

Research on UI Interface Design of NAIS Small Program- -Research on APP Design based on KANO Model

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Abstract: With the popularization of the mobile Internet and the wide application of smartphones, the importance of the UI interface design of the small program, as an important window for the interaction between the brand and the user, has become more and more prominent. This paper adopts the KANO model to analyze the UI interface of the NAIS applet deeply and puts forward targeted improvement suggestions. Through the KANO model to analyze the basic needs, expectation needs and excitement needs of the target users, this paper aims to match the young aesthetics and shape a unique interface style through the three aspects of design style and color matching, interface layout and function setting, interaction optimization and kinetic effect design; optimize the user experience and enhance the operation convenience; strengthen the brand identity and improve the competitiveness of the market.

Keywords: NAIS Applet; KANO Model; Interface Visual Design; User Requirements.

1. Introduction

As a famous brand in China, the NAESH applet is an important part of digital marketing, undertaking multiple functions such as brand introduction and promotion, product display and sale, and user service after purchase. However, with the rapid changes in the market environment, how to continuously optimize the UI interface of the applet to meet the growing different needs of users has become an important challenge for NAES, and the KANO model, as a kind of efficient user demand analysis tool, provides a scientific theoretical basis for the improvement of the UI interface of the NAES applet.

2. Research Background and Significance

2.1. Research Background

With the popularization of the Internet and the wide application of smartphones, small programs have gained the attention of a large number of young users and developers with features of no installation, multiple entry points, low development threshold, and ready-to-use [1]. The UI interface should be designed in such a way that users can quickly understand and use the functions of the small programs in the shortest possible time, to increase the frequency of use and satisfaction, and to avoid confusion or hesitation that may lead to abandonment of the use. This will prevent users from being confused or hesitant in the process of using the program, thus leading to abandonment of its use.

At the same time, with the continuous innovation of science and technology to provide more possibilities for the small program UI interface, the continuous development of the market has also brought a new round of challenges for the small program UI interface design, so that the small program developers should pay more attention to brand tone, target users, user experience and other factors, and continue to optimize and improve the small program, to attract more users.

2.2. Research Significance

The revision of the UI interface of the NAIS small program

has far-reaching and positive significance for the brand and users. This revision injects new design concepts and elements while maintaining the brand characteristics, presenting a more modern and minimalist interface effect. Firstly, by optimizing the layout and enhancing interactivity, the new version of the interface enhances user experience, enabling users to find the functions they need more quickly and conveniently, and improving operational efficiency. Secondly, the visual effect of the interface has been strengthened, and the color matching and element design have been injected with the unique style of the brand, further enhancing users' recognition and memory of the NAXIS brand. Finally, the revamp demonstrates NAXIS' spirit of continuous innovation and pursuit of excellence, enhancing the brand's leading position in the market and attracting the attention of more potential users. Overall, the revamp of the UI interface of the NAXIS applet is to bring a better user experience and inject more unique style vitality into the brand.

3. Definition and Analysis of Related Concepts

3.1. Definition of KANO Model

The KANO model, proposed by Japanese scholar Noriaki Kano in the 1980s, is a tool for analyzing customer satisfaction, which helps companies understand the impact of different needs on customer satisfaction by classifying customer needs into five categories: basic needs, aspirational needs, excitatory needs, non-differentiated needs, and reverse needs [2]. Basic needs are what customers take for granted, and satisfying these needs will not significantly increase satisfaction, but unfulfilled will lead to dissatisfaction; Expectation needs are directly proportional to satisfaction; Excitement needs can bring great surprises and satisfaction enhancement, and even if they are not satisfied, they will not lead to dissatisfaction; Undifferentiated needs do not have a significant effect on satisfaction; and Reversed needs may reduce satisfaction instead of satisfying them[3]. By analyzing customers' responses to these demands, companies can better optimize product and service design to enhance customer satisfaction and market competitiveness.

3.2. Interaction Design

Interaction Design (IXD) is a discipline dedicated to designing user interfaces for digital products and services, aiming to optimize the interactive experience between users and products [4]. It focuses not only on the needs and behaviors of the user, but also on how the product responds to those needs to create an intuitive, effective, and enjoyable user experience. Interaction design involves several aspects, including information architecture, user flow, interface layout, visual design, and usability testing. Interaction design is a multidisciplinary field that synthesizes the knowledge of psychology, design, computer science, and other disciplines to enhance product usability and user satisfaction by creating an interactive experience that meets user needs.

3.3. Interaction Design Focus under the Guidance of the KANO Model

In the field of interaction design, KANO model is not only a tool for demand classification, but also an important framework to guide designers to deeply understand user psychology, optimize user experience, and promote product innovation. Through this model, designers can systematically identify and satisfy users' needs at different levels, to create practical and attractive products and services.

