift of attention toward the experiential side of these distinctions (Holbrook & Hirschman, 1982). In general, people consume goods and services to gain cognitive and sensory satisfaction, and a consumer's choice can be attributed to experience in seeking behavior experiences (Hirschman, 1984). Novelty seeking behavior (Hirschman, 1984) relates to pursuing hedonic value from food and dining out.

2.4.1. Hedonic Value

Hedonic value is more subjective and personal when compared with its counterpart and stems more from fun and playfulness than from task completion (Holbrook & Hirschman 1982). Hedonically valuable experiences increase arousal, perceived freedom, fantasy fulfillment and escapism, and heighten involvement (Bloch & Richins, 1983; Hirschman, 1983). The hedonic dimension of evaluation is linked to the uniqueness, symbolic meaning, emotional arousal or imagery of the experiences (Holbrook & Hirschman, 1982; Spangenberg et al., 1997). Overby and Lee (2006) defined hedonic value as "an overall assessment of experiential benefits and sacrifices, such as entertainment and escapism". This study considered the hedonic value of a dining experience at a restaurant, reflecting its fun, exciting, and novel aspects. Thus, it is assumed that involvement is a new way to eat for Americans and could provide increased sensory involvement and excitement among consumers. Here a correlation between involvement and hedonic value is suggested.

H3a: When customers dine in a restaurant, involvement will be positively correlated with hedonic evaluation.



2.4.2. Utilitarian Value

Utilitarian consumer behavior is task-related, and rational (Batra & Ahtola 1991). Overby and Lee (2006) define utilitarian value as an overall assessment of functional benefits and sacrifices. As the utilitarian dimension is related to efficiency, productivity and task-specific aspects of consumption, it incorporates more cognitive aspects of attitude, such as economic value for the money, judgments of convenience, and time saving (Zeithaml, 1988; Jarvenpaa & Todd, 1997; Teo, 2001). If utilitarian value reflects practical aspects of dining, it can be the most relevant reasons for choosing a restaurant for dining out. The following hypothesis is therefore presumed, along with H3a.

H3b: When customers dine in a restaurant, involvement will be positively correlated with utilitarian evaluation.

2.5. Two Dimensions of Affectivity

Researchers have defined positive and negative affects as two dominant and relatively independent dimensions in studying the structure of affect. Positive affect reflects the extent of feeling enthusiastic, active, and alert. In contrast, negative affect is a general dimension of subjective distress and unpleasurable engagement (Watson, Clark, & Tellegen, 1988). Watson and Tellegen (1985) described positive affect as a dimension involving "the extent to which a person avows a zest for life"; such mood can be described as active, enthusiastic, and excited. Negative affect was defined as "the extent to which a person reports feeling upset or unpleasantly aroused" and high negative affect represented distressed, fearful, hostile, and nervous feelings.

Mano and Oliver (1993) found that higher utilitarian and hedonic evaluation led to positive affective experiences. Since hedonic and utilitarian values are both perceived as benefits, it is assumed that both evaluations are positively correlated with positive affect, and negatively correlated with negative affect.



H4a: When customers dine in a restaurant, hedonic value will be positively correlated with positive affectivity.

H4b: When customers dine in a restaurant, utilitarian value will be positively correlated with positive affectivity.

H5a: When customers dine in a restaurant, hedonic value will be negatively correlated with negative affectivity.

H5b: When customers dine in a restaurant, utilitarian value will be negatively correlated with negative affectivity.

Pleasantness or other positive emotions were researched to assess satisfaction (Oliver, 1989), because affect is antecedent to, and necessary for, satisfaction (Yi, 1990; Hunt, 1977). Ilies and Judge (2003) found that affectivity (positive and negative affectivity) mediated 45% job satisfaction. It has been posited that consumption emotions influence satisfaction in a valence-congruent direction, i.e. positive emotions increase, and negative emotions diminish satisfaction (Oliver, 1993; Westbrook, 1987). However, recent evidence shows that consumer satisfaction may be positively influenced by the experience of certain types of negative emotions (e.g. Arnould and Price, 1993; Dube et al., 1996), implying that the experience of negative emotions does not necessarily translate into lesser satisfaction. Derbaix and Pham (1991) used an example of a restaurant dining encounter, evoking both negative and positive affective reactions but not necessarily decreasing overall satisfaction because of the negative affect. In order to find out the correlations between positive and negative affectivity and satisfaction, following hypothesis are suggested.

H6a: When customers dine in a restaurant, satisfaction will be positively correlated with positive affect.

H6b: When customers dine in a restaurant, satisfaction will be negatively correlated with negative affect.



2.6. Satisfaction

Customer satisfaction plays a part as an indicator reflecting past, current, and future performance of a company and, therefore, has long been critically studied among marketing practitioners and scholars (Oliver, 1999). Oliver (1980) defined customer satisfaction as a customer's overall affective reaction to a product or service. Expectancy-Disconfirmation theory (Oliver, 1980) suggests that consumers have expectations about products or services prior to an exchange, and that customers form judgments or opinions by comparing the actual performance with their expectations. Customer satisfaction is defined as the gap that exists between the consumer's perceptions and expectations of the product or service (Parasuraman, Zeithaml, & Berry, 1988). If perceptions exceed expectations, a positive disconfirmation has occurred and, if perceptions are below expectations, a negative disconfirmation has occurred. Zero disconfirmation occurs when perceptions equal expectations.

In modeling satisfaction, two general conceptualizations of satisfaction exist in the literature: transaction-specific satisfaction and cumulative satisfaction (Anderson & Fornell, 1994; Boulding, Kalra, Staelin, & Zeithaml, 1993). Transaction-specific satisfaction is transient, and occurs at the particular time of transaction (Cronin & Taylor, 1992). Cumulative satisfaction on the other hand, is a customer's cumulative evaluation from the total consumption experience with a product or service to date (Johnson & Fornell, 1991).

Customers select their restaurants of choice based on many factors. Among the many possible determinants of customer satisfaction in restaurants, studies have often found customer satisfaction with food quality to be the first priority in dining satisfaction (Ladki & Nomani, 1996; Qu, 1997; Pettijohn, Pettijohn, & Luke, 1997). Service quality has also proven to be an essential contributing factor in determining customer satisfaction in restaurant settings (Baker, Parasuraman, Grewal, & Voss, 2002; Pettijohn, Pettijohn, & Luke, 1997; Qu, 1997). A study by Castelo, Branco & Salay (2001) found that price and convenience were also major factors in the decision to dine out. Other important factors included



employee hygiene and cleanliness of the restaurant, fast and friendly service, and the ambience of the facility (Stevens Nutson & Patton, 1995). Other studies have shown that the most frequent factors affecting consumers' satisfaction are speed of service, food quality consistency, hours of operation, food/eye appeal, convenient location and access, waiting time, and restaurant reputation (Davis & Vollmann, 1990; Sulek & Hensley, 2004; Gupta et al., 2007).

The purpose of this research however, is to find out if the dining satisfaction can be improved in respect to particular dining attributes contributing to overall satisfaction. Dining experience is a total package of all meal experiences. Food, atmosphere, service, and convenience are all attributes that make up the overall experience package. This research attempts to reveal if physical involvement is also an attribute contributing to higher (or lower) dining satisfaction. There is growing evidence that consumer emotions are significantly associated with satisfaction and behavioral intentions. Many researchers have found that a direct causal sequence of events occurs in which customers experience consumption emotions and then make a satisfaction judgment (Mano & Oliver, 1993; Oliver, 1993; Westbrook & Oliver, 1991). Mano and Oliver (1993) found that arousal and both positive and negative affect were positively correlated with involvement. As arousal is one of the major components of involvement (Mano & Oliver, 1993; Mitchell, 1980; Petty et al. 1983), and is generated with high levels of either positive or negative affect, products that create high involvement can elicit both positive and negative emotional reactions (Mano & Oliver, 1993). It is suggested that higher utilitarian and hedonic evaluations lead to a more positive affective experience. They also found that higher involvement led to higher utilitarian and hedonic evaluations (Mano & Oliver 1993), suggesting consequent flows from involvement to hedonic/utilitarian value, and positive/negative affect. In the previous literature, scales measuring involvement and hedonic/utilitarian evaluation were sometimes identical since both were conceptual correspondence based on relevance (Mano & Oliver, 1993).



Ladki and Nomani (1996) evaluated the effect of consumer orientation (active and passive), consumer psychological involvement (attitude, opinion, belief, and behavioral intention), and restaurant attributes on satisfaction with dining in ethnic restaurants. Mano and Oliver (1993) found that higher utilitarian and hedonic evaluations led to more positive affective experiences. Furthermore, of the two, hedonic evaluation was closer to the consumer's affective experience. Previous researchers suggest including affective variables in modeling satisfaction evaluation as well as cognitive variables, especially when consumers are involved in the transaction (Pfaff, 1977; Westbrook, 1987). Structurally Mano and Oliver (1993) suggested the evaluation→ affect→ satisfaction sequence (Figure 2.1). Oliver (1993) argued that consumer satisfaction with specific product attribute arouses positive and negative affective responses, influencing overall satisfaction. He also suggests that positive affect is a function of hedonic evaluation, and that satisfaction is a function of positive and negative affect in the irrespective directions, combined with utilitarian evaluation (Oliver, 1994). In his logic, evaluations are mediators indirectly impacting satisfaction through affect. This research however, simply tries to address the correlations of hedonic/utilitarian values and satisfaction.

