Call Center Industry Research on Customer Satisfaction Promotion Strategy

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Abstract. Customer satisfaction in call center industry faces significant pain points such as low result authenticity and poor guidance. Through process optimization, this study helps enterprises in the call center industry accurately identify management pain points, and conducts in-depth analysis on the questionnaire feedback results of 175 B-side customers to find out the correlation and factors affecting enterprise customer satisfaction. The research shows that external customers value the delivery of quality & efficiency and value-added, while internal customers value the delivery of per capita efficiency and execution. From the perspective of results, there is a positive correlation between external customer satisfaction, internal customer satisfaction and customer collection rate. From the perspective of process, if an enterprise wants to obtain relatively accurate customer satisfaction survey information, it must take a series of measures such as accurate customer positioning, appropriate model building and accurate survey topics. Based on the business practice of enterprises, the research results are verified and tested in this study, which provides a reference for enterprises in the call center industry to solve the problems in customer satisfaction management.

Keywords: Customer satisfaction · Questionnaire survey · Promotion strategy · Call center

1 Introduction

In the era of "digitalization", customers' demands and expectations are iterated rapidly, and all industries are generally facing intense market competition. Therefore, we must tightly grasp the customer satisfaction management to obtain the hidden information of the market and customer potential demand. However, the management level of customer satisfaction in various industries is uneven, mainly reflected in the deviation of sample positioning, lack of professional model, unreasonable design of research topics, unprofessional analysis of research results and other problems, leading to inaccurate customer satisfaction results. This directly leads to the inability of the enterprise to prospectively acquire customer requirements and to implement post-modification with resource tilt. Therefore, it is imperative to explore the influence degree of customer satisfaction factor and other relationships related to customer satisfaction and provide solutions to improve customer satisfaction under the premise of doing a good job of customer satisfaction questionnaire survey.

As the receiving party of the BPO industry, call center enterprises are mainly positioned as B-terminal customers. Based on the management thought guided by the balanced scorecard, the internal and external display results of enterprise management must be closely related to its internal management. This study compares the external customer satisfaction data of M company with the internal customer satisfaction and customer collection rate data over the years, and finds that the correlation between external customer satisfaction, internal customer satisfaction and customer collection rate is very low. The results of data analysis are not consistent with the management view guided by the balanced scorecard. Aiming at the disadvantages of customer satisfaction management in the call center industry at present, this study innovates it through process optimization, uses principal component analysis to identify the influence degree of result factors, and verifies the correlation between external customer satisfaction, internal customer satisfaction and customer collection rate with data results. Based on the practical results, we provide solutions to improve customer satisfaction, in order to provide reference cases for enterprises in the call center industry to solve the problems in customer satisfaction management.

2 Theoretical Basis and Literature Review

2.1 Theories Related to Customer Satisfaction

Customer satisfaction is the gap between the customer's expectation of product or service delivery and the actual experience of delivery results. It is one of the important indicators of customer relationship management. Customer satisfaction is an important way for enterprises to improve market competitiveness and maintain industry sensitivity. Only by firmly grasping the real situation of customer satisfaction, real-time adjustment strategy can retain market share and continuously expand the business territory. Many enterprises can improve customer repurchase rate, increase customer loyalty and other methods to build good customer trust, in order to achieve sound development.

2.2 Research Status of Customer Satisfaction at Home and Abroad

Since the 1990s, foreign experts and scholars have conducted a lot of exploration and research on customer satisfaction, and achieved remarkable results. Oliver (1997) defined customer satisfaction as a perceived state of customer satisfaction with their own needs in the process of consumption. Athanassopoulos (2000) divided customers into individual and commercial types and analyzed them respectively. Cardozo first mentioned the concept of customer satisfaction and introduced marketing to it. Dhingra (2013) studied the case of customer satisfaction caused by employee dissatisfaction in an outsourcing company. Iriqat and Jaradat (2020) explore the impact of digital transformation strategies on customer satisfaction by determining their impact on customer satisfaction in the Palestinian telecommunications industry.

