

# THE EFFECT OF MARKETING STRATEGY AND CUSTOMER RELATIONSHIP MANAGEMENT ON CUSTOMER SATISFACTION USING THE SERVICES FROM QINGDAO HENGXING EDUCATION GROUP

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## ABSTRACT

*Purpose* – This study examines the effects of marketing strategies and customer relationship management on customer satisfaction among users of Qingdao Hengxing Education Group services in China, aiming to identify which specific dimensions of marketing mix and CRM practices most significantly influence satisfaction outcomes in private educational service contexts.

*Methodology* – A quantitative research design was employed using a structured questionnaire distributed to 400 customers through convenience sampling. The instrument measured marketing strategies (price, place, product, promotion), customer relationship management (customer retention, customer tracking, useful recommendations, customer feedback, customer relationship building), and customer satisfaction using 5-point Likert scales. Data were analyzed using descriptive statistics, independent samples t-tests, one-way ANOVA, and multiple regression analysis.

*Results* – Marketing strategies significantly influenced customer satisfaction, with promotion emerging as the most influential dimension, followed by product and price, while place showed non-significant effects. Customer relationship management also significantly affected satisfaction, with customer relationship building demonstrating the strongest impact, followed by customer retention and useful recommendations, whereas customer tracking and customer feedback exhibited non-significant influences. The models explained 53.5% and 60.3% of satisfaction variance respectively.

*Implications* – Educational institutions should prioritize promotional activities and relationship-building initiatives to enhance customer satisfaction. Management should strategically allocate resources toward effective communication strategies, trust development, and retention programs rather than distributing efforts equally across all marketing and CRM dimensions.

*Originality/Value* – This research contributes empirical evidence on the differential importance of marketing mix and CRM dimensions in private educational services within the Chinese context, providing actionable insights for educational service providers seeking competitive advantage through strategic customer satisfaction enhancement.

**Keywords:** Marketing strategies, Customer relationship management, Customer satisfaction, Educational services, Private education

**Research Type:** Research Article

## INTRODUCTION

In the present digital economy, characterized by ever-tougher business competition, businesses in manufacturing as well as the service domain need to transform to create a sustainable competitive advantage. A product- or service-centric perspective is no longer enough: the organization needs to be customer-centric, as the customer is the prime mover and engine of growth of business (Sheth et al., 2000). This is especially true for the educational field, which is an academic service field with

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special characteristics and heavy competition. Customers satisfaction, such as that of students or parents' is seen as an end that increases the likelihood of repeat business and relationship marketing (Hennig-Thurau et al., 2001). Two important tools that businesses use to achieve this are marketing strategy and CRM. This is because marketing enables a company to communicate to the target market the value of the pedagogical services through properly designed products, pricing, channels of delivery, and other related promotional efforts (Akroush, 2011). At the same time, customer relationship management is a business practice that involves the identification and pursuit of opportunities and the management of a company's active interaction with current and future customers. This is done by listening to customer requirements and providing a service that surpasses expectations. At the end of the day, both of these approaches aim to provide the customer with the most satisfaction (Payne & Frow, 2005).

Despite the fact that several studies have evaluated the impact of marketing strategy on customer satisfaction (Al-Msallam, 2015) and others have appraised the impact of the adoption of customer relationship management on customer satisfaction (Osarenkhoe & Bennani, 2007), some research gaps exist. First, most of the studies have only considered separately the impact of marketing strategy or the impact of customer relationship management. A gap, therefore, exists in our understanding about how these two practices, operating conjointly in the same firm, impact customer satisfaction and which of the two may have the most important effect. Second, the research context is relatively limited in the education industry (e.g., private non-formal education institutions in China have different competitive relationships and consumer characteristics than those in other Western countries or universities) (Guo, 2021). Finally, the current literature is more feature-driven, with little role of in-depth case studies from studying a single organization, namely Qingdao Hengxing Education Group. A case-study strategy yields rich, meaningful findings that have direct application to the organization being studied (Yin, 2018). Thus, it is very necessary to develop research that combines the two theories in the particular context of a Chinese education class.