H7a: When customers dine in a restaurant, satisfaction will be positively correlated with hedonic value.

H7b: When customers dine in a restaurant, satisfaction will be positively correlated with utilitarian value.



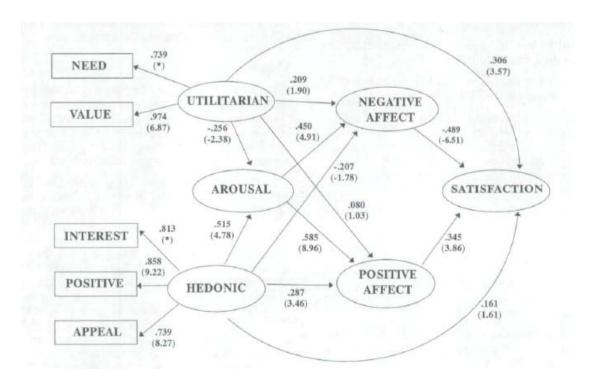


Figure 2.1 Hypothesized Evaluation, Affect, and Satisfaction Causal Framework with Estimates (Mano & Oliver, 1993)

The relationships of the evaluation, feeling, and satisfaction model by Mano and Oliver (1993) were adapted for this research, as the model included most concepts to study in this research. The hypotheses and the flow of their study gave much insight for this study, and some part of the experimental design and the survey were transferred after adjustment to a restaurant setting. Though the relationship described in the model was already tested by the researchers, this study attempted to verify its applicability to the restaurant study. Their model was simplified and modified to fit the need of this study.

Arousal was represented as one of involvement's most direct expressions eliciting emotional reactions, and was thus replaced with involvement, as the key element in this study. In contrast to one of their findings however, it is assumed that involvement will be positively correlated with satisfaction. Mano and Oliver (1993) concluded that satisfaction and dissatisfaction were unrelated to involvement though they also found that involvement led to higher



hedonic/utilitarian evaluation and affectivity. The model and hypotheses for this study were uniquely developed through a thorough literature review on experiential value and dining/restaurant related studies (see Figure 2.2).

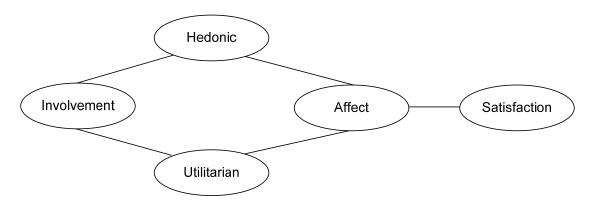


Figure 2.2 Hypothesized Evaluation, Affect, and Satisfaction Correlation Framework Adopted and Modified from Mano and Oliver's Theory (1993)

- H1a: When customers dine in a restaurant, involvement will be positively correlated with positive affectivity.
- H1b: When customers dine in a restaurant, involvement will be correlated with negative affectivity.
- H2: When customers dine in a restaurant, involvement will be positively correlated with overall dining satisfaction.
- H3a: When customers dine in a restaurant, involvement will be positively correlated with hedonic evaluation.
- H3b: When customers dine in a restaurant, involvement will be positively correlated with utilitarian evaluation.
- H4a: When customers dine in a restaurant, hedonic value will be positively correlated with positive affectivity.
- H4b: When customers dine in a restaurant, utilitarian value will be positively correlated with positive affectivity.
- H5a: When customers dine in a restaurant, hedonic value will be negatively correlated with negative affectivity.



- H5b: When customers dine in a restaurant, utilitarian value will be negatively correlated with negative affectivity.
- H6a: When customers dine in a restaurant, satisfaction will be positively correlated with positive affect.
- H6b: When customers dine in a restaurant, satisfaction will be negatively correlated with negative affect.
- H7a: When customers dine in a restaurant, satisfaction will be positively correlated with hedonic value.
- H7b: When customers dine in a restaurant, satisfaction will be positively correlated with utilitarian value.



CHAPTER 3. METHODOLOGY

The purpose of this study was to find out the impact of customer involvement in the cooking process, on hedonic and utilitarian value, positive and negative affects, and overall dining satisfaction. In order to minimize the variance and bias from situational differences, the experimental design was used. The experiment was conducted at a contracted Chinese restaurant. Chinese hot pot was prepared with two different dining styles, with and without active involvement. The details of data collection, experimental design, survey instrument, and the data analysis methods are discussed accordingly.

3.1. Sample and Data Collection

The participants were recruited through invitations given in emails and posted fliers with brief information about the experiment. The experiment was conducted at a Chinese restaurant located in Lafayette, IN and the menu item was Chinese hot pot. Participation was completely voluntary and consent forms regarding potential allergies and study information were signed before proceeding. Unlike a survey-based study, the acceptable sample size of the experimental research may be quite small. In a laboratory study, a minimum sample size of 50 is accepted as a rule of thumb. There are no theoretical limits to the size and complexity of experiments and quasi-experiments but in reality, practical considerations such as cost and the availability of suitable subjects generally restrict test conditions (Lynn & Lynn, 2003).



3.2. Experimental Design

The randomly assigned involvement conditions of either low or high involvement were manipulated with two different serving styles. Subjects in the low-involvement condition were asked to have a meal that was ordinarily served at a restaurant. Subjects in the high-involvement condition were instructed to have a meal by cooking the ingredients in a pot centered on the table.

The experiment was conducted from 6:00 pm to 9:00 pm during two days in mid-June. Two settings at 6:00 pm and 7:30 pm were used each day. Both service styles were offered each day, however at each seating, only one service style was offered by the restaurant so that treatment groups did not observe both service styles, only the experimental condition (service style) in which they participated. A diagram of the experimental design is shown in Figure 3.1. Weather conditions were the same on both days.

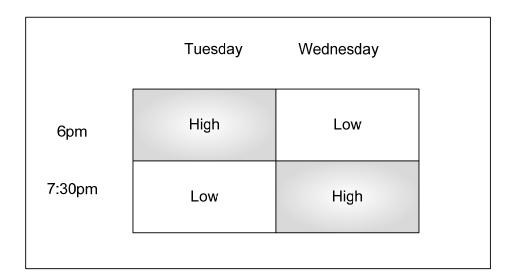


Figure 3.1 Experimental Design

Each session within a day was randomly assigned in terms of the involvement in the dining experience; one with high involvement in the cooking process (test group) and the other with low involvement (control group). Hot pot



dinner was served with a brief explanation about the food and the way of eating. The duration of the meal was about an hour and after the meal, research materials were distributed in 6-page questionnaire. Subjects responded to the questions anonymously at their own pace.

The first part of the questionnaire included concise definitions about hot pot terminology and subjects were asked about their previous hot pot experience and familiarity. The second part of the questionnaire asked multiple questions about their satisfaction with the hot pot experience. Four satisfaction items covered taste, service, environment, and experience, which are frequently used in measuring dining satisfaction (Stevens, Knutson & Patton, 1995).

Next, subjects were asked to answer the questions in the survey. They were told that the survey was to obtain their feedback with their dining satisfaction for that night. Questionnaires for the high- and low- involvement groups were identical for both groups.

3.3. Survey Measurement

The measurement items for the survey used in this research were assessed with self-reports. Despite acknowledged limitations in cognitive retrieval with their use, self-reports are thought to provide an effective and efficient method of assessment (Mano & Oliver, 1993). The expanded model from Figure 2.2 with the specifics of the measurements used in the analysis is presented in Figure 3.2.

3.3.1. Hedonic/Utilitarian Evaluation

To insert a figure, place the cursor where you want the figure and select Insert-Picture-From File in the menu. Navigate to the picture that you wish to include and click on it once. Click the "Insert" button on the dialog box. If you are pasting charts from Microsoft Excel, copy the chart in Excel, then select Edit-



Paste Special. Paste the chart as a picture instead of a Microsoft Excel object because pictures are smaller file sizes.

3.3.2. Affectivity

The common affect measurements in consumer research include standardized scales such as the differentiated emotion scale (DES) (Allen et al., 1992; Oliver, 1993; Westbrook, 1987), and the positive affect negative affect scale (PANAS) (Watson et al., 1988; Mano and Oliver, 1993). Some researchers have developed or adapted emotion scales applicable to the specific context of their study (Dube et al., 1996; Folkes et al., 1987; Hui & Tse, 1996; Taylor, 1994).

In this study, a combined version of the adjectives in the Watson, Clark, and Tellegen (1988) PANAS scale was used to assess affective reactions. Watson et al.'s instrument contains two 10- item subscales of positive and negative affectivity, so there were a total of 20 items. Subjects indicated on five-point scales (1= "not at all", 5= "very much") the degree to which they felt the specific emotion toward their dining experience for each of the adjectives. Means of the ten statements of positive and negative affect were used in the analysis of the affect value.

3.3.3. Dining Satisfaction

Dining satisfaction was measured using Oliver's (1980; Oliver and Swan 1989) seven-point Likert-type scale. The items were adopted from previous restaurant satisfaction studies (Stevens, Knutson & Patton, 1995; Weiss, Feinstein & Dalbor, 2004). The overall satisfaction items included customer's future behavioral intentions including recommendation and revisit intention (Zeithaml et al., 1996).

