Research on the Mechanism of Enterprise Customer Relationship Management from the Perspective of User Innovation

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Abstract. User innovation can make it possible for users to improve their products. At the same time, relationship management ideas which are highly consistent with the guidance of user innovation in close attention to user needs play an important role in improving user satisfaction and loyalty. The success or failure of user innovation and the improvement of user innovation performance are influenced and restricted by many factors, and the relationship between the manufacturer and the user is one of the most important factors. In order to clearly explain and prove the importance of relationship management to user innovation performance, this paper mainly studies the relationship management and user innovation performance, and builds a relationship management model with the purpose of improving user innovation performance. From the perspective, to study and verify the role and mechanism of relationship management in the user innovation process.

Introduction

The concept of "innovation" has been the most extensive and in-depth study in academia since it was proposed by the famous scholar Schumpeter in 1912. The development of the economy around the world has also fully confirmed the importance of innovation. It has become an inexhaustible motive force for the development of a company and even a country. User innovation can enhance corporate innovation performance, which has been confirmed by the academic community.

Customer relationship management, as a complete theory, sprouted in the late 1970s and early 1980s, and its theoretical basis was derived from Western relational marketing theory. Then in the course of its development, the focus of the marketing concept has gradually shifted from products to customers. In the context of today's Internet age, the extent of information sharing has grown. The difference between goods and goods is also getting smaller and smaller, that is, the homogenization of goods is becoming more and more serious. Under such circumstances, in order to maintain the original market share and even expand market share, manufacturers will pay more attention to researching customer needs and preferences, and establish deeper and broader relationships with customers to improve customer loyalty and satisfaction. User innovation is one of the needs of many users. They hope to participate in the process of product design and quality improvement of the company, so as to improve the product according to their own ideas, and finally meet their own differentiated needs and sense of accomplishment. Therefore, to solve the needs of users' independent innovation, to refer to and apply the user's innovative suggestions is an aspect that manufacturers must pay high attention to.

In his work, Von Hippel[1] defines the user innovation as: after the user uses a certain product, it sets out from the experience and experience of its own, and puts forward the measures for the improvement of the product or the idea of its own. On the basis of Von Hippel, Wu[2] enriched the definition of user innovation. He believes that user innovation refers to the innovation of the product or process he uses, that is, a new idea and new creation for the product or process for the purpose of his own convenience. Throughout the academic community's induction and generalization of user innovation, it can be summarized as the following two aspects: First, the starting point for users to
innovate is to improve the user's own convenience of using the product; second, the final result of user innovation is the user to the manufacturer. Improvements in the products, services, or processes offered.

**Characteristics and Measurement of Leading Users**

Von Hippel realized that in the user groups involved in product innovation, there is a significant difference between one type of user and the general user. Their opinions can help manufacturers achieve product innovation more efficiently and constructively. Von Hippel called it "the leading user". Since then, the academic research on "leading users" has focused on how to identify accurately. Because only by distinguishing the leading users from the ordinary users accurately can we conduct more targeted management. The following list summarizes the main findings of the current leading user survey:

<table>
<thead>
<tr>
<th>Main scholar</th>
<th>Research field</th>
<th>Main variable characteristics and measurement</th>
</tr>
</thead>
</table>

Although the idea of customer relationship management is quite mature in the academic world, there are many obstacles in the practical application of the business community, and the results often fail to reach the expectation.

**Theoretical Background**

**User Innovation Process Model**

The form of technological innovation can be divided into two types: market pull and technology push. The former emphasizes market demand oriented, that is, the production of products to meet the needs of the market as the premise, guiding the whole process of product production. Before making this type of product innovation, a large number of market research and data analysis are often needed to accurately grasp the needs of the current society and the market. The latter follows the objective law of technological development, and derives and develops a new one in the context of the existing stock of science and technology and knowledge. Innovation technology. Under this mode, technological innovation is embodied in a linear evolution process. The process begins with the formation of ideas and ends in production and sales.

In the process of enterprise actual innovation, it is usually the combination of the above two forms. Specifically, the interaction between market pull and technology push together determines the efficiency and result of innovation.

