The Effect of Virtual Brand Community Experience on Customers' Participation in Innovation

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Abstract. Virtual brand community has become an important channel for consumers to make their own demands and participate in enterprise innovation, and can meet the psychological needs of consumers better in addition to material needs. However, there is no empirical study of whether the virtual brand community experience will effectively affect the customer's participation in innovation and how it affects it. The article based on the existing research and SOR theory to explore how the virtual brand community entertainment experience through customer psychological impact of customer participation in innovation. The association self-construction is used as the adjustment variable, and the empirical research is carried out through the questionnaire. The research shows that the virtual brand community entertainment experience will promote the participation of customers in innovation, and the customer's psychological authorization will serve as the intermediary role, and the association self-construction will play a negative regulating role.

Introduction

Nowadays, customers are no longer limited to the satisfaction of material needs, while seeking to meet the psychological and emotional needs. The virtual brand community has played an important role in this process. It is extremely beneficial to both consumers and businesses. For example, fans put forward its own appeal in the Xiaomi community and continuously promoted the improvement and innovation of Xiaomi’s products/services. More and more scholars are concerned about the research field of customer involvement in innovation in virtual communities. However, the analysis of the specific forming mechanism of customer participation in the virtual community has not been thoroughly studied. The customer's entertainment experience and psychological changes in the process of participation also need to be further analyzed.

This article discusses customer participation in innovation, further deepens and expands the theoretical research and application areas of customer involvement in innovation, psychological empowerment, virtual community entertainment experience, and provides theoretical guidance for companies to inspire customers to participate in innovation. For enterprises, first of all, they can more deeply realize the necessity and inevitability of customer involvement in innovation, enable them to open up innovation in a more “voluntary” way, and actively build a platform for enterprise-industry dialogue; second, virtual brand communities take An important tool for the construction of a consumer-brand relationship is to put it into the same framework as customer participation innovation, so that companies can clearly understand the factors that influence customers' participation in innovation, and at the same time let them know how to better manage virtual brand communities, increasing the vibrancy of the virtual brand community; Finally, corporate managers can better target customers to participate in the development of targeted measures to create innovative, so as to attract more customers to participate in innovation, have a certain guiding significance for practice.
Research Review and Hypnotics

The arrival of the experience economy, so that customers pay more attention to their own pleasure in participating in various activities. Enterprises have increasingly used the virtual brand community to gather customers and bring them closer to target customers. Therefore, scholars have begun to focus on the customer experience in the virtual community. Studies have shown that getting a good experience when participating in a virtual brand community will bring great joy, and this joy makes them willing to give their own efforts to the community, increase their positive attitude towards brand enterprises and increase their trust[1,2] (Wen and Sha, 2011; Huang, 2015). Therefore, this article speculates that entertainment experiences in virtual brand communities will promote customer participation in innovation. Vries et al. (2012) found that if the content produced by the company is entertaining, it is easier to obtain the customer's attention and favor[3]. Huang (2015) believes that if the virtual brand community can satisfy the customer's entertainment experience, the members' perception of the value and meaning of participating in the community will be enhanced, and at the same time, they will intangibly reinforce their identity in the community[2]. Once the members truly regard it as a member of the community, it is natural that they make positive behaviors for the community. Füller (2008) believes that the pursuit of fun by community members will make them more innovative in the brand community[4]. It can also be said that entertainment is a motive for customers to participate in innovation. Therefore, this article proposes the following assumptions:

H1: The virtual brand community entertainment experience will positively influence customer participation in innovation.

The customer psychological empowerment believes that customer authorization is the bottom-up customer's psychological perception of authorization measures. Some scholars believe that employee's psychological empowerment is the psychological perception of employees to grant their rights to the organization. As an exchange of this perception, employees will make behavior beneficial to the organization. This exchange is based on the abstract exchange of social exchange theory. Similarly, based on the abstract exchange of the social exchange theory, the customer as an exchange of perceptions of corporate authority may inspire positive behavior beneficial to the enterprise.

