Research on B2B2C E-commerce Website Design Based on User Experience

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Abstract. In recent years, rapidly developing e-commerce has become an important part of China's national economy. More and more users rely on network platforms to conduct transactions, so it is very important to improve the user experience. In this context, the user experience has gradually become more important, which is beneficial to help B2B2C e-commerce websites provide users with more comprehensive services. Based on the user experience, this article expands the design analysis of B2B2C e-commerce website.

1. Introduction
The B2B2C model is a new network communication sales method. It originates from the evolution and improvement of the current B2B and B2C models. The e-commerce enterprises build their own logistics supply chain system through the B2B2C model and provide a unified service. The innovation of the B2B2C model is to provide all consumers with new electronic trading rules. E-commerce comprehensive service platform based on B2B2C model has overturned the traditional e-commerce model, connecting manufacturers, sellers, and consumers together and fully integrating production resources and retail resources. The platform helps merchants directly act as sellers, pushing the business directly to consumers and shortening the sales chain. It also has a complete logistics system and selects the right logistics company based on the needs of consumers. Since many intermediate links are reduced, consumers can purchase satisfactory products at a lower price, and businesses can also obtain more profits. Earlier, Ma Yun had predicted: “A variety of e-commerce forms will converge in the future, running on a large platform. After opening the B2B and C2C platforms, a new B2B2C network transaction model will be produced.” The industry's now famous Tmall, Amazon is a typical B2B2C model.

2. User Experience Overview
With the rapid development of the Internet, the architecture of user experience is constantly being optimized, and the constant addition of new elements (including interactive experiences, perceptual engineering, and other related fields) has enabled the concept of user experience to be widely promoted. According to relevant research reports, the user experience is no longer rigidly defined in the definition of text, user experience is an extension of interactive technology, it is a sentiment research that is produced through the quality and function of the product itself and the user's needs. Therefore, to define the experience, the first thing to consider is the user's subjectivity. Just like James, an American interactive design expert, thinks that user experience refers to the performance of products in the real world[1]. He defines the user experience as follows: The user experience refers to
the parts of the product or service that the user can experience, including the man-machine interface. The scope of user experience covers the user's knowledge of products, search, classification, purchase, installation, service, expansion, upgrade, and various aspects of life. From the perspective of product design, he divides the user experience into five levels of elements (Figure 1), namely the presentation, framework, structure, scope, and strategy layers. These five elements go through the entire development process of the user experience. The starting point of all user experience is user-centered, how to improve user productivity, how to reduce the user's chance of mistakes in use, etc. The ultimate goal is to improve the efficiency of users, and find an interesting, user-friendly, and efficient user experience method.

User experience designer Donald Norman also proposed that user experience refers to “how products interact with the outside world and play a role”, that is, how people “contact” and “use”. For example, on the button design of a coffee machine, when you press a button, it will make a click. This sound seems irrelevant, but if this sound determines whether you can drink coffee, it becomes critical. No matter what product, the user experience is always reflected in the subtleties, but it is very important. Even a small label on the parcel is a detailed representation of the user experience. “Don’t make user think” is a good interpretation.

3. Influence of User Experience on Online Shopping
Through questionnaire survey and analysis of user online shopping behavior, it is concluded that the user experience will have different degrees of impact on online shopping in terms of usability, functionality, content and performance.

In terms of usability, the user-friendliness of the user interface, the beautification of the product image, and the rationality of the content displayed on the webpage all have a positive effect on the user experience during the shopping process. A high-quality user experience can promote users to purchase online.

In terms of content, we learned that the level of authenticity of the content displayed on the e-commerce platform and the level of content’s detail has a considerable impact on user experience.

In terms of functionality, we learned that the e-commerce platform's convenience to network users in the shopping process, as well as the timeliness of merchants' responses to user issues, have an important impact on users' shopping decisions. Because most Internet users are relatively young and impatient, they are reluctant to spend more time looking for goods to buy.

In terms of performance, the speed of website visiting will also greatly affect the user's shopping experience. One is the browsing of the most typical product pages and pictures, and the other is the
response of the transaction process. If the speed of the website is too slow, the users will not be enough patient to wait, the website can hardly attract users to do shopping. Liu Hongtao, vice president of ChinaNetCenter, once pointed out that the data shows that the biggest factor that really affects users' online shopping experience is the performance and usability of the website rather than the convenience and navigation of the website.

