

# THE RELATIONSHIP BETWEEN OF SERVICE MARKETING MIX, ONLINE MARKETING MIX AND CUSTOMER SATISFACTION OF FRESHIPPO SUPERMARKET IN SHANDONG, CHINA

**Abstract:** This study investigates the effects of the service marketing mix and online marketing mix on customer satisfaction at Freshippo Supermarket in Shandong, China, within the context of new retail development. Using questionnaire data collected from 400 customers and multiple linear regression analysis, the study examines how different marketing dimensions influence customer satisfaction. The results show that Place and People in the service marketing mix, as well as Price in the online marketing mix, have significant positive effects on customer satisfaction. The findings provide practical implications for optimizing marketing strategies in integrated online–offline retail environments.

**Keywords:** Freshippo Supermarket; service marketing mix; online marketing mix

## Introduction

With the rapid development of fresh food retail driven by technological advances such as big data, artificial intelligence, and the Internet of Things, as well as the acceleration of online shopping adoption during the COVID-19 pandemic, customer satisfaction has become a key source of competitive advantage for new retail enterprises (Zeithaml et al., 2018). From a theoretical perspective, the marketing mix framework proposed by Borden (1964) and the 7Ps service marketing mix extended by Booms and Bitner (1981) provide an important basis for analyzing customer satisfaction, as prior studies confirm the significant effects of product, price, place, promotion, people, process, and physical evidence on customer satisfaction (Zeithaml et al., 2018). Moreover, the emergence of digital retailing has led to the evolution of the traditional marketing mix into an online marketing mix that emphasizes personalization and privacy alongside core marketing elements (Chaffey & Ellis-Chadwick, 2019). As a representative new retail brand, Freshippo (Hema Fresh) integrates online and offline channels through an intelligent supply chain, making it an appropriate context for examining how service and online marketing mix factors influence customer satisfaction among consumers in Shandong Province, China.

## Research Objectives

This research use Freshippo Supermarket in Shandong, China to:

1. investigate the impact of the service marketing mix on customer satisfaction
2. examine the impact of online/digital Marketing on customer satisfaction.

## **Literature Review**

This section involves the theoretical foundation of this research namely, consumer behaviour theory, service marketing mix (7Ps) and online marketing mix (6Ps). Brief of each is followed:

### **Consumer Behavior Theory**

Consumer behavior refers to the processes through which consumers acquire, use, and dispose of products or services, and is influenced by a combination of personal, social, psychological, and market-related factors (Blackwell et al., 2006; Kotler & Keller, 2016; Solomon, 2018). In digital retail environments, these influences interact more dynamically, increasing the complexity of consumer decision-making and requiring firms to adopt more precise and adaptive marketing strategies (Lemon & Verhoef, 2016).

### **Service Marketing Mix Theory (7Ps)**

The service marketing mix extends the traditional 4Ps into a 7P framework, including Product, Price, Place, Promotion, People, Physical Evidence, and Process, and emphasizes the integrated role of these elements in shaping service quality and customer experience (Booms & Bitner, 1981). In the context of new retail, effective integration of products and services, employee interactions, service processes, and physical and digital environments is essential for enhancing customer satisfaction and loyalty (Zeithaml et al., 2018).

### **Online Marketing Mix Theory**

The online marketing mix represents an extension of traditional marketing theory in digital environments. It highlights digitalized product value, dynamic pricing, integrated online-offline channels (O2O), data-driven and interactive promotion, as well as the importance of personalization and privacy protection (Chaffey & Ellis-Chadwick, 2019). By leveraging big data and artificial intelligence, firms can deliver personalized recommendations and targeted communication, thereby increasing perceived value and customer satisfaction (Wedel & Kannan, 2016).

### **Customer Satisfaction Theory**

Customer satisfaction is generally defined as the result of a comparison between customers' expectations and actual experiences, as explained by Expectation Confirmation Theory (Oliver, 1980; Bhattacharjee, 2001). It is influenced by factors such as product and service quality, price fairness, brand image, and personalized services, and serves as an important predictor of repeat purchase behavior, customer loyalty, and long-term firm performance (Kotler & Keller, 2016; Zeithaml et al., 2018).

By synthesizing these theories, this study adopts a multidimensional perspective to examine how service and marketing factors influence customer satisfaction at Freshippo under the new retail context. Existing studies mainly focus on the relationships among service marketing, customer experience, and customer satisfaction. Specifically, Chen Yi (2021) and Wu Cui et al. (2022) demonstrate that service marketing mix factors significantly affect customer satisfaction and recommendation intention in the Freshippo context.