Satisfaction was measured with the following five statements: overall, I am satisfied with my hot pot dining experience this evening (this value is later referred to as "Satisfied" in the data tables); I would recommend a hot pot dining



experience like this to my friends (later referred to as "Recommendation"); my choice to participate in hot pot dinner was a wise one (also known as "Wise Choice"); overall, I enjoyed my hot pot dining experience (or "Enjoyed"); and I plan on making reservations a restaurant with a hot pot dining choice such as this in the future (or "Revisit Intention").

"Dining Satisfaction Attributes" were also studied as they related to overall satisfaction. They were: food, service, environment, and dining experience (FSED). In addition, "Factors Influencing Dining Satisfaction Attributes" were assessed. These factors included: taste, aroma, portion, presentation, and temperature for the "Dining Satisfaction Attribute" of food; knowledge of server, friendliness of server, and style of service for the "Dining Satisfaction Attribute" of service; music, lighting, temperature of the room, and scent for the "Dining Satisfaction Attribute" of environment; and for the dining experience "Dining Satisfaction Attribute", they included authenticity, involvement, and participation.

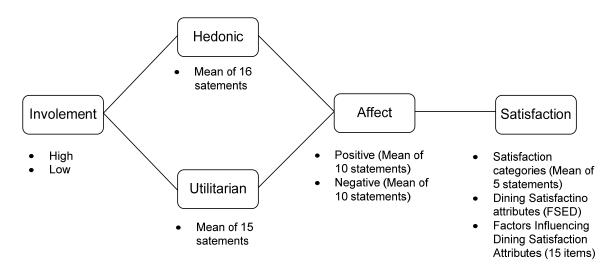


Figure 3.2 Expanded Model with Measurement Details for Analyses

3.4. Data Analysis

This study utilized SPSS (Statistical Packages for the Social Science) for analyzing collected data statistically. The analytical methods included the



descriptive statistics, factor analysis, t-test, analysis of variance, and correlation analysis.

3.4.1. Descriptive Statistics

Descriptive statistics were conducted to identify respondents' demographic information including gender, ethnicity, age, education, income, and occupation. Frequency and percentage were calculated for each variable.

3.4.2. Factor Analysis

Factor analysis was used to verify if the variables adopted from literature fit to this study. Communality is the squared multiple correlation for the variable as dependent using the factors as predictors. The communality measures the percent of variance in a given variable explained by all the factors jointly and may be interpreted as the reliability of the indicator. In general, communalities show for which measured variables the factor analysis is working best and least well.

The measurements used in this study were carefully adopted through literature review of marketing, consumer research, and/or psychology. However it should be verified if it fits to this specific study, a restaurant setting experiment. The hedonic/utilitarian value and positive/negative affect items were screened through factor analysis.

3.4.3. T-Test & Analysis of Variance

The main object of this study was to compare two groups; the high involvement and the low involvement groups. The most suitable analysis technique for this study was the t-test, assessing whether the means of two groups were statistically different from each other. The t-test is considered appropriate when comparing the means of two groups, and especially appropriate as the analysis for the posttest-only two-group randomized



experimental design. Data entering for involvement level was through creation of a new dummy variable, 0 for low and 1 for high. For the variables with more than two groups, analysis of variance (ANOVA) were used, and the expected function was similar to that of the t-test.

3.4.4. Correlation Analysis

Correlation analysis was conducted to find correlations among variables. This study included multiple items to measure evaluation, affectivity, and satisfaction. In addition, the mean value of related items was used to create a new representative variable. Correlation analysis further elaborated the direction and the degree of the relationship among test variables.



CHAPTER 4. RESULTS

In this chapter, the results of this study are reported by analyzing the collected data and testing the proposed hypotheses. Data analyses consisted of the following four sections: description of respondents, factor analysis, ANOVA, and correlation analysis. The randomness of involvement was checked through cross-tabulation and chi-square. Among the demographic factors, only gender and education had more than 50% viable cells by chi-square tests. Both gender and education showed no significant difference between high and low involvement groups, implying relative randomness of involvement distribution by demographic factors.

The main purpose of this study was to find the impact of involvement on dining satisfaction, and evaluate the difference between the high and low involvement groups. Another purpose was to explore the moderating roles of hedonic and utilitarian value and affectivity. The purposes were fulfilled by conducting t-test, one-way ANOVA, and correlation analysis.

4.1. <u>Description of Respondents</u>

A total of 86 subjects participated in the study. A Chinese hot pot meal was served with two different styles, high involvement and a control group of no involvement. Upon completion of the treatment the respondent filled out a questionnaire. The response rate was 100%; 86 out of 86 questionnaires were usable in spite of some missing values in a few questions. About 43% of the respondents were male (n=37) and 57% were female (n=49). The majority ethnicity of participants was white American, with 69.8% of the total (n=60), followed by Asian (17.4%, n=15). The age ranged from 18 to over 61, and half of



the participants were between 21 and 30 (n=43). Regarding occupation, 45.3% of the respondents were college students (n=39), followed by 15.1% white-collar workers (n=13). In relation to education, 63.9% of the participants (n=55) had at least a Bachelor's degree. As many of the participants were students, the income level was relatively low. For comparison to demographic characteristics of respondents are presented in Table 4.1.

For comparison to the demographic profile of Tippecanoe County, Indiana where this study was conducted, the following information was obtained from the U.S. Census Bureau for 2005-2007: the percentage of males was 51.8% and females 48.2%; white Americans comprised 89.1% of the population followed by Asians at 5.7%; for the age groupings, for people over 18 years comprised 79.0% of the population, and those over 65 years represented 9.2%; for education, 89.0% of the population were high school graduates or higher, and 35.0% had bachelor's degrees or higher; the median household income was \$41,472 and the mean was \$54,594. Therefore, this study included a sample of the population that was similar to Tippecanoe County in that it included a large percentage of females. In addition, over two-thirds of the sample was white Americans, followed by Asians. Educational level was also high in this sample. Household income in this sample appeared to be lower which may be explained by the fact that 45% of the respondents were college students.

Table 4.1 Demographic Characteristics

	Table 4.1 Bemographic	- Transcondition	Γ
Characteristics	Descriptions	N	Statistics (%)
Gender	Male	37	43.0
Gender	Female	49	57.0
	Multiracial	3	3.5
	African American	1	1.2
	Native American Indian	1	1.2
Ethnicity.	Asian American	1	1.2
Ethnicity	Latino/Chicano/Spanish	2	2.3
	White American	60	69.8
	Asian	15	17.4
	Other	1	1.2
	18 to 20 years	6	7.0
	21 to 30 years	43	50.0
Λ	31 to 40 years	9	10.5
Age	41 to 50 years	4	4.7
	51 to 60 years	9	10.5
	Older than 61 years	14	16.3
	High School	6	7.0
	Technical School	2	2.3
Education	Some College	22	25.6
	College	23	26.7
	Graduate School	32	37.2
	White-Collar Worker	13	15.1
	Blue-Collar Worker	5	5.8
	Administrator/Manager	8	9.3
	Specialist/Freelancer	4	4.7
Occupation	Self-Employed	3	3.5
	College Student	39	45.3
	Part-Timer	3	3.5
	Unemployed/Housewife	5	5.8
	Other	5	5.8
	Less than \$20,000	26	30.2
	\$20,000 to \$39,999	13	15.1
	\$40,000 to \$59,999	16	18.6
Income	\$60,000 to \$79,999	6	7.0
	\$80,000 to \$99,999	8	9.3
	\$100,000 to \$149,000	5	5.8
	\$150,000 to \$199,000	1	1.2
	1	1	İ



4.2. Factor Analysis

4.2.1. Hedonic/Utilitarian Evaluation

The original hedonic value measurement items included 17 items (interested, interesting, exciting ¹, appealing, fascinating, desirable, wanted, positive, agreeable, nice, pleasant, intelligent, delightful, fun, exciting², thrilling, and enjoyable), and 17 utilitarian items (important, relevant, means a lot to me, useful, valuable, fundamental, beneficial, matters to me, significant, vital, essential, needed, effective, helpful, functional, necessary, and practical). The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO and Bartlett's test) of the hedonic value was .912 and the utilitarian value was .910, meaning the factors provided a good fit to explain the relationship.

Communality of most variables under principal component analysis exceeded .60. Variables with less than .60 in communality are generally dropped. Therefore, the hedonic value item intelligent, and utilitarian items importance and relevance were excluded from the factor analysis. Thus, sixteen hedonic measurement items and fifteen utilitarian measurement items were used to create new variables reflecting the mean of each value (Table 4.2).

² Exciting - Dull



¹ Exciting - Unexciting

Table 4.2 Communality for Hedonic/Utilitarian Evaluation Items

Hedonic	Communality	Utilitarian	Communality
Interested	.630	Importance	.519
Interesting	.706	Relevance	.519
Exciting(vs Unexciting)	.779	Meaning	.835
Appealing	.757	Useful	.797
Fascinating	.774	Valuable	.857
Desirable	.783	Fundamental	.659
Wanted	.631	Benefit	.736
Positive	.824	Matter	.787
Agreeable	.846	Significant	.727
Nice	.856	Vital	.798
Pleasant	.827	Essential	.784
Intelligent	.456	Needed	.802
Delightful	.740	Effective	.762
Fun	.845	Helpful	.708
Exciting(vs Dull)	.864	Functional	.731
Thrilling	.726	Necessary	.760
Enjoyable	.708	Practical	.710

4.2.2. Affectivity

Twenty affectivity measurement items included ten positive (interested, excited, strong, enthusiastic, proud, alert, inspired, determined, attentive, and active) and ten negative emotions (distressed, upset, guilty, scared, hostile, irritable, ashamed, nervous, jittery, and afraid). The Kaiser-Meyer-Olkin Measure of Sampling Adequacy of the positive affect was .897 and the negative affect was .856, also indicating the goodness of the factors.