**Innovation Process Based on User Innovation**

The above models emphasize the autonomy of manufacturers in the whole process of innovation, that is, relying on their own resources and capabilities, independently completing various steps of
innovation behavior. However, as the personalized demand of users is becoming more and more prominent, many manufacturers are unable to accurately grasp the real needs of the users in the process of technological research and development and breakthrough, thus reducing the efficiency of innovation. In this context, the manufacturers began to actively invite users to participate in the research and development process, listen to their valuable opinions and suggestions, and improve the original technical scheme, thus improving the efficiency of innovation and reducing the risk of innovation[7].

In the process of actual innovation, users often participate in the various stages of innovation. They can contribute to their own strength from the formation of ideas, feasibility analysis, design and development to later production and even sales. It plays an auxiliary and support role for the technology research and development of the manufacturer, effectively avoids the blindness of the manufacturer in the process of technological innovation, and realizes the more targeted progress.

Analysis and Results

Vendor-customer Interaction

Vendor-customer relationship is a relationship established by a vendor or user to establish a goal. This type of connection can be manifested in a variety of ways, either as a simple trading relationship or as a supply relationship, or as a partner or even a strategic alliance. As for its characteristics, it can be summarized as: win-win, continuity, diversity, and so on. The purpose of establishing contact between the manufacturer and the user is not only to reduce transaction costs, but also to enhance mutual understanding and exchange ideas and suggestions. From a business strategy perspective, building a stable and long-lasting vendor-customer relationship is significant.

With the continuous development and deepening of Internet technology, the transparency of information and services related to trading products is becoming higher and higher. As long as the manufacturer's technicians display this information on the webpage, consumers will compare, analyze and consider purchasing. However, this also directly led to the reduction of industry barriers and the emergence of commodity homogenization. Eventually, the success rate of commodity trading is getting lower and lower. In order to solve this problem, manufacturers began to pay attention to the relationship with users, and actively maintain and promote this relationship, in order to achieve the top in the new competition, to seize the opportunities. Correspondingly, more scholars have begun to pay attention to the vendor-user relationship, which has also prompted the relationship between the two to enter a new stage of development.

Customer Innovation Oriented Vendor Customer—Relationship Management

User Participation in Innovative Communication Channels. Because the core of user innovation is to fully stimulate the enthusiasm of users to participate in product development, it is active to make suggestions on the requirements definition, structural design and functional development of new products. Therefore, the goal of customer relationship management is to strengthen the interaction between the manufacturer and the user in the whole process of product innovation by building a relationship platform.

The research on vendor customer relationship channel and its management has always been the focus of marketing. In the traditional marketing channel, the single channel marketing mode lasted until the 90s of last century. However, after entering the digital era, the enterprise marketing channel has changed greatly in structure, function, member relationship and strategy, and the single marketing channel in the past is gradually changing to many channels.

The existence of these channels can be either physical or virtual. With the rapid development of mass media and information technology, the interaction channels between manufacturers and users have become more and more diversified. Besides the traditional storefront, face-to-face conversation, and letters and phone calls, new interactive channels, such as e-mail, web sites and mobile Internet, have gradually become the mainstream of the times. Along with the gradual popularization of various
channels, the channel management of customer relationship has also become complicated. The following table 2 analyzes and summarizes various interactive channels that are still applicable:

Table 2. Relationship Management Channel for User Innovation.

<table>
<thead>
<tr>
<th>Channel name</th>
<th>Advantage</th>
<th>Disadvantage</th>
<th>Analysis of user's innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storefront</td>
<td>Strong interaction, fast speed and rich content</td>
<td>High cost, limited by time and place</td>
<td>Ability to accurately grasp the user's real thoughts and needs but requires a high investment time and capital cost</td>
</tr>
<tr>
<td></td>
<td>High degree of humanization, fast speed and good interactivity</td>
<td>Vendors need to invest in higher costs for platform construction and information analysis</td>
<td>Through this channel, users can directly communicate with customer service personnel and express their ideas, but they have higher requirements for manufacturers' information processing capabilities.</td>
</tr>
<tr>
<td>Call center</td>
<td>Low cost, fast speed and good interactivity</td>
<td>Limited by tools and technology, poor interaction</td>
<td>Efficiently publish information data but is inefficient in terms of feedback and collection</td>
</tr>
<tr>
<td>Website</td>
<td>Unlimited by time and place, low cost</td>
<td>One-way communication, poor interaction, single content</td>
<td>SMS is one of the one-way delivery channels, which is less interactive and has a lot of restrictions on the content of the information.</td>
</tr>
<tr>
<td>Short message</td>
<td>Low cost, fast speed and rich content</td>
<td>One-way delivery of information, poor interactivity</td>
<td>Users can use this channel to achieve low-cost information transfer, but put forward high requirements for users' expressive ability and manufacturers' information processing capabilities.</td>
</tr>
<tr>
<td>E-mail</td>
<td>Rich in time and place, rich in content</td>
<td>Limited by tools and technology, targeting a single group</td>
<td>Users can easily transmit various forms of information but their target audience is mainly the media and related working people.</td>
</tr>
</tbody>
</table>

