

THE EFFECT OF SENSORY MARKETING AND PERCEIVED VALUE ON CUSTOMER'S BEHAVIOURIAL INTENTION IN FAST FOOD RESTURANT WITH MEDIATING ROLE OF CUSTOMER SATISFACTION

Shaikh Muhammad Fakhre Alam Siddiqui^{*1}; Maria Jabeen²; Ashir Naeem Khan³

^{*1}Assistant Professor, Karachi University Business School, University of Karachi, Pakistan

^{2&3}Research Scholar, Karachi University Business School, University of Karachi, Pakistan

Corresponding Author: *

Received: 26 February, 2024 Revised: 01 March, 2024 Accepted: 05 March, 2024 Published: 15 March, 2024

ABSTRACT

The study aim to find the effect of sensory marketing, perceived value on customer satisfaction and their behavioral intention in a fast food restaurant. Sensory cues are the first step the fast food restaurant has to take into account for customer satisfaction. Each sensory cues including vision, auditory olfaction, taste, haptics has an effect on patrons visiting restaurant and each of them is investigated in this study with respect to fast food restaurants. Another important element discussed in this study is perceived value and its impact of customer satisfaction and behavioral intention. The study suggest that perceived value of patron with respect to price and quality of service provided by restaurant will have impact on customers satisfaction and their increases frqieucny of visit. The study is conducted in Pakistan, the hypothesis is tested among 200 respondents belong to different cities of Pakistan. The result shows that the visual , auditory and taste cues have no effect on customers satisfaction, while haptics and olfaction has effect on fast food restaurant. Similarly perceived value has positive impact on customer satisfaction but no direct impact behavioral intention. Finally, customer satisfaction has huge impact on fast food restaurant. The research also proofs the mediatory role of customer satisfaction between haptic, olfaction and perceived valued on behavioral intention. This study makes a theoretical and managerial contribution by offering advice to academics and managers who are interested in using sensory marketing strategies and impact of perceived value to raise customer satisfaction and behavioral intention in fast food restaurants.

Key words: sensory marketing, customer satisfaction, behavioral intention,

INTRODUCTION

The fast-food industry in Pakistan is booming, ranking eighth globally and experiencing a robust annual growth rate of 21% (Memon, 2016). With over 1000 large-scale enterprises catering to 180 million consumers, it's a highly competitive market driven by profitability and adaptability to changing preferences (Memon, 2016). Sensory marketing plays a crucial role in fast-food restaurants, leveraging various stimuli to create memorable experiences and enhance customer perceptions (Spence, 2017; Satti et al., 2017). These sensory elements influence consumer decision-making, from the impact of music on dining experiences to the enticing aromas that encourage additional orders (Krishna, 2012; Garlin & Owen, 2006; Biswas &

Szocs, 2019; Biggs et al., 2016; Alonso & O'neill, 2010).

Recognizing the importance of meeting consumer needs and ensuring satisfaction, businesses often utilize sensory marketing and perceived value to differentiate themselves (Beard, 2014). Despite its significance, limited research exists on this topic, prompting the need for further exploration (Dodds, 1991; Albrecht, 1992). Additionally, the restaurant industry in Pakistan is evolving beyond meal delivery, emphasizing sensory marketing and perceived value (Khan & Shaikh, 2011). With a growing reliance on dining out, particularly in urban areas, there's substantial potential for expansion and innovation in the sector (Labour Force Survey 2020–2021; Hussain & Routray, 2012). This study aims to

investigate the marketing strategies utilized by the restaurant industry, including sensory marketing, perceived value, customer satisfaction, and behavioral intention, to address the evolving needs and preferences of consumers.

1.1 Research Gap

While prior research has examined sensory marketing in restaurant settings to achieve marketing goals like loyalty (Satti et al., 2021, 2022), there's a gap in understanding its application within fast food restaurants. This study addresses this gap by utilizing Krishna's (2012) sensory marketing theory to explore how sensory elements impact customer satisfaction and behavioral intention in fast food restaurants. It aims to understand how consumers' responses to visual, auditory, olfactory, taste, and haptic elements contribute to overall satisfaction and behavioral intention. Considering the fierce competition in the market, understanding sensory marketing dynamics in Pakistan is crucial for businesses to enhance consumer perceptions, preferences, and brand value (Krishna, 2012). The study also investigates cultural nuances affecting sensory marketing strategies, offering actionable recommendations for businesses to develop effective approaches. Based on this, the following research questions will be explored:

RQ1: Is there any relationship between sensory marketing, customer satisfaction and behavioral intention in a fast food restaurant?

RQ2: Is there any relationship between perceived value, customer satisfaction and behavioral intention?

RQ3: Is there any direct relation between perceived value and behavioral intention?

2. LITRATURE REVIEW

2.1 Sensory Marketing

Sensory marketing, as recognized by Krishna (2012), recognizes the impact of taste, smell, touch, vision, and hearing on consumer behavior. Biswas et al. (2021) further emphasize the sequential engagement of these senses, particularly with visual cues mediating olfactory perception. Consequently, this sequential approach effectively attracts and retains customers in restaurants (Haase & Wiedmann, 2018). Moreover, sensory marketing not only enhances customer satisfaction (Shahid et al., 2022) but also surpasses traditional marketing methods (Satti et al., 2021, 2022).

Restaurants develop sensory marketing to shape cognitive and affective perceptions (Chang, 2019),

ensuring positive dining experiences for patrons (Satti et al., 2021). Additionally, factors such as restaurant layout, color scheme, and amenities play crucial roles in influencing patrons' emotions and satisfaction (Ryu & Jang, 2007). Thus, emphasizing aesthetics becomes integral in enhancing emotional connection and fulfillment within restaurant environments (Shahid et al., 2022., 2016; Ryu et al., 2012).

Krishna (2012) suggests that sensory marketing effectively elicits subconscious perceptions of product quality and complexity. Despite limited research in this realm (Biswas et al., 2014), integrating sensory marketing strategies significantly enhances consumer engagement and satisfaction.