Raraani et al. (2008) have shown that customers perceive more corporate customer role behaviors after they perceive that the company grants power. Kucuk (2009) pointed out that customer psychology empowers customer behavior, including expressing opinions in the community and proposing innovative ideas[5]. The domestic scholar Lu Wei (2012) reviewed the literature and found that the customer's psychological empowerment would reduce the trust of the customer to the company's risk and uncertainty, and ultimately formed a positive behavioral intention for the company; the customer's psychological empowerment would make the customer feel that they were being used by the company. Pay attention to, and then expand their influence through some methods, such as investing more in the community and showing more innovative behaviors; the company's authorized customers will make the customer satisfied and at the same time create a feeling of self-willedness, which is conducive to stimulating customers to continuously improve and perfect the products for the company. Therefore, this article proposes the following hypotheses:

H2: The customer psychological empowerment will positively affect the customer's participation in innovation.

The entertainment experience refers to the joyful experience of browsing virtual brand community content. The community's good entertainment experience enables customers to recognize the importance of the company's functionality and convenience to the community[1] (Sha Zhenquan et al., 2010). Because of the convenience of the community, customers are perceived as more “free” and functionally pleasing to the community. By making the customers browse the community in a cursory way, they can find out that their choice is not small and the information they can get is clear, that is to say, the customer perceives the authorization. The interactive experience is an experience created by interacting with other members of the community. A good interactive experience enables customers to share information in real time or in different places, and
communicates with people with similar brand like preferences. The experience of obtaining the preferences of others will positively promote the psychological authorization of customers. In summary, this article proposes the following assumptions:

H3: The entertainment experience of the virtual brand community is positively affecting the influence of the customer's psychological empowerment.

Based on the SOR theory analysis, the virtual brand community entertainment experience as a customer's perception of the external environment-related factors, through a certain psychological reaction with the customer to jointly affect customer participation in innovation. Han et al. (2013) found that customer perception of corporate empowerment measures is a direct factor affecting customer behavior through research on employees and customers[6]. That is, the customer obtains a satisfactory customer experience in the virtual brand community and perceives the company's authorization measures through the virtual brand community experience. Then based on the abstract exchange of perceptions of corporate authority, customers are motivated by positive behaviors that benefit the company, including providing product/service improvement ideas, innovative ways of using, or actively responding to and exploring innovative ideas of other members of the community. Such as participation in innovation. At the same time with the assumptions H1-H3, we have more reason to speculate the following assumptions:

H4: Customer psychology authorization plays an intermediary role in the relationship between entertainment experience and customer involvement in innovation

Self-construction refers to the tendency of individuals to use what reference system to recognize themselves[8] (Markus and Kitayama, 1991). The individual either views the self as an independent body that is separate from the social context, or regards himself as part of the social context [7](Liu, 2011). At present, most studies still use the method of Markus & Kitayama [8]. According to the degree of self-recognition standard deviation, they can be divided into two types: independent type and association type.

Different types of customer self-construction will result in differences in their goals and social orientations, while self-construction types will have an impact on both psychology and behaviour[9] (Aaker and Lee, 2001). Connected Self-Constructed individuals of related types tend to dilute their own personal goals and their unique needs. Studies have shown that the unique needs of individuals are a major motivation for their participation in innovation. In other words, they do not value themselves through customer participation in innovation-the uniqueness needs. Moreover, individuals with connected self-construction tend to think more holistically, thinking that there is a wide range of interactions in society. Precisely because of this different way of thinking, they differ in the behavior of customers involved in innovation, and the focus of relevance self-construction is “loss of prevention”[9,10] (Aaker and Lee, 2001; Li Dongjin et al., 2016).

Therefore, for high-risk and high-yield coexistence activities such as customer participation in innovation, linked self-construction individuals will adopt evasive strategies because they need to avoid the loss caused by participation in innovation failure. As a result, high-association self-constructed customers will reduce the influence of virtual brand community experience and customer's psychological empowerment on customer's participation in innovation. According to these, this article proposes the following assumptions:

H5: Connected Self-Construction Negatively Regulates Relationship between Virtual Brand Community Entertainment Experience and Customer Involvement in Innovation.

H6: Connected Self-construction Negatively Regulates the Relationship between Customer Psychological Empowerment and Customer Involvement in Innovation.

Questionnaire and Analysis

The questionnaire survey adopted the combination of online and offline. Online, the questionnaire link formed through the "question star" utilizes social software and various virtual brand communities to post push and allows qualified friends to directly send the link to the registered mailbox of the corporate community members; next, paper questionnaires are distributed in various workplaces, college libraries, etc. Overall, the survey collected 372 questionnaires in total, and 282
valid questionnaires were obtained after removing invalid questionnaires such as inconsistent objects and repeated responses. The effective recovery rate was 75.81%. The participants have some common features: female, very young (under the age of 30); highly educated. And for the most frequently-received virtual brand community types, it can be seen that customers prefer the “civil society” relative to the official forum for corporate building.