Again, variables with less than .60 in communality were eliminated. Among the positive affect items, strong, determined, and active, and among the negative affect items, guilty and ashamed, were excluded respectively. Seven measurement items for positive affect and eight measurement items for negative items were included thereafter for mean-valued new variables (Table 4.3).



Table 4.3 Communality for Positive/Negative Affectivity Items

Positive	Communality	Negative	Communality
Interested	.653	Distressed	.604
Excited	.792	Upset	.652
Strong	.498	Guilty	.563
Enthusiastic	.804	Scared	.648
Proud	.622	Hostile	.646
Alert	.743	Irritable	.755
Inspired	.722	Ashamed	.429
Determined	.595	Nervous	.643
Attentive	.687	Jittery	.654
Active	.598	Afraid	.812

4.2.3. Satisfaction

In the last step of factor analysis, five "Satisfaction Categories" were analyzed. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was .880, and the communalities of five categories were all over .60, resulting in the use of all the items (Table 4.4).

Table 4.4 Communality for Satisfaction Categories

	Communality
Overall, I am satisfied with my hot pot dining experience this evening. (Satisfied)	.916
I would recommend a hot pot dining experience like this to my friends (Recommendation)	.889
My choice to participate in hot pot dinner was a wise one (Wise Choice)	.794
Overall, I enjoyed my hot pot dining experience (Enjoyed)	.911
I plan on making reservations a restaurant with a hot pot dining choice such as this in the future (Revisit Intention)	.714

4.3. T-Test & Analysis of Variance

4.3.1. The Impact of Involvement on Evaluation, Affect and Satisfaction

The next analysis compared the means of hedonic/utilitarian value, positive/negative affect, and satisfaction between the two groups; with involvement as the factor variable. The mean value of related items was used to analyze for hedonic/utilitarian value, positive/negative affect, and satisfaction respectively. The result identified which factors were influenced by involvement (see Table 4.6). The results showed that hedonic value, positive affect and satisfaction were significantly different between the two groups. Utilitarian value and negative affect were not significantly different between the two groups.

Table 4.5 T-test of Evaluation, Affect, and Satisfaction for Involvement

	Involvement	N	Mean	Std. Deviation	Т	Sig.
Hedonic Value	Low	43	4.5524	1.30335	3.479**	.001
	High	43	5.3735	.83446	3.479	.001
Utilitarian Value	Low	43	4.4291	1.13291	1 167	247
, and	High	43	4.6971	.99214	1.167	.247
Positive	Low	42	2.5204	.92033	3.183**	.002
Affect	High	42	3.1284	.82779	3.103	.002
Negative Affect	Low	42	1.5306	.76788	-1.140	.258
7 111000	High	42	1.3707	.48682	-1.140	.256
Satisfaction	Low	43	3.7674	1.97264	4.710**	000
	High	43	5.4616	1.29283	4.710	.000

Note: **p<.01, *p<.05



4.3.2. The Effect of Familiarity on Evaluation, Affect, and Satisfaction

Analysis was also conducted to see if familiarity imposes any difference on hedonic/utilitarian value, positive/negative affect, and/or satisfaction (see Table 4.5). The satisfaction used here was the mean value of five "Satisfaction Categories". The participants were grouped into three levels of familiarity based on the means of the three familiarity statements; zero to three were classifies as low, over three to five were classified as moderate, and over five to seven as high. The survey included three questions measuring familiarity, scaled from one to seven, and the mean values were used to categorize the group. The results showed no significant differences among different familiarity groups in terms of hedonic/utilitarian value and positive/negative affect. However, there was a significant difference for satisfaction.

Table 4.6 One-way ANOVA of Evaluation, Affect, and Satisfaction for Familiarity

	Familiarity	N	Mean	Std. Deviation	F	Sig.
Hedonic	Low	35	4.6675	1.37454	1.935	.151
Value	Medium	23	5.0629	.93595		
	High	27	5.2263	.99153		
Utilitarian	Low	35	4.3394	1.21709	1.309	.276
Value	Medium	23	4.7418	.86160		
	High	27	4.7005	1.02096		
Positive	Low	35	2.6316	.87990	1.435	.244
Affect	Medium	22	2.9156	.79925		
	High	26	3.0165	1.06470		
Negative	Low	35	1.5837	.80318	1.498	.230
Affect	Medium	22	1.4351	.58234		
	High	26	1.2967	.40188		
Satisfaction	Low	35	3.8471	2.07169	5.671**	.005
Cationadion	Medium	23	4.9565	1.64035		
	High	27	5.2963	1.44155		

Note: **p<.01

4.3.3. The Impact of Involvement on Satisfaction with Neutralized Familiarity Effect

Univariate ANOVA was conducted to see the difference on dining satisfaction between the two involvement groups when controlling for familiarity (Table 4.7). Since both involvement and familiarity were found to be influential in dining satisfaction, the net effect of involvement was obtained by neutralizing the effect of familiarity as a fixed factor. Involvement was used as the covariate independent variable and satisfaction as the dependent variable in this univariate

ANOVA. The result confirmed that involvement had an impact on dining satisfaction regardless of customers' familiarity.

Table 4.7 Univariate ANOVA of Dining Satisfaction for Involvement with Neutralized Familiarity

	Sum of Squares	Mean Square	F	Sig.
Intercept	636.853	636.853	252.963**	.000
Involvement	55.227	55.227	21.937**	.000
Familiarity	29.640	14.820	5.887**	.004
Error	203.924	2.518		
Total	2099.582			

Note: R Squared = .309 (Adjusted R Squared = .283)

**p<.01

4.3.4. The Impact of Involvement on Factors Influencing Dining Satisfaction Attributes

The next analysis was to find a difference between the two involvement groups, placing satisfaction items "Factors Influencing Dining Satisfaction Attributes" as dependent variables with involvement as a factor variable. Taste, Aroma, Portion, Presentation, and Temperature in the food attribute, knowledge of server, friendliness of server, and service style for service attribute, music, lighting, room temperature, and scent for environment attribute, and authenticity, involvement, and participation for dining experience attribute were all placed into dependent variables (see Table 4.9). Among the "Dining Satisfaction Attributes" (fsed), food and dining experience showed a significant difference between the two groups (p<.05). In addition, taste and aroma (food), server knowledge and

friendliness (service), involvement and participation (dining experience) showed a significant difference between the two groups under (p<.01).

4.3.5. The Effect of Demographics, Day and Time on Satisfaction

The last ANOVA was to see if satisfaction was influenced based on demographic factors and the day and time. For the day and time data entering, day was coded into zero for the first day and one for the second day, and time was coded into zero for 6:00 pm slot and one for 7:30 pm slot. The results found no significant difference for demographic characteristics and satisfaction, meaning gender, ethnicity, age, education and occupation were not closely correlated to satisfaction (see Table 4.10). Satisfaction showed no difference based on day and time variables either, assuring that the experimental design was effectively controlled (see Table 4.11).



Table 4.8 One-way ANOVA of Factors Influencing Dining Satisfaction Attributes for Involvement

Dining	Attributes	Involve- ment	N	Mean	Std. Deviation	F	Sig.
	Taste	Low	43	4.35	2.069	15.562**	.000
	Taste	High	43	5.74	1.049	15.562	.000
	Aroma	Low	43	4.47	1.856	10.115**	.002
	Aroma	High	43	5.56	1.278	101110	.001
Food	Portion	Low	43	5.95	1.647	.126	.724
Food	PORION	High	42	6.07	1.404	.120	.724
	Presentation	Low	43	5.07	2.017	2.810	.097
	Presentation	High	42	5.69	1.316	2.010	.097
	Tomporatura	Low	43	5.98	1.389	.299	.586
	Temperature	High	41	6.12	1.005	.200	.000
	Knowlodgo	Low	42	4.38	1.431	17 050**	000
	Knowledge	High	43	5.58	1.180	17.850**	.000
Comina	Criendlinese	Low	42	4.93	1.421	7.534**	.007
Service	Friendliness	High	41	5.71	1.146	7.534***	
	Comico Ctulo	Low	43	4.98	1.389	1.408	.239
	Service Style	High	39	5.31	1.104	1.100	.200
	Music	Low	42	5.02	1.456	4.470	.281
	Music	High	41	5.34	1.196	1.176	
	l indution	Low	43	5.51	1.121	005	
Environ-	Lighting	High	41	5.44	1.163	.085	.771
ment	Room	Low	43	5.56	1.278	.231	.646
	Temperature	High	41	5.41	1.565	.231	.040
	0 1	Low	43	5.23	1.306	4.450	000
	Scent	High	41	5.56	1.184	1.453	.232
	A41 41 - 14	Low	43	5.33	1.229	4.440	004
	Authenticity	High	40	5.63	1.353	1.116	.294
Dining	Involvement	Low	42	4.64	1.322	7.355**	.008
experience	Involvement	High	41	5.46	1.433	7.000	.000
	Dortionation	Low	42	4.60	1.231	22 204**	000
	Participation	High	41	5.83	1.093	23.281**	.000