Discussion

Management Mode of User Participation in Innovation

In the process of user innovation, they have a strong desire to express their feelings and suggestions, and hope that these suggestions can be adopted by manufacturers to improve the performance and quality of products. In order to obtain user information accurately and efficiently, it is indispensable to use appropriate relationship management methods. Lack of flexibility and emotional management will increase users' dislike and resistance, and the implementation of relationship management will be difficult to succeed. In terms of the relationship between manufacturers and users, in order to achieve more efficient management of users and achieve the purpose of user innovation, manufacturers need to constantly research and explore a new management method to achieve the integration of emotional management and system management.

In the group of users who participate in innovation, innovative users can be divided into leading users and ordinary users based on their enthusiasm for innovation and initiative. In order to improve the efficiency of product innovation, manufacturers need to rationally mobilize users, stimulate their enthusiasm for innovation and initiative, complete the transition from ordinary users to leading users, so as to better participate in the process of product innovation, the greatest assistance Progress in innovation. In order to better mobilize users to participate in innovation, manufacturers and users need to work hard in the following two aspects:

First of all, both the manufacturers and the users must pay sufficient attention to user innovation. For the manufacturers, it is necessary to pay attention to the individual needs of the users. At the same time, the opinions, suggestions and even complaints of the user feedback should be treated correctly. The valuable suggestions should be timely adopted, and the inappropriate suggestions should be given feedback. Humanized management of users; for users, they must actively participate in the process of innovation, contribute to the problems arising in the process of innovation, and contribute their own strength.
Secondly, the manufacturers must also give certain incentives to the users, which can be expressed as: honor incentives, emotional incentives and interest incentives. The so-called honorary incentive is to give honorary titles to innovative and active users, thus narrowing the distance between manufacturers and users and enhancing the sense of belonging of users. The so-called emotional incentives are to establish deep emotional relationships with users from the perspective of emotional connection. Users feel the emotional care, and then enhance the enthusiasm of innovation; the so-called interest incentives are based on the material level, giving users the necessary material rewards to maximize the enthusiasm of users to participate in innovation.

Conclusions

In order to effectively improve cooperation satisfaction, interaction effectiveness and user innovation performance, relationship management can play an important role. From the perspective of the impact of various variables of relationship management on user innovation performance, the relationship management method has the highest effect value. This result is a good way to reveal that the humanized management method is of great significance to the success or failure of user innovation. In the process of managing the user's innovative behavior, it is necessary to build a corresponding management system, but it is also indispensable to carry out emotional care for users and implement humanized management.

Good cooperation satisfaction is conducive to improving user innovation performance. From the analysis results, there is a significant positive correlation between cooperation satisfaction and user innovation performance. This also prompts manufacturers and users to pay attention to fostering cooperation satisfaction between the two parties in the process of cooperation and innovation. Actively maintain the cooperative relationship between the two parties and promote the further improvement of satisfaction, which will play an important role in achieving good user innovation performance.

Good interaction effectiveness is conducive to improving user innovation performance. It prompts manufacturers and users to pay attention to each other's communication and communication in the process of cooperation and innovation, to ensure the efficiency of communication, and to actively improve the effectiveness of interaction. This can be very effective in improving the performance of user innovation.

If manufacturers want to achieve good user innovation performance, they need to actively promote the relationship with users, and maintain the cooperation satisfaction of both parties in the process of cooperation and innovation; in addition, when communicating with users and transmitting information, it is also necessary to protect The interaction efficiency of both parties is such that information can be delivered in a timely and accurate manner. How to ensure good cooperation satisfaction and interaction effectiveness needs to be cut from the perspective of relationship management.

References