Wang Yongqing and Yan Haoren (2000) studied and built a system for satisfaction evaluation based on foreign customer satisfaction theories. Liu Yi (2008) made a specific analysis of the customer characteristics of BPO enterprises and established the customer

satisfaction evaluation index system of BPO enterprises. Li Mengjin (2019) summarized the index system for evaluating customer satisfaction in call centers after studying some theories about satisfaction.

The research of customer satisfaction abroad has a certain research basis in the concept method, strategic orientation, model building, etc., but in the practical application, it still needs to be tested according to different cultural situations. After the introduction of foreign advanced theories, the research on customer satisfaction of service outsourcing enterprises has gradually become systematic. However, today's customer requirements need to be more sensitive to our capture, more timely feedback. Therefore, in order to make a customer satisfaction improvement strategy more suitable for the call center industry, it is necessary to fully tap the voice of customers based on solid academic theoretical tools, combine the characteristics of the industry, and make a customer satisfaction improvement plan with industry characteristics.

3   Research and Design

3.1   Research Methods

Through process sorting, this study respectively optimized and improved the customer satisfaction management process in customer definition, survey form, model design, survey topic design, questionnaire release and recovery, data processing, performance guidance and other aspects. In terms of customer definition, the survey customer type has been adjusted from the original single external customer to external customer plus internal customer, which makes the survey scope more complete and the survey data more comprehensive. In terms of the survey form, the original semi-annual survey with fixed frequency has been adjusted to include real-time participatory observation and structured interview on the basis of the fixed frequency survey. As shown in Fig. 1, in the model design of external customer satisfaction questionnaire, ACSI and CCSI models are used for reference, and a satisfaction management model suitable for the call center industry is issued after personalized analysis of the current situation of the industry. Considering customer value-added perception and customer loyalty, two factors of "customer EVA" and "customer re-purchase/recommendation" are added to the model.

In the process of sending customer satisfaction questionnaires, data recovery and analysis, the CRM system and data processing system help to improve the utilization rate of data. In the aspect of performance guidance, the balanced scorecard is adopted for performance design, and the assessment weight is distinguished according to the customer attributes of the production department and the logistics department.

To sum up, to obtain accurate customer satisfaction survey data, enterprises must achieve accurate customer positioning, appropriate model building, accurate survey topics, accurate sample capture, and professional data analysis. Process optimization will improve the internal management efficiency of the enterprise, and performance guidance will accelerate the implementation of strategic adjustment, so as to improve efficiency and reduce consumption. The external customers will be more and more satisfied with the service of the enterprise, so it will generate higher customer trust and more service demand, which will be conducive to the operation and healthy and sustainable development of the enterprise. In addition, the regression analysis method is adopted in this study
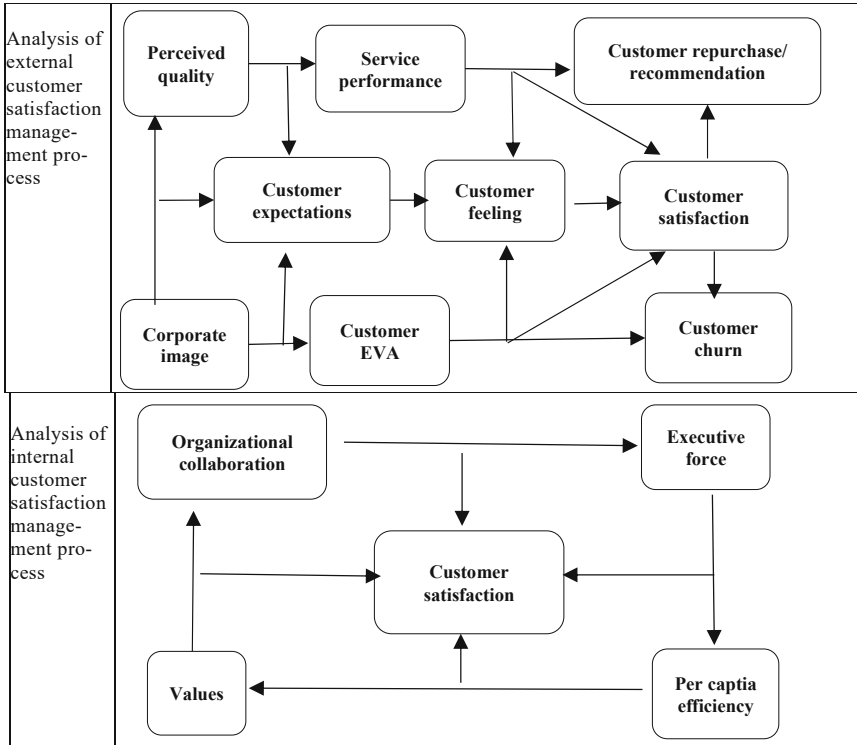
Fig. 1. Customer satisfaction management process analysis