Based on the aforementioned significance, the researcher is interested in studying the effect of marketing strategy and customer relationship management on customer satisfaction using the services from Qingdao Hengxing Education Group. The main purpose of this study is to address these gaps by investigating and examining—using empirical data and significant testing—the impact of marketing strategies (product, price, place, and promotion) and customer relationship management (customer retention, customer tracking, useful recommendations, customer feedback, and relationship building) on customer satisfaction in the setting of a private educational organization located in Qingdao, China. The findings of this study will provide benefits in two dimensions. Practically, the administrators in Qingdao Hengxing Education Group can obtain useful and dependable theoretical implications that could help in the current and prospective marketing and in the CRM improvement in terms of performance. This will enable them to understand their customers even more and satisfy them, which has the potential to provide a durable competitive advantage. It will also be used as common sense for other entrepreneurs in the same business. Academically, by offering new, under-researched evidence on the interrelations of this triad, this study will enrich the literature on this subject. The theoretical model in this study may also be a model for other research.

## LITERATURE REVIEW

### ***Marketing Strategies***

Marketing strategies represent comprehensive, coordinated approaches that organizations employ to systematically plan, implement, and control their marketing efforts to achieve organizational objectives while considering specific target markets (Fauziah et al., 2022; Amalia et al., 2022). The development of marketing mix strategies has advanced from the conventional 4Ps model—Product, Price, Place, and Promotion—to more complex models such as the 7Ps for services marketing and the 8Ps for social marketing to demonstrate variation in terms of marketing tactics depending on specific industry (Dewi et al., 2023; Saud, 2022). Marketing strategies are not limited to promotion of products, as the earlier concept would implicate, but include all efforts in adding value, improving customer experience, and establishing long-term

relationships based on market dynamism, technological development, and changing expectations of customers (Peralta et al., 2024). The literature suggested that elements of the marketing mix affect consumers' behavioral and organizational performance in various industries; empirical evidence showed that. Abdullah et al. (2023) found that ASEAN consumers' purchase intention of organic products is influenced by product, price, and promotion strategies, and cultural differences have moderated the relationship between the Malaysian and Chinese markets. Similarly, Al Thabbah et al. (2022) identified the role of pricing strategy as the most significant factor in affecting prescription practices among physicians in pharmaceutical firms—whereas Paramesta (2021) showed that integrated 7Ps strategies could effectively deal with business competition within Islamic economy environments. These results indicate the need for context-specific marketing mix optimization in order to gain competitive advantage and market success.

### ***Customer Relationship Management***

Customer relationship management constitutes a cohesive strategic initiative integrating advanced technology, meticulous processes, and a customer-centric philosophy to create, exchange, communicate, deliver, and enhance customer knowledge throughout the long-term lifecycle (Guerola-Navarro et al., 2024; Chatterjee et al., 2024). The modern CRM system has grown beyond the old limitations to become a well-developed platform that applies big data analytics, artificial intelligence (AI), and machine learning technologies in order to process large amounts of customer information for precise prediction of a variety of customer behaviors, churn patterns, and buying intentions (Xiahou & Harada, 2022). CRM is critically hailed as a tool that can change transaction-based contact between companies and their stakeholders into partnerships with the help of a systematized collection of information, through which an organization offers individualized principal value propositions across various touchpoints in order to maximize customer satisfaction, loyalty, and lifetime value (Pynadath et al., 2023; Suoniemi et al., 2022). Evidence from researchers has consistently supported the significance of CRM to organizational success. Al-Bashayreh et al. (2022) reported that technological readiness, customer pressure, and customer satisfaction had positive effects on e-CRM system success, while customer satisfaction played a significant mediating role between trust and system effectiveness. Binsaeed et al. (2023) showed us the relevance of CRM assets to stimulate customer engagement and innovation performance, underscoring that trust could inhibit both relations. Furthermore, Chen et al. (2020) found frequent use of the CRM system in a financial service setting to be positively related with frontline employees' performance behaviors through their adaptive behaviors. Together these findings underscore the multi-faceted nature of CRM's influence on customer relationships and firm performance.

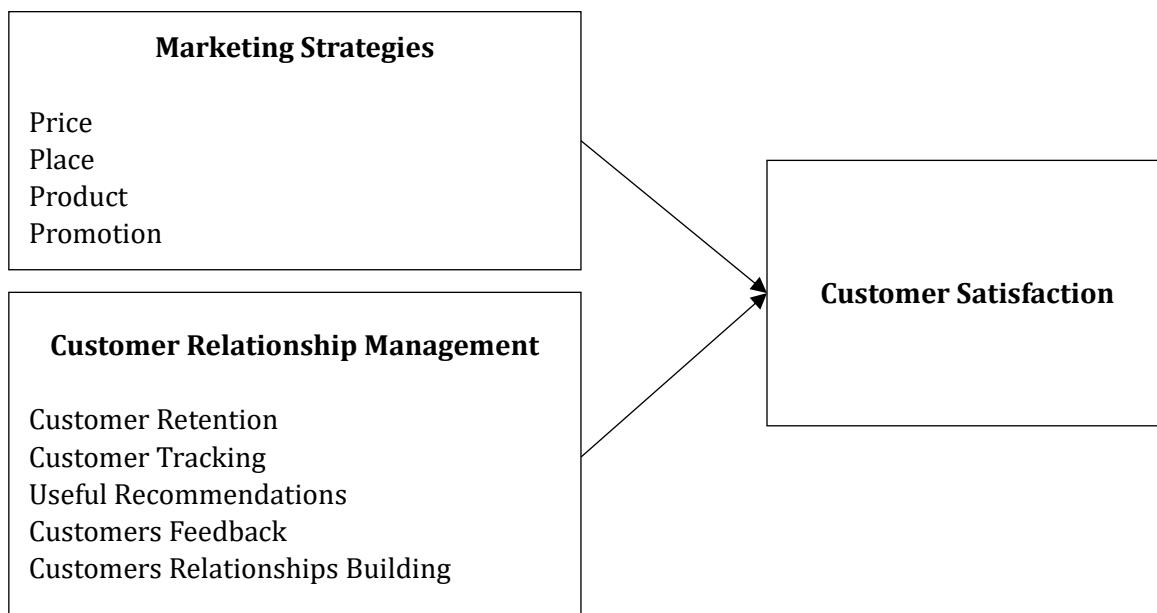
### ***Customer Satisfaction***

Customer satisfaction is a multifaceted and multidimensional judgment in which customers compare their consumption experiences with products, services, or organizations to their expectations prior to consumption, being composed of both cognitive evaluations associated with perceptions of functionality and affective responses developed along various touchpoints at different stages in the customer journey (Gabriel Filho et al., 2023; Santos Neto et al., 2022). This construct has developed from rudimentary gap in expectation-\*performance narrow reviews to complex models including emotional, behavioral, and relational elements, which all play a significant role in customer loyalty and organizational success (Kim & Kim, 2022; Flores et al., 2020). The importance of customer satisfaction measurement is not limited to simply monitoring performance but rather to developing strategies in the decision-making process that link customer experiences with business outcomes such as loyalty, retention, or profits (Li et al., 2020; Baquero, 2022), which requires intricate systems capable of combining quantitative measures and qualitative analyses. Satisfaction has been widely recognized as a key response in various services capes, from an empirical point of view. Santos Neto et al. (2022) reported that trust, quality, and value together mediated customer satisfaction in electricity distribution services using structural equation modeling on longitudinal data of 86,175 households. Li et al. (2020) used three-factor theory to investigate hotel guest satisfaction, indicating that room quality was

the primary determinant for domestic guests and service quality was the most significant factor for foreign guests, suggesting a moderating effect of culture. Additionally, Malhotra et al. (2023) identified satisfaction as an essential antecedent of customer engagement behavior, where cognitive and affective mediators actually facilitated the process by which a level of firm-level benefits would eventually materialize in higher education settings through positive word-of-mouth and better human capital performance.

### ***Hypothesis Development***

The existing theoretical and empirical bases in relevant literature support a priori articulation of linkages between marketing strategies, CRM, and customer satisfaction. For H1, that customer satisfaction is affected by marketing strategy before effective integration of various components in the marketing mix affects perceptions and outcomes for consumers has been widely proven. Abdullah et al. (2023) also reported remarkable and positive effects of product, price, and promotion strategies on consumer purchase behavior for organic products; this showed that properly created marketing strategies increase the quality of customer responses, as well as their satisfaction. Dewi et al. (2023) found that the marketing mix had a significant positive impact on purchase intention, indicating the importance of integrated marketing theorizations in developing favorable consumer attitudes. Furthermore, Nagarathinam et al. (2021) demonstrated how Nestlé's strategic blending of the marketing mix tools that included product innovation, competitive pricing, intensive distribution, and promotional strategies ensured market competitiveness and customer satisfaction. With regard to H2, in the case of suggesting that customer relationship management has an impact on customer satisfaction, empirical support is also strong. Al-Bashayreh et al. (2022) found that satisfaction was an important mediator of e-CRM system success, with trust having a significant impact on satisfaction, which means that good skills in CRM make customers happy. Malhotra et al. (2023) found evidence of positive service relationships that produce value for both customers and firms in terms of engagement behaviors and human capital outcomes. Additionally, Binsaeed et al. (2023) proved that CRM capabilities have effects on customer engagement, which then led to boosted relationship quality as well as innovation performance. The overlap of these outcomes makes a strong rationale to analyze how marketing strategies and CRM practices independently drive customer satisfaction improvement in educational services. Accordingly, the conceptual framework can be drawn as follows:



**Figure 1.** Conceptual Framework

## METHODOLOGY

Based on a quantitative research method, the study aimed to explore the impact of marketing strategy and customer relationship management on customer satisfaction of Qingdao Hengxing Education Group service users. The target sample was all customers who have, or who currently do, use services offered by the Hengxing Group of Education Institutions in Qingdao (PRC), including students studying various courses and their parents and individuals using counseling and additional services. The sampling size of 400 respondents was selected on the basis that it would be suitable for an advanced statistical analysis, such as multiple regression analysis, to be conducted where a sample should be large enough to provide reliability and power in terms of statistics (Umam & Jermitsittiparsert, 2019). The sampling method employed was non-probability sampling, to be specific convenience sampling; data were gathered from individuals that fulfilled certain requirements and could be reached during the period when the data were gathered, like customers who visited the institution for their queries or services. The researcher concedes the limitations of such an approach in terms of representativeness; however, data collection was spread throughout several time periods to reduce bias and increase diversity in response rates while minimizing unique variance introduced through systematic sampling from a convenience sample method.

The research instrument consisted of a structured questionnaire comprising four distinct sections designed to comprehensively measure all variables under investigation. Part 1 collected general demographic information through seven variables, including gender, age, marital status, current occupation, monthly income, work experience, and interested study level, measured using nominal and ordinal scales appropriate for categorical and ranked data. Part 2 assessed marketing strategies through 20 items distributed equally across four dimensions: price, place, product, and promotion, with five indicators per dimension, consistent with the traditional marketing mix framework (Fauziah et al., 2022; Abdullah et al., 2023). Part 3 evaluated customer relationship management using 25 items covering five key constructs: customer retention, customer tracking, useful recommendations, customer feedback, and customer relationship building, with five indicators per construct, reflecting contemporary CRM measurement frameworks (Guerola-Navarro et al., 2024; Al-Bashayreh et al., 2022). Part 4 measured customer satisfaction through five carefully developed indicators assessing overall contentment, expectation fulfillment, and positive emotional responses (Malhotra et al., 2023; Santos Neto et al., 2022). All items in Parts 2, 3, and 4 employed a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), generating interval-scale data suitable for parametric statistical analysis. The instrument's validity was established through expert review by three specialists in marketing and business management who evaluated the Index of Item-Objective Congruence (IOC), retaining only items scoring 0.50 or higher. Reliability was confirmed through pilot testing with 30 participants sharing similar characteristics with the target population but excluded from the final sample, achieving Cronbach's Alpha coefficients of 0.70 or higher for all constructs, thereby demonstrating acceptable internal consistency and measurement reliability for social science research.

Primary data were collected directly from the target population using self-administered questionnaires personally distributed at Qingdao Hengxing Education Group facilities to ensure direct access to respondents and higher response quality. The researcher introduced the study objectives, obtained informed consent from all participants prior to questionnaire distribution, and emphasized confidentiality by assuring that all personal information would be protected and analyzed anonymously at the aggregate level only. This approach facilitated immediate clarification of any questions respondents might have regarding the questionnaire items, thereby enhancing data quality and completeness. The data collection process was conducted across multiple timeframes to capture diverse customer perspectives and minimize temporal bias. Secondary data were gathered from credible third-party sources to provide theoretical foundations supporting the literature review and contextual understanding of the case organization (Ferreira, 2019; Nagarathinam et al., 2021). These sources included peer-reviewed academic articles from international journals, official institutional websites, industry reports analyzing educational services, textbooks on marketing and customer relationship management,

theses and dissertations from university repositories, and comprehensive research reports providing insights into contemporary educational service delivery and customer behavior patterns in the Chinese educational context.

Data analysis employed both descriptive and inferential statistical techniques to address the research objectives comprehensively. Descriptive statistics were utilized to summarize and describe the fundamental characteristics of collected data, with frequency distributions and percentages applied to general demographic information to profile the sample composition, while means and standard deviations were calculated for all rating-scale variables, including marketing strategies dimensions (price, place, product, promotion), customer relationship management constructs (customer retention, customer tracking, useful recommendations, customer feedback, customer relationship building), and customer satisfaction indicators, providing clear overviews of central tendencies and variability in respondent opinions (Dewi et al., 2023). Inferential statistics were employed to test research hypotheses and generalize sample findings to the broader population. Hypotheses H1 and H2, positing that marketing strategies and customer relationship management, respectively, influence customer satisfaction, were tested using multiple regression analysis with the enter method (Umam & Jermstittiparsert, 2019). To ensure the validity of multiple regression analysis, key statistical assumptions were verified, including normality of distribution (through skewness and kurtosis), absence of multicollinearity (Variance Inflation Factor: VIF < 10), linearity and homoscedasticity (through residual plots), and independence of observations. All diagnostic tests confirmed that the data satisfied the required assumptions for parametric statistical analysis.

## RESULTS

### *Profiles of Respondents*

The demographic profile of the 400 respondents revealed diverse characteristics across multiple dimensions. Regarding gender distribution, the majority of respondents were female (44.5%), followed by those who preferred not to disclose or identified as other (33.3%), and male respondents (22.3%). Age distribution showed that respondents aged 18-25 years constituted the largest group (30.0%), followed by those under 18 years (28.5%), 26-35 years (22.5%), 36-45 years (13.5%), 46-55 years (3.5%), and 56 years and above (2.0%). For marital status, single respondents represented the majority (51.0%), followed by married individuals (38.8%), and divorced or widowed respondents (10.3%). Current occupation distribution indicated that government officers or state enterprise employees formed the largest group (33.3%), followed by private company employees (26.3%), students (19.5%), business owners or freelancers (16.0%), and homemakers (5.0%). Average monthly income analysis revealed that the 5,001-10,000 CNY bracket was most common (32.8%), followed by below 5,000 CNY (23.5%), 10,001-20,000 CNY (21.0%), 20,001-30,000 CNY (15.5%), and above 30,000 CNY (7.3%). Work experience distribution showed that respondents with less than 3 years of experience represented the largest proportion (31.5%), followed by those with no work experience (28.0%), 3-5 years (22.0%), 6-10 years (10.8%), and more than 10 years (7.8%).

### *Marketing Strategies, Customer Relationship Management, Customer Satisfaction*

**Table 1.** Descriptive Statistics of Marketing Strategies, Customer Relationship Management, and Customer Satisfaction (N = 400)

Variables	Mean	Std. Deviation	Opinion Level
<b>Marketing Strategies</b>			
Price	4.24	0.57	Strongly agree
Place	3.96	0.62	Agree
Product	3.93	0.67	Agree
Promotion	3.94	0.68	Agree
Total	4.02	0.59	Agree

**Table 1.** (Cont.)

Variables	Mean	Std. Deviation	Opinion Level
<b>Customer Relationship Management</b>			
Customer Retention	3.94	0.65	Agree
Customer Tracking	3.89	0.69	Agree
Useful Recommendations	3.95	0.70	Agree
Customers Feedback	3.63	0.77	Agree
Customers Relationships Building	3.71	0.79	Agree
Total	3.82	0.67	Agree
<b>Customer Satisfaction</b>			
Customer Satisfaction	3.98	0.63	Agree

Note: 1.00–1.80 = Strongly Disagree, 1.81–2.60 = Disagree, 2.61–3.40 = Neutral, 3.41–4.20 = Agree, 4.21–5.00 = Strongly Agree

The descriptive analysis of marketing strategies, customer relationship management, and customer satisfaction variables revealed varying levels of respondent agreement. For marketing strategies, the overall mean score was 4.02 (SD = 0.59), indicating an "Agree" level of opinion. Among the four dimensions, price received the highest mean score of 4.24 (SD = 0.57) at the "Strongly agree" level, followed by place with a mean of 3.96 (SD = 0.62), promotion with a mean of 3.94 (SD = 0.68), and product with a mean of 3.93 (SD = 0.67), all at the "Agree" level. For customer relationship management, the overall mean score was 3.82 (SD = 0.67), reflecting an "Agree" level of opinion. The five constructs showed that useful recommendations achieved the highest mean of 3.95 (SD = 0.70), followed by customer retention with a mean of 3.94 (SD = 0.65), customer tracking with a mean of 3.89 (SD = 0.69), customer relationship building with a mean of 3.71 (SD = 0.79), and customer feedback with the lowest mean of 3.63 (SD = 0.77), all maintaining an "Agree" level. Customer satisfaction demonstrated a mean score of 3.98 (SD = 0.63), indicating an "Agree" level of opinion among respondents regarding their overall satisfaction with services from Qingdao Hengxing Education Group.