2.1.1 Visual Cues

Colors and shapes are primary identifiers for products, with vision being a powerful sense that drives attention and brand recognition. Messaris (2002) highlights the emotional impact of visual stimuli on product perception, emphasizing the role of colors in conveying information and evoking emotional responses. Studies show that color can influence perceptions of taste, with participants attributing different flavors to beverages based on their color (Garber, Hyatt, & Starr, 2000). This demonstrates the significant impact of visual cues on flavor perception. While sequential effects of visual stimuli are less studied, simultaneous presentation influences perceptions significantly (Biswas et al., 2014).

2.1.2 Auditory Cues

The background music in fast food restaurants significantly influences consumer behavior and brand perception. Sound symbolism suggests that the sound associated with a brand affects its perceived quality (Yorkston & Menon, 2004; Klink, 2000). In bilingual societies like Pakistan, English restaurant names are often preferred for their association with sophistication (Potter, 2003). Music enhances mood and influences consumer behavior, aiding in advertising recall (Ifeanyichukwu, C., & Peter, A., 2018). Overall, sound plays a powerful role in shaping the dining experience and consumer choices.

2.1.3 Taste Cues

The tongue, responsible for taste perception, discerns flavors such as sweet, bitter, sour, salty, or savory. Taste perception is influenced by various factors, including physical characteristics and brand names (Hoch & Ha, 1986). For restaurants, the taste of the food plays a significant role in customer satisfaction

and retention. Habituation, as described by Epstein et al. (2009), refers to reduced psychological and behavioral responses to repeated stimuli, which can affect perceived taste fondness over time. In addition Flavor perception, often used interchangeably with taste, involves the integration of sensory inputs in certain cortical regions, particularly the secondary taste cortex in the orbitofrontal cortex (Breslin & Spector, 2008; Rolls, 2005). This synthesis of sensory cues influences consumers' perception of food taste (Spence, 2015).

2.1.4 Olfaction Cues

Researchers recognize the significant influence of smell on flavor perception (Buck, 2005; Bucks & Axel, 1991). Pleasant scents in restaurants enhance evaluations and promote positive behaviors Despite some findings showing a weak relationship between scent and restaurant choice, olfactory receptors transduce a substantial portion of taste perception (Spence & Youssef, 2015). Although challenging to quantify, scent plays a critical role in flavor perception and enjoyment, shaping expectations about food and drink (Spence et al., 2015).

2.1.5 Haptic Cues

Haptic cues, related to the sense of touch, play a significant role in sensory marketing, often referred to as tactile factors (Aljumah et al., 2022). Touch stimuli have been shown to impact behavior, influencing factors such as weight gain in children and heart rate (Pentz & Gerber, 2013). Touch is considered one of the earliest developing senses and remains significant throughout life (Krishna, 2012). Peck and Childers (2003) assert that touching a product is crucial in determining its worth, while Kotler and Armstrong (2010) highlight the importance of physical cues in service settings. Research suggests that consumers prefer evaluating products through tactile aspects, which can also stimulate impulsive purchases (Peck & Childers, 2010). Touch stimuli play a pivotal role in eliciting emotions, influencing customers' perception of product value and satisfaction (Aljumah et al., 2022). Incorporating touch cues enhances customer experience and can lead to increased satisfaction and purchase intention. Effective management of touch factors positively impacts customer satisfaction in restaurant settings. Peck & Childers, 2010

2.3 Perceived Value

Consumers increasingly seek better food, better options, and improved dining experiences, fueling the growth of the fast food restaurant sector

(Anderson, 2003). Perceptions of meal value significantly impact current and future dining experiences (Kim et al., 2013). The hospitality industry emphasizes the importance of customer experience and perceived value for restaurants. Value, defined as the customer's appraisal of service worth based on performance and price, is paramount in marketing (Dodds, 1991).

2.4 Customer Satisfaction

Marketing aims to fulfill consumers' needs and desires (Ryu et al., 2012). Researchers have extensively studied customer satisfaction, probing its antecedents and consequences (Han & Ryu, 2009), leading to various conceptualizations. Oliver (1997) defines satisfaction as the degree of fulfillment related to consumption, while Day (1984) views it as a post-choice evaluative judgment. Oliver's disconfirmation theory, suggesting satisfaction results from meeting or exceeding expectations, is widely supported (Oliver, 1997). Further assert that customer satisfaction involves both cognitive and emotional processes, emphasizing the need for a comprehensive understanding (Teixeira et al., 2012). Extensive academic research examines customer satisfaction in the restaurant industry. (Oliver 1997) explore service encounters, while (Ryu et al., 2012) focus on the impact of the physical environment, emphasizing atmosphere. Oliver's (1997) cognitive model enriches understanding of customer satisfaction decisions.

2.6 Behavioral Intentions

Behavioral intentions, expressing the probability of future actions, are crucial predictors of behavior across psychology, marketing, and technology adoption (Ajzen, 1991). In psychology, the Theory of Planned Behavior highlights attitudes, subjective norms, and perceived behavioral control as influencers (Ajzen, 1991). In marketing, customer satisfaction and perceived value are linked to intentions to repurchase or recommend (Anderson & Sullivan, 1993). The Technology Acceptance Model emphasizes perceived ease of use and usefulness in technology adoption intentions (Davis, 1989). Past experiences shape consumer attitudes and intentions, influencing decisions to remain with or quit service providers (Anderson & Sullivan, 1993). Oliver (1997) describes behavioral intentions as confirmed propensities to engage in specific behaviors, such as returning to a restaurant or recommending it to others.