Exploratory Factor Analysis

The exponential factor analysis was performed on the data using the maximum variance rotation method. KMO is 0.826, Bartlett's sphere test value is 3262.97(p<0.001), so it is suitable for factor analysis. The variance maximum rotation method extracted a total of 4 factors, explained 67.804% of the total variance, and the structure of each factor measurement term was reasonable. Each factor's factor load corresponding to the measurement item was greater than the factor load on other variables, indicating each measurement item. Both can effectively reflect the corresponding variables, and the measurement scale has good convergence validity.

Confirmatory Factor Analysis

The confirmatory factor analysis method was used to test the reliability and validity of each variable. It was found that the Cronbach α values of all variables were between 0.854-0.891, and the CR value of each variable was between 0.867-0.900, which was greater than 0.8, indicating that the measurement items of each variable have high reliability. In addition, the factor load of the measurement items under each variable was between 0.503 and 0.894, and it was significant at the 0.001 level. The AVE values of all variables were all greater than 0.5, which further demonstrated that the measurement scale had better convergence.

Hypothesis Test

This article will examine the impact of virtual brand community experience on customer participation in innovation, the mediating role of customer psychological empowerment in the process, and the role of self-construction in regulating the virtual brand community experience and customer engagement innovation. Before the hierarchical regression, the variables were centralized. Using the enter method, return in seven steps.

Main Effect Test

The results of the regression of the influence of virtual brand community experience on customer participation in innovation and customer psychological empowerment on customer participation in innovation are shown in Table 5-3. The adjusted R² of model M2 is significantly higher than the adjusted R² value of model M1, indicating that the model added to the independent variable has a stronger explanatory power for customer participation in innovation. Hypothesis 1 holds. With the customer's psychological empowerment to join the customer to participate in the innovation model, the explanatory variation (adjusted R²) increased from 6.8% of the model M1 to 20.4%, indicating that the model added to the customer's psychological empowerment strengthens the explanatory role of customer participation in innovation, H2 Established. At the same time, as the virtual brand community entertainment experience was added to the customer's psychological empowerment model, the explanatory variation (adjusted R²) increased from 5% of the model M5 to 20.2%, indicating that the model added to the entertainment experience strengthens the interpretation of the customer's psychological empowerment. H3 is established.

The Mediating Effect Test

Next, stepwise regression will be used to examine the mediating role of customer psychology in the virtual brand community's experience of customer participation in innovation. The results are shown in Table 5-3. In model M4, the regression coefficient of customer psychology authorization is 0.254 (P<0.001), which shows that in this model, customer psychology authorization and customer participation innovation are positively and significantly correlated, and the regression
coefficient of entertainment experience is 0.318 (P<0.001). It shows that the customer's psychological authorization part mediates the relationship between the virtual brand community entertainment experience and the customer's participation in the innovation, H4 is established.

**Regulation Effect Test**

In this study, multi-level regression analysis was used to analyze the regulatory effects and a total of four regression models were established. From Models 7 and 8, we can see that self-construal of association has a negative effect on entertainment experience influencing customer participation in innovation (B=-0.150, P<0.001). Hypothesis 5 is established. From models 9 and 10, it can be seen that association self-construction affects customer psychology. Authorization has a significant negative effect on customer involvement in innovation (B=-0.197, p<0.001). Hypothesis 6 is supported.

**Conclusion**

This article builds a multivariate linear regression model to verify the role of customer psychology empowerment and self-construction in the process of virtual brand community entertainment experience affecting customer participation in innovation, and validates the six hypotheses proposed. The virtual brand community entertainment experience will promote customer participation in innovation. At the same time, it will be considered as a member of the community. It is not a “passerby”. The customer’s information through the community, “joint” with other members, etc. Negotiated capital, and this is a concrete embodiment of the customer's psychological empowerment. For high-risk and high-yield behaviors such as customer involvement in innovation, linked self-construction individuals will take evasive tactics because they want to avoid the loss of participation in innovation failure.

The customer's participation in innovation is a stage, and the impact of the virtual brand experience on different stages should be different. Future research can analyze the customer's participation innovation in stages.

**References**


