Research on the Innovative Application of Customer Relationship Management in Management System Certification Institutions

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ABSTRACT

This study explores the innovative application of Customer Relationship Management (CRM) in management system certification institutions, using a mixed-methods approach combining document analysis and a case study. Data was collected via a questionnaire survey administered to respondents, including employees, customers, partners, competitors, and government supervisors. A preliminary questionnaire was refined through group interviews before formal distribution. The final dataset was analyzed using SPSS, employing descriptive statistics, reliability analysis, validity analysis (factor analysis), correlation analysis, and regression analysis. The results revealed a positive correlation between CRM and the independent variables of price, service quality, credibility, and policy orientation. Furthermore, regression analysis confirmed the significant positive impact of each independent variable on CRM. The study concludes by identifying common challenges within China's management system certification industry.

Keywords: Innovative Application, Customer Relationship, Relationship Management

Introduction

Payne & Frow (2005) suggested a five-stage CRM strategic architecture process strategic development, value creation, multi-channel promotion, performance evaluation, and information management. Davidson (2002) stressed communicating the company's mission and vision to customers. Prahalad & Ramaswamy (2004) emphasized both customer-received value and long-term enterprise value in value creation. They also highlighted online marketing's growing importance alongside traditional marketing channels. Finally, they underscored the equal importance of short-term and long-term performance evaluation and the necessity of robust information management tools, including databases, software/hardware, and statistical analysis tools.

1.1 Background

The 21st century saw a shift in marketing focus from brand-centric to customer-centric. Hogan et al. (2002) argued that customer-centricity, coupled with effective information management, is crucial for competitive advantage and sustainable management. Customer Relationship Management (CRM) emerged as a key methodology, prioritizing customers as an organization's most valuable resource. CRM aims to maximize customer value by continuously improving customer service and deeply analyzing customer needs to meet their expectations, thereby benefiting both the customer and the organization. Zhang Guofang and Jin Guodong (2003) further emphasized CRM as a novel management system designed to enhance customer relationships through customer-centric practices, information sharing, responsive customer service, and optimized workflows. This allows for effective one-on-one engagement and delivers high-quality service. Research on CRM applications across various industries has become a significant area of marketing study.

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Research problem

What are the factors that affect the customer relationship management.

Research Objective

To understand the factors influencing customer relationship management.

Literature Review

Innovation

Innovation refers to the creation of new or improved ideas, products, processes, technologies, services, or business models that provide increased value or solve existing problems in better ways. It is a key driver of human progress, economic growth, and societal well-being, and plays a crucial role in driving competitiveness in today's rapidly changing global economy.

Innovation can take many forms and can emerge from a wide range of sources, such as insights into customer needs, breakthroughs in technology or science, improvements in production processes, or new business models. It can also result from collaborations and partnerships across different industries or sectors, as well as from the contributions of individuals or organizations from diverse backgrounds.

Innovation is essential for organizations to remain competitive, adapt to changing market conditions, and create new opportunities for growth and development. It can lead to improved productivity, increased efficiency, cost savings, and new market opportunities. Governments, businesses, and organizations around the world have recognized the importance of innovation and are actively investing in innovation policies, initiatives, and strategies to foster a culture of innovation and drive progress in various fields.

Industry situation

On December 14, 2021, the State Council issued the "Fourteenth Five-Year Plan" for Modernization of Market Supervision, which pointed out that the quality power has become a national strategy and the quality policy has been constantly improved. The construction of quality infrastructure has continued to advance. China's internationally recognized calibration and measurement capacity has leapt to the third place in the world. The consistency of standards in the main consumer goods field with international standards has reached more than 95%. The number of certificates issued by certification and accreditation and the number of certified organizations have both ranked first in the world. Measurement foundation, standard guidance, conformity assessment and policy incentives effectively help to increase varieties, improve quality and create brands, and the quality qualification rate of manufacturing products is stable at more than 90%.

At the 2021 China International Trade in Services Fair, Vice President Ke Liangdong said in his speech that quality certification is an internationally accepted quality management tool and trade facilitation tool, and is one of the effective means to achieve common governance in the international market. It is particularly important in eliminating technical barriers to trade and promoting economic globalization. By November 2022, China had 936 certification agencies, issued more than 3.26 million effective certification certificates, and more than 920000 certificated organizations, ranking the first in the world for many years in a row. China has joined 21 international organizations for conformity assessment, signed 15 multilateral mutual recognition agreements and 124 bilateral cooperation arrangements, established fixed cooperation mechanisms with countries and economies including ASEAN, the EU, the United States, Russia, Germany, Japan, South Korea, Switzerland, Saudi Arabia, and other countries, and provided international management system certification services for domestic and foreign enterprises. The facilitation of international trade exchanges has significantly improved.

The international competitiveness of Chinese management system certification institutions in serving enterprises is very limited. When conducting certification, the customer mainly selects institutions such as SGS, BV, CQC and TUV, among which SGS and BV are internationally renowned large third-party inspection and certification institutions, and CQC is a state-owned public institution. Internationally renowned certification institutions are large in scale, with sufficient capital, numerous branches, complete equipment, and sufficient staffing. These institutions can provide many different types of collaborative service effects worldwide with their sufficient resources. However, the scale of China's management system institutions is relatively small and mainly private institutions, including capital and total assets, so the operating income is far from that of internationally renowned institutions.