Table 4.9 One-way ANOVA of Satisfaction for Demographics

Gender Male 37 4.76 1.84580 Female 49 4.50 1.88955	.375	
Female 40 450 40055		.542
Female 49 4.50 1.88955	.070	.042
Multiracial 3 4.93 1.81475		
African American 1 6.40 .		
Native American Indian 1 7.00 .		
Ethnicity Asian American 1 3.00 .	.515	.821
Spanish Origin 2 4.00 1.41421	.515	.021
White American 60 4.64 1.92943		
Asian 15 4.76 1.59320		
Other 1 4.80 .		
18 to 20 years 6 4.63 2.50253		
21 to 30 years 43 4.48 1.78466		
Age 31 to 40 years 9 4.07 1.76352	1 224	.263
41 to 50 years 4 3.65 3.11288	1.324	
51 to 60 years 9 5.22 1.59513		
Older than 61 years 14 5.52 1.26880		
High school 6 4.03 2.64852		
Technical school 2 4.60 1.13137		
Education Some college 22 4.90 2.05672	.881	.479
College 23 4.17 1.96080		
Graduate school 32 4.95 1.39653		
White-collar worker 13 4.77 1.24592		
Blue-collar worker 5 3.80 2.65330		
Administrator/Manager 8 4.46 2.47494		
Specialist/Freelancer 4 5.10 .84063		
Occupation Self-employed 3 4.27 2.87286	.813	.593
College student 39 4.49 1.89170		
Part-timer 3 6.20 .87178		
Unemployed/Housewife 5 5.96 .97365		
Other 5 4.52 1.60375		
Less than \$20,000 26 4.43 1.81159		
\$20,000 to \$39,999 13 4.55 2.16357		
\$40,000 to \$59,999 16 5.24 1.75304		
Income \$60,000 to \$79,999 6 3.50 2.36559	.767	.598
\$80,000 to \$99,999 8 4.95 1.60268		
\$100,000 to \$149,000 5 4.96 1.36675		
\$150,000 to \$199,000		



Table 4.10 One-way AVOVA of Satisfaction for Day and Time

		N	Mean	StD	F	Sig.
Dov	Tuesday	42	4.6155	1.76658	000	006
Day	Wednesday	44	4.6136	1.97303	.000	.996
Time	6 pm	41	4.6110	1.94318	.000	.987
Tille	7:30 pm	45	4.6178	1.81099	.000	.907

4.4. Correlation Analysis

4.4.1. Dining Satisfaction Attributes with the Influencing Factors

In order to see the fitness of restaurant satisfaction questions by categories, correlation analysis was utilized. Evaluation of fifteen "Factors Influencing Dining Satisfaction Attributes" was asked at the beginning of the survey, and four "Dining Satisfaction Attributes" were asked in the later part of the survey. All the variables were significantly correlated (see Table 4.12).

Table 4.11 Correlation Analysis of Dining Satisfaction Attributes with the Influencing Factors

Food	Taste	Aroma	Portion	Presentation	Temperature
Pearson Correlation	.800**	.642**	.419**	.683**	.327**
Sig. (2-tailed)	.000	.000	.000	.000	.002
N	86	86	85	85	84

Service	Knowledge	Friendliness	Service Style
Pearson Correlation	.496**	.644**	.701**
Sig. (2-tailed)	.000	.000	.000
N	83	82	81

Environment	Music	Lighting	Room Temperature	Scent
Pearson Correlation	.519**	.634**	.461**	.635**
Sig. (2-tailed)	.000	.000	.000	.000
N	83	84	84	84

Dining Experience	Authenticity	Involvement	Participation
Pearson Correlation	.484**	.576**	.569**
Sig. (2-tailed)	.000	.000	.000
N	83	83	83

Note: **p<.01

4.4.2. Testing of Hypotheses

The overall correlations among hedonic/utilitarian value, positive/negative affect, satisfaction, and involvement level were identified through bivariate correlation analysis. Involvement level was entered at zero for low involvement and one for high involvement; therefore the positive value of correlation indicated higher value of high involvement, and the negative value was the reverse. In analyzing these hypotheses, the mean value of five "Satisfaction Categories" was utilized. All thirteen hypotheses were finally summarized through this step. The results of each hypothesis test are presented separately below.

Hypothesis 1a (When customers dine in a restaurant, involvement will be positively correlated with positive affectivity) is supported with the high involvement group showing a higher mean value of positive affect. However, Hypothesis 1b (When customers dine in a restaurant, involvement will be correlated with negative affectivity) was not supported with a significance level of .258.

Table 4.12 Result of Testing Hypothesis 1

		Involvement	Positive	Negative
Involvement	Pearson Correlation	1	.332**	125
	Sig.		.002	.258
	N	86	84	84
Positive	Pearson Correlation	.332**	1	298**
	Sig.	.002		.006
	N	84	84	84
Negative	Pearson Correlation	125	298**	1
	Sig.	.258	.006	
	N	84	84	84

Hypothesis 2 (When customers dine in a restaurant, involvement will be positively correlated with overall dining satisfaction) was supported with a correlation coefficient of .457 (p<.01).

Table 4.13 Result of Testing Hypothesis 2

		Involvement	Satisfaction
Involvement	Pearson Correlation	1	.457**
	Sig. N	86	.000 86
Satisfaction	Pearson Correlation	.457**	1
	Sig.	.000	
	N	86	86

Note: **p<.01

Hypothesis 3a (When customers dine in a restaurant, involvement will be positively correlated with hedonic evaluation) was supported (.355). However, the correlation between involvement and utilitarian value was not significant. Therefore Hypothesis 3b (When customers dine in a restaurant, involvement will be positively correlated with utilitarian evaluation) was not supported.

Table 4.14 Result of Testing Hypothesis 3

		Involvement	Hedonic	Utilitarian
Involvement	Pearson Correlation	1	.355**	.126
	Sig.		.001	.247
	N	86	86	86
Hedonic	Pearson Correlation	.355**	1	.821**
	Sig.	.001		.000
	Ň	86	86	86
Utilitarian	Pearson Correlation	.126	.821**	1
	Sig.	.247	.000	
	N	86	86	86



Both hedonic and utilitarian values were closely related with positive affect, with correlation coefficients of .730 and .702 respectively. Therefore, Hypothesis 4a (When customers dine in a restaurant, hedonic value will be positively correlated with positive affectivity) and Hypothesis 4b (When customers dine in a restaurant, utilitarian value will be positively correlated with positive affectivity) were supported.

Table 4.15 Result of Testing Hypothesis 4

		Hedonic	Utilitarian	Positive
Hedonic	Pearson Correlation	1	.821**	.730**
	Sig.		.000	.000
	N	86	86	84
Utilitarian	Pearson Correlation	.821**	1	.702**
	Sig.	.000		.000
	N	86	86	84
Positive	Pearson Correlation	.730**	.702**	1
	Sig.	.000	.000	
	N	84	84	84

Hypothesis 5a (When customers dine in a restaurant, the hedonic value will be negatively correlated with negative affectivity) and Hypothesis 5b (When customers dine in a restaurant, the utilitarian value will be negatively correlated with negative affectivity) were also supported with a coefficients of -.584 and -.520 respectively. This means that the higher the hedonic/utilitarian value, the lower the negative affect.

Table 4.16 Result of Testing Hypothesis 5

		Hedonic	Utilitarian	Negative
Hedonic	Pearson Correlation	1	.821**	584**
	Sig.		.000	.000
	N	86	86	84
Utilitarian	Pearson Correlation	.821**	1	520**
	Sig.	.000		.000
	N	86	86	84
Negative	Pearson Correlation	584**	520**	1
	Sig.	.000	.000	
	N	84	84	84

Satisfaction was positively correlated with positive affect and negatively correlated with negative affect, supporting both Hypothesis 6a (When customers dine in a restaurant, satisfaction will be positively correlated with positive affect) and Hypothesis 6b (When customers dine in a restaurant, satisfaction will be negatively correlated with negative affect).

Table 4.17 Result of Testing Hypothesis 6

		Positive	Negative	Satisfaction
Positive	Pearson Correlation	1	298**	.671**
	Sig.		.006	.000
	N	84	84	84
Negative	Pearson Correlation	298**	1	494**
	Sig.	.006		.000
	N	84	84	84
Satisfaction	Pearson Correlation	.671**	494**	1
	Sig.	.000	.000	
	Ň	84	84	86

Lastly, Hypothesis 7a (When customers dine in a restaurant, satisfaction will be positively correlated with hedonic value) was supported with a high correlation coefficient of .744. Also, Hypothesis 7b (When customers dine in a restaurant, satisfaction will be positively correlated with utilitarian value) was supported with coefficient of .554.

