

# A study on user operation strategies and user engagement enhancement methods for fitness App: a case analysis of Keep

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**Abstract.** With the enhancement of national health awareness and the improvement of physical fitness demand, the continuous popularization of mobile devices and the continuous improvement of their performance, online fitness has become a popular form of exercise in the current era, and mobile applications have become a tool to assist exercise for many people, Keep is one of many sports fitness apps. The purpose of this study is to explore the user operation strategy of sports application KEEP and the methods to enhance user stickiness. It will assess the effectiveness of these approaches and strategies and analyze their strengths and areas for improvement. Finally, the research will provide practical suggestions and future prospects for further improving user engagement and application performance. This study will mainly use the literature research method and interview method to provide information for this study. Finally, the findings show that Keep increases user engagement by using different creative approaches.

## 1 Introduction

In 2014, Several Opinions on Accelerