

The Impact of Service Perception in the Offline Solo Dining on Catering Industry of Consumers' Willingness to Repurchase

Haina Wang ^a

School of Economics and Business Administration, Chongqing University, Chongqing, 400044, China

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Abstract: With the change of consumer attitudes and the rise of the single economy, a new form of consumption called 'solo dining' has merged, the improvement of consumers' satisfaction and willingness to repurchase offline 'solo dining' catering industry services has become a key focus. Quality perception, affordability perception, pleasantness perception, uniqueness demand perception and social influence perception are selected as independent variables, and satisfaction is used as a mediating variable. This study aims to identify the impact of service perception in the solo dining on catering industry of consumers' willingness repurchase. An online questionnaire survey method and descriptive analysis have been adopted to verify hypotheses. The results indicate that quality perception, affordability perception, pleasantness perception, uniqueness demand perception and have a positive impact on repurchase willingness, while social influence perception has no significant effect on repurchase willingness. Satisfaction plays a partial mediating effect between quality perception and repurchase willingness, and a complete mediating effect between pleasantness perception, uniqueness demand perception and repurchase willingness. The research will enrich the study on the relationship between service perception, and repurchase willingness in the offline 'solo dining' catering industry, and provide suggestions for offline 'solo dining' services in the catering industry.

1 INTRODUCTION

According to the China Statistics Bureau and the China Population and Employment Statistics Yearbook 2023, by the end of 2024, China's single population may reach 300 million, and China will officially enter the era of super single. The expansion of the single population has led to changes in social structure and consumption concepts, followed by the rise of the single economy.

The majority of contemporary singles have received good education, have stable jobs and objective economic income, and have a high pursuit of quality of life. Their consumption philosophy tends to be more inclined towards the satisfaction of self-worth and emotional value. Therefore, the single population is gradually shifting from survival oriented consumption to development oriented consumption. Under the premise of meeting basic needs, people are beginning to pursue the quality, experience, and personalization of consumption,

which further enhances the development potential of the single economy (Yuan et al., 2023).

At the same time, with the accelerated pace of modern life and work, people's leisure time has been compressed. In order to save time and energy, people have gradually formed consumption habits that pursue convenience and efficiency. Especially for single people living alone, eating alone has become a norm. In order to meet the dining needs of the single population, a new industry of 'solo dining' has emerged, such as solo rotating hot pot, micro KTV rooms, and grid partitioned dining. The consumption choice of 'solo dining' is a satisfaction of the objective needs of modern living conditions and an emphasis and pursuit of self-worth and emotional value. The single population has led a new form of consumption, endowing solitude with deeper and more diverse spiritual meanings, making solitary enjoyment a trend.

In the current social environment, the new consumption trend of resisting food waste has also provided assistance for the consumption form of 'solo dining', reducing resource waste, improving dining

^a <https://orcid.org/0009-0004-1217-9092>

efficiency, and giving the 'solo dining' model more long-term development potential. Food is of paramount importance to the people, and as an essential daily activity for everyone, which constantly drives the development of the catering industry. Under the multiple influences of the 'single economy', 'solitary economy', and 'self enjoyment economy', the 'solo dining' service has important research value and optimization space.

Currently, researchers mainly study consumers' willingness to choose 'solo dining' based on their consumption concepts and habits. Some studies have pointed out that the 'solo dining' model can meet the convenience of single consumers in purchasing and consuming food, and is in line with the new consumption concept of reducing food waste. It can also reflect the importance of food quality and hygiene, thus further promoting the development of the 'solo dining' catering economy. Some studies have also pointed out that young single consumers have a new pursuit of independent lifestyles and high requirements for quality of life. They believe that 'solo dining' consumption is an enjoyment of life and an investment in personal consumption, which positively promotes consumers' willingness to purchase 'solo dining' (Li, 2021). Chen analyzed the case of Zihaiquo and found that through product innovation and category expansion, a multi category matrix was formed, which met consumers' pursuit of new experiences and promoted their purchase willingness (Chen, 2021). At the same time, it is also proposed that there may be challenges in terms of price, as consumers may consider repurchasing after trying new products due to relatively high prices, indicating that price and cost-effectiveness are important factors affecting consumers' willingness to purchase (Chen, 2021). Zang pointed out through her analysis of Liangmi Restaurant that consumers' personal psychological state and feelings of loneliness can also affect their purchase intention. Some people may enjoy solitude and have a pleasant experience during 'solo dining' meals, which promotes their purchase intention. It has also been found that the environmental design and service methods of restaurants can also affect consumers' purchase willingness. By providing independent seating space and movable curtains, customers are provided with more choices, which can be either lonely or social. This design meets the needs of different consumers, and useful designs further promote consumers' purchase willingness (Zang, 2020).