to help enterprises determine the impact of customer satisfaction research factors, rank the main and secondary factors affecting customer satisfaction, and prioritize resource investment to develop improvement measures.

3.2 Sample Selection and Data Sources

This paper takes M Company, a representative enterprise in the domestic call center industry, as the sample, and the survey objects include external customers and internal customers. The external customers are mainly the clients of the B end of the outsourcing service undertaken by the enterprise, including domestic e-commerce, air tourism and so on. Internal customers refer to all production departments and logistics departments within the enterprise. The selection of samples is mainly based on the labels marked by the marketing and operation managers in their daily communication with customers on the CRM platform. A total of 320 mail questionnaires were triggered by one button of the platform, and 175 were effectively recovered with an effective recovery rate of 54.68%.

4   Research Results

4.1   Descriptive Statistics

Descriptive statistics are made on the relevant characteristics of the survey samples. M company involves 12 types of external customers and 6 types of internal customers, totaling 18 types. The statistical results are shown in Table 1.

4.2   Regression Analysis

For external customer satisfaction analysis, respectively from the impact factor and the overall evaluation of the correlation analysis and regression analysis. The correlation analysis measures the correlation between the four factors of quality & efficiency, value added, communication and cost performance and the overall evaluation of external customer satisfaction. The results are shown in Table 2 and 3.

Through regression analysis, it is found that the influence degree of four factors, including quality & efficiency, value-added, communication and cost performance, on the overall satisfaction of external customers can help enterprises to solve the limited resources, and the most effective factors to make improvement efforts to the four factors.

The internal customer satisfaction is analyzed, and the internal customer satisfaction is explored from four aspects: values, organizational coordination, executive force and per capita efficiency. It can be seen that the reliability of the questionnaire is very good, and the partial correlation between variables in the validity analysis is strong, which can be used for factor analysis.

As shown in Table 5, the linear regression results of the four factors of M company's internal customer satisfaction including values, organizational coordination, executive force and per capita efficiency show that R^2 is 0.897, the regression coefficient β of values on internal customer satisfaction is 0.265 ($p < 0.01$), the regression coefficient β of organizational coordination on internal customer satisfaction is 0.207 ($p < 0.01$), and the regression coefficient β of executive force on internal customer satisfaction is 0.302 ($p < 0.01$). The regression coefficient β of per capita efficiency on internal customer satisfaction was 0.312 ($p < 0.01$). The influence degree of each factor can be clearly seen through linear regression analysis, which is helpful to improve the resource tilt during promotion.

Regression result of external customer satisfaction = 0.416 quality & efficiency + 0.384 value added + 0.141 communication + 0.202 cost performance. Regression result of internal customer satisfaction = 0.265 values + 0.207 organizational collaboration + 0.302 executive force + 0.312 per capita efficiency. Therefore, in order to improve external customer satisfaction, enterprises should prioritize effective resources into quality & efficiency and value-added, while in order to improve internal customer satisfaction, enterprises should first concentrate limited resources on per capita efficiency and execution.