More broadly, prior research confirms the positive effects of service quality and customer experience on customer satisfaction (Chen Xinxin, 2020; Masterina et al., 2023; Wang Xu, 2023). Overall, while existing literature provides a solid theoretical foundation, further systematic empirical research focusing on Freshippo is still needed, particularly in integrated digital and offline service environments.

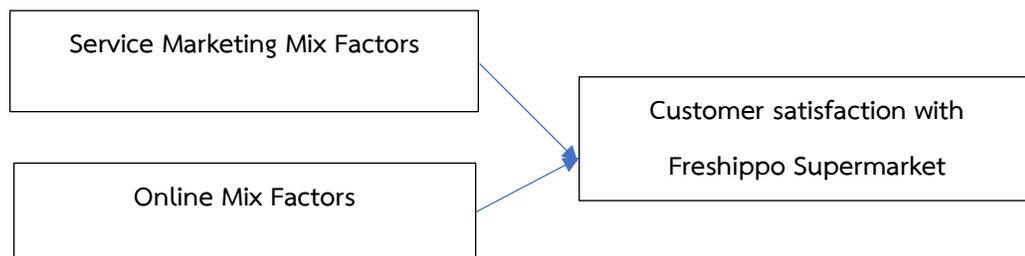


Figure 1: Research Framework

## Hypotheses

H1: The service marketing mix is affected with customer satisfaction of Freshippo Supermarket.

H1.1. Product has a significant positive impact on customer satisfaction. H1.2. Price has a significant positive impact on customer satisfaction. H1.3. Place has a significant positive impact on customer satisfaction. H1.4. Promotion has a significant positive impact on customer satisfaction. H1.5. People has a significant positive impact on customer satisfaction. H1.6. Process has a significant positive impact on customer satisfaction. H1.7. Physical Evidence has a significant positive impact on customer satisfaction.

H2: The online marketing mix is affected with customer satisfaction of Freshippo Supermarket.

H2.1. Product has a significant positive impact on customer satisfaction. H2.2. Price has a significant positive impact on customer satisfaction. H2.3. Place has a significant positive impact on customer satisfaction. H2.4. Promotion has a significant positive impact on customer satisfaction. H2.5. Personalization has a significant positive impact on customer satisfaction. H2.6. Privacy has a significant positive impact on customer satisfaction.

## Research Methodology

This study used a questionnaire as the primary research instrument, covering service marketing mix factors, online marketing elements, and customer satisfaction. All measurement items were adopted and adapted from Chen Yi (2021) based on the 7P service marketing mix framework, with validity and reliability confirmed through expert evaluation and reliability testing. Primary data were collected via online questionnaires distributed through WeChat to Freshippo customers, and the data were analyzed using descriptive statistics and multiple regression analysis to examine the effects of marketing mix factors on customer satisfaction.

## Result and Conclusions

The sample is primarily composed of young and middle-aged consumers, with a slightly higher proportion of females, and is mainly concentrated among office workers and students with moderate shopping frequency and income levels. Respondents exhibit diversified shopping behaviors, with a balanced distribution across online, offline, and integrated online–offline channels, providing a representative basis for subsequent empirical analysis.

Table 1 shows that the marketing mix model is statistically significant ( $R^2 = 0.225$ , adjusted  $R^2 = 0.211$ ;  $F = 16.243$ ,  $p < 0.001$ ), indicating that marketing mix factors explain 22.5% of the variance in customer satisfaction. Among the variables, Place and People have significant positive effects on customer satisfaction ( $p < 0.05$ ), while Product, Price, Promotion, Physical Evidence, and Process are not significant. Diagnostic tests confirm no multicollinearity or autocorrelation issues.

**Table1. Multiple Linear Regression Analysis of Relationship between Service Marketing Mix and Customer Satisfaction**

Model	Unstandardized coefficient		Standardized Coefficients	t	Sig.	Collinearity diagnostics	
	B	Std. Error	Beta			VIF	tolerance
constant	3.541	0.647	-	5.470	0.000**	-	-
Product	0.107	0.090	0.089	1.191	0.234	2.799	0.357
Price	0.093	0.083	0.082	1.116	0.265	2.703	0.370
Place	0.188	0.092	0.148	2.054	<b>0.041*</b>	2.624	0.381
Promotion	0.016	0.084	0.013	0.187	0.851	2.310	0.433
People	0.195	0.090	0.148	2.177	<b>0.030*</b>	2.327	0.430