2 RESEARCH SIGNIFICANCE

2.1 Theroretical Significance

By breaking down the service perception of 'solo dining' into five dimensions: quality perception, affordability perception, uniqueness demand perception, pleasantness perception, and social influence perception, a more comprehensive theoretical analysis framework is constructed. Existing research in the field of 'solo dining' mostly focuses on the traditional service perception dimension and leans towards functional design research. However, this study incorporates 'perception of unique deamands' and 'perception of social influence', which can explain the dual driving mechanism of the single population's pursuit of personalized expression and social identity in consumption, filling the gap in explaining the psychological needs of new consumer groups. This study uses satisfaction as a mediating variable, which can provide a deeper and more comprehensive explanation of the impact of 'solo dining' service perception on consumer repurchase willingness from the perspective of emotional motivation.

The single population has characteristics such as 'self satisfied consumption' and 'light socialization', and their consumption decisions may rely more on emotional values rather than traditional rational factors. By examining the positive impact of perceived pleasure on satisfaction, the applicability of emotion driven consumption motivation in the single economy scenario can be verified, providing theoretical support for further research on segmented populations.

2.2 Practical Significance

Through the study of the perception pathway of 'solo dining' service, the findings can guide catering enterprises to more accurately optimize the design of 'solo dining' service. On the one hand, the 'solo dining' brand and enterprises can enhance the uniqueness and enjoyable experience of catering services by launching differentiated services such as 'DIY package matching' and setting up immersive dining environments to enhance emotional value. On the other hand, enterprises can achieve the dual advantages of high-quality services and affordable prices based on the functional influencing factors, and utilize the social influence of 'solo dining' services to introduce management measures to strengthen social identity.

3 THEORETICAL ASSUMPTIONS AND HYPOTHETICAL MODELS

3.1 Theoretical Assumptions and Research Design

3.1.1 Quality Perception

In the 'solo dining' service scenario, quality perception is the comprehensive judgment of consumers on the functionality and experience of the service. Consumers' requirements for food and environment, as well as their demands for privacy and personalized adaptation unique to 'solo dining', directly affect their satisfaction evaluation of the service. According to research on the relationship between perceived service quality and willingness to consume again, perceived service quality is considered an important influencing factor in the formation of happiness motivation, and the formation of happiness motivation directly affects satisfaction with service experience (Zhang & Cai, 2021). Therefore, the following hypothesis is proposed:

H1: The perceived quality of 'solo dining' services has a positive impact on satisfaction.

3.1.2 Affordability Perception

In the context of 'solo dining' service, consumers' perception of affordability focuses on whether the price is low and on whether personalized needs are met at a reasonable cost, and even brings unexpected experiences. The theory of customer perceived value emphasizes that consumers form comprehensive value judgments by comparing the benefits and perceived costs of service provision (Li & Shen, 2022). When perceived benefits exceed costs, perceived benefits are enhanced, which in turn drives satisfaction improvement. Therefore, a cost-benefit perception scale was developed from the cost perception scale, and based on this, hypotheses were proposed:

H2: The perceived affordability of 'solo dining' services has a positive impact on satisfaction.

3.1.3 Pleasantness Perception

Pleasantness perception refers to the degree of excitement and satisfaction that an individual feels under external environmental stimuli. Perceived pleasure is a complex sense of pleasure that consumers experience through controlling the service process, enjoying personalized experiences, and

receiving emotional compensation in a self guided dining decision without social pressure. It includes both functional satisfaction and emotional positive feedback. According to research on the relationship between emotional experience and tourist satisfaction, it has been found that pleasure has a significant impact on satisfaction (Wang, 2018). Therefore, the following hypothesis is proposed:

H3: The perceived pleasure of 'solo dining' service has a positive impact on consumer satisfaction.

3.1.4 Uniqueness Demand Perception

Tian and McKenzie define uniqueness demands as consumers showcasing their personality traits and social identity through innovative consumption methods (Tian & McKenzie, 2001). According to the research conducted by Li Shuang et al. on the impact of service perception on consumer purchase intention, uniqueness demands have a positive impact on consumer satisfaction (Li et al., 2024). Therefore, the following hypothesis is proposed:

H4: The unique demand perception of 'solo dining' service has a positive impact on satisfaction.

