

Summary of Research on Creative Adoption of Online User Innovation Community

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Abstract

With the development of information and communication technology, the online community has become a platform for users to understand corporate product knowledge, share product use experience and innovation exchanges. The rich user-generated content in the online user innovation community not only allows companies to target the market more precisely, but also helps companies build loyal user networks. Enterprises can quickly and accurately obtain user product feedback and user product creative ideas. Since ideas are proposed by a large number of users, facing the overload of information, the quality of creative information varies, and how to identify and screen out user ideas with commercial value has become an urgent problem for enterprises. In the context of the development of online communities, this study summarizes the research results of scholars at home and abroad on creative adoption and the existing contradictions.

Keywords

Online User Innovation Community; Creative Adoption.

1. Introduction

With the development of information and communication technology, the online community has become a platform for users to understand corporate product knowledge, share product use experience and innovation exchanges. Well-known companies at home and abroad have established online user innovation community platforms[1], such as American Starbucks, Apple, Dell, Hewlett-Packard, BMW of Germany, Samsung of Korea, Heineken of the Netherlands[2], and domestic companies such as Xiaomi, Haier Group, Lenovo Group, etc. Using the online user innovation community, companies hope to quickly and accurately obtain user product feedback and user product creative ideas, and look forward to bringing business value [3]. The rich user-generated content in the online user innovation community, including product use experience, product and service improvement suggestions, new ideas and designs, will not only allow companies to more accurately target the market, but also help companies build loyal user networks [4].

Relevant data shows that as of the end of 2016, registered users of the Starbucks Online Creative Community Forum had more than 240,000 pieces of creative and suggestion information; the domestic Xiaomi community had as many as 48 million registered users by August 2015, with daily community visits exceeding 2 million, with an average of The number of posts exceeded 100,000, and the total number of posts exceeded 258 million. Faced with such a large amount of user-generated content and ideas, how can companies screen and evaluate these information and ideas, and how to properly guide online user innovation community users' participation and creativity into the business benefits that companies expect through appropriate guidance?

2. Research on Online User Innovation Community

The founder Professor Von Hippel first proposed the concept of user innovation community, that is, a network of individuals or companies connected to each other through information transmission. The connection of network nodes includes face-to-face, email, or online virtual communities[5]. The online user innovation community is not a new phenomenon. Advances in information and communication technology (ICT) have enabled end users of organizations' products and services to organize and share innovation by creating online communities. Impact. Researchers and practitioners have strongly encouraged organizations to adopt more open approaches, such as building more open innovation communities to complement internal innovation processes.

For online user innovation communities, scholars at home and abroad define it from different perspectives: Hau and Kim[6] define the user innovation community as an online network where users and companies actively cooperate, and members of the online community can voluntarily and freely Develop and share innovative knowledge. Dahlander[7] and others believe that the online user innovation community is a distributed user group that uses computer networks as the communication medium, focusing on product problem solving or product solution development. According to Fuller et al.[8] scholars, the user innovation community is a platform where community members can actively discuss various ideas, provide possible solutions, and then describe and test their products; Fichter[9] pointed out that the open innovation community is An informal network of individuals with a certain consensus outside the organization. The goal of this network organization is to promote project research and development and innovation. Pisano and Verganti [10] proposed that the user innovation community is a network where any user can ask questions, provide solutions, and decide which solution to adopt. Although the previous researchers' definitions of online innovation communities are different, the literature review reveals that the researchers have the following characteristics for their definitions: (1) online communities are based on network virtual platforms; (2) online innovation communities are actively established by brand companies (3) Online community users are willing to join and contribute their own ideas (4) Online communities are based on web technology (5) Online users are free to socialize.

3. Research on Creative Adoption

The online user innovation community provides companies with opportunities for new product innovation. At the same time, companies also face overloads of user-generated information in the online user innovation community, and the quality of creative information varies. Therefore, how to identify and screen out the most valuable user ideas for companies It has become an urgent problem for enterprises. Existing research on creative adoption is mainly from the aspects of creative characteristics and creative characteristics.

Foreign studies in this area include Li (2016) et al.[11] empirical analysis of which ideas are more likely to be implemented in the online user innovation community. Based on the theory of persuasion and cognitive overload models, the possibility of implementing user ideas is explored . The research results show that the participation experience of creative providers and the ratio of creative adoption, popularity, length, and supporting evidence have a positive and significant impact on creative adoption; Schememann (2016) et al.[12] et al. From the perspective of features, analyze the influencing factors of creative adoption. The research results found that the enthusiasm of the creators can not significantly affect the adoption of ideas, but the users submitted more attention to the ideas submitted by other users, the ideas submitted by users who have potential innovation, and the popularity Creativity has a positive and significant impact on creative adoption. Hossain, Islam (2015)[13] From the perspective of creative characteristics, the relevant data on the Dell IdeaStorm platform was used to analyze

the influencing factors of the adoption of the idea. The research found that the number of votes received by the idea, the score of the idea, and the number of received The number of reviews is significantly affecting the adoption of ideas. Bayus (2013)[14] explored the user 's creative behavior and creative implementation ratios over time. The research findings found that the creative experience adopted by the creator in the past is negatively related to the possibility of the creative submission submitted by the creator, And the diversity of creative commentary behavior significantly positively affects the possibility of creative adoption. Molly Wasko (2009)[15] and others are based on the theory of innovation diffusion, taking Dell IdeaStorm as an example, and empirical evidence shows that the decision to adopt user creativity is based on the company's understanding of implementing technical requirements and responding to innovation concerns. Although the results of the study show that comparative advantage, compatibility, and the efforts of change agents have no significant effect on user creative adoption, the study found that the only variable that was significantly related to adoption was the number of days that the creative existed.

Domestic research in this area includes Qi Guijie (2017) et al. Taking Starbucks's innovation community as an example, it collects four indicators: the user's creative comprehensive score, the number of creatives, the number of creative comments received, and the number of comments on other users' creatives. The clustering algorithm divides user types, and studies the contribution of different types of users to the enterprise in terms of their contributions to corporate innovation and their contribution to community interaction. The analysis of the research results reveals six types of user roles and finds different types Of users contribute to the business differently. Wang Tingting (2018) et al. chose Salesforce platform to collect data, and based on social impact theory, the platform information was divided into two types: normative and informational. The text analysis method was used to obtain the length of creative text, the length of creative titles, and the number of creative scores. Positively significantly affects creative adoption; however, the emotion of creative titles significantly negatively affects creative adoption; at the same time, the number of creative reviews plays a positive and significant role in regulating the impact of comment emotions on creative adoption. Li Haigang (2016) et al. explored the relationship between members' participation behavior and organizational adoption in innovative communities. Based on the theory of social network analysis, they proposed a conceptual model of the mechanism of the effect of member participation on organizational adoption. The quality of network relationships can promote members' participation intensity, participation breadth, and depth of participation. In addition, participation intensity can significantly increase the number of organizations to adopt, but the impact of breadth and depth of participation on the number of organizations is not significant. The moderating effect between the intensity of participation and the number of organizations adopted was not significant. Guo Aifang (2018) et al. selected Dell's "brainstorming" community as the research object to explore the impact of user-related characteristics of the virtual innovation community on creative adoption. The analysis of the research results revealed that the user participation, past contributions, and creative popularity of the virtual innovation community It has a positive and significant impact on creative adoption, but the impact of creative length and supporting evidence on creative adoption is not significant. Qingqing Liu (2017) et al. selected Salesforce community as the research object, collected data on the community, and analyzed the empirical results to find that the number of ideas previously submitted by users does not raise the possibility of the ideas being adopted; the number of comments sent by users The number of comments received by the creative has a significant positive impact on creative adoption; the length of the creative and creative adoption have an inverted U-shaped linear relationship. Chen Xiaoxiao (2017) et al. took 314 companies in the Yangtze River Delta region as the research object, and empirical analysis concluded that consumer demand is significantly affecting corporate creative adoption, and corporate

absorptive capacity is in the relationship between consumer demand and corporate creative adoption. Play a full intermediary role; at the same time, verify the relationship between environmental complexity positively regulating absorption capacity and creative adoption, and further find that environmental complexity positively regulates the mediating effect of corporate absorption capacity on consumer demand and corporate creative adoption .

4. Conclusion and Outlook

A summary of the above literature reveals that in traditional adoption research, researchers focused on adopting a single innovation by multiple potential adopters. Most of the research methods on influencing factors of creative adoption use objective second-hand data analysis. It has been confirmed that the popularity of ideas, the length of titles and texts, the supporting evidence of creativity, the participation experience of creative contributors, and the creative adoption rate are positively affecting creativity adoption. However, there are two points that are controversial. The first point is that Molly (2009) and other researchers studied the perceptual characteristics of creative ideas (relative advantage, compatibility, complexity, trial and observability) and the promotion of creative ideas by users. It was found that the comparative advantages and compatibility of creativity did not have a significant impact on the adoption of ideas. The adoption decision of Dell depends on its absorptive capacity, that is, to fully understand the creativity of users, solve the problems that users care about, and meet their needs. . The conclusion of this study is contrary to the innovative adoption model proposed by Rogers. The second point is that empirical results such as Liu Qingqing concluded that the number of ideas previously proposed by users cannot be used as a signal of their credibility to raise the possibility of ideas being adopted. This is contrary to the findings of Li et al. The research on the influencing factors of creative adoption has not yet reached a unified conclusion. Differences in research methods and research perspectives will lead to inconsistent conclusions. Therefore, scholars need to explore further.

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