### **Hypothesis Testing**

H1: Marketing strategies have an effect on customer satisfaction

**Table 2.** Multiple Regression Analysis of Marketing Strategies on Customer Satisfaction

Marketing Strategies	Coefficients			t	Sig.	Collinearity Statistics	
	B	SE	Beta			Tolerance	VIF
(Constant)	1.082	0.164		6.605	0.000***		
Price	0.138	0.064	0.124	2.137	0.033*	0.347	2.881
Place	-0.095	0.087	-0.095	-1.099	0.273	0.159	6.295
Product	0.260	0.095	0.277	2.746	0.006**	0.115	8.659
Promotion	0.424	0.083	0.457	5.079	0.000***	0.146	6.867

R = 0.732; R<sup>2</sup> = 0.535; Adjusted R<sup>2</sup> = 0.531; S.E.E. = 0.430; Durbin-Watson = 1.761; Sig. = 0.000

Note. SE = Standard Error; \* = p < .05; \*\* = p < .01; \*\*\* = p < .001.

The multiple regression analysis examining the effects of marketing strategies on customer satisfaction revealed significant findings. The constant term was 1.082 (SE = 0.164, t = 6.605, p < 0.001). Among the four marketing strategy dimensions, promotion demonstrated the strongest effect with a standardized coefficient of 0.457 (B = 0.424, SE = 0.083, t = 5.079, p < 0.001), followed by product with a standardized coefficient of 0.277 (B = 0.260, SE = 0.095, t = 2.746, p = 0.006), and price with a standardized coefficient of 0.124 (B = 0.138, SE = 0.064, t = 2.137, p = 0.033). Place showed a non-significant negative effect with a standardized

coefficient of -0.095 ( $B = -0.095$ ,  $SE = 0.087$ ,  $t = -1.099$ ,  $p = 0.273$ ). The overall model demonstrated strong predictive power with  $R = 0.732$ ,  $R^2 = 0.535$ , and Adjusted  $R^2 = 0.531$ , indicating that marketing strategies explained 53.5% of the variance in customer satisfaction. The standard error of estimate was 0.430, and the Durbin-Watson statistic of 1.761 suggested no serious autocorrelation concerns. Collinearity statistics showed tolerance values ranging from 0.115 to 0.347 and VIF values ranging from 2.881 to 8.659, with the overall model achieving statistical significance ( $p < 0.001$ ).

H2: Customer relationship management has an effect on customer satisfaction

**Table 3.** Multiple Regression Analysis of Customer Relationship Management on Customer Satisfaction

Customer Relationship Management	Coefficients			t	Sig.	Collinearity Statistics	
	B	SE	Beta			Tolerance	VIF
(Constant)	1.103	0.125		8.832	0.000***		
Customer Retention	0.252	0.069	0.260	3.668	0.000***	0.201	4.980
Customer Tracking	0.110	0.077	0.122	1.437	0.151	0.141	7.117
Useful Recommendations	0.177	0.069	0.197	2.561	0.011*	0.170	5.896
Customers Feedback	-0.020	0.071	-0.025	-0.283	0.777	0.132	7.578
Customers Relationships Building	0.224	0.064	0.282	3.506	0.001**	0.156	6.416

$R = 0.777$ ;  $R^2 = 0.603$ ; Adjusted  $R^2 = 0.598$ ; S.E.E. = 0.398; Durbin-Watson = 1.754; Sig. = 0.000

Note. SE = Standard Error; \* =  $p < .05$ ; \*\* =  $p < .01$ ; \*\*\* =  $p < .001$ .