3.1.5 Social Influence Perception

In the context of this study, social influence perception refers to consumers' subjective cognition and evaluation of their social environment. The social atmosphere may generate social pressure or support for consumers to choose the 'solo dining' dining option. 'Solo dining' may involve identity display in public settings, which directly affects consumers' sensitivity and focus, thereby affecting satisfaction. Therefore, the following hypothesis is proposed:

H5: The perceived social influence of 'solo dining' services has a positive impact on satisfaction.

3.1.6 Satisfaction and Repurchase Willingness

Heesup et al.'s research on consumer experience suggests that satisfaction is the objective evaluation of consumers after purchasing and using a product, that is, whether the product can meet consumers' needs for a pleasant experience (Heesup et al., 2019). In this study, satisfaction refers to the experience that single consumers experience when choosing 'solo dining' services at offline restaurants. Consumer repurchase willingness refers to the intentions of consumers to consume and experience the 'solo dining' service again after purchasing and enjoying it. Satisfaction is an important factor in forming repeat purchase intention, and improving satisfaction can

further enhance consumers' repeat purchase intention. Therefore, the following hypothesis is proposed:

H6: The perception of 'solo dining' service has a positive impact on repurchase willingness through the mediating effect of satisfaction.

3.2 Model Building

Based on the above content, this article constructs a model of the impact of service perception on consumer repurchase willingness in the offline 'solo dining' catering industry, as shown in Figure 1.



Figure 1: Research Model

4 METHOD

4.1 Participants

This study used a questionnaire survey method to collect data, mainly investigating the impact of service perception in the offline 'solo dining' catering industry on consumers' willingness to repurchase. The survey subjects were not limited in terms of gender, age, education, and monthly income.

The questionnaire consists of personal information and corresponding items for each variable. The questions are based on the Likert five point scale, with '1' indicating strongly disagree and '5' indicating strongly agree. The analysis found that the reliability and validity of 'perceived affordability' were poor, so the title item 'Among the same offline catering services, the price of solo dining service is more affordable' was deleted to form the final indicator item. The measurement scale and reference sources are shown in Table 1.

4.2 Questionnaire Design

Table 1: Measurement scales and reference sources

Variable name	Number	Indicator items	References
Quality Perception	A1	I think the quality of offline 'solo dining' service is stable and reliable.	(Dai et al., 2017; He, 2013)
	A2	I think the offline 'solo dining' service is comprehensive.	
	A3	The ordering process for the 'solo dining' service is simple and convenient.	
	A4	The order processing of the 'solo dining' service is timely.	
	A5	When dining at 'solo dining' restaurant, it is convenient to pick up the meal	

Affordability Perception	B1	The offline 'solo dining' service provides me with more favorable packages.	(Sweeney et al., 2001)
	B2	I think the consumption of 'solo dining' restaurants offline is worthwhile and cost-effective.	
	B3	I think the price level of offline 'solo dining' service is reasonable.	
Pleasantness Perception	C1	I found the dining experience at the 'solo dining' restaurant interesting and enjoyable.	(Liu, 2017)
	C2	The 'solo dining' service brings joy to my life.	
	C3	I enjoy the process of eating alone.	
	C4	I feel happy when I eat alone.	
Uniqueness Demand Perception	D1	The dishes I customize are different from other dishes in terms of taste and appearance.	(Chen et al., 2005)
	D2	My customized dishes make me stand out.	
	D3	I prefer to customize my own dishes rather than the fixed set meals offered by businesses.	
	D4	I am willing to try my own customized dishes before others.	
Social Influence Perception	E1	The attitudes and opinions of friends and family towards the 'solo dining' service will affect my satisfaction with the service.	(Jing et al., 2022)
	E2	Having friends around who have experienced the 'solo dining' service can affect my satisfaction with the service.	
	E3	Friends and relatives recommending offline 'solo dining' services to me will increase my satisfaction with the service.	
Satisfaction	F1	I am satisfied with the service experience of the 'solo dining' restaurant offline.	(Du, 2023)
	F2	It is wise to dine at a 'solo dining' restaurant.	
	F3	I enjoyed my dining experience at the 'solo dining' restaurant.	
	F4	Overall, the service of 'solo dining' restaurants can meet my needs	
Repurchase Willingness	G1	If there is a chance next time, I would like to continue to dine at the 'solo dining' restaurant offline.	(Jia et al., 2024)
	G2	I would recommend others to go to offline 'solo dining' restaurants.	
	G3	If I have enough money, I will consider dining at a 'solo dining' restaurant offline again.	
	G4	I prefer dining at 'solo dining' restaurants compared to other restaurants.	