Table 4.18 Result of Testing Hypothesis 7

		Hedonic	Utilitarian	Satisfaction
Hedonic	Pearson Correlation	1	.821**	.744**
	Sig.		.000	.000
	N	86	86	86
Utilitarian	Pearson Correlation	.821**	1	.554**
	Sig.	.000		.000
	N	86	86	86
Satisfaction	Pearson Correlation	.744**	.554**	1
	Sig.	.000	.000	
	N	86	86	86

Note: **p<.01

4.4.3. Involvement with Satisfaction Categories, Dining Satisfaction Attributes with the Influencing Factors

Again, the correlations of "Dining Satisfaction Attributes" and the "Factors Influencing the Attributes" and involvement level were analyzed. Though ANOVA already showed which items were influenced by involvement, the degree and the direction would be known through correlation analysis. The correlation coefficients between involvement and those variables that showed a significant difference through ANOVA were between 0 to 1, meaning taste, aroma, server knowledge and friendliness, involvement and participation were rated higher by the high involvement group.

Self-rated involvement and participation in the dining experience category were both significantly correlated with manipulated involvement level. Self-rated



involvement and participation was positively correlated with all fifteen factors, while manipulated involvement level was correlated only with taste and aroma of food, server knowledge and friendliness, and involvement and participation (Table 4.20).

Table 4.19 Correlation Analysis of Dining Satisfaction Attributes with their Influencing Factors

		Involvementa	Self-Rated Involvement ^b	Self-Rated Participation
Involvement	Pearson Correlation	1	.289**	.472**
	Sig.		.008	.000
Taste	Pearson Correlation	.395**	.449**	.493**
	Sig.	.000	.000	.000
Aroma	Pearson Correlation	.328**	.452**	.482**
	Sig.	.002	.000	.000
Portion	Pearson Correlation	.039	.432**	.374**
	Sig.	.724	.000	.000
Presentation	Pearson Correlation	.181	.524**	.471**
	Sig.	.097	.000	.000
Temperature	Pearson Correlation	.060	.313**	.300**
	Sig.	.586	.004	.006
Food	Pearson Correlation	.352**	.531**	.524**
	Sig.	.001	.000	.000
Knowledge	Pearson Correlation	.421**	.388**	.448**
	Sig.	.000	.000	.000
Friendliness	Pearson Correlation	.292**	.389**	.449**
	Sig.	.007	.000	.000
Service style	Pearson Correlation	.132	.417**	.369**
	Sig.	.239	.000	.001
Service	Pearson Correlation	.114	.531**	.512**
	Sig.	.302	.000	.000

Table 4.19 Correlation Analysis of Dining Satisfaction Attributes with their Influencing Factors (Cont'd)

		Involvementa	Self-Rated Involvement ^b	Self-Rated Participation
Music	Pearson Correlation	.120	.400**	.443**
	Sig.	.281	.000	.000
Lighting	Pearson Correlation	032	.346**	.303**
	Sig.	.771	.001	.006
Room temp	Pearson Correlation	051	.362**	.250*
	Sig.	.646	.001	.024
Scent	Pearson Correlation	.132	.480**	.465**
	Sig.	.232	.000	.000
Environment	Pearson Correlation	.165	.466**	.492**
	Sig.	.131	.000	.000
Authenticity	Pearson Correlation	.117	.701**	.670**
	Sig.	.294	.000	.000
Involvement	Pearson Correlation	.289**	1	.910**
	Sig.	.008		.000
Participation	Pearson Correlation	.472**	.910**	1
	Sig.	.000	.000	
Dining Experience	Pearson Correlation	.273*	.576**	.569**
	Sig.	.012	.000	.000

Note: **p<.01, *p<.05

^a Involvement was based on the participation in the hot pot experience (one for the high involvement group and zero for the low involvement group).

b Involvement for this variable was based on their response to a survey question on

[&]quot;Factors Influencing Dining Satisfaction Attributes".

Table 4.20 Correlation Analysis of Satisfaction Categories with Involvement

		Involvement	Self-Rated Involvement	Self-Rated Participation
Satisfied	Pearson Correlation	.452**	.512**	.568**
	Sig.	.000	.000	.000
Recommend	Pearson Correlation	.453**	.569**	.602**
	Sig.	.000	.000	.000
Wise Choice	Pearson Correlation	.392**	.546**	.631**
	Sig.	.000	.000	.000
Enjoyed	Pearson Correlation	.449**	.546**	.606**
	Sig.	.000	.000	.000
Reservation	Pearson Correlation	.376**	.460**	.493**
	Sig.	.000	.000	.000

Note: **p<.01

4.4.4. Satisfaction Categories with Dining Satisfaction Attributes and the Influencing Factors

The five "Satisfaction Categories" were entered to see the correlations with involvement level, and self-rated involvement and participation. Five overall satisfaction related items were all significantly correlated with involvement level and self-rated involvement and participation (Table 4.21). In addition, correlation analysis between five "Satisfaction Categories" and "Dining Satisfaction Attributes" were conducted (Table 4.22).

Table 4.21 Correlation Analysis of Satisfaction Categories with Dining Satisfaction Attributes

		Satisfied	Recommend	Wise Choice	Enjoyed	Revisit Intention
Food	Pearson Correlation	.737**	.715**	.695**	.774**	.652**
	Sig.	.000	.000	.000	.000	.000
Service	Pearson Correlation	.352**	.366**	.461**	.483**	.306**
	Sig.	.001	.001	.000	.000	.005
Environment	Pearson Correlation	.365**	.363**	.408**	.397**	.288**
	Sig.	.001	.001	.000	.000	.007
Dining Experience	Pearson Correlation	.672**	.655**	.673**	.725**	.576**
	Sig.	.000	.000	.000	.000	.000

Table 4.22 Correlation Analysis of Satisfaction Categories with Dining Satisfaction Attributes

		Satisfied	Recommend	Wise Choice	Enjoyed	Revisit Intention
Taste	Pearson Correlation	.840**	.803**	.755**	.830**	.787**
	Sig.	.000	.000	.000	.000	.000
Aroma	Pearson Correlation	.742**	.730**	.687**	.736**	.641**
	Sig.	.000	.000	.000	.000	.000
Portion	Pearson Correlation	.434**	.348**	.346**	.338**	.321**
	Sig.	.000	.001	.001	.002	.003
Presentation	Pearson Correlation	.588**	.551**	.580**	.574**	.553**
	Sig.	.000	.000	.000	.000	.000
Temperature	Pearson Correlation	.233*	.208	.212	.182	.177
	Sig.	.033	.058	.053	.097	.107

Table 4.22 Correlation Analysis of Satisfaction Categories with Dining Satisfaction Attributes (Cont'd)

		Satisfied	Recommend	Wise Choice	Enjoyed	Revisit Intention
Knowledge	Pearson Correlation	.378**	.324**	.360**	.404**	.335**
	Sig.	.000	.002	.001	.000	.002
Friendliness	Pearson Correlation	.213	.180	.289**	.244*	.166
	Sig.	.053	.103	.008	.026	.134
Service Style	Pearson Correlation	.303**	.357**	.348**	.340**	.265*
	Sig.	.006	.001	.001	.002	.016
Music	Pearson Correlation	.220*	.155	.263*	.199	.140
	Sig.	.045	.163	.016	.071	.207
Lighting	Pearson Correlation	.106	.068	.183	.094	.089
	Sig.	.336	.541	.095	.396	.420
Room temperature	Pearson Correlation	.181	.152	.026	.084	.253*
	Sig.	.099	.166	.814	.450	.020
Scent	Pearson Correlation	.419**	.370**	.436**	.430**	.345**
	Sig.	.000	.001	.000	.000	.001
Authenticity	Pearson Correlation	.493**	.437**	.464**	.426**	.449**
	Sig.	.000	.000	.000	.000	.000
Involvement	Pearson Correlation	.512**	.569**	.546**	.546**	.460**
	Sig.	.000	.000	.000	.000	.000
Participation	Pearson Correlation	.568**	.602**	.631**	.606**	.493**
	Sig.	.000	.000	.000	.000	.000

Note: **p<.01, *p<.05



CHAPTER 5. CONCLUSION

The results of this study present the impact of customer involvement in the cooking process on dining satisfaction, through an experimental design. More specifically, dining satisfaction attributes and the factors influencing these attributes were individually analyzed to see which variables were closely related with involvement, and thus led to greater satisfaction levels. Hedonic/utilitarian evaluation and positive/negative affect were examined as well, as mediators of satisfaction. ANOVA and correlation analysis were the major statistical techniques used for this research. In this chapter, key findings, theoretical implications, managerial implications, research limitations, and suggestions for future study are discussed.

5.1. <u>Discussions on Key Findings</u>

5.1.1. Influencing Attributes on Dining Satisfaction

Dining satisfaction and how it is influenced was measured various ways in this research. What influences dining satisfaction? Food, service, atmosphere, convenience, company, price and value, and perhaps even one's personal emotions of that day may influence dining satisfaction. There are various factors including both controllable and uncontrollable ones. Among the controllable factors, this study concentrated on four "Dining Satisfaction Attributes": Food, Service, Environment, and Dining Experience based on previous literature. Regarding the measurement of overall dining satisfaction, "Satisfaction



Categories" consisted of five direct questions relating satisfaction and behavioral intention which were included in the questionnaire.

Widely accepted restaurant attributes determining customer satisfaction, such as food, service, and atmosphere, were reconfirmed as suitable criteria for dining satisfaction, with significant positive correlations with "Satisfaction Categories", shown in Table 4.23.

Taste was one of the most relevant factors determining dining satisfaction, with the highest correlation coefficients (mostly around .80). Aroma was next highly correlated with satisfaction items, and presentation and portion followed next. Temperature was not a significant factor; the hot pot was served quickly so that the temperature of the food was kept hot. Unless hot food is served cold or cold food is served warm, temperature was not expected to be a critical factor impacting overall dining satisfaction.

