

## Interactive Design Optimization of Dingdong Software Products Based on User Participation

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**Abstract:** In recent years, the Internet industry in China, especially the mobile Internet industry, has developed rapidly. The number of websites and Apps developed for smartphones has shown explosive growth. Therefore, exploring the effective application of user-centered design idea in practical software design has become a research topic of practical significance. Starting from the practical application needs of enterprises, this paper explores the effective application of user-centered design idea in enterprise software product design and development, focusing on product design process and its optimal design under the guidance of user-centered design principles.

### 1. Introduction

In the current design field, the concept of “User Centered Design (UCD)” is well known, and user experience design has become a new design trend [1]. This design method and concept has received unprecedented attention in current website and mobile app design. Many websites and mobile apps have been designed with full consideration of the user experience factors and achieved good results. In the field of e-commerce, CRM software is an important tool to track the entire transaction process from the order placement to the completion of the transaction and provide automated reminder services to customers. At the same time, relying on a large amount of customer information accumulated by the store, For customers to carry out more accurate SMS, email and other ways of marketing activities [2,3].

The “Dingdong “software researched in this paper is a customer relationship management based on Alibaba e-commerce platform.

Software, which is an Internet-based B/S architecture (Browser/Server) software that combines the features of a website with traditional software. Its characteristic is that its interface is similar to a WEB website, and it also has the characteristics of more general software interaction. When the user uses the software, it can operate like normal software. When the user submits a task or changes the settings, the execution and status of the task are saved on the server side. The software front page displays the progress, status and results of the task execution.

Based on the above research on the background of the subject, this topic from the perspective of user experience designers (including product managers and designers), abandoning the model of software design and development led by marketers and developers, emphasizing user research and user experience The importance of trying to create a user-centric software design development process and using a typical and representative real-world project as a case to illustrate and validate the “user-centric design” approach to software design.

## **2. Dingdong CRM software existing problems and optimization points**

### **2.1 Dingdong Existing problems with CRM software**

On the Ali service platform, the amount of such software is relatively large, although CRM software is one of the earliest pioneers in the field, and its market share ranking has remained in the top of the market, but the user experience of the software is done. It is not very good, which also leads to the user's feedback during the software use process is not very satisfactory, coupled with the relatively small development of marketing operations compared with competitor products, the market share has a downward trend. A detailed analysis of its problems is as follows:

(1) The navigation design of the software is poor, the navigation form is top navigation, and all function menus are hidden.

Show, and is a multi-level menu form, which is not conducive to the user to find and use, some users can not find some functions;

(2) The home page of the software shows more invalid information, and the data in the front page part is not the real user.

Data, but also put some features that are used less frequently on the home page, but users view the requirements comparison

Many of the effect display parts are not displayed on the front page;

(3) The user task flow of some function points is not clear enough, and the user will not be used during use.

In the case of consulting customer service, and the frequency of customer consultation for certain function points is relatively high;

(4) The overall interaction design style of the software is confusing, not uniform, and some interactions are not for the user.

Friendly, there have been cases of user misuse;

(5) The data and charts are displayed in a single form, which does not achieve the desired results and conveys information.

The performance is relatively low.

### **2.2 Dingdong CRM software optimization point**

In response to the above problems, this paper proposes a product optimization design project to support the realization of the company's business objectives.

The product objectives of the project can be summarized as follows:

(1) Help Taobao merchants to carry out affiliate marketing activities, that is, to increase their store sales by sending marketing SMS or coupons to their customers. The core of product service is the precise positioning of the merchant's customers, the high arrival rate of marketing SMS or coupons and the high reliability of marketing activities. The goal is to provide merchants with smooth and efficient marketing campaign launching tools.

(2) Help Taobao merchants to carry out order care activities, that is, by monitoring the progress of their customer orders, provide timely and appropriate reminders and care for their customers to increase their customers' satisfaction with their services. Product offering the core of the service is timely and accurate monitoring of the various processes and status of the customer's customer orders.