5 RESULTS

5.1 Data Collection and Descriptive Analysis

This article adopts the method of online questionnaire survey, and creates a questionnaire through the 'Wenjuanxing' platform. The questionnaire is sent to social media platforms such as WeChat, QQ, Xiaohongshu. A total of 214 questionnaires were collected, and 6 invalid questionnaires were eliminated through a common sense test. The remaining 208 questionnaires had a validity rate of 97.20%.

Statistical analysis was conducted on the sample, with females accounting for 69.7% and males accounting for 30.3% of the surveyed population. The

main educational background is undergraduate (43.8%). The age distribution is mainly between 18-25 years old (45.2%). The monthly income is mainly concentrated between 1001 and 5000 yuan (70.2%), as shown in Table 2.

Considering the limitations of the 'solo dining' consumer audience, based on the 'solo dining' experience of the survey subjects, further screening of questionnaire data with higher relevance to this study was conducted, as shown in Table 3. It can be seen that 62.02% of the survey respondents have experienced the 'solo dining' service, while 37.98% have not. This indicates that a considerable number of consumers have a certain degree of attention to the consumption form of 'solo dining'. Among them, 32.21% of the survey respondents experience 'solo dining' services more than once a year, while only 6.73% of the survey respondents have no experience

or interest, indicating that the majority of consumers are interested in 'solo dining' services.

A data study on the expected factors of survey respondents without a 'solo dining' experience found that as shown in Table 4, over 60% would choose to try 'solo dining' due to the privacy space provided by the 'solo dining' service, and 46% of survey respondents would expect social simplification and a sense of ceremony during the 'solon dining' process. This indicates that consumers place the highest importance on the perceived pleasure of 'solo dining' services. More than 50% of the survey respondents

chose unique food as the reason for trying 'solo dining', indicating that consumers also have a high perception of the demand for service uniqueness. 39% of survey respondents expect efficient service for 'solo dining', and 32% of survey respondents will experience 'solo dining' services based on recommendations and positive reviews from family and friends. This indicates that consumers' perception of the quality and social influence of 'solo dining' services will to some extent become factors to consider, but there is still room for improvement.

Table 2: Descriptive statistical analysis of sample characteristics

Characteristic Variable	Type	Sample Size	Percentage
Gender	Male	63	30.3%
	Female	145	69.7%
Age	Under 18 years old	1	0.5%
	18~25 years old	94	45.2%
	26~30 years old	47	22.6%
	31-40 years old	39	18.8%
	41-50 years old	21	10.1%
	Over 50 years old	6	2.9%
Monthly Income	Below 1000 RMB	9	4.3%
	1001-3000 RMB	75	36.1%
	3,001-5,000 RMB	71	34.1%
	5001-10000 RMB	49	23.6%
	Above 10,000 RMB	4	1.9%
Educational Background	Junior high school and below	27	13.0%
	High school/technical secondary	30	14.4%
	school/vocational high school	54	26.0%
	junior college	91	43.8%
	Undergraduate Master	6	2.9%

Table 3: Descriptive analysis of experience

Project	Option	Sample Size	Percentage
Experience	Frequent experience (more than once a year)	67	32.2%
	Occasional experience (less than once a year)	62	29.8%
	No experience but interested	65	31.3%
	No experience and no interest	14	6.7%

Table 4: Descriptive analysis of expectation factors

Project	Option	Sample Size	Percentage
Expectant Factors	Private space, independent partition seats / independent sockets	51	64.6%
	Unique dishes, self-selected ingredients combination / small set meals	40	50.6%
	Efficient service, silent call system	31	39.2%
	Simplify social interaction, without unnecessary social interaction, and have a sense of ritual for eating alone	37	46.8%
	Recommendations and positive feedback from friends and family	26	32.9%
	Others (curiosity about new consumption patterns)	7	8.9%

5.2 Reliability Analysis

This study used SPSS for reliability testing. As shown in Table 5, the Cronbach's alpha coefficients of each variable in the questionnaire are 0.888, 0.872, 0.877, 0.848, 0.811, 0.890, and 0.875, respectively, all of which are greater than 0.8, indicating that the questionnaire has good reliability and the data in this study is true and reliable.

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Table 5: Reliability analysis of the scale

Variables	Numbers of Questions	Cronbach's α
Quality Perception	5	0.888
Affordability Perception	3	0.872
Pleasantness Perception	4	0.877
Uniqueness Demand Perception	4	0.848
Social Influence Perception	3	0.811
Satisfaction	4	0.890
Repurchase Willingness	4	0.875

5.3 Validity Analysis

The study was divided into three groups for factor analysis: independent variable, mediator variable, and dependent variable, as shown in Table 6. The KMO values of the three groups were 0.947, 0.832, and 0.830, all greater than 0.8, and the Bartlett's sphericity test of the three groups was less than 0.01, indicating that the scale is suitable for factor analysis.