Table 1. Descriptive statistics of the research sample

	Detail classification	Number of customers (individual)	Age of customers (years)	Years of service (years)	Education
Descriptive statistics of external customers	Government public	18	36	6.5	> = Undergraduate
	E-commerce	74	29	4.5	> = Undergraduate
	Consumer electronics	22	32	5.2	Undergraduate
	Banks	4	30	5.5	> = Undergraduate
	Air travel	3	29	3.2	Undergraduate
	Logistics and transportation	7	38	4.3	Undergraduate
	Energy	4	37	6.3	< = Undergraduate
	Medical care and livelihood	3	40	4.5	Undergraduate
	Financial Services	6	37	5.5	> = Undergraduate
	Insurance	4	33	2.2	< = Undergraduate
	Telecommunications services	8	36	4.3	< = Undergraduate
	Cars	7	30	6.8	> = Undergraduate
	Finance Department Administrative Management Department	3 2	36 32	2.1 2.3	< = Undergraduate < = Undergraduate
Descriptive statistics of internal customers	Human Resources Department	3	38	1.3	< = Undergraduate

Table 1. (*continued*)

	Detail classification	Number of customers (individual)	Age of customers (years)	Years of service (years)	Education
	Strategic Management Department	2	37	3.5	> = Undergraduate
	Process Management Department	2	36	2.8	> = Undergraduate
	Property Management Department	3	29	2.4	< = undergraduate

Table 2. Results of external customer satisfaction correlation analysis

	Overall evaluation	Quality &Efficiency	Value added	Communication	Cost-effective
Overall evaluation	1	749 * *	761 * *	675 * *	532 * *
Quality & efficiency		1	571 * *	579 * *	351 * *
Value added			1	687 * *	477 * *
Communication				1	537 * *
Cost performance					1

Table 3. Results of external customer satisfaction regression analysis

The model	Unstandardized coefficient		Standardized coefficient	t	Significance
	B	Standard error	Beta		
(Constant)	0.067	0.291		0.229	0.819
Quality &Efficiency	0.392	0.05	0.416	7.872	0
Value added	0.37	0.057	0.384	6.438	0
Communication	0.108	0.055	0.141	1.962	0.052
Cost performance	0.15	0.041	0.202	3.637	0
Gender	0.05	0.073	0.064	0.684	0.495
Age	0.003	0.027	0.006	0.118	0.906
Years of service	0.015	0.037	0.022	0.396	0.693
Education	0.022	0.024	0.05	0.918	0.36

Table 4. Results of internal customer factor analysis

	Ingredient 1	Ingredient 2	Ingredient 3	Ingredient 4
Values 1	0.687	0.289	0.3	0.35
Values 2	0.716	0.262	0.278	0.365
Values 3	0.811	0.309	0.255	0.207
Values 4	0.835	0.313	0.258	0.188
Organizational coordination 1	0.263	0.267	0.808	0.249
Organizational coordination 2	0.292	0.242	0.816	0.244
Organizational coordination 3	0.244	0.317	0.759	0.275
Organizational coordination 4	0.246	0.153	0.79	0.204
Executive force 1	0.341	0.641	0.328	0.339
Executive force 2	0.415	0.627	0.356	0.323
Executive force 3	0.302	0.776	0.241	0.229
Executive force4	0.222	0.856	0.155	0.198
Executive force5	0.398	0.727	0.287	0.163
Per capita efficiency 1	0.316	0.224	0.279	0.774
Per capita efficiency 2	0.212	0.252	0.275	0.832
Per capita efficiency 3	0.252	0.26	0.263	0.814

Table 5. Results of regression analysis on internal customer satisfaction

Model	Unstandardized coefficient B	Standard error	Standardized coefficient Beta	t	Significance
(Constant)	0.128	0.072		1.77	0.077
Values	0.24	0.023	0.265	10.258	0
Organizational coordination	0.222	0.025	0.207	8.949	0
Executive force	0.272	0.023	0.302	11.674	0
Per capita efficiency	0.301	0.022	0.312	13.817	0

5   Further Research

5.1   Customer Satisfaction Improvement Program Application

External Customer Satisfaction Improvement Measures
Improvements in quality and efficiency. This factor is the primary factor affecting external customer satisfaction, which can be optimized through four aspects. First, performance is an effective tool for strategy implementation, so it must be supported from the top down. Second, enterprises must pay attention to the training of employees' business skills, so as to cultivate employees that match the development of enterprises. Third, hold scene service simulation competition to promote the improvement of staff skills. Fourthly, identify and help the performance of tail-wagging personnel in a targeted way. Those who fail to help should be replaced in time.