The multiple regression analysis examining the effects of customer relationship management on customer satisfaction yielded significant results. The constant term was 1.103 ( $SE = 0.125$ ,  $t = 8.832$ ,  $p < 0.001$ ). Among the five constructs, customer relationship building exhibited the strongest effect with a standardized coefficient of 0.282 ( $B = 0.224$ ,  $SE = 0.064$ ,  $t = 3.506$ ,  $p = 0.001$ ), followed by customer retention with a standardized coefficient of 0.260 ( $B = 0.252$ ,  $SE = 0.069$ ,  $t = 3.668$ ,  $p < 0.001$ ), and useful recommendations with a standardized coefficient of 0.197 ( $B = 0.177$ ,  $SE = 0.069$ ,  $t = 2.561$ ,  $p = 0.011$ ). Customer tracking showed a non-significant positive effect with a standardized coefficient of 0.122 ( $B = 0.110$ ,  $SE = 0.077$ ,  $t = 1.437$ ,  $p = 0.151$ ), while customer feedback demonstrated a non-significant negative effect with a standardized coefficient of -0.025 ( $B = -0.020$ ,  $SE = 0.071$ ,  $t = -0.283$ ,  $p = 0.777$ ). The overall model exhibited strong predictive capability with  $R = 0.777$ ,  $R^2 = 0.603$ , and Adjusted  $R^2 = 0.598$ , indicating that customer relationship management explained 60.3% of the variance in customer satisfaction. The standard error of estimate was 0.398, and the Durbin-Watson statistic of 1.754 indicated no substantial autocorrelation issues. Collinearity statistics revealed tolerance values ranging from 0.132 to 0.201 and VIF values ranging from 4.980 to 7.578, with the overall model achieving statistical significance ( $p < 0.001$ ).

## DISCUSSION AND IMPLICATIONS

The results provide strong evidence that marketing strategies significantly influence customer satisfaction among Qingdao Hengxing Education Group users, with the model explaining 53.5% of variance in satisfaction. Among the four marketing dimensions, promotion emerged as the strongest predictor, suggesting that integrated marketing communication strategies, brand awareness campaigns, and promotional activities are critically important in educational service contexts. This aligns with Abdullah et al. (2023) and Nagarathinam et al. (2021), who demonstrated the effectiveness of comprehensive promotional strategies in enhancing customer satisfaction and brand loyalty. Product quality also showed significant positive influence, consistent with Paramesta (2021), who emphasized service quality as fundamental to successful marketing strategy in service industries. Price strategies demonstrated moderate yet significant

effects, supporting Al Thabbah et al. (2022) regarding the importance of competitive pricing in service marketing. However, place showed non-significant negative effects, which warrants careful interpretation. This finding may reflect the digital transformation of educational service delivery, where online platforms, virtual classrooms, and hybrid models have diminished the importance of physical location (Hodges et al., 2020). In urban Chinese contexts like Qingdao, advanced transportation infrastructure and mobile technology may have reduced location-related barriers, making physical place less differentiating among competitors. For high-involvement educational services, factors such as service quality, value perception, and brand reputation may overshadow location considerations. This suggests that physical location serves as a necessary hygiene factor but not a sufficient differentiator for enhancing customer satisfaction in the modern educational landscape, where delivery methods continue evolving with technological advancement and changing consumer expectations.

The findings strongly support the influence of customer relationship management on customer satisfaction, with the model explaining 60.3% of variance, indicating slightly stronger explanatory power than marketing strategies. Customer relationship building emerged as the most influential dimension, emphasizing the critical importance of trust development, commitment nurturing, and long-term relationship cultivation in educational settings, consistent with Guerola-Navarro et al. (2024). Customer retention demonstrated significant positive effects, supporting Binsaeed et al. (2023) regarding CRM capabilities' impact on engagement and relationship quality. Useful recommendations also showed significant influence, aligning with Pynadath et al. (2023) on the value of data-driven personalization. However, customer tracking and customer feedback showed non-significant effects requiring explanation. Customer tracking's non-significance suggests that systematic monitoring may function more as an operational tool than a direct satisfaction driver unless translated into tangible personalized benefits (Kumar & Reinartz, 2018). The unexpected negative coefficient for customer feedback, though statistically insignificant, may reflect survey fatigue in educational contexts where students and parents face multiple evaluation demands (Porter et al., 2004), or indicate that feedback collection without demonstrable action does not enhance satisfaction (Homburg & Fürst, 2005). Cultural factors in the Chinese context may also influence feedback provision, as concerns about face-saving or potential consequences may inhibit honest feedback (Guo, 2021). These findings suggest that relationship-oriented practices emphasizing trust, retention, and personalized recommendations directly enhance satisfaction, while data collection mechanisms may operate indirectly through their impact on other relationship quality dimensions, consistent with Al-Bashayreh et al. (2022) regarding satisfaction's mediating role in CRM effectiveness.