According to the results of factor analysis, using principal component analysis and maximum variance rotation method, five factors were extracted from all items in the independent variable group for factor analysis. Among them, several measurement items (A1, A2, D2, E1) of some variables were deleted due

to the standard load coefficient not reaching 0.6, as shown in Table 7. The standard load coefficients for all items in the table are greater than 0.6, and the cumulative explanatory variation of the factors is 77.694%, which is greater than the recommended cumulative variation standard of 60%. Therefore, the explanatory level is good. By using principal component analysis, one factor was extracted from both the mediator variable group and the dependent variable group, as shown in Table 7. The standard loading coefficients of all items in both variable groups were greater than 0.6, and the cumulative explanatory variation of the two variable groups was 75.298% and 72.845%, both greater than 60%. Therefore, the explanatory power was relatively good.

Table 6: KMO and Bartlett's Test

KMO and Bartlett's Test				
		Independent Variable	Mediator Variable	Dependent Variable
KMO sampling appropriateness measure		0.947	0.832	0.830
Bartlett's test for sphericity	Approximate chi square	1238.726	293.330	254.803
	Free degree	105	6	6
	significance	0.000	0.000	0.000

Table 7: Analysis of scale validity

Variable name	Indicator items	Load Factor	References
Quality Perception	The ordering process for the 'solo dining' service is simple and convenient. (A3) The order processing of the 'solo dining' service is timely. (A4) When dining at 'solo dining' restaurant, it is convenient to pick up the meal. (A5)	0.731 0.732 0.671	(He, 2013)
Affordability Perception	The offline 'solo dining' service provides me with more favorable packages. (B1) I think the consumption of 'solo dining' restaurants offline is worthwhile and cost-effective.(B2) I think the price level of offline 'solo dining' service is reasonable.(B3)	0.719 0.753 0.777	(Sweeney et al., 2001)
Pleasantness Perception	I found the dining experience at the 'solo dining' restaurant interesting and enjoyable.(C1) The 'solo dining' service brings joy to my life.(C2) I enjoy the process of eating alone.(C3) I feel happy when I eat alone.(C4)	0.683 0.734 0.618 0.776	(Liu, 2017)
Uniqueness Demand Perception	The dishes I customize are different from other dishes in terms of taste and appearance.(D1) I prefer to customize my own dishes rather than the fixed set meals offered by businesses.(D3) I am willing to try my own customized dishes before others.(D4)	0.604 0.81 0.608	(Chen et al., 2005)
Social Influence Perception	Having friends around who have experienced the 'solo dining' service can affect my satisfaction with the service.(E2) Friends and relatives recommending offline 'solo dining' services to me will increase my satisfaction with the service.(E3)	0.615 0.843	(Jing et al., 2022)
Satisfaction	I am satisfied with the service experience of the 'solo dining' restaurant offline.(F1) It is wise to dine at a 'solo dining' restaurant.(F2) I enjoyed my dining experience at the 'solo dining' restaurant.(F3) Overall, the service of 'solo dining' restaurants can meet my needs.(F4)	0.899 0.823 0.851 0.896	(Du, 2023)
Repurchase Willingness	If there is a chance next time, I would like to continue to dine at the 'solo dining' restaurant offline.(G1) I would recommend others to go to offline 'solo dining' restaurants.(G2) If I have enough money, I will consider dining at a 'solo dining' restaurant offline again.(G3) I prefer dining at 'solo dining' restaurants compared to other restaurants.(G4)	0.835 0.876 0.824 0.877	(Jia et al., 2024)

5.4 Hypothesis Testing

5.4.1 Regression Analysis of Perceived 'Solo Dining' Service on Repurchase Willingness

From Table 8, it can be seen that the adjusted R^2 value of the model is 0.793, indicating that the five dimensions of quality perception, affordability

perception, pleasantness perception, uniqueness demand perception, and social influence perception can explain 79.3% of the changes in consumer repurchase willingness, and the explanatory power is very good. According to Table 9, the F-value is 98.975 and the p-value is less than 0.05, indicating that the overall regression model is significant.