Improvements in value added. This factor is the second factor affecting external customer satisfaction. This research plans to make efforts from the two points of making customers satisfied and moving. To make customers satisfied is mainly to start from the process optimization, optimizing the work flow can make the customer experience more comfortable. In fact, it is more difficult to impress customers. In order to enable employees to have more divergent thinking and independent innovation, this research plans to build a platform for employee growth and encourage employees to actively act to create service behaviors that move customers.

The optimization strategy of cost performance. The optimization measures given in this study are to reduce costs and attract customers directly through price advantages. The company adopts the "contract system" of work, in which the work is no longer divided according to the position, and the employees do the work by themselves. In the end, two employees complete the work that can be completed by four employees, while the company only pays the labor cost of three employees. It not only improves work efficiency but also saves labor cost.

Communication measures. As the lowest factor affecting external customer satisfaction, communication does not need to invest too much cost to improve. The scheme given in this study is to set up online courses for improving communication ability on the learning platform within the enterprise to meet the needs of employees' daily improvement.

Internal Customer Satisfaction Improvement Measures.
Improvement plan for per capita efficiency. This factor is the most important factor affecting internal customer satisfaction and should be paid attention to. First, this study optimizes working hours and launches an independent shift management system. When employees can change or supplement shifts independently, they can activate their work efficiency through flexible working system. The second is to improve the productivity. This study improves the productivity of employees through the guidance of performance, with rewards and penalties. On the basis of assessing the quality of work delivery, more work will be rewarded.

Optimization in terms of execution. This factor is the second largest factor affecting internal customer satisfaction and needs to be improved. When there is a problem of execution, the enterprise should first consider the leadership and management ability of the management team. In this study, the work method of "five times of assignment" mentioned in Fan Deng's "Replicable Leadership" is introduced to effectively improve leadership and empower the management. The second is the introduction of OKR (Objectives and Key Results) management work method, so that team members can effectively break down goals and report work.

Improvement measures in terms of values. The first countermeasure is corporate culture training for new employees and corporate culture knowledge activation for old employees. Let employees always bear in mind the values of the enterprise, do not go against the values of the enterprise. The second is to build the atmosphere of organizational culture. The top manager of a team is the cultural leader of the team. To do a good job of cultural role models, in the daily work of the subtle influence on the behavior of employees.

Organizational coordination improvement plan. First, establish inter-departmental complaint channels. Departmental barriers must exist, so complaints need to go directly to the top leader of the department to promote the direct solution of problems. Second, inter-departmental team building is the most effective way to eliminate departmental walls, increase employee interaction, eliminate organizational barriers, and more conducive to improving work efficiency.

To sum up, this research scheme improves and optimizes the customer satisfaction of M company from the above aspects, and compares and verifies the consistency of external customer satisfaction half a year later, so as to verify the consistency between external customer satisfaction, internal customer satisfaction and customer collection rate.

5.2   Effect Check

The improved optimization scheme is further tested, and the results are shown in Table 6. There are 12 types of reference samples in the external customer satisfaction survey. Only 1 type has an increase of -2%, 2 types have no change, and other reference samples have an increase of 1%-7% respectively. In the internal customer satisfaction survey, there are altogether 6 types of reference samples, of which only 1 type has an increase of -1%, while other reference samples have an increase of 1%-12% respectively. After the optimization of customer collection rate, only 1 category of external customer collection rate showed negative growth, 1 category remained unchanged, and the other samples increased by 3%-12% respectively. Among the internal customer collection rates, only 1 category showed negative growth, 3 categories did not change, and the other samples increased by 1%-2% respectively. It is proved that, through the application of the improvement scheme in this study, external customer satisfaction, internal customer satisfaction and customer collection rate have a certain positive improvement, and the improvement measures are effective.