This study offers important theoretical and managerial contributions. Theoretically, it demonstrates that marketing mix and CRM dimensions exert differential rather than uniform influence on satisfaction in educational service contexts, with promotion and relationship building showing the strongest impacts while place and customer feedback show non-significant effects. This challenges assumptions of homogeneous construct importance and confirms that service industry models must account for dimension-specific effects, particularly in high-involvement contexts where intangible service characteristics and relational exchanges weigh more heavily than tangible elements. By simultaneously examining marketing strategy and CRM in an integrated model, the research reveals that CRM dimensions explain slightly more variance than marketing strategies, suggesting the primacy of relationship-oriented approaches in service satisfaction. Managerially, educational institution leaders should prioritize investments according to demonstrated effect sizes: primary focus on integrated promotional strategies encompassing traditional and digital channels to build brand recognition and communicate value propositions; secondary emphasis on relationship building through personalized communication, trust development, and long-term engagement strategies; substantial investment in service quality enhancement and retention programs including curriculum improvement and teaching quality development; and maintenance of competitive pricing with transparent value communication. The non-significant effects of place and customer feedback suggest these should be treated as operational foundations rather than primary strategic investments. In the Chinese educational context, strategies must be adapted to cultural

frameworks emphasizing Guanxi relationships, collective decision-making, and reputation consciousness rather than directly transplanting Western marketing frameworks.

## **LIMITATIONS AND FUTURE RESEARCH POSSIBILITIES**

This study has several methodological and contextual limitations that need to be addressed when considering the findings. The first limitation is the adoption of a convenience sampling approach, which has poor external validity in terms of generalizability to the population from which education service users are drawn; hence, respondents were selected based on availability rather than random probability-based methods, increasing the chances that selection bias may have occurred. Second, the cross-sectional nature in which data is collected does not allow for investigating causality as well as time dynamics when concerning marketing strategies and customer relationship management in terms of satisfaction over a long period. Third, this study concentrates only on Qingdao Hengxing Education Group in China, thus reducing potential results' generalizability to other schools or different areas or cultures wherein customers' expectations and standards of service evaluation could be greatly different. Fourth, the data source of the self-reported questionnaire may cause common method bias, social desirability effects, and subjectivity measurement errors.

There are several promising directions for future work to relax these limitations. Longitudinal research using panel data designs would provide insight into how marketing initiatives and CRM practices affect satisfaction trajectories over time to show dynamic patterns among relationships and long-term durability of interventions. However, by comparing across institutions, geographies, and cultures to expand cross-level understanding, an opportunity arises to develop a more nuanced understanding of how contextual factors moderate the direct effects of marketing and CRM on satisfaction, which may manifest along local (culture-specific) or institutional (institution-specific) lines. These sorts of mixed-method approaches that combine qualitative interviews, focus groups, and observational data along with quantitative method are the types of tools that could potentially yield such insights about underlying mechanisms and user experiences, which you can't get at if you're just looking at quant. Accordingly, future research should examine mediating factors like perceived value, trust, commitment, and service quality that can account for the effect of marketing and CRM on satisfaction. By exploring the interaction effects between marketing strategies and CRM practices, studies would offer insights into synergies or trade-offs. Future study can also examine the moderator effects of such customer characteristics, types of services, and intensity of market competition. Last, experimental or quasi-experimental designs with specific marketing interventions or CRM initiatives as the treatment would help cultivate direct evidence for practical decision-making in the management of educational services.

## **CONCLUSION**

This research suggests some evidence that marketing strategy and customer relationship management factors affect customer satisfaction in private educational services in Qingdao Hengxing Education Group users. The results indicate that both marketing strategies and customer relationship management practices significantly affect customer satisfaction; however, in different magnitudes across dimensions. As we try to interpret these results, promotion has become the most important marketing element, and attracting relationships seems to be the biggest driving factor in customer relations with a firm; then clearly transferring communication activity is needed for building trust. These findings are helpful for educational institutions in their distribution to allocate resources merely to have students satisfied. The study concludes that all marketing and CRM elements are not equally important, which means the educational service providers should focus more on relationship-oriented strategies and communicative-focused plans rather than transactional motives. The study contributes to advancing the theoretical bases for educational marketing and relationship management, in addition to offering practical implications for practitioners who wish to improve service quality and customer retention within competitive private education markets.

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## CONFLICTS OF INTEREST

The author declares that there are no conflicts of interest found in this research.

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