

Credit evaluation method of commodity information based on innovative design crowdsourcing service platform

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Abstract: *The Internet environment, big data concept and 3D printing technology are constantly developing and maturing. The proposal and universality of crowdsourcing, maker, crowdfunding and other production modes provide more rich innovation platforms for the general public around the world, encourage the public to participate in innovation independently, and form an innovation integration ecosystem of interactive creation and mutual benefit. Based on the concept of innovative design, this paper aims to study the classification, definition and system analysis of innovative design product evaluation indicators, deepen the research and implementation, and promote the integration of a large number of scattered product evaluation data in the network. By analyzing the comment data of network users on various products, a systematic evaluation index is established, which is suitable for the display of product information on the innovative juice service platform, so that network users can intuitively obtain comprehensive product evaluation through the evaluation index provided by the platform when inquiring about products.*

Keywords: *Innovative design; crowdsourcing service; product information; credit evaluation*

1. Introduction

The world today is on the eve of a new technological revolution, and the economic pattern is also entering a new period of change and adjustment. The global economic crisis will spawn major technological innovations and promote rapid changes in the social and economic development model [1]. As the forerunner and starting point of all human innovation practice activities, creativity and innovative design not only create economic value, but also create social, cultural and ecological value, becoming one of the core factors of enterprise and national competitiveness [2]. The continuous civilization of mankind not only needs the continuous reform and innovation of new technology, but also urgently calls for innovative design to promote its comprehensive and effective development from a new perspective [3]. In this environment, Internet e-commerce, crowdsourcing platform, we media and other industries are hot. Enterprises can seek solutions to problems from the public through the network, collect product design solutions, and publish advertisements that can be forwarded tens of thousands of times overnight. The public can broaden their horizons, operate we media and complete the task of online publishing in their spare time [4]. Diversified industrial structure provides more innovation possibilities for cooperation between enterprises, mutual benefit between enterprises and individuals, and even the collaborative creation and competition between countries and regions [5].

At the same time, the sudden increase of e-commerce users makes the online product evaluation data large and scattered, and one of the most concerned information when consumers buy and query products online is the description of products by merchants and the evaluation of products by other users. Meanwhile, manufacturers and internet platforms can analyze product use feedback and consumer psychology through evaluation data. Therefore, at present, all major platforms encourage users to evaluate goods and services [6]. It can be seen that the analysis and presentation of user evaluation data of products is becoming more and more important for merchants and consumers' buying and selling decisions. The research on product evaluation indicators and the establishment of an evaluation system that is usable and feasible under innovative designs are particularly critical here. Therefore, this article proposes a credit evaluation method for commodity information based on the innovative design of a crowdsourcing service platform.

2. Innovative design crowdsourcing service

2.1. Innovative design

Design refers to the pre conceived plan of human activities with a certain creative purpose. It is a systematic and integrated innovative creation. Design is also the forerunner and preparation for transforming information knowledge and technological creativity into products, process equipment and business services, determines the value of manufacturing and services, and is the key link to enhance the ability of independent innovation. In modern society, the knowledge, information and other big data of human society and people's innovation and creation will gradually guide a new round of social production revolution such as green intelligent design and global network collaboration. At this time, the fields targeted by design work are expanded and the classification is increased. In addition to product design, design is gradually divided into interaction design, service design, business design System design and other fields [7]. The connotation of innovation includes the following four aspects: First, innovative design is a new design mode under the information network environment. It is a collaborative design based on big data, cloud computing, 3D printing, crowdsourcing and open sharing of information. Second, innovative design is a multi-integration mode of intelligent integration, resource integration and shared platform integration. Third, the development trend of innovative design is towards the goal of green, intelligence, globalization and individuation. 4. Innovative design plays a vital role in promoting the transformation from Chinese manufacturing to Chinese creation, enhancing comprehensive national strength and promoting the harmonious development of social and natural. Innovative design is an integrated innovation covering science and technology, culture and art, user services, and industrial models. The current innovative design has five major components, namely technology, art, humanism, culture and business, as shown in Figure 1. They cover all aspects of technology realization, product form, user analysis, branding and marketing of the whole process of innovative design.

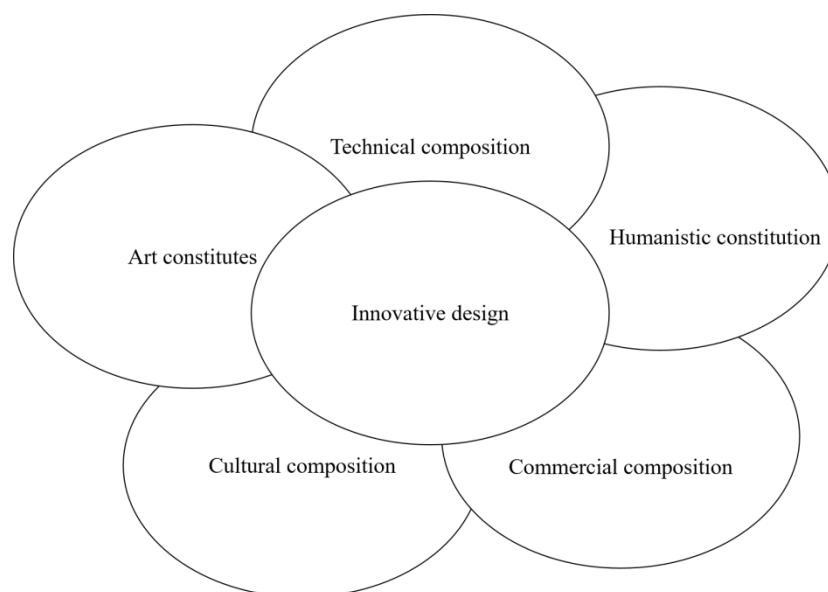


Figure 1 Five major components of innovative design

2.2. Innovative design crowdsourcing service

As a new business concept and model, crowdsourcing has not been clearly defined in the academic community, and scholars and institutions have common explanations for it. The traditional product production process is first conducted by the producer to obtain the consumer demand, and then develop the product. The process is slow, the scope is limited, and there is a lack of innovation. Crowdsourcing is a production mode initiated by the demand side, with the Internet as the main carrier and handed over to non-specific mass groups to provide professional or non-professional, cross-professional and cross-cultural solutions. In this model, the supplier can also be the demander, and the consumer can also become the content creator. It has the advantages of low cost, linking potential resources, improving production efficiency, personalized customization and so on.

From the perspective of crowdsourcing vocabulary, JeffHowe, a reporter from Wired magazine in the United States, put forward the concept in June 2006 and defined crowdsourcing in Wikipedia:

Crowdsourcing refers to the production mode in which enterprises, institutions or individuals give tasks that should be completed by employees in the traditional mode to unspecified mass groups in a free and voluntary way to solve or undertake.

Crowd-sourcing is also defined as “the use of excellent computer network technology by enterprises, organizations or individuals to outsource the work originally done by specific organizations or individuals to the online masses in a new way. This new way is to The Internet is the first method of public fundraising for the platform. According to the definition of crowdsourcing, crowdsourcing is a cross-combination of these three key elements, namely, the main participant is the public, the operation method is outsourcing, and the advanced Internet platform. Today's users participate the main factors of crowdsourcing production are shown in Figure 2.

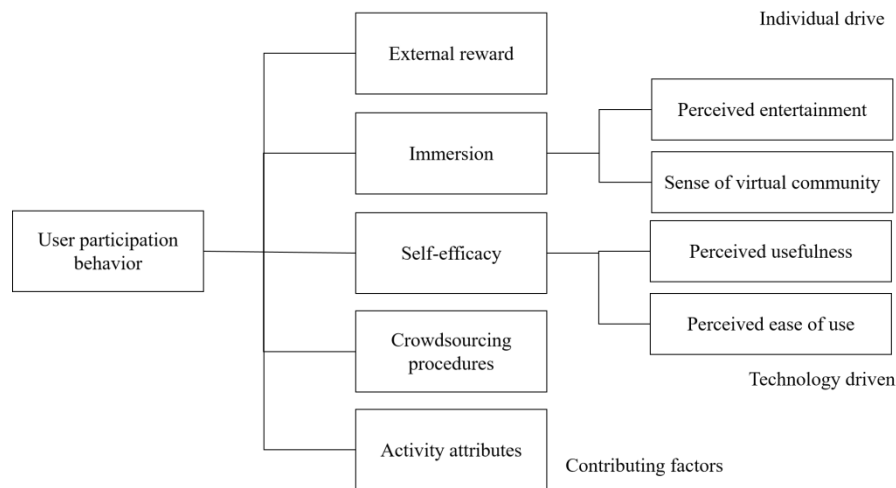


Figure 2 Factors for users to participate in crowdsourcing production

Through technology and reform, crowdsourcing services under innovative design can realize online collaborative design and integrated innovation. In China, the theoretical research on crowdsourcing is mostly praised, and its negative effects need to be deeply studied and solved.