Table 8: Summary of the independent variable group model

Model Summary				
Model	R	R-squared	Adjusted R-squared	Standard estimation error
1	0.895 ^a	0.801	0.793	0.37062

a. Predictive variables: (constant), quality perception, affordability perception, pleasantness perception, uniqueness demand perception, social influence perception

Table 9: ANOVA analysis of independent variable group

ANOVA ^a						
Model		Sum of Squares	Free Degree	Mean Square	F	Signicance
1	Regressio n	67.975	5	13.595	98.975	0.000b
	residual	16.895	123	0.137		
	Total	84.870	128			

a. Dependent variable: repurchase willingness

b. Predictive variables: (constant), quality perception, affordability perception, pleasantness perception, uniqueness demand perception, social influence perception

Regression analysis was conducted with perceived quality, perceived affordability, perceived pleasantness, perceived uniqueness demands, and perceived social influence as independent variables, and repurchase willingness as the dependent variable. The specific results are shown in Table 10. According to the table, quality perception has a significant positive impact on repurchase willingness ($\beta=0.495$, $p=0.000$). The perception of affordability has no significant effect on repurchase willingness ($\beta=0.007$, $p=0.910$). Pleasantness perception has a positive and

significant impact on repurchase willingness ($\beta=0.227$, $p=0.002$). The perception of uniqueness demands has a significant positive impact on repurchase willingness ($\beta=0.213$, $p=0.005$). The perception of social influence has no significant impact on repurchase willingness ($\beta=0.048$, $p=0.408$). Therefore, the impact of 'solo dining' service perception on repurchase willingness is in the order of quality perception > pleasantness perception > uniqueness demand perception.

Table 10: Significance analysis of independent variable group

Coefficient						
Model		Non-standardized Coefficient		Standardized Coefficient	t	Significance
		B	Standard Error	Beta		
1	(constant)	0.098	0.176		0.557	0.578
	Quality Perception	0.495	0.089	0.466	5.584	0.000
	Affordability Perception	0.007	0.063	0.008	0.113	0.910
	Pleasantness Perception	0.227	0.071	0.234	3.205	0.002
	Uniqueness Demand Perception	0.213	0.074	0.212	2.856	0.005
	Social Influence Perception	0.048	0.058	0.053	0.829	0.408

a. Dependent variables : repurchase willingness

5.4.2 Regression Analysis of 'Solo Dining' Service Perception on Satisfaction

As shown in Table 11, the adjusted R^2 value of the model is 0.809, indicating that the five dimensions of quality perception, affordability perception, pleasantness perception, unique demand perception,

and social influence perception can explain 80.9% of the variance in satisfaction, which is a good explanation. From Table 12, it can be seen that the F value is 109.186 and the p-value is less than 0.05, indicating that the overall regression model is significant.

Table 11: Summary of the Mediating Variable Group Model

Model Summary				
Model	R	R Square	Adjusted R square	Standardized Estimated Error
1	0.903a	0.816	0.809	0.35607

a. Predictive variables:(constant), quality perception, affordability perception, pleasantness perception, uniqueness demand perception, social influence perception

Table 12: ANOVA analysis of mediator variable group

ANOVA ^a						
Model		Sum of Square	Free Degree	Mean Square	F	significance
1	regression	69.217	5	13.843	109.186	0.000b
	Residual Error	15.595	123	0.127		
	Total	84.812	128			

a. Dependent variables: satisfaction

b. Predictive variables:(constant),quality perception, affordability perception,pleasantness perception,uniqueness demand perception, social influence perception

A regression analysis was conducted with quality perception, affordability perception, pleasantness perception, unique demand perception, and social influence perception as independent variables and satisfaction as the dependent variable. The specific results are shown in Table 13. As shown in Table 13, quality perception has a positive and significant impact on satisfaction ($\beta=0.356$, $p=0.000$). The perception of affordability has no significant impact on repurchase willingness ($\beta=0.149$, $p=0.016$). Pleasantness perception has a positive and significant impact on repurchase willingness

($\beta=0.208$, $p=0.003$). The perception of uniqueness demands has a significant positive impact on repurchase willingness ($\beta=0.310$, $p=0.000$). Social influence perception has no significant impact on repurchase willingness ($\beta=-0.033$, $p=0.549$). Therefore, assuming that H1, H2, H3, and H4 are true, the impact of the perception of 'solo doing' service on satisfaction is in the order of quality perception > uniqueness demand perception > pleasantness perception > affordability perception. Assuming that H5 has not been verified.

Table 13: Significance analysis of mediator variable group

Coefficient						
Model		Non-standardized Coefficient		Standardized Coefficient	t	Significance
		B	Standard Error	Beta		
1	(constant)	0.076	0.169		0.446	0.656
	Quality Perception	0.356	0.085	0.335	4.178	0.000
	Affordability Perception	0.149	0.061	0.164	2.438	0.016
	Pleasantness Perception	0.208	0.068	0.214	3.048	0.003
	Uniqueness Demand Perception	0.310	0.072	0.309	4.342	0.000
	Social Influence Perception	-0.033	0.055	-0.037	-0.602	0.549

a. Dependent variables: satisfaction

5.4.3 Analysis of the Mediating Effect of Satisfaction

As shown in Table 14, the adjusted R^2 value of the model is 0.836, indicating that quality perception, affordability perception, pleasantness perception, unique demand perception, social influence

perception, and satisfaction can explain 83.6% of the changes in consumers' repurchase willingness, with a good explanatory power. From Table 15, it can be seen that the F value is 109.970 and the p-value is less than 0.05, indicating that the overall regression model is significant.