4. B2B2C E-Commerce Website Design Based On User Experience

4.1. Website Positioning
For the development of a B2B2C e-commerce website, the first task is to determine its own positioning, to conduct follow-up targeted user behavior analysis and website design and optimization work. The e-commerce website researched in this paper is a featured agricultural product shopping platform. One is to determine the product category, that is, the featured product category; The second is to determine the site construction target—provide high-quality goods, personalized service experience, and expand the user volume.

4.2. Target user shopping behavior analysis
The key to the design of B2B2C e-commerce websites based on user experience is “user-centered”. Therefore, we must analyze the target users, understand the daily online shopping habits of consumers, and realize the visualization of users' shopping flow. The analysis steps of the target user shopping behavior are as follows:

(1) Develop a questionnaire and summarize the survey results;
(2) Study the online shopping behavior survey analysis report and collect data;
(3) Target the user and understand the user's shopping behavioral requirements for later summary and classification; Through the above analysis, it can provide reference for the determination of e-commerce website service contacts and enhance the user experience. Figure 2 shows the analysis of user shopping behavior.

![User shopping behavior diagram.](image)

4.3. Website interface design
The following figure shows the website flow path diagram. Website design emphasizes the design of the user's behavior such as the homepage, navigation bar, and personality recommendation, as shown in Figure 3.
4.3.1. **Interface flow design.** In the aspect of interaction design, the flow chart can verify the logic of the user operation flow is correct or not, and also can feel whether the user's experience in the operation is friendly or not. In the interface design flow chart of the e-commerce website, the main flow is designed as follows:

1. Project establishment. Project design requirements documents were issued by the project department and sales department.
2. Evaluate the demand. It should be evaluated according to the layout style of the web design, applicable crowd, page color, and other information.
3. Prototype design. Design logic language and verify functionality.
4. Draw the interface model. Interface model specific to the interface design style, text background, color matching, function bar and so on.
5. Confirm the plan.

4.3.2. **Interface function design.** A complete shopping website needs at least two basic functions, one is external service function and the other is internal management function. These two basic functions are indispensable. They interact to ensure the normal operation of business activities. The external service function is mainly aimed at consumers. Its role is to display products and provide related services to consumers. This part of the function is generally implemented on web pages, and consumers can choose to browse. This article also focuses on this part of the discussion. The internal management function is mainly the integrated management of website information, including commodity information, consumer requirements, etc., which is the website's background management system. The functional design of the website is to enrich these two basic functions and enable the entire website to meet the user's requirements.

4.3.3. **The visual design of a web page is the facade of a website.** The important elements of a web page can be conveyed and expressed through visual information. In order to make the information can be accepted by the user smoothly, the visual design of the web page should not only have beauty and visual impact, but also meet the user's psychological and behavioral habits. The visual design of web pages includes the following:
A. Style positioning of the page. The website studied in this paper is positioned as an e-commerce website.

B. Layout of the page. There are several major principles need to pay attention: First, the dynamic picture of theme promotion and product recommendation should be placed in the visual focus area; Second, people pay attention to the efficiency of online shopping, search engines should be placed on the top position of interface, which is convenient for users to search for the target; Third, the layout design should have a distinct personality, and it must be different from other similar categories of websites.

C. Page text, graphics processing. Although graphics have a strong visual attraction, it often requires some text to effectively explain and convey information to users. Appropriate changes in the text color, size, shrinking, etc., and interface layout can more clearly express the affiliation between product information and content.

D. Page color matching, color matching aspects should obey the following points: First, it must have a theme color that matches the style and positioning of the site. Second, the overall color of the page must match the main color system. Using a series of colors or contrasting colors can increase visual effects and make the picture more harmonious.

5. Conclusion
However, judging from the current trend, with the popularity of the Internet in the country and the growing popularity of e-commerce, people will be accustomed to online consumption. In addition, there are many B2B2C e-commerce websites. The focus issue that needs attention in website design is how to help consumers quickly find the target products and complete the shopping process quickly and clearly. Based on this, it is necessary to strengthen the application of the concept of user experience, meet user needs, increase user volume, and create a good brand effect.

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