Physical Evidence	0.101	0.092	0.083	1.098	0.273	2.900	0.345
Process	-0.014	0.090	-0.010	-0.159	0.874	2.189	0.457
<b>R</b>	<b>R<sup>2</sup></b>	<b>Adjust R<sup>2</sup></b>	<b>SE(est.)</b>	<b>F</b>	<b>Sig.</b>	<b>D-W</b>	
<b>0.474</b>	<b>0.225</b>	<b>0.211</b>	<b>0.65</b>	<b>16.243</b>	<b>0.000</b>	<b>1.957</b>	

Note: The dependent variable is customer satisfaction, and \* p <0.05 and \*\* p <0.01

Table 2 indicates that the online marketing mix model is also significant ( $R^2 = 0.218$ , adjusted  $R^2 = 0.206$ ;  $F = 18.212$ ,  $p < 0.001$ ), explaining 21.8% of the variance in customer satisfaction. Price is the only significant predictor ( $p < 0.05$ ), whereas other online factors show no significant effects. Collinearity and residual diagnostics suggest that the model is stable and reliable.

**Table2. Multiple Linear Regression Analysis of Relationship between Online Marketing Mix and Customer Satisfaction**

Model	Unstandardized coefficient		Standardized Coefficients	t	Sig.	Collinearity diagnostics	
	B	Std. Error	Beta			VIF	tolerance
constant	3.591	0.631	-	5.689	0.000**	-	-
Product	0.126	0.089	0.105	1.425	0.155	2.720	0.368
Place	0.123	0.080	0.108	1.542	0.124	2.486	0.402
Price	0.221	0.090	0.173	2.458	<b>0.014*</b>	2.502	0.400
Promotion	0.011	0.085	0.009	0.135	0.893	2.359	0.424
Personalization	0.048	0.100	0.036	0.480	0.632	2.908	0.344
Privacy	0.141	0.088	0.111	1.609	0.108	2.395	0.418
<b>R</b>	<b>R<sup>2</sup></b>	<b>Adjust R<sup>2</sup></b>	<b>SE(est.)</b>	<b>F</b>	<b>Sig.</b>	<b>D-W</b>	
<b>0.467</b>	<b>0.218</b>	<b>0.206</b>	<b>0.68</b>	<b>18.212</b>	<b>0.000</b>	<b>1.999</b>	

Note: The dependent variable is customer satisfaction, and \* p <0.05 and \*\* p <0.01

#### Summary of Results

H1 is partially supported (Place and People).

H2 is partially supported (Price).

Other dimensions (Product, Promotion, etc.) show no significant impact.

**Table 3. Summary of Hypotheses**

Hypothesis (H)	Linear regression results
<b>H1 service marketing mix</b>	<b>Partially supported</b>
H1.1Product	not supported
H1.2Price	not supported
H1.3Place	supported
H1.4Promotion	not supported
H1.5People	supported
H1.6Physical Evidence	not supported
H1.7Process	not supported
<b>H2 online marketing mix</b>	<b>Partially supported</b>
H2.1Product	not supported
H2.2Price	supported
H2.3Place	not supported
H2.4Promotion	not supported
H2.5Personalization	not supported
H2.6Privacy	not supported

**Note: \*\* indicates that  $p < 0.01$ , which is highly significant**

The hypothesis validation results indicate that both the service marketing mix and online marketing mix hypotheses are partially supported. Within the service marketing mix, only Place and People show significant positive effects on customer satisfaction, while the remaining dimensions are not supported. For the online marketing mix, Price is the only significant factor, whereas other dimensions do not exhibit significant impacts, suggesting that channel accessibility, employee-related factors, and pricing are the primary drivers of customer satisfaction at Freshippo Supermarket.

### **Discussion and Conclusion**

This study extends existing literature by examining service and online marketing mix effects on customer satisfaction in a new retail context. Consistent with prior research (Chen Yi, 2021; Wu et al., 2022; Chen Xinxin, 2020), the findings confirm the importance of service-related factors, with Place and People highlighting the roles of omni-channel accessibility and employee performance. In contrast to some previous studies, product quality and promotion were not significant, suggesting they may represent basic expectations rather than differentiating factors at Freshippo. The significant effect of online price supports research on price fairness in digital retailing, while the insignificant impacts of

personalization and privacy reveal gaps between their theoretical relevance and practical implementation. Overall, the results indicate that customer satisfaction in standardized new retail models is primarily driven by channel convenience, service interaction, and perceived price fairness.

### **Recommendation**

Based on the findings, Freshippo should enhance online–offline channel integration to improve convenience, strengthen employee training to service quality, and optimize online pricing strategies to ensure transparency and fairness. In addition, continuous improvement in product quality, promotion, personalization, and data privacy is necessary to support long-term customer satisfaction and sustainable competitiveness.

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