3. Credit evaluation of commodity information based on innovative design crowdsourcing service platform.

The establishment and perfection of credit evaluation mechanism of e-commerce platform is an important guarantee for the healthy development of e-commerce. By analyzing and comparing the current situation of e-commerce credit environment at home and abroad and the current situation of credit evaluation mechanism of domestic e-commerce platform, aiming at the shortcomings of existing credit evaluation mechanism of domestic e-commerce platform, this paper summarizes five major factors that affect the evaluation mechanism of e-commerce platform: transaction times, transaction amount, satisfaction+degree, credit evaluation information and complaint times in the last year. The innovative design crowdsourcing service platform aims to fully integrate group resources such as users, manufacturers, designers, etc. The content includes real-time hot trend information, existing product evaluation information, design work resources, innovative design agency services, etc., independently created by all users. Data such as visits, sharing methods, review information and other data generated when users inquire about existing products or design works on the platform and write evaluations can be used as the basis for consideration of product evaluation indicators.

When establishing the index system, science is not only an important principle, but also a crucial link in the process of evaluating quality. The best situation should be to not only avoid similar variables, but also make a detailed analysis of independent variables to study whether their existence is reasonable. So that various indicators can be reasonably and organically combined, so as to obtain a comprehensive and complete system. The credit evaluation index system of crowdsourcing service platform needs to be viewed comprehensively, and various factors need to be taken into account. For example, the factors of the enterprise itself, the influence of the external environment on its existence, the overall level of the enterprise in the supply chain, etc., and every factor concerning the credit status of the enterprise should be considered. At the same time, the established evaluation index can not only reflect the past achievements of the enterprise, but also analyze the development space of the enterprise

according to the current social situation.

Modularization is carried out according to the requirements of crowdsourcing clients. Figure 3 is a schematic diagram of functional modules of clients.

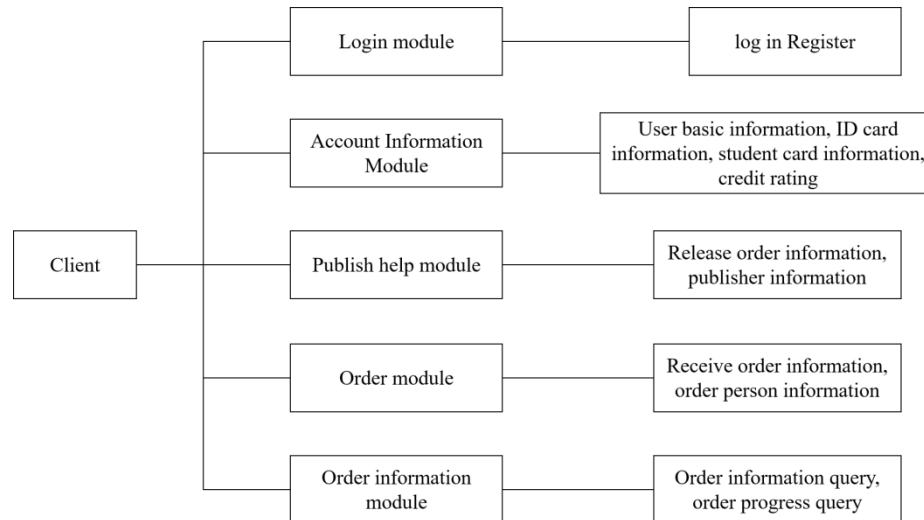


Figure 3 Client function module diagram

Too few evaluation indicators are more one-sided and cannot fully reflect the situation of the enterprise, but if the evaluation indicators are too many, it is also inappropriate. Therefore, it is necessary to select an appropriate amount of evaluation indicators to fully reflect the situation of the enterprise. The product sub-evaluation indicators of each industry are different. After the user's evaluation statistics on the product on the innovatively designed crowdsourcing service platform, it can directly reflect the situation of the product in each sub-indicator. The evaluation index system of innovative design products is not static. With changes in social production and changes in user participation in crowdsourcing, its system construction will continue to be improved.

4. Conclusions

It is not difficult to find that innovative design plays an important guiding role in product design, production and evaluation. In the era of economic globalization and information society, innovative design is of great significance in establishing and perfecting product brands, improving enterprise core competitiveness, helping industrial structure adjustment, improving national comprehensive competitiveness, implementing China's innovation driven development strategy, and accelerating the transformation from "manufacturing power" to "creating power". The innovative design crowdsourcing service platform, which integrates manufacturing resources, group wisdom and intelligent sharing, can provide high-quality design resources for all kinds of enterprises and mass groups with innovative needs in China and even the world. Based on the concept of innovative design, this paper aims to guide the product evaluation of innovative design crowdsourcing service platform in the future, help improve the scientific, accurate and practical evaluation results, enhance the experience of mass participation in crowdsourcing production, guide the public to participate in innovative design and promote the development of innovative design. To form a sound evaluation system, it is necessary to further improve the analysis methods, study the indicators of other types of products, and dynamically track the new data that users continue to create on the crowdsourcing service platform, so as to build a more comprehensive indicator system under the innovative design platform.

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