Unlike server knowledge and server friendliness, service style as it was evaluated when respondents were asked to give an overall opinion of the complete dining experience was not correlated with involvement level. Reasons why this may have occurred include that the customers may have had an unclear definition of "service style" (for example, they may have understood it to mean wait staff behavior or perhaps the method of food preparation). Future research could be done in this area to determine customers' perception of service style and how it influences dining satisfaction.

Restaurant atmosphere seemed to play a moderating role in the formation of dining satisfaction. Odors, for example have been reported to have an influence on restaurant customers' behavior with relaxing or alertness effects (Gueguen & Petr, 2006). Music, which was correlated with dining satisfaction, can influence the emotions or pace of listeners. Thus it is recommended that customers' interests be carefully considered because of the resulting atmosphere when selecting music.



Authenticity, involvement, and participation were included as dining experience factors for this particular study. These factors were positively correlated with all the satisfaction items, supporting the findings of other studies.

Familiarity was found as an influential factor for dining satisfaction (Table 4.6). The result indicated that the customers with higher familiarity tended to be more satisfied compared to those with lower familiarity. This might be explained in that customers might have felt more comfortable and relaxed so that they could enjoy their meal more when they were used to the food and the dining style. This may suggest that ethnic restaurateurs should make the menu items more familiar to customers and work with wait staff so that the wait staff offers appropriate explanations and assistance with understanding hot pot preparation.

5.1.2. The Impact of Involvement on Dining Satisfaction

The level of involvement was manipulated as high and low, based on the hot pot dining experience and after controlling all other conditions to keep them same for the two groups. Satisfaction is a subjective concept which can be vague to measure. For this reason, this study tried to reflect dining satisfaction as inclusively as possible by also evaluating "dining satisfaction attributes" and the factors which influence these attributes, to more clearly reflect the role that involvement plays on dining satisfaction. Between the two involvement groups, taste, aroma, food, knowledge, friendliness, involvement, participation, and dining experience did, in fact, show a significant difference, as Table 4.9 represents.

Interestingly, there are three involvement related items in this research. The manipulated involvement level was positively correlated with self-rated involvement and participation in the dining experience category. Self-reported involvement and participation were correlated with more of the satisfaction items than the involvement level controlled by the researcher (Table 4.21). This may be explained in that self-rated items had more similarities. This study concluded that the customer involvement in the cooking process positively influenced overall



dining satisfaction. This is contrary to Mano and Oliver's (1993), finding of no correlation between involvement and satisfaction. However, other results regarding the relationships among satisfaction, hedonic/utilitarian evaluation and affectivity are more consistent with their finding. It is possible that the difference is related to the different nature of involvement from these two studies. Cognitive involvement was studied in their research and "physical" involvement in the "cooking process" was researched in the present study. It might be assumed that different aspects of involvement function differently on satisfaction.

The possible reasons why involvement in the cooking process played a positive role on dining satisfaction can be suggested. First, the involvement could work as a stimulus to encourage a more vivid atmosphere by providing cues to share for conversation. Second, the involvement in the cooking process might keep customers alert all the way through the dining hour, and thus they could feel less boredom and feel more excitement leading to a positive affect. Third, the involvement may cause customers to complain less about the food because the food was made by the customers themselves. Fourth, the involvement might provide novelty as an additional value from the dining experience, to those who were not accustomed to such a dining style. These possible explanations would provide room for further strategies on where to make use of involvement and how to apply it.

5.1.3. The Impact of Involvement on Evaluation and Affectivity

Satisfaction was correlated with all the listed factors: involvement, both hedonic and utilitarian value, and both positive and negative affects. It can be said that involvement, hedonic and utilitarian value and positive and negative affects influence customer satisfaction. In the correlation analysis among those variables, however, involvement showed no significant correlation with utilitarian value and negative affect. The combination of the t-test and the correlation analysis strengthened the impact of involvement on the hedonic value, positive affect, and overall dining satisfaction (Table 4.8).



High involvement in the cooking process may provide fun and playfulness and also increase the customer's perception of personalization, which the hedonic value stems from. Moreover, it can provide novelty, uniqueness and escapism value for Americans who are less exposed to this dining culture. The attained hedonic value will be led to a positive affect, the extent of feeling enthusiastic, active, and alert. The active role in the cooking process may have increased customers' attention, and stimulated their excitement.

The utilitarian value however, was not influenced by the involvement level. Utilitarian value at a restaurant is related to economical aspects of dining and rational utility (Park, 2004). Therefore, it can be concluded that involvement does not influence customer rational evaluation on functional or practical aspects of dining, but enhances overall dining satisfaction mediated by a greater hedonic value.

Negative affect was not affected by the involvement level either. Negative affect is related to subjective distress and unpleasurable engagement (Watson, Clark, & Tellegen, 1988), and the result indicates that involvement itself does not necessarily decrease or remove negative affect but does increase evaluation and positive affect thus enhancing overall satisfaction. Again, negative affect was negatively correlated with both hedonic and utilitarian value, meaning the higher the hedonic/utilitarian value, the lower the negative affect. In this logic, if involvement increases hedonic value, the negative affectivity should be consequently lower consequently. However, the result showed no significant correlation between involvement and negative affectivity, indicating that other mediating factors which cannot be explained in the simple direction may also exist.

Dining satisfaction was positively linked to positive affect and negatively to negative affect. Again, dining satisfaction was highly correlated with the hedonic value, along with the utilitarian value in a positive direction. According to the result, hedonic and utilitarian value increases positive affect and decreases negative affect, positively influencing customer satisfaction.



5.2. Theoretical Implications

Investigating the impact of customer involvement in the cooking process on overall dining satisfaction, hedonic and utilitarian evaluation, and affect contributes to the understanding of a new factor influencing satisfaction; involvement. From the experiential perspective, customer involvement is one of the major elements in the customer's overall experience. This study added another aspect about customer involvement to existing literature, by dealing with more direct and physically related involvement in the cooking process. The correlation between satisfaction and involvement in this respect can be applied and developed in other areas with other methods.

In the literature, satisfaction is difficult to measure because of its subjectivity and situational variance. This study also attempted to find suitable and specific measurement items for dining satisfaction in a more inclusive aspect. Correlation analysis suggested which items are most related and provided insight regarding which factors should be considered when measuring dining and restaurant satisfaction.

The other theoretical contribution is the application of hedonic/utilitarian value and positive/negative affect to a dining experience. The traditional hedonic/utilitarian value and positive/negative affect measurement items were applied and tested in this study. This study suggested which factors could be more successfully adjusted and explained in the restaurant and dining study. This would help understanding hedonic/utilitarian evaluation and affectivity in a restaurant, particularly in the ethnic restaurant, using a post-dining survey in an experimental setting.

5.3. Managerial Implications

This study attempts to provide basic evidence of how people in the US respond or react toward an experiential dining style, seen commonly in Asian countries. Though there are a variety of multinational cuisines available in the US, they are often somewhat Americanized away from the authentic traditions. The



result of this study indicates the involvement has an impact on hedonic evaluation, positive affect, and overall dining satisfaction. This can be applied to many different settings to enhance customer satisfaction. Also, it can be very meaningful to ethnic restaurants especially Asian restaurants, as menu items and eating styles are similar to what was used in this research and easy to apply. Using ANOVA and correlation analysis, it may be hard to conclude that involvement itself directly influences satisfaction. It would be possible, however, to suggest the influence or impact through the used t-test, ANOVA, and correlation analysis, particularly in light of this experimental study in which was conducted in an actual restaurant setting. It is clear that involvement has an impact on dining satisfaction, with a positive correlation with factors leading to customer satisfaction.

The results suggest that restaurants should stimulate customer's involvement in various ways for customer satisfaction; not only in a hot pot style of eating, but in other ways as well, including table-side food preparation by service staff. There are several possibilities that may explain the positive effect of involvement. First, involvement can play a role as a stimulus to encourage a more vivid atmosphere. Second, customers are alert all the way through the dining experience and thus may feel less boredom and more excitement. This was partially proven through the correlation between involvement and hedonic value. Third, customers may complain less about the food which they prepared by themselves even if their self cooking is only a mere portion of the overall preparation process. Lastly, for those who are not used to the experiential dining style they may enjoy the novelty as an additional value from the dining experience.

Existing business can take advantage of the results of this study in various ways. For the restaurants, an exciting atmosphere or unique service may improve customer involvement and can be utilized as a tool to enhance their positive evaluation and satisfaction. Generally, males are thought to consider cooking less enjoyable; however, the results from this study showed that gender



did not affect satisfaction. In addition, the results of this study suggested several important factors that restaurateurs should pay attention to, such as the odor inside restaurant and the music. Food was the core element in dining satisfaction, along with service and atmosphere, confirming many previous studies in a related area. The virtue of this study is exploring a new element which plays a positive role in dining satisfaction: customer involvement in the cooking process. Dining experience factors including authenticity, involvement and participation were also found to be effective sources for dining satisfaction.

5.4. Research Limitations

This study has some limitations to be addressed for more effective future research. First, the experiment was conducted at a local Chinese restaurant in Lafayette, Indiana. The number of participants (n=86) was relatively small, and cannot necessarily represent all Americans. The results of this study, with the menu item hot pot at a Chinese restaurant are not applicable to all the menu items and to every restaurant. Therefore the findings of this research may not be generalized.

