Literature Review of Online Product Community User Behavior and Contributions

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Abstract

As a new online business model, the online product community has been widely used by many enterprises. The purpose is to obtain valuable information from the community or directly sell products to users through the community, thereby increasing business performance. This article summarizes the literature from three aspects of online product community user participation motivation, participation behavior, and user contribution, and summarizes the contradictions and shortcomings from previous research. hope to provide some research directions for future scholars.

Keywords

Participation motivation; participation behavior; user contribution.

1. Introduction

The online product community provides a way for companies to obtain dynamic user needs, user satisfaction, and product innovation information. It is a special community with no geographical boundaries. Users can obtain different information in different discussion forums. They can also post information they want to post or respond to netizens 'posts or on the bulletin board to start discussions with other netizens. The product community has become an inseparable part of most companies, and it is also a bridge between users and companies, and users and users [1]. Since realizing a series of advantages of the community, in order to increase customer contributions and increase their access and purchases, both large and small companies have begun to build their own product communities. Therefore, this article sorted out the relevant research literature of the online product community into three aspects: user participation motivation, user participation behavior, and user contribution.

2. Variable Interpretation

2.1. Online Product Community

The product community is defined as a professional, geographically unrestricted community, which is based on a structured social relationship among admirers of branded goods or services[2]. Many scholars have given different definitions. Pisano et al.[3] believe that the user product innovation community is a network where any user can ask questions, provide solutions and decide which solution to adopt. Fullcr et al. [4]believe the user product innovation community is a place where members can actively discuss the proposed product-related ideas, or provide possible solutions, or only give opinions, or further describe and test.

2.2. User Participation Motivation

Motivation is a psychological tendency or internal drive that stimulates and sustains the action of an organism and directs the action towards a certain goal. It is the intrinsic power that determines behavior. The participation motivation for online product community user refers to the driving force for users to join the community, that is, the intention for users to join the community.

2.3. User Participation Behavior

Participation is a wide-ranging phenomenon that describes the attention and involvement of various users on the media. It is a combination of psychological and behavioral experiences. Its academic genre is mainly focused on the research of users on information generation, real or perceived involvement in consumption and dissemination [5]. Community participation refers to the involvement and participation of members in community activities and keeping them together for a longer period of time [6-7].

2.4. User Contributions

From the perspective of the company, user contribution refers to the direct or indirect profit that users can bring to the company by joining the community. Among them, the indirect contribution can be the value of the information that the user participates in the community to post or provide feedback and product opinions to the enterprise, or the value of the user's participation in the community to enhance the community atmosphere and benefit the development of the community; the direct contribution of the user measures the user's purchase of a product or service, Whether it can help the company to realize the contribution ability of benefits [8]. From the perspective of the user, user contribution refers to the experience value or economic value brought by the user's participation in the community. Experience value is divided into practical value, entertainment value and social value. Practical value refers to the benefits that customers can obtain to solve their actual problems or satisfy their own cognitive needs, such as asking others to solve the problem; entertainment value refers to the customer's relaxation in order to meet psychological and spiritual needs. A value of spiritual pleasure; social value refers to a form of value in which customers gain social support, friendship, and intimacy by establishing and maintaining relationships with others. Economic value means that users receive rewards such as member discounts, point rebates, member lotteries, or bonuses from the community.

3. Literature Review

3.1. User Participation Motivation Literature Review

User participation motivation answers questions about why users participate in the community. This article understands the motivation for user participation as the reason why users participate in online product communities in order to meet their needs. As for the research on participation motivation, scholars have divided the participation motivation from different dimensions. Two dimensions: Wang and Fesenmaier [9] believe that participation revenue and contribution are two major motivations for user participation; Dabbous et al. [10]summarized the two major motivations for user participation in brand communities as hedonic and practical motivations. Four dimensions: Nambisan and Baron [11] believe that the product support behavior of online community users is affected by cognitive benefits, personal integrated benefits, social integrated benefits, and hedonic benefits; Ha et al [12] from the cognitive, social integration, personal integration and hedonic time dimension research on the actual use of SNS by users; Lorenzo-Romero et al.[13] considered that cognitive benefits, personal integrated benefits, social integrated benefits and hedonic benefits are users' motivation to participate in online product community, and research user co-creation attitude and behavior. Five dimensions: Blumler et al.[14]divided the use and satisfaction of theoretical needs into five types: cognitive needs, emotional needs, personal integration needs, social integration needs, and stress relief needs.

Table 1. Dimensions of user participation motivation

Four dimensions:
Cognitive benefits, Individual integration benefits, Social integration benefits, Hedonic benefits (Nambisan &Baron 2009)[11]
Cognitive, Social integration, Individual integration ,Hedonistic time(Ha et al 2015)[12]
Cognitive benefits, Individual integration benefits, Social integration benefits, Hedonic benefits(Lorenzo-Romero et al 2014)[13]
Five dimensions:
Need of cognition, need of emotion, need of individual integration, need of social integration, need of relieving pressure(Blumler et al 1974)[14]
Two dimensions:
Revenue and contribution motivation (Wang&Fesenmaier 2004) [9]
Hedonic and practical motivation(Dabbous et al 2020)[10]

3.2. User Participation Behavior Literature Review

Research shows that most participants are involved in the activities of the brand community at a shallow level. They only browse the information shared by the community, and sometimes forward the information they are interested in to each other, making limited contributions to the community. There are different opinions on the specific forms of community participation. Hagel and Armstrong[15]believe that interaction is the basis of community participation; Jeppesen and Laursen [16]focus on the contribution behavior of leading users in community knowledge sharing, and find that the characteristics of leading users are positively related to the contribution behavior; The "diving" phenomenon of members in the community was discovered, and it was pointed out that this was also a manifestation of community participation,They divided user participation behavior into latent behavior (information retrieval) and posting behavior[17]; Koh and Kim[18]believe that community participation is the contribution of community members without asking for rewards,As far as the representation of participation behavior is concerned, it mainly refers to posting activities and browsing activities. Madupu & Cooley [19] pointed out that participating in virtual brand communities can be interactive or be non-interactive participation. Carsten[20]believes that brand community user participation activities can be divided into likes, comments and shares to study the gap between different community participation activities in the industry. Simon et al.[21] used three indicators of consumer behavior, contribution behavior and creative behavior to measure user participation in online brand communities. Oestreicher Singer and Zalmanson[22]divided the behaviors of participants into content consumption, content organization, community participation, and community leadership. Wu et al.[23]found that existing research believes that users' participation in online communities can be divided into different levels, dividing user behavior into content consumption, content contribution, community collaboration, and community leadership.

Table 2. Division of user participation behavior

Four dimensions:
Content consumption,Content organization, Community participation and Community leadership (Oestreicher Singer&Zalmanson 2013)[22]
Content consumption, Content contribution, Community collaboration and Community leadership (Wu et al 2015)[23]
Three dimensions:
Thumb up, Comment and Share (Carsten 2017)[20]
Consumption , Contribution and Creation(Simon et al 2018)[21]
Two dimensions:
Posting and browsing(Koh and Kim 2004)[18]
Interactive and non-interactive participation (Madupu&Cooley 2010)[19]
Latent behavior (information retrieval) and posting behavior(Shang et al 2006)[17]
One dimension:
Interaction behavior (Hagel and Armstrong 1997)[15]
Contribution Behaviors (Jeppesen&Laursen 2009)[16]

3.3.   User Contribution Value Literature Review

The current research on user value can be divided into three perspectives. From the user's own perspective, the community and the enterprise's perspective, research the value co-creation.

From the user's perspective, customer value refers to the trade-off between what the customer sacrifices and what he gets. Traditional customer values evaluate the cognitive aspects , such as functional values, while ignoring the emotional aspects. However, subsequent research has captured the cognitive and emotional aspects. Now, the literature has identified different aspects of customer value, including functional value, emotional value, social value, cognitive value, conditional value, and monetary value. In the context of an online community, customer value refers to the value of information, products or services provided by the enterprise through the community, that is, the value of the products and services provided by the enterprise from the user's perspective. It mainly studies the experience value (practical value, Hedonic value and social value) and economic value. Holbrook [24] defines experience value as "interactive, relative, and preferred experience."