Methodology

Research Design

Data is collected using a questionnaire survey method, but after designing the preliminary questionnaire, an interview method is used to ask questions in the preliminary questionnaire, and a formal questionnaire is formed after modification. the purpose of this paper is to study the customer relationship management of China's management system certification industry and make in-depth analysis of the main research variables from domestic and foreign websites, databases, academic databases, and government data. The main variables studied in this paper are credibility, price, service quality, policy orientation, and the correlation between analysis and customer relationship management; Based on the data of the above variables, the research hypothesis is established. the questionnaire objects include ACM.

Results

Regression analysis

With credibility, price, service quality and policy orientation as independent variables and customer relationship management as dependent variables, regression analysis is conducted to obtain Table 4.5.

Table 4.4 - Regression Analysis

Model		Unstandardized coefficient		Standardization coefficient	t	p	Collinearity statistics		R2	F
		B	Standard error	Beta			Tolerance	VIF		
1	(Constant)	0.336	0.152		2.212	0.028			0.547	127.166***
	Credibility	0.314	0.038	0.335	8.267	0.000	0.655	1.527		
	Price	0.210	0.040	0.219	5.313	0.000	0.633	1.579		
	Service Quality	0.220	0.040	0.231	5.557	0.000	0.619	1.615		
	Policy Orientation	0.157	0.045	0.147	3.461	0.001	0.595	1.680		

As can be seen from Table 4.5, R2 is 0.547, indicating that credibility, price, service quality and policy orientation can explain the change of 54.7 in customer relationship management, and the VIF value is less than 10, indicating that there is no multicollinearity

between independent variables.
Credibility to customer relationship management（ β= 0.335, p<0.05) has significant positive impact, and the hypothesis is valid;
Price to customer relationship management（ β= 0.219, p<0.05) has significant positive impact, and the hypothesis is valid;
Service quality and customer relationship management（ β= 0.231, p<0.05) has significant positive impact, and the hypothesis is valid;
Policy-oriented customer relationship management（ β= 0.147, p<0.05) has significant positive impact, and the hypothesis is valid;

Conclusion

The main measures that should be taken are to influence the government, reduce the pre-approval process, strengthen the post- supervision, open the government/ state- owned compulsory development projects to the private third- party private system certification agencies, let the state-owned and third-party private management system certification agencies coexist, cultivate the third- party management system certification agencies to implement the market- oriented mechanism, and strengthen free competition. Actively promote third- party management system certification institutions to carry out industry acquisition and merger activities to enhance competitiveness, because the certification industry is capital-intensive and talent- intensive industries, and it needs an international perspective to gradually seize the commanding heights of the industry.

References

Hogan et al. (2002). Customer Equity Management. Hogan, John E., Katherine N. Lemon, & Ronald T. Rust (2002), Charting New Directions for Future of Marketing," Journal of Service Research, 5 (1), 4–12.

Zhang Guofang、Jin Guodong (2003). customer relationship management. Overview of the Application and Theoretical Research of CRM (Customer Relationship Management), Huazhong University of Science and Technology.

Reinartz et al. (2004). Customer Relationship Management Process. Its Measurement and Impact on Performance, Journal of Marketing Research, 41 (August), 293–305.

Sue & Morin (2001). A Strategic Framework for CRM. A Strategic Framework for CRM, (accessed April 13, 2002), [available at http://www.crm-forum.com].

Winer (2001). A Framework for Customer Relationship Management. A Framework for Customer Relationship Management, California Management Review, 43 (Summer), 89–105.

Grabner-Kraeuter & Moedritscher (2002). Alternative Approaches Toward Measuring CRM Performance. paper presented at the Sixth Research Conference on Relationship Marketing and Customer Relationship Management, Atlanta (June 9–12).

Payne & Frow (2005). A strategic Framework for Customer Relationship Management. A strategic Framework for Customer Relationship Management, Journal of Marketing, 69(1), October.

Davidson (2002). The Committed Enterprise. The Committed Enterprise. Oxford: Butterworth-Heinemann.

Prahalad & Ramaswamy (2004). Co-creation experiences. The next practice in value creation, Journal of Interactive Marketing, Vol. 18, Issue 3, 5-14

Li Wenlong（2006). How far is China's testing and certification market from the intermediary testing and certification market. China Petroleum and Chemical Standards and QualityCNKI:SUN:HGBJ.0.2006-02-002

CCAA（2019). Basis of management system certification. Chapter 2: Introduction to Management System, 2.6 Focusing on Customers

Anderson et al. (2004). Customer Satisfaction and Shareholder Value. Customer Satisfaction and Shareholder Value, Journal of Marketing, 68 (October), 172–85.

Fornell, Claes (1992). A National Customer Satisfaction Barometer. A National Customer Satisfaction Barometer: The Swedish Experience, Journal of Marketing, 56 (January), 6–22.

Modern Chinese Dictionary（2021）. Modern Chinese Dictionary. Modern Chinese Dictionary (7th Edition)

Banford and Grant（2010）. Cambridge International AS and A Level Economics. Cambridge County, UK: Cambridge University Press, 2010

Gronroos (1984). A Service Quality Model and its Marketing Implications. European Journal of Marketing, Vol. 18 No. 4, 36-44.

Garvin（1987). Competing on the eight dimensions of quality. Harvard Business Review, 65: 101-109.