3. CONCEPTUAL FRAMEWORK

The study proposes a conceptual model to explore the relationship between sensory marketing, perceived value, and behavioral intention in the context of fast food restaurants. Drawing from previous study by Silaban et al. (2023) and Ryu et al. (2008), the model integrates sensory marketing cues, perceived value, customer satisfaction, and behavioral intention. It focuses on sensory elements such as visual, auditory, taste, olfaction, and haptic cues, derived from studies like Haase and Wiedmann (2018, 2020). Measurement items for these dimensions are adapted from previous research, with satisfaction questions modified from Kim et al. (2020) and behavioral intention items from Bloemer and Ruyter (1998). A 7-point Likert scale is employed for each topic, ranging from "strongly disagree" to "strongly agree." In this research, the focal point is on customers' "behavioral intentions" Restaurants employing sensory marketing tactics improve customer satisfaction by shaping patrons' perceptions of the food and overall dining experience. Visual elements, such as decor and layout, significantly influence how customers interpret the restaurant environment and their expectations (Ryu & Jang, 2007). Recognizing the importance of visual cues, restaurants can strategically manage their presentation to enhance perceived value and satisfaction (Ryu et al., 2012). Therefore following hypothesis is proposed:

H1: Visual cues in fast-food restaurant has positive relationship with customer satisfaction

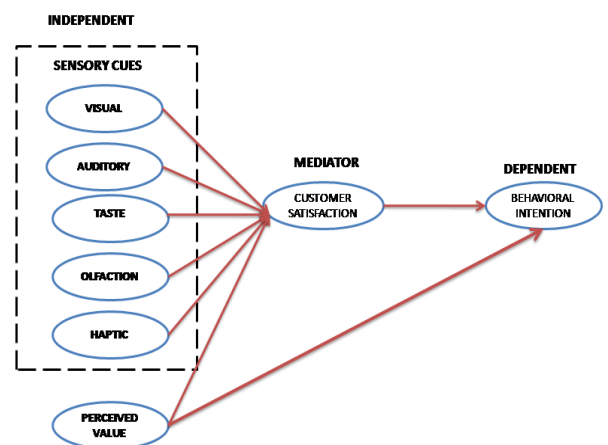
Research suggests that the soundscape of a restaurant significantly affects customer satisfaction. Spence & Shankar (2010) indicate that music and ambient noises can enhance diners' happiness. Conversely, Raab et al. (2013) found that exposure to restaurant and traffic noise decreases enjoyment of meals, while tranquil music can enhance it. Therefore, the following hypothesis is proposed:

H2: Auditory cues in fast-food restaurant has positive relationship with customer satisfaction

Liu and Jang (2009) suggest that favourable consumer behaviour intentions can be formed in addition to the quality and flavour of the food delivered. The happiness of customers with restaurant services is influenced by various elements, such as temperature, taste, and freshness (Liu & Jang,

as the dependent variable, with "customer satisfaction" acting as the mediating variable. The study explores the influence of two key independent variables: sensory marketing and perceived value. Sensory marketing encompasses various cues such as visual, auditory, taste, olfaction, and haptic elements, while perceived value represents customers' evaluation of the worth derived from their experiences. Drawing from existing literature, the proposed model integrates these variables to examine their interrelationships and impact on customer behavior. Figure 1 illustrates the conceptual framework that guides the research, delineating the connections between sensory marketing, perceived value, customer satisfaction, and behavioral intentions.

Figure 1: Proposed Model



2009). Consequently, a mismatch in the way food is presented or formed leaves an impression on customers, either favorable or unfavorable. Therefore we propose the following hypothesis:

H3: Taste cues in fast-food restaurant has positive relationship with customer satisfaction

Chang (2019) highlights the significant influence of olfaction on diners' memories and emotions during restaurant experiences. Krishna et al. (2012), suggest that smells evoke emotions and memories, impacting consumer behavior. Therefore we propose the following hypothesis:

H4: Olfaction cues in fast-food restaurant has positive relationship with customer satisfaction

Haptics, the tactile experience during dining, significantly impacts customer satisfaction. Food presentation and texture tailored to customer preferences are equally crucial (Chang, 2019). It is noteworthy that patrons of restaurants may encounter haptic experiences either intentionally or inadvertently (Crusco & Wetzel, 1984). Based on these observations, we put out the following theory:

H5: Haptic cues in fast-food restaurant has positive relationship with customer satisfaction

Perceived value has emerged as a crucial predictor of consumer behavior, particularly in service marketing contexts (McDougall and Levesque, 2000). Recent research underscores its significance in predicting purchasing behavior (Lee et al. 2007), and others confirm the influential role of perceived value on customer satisfaction and behavioral intentions. Patterson and Spreng (1997) found a direct relationship between perceived value and customer happiness in service settings. Similarly, Andreassen and Lindestad (1998) demonstrated that perceived value positively influences customer satisfaction and loyalty. Therefore we proposed the following hypothesis:

H6: Perceived value in fast-food restaurant has positive relationship with customer satisfaction

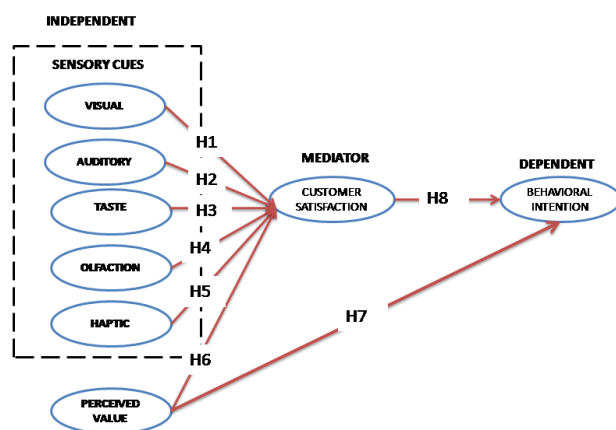
H7: Perceived value in fast-food restaurant has positive relationship with behavioral intentions

Customer satisfaction and behavioral intentions, including repurchasing and word-of-mouth recommendations, are positively correlated, as evidenced by empirical findings. Anderson and Sullivan (1993) found that highly satisfied customers are less inclined to consider switching service providers, thus increasing their likelihood of making another purchase. Andreassen and Lindestad (1998) hypothesized a positive relationship between behavioral intentions and satisfaction, suggesting that perceptions of service quality influence consumers' intentions to recommend and repurchase. Kivela et al. (1999) revealed that post-dining behavioral intentions are significantly impacted by dining satisfaction, highlighting a strong correlation between customer happiness and behavioral objectives in the restaurant industry. Thus, the following hypothesis is proposed:

H8: Customer satisfaction has a positive relationship with behavioral intentions

The conceptual framework of the proposed research illustrates customer satisfaction as the mediator between sensory marketing, perceived value, and behavioral intention in fast-food restaurants in Pakistan. Figure 2 presents this conceptual framework, outlining eight hypotheses (H1 to H8). Hypotheses H1 to H6 propose relationships between sensory marketing and customer satisfaction, based on the findings of Silaban et al. (2023). , H7 indicate that there is positive relationship between customer satisfaction and behavioral intention and H8 suggest there is positive relationship between customer satisfaction and behavioral intention,(Ryu et al., 2008).

Figure 1 The Conceptual Framework



4. RESEARCH METHODS

4.1 Data Collection and Sampling

The study primarily examines how fast-food restaurants in major Pakistani cities utilize sensory marketing and perceived value to enhance customer satisfaction and influence behavioral intentions. It focuses on the impact of the five senses—taste, touch, smell, visual perception, and auditory perception—on customers while dining. Data was collected through a Google Forms online questionnaire distributed to fast-food consumers via social media platforms like Facebook, Instagram, and WhatsApp. Over a six-month period, 200 responses were collected randomly through the Google Form link.

The study employed non-probability and purposeful sampling methods, targeting individuals who had dined at fast-food restaurants and shared their

experiences on social media. Only those meeting these criteria were eligible to participate. By considering visual, auditory, taste, olfaction, and haptic senses, the survey aimed to measure customer satisfaction with their dining experiences. Data was collected through online surveys and direct visits to restaurants, resulting in a sample size of 200 consumers with diverse demographics and dining frequencies.

4.2 Data Analysis Techniques

Quantitative techniques, specifically Structural Equation Modeling (SEM) with Smart-PLS 4.0 software, were employed for data analysis (Hair et al., 2017). Convergent validity was assessed using the Average Variance Extracted (AVE), Composite Reliability (CR), and Cronbach’s Alpha (CA) values, while discriminant validity was evaluated based on the Fornell-Larcker criterion and Heterotrait-Monotrait (HTMT) ratio (Fornell & Larcker, 1981; Henseler et al., 2015). Furthermore, the R-square value was utilized to gauge the explanatory power of exogenous variables, thus assessing the overall performance of the model. Secondly, model fit was assessed using T value and P value and model fit is tested.

5. RESULTS

5.1 Demographic Analysis

The survey includes a detailed demographic portion to get the respondent profile, the demographics portion is given in appendix, and the data of descriptive statistics is analyzed by SPSS software. According to Table 2, 56% of respondents were

female, while 44% were male, with 112 females and 88 males participating. Participants from various age groups were included: 19 or below (6%), 20-21 (4%), 25-39 (16%), 30-34 (16%), 35-39 (9%), 40-44 (13%), and 45 and above (11%), with the dominant age group being 30 to 34. Regarding marital status, 38% were single, and 62% were married. In terms of educational background, participants were primarily graduates (37%) and Masters degree holders (54%). Occupation-wise, the majority were private employees (53%), followed by government employees (38%). Most participants visited fast-food restaurants two times or less per week (59%). When asked about the most impressive aspect of fast-food restaurants, 80% chose food, while 18% selected atmosphere. Hence, food was the dominant factor among participants.

5.2 Analysis Result From SEM (Structural Equation Modeling)

SEM is a potent statistical method for analyzing complex relationships between observed and latent variables (Kline, 2016). It integrates factor and regression analyses to explore direct and indirect effects, allowing assessment of measurement and structural models (Kaplan, 2008). Bootstrapping enhances SEM by estimating standard errors and confidence intervals, particularly useful with unknown or non-normal data distributions (Efron & Tibshirani, 1993). This combined approach offers a robust methodology for understanding relationships and obtaining accurate estimates, even with small samples.

TABLE 1 DEMOGRAPHIC ANALYSIS

Respondent's Profile			
Measure	Items	Frequency	Percentage
Gender	MALE	88	44
	FEMALE	112	56
Age	19 OR BELOW	12	6
	20-24	8	4
	25-29	32	16
	30-34	82	41
	35-39	18	9
	40-44	26	13
	45 And Above	22	11
Marital Status	Single	76	38
	Married	124	62
Educational Background	Matric/O Levels	2	1
	Intermediate /A Levels	12	6

	Graduate	74	37
	Masters	107	54
	Phd	4	2
Occupation	Student	24	12
	Entrepreneur	32	16
	Private Employee	106	53
Frequency To Visit Fast Food Restaurant (Month)	Government Employee	38	19
	2 Times Or Less	118	59
	3-5 Times	68	34
	6-8 Times	6	3
Most Impressive Thing About Fast Food Restaurant	8 Times Or Above	8	4
	Food	160	80
	Atmosphere	36	18
	Furniture	2	1
	Music	2	1

5.2.1 Validity and Reliability Assessment

5.2.1.1 Construct validity and internal consistency

The research underwent rigorous testing to ensure validity and reliability. Construct validity was confirmed by assessing factor loadings, which exceeded 0.7 for each item, indicating the instrument's capability to measure the research concept (Hair et al., 2017). Convergent validity, evaluated with an AVE value of 0.5, indicated strong cooperation among related measures (Carmines and Zeller, 1979; Fornell and Larcker, 1981). Internal consistency, assessed using Cronbach's Alpha (CA) and Composite Reliability (CR) values of 0.7,

demonstrated strong reliability (Hair et al., 2017). The findings, summarized in Table 2, underscore the robustness of the research's construct validity and reliability. The Table 2 results indicate that all items within the constructs meet the criteria for reliability, with factor loadings (FL) exceeding 0.7, Cronbach's Alpha (CA) and Composite Reliability (CR) values surpassing 0.7, and Average Variance Extracted (AVE) values greater than 0.5. These findings confirm that all constructs align with the research criteria and demonstrate reliability, supporting the threshold values for convergent reliability.