Table 14: Summary of Dependent Variable Group Model

Model Summary				
Model	R	R Square	Adjusted R square	Standardized Estimated Error
1	0.919a	0.844	0.836	0.32948

a. Predictive variables:(constant),quality perception, affordability perception,pleasantness perception,uniqueness demand perception, social influence perception

Table 15: ANOVA analysis of dependent variable group

ANOVA ^a						
Model		Sum of Square	Free Degree	Mean Square	F	significance
1	regression	71.626	6	11.938	109.970	0.000b
	Residual Error	13.244	122	0.109		
	Total	84.870	128			

a. Dependent variables: satisfaction

b. Predictive variables:(constant),quality perception, affordability perception,pleasantness perception,uniqueness demand perception, social influence perception

A regression analysis was conducted with quality perception, affordability perception, pleasantness perception, unique demand perception, social influence perception, and satisfaction as independent variables, and repurchase willingness as the dependent variable. The specific results are shown in Table 16. As shown in Table 16, under the influence of six dimensions, quality perception has a positive and significant impact on repurchase willingness ($\beta=0.323$, $p=0.000$). The perception of

affordability has no significant impact on repurchase willingness ($\beta=-0.065$, $p=0.264$). The perception of pleasantness has no significant impact on repurchase willingness ($\beta=0.127$, $p=0.055$). The perception of uniqueness needs has no significant impact on repurchase willingness ($\beta=0.062$, $p=0.382$). Social influence perception has no significant impact on repurchase willingness ($\beta=0.064$, $p=0.215$). Satisfaction has a significant positive impact on repurchase willingness ($\beta=0.484$, $p=0.000$).

Table 16: Significance analysis of dependent variable group

Coefficient						
Model		Non-standardized Coefficient		Standardized Coefficient	t	Significance
		B	Standard Error	Beta		
1	(constant)	0.062	0.157		0.393	0.695
	Quality Perception	0.323	0.084	0.304	3.833	0.000
	Affordability Perception	-0.065	0.058	-0.071	-1.122	0.264
	Pleasantness Perception	0.127	0.065	0.130	1.939	0.055
	Uniqueness Demand Perception	0.062	0.071	0.062	0.877	0.382
	Social Influence Perception	0.064	0.051	0.070	1.246	0.215
	(constant)	0.484	0.083	0.484	5.800	0.000

a. Dependent variables: repurchase willingness

Comparing the results of regression model 1 and regression model 3, it was found that the coefficient of the positive significant impact of quality perception on repurchase willingness decreased from 0.495 to 0.323, indicating that most of the impact was direct, but a small portion of the influence was achieved through satisfaction. Therefore, satisfaction plays a partial mediating role between quality perception and repurchase willingness.

The influence of pleasantness perception and uniqueness demand perception on repurchase willingness is not significant, indicating that there is no direct influence, and their influence on repurchase willingness is mainly achieved through satisfaction. Therefore, satisfaction plays a fully mediating role between pleasantness perception, uniqueness demand perception, and repurchase willingness.

Comparing the results of regression model 2 and regression model 3, it is found that perceived value has a positive impact on satisfaction, but it does not directly affect repurchase willingness. Satisfaction does not transfer the impact of perceived value to repurchase willingness. Perhaps because when the price rationality and value for money reach the market average level, the stimulating effect of continuing to optimize cost-effectiveness on repeat purchases has declined. Therefore, satisfaction has no mediating effect between perceived value and repurchase willingness.

Social influence perception has no positive impact on satisfaction and repurchase willingness, and satisfaction cannot play a mediating role in social influence perception and repurchase willingness. In the hypothesis, social influence perception describes consumers' perception of social evaluation around them and affects their intention to consume. In the context of solo dining services, the social evaluation that single consumers face more often may be the evaluation and recognition of strangers, but the evaluation and recognition of strangers cannot affect the experience and recognition of the service by the consumer group itself. Therefore, in such a situation, social influence perception cannot have a direct positive impact on consumers' intention to repurchase. Therefore, satisfaction does not play a mediating role between social influence perception and repurchase willingness.