3.3.1. Must-be Requirements:

From a design perspective, basic needs are the indispensable cornerstone of any product or service. Also known as must-be requirements, demand for granted, is the basic requirements of the customer on the enterprise to provide products or service factors. They are the attributes or functions that customers think a product "must have", and they constitute the most basic expectations of users for the functionality of a product, just like the foundation of a building, which is not obvious but crucial. In interaction design, this means that the interface must be intuitive and easy to use, the information architecture must be clear and reasonable, and the core functions must be stable and reliable. It lays a solid foundation for the satisfaction of higher-level needs.

3.3.2. Performance Requirements:

Expected demand is the gas pedal of user satisfaction, and is the key to distinguishing the advantages and disadvantages of the product, also known as willingness to demand. It refers to the demand that the customer's satisfaction is proportional to the degree of satisfaction of the demand, and if this kind of demand is satisfied or performed well, the customer satisfaction will increase significantly, and the more the products and services provided by the enterprise exceed the customer's expectation, the better the customer's satisfaction is. In interaction design, this requires designers not only to meet the basic needs of users but also to pay attention to the details that can significantly improve the user experience. For example, smooth animations, personalized recommendation systems, and efficient problem-solving mechanisms. By continuously optimizing these aspects, designers can gradually improve user satisfaction and make users feel the unique value of the product, thus enhancing user stickiness.

3.3.3. Delighters:

Delighters are the finishing touches in interaction design, they exceed the user's regular expectations and bring surprises and pleasures to the user. In design practice, this often involves innovative functional design, emotional interface elements, or customized services that are closely related to

users' lives. By digging deep into the potential needs of users, designers can create eye-catching design highlights that not only enhance user satisfaction but also stimulate users' emotional resonance, thus establishing a unique brand image in the minds of users and enhancing their brand loyalty.

4. Case Study - NAIS Small Program Based on KANO Model Analysis

When discussing the design strategy for young audiences aged 18-35, this paper focuses on three core motivations, aiming to enhance product attractiveness and market competitiveness through accurate positioning and innovative design.

4.1. Design Positioning

4.1.1. Fitting Young Aesthetics and Shaping Unique Interface Style

First of all, for the aesthetic trend of young people aged 18-35, the design strategy should tend to be simple, fashionable, and incorporate innovative memory points. Audiences in this age group pursue individual expression and visual novelty, so the design of the UI interface needs to break the routine and enhance the personalization and uniqueness of the interface through a simple but exquisite layout, fashionable color matching, and clever integration of creative elements. Such a design can not only quickly attract the attention of young users, but also subconsciously shape the brand's image of youth and vitality, and enhance user stickiness.

4.1.2. Optimize User Experience and Improve Operation Convenience

Secondly, optimizing user experience is the key to winning the favor of young users. Considering that young people tend to favor fast and efficient operation and clear interface design, the design process should focus on simplifying the operation process and reducing the learning cost. By adopting more intuitive icons and labels and reducing unnecessary operation steps, users can quickly get started and enjoy a smooth operation experience. In addition, the addition of micro-interactive elements, such as sliding screen cuts, animation effects, etc., can not only increase the user's participation and immersion but also show the ingenuity of the product in the smallest details, further enhancing the user experience.

4.1.3. Strengthen Brand Identity and Enhance Market Competitiveness

Finally, through the deep integration of visual design and brand elements, strengthening brand identity is an effective way to enhance product competitiveness. The NAIS brand can create visual unity and harmony by applying the main color of its LOGO and matching the same color with the same color in the applet, to deepen the user's memory point of the brand. At the same time, combined with the unique IP image design, it can not only stand out among many similar products but also convey the brand concept and values more vividly and interestingly, enhancing users' emotional connection and loyalty to the brand. This differentiation strategy based on brand identity helps the NAXIS applet occupy a favorable position in the fierce market competition.

4.2. User Research and Problem Summarization

4.2.1. Defects of Interface Design and User Experience

The interface layout is not intuitive enough: the current interface layout is complex, and the display of important

information and functional buttons is not obvious enough, resulting in users needing to spend extra time to find what they need in the process of using it, which reduces the overall efficiency of use. This unintuitive layout design directly affects the user's experience, increasing the user's learning costs and operational difficulties.

The operation process is too cumbersome: users need to go through multiple steps to complete the purchase, membership recharge, and other operations, this cumbersome process not only increases the user's operating costs but also may lead to user impatience in the use of the process, which in turn affects their overall evaluation of the product or service.

4.2.2. Deficiencies in Visual Design and Aesthetic Performance

The design style deviates from the target users: there is an obvious deviation between the existing visual design style and the young user groups targeted by the NAESH brand, failing to cater to the aesthetic preferences of young people. This deviation leads to the target users not feeling friendly enough when using the product, making it difficult to establish an emotional connection between the brand and the users.

Lack of brand tone in color matching: The color matching of the current interface fails to fully show the unique characteristics of the NAESH brand and lacks brand recognition. This color inconsistency and lack of characteristics make it difficult for users to form a deep impression of the brand when browsing the interface, reducing brand recognition and memory.

4.2.3. Lack of Functional Expression and Service Feedback

Insufficient user participation and activity: the lack of interactive functions and incentives to attract users within the small program, leads to low user participation and activity in the process of using it. This low activity not only affects the user retention rate of the small program but also limits the possibility of further expanding its user base and enhancing its brand influence.

4.3. Design Optimization

4.3.1. Design Style and Color Matching

Given the market positioning of the NAXIS brand and the target user group (mainly young people aged 18-35), the design style will adopt a modern minimalist style, aiming to show the brand's professionalism and fashion sense. The design will deeply integrate the unique visual elements of the NAXIS brand, such as the style, color, and font of the brand logo, to ensure consistency and high recognition of the brand image. The main colors chosen are lake blue and mint green, the representative colors of the NAXIS brand. These two colors not only convey the youthful and energetic tone of the brand but also create a calm and professional atmosphere with their refreshingly cool tones, which helps to enhance the user's sense of trust in the brand. The auxiliary colors are white or gray to improve the clarity and contrast of the page elements and ensure the readability of the information.

4.3.2. Interface Layout and Function Setting

The interface layout follows the principle of clarity and convenience and ensures the intuitive presentation and readability of the page content by carefully planning the position and size of the page elements. Flex layout technology is adopted, and the Flexbox model is used to build a flexible layout structure to adapt to different screen sizes and devices and realize responsive design [5]. The page area is divided, including the navigation area, function display area, content list area, etc., to maintain the consistency and similarity of the layout between the pages and reduce the user's learning cost.

In terms of functional settings, the core functional areas and operation flow of the NAIS app are simplified to provide clear functional categorization and search functions to help users quickly locate the required functions. For non-core or low-frequency use functions, the strategy of hiding or putting them into sub-menus is adopted to reduce users' information burden. In addition, the reasonable information architecture and visual hierarchy design, guide the user's line of sight flow and improve the efficiency of information acquisition.

4.3.3. Interaction Optimization and Dynamic Design

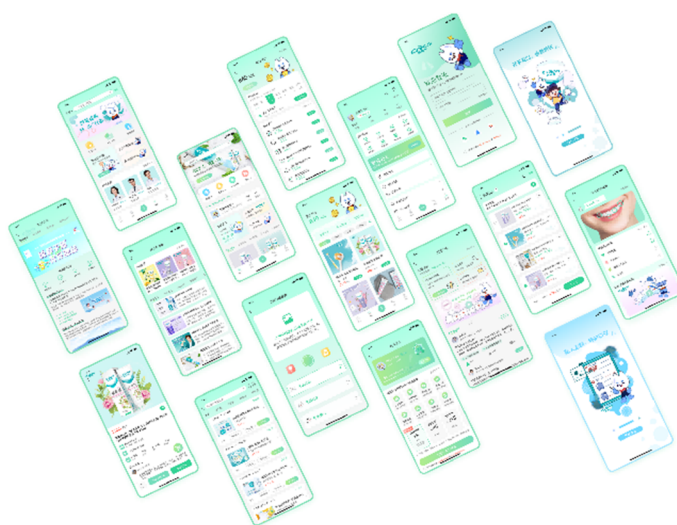


Fig 1. Improved high-fidelity diagram display of UI interface of NAIS applet

To improve user experience, the design will focus on the combination of interaction optimization and dynamic effect design. Set up a clear navigation bar and menu, and provide clear path guidance to help users quickly locate the required pages. At the same time, simplify the operation flow, reduce

unnecessary page jumps and loading times, and ensure the smoothness and responsiveness of the operation.

In key operations such as page switching, button clicking, etc., add appropriate animation design to attract user attention and enhance the fun of interaction. The animation design is

simple, natural, and smooth, and avoids excessive showmanship and redundant effects to ensure the comfort and consistency of the user experience. In addition, the design is customized according to the characteristics of the NAXIS app and users' needs, so that the dynamic effects are more in line with the brand tone and users' habits.

To sum up, the comprehensive optimization of design style and color matching, interface layout and function setting, interaction optimization, and dynamic effect design, will effectively improve the user experience and brand image of the NAIS app.

5. Conclusion

In this paper, based on systematically improving the UI interface of the NAIS app, with the help of the Kano model to identify the practical needs of users and the key needs of the service platform of the NAIS app and put forward targeted service optimization strategies. Through the optimization of the interface layout, the introduction of functional innovation, and the shaping of the brand image, the user experience and brand value of the NAIS applet are enhanced. However, there are still shortcomings in this study, in the follow-up study, we will continue to pay attention to user needs and market changes, and continue to optimize and improve the interface

design of the NAESH applet, to provide users with more high-quality and convenient services.

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