Table 2 Construct validity and Reliability testing

Construct Validity And Internal Consistency					
Construct	Items	Factor Loading (Fl)	Cronbach's Alpha (Ca)	Composite Reliability (Cr)	Average Variance Extracted (Ave)
VISIUAL (VSL)	VSL.1	0.928	0.73	0.758	0.649
	VSL.2	0.919			
	VSL.3	0.854			
AUDITORY (ADT)	ADT.1	0.899	0.883	0.886	0.811
	ADT.2	0.918			
	ADT.3	0.806			
TASTE (TST)	TST.1	0.761	0.787	0.704	0.614
	TST.2	0.738			
	TST.3	0.875			
OLFACTION(OLF)	OLF.1	0.833	0.784	0.792	0.699
	OLF.2	0.837			
	OLF.3	0.820			
HAPTIC (HPT)	HPT.1	0.782	0.766	0.796	0.684
	HPT.2	0.910			

	HPT.3	0.818			
PERCIEVED VALUE (PV)	PVI.1	0.744	0.724	0.750	0.573
	PVI.2	0.835			
	PVI.3	0.792			
CUSTOMER SAFTISFACTION (CS)	CST.1	0.879	0.911	0.914	0.653
	CST.2	0.856			
	CST.3	0.734			
	CST.4	0.764			
	CST.5	0.830			
	CST.6	0.804			
	CST.7	0.713			
BEHAVIOURAL INTENTION (BIN)	BIN.1	0.846	0.849	0.882	0.767
	BIN.2	0.882			
	BIN.3	0.763			

Note: FL, Factor Loading ≥ 0.7 ; CA, Cronbach's Alpha ≥ 0.7 ; CR, Composite Reliability ≥ 0.7 ; AVE, Average Variance Extracted ≥ 0.5 .

5.2.1.2 Discriminant Validity

Discriminant validity was assessed using the Fornell-Larcker criterion, which compares the square root of the Average Variance Extracted (AVE) to the inter-construct correlation values (Fornell & Larcker, 1981). The results, as shown in the table, met the criteria of the Fornell-Larcker standard, with diagonal values greater than the values below them, indicating adequate discriminant validity.

Additionally, the HTMT approach—which offers a novel method for assessing discriminant validity—was used to analyse the discriminant validity; an HTMT value of 0.85 was found (Henseler et al., 2015). For every construct, the HTMT values were less than 0.85. It is possible to conclude that the study has excellent discriminant validity. The discriminant validity HTMT ratio is shown in Table and all the values are below 0.85 which fits the criteria of discriminant validity.

Table 3 Discriminant Validity by Fronell-lacker

Fornell-Larcker criterion								
	ADT.	BIN.	CST.	HPT.	OLF	PVI.	TST.	VSL.
ADT.	0.901							
BIN.	0.372	0.876						
CST.	0.361	0.784	0.808					
HPT.	0.306	0.400	0.618	0.827				
OLF	0.391	0.643	0.682	0.448	0.836			
PVI.	0.249	0.522	0.570	0.461	0.456	0.757		
TST.	0.299	0.439	0.582	0.537	0.483	0.496	0.784	
VSL.	0.268	0.332	0.446	0.373	0.431	0.214	0.382	0.805

Note: The values for the diagonal are the values for the square root of AVE

Table 4 Heterotrait-monotrait ratio (HTMT) – Matrix

Heterotrait-monotrait ratio (HTMT) - Matrix								
	ADT.	BIN.	CST.	HPT.	OLF.	PVI.	TST.	VSL.
ADT.								
BIN.	0.438							
CST.	0.398	0.766						
HPT.	0.377	0.488	0.737					
OLF.	0.473	0.774	0.803	0.581				
PVI.	0.350	0.682	0.725	0.633	0.643			
TST.	0.396	0.562	0.728	0.757	0.660	0.749		
VSL.	0.348	0.410	0.544	0.493	0.579	0.299	0.540	

Note: HTMT threshold value, ≤ 0.85, strong; ≤ 0.90, weak

5.3 HYPOTHESIS TESTING

The structural model analysis was conducted using SmartPLS 3.2.3, aided by bootstrapping to assess coefficient validity (Efron & Tibshirani, 1968; Henseler et al., 2016). Bootstrapping generates subsamples with replacement, providing insight into the stability of coefficients (Hair et al., 2017). SmartPLS displays t-values for path coefficients, with significance typically set at $p < 0.05$ (Hair et al., 2016). The table 5 shows the summary of hypothesis in which the hypothesis H1, H2.H3 and H7 goes unsupported due to P value >0.05 ab higher, lower T

value and H4,H5,H6 and H8 goes supported with P value <0.05 and higher t value.

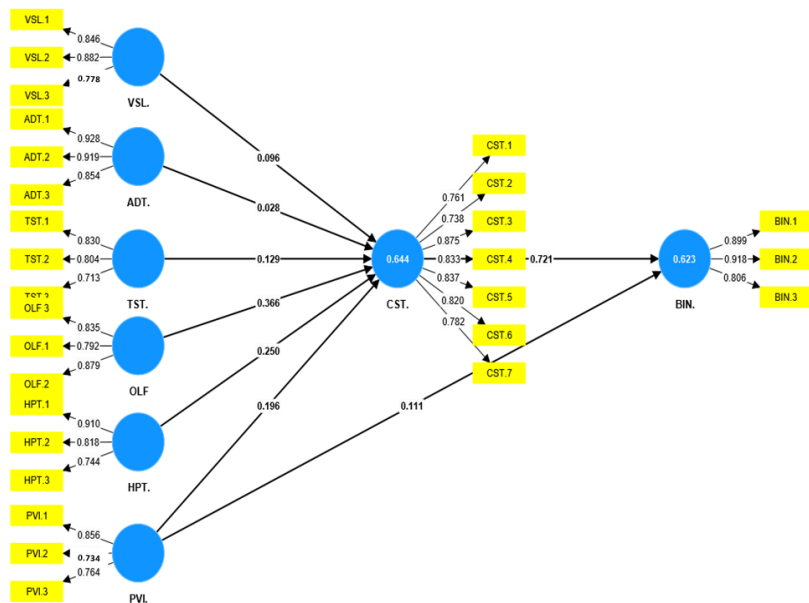
The model's strength can be evaluated through the route coefficients between constructs (Falk & Miller, 1992). With R2 values of 0.644 for Customer Satisfaction (CS) and 0.623 for Behavioral Intention (BIN), derived from sensory marketing cues, perceived value, customer satisfaction, and behavioral intention, the model demonstrates adequacy. Given the R2 values exceeding 0.1, the structural model is deemed suitable for analysis (Falk & Miller, 1992). Detailed hypothesis summaries, along with tables and figures illustrating the model, will be discussed subsequently.

Table 5 Result of Hypothesis Testing

Summary Of Hypothesis Testing					
Hypothesis	Standard deviation	Path Coefficients	T-Value	P-Value	Conclusion
H1- Visual cues have positive effect on customer satisfaction. (VSL. -> CST.)	0.067	0.096	1.076	0.282	unsupported
H2-Audtory cues have positive effect on customer satisfaction(ADT. -> CST.)	0.073	0.028	0.415	0.678	unsupported
H3-Taste cues have positive effect on customer satisfaction.(TST. -> CST.)	. 0.095	0.129	1.299	0.194	unsupported
H4-Olfaction cues have positive effect on customer satisfaction. (OLF -> CST)	. 0.108	0.366	3.378	0.001	supported
H5-Haptic cues have positive effect on customer satisfaction. (HPT. -> CST.)	0.087	0.250	2.63	0.009	supported
H6-Percieved values have positive effect on customer satisfaction. (PVI. -> CST.)	0.084	0.196	2.333	0.0	supported
H7-Percieved value has positive effect on behavioral intention. (PVI. -> BIN)	0.099	0.111	1.273	0.203	unsupported
H8-Customer Satisfaction have positive effect on behavioral intention (CST. -> BIN.)	0.090	0.721	9.94	0	supported

Furthermore, The path diagram shows the relationship between all independent variables (VIS,ADT,TST,OLF,HPT, PVI) with mediating variable CS and independent variable BIN, the path shows the T values of each variable that is discussed in hypothesis testing, the center of sphere shows the R2 values which is above threshold of 0.1 with CST=0.644 AND BIN=0.623 Which shows significant relationship between endogenous and exogenous variable and the outer loadings also shows the significant values of greater than 0.7.

Figure 2 Path Diagram after Bootstrapping



5.4 MEDIATION ANALYSIS

Mediation analysis, a pivotal statistical method in research, delves into how independent variables impact dependent variables through mediators. Baron and Kenny's (1986) seminal paper "The moderator–mediator variable distinction in social psychological research" provides crucial insights into the conceptual and methodological aspects of mediation analysis. It delineates the distinctions between moderators and mediators, offering a foundational framework for conducting such analyses. In Table 9, customer satisfaction mediates between Haptic cues (HS) and BIN, Olfactory cues (OLF) and BIN, and Perceived value (PVL) and BIN, all showing significant positive effects (T=20.185, p=0.05; T=3.165, p=0.02; T=3.165, p=0.025, respectively). However, the mediating effect of customer satisfaction is insignificant in the cases of Taste cues (TST) and BIN, and Visual cues (VSL) and BIN (T=1.246, p=0.213; T=1.246, respectively).



Table 6 Mediation Analysis

Meditation Analysis Of Customer Satisfaction (CST)			
	Original Sample (O)	T Statistics (O/STDEV)	P Values
HPT. -> CST. -> BIN.	0.180	2.815	0.005
OLF -> CST. -> BIN.	0.264	3.165	0.002
PVL. -> CST. -> BIN.	0.142	2.240	0.025
TST. -> CST. -> BIN.	0.093	1.246	0.213
VSL. -> CST. -> BIN.	0.070	1.036	0.300
ADT. -> CST. -> BIN.	0.020	0.416	0.678

Note: HPT=HAPTIC CUES,OLF =OLFACTION CUES,PVL=PERCIVED VALUE,TST=TASTE CUES,VSL=VISUAL CUES,ADT,AUDIORY CUES,CST=CUSTOMER SATISFACTION,BIN=BEHAVIRIOL INTENTION

6. DISCUSSION AND CONCLUSION

This study investigates the influence of sensory experiences, perceived value, and sensory marketing on customer satisfaction and behavioral intentions in fast food restaurants in Pakistan. Findings suggest that while auditory and taste cues have no significant impact, olfactory cues positively affect satisfaction. Moreover, perceived value directly influences satisfaction but not behavioral intentions, which are positively influenced by satisfaction. Mediation analysis reveals significant mediation of haptic cues, olfactory cues, and perceived value on behavioral intentions. However, mediation effects for taste, auditory, and visual cues are insignificant (Silaban et al., 2023; Ryu et al., 2008; Kim et al., 2020; Satti et al., 2021, 2022).

6.1 Managerial Implications

This study underscores the significance of sensory marketing in the food industry, offering insights for fast food restaurants to enhance customer satisfaction. Managers can leverage sensory cues, particularly scents and haptic experiences, to create a pleasant dining atmosphere and increase customer retention. Moreover, understanding perceived value is crucial in today's competitive restaurant landscape, where patrons seek more than just food quality. By addressing factors like pricing, ambiance, and overall value perception, managers can foster customer satisfaction and loyalty, ultimately driving business growth (Silaban et al., 2023; Ryu et al., 2008).

6.2 Limitations and Future Recommendations

Despite its advancements, this research has limitations that warrant consideration for future studies. The focus on PLS-SEM analysis limits insights into broader marketing goals like retention and loyalty impacted by sensory marketing cues and perceived value. Future research should explore additional marketing outcomes affected by sensory marketing. Moreover, this study's scope was limited to fast food restaurants in Pakistan's major cities, suggesting a need for broader industry and geographical exploration. Expanding the sample size and including smaller cities could enhance diversity and validity. Additionally, future studies should consider negative behavioral intentions and price sensitivity, broadening the assessment beyond positive viewpoints to provide a comprehensive understanding of consumer behavior (Zeithaml et al., 1996).

REFERENCE

- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Albrecht, K., 1992. *The Only Thing that Matters*. Harper Business, New York.
- Aljumah, A., Nuseir, M & Refae, G. (2022). The effect of sensory marketing factors on customer loyalty during Covid 19: Exploring the mediating role of customer satisfaction. *International Journal of Data and Network Science*, 6(4), 1359-1368.
- Alonso, W. J., & O'neill, M. A. (2010). The aroma of fast food: the recruitment of the chemical senses in the service of a cultural-construct. *Food, Culture & Society*, 13(1), 103-123.
- Anderson, E.W., Sullivan, M.W., 1993. The antecedents and consequences of customer satisfaction for firms. *Marketing Science* 12, 125-143.
- Andreassen, T.W., Lindestad, B., 1998. Customer loyalty and complex services: the impact of corporate image on quality, customer satisfaction and loyalty for customers with varying degrees of service expertise. *International Journal of Service Industry Management* 9 (1),7-23.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Beard, R. (2014, January 20). Why Customer Satisfaction Is Important (6 Reasons). Retrieved from Client Heartbeat: <http://blog.clientheartbeat.com/why-customer-satisfaction-isimportant>
- Biggs, L., Juravle, G., & Spence, C. (2016). Haptic exploration of fast-food packaging alters the perceived texture and taste of food. *Food Quality and Preference*, 50, 129-134.
- Biswas, D., & Szocs, C. (2019). Nosing Around: The Influence of Ambient Smell on Food Choices. *Journal of Marketing Research*, 56(5), 822-836.
- Bloemer, J., Ruyter, K., 1998. On the relationship between store image, store satisfaction and store loyalty. *European Journal of Marketing* 32(5), 499-513
- Breslin, P. A., & Spector, A. C. (2008). Mammalian taste perception. *Current Biology*, 18(4), R148-R155.
- Buck, L. B. (2005). Unraveling the sense of smell (Nobel lecture). *Angewandte Chemie International Edition*, 44(38), 6128-6140.

- Buck, L., & Axel, R. (1991). A novel multigene family may encode odorant receptors: a molecular basis for odor recognition. *Cell*, 65(1), 175-187.
- Chang, W. L. (2019). Applying ANP to analyse sensory experience in restaurants. *British Food Journal*, 122(1), 122-135. <https://doi.org/10.1108/BFJ-07-2019-0497>
- Crusco, A. H., & Wetzel, C. G. (1984). The Midas touch: The effects of interpersonal touch on restaurant tipping. *Personality & Social Psychology Bulletin*, 10(4), 512-517. <https://doi.org/10.1177/0146167284104003>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
- Dodds, W.B., 1991. In search of value: how price and store name information influence buyers' product perceptions. *Journal of ServicesMarketing* 5, 27-36.
- Efron, B., & Tibshirani, R. J. (1993). An introduction to the bootstrap. CRC press.
- Epstein, L. H., Temple, J. L., Roemmich, J. N., & Bouton, M. E. (2009). Habituation as a determinant of human food intake. *Psychological review*, 116(2), 384.
- Falk, R. F., & Miller, N. B. (1992). A primer for soft modeling. University of Akron Press
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 18(1), 39-50.
- Garber Jr, L. L., Hyatt, E. M., & Starr Jr, R. G. (2000). The effects of food color on perceived flavor. *Journal of Marketing Theory and Practice*, 8(4), 59-72.
- Haase, J., & Wiedmann, K. P. (2018). The sensory perception item set (SPI): An exploratory effort to develop a holistic scale for sensory marketing. *Psychology & Marketing*, 35(10), 727-739. <https://doi.org/10.1002/mar.21130>
- Haase, J., & Wiedmann, K. P. (2020). The implicit sensory association test (ISAT): A measurement approach for sensory perception. *Journal of Business Research*, 109,236-245. <https://doi.org/10.1016/j.jbusres.2019.12.005>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Sage Publications
- Han, H., & Ryu, K. (2009). The roles of the physical environment, price perception, and customer satisfaction in determining customer loyalty in the restaurant industry. *Journal of Hospitality & Tourism Research*, 33(4), 487-510. <https://doi.org/10.1177/1096348009344212>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135.
- Hoch, S. J., & Ha, Y. W. (1986). Consumer learning: Advertising and the ambiguity of product experience. *Journal of consumer research*, 13(2), 221-233.
- Hoegg, J., & Alba, J. W. (2007). Taste perception: More than meets the tongue. *Journal of Consumer Research*, 33(4), 490-498.
- Hussain, A., & Routray, J. K. (2012). Status and factors of food security in Pakistan. *International Journal of Development Issues*, 11(2),164-185
- Ifeanyichukwu, C., & Peter, A. (2018). The role of sensory marketing in achieving customer patronage in fast food restaurants in Awka. Ifeanyichukwu, C., & Peter, A. (2018). The Role of Sensory Marketing in Achieving Customer Patronage in Fast Food Restaurants in Awka. *International Research Journal Of Management, IT & Social Sciences*, 5(2), 155-163.
- Kaplan, D. (2008). Structural equation modeling: Foundations and extensions. Sage Publications.
- Khan, N. R., & Shaikh, U. A. A. (2011). Impact of service quality on customer satisfaction: evidences from the restaurant industry in Pakistan
- Kim, H.J., Park, J., Kim, M.J. and Ryu, K. (2013), "Does perceived restaurant food healthiness matter? Its influence on value, satisfaction and revisit intentions in restaurant operations in South Korea", *International Journal of Hospitality Management*, Vol. 33, pp. 397-405.
- Kivela, J., Inbakaran, R., Reece, J., 1999. Consumer research in the restaurant environment, part 1: a conceptual model of dining satisfaction and return patronage. *International Journal of Contemporary Hospitality Management* 11 (5), 20-22.
- Kline, R. B. (2016). Principles and practice of structural equation modeling. Guilford Publications
- Krishna, A. (2012). An integrative review of sensory marketing: Engaging the senses to affect perception, judgment and behavior. *Journal of Consumer Psychology*, 22(3), 332-351. <https://doi.org/10.1016/j.jcps.2011.08.003>
- Krishna, A., Morrin, M., & Sayin, E. (2014). Smellizing cookies and salivating: A focus on olfactory imagery. *The Journal of Consumer Research*, 41(1), 18-34. <https://doi.org/10.1086/674664>