Second, the experimental condition was controlled to be the same except for the treatment variable. There may have been additional uncontrollable factors, however, which might influence the dining environment.

Third, the statistical analyses used in this research are not enough for showing cause-and-effect relationship although the use of an experimental design does allow for a stronger suggestion of a causal relationship. In order to fully explain the directional impact of each variable, structural equation modeling (SEM) should be used in future research. The analytical technique could suggest path and arrows in detail, but the sample size of this study was too small to conduct the analysis.

5.5. Future Study

Future study should improve the related limitations of the current study. First, involvement could impact differently in other settings or conditions. As stated in the limitations of this study, the result of this study may not represent implications for all restaurants. Similar experiments with other different menu items in several different restaurants would assure the pure influence of the involvement on satisfaction and other variables. In addition, future studies could expand the sample population and experimental period. A longer period of study in a real restaurant would provide a more profound understanding of the impact of the variable in the real world.

Second, future study could utilize SEM in order to explore the details of the relationships. With a larger sample size, SEM would enable researchers to find the direction and magnitude of the relationships, and even to find mediating or moderating variables. Once the specific relations are revealed, more meaningful and useful implications could be suggested through the result.

Third, development of measurement items and scales should be continued to best measure the related items. Measurements developed and used for a certain study may not be best suitable for other research studies or other areas. Continued research in this important topic will help researchers to find the most efficient measures fit for dining satisfactions studies and help to increase their validity and reliability.



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APPENDIX



APPENDIX

On behalf of Hospitality Tourism Management department at Purdue University, we are conducting a survey measuring satisfaction in experiential dining and we would appreciate your participation. This 6-page survey is completely voluntary and anonymous. You may stop at any time. If you have any questions regarding this survey please feel free to contact the researchers. You acknowledge that you have no allergy to any meat, seafood, tofu, vegetable, and MSG. Sincerely,

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Definition: Hot pot (火锅, huǒ guō), or less commonly Chinese fondue, refers to several Chinese varieties of steamboat stew. It consists of a simmering metal pot of stock at the center of the dining table. While the hot pot is kept simmering, ingredients are placed into the pot and are cooked at the table. Typical hot pot dishes include thinly sliced meat, leafy vegetables, mushrooms, wontons, egg dumplings, and seafood. The cooked food is usually eaten with a dipping sauce. In many areas, hot pot meals are often eaten in the winter (from Wikipedia). Please take a few minutes to tell us about your previous hot pot dining experience.



How familiar are you with the term "hot pot" as a dining experience?										
Not at all 1 2 3 4 5 6 7 Very familiar										

How much do you know about hot pot dining compared to most people?										
Not at all	1	2	3	4	5	6	7	Very knowledgeable		

How much would you say you know about hot pot dining compared to <u>your friends and</u>											
acquaintances?											
Nothing at all	1	Nothing at all 1 2 3 4 5 6 7 Much more than them									

We are interested in your dining satisfaction this evening on a variety of items. Please rate your satisfaction with the following items based on your Hot Pot dining experience this evening.

	Questions	Very Satisfied	Satisfied	Somewhat Satisfied	Neither Satisfied nor Dissatisfied	Somewhat Dissatisfied	Dissatisfied	Very Dissatisfied
Food	Taste	7	6	5	4	3	2	1
	Aroma	7	6	5	4	3	2	1
	Portion	7	6	5	4	3	2	1
	Presentation	7	6	5	4	3	2	1
	Food Temperature	7	6	5	4	3	2	1
Service	Server Knowledge	7	6	5	4	3	2	1
	Server Friendliness	7	6	5	4	3	2	1
	Style of service	7	6	5	4	3	2	1



Environment	Music	7	6	5	4	3	2	1
	Lighting	7	6	5	4	3	2	1
	Room Temperature	7	6	5	4	3	2	1
	Scent	7	6	5	4	3	2	1
D 1	Authenticity	7	6	5	4	3	2	1
Dining Experience	Involvement	7	6	5	4	3	2	1
	Participation	7	6	5	4	3	2	1

To take this next measure, we need you to judge dining experience tonight against a series of descriptive scales according to how you perceive your dining experience. Circle a number that best describes your feeling. The number circled should be closer aligned to the way you feel this evening.

More like this	7	6	5	4	3	2	1	More like this
Important	7	6	5	4	3	2	1	Unimportant
Relevant	7	6	5	4	3	2	1	Irrelevant
Meaningful	7	6	5	4	3	2	1	Not meaningful
Useful	7	6	5	4	3	2	1	Useless
Valuable	7	6	5	4	3	2	1	Worthless
Fundamental	7	6	5	4	3	2	1	Trivial
Beneficial	7	6	5	4	3	2	1	Not beneficial
Matters to me	7	6	5	4	3	2	1	Doesn't matter
Interested	7	6	5	4	3	2	1	Uninterested
Significant	7	6	5	4	3	2	1	Insignificant
Vital	7	6	5	4	3	2	1	Superfluous



Interesting	7	6	5	4	3	2	1	Boring
Exciting	7	6	5	4	3	2	1	Unexciting
Appealing	7	6	5	4	3	2	1	Unappealing
Fascinating	7	6	5	4	3	2	1	Mundane
Essential	7	6	5	4	3	2	1	Nonessential
Desirable	7	6	5	4	3	2	1	Undesirable
Wanted	7	6	5	4	3	2	1	Unwanted
Needed	7	6	5	4	3	2	1	Not Needed
Positive	7	6	5	4	3	2	1	Negative
Agreeable	7	6	5	4	3	2	1	Disagreeable
Nice	7	6	5	4	3	2	1	Awful
Pleasant	7	6	5	4	3	2	1	Unpleasant
Intelligent	7	6	5	4	3	2	1	Unintelligent
Effective	7	6	5	4	3	2	1	Ineffective
Helpful	7	6	5	4	3	2	1	Unhelpful
Delightful	7	6	5	4	3	2	1	Not Delightful
Functional	7	6	5	4	3	2	1	Not functional
Necessary	7	6	5	4	3	2	1	Unnecessary
Practical	7	6	5	4	3	2	1	Impractical
Fun	7	6	5	4	3	2	1	Not fun
Exciting	7	6	5	4	3	2	1	Dull
Thrilling	7	6	5	4	3	2	1	Not thrilling
Enjoyable	7	6	5	4	3	2	1	Unenjoyable



This next set of questions is a scale comprised of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you currently feel the following emotions now (that is, at the present moment). Use the following scale to record your answers.

	1	2	3	4	5
	Not at all	A little	Moderately	Quite a bit	Extremely
Interested	1	2	3	4	5
Distressed	1	2	3	4	5
Excited	1	2	3	4	5
Upset	1	2	3	4	5
Strong	1	2	3	4	5
Guilty	1	2	3	4	5
Scared	1	2	3	4	5
Hostile	1	2	3	4	5
Enthusiastic	1	2	3	4	5
Proud	1	2	3	4	5
Irritable	1	2	3	4	5
Alert	1	2	3	4	5
Ashamed	1	2	3	4	5
Inspired	1	2	3	4	5
Nervous	1	2	3	4	5
Determined	1	2	3	4	5
Attentive	1	2	3	4	5
Jittery	1	2	3	4	5
Active	1	2	3	4	5
Afraid	1	2	3	4	5

Overall, I am satisfied with my hot pot dining experience this evening.										
Not at all	1	2	3	4	5	6	7	Very much		

I would	I would recommend a hot pot dining experience like this to my friends.										
Not at all	1	2	3	4	5	6	7	Very much			

N	My choice to participate in hot pot dinner was a wise one.										
Not at all	1	2	3	4	5	6	7	Very much			

	Overall, I enjoyed my hot pot dining experience.											
Not at all	1	2	3	4	5	6	7	Very much				

I plan on making reservations a restaurant with a hot pot dining choice such as											
this in the future.											
Not at all	1	2	3	4	5	6	7	Very much			

Questions	Very Satisfied	Satisfied	Somewhat Satisfied	Neither Satisfied nor Dissatisfied	Somewhat Dissatisfied	Dissatisfied	Very Dissatisfied
Taste	7	6	5	4	3	2	1
Aroma	7	6	5	4	3	2	1
Portion	7	6	5	4	3	2	1
Presentation	7	6	5	4	3	2	1

What is your gender?

- O Male
- O Female



How would you describe your ethnicity?

- O Multiracial O White American
- O African American O Asian
- O Native American Indian O African
- O Asian American O Other
- O Latino/ Spanish origin

I am in the age range of

- O 18-20 O 41-50
- O 21-30 O 51-60
- O 31-40 O > 61

What is the highest level of education you have completed?

- O Less than high school O Some College
- O High School O College
- O Technical School O Graduate School

What is your occupation?

- O White-collar worker O Self-employed
- O Blue-collar worker O College student
- O Administrator/Manager O Part-timer
- O Specialist/Freelancer O Unemployed/Housewife

What is your annual household income?

- O Under \$20,000 O \$100,000 \$ 149,999
- O \$20,000 \$39,999 O \$150,000 \$199,999
- O \$40,000 \$59,999 O Over \$200,000
- O \$60,000 \$79,999 O I do not want to answer
- O \$80,000 \$99,999