In summary, H6 is partially verified.

6 CONCLUSION

6.1 Summaries

Through the hypothesis testing of the impact of 'solo dining' service perception on consumers' repurchase willingness, the following conclusions were drawn:

① The quality perception of 'solo dining' service can directly have a significant positive impact on satisfaction, and can also positively and significantly affect consumers' repurchase willingness through the mediating effect of satisfaction. ② The perception of the benefits of 'solo dining' services has a significant positive impact on satisfaction, but it cannot positively influence consumers' willingness to repurchase through the mediating effect of satisfaction. ③ The pleasant perception of 'solo dining' service can have a positive and significant impact on satisfaction, and can also have a positive impact on consumers' repurchase willingness through the full mediating effect of satisfaction. ④ The unique demand perception of 'solo dining' services can have a positive and significant impact on customer satisfaction, and can also have a positive impact on consumer repurchase willingness through the full mediating effect of satisfaction. ⑤ The perception of the social influence of 'solo dining' services does not positively affect customer satisfaction, and it cannot positively influence consumers' willingness to repurchase through the mediating effect of satisfaction. ⑥ The mediating effect of satisfaction in the model is partially significant.

6.2 Suggestions

The results of the hypothesis test indicate that the perception of quality, pleasantness, and uniqueness needs in the 'solo dining' service have a significant positive impact on satisfaction and repurchase willingness. This suggests that these dimensions have a greater impact on consumers' repurchase willingness, possibly because consumers pay more attention to the efficiency, convenience, and positive emotional value of service provided during the 'solo dining' experience, as well as creative choices. The results of the descriptive analysis indicate that for consumers who have not experienced it, the personalized design of the privacy space and the simplified social dining atmosphere provided by 'solo dining' will also increase their expectations for 'solo dining'. Based on this situation and combined with the current development trend of the offline catering industry, the following suggestions are made for

catering enterprises and brands to provide offline 'solo dining' services:

(1) Catering enterprises should pay attention to the demand of consumers for optimized space and efficient service. 'Solo dining' restaurants should adopt an independent partitioned non-face-to-face dining layout to reduce social pressure and enhance the privacy and independence of consumers when dining alone. At the same time, merchants should also increase intelligent equipment based on the spatial characteristics of individual card seats, such as silent call buttons and serving robots, to reduce the communication between consumers and waiters and ensure the convenience of consumers during their dining experience alone.

(2) Catering enterprises should pay attention to the consumer's need for pleasant emotions. To make consumers feel calm and beautiful when eating alone, businesses should increase the readability of the menu and the exquisiteness of the dishes. For example, limited theme packages launched in conjunction with the season, with more encouragement or gifts about themes such as 'self-healing' and 'pleasing oneself', can enhance consumers' enjoyment and emotional resonance. Businesses can also appropriately increase indirect interactions between consumers, such as adding message walls, so that groups of 'solo eaters' can also have a sense of social belonging, while enhancing consumers' memory and stickiness to the brand. Merchants can also build immersive restaurant environments, creating a warm and healing atmosphere through lighting, music, and decoration to enhance the experience of companionship.

(3) Catering enterprises should pay attention to the unique demands of consumers. In order to give consumers the greatest freedom in choosing ingredients, businesses need to provide consumers with complete and meaningful introductions to dishes, such as information on the traceability of ingredients and suggestions for nutritional combinations, to make consumers feel more comfortable in their choices. Based on different consumption levels of consumers, businesses can launch different quality packages, such as organic ingredients for high-end customers and cost-effective packages for middle- and low-end customers. Due to the flexible time of 'solo dining', businesses can also extend their business hours to include services such as breakfast, afternoon tea, and late-night snacks, adapting to the lifestyle and work pace of more 'solo dining' people.

6.3 Reflection and Prospect

The survey in this study still has some limitations. On the one hand, the sample size is small, and the impact of regional cultural differences on service perception has not been taken into account, which may limit the universality of the conclusions. On the other hand, the research did not fully control other potential factors, such as geographical convenience and the variety of dishes, which may make the explanation of service perception on repurchase willingness inaccurate.

Therefore, based on the above analysis, future research in related directions can further explore the differential impact mechanisms of service perception in different food and beverage categories, such as hot pot and fast food. Different categories of service design will have different focuses, with fast food focusing more on efficiency and fine dining emphasizing privacy. In combination with the measurement dimensions of service perception, the internal characteristics of consumers can also be used as a direction for further in-depth research. Psychological variables such as personality traits and preferences for solitude can be introduced to analyze the moderating effect of consumers' service perception on their willingness to repurchase.

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