- Lee, C.K., Yoon, Y.S., Lee, S.K., 2007. Investigating the relationships among perceived value, satisfaction, and recommendations: the case of the Korean DMZ. *Tourism Management* 28, 204–214.
- McDougall, G.H.G., Levesque, T., 2000. Customer satisfaction with services: putting perceived value into the equation. *Journal of Services Marketing* 14, 392–410
- Memon, N. A. (2016). Fast food: 2nd largest industry in Pakistan. *Pakistan food journal*, 3(1), 1-3.
- Messariss, P., & Abraham, L. (2001). The role of images in framing news stories. In *Framing public life* (pp. 231-242). Routledge.
- Oliver, R. L., Rust, R. T., & Varki, S. (1997). Customer delight: foundations, findings, and managerial insight. *Journal of retailing*, 73(3), 311-336.
- Patterson, P.G., Spreng, R.A., 1997. Modeling the relationship between perceived value, satisfaction and repurchase intentions in a business-to-business, services context: an empirical examination. *International Journal of Service Industry Management* 8 (5),414–434
- Peck, J., & Childers, T. L. (2003). To have and to hold: The influence of haptic information on product judgments. *Journal of Marketing*, 67(2), 35-48.
- Pentz, C., & Gerber, C. (2013). The influence of selected senses on consumer experience: A brandy case. *Acta Commercii*, 13(1), 1-7.
- Potter, J. (2003). Discourse analysis and discursive psychology.
- Raab, C., Zemke, D. M. V., Hertzman, J. L., & Singh, D. (2013). Restaurant customers' perceptions of noise and their satisfaction and loyalty behaviors. *International Journal of Hospitality & Tourism Administration*, 14(4), 398–414. <https://doi.org/10.1080/15256480.2013.838090>
- Rolls, E. T. (2005). Taste, olfactory, and food texture processing in the brain, and the control of food intake. *Physiology & Behavior*, 85(1), 45–56. <https://doi.org/10.1016/j.physbeh.2005.04.012>
- Ryu, K., & Jang, S. S. (2007). The effect of environmental perceptions on behavioral intentions through emotions: The case of upscale restaurants. *Journal of Hospitality & Tourism Research*, 31(1), 56–72. <https://doi.org/10.1177/1096348006295506>
- Ryu, K., Lee, H. R., & Kim, W. G. (2012). The influence of the quality of the physical environment, food, and service on restaurant image, customer perceived value, customer satisfaction, and behavioral intentions. *International Journal of Contemporary Hospitality Management*, 24(2), 200–223. <https://doi.org/10.1108/09596111211206141>
- Satti, Z. W., Babar, S. F., & Ahmad, H. M. (2021). Exploring mediating role of service quality in the association between sensory marketing and customer satisfaction. *Total Quality Management & Business Excellence*, 32(7–8), 719–736. <https://doi.org/10.1080/14783363.2019.1632185>
- Satti, Z. W., Babar, S. F., & Parveen, S. (2022). Role of customer satisfaction as a mediator between sensory marketing and customer loyalty: A case of Pakistani restaurant industry. *Journal of International Food & Agribusiness Marketing*, 1–23. <https://doi.org/10.1080/08974438.2022.2049415>
- Shahid, S., Paul, J., Gilal, F. G., & Ansari, S. (2022). The role of sensory marketing and brand experience in building emotional attachment and brand loyalty in luxury retail stores. *Psychology & Marketing*, 37 (7), 1398–1412. <https://doi.org/10.1002/mar.21661>
- Silaban, P. H., Chen, W. K., Eunike, I. J., & Silalahi, A. D. K. (2023). Traditional restaurant managers' use of sensory marketing to maintain customer satisfaction: Findings from PLS-SEM and fsQCA. *Cogent Business & Management*, 10(1), 2196788.
- Spence C: Just how much of what we taste derives from the sense of smell? *Flavour*. 2015.
- Spence, C. (2017). *Gastro physics: The new science of eating*. Penguin UK.
- Spence, C., & Shankar, M. U. (2010). The influence of auditory cues on the perception of, and responses to, food and drink. *Journal of Sensory Studies*, 25(3), 406–430. <https://doi.org/10.1111/j.1745-459X.2009.00267>
- Spence, C., Youssef, J. Olfactory dining: designing for the dominant sense. *Flavour* 4, 32 (2015). <https://doi.org/10.1186/s13411-015-0042-0>
- Teixeira, J., Patrício, L., Nunes, N. J., Nóbrega, L., Fisk, R. P., & Constantine, L. (2012). Customer experience modeling: From customer experience to service design. *Journal of Service Management*, 23(3), 362–376. doi:10.1108/09564231211248453
- Yorkston, E., & Menon, G. (2004). A sound idea: Phonetic effects of brand names on consumer judgments. *Journal of consumer research*, 31(1), 43-51.
- Zeithaml, V.A., Berry, L.L., Parasuraman, A., 1996. The behavioral consequences of service quality. *Journal of Marketing* 60 (2), 31–46.