High arrival rate and suitable delivery timing, the goal is to provide reasonable and efficient customer management and care for merchants with.

(3) Help merchants to check the effectiveness of their marketing activities and order care, so that merchants can fully understand and control marketing activities and order care, and make targeted adjustments to improve marketing and care for their customers. . At the heart of the product offering is the effectiveness and efficiency of the performance presentation chart, making it easy for merchants to understand the effectiveness of their marketing campaigns and order care.

4) Help merchants to implement other management activities for their customers and provide effective management activities for their clients

Ancillary services.

### **3. User needs analysis**

According to the description of the product project background and objectives, we can see that the target users of the products are managed by customers.

Taobao and Tmall merchants with demand (including marketing needs and order care needs). Through analysis and research, we establish personas and clarify the needs of target users. In this project, the user needs are determined mainly through online user interviews and questionnaire survey methods, and then the character roles are established based on the data analysis results of the product stock users.

#### **3.1 User Research**

Through the analysis of the survey results, we can draw the following points: (1) member marketing and member care are functions that need to be designed in a key way; (2) re-thinking the effect after using the software to carry out activities.

The way; (3) the user experience of software navigation and use needs to be optimized. Therefore, in the subsequent design, we should focus on the user, focus on the use of the function to optimize the design, pay attention to the user's concerns.

#### **3.2 Personas**

Product segmentation user groups can be divided into two categories: one is a segmented user group that focuses on marketing activities; the other is a segmented user group that focuses on caring activities. The user goals of the two types of user groups are different. In terms of crowd distribution, the former is mainly users who have opened the store for a short time and other users who want to expand the scale of operation, while the latter is mainly users who have opened the store for a relatively long time, and their existing sales. The scale is satisfactory, and we hope to enhance the customer's shopping experience and maintain the existing sales scale. These two segments of user groups basically cover the user base of the product.

#### **3.3 Scope definition**

According to the analysis of user needs in the previous article, we have identified the key issue of what the target user of the product wants, and considered the problem of the product in terms of the character's role. Then, based on the product goal, the scope of the product is determined. That is, what kind of functions and content the product should provide to the user. Taking into account factors such as the project cycle, the scope of the product project in this period is also determined, which mainly includes the redesign of the product homepage, the optimization design of the navigation, the optimization of the member marketing function, the optimization of the order care function, and the redesign of the effect display. The design and addition of features is placed in the next iteration.

#### **3.4 Product Design**

After the product range is determined, it enters the product design phase, which is mainly included by the product manager and

The inter-designer is responsible for the finished product prototyping and the visual design that the graphic or UI designer is responsible for. The design of the product prototype is an iterative process. After completing a larger version of the improved design, the actual user of the product needs to be recruited for usability testing to discover the problem of product design, and then re-analyze and find out the problems found. Sexual improvement.

In the prototype design process of the software, the low-fidelity prototype design stage and high-fidelity prototype design are respectively

Several rounds of usability testing were conducted, and the standard for completing one step was that the user usability test was basically passed. Vision

The design phase is carried out under the condition that the prototype design is completed. At the same time, several usability tests are carried out, mainly to listen to the user's opinions on the product interface design, and then adjust and modify the product after analysis. The main process is shown in Figure 1:

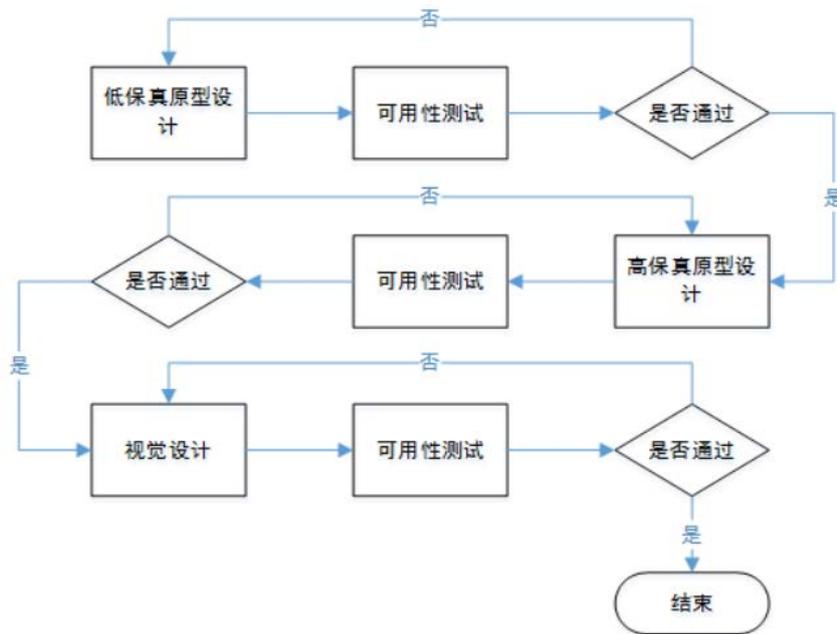


Figure 1 Product prototype and visual design process

### 3.5 Product realization, release and data analysis

This stage is mainly the product development, testing and on-line. In the product development process, product designers (mainly product managers) need to actively track the progress of product development and implementation, and find deviations in product implementation. When a feature is developed, the product manager needs to find the corresponding developer to do the initial acceptance to ensure that the function meets the expected goals. During the testing phase, the product manager needs to work with the tester to verify the implementation of the product features. Product designers (mainly product managers) can only ensure that the product's intended goals are met by tracking the entire process of product realization. This is one of the key steps to ensure user-centric product design.

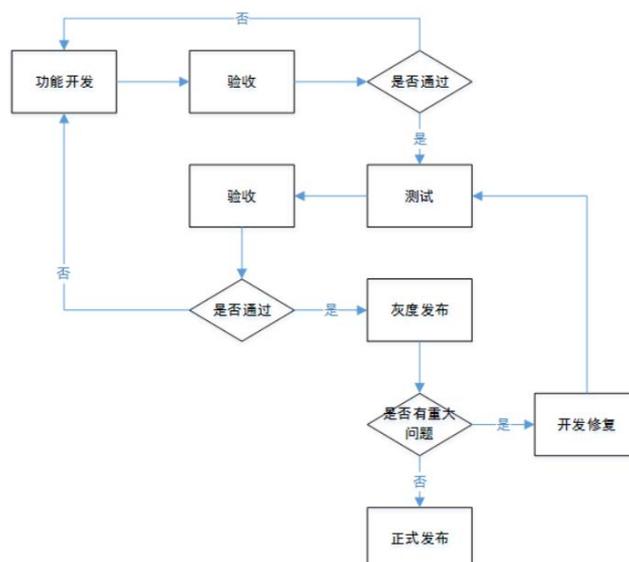


Figure 2 Acceptance process in product development and testing

Data statistics and analysis are the ultimate means of verifying whether a product truly meets the needs of the target user. After all, “practice is the only criterion for testing truth.” The effect of user-centered design ultimately depends on data. In this project, data statistics mainly focus on changes in the number of users after going online, changes in user activity, and changes in the use of major functions.

#### **4. Summary**

In the current Internet age, speed has become one of the important factors in the success of Internet products. In this case, how to design a product with good user experience and usability under limited time resources becomes a new research and exploration direction, but in any case, the user-centered process of allowing users to participate in product design is an effective solution. Based on the user-centered software design model, this paper optimizes the design of the “Dingdong “ software according to the design method and process described in the model. At all stages of the project, we always adhere to the user-centered approach, ensuring that users participate in all necessary phases to ensure that the project results – the new version of the “Dingdong “ software meets the user's expectations.

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