Table 6. Changes in customer satisfaction before and after improvement

Scope of customers	Detail classification	Customer satisfaction (before)	Customer satisfaction (after)	Differences	Customer collection rates (before)	Customer collection rates (after)	Differences
External customers	Government public	90%	93%	3%	100%	100%	0%
	E-commerce	98%	98%	0%	89%	93%	4%
	Consumer electronics	97%	99%	2%	78%	81%	3%
	Banks	98%	99%	1%	72%	75%	3%
	Air travel	87%	93%	6%	79%	82%	3%
	Logistics and transportation	89%	92%	3%	63%	69%	6%
	Eergy	100%	100%	0%	65%	72%	7%
	Medical care and livelihood	93%	91%	-2%	83%	81%	-2%
	Financial services	86%	93%	7%	75%	87%	12%
	Insurance	79%	85%	6%	72%	79%	7%
	Telecommunications services	93%	94%	1%	78%	83%	5%
	Cars	97%	99%	2%	89%	92%	3%
Internal customers	Finance Department	80%	92%	12%	97%	97%	0%
	Administrative Management Department	78%	82%	4%	83%	83%	0%
	Human Resources Department	69%	68%	-1%	86%	84%	-2%
	Strategic Management Department	95%	97%	2%	97%	97%	0%
	Process Management Department	89%	92%	3%	89%	90%	1%
	Property management Department	78%	84%	6%	75%	77%	2%

To sum up, it can be basically determined that the improvement program of this study effectively optimizes the customer satisfaction management problems faced by M company, and external customer satisfaction is positively correlated with internal customer satisfaction and customer collection rate. Therefore, customer satisfaction feedback questions of this project can basically and accurately reflect the real voice of customers, and these data can guide the business direction of the enterprise.
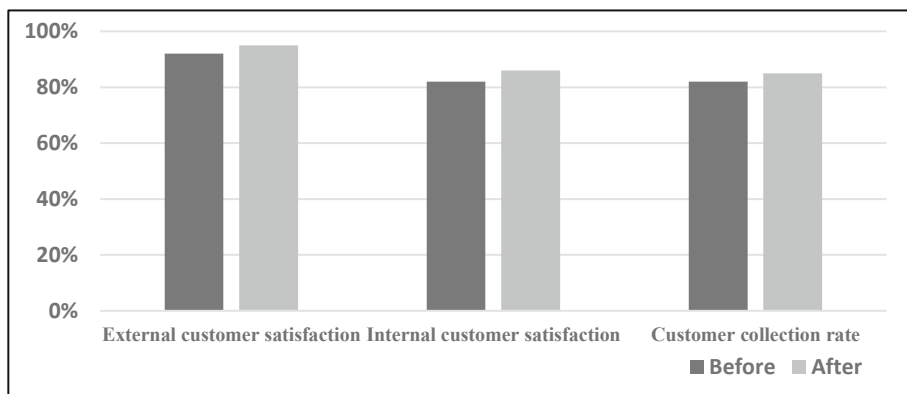
Fig. 2. Comparative display of relevant data before and after optimization

6 Conclusions

As shown in Fig. 2, after the promotion strategy of this study, the external customer satisfaction of M company increased from 92% to 95%, the internal customer satisfaction increased from 82% to 86%, and the customer collection rate increased from 82% to 85%. It is proved that this scheme is effective to solve the problem of customer satisfaction management in the call center industry.

Based on the perspective of market strategy management, this paper takes the logical conflict of internal relationship between external customer satisfaction, internal customer satisfaction and customer collection rates in the call center industry as the perspective of problem discovery, determines the research topic factor by Delphi method, determines the influence degree of factor by regression analysis, and makes effective resource tilt improvement in primary and secondary ways. And then effectively improve and enhance customer satisfaction. The findings are as follows: firstly, there is a positive correlation between external customer satisfaction and internal customer satisfaction and customer collection rates; Secondly, for the call center industry, external customers most value the delivery of quality & efficiency and value -added, while internal customers most value the delivery of per capita efficiency and execution. Thirdly, to obtain relatively accurate customer satisfaction research information, enterprises must achieve accurate customer positioning, appropriate model construction, accurate research topics, accurate sample capture, professional data analysis and accurate resource investment. The research conclusions provide support for enterprise management, point out the direction for enterprise strategy, and improve customer perception and the productivity and efficiency of enterprise internal management.

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