From the perspective of the community and the enterprise, customer value refers to measuring the value created by the user for the enterprise based on variables such as consumption behavior and consumption characteristics. The main research is divided into two directions, user indirect contribution value and user direct contribution value.

User indirect contribution value refers to the value that the user brings to the company that is not directly related to profit. Research focuses on community trust, community identity, community attachment, satisfaction, loyalty, willingness to contribute, knowledge / content contribution, and Contribution behavior, etc. Francisco et al. [25] studied the impact of community trust, community identity, brand identity and satisfaction on community participation. Shen et al. [26] based on the theory of human-environment fit, and verified that community commitment has an increasing impact on willingness to contribute; Yan et al. [27] research found that social capital (structural capital, cognitive capital, and relationship capital) and knowledge contribution, there is a significant two-way relationship between them, and the two-way relationship mainly exists between marginal participants. Rishika et al. [28] studied three types of relationships: reciprocal relationships, attention relationships, and follower relationships with user contributions from online communities.

The user's direct contribution value, that is, the user's contribution value directly related to the corporate profit. The main researches are product consumption willingness and behavior, product innovation, etc. Manchanda et al. [29] analyzed and explored the impact of community participation on consumer purchasing behavior through objective data on community consumer participation in the community and product purchases; Kim et al. [30] studied perceived product design innovations on user purchases using mediators of perceived value as intermediaries Impact of behavior. Martin et al. [31] studied the influence of contextual factors on the consumer behavior of environmentally friendly products, and the results showed that the purchase context regulates the relationship between purchase intention and purchase behavior.

In addition, research conclusions on the relationship between user participation and direct contributions have not yet been agreed. On the one hand, Goh et al. [32] showed that different types of customer communication in the online brand community have a significant impact on improving customer purchase expenditures; Rishika et al. [33] found that users participating in online brand communities can significantly increase their purchases. On the other hand, Shang et al. [17] did not find a direct positive impact of the level of online brand community participation on customer purchasing behavior. Wu et al.[23]found that in the online brand community, low-level participation has a significant positive impact on the frequency of product consumption, and high-level participation has no significant effect on the frequency of product consumption. More importantly, Algesheimer et al. [34] found that participant behavior may even reduce product consumption behavior.

Research on the value co-creation of enterprises and users as value perception subjects and value perception objects. Akman et al. [35] studied the value co-creation behavior in the context of online collaborative innovation, and studied the impact of social and personal factors on value co-creation. Mina et al. [36] studied the impact of information sharing, social support, and relationship quality on user value co-creation in online brand communities, and found its direct or indirect impact.

Table 3. Relevant studies on user contribution value

User perspective:
Experience value(Holbrook 2006) [24]
User indirect contributions:
Contribution willingness(Shen et al 2018)[26]
Knowledge contribution(Yan et al 2019)[27]
Crontribution behavior(Rishika et al 2019)[28]
Community trust; Community; identity; Brand identity; Satisfaction; Community participation (Francisco et al 2017) [25]
Direct user contributions:
Purchase behavior(Manchanda et al 2015)[29]
Purchase intention(Kim et al 2019)[30
Purchase intention; Purchase behavior(Martin et al 2016)[31]
Co-creation value perspective:
Co-creation(Akman et al 2019) [35]
Co-creation of user value(Mina et al 2018) [36]

4. Conclusion

From the above literature, we can see that the online product community users participation motivation has been studied from multiple dimensions, of which the most studied are in the four dimensions. Scholars can choose according to their research situation. The online product community user participation behavior has also been studied from different dimensions, the most common of which are two dimensions, such as:Latent behavior and active behavior. Scholars can refer to their research for more detailed division. Finally, the research on user contributions of online product communities can be viewed from three perspectives, that is, the user's own perspective, the community and the enterprise's perspective, and the research on the value creation perspective of the enterprise and user as the value perception subject and the value perception object. In addition, user contribution research is mostly from the perspective of indirect contribution value, and research on direct contribution value is relatively lacking, and the research conclusions on the relationship between user participation and direct contributions have not yet been consistent. so it is necessary to further determine the relationship between user participation in online communities and user contributions. This can become a direction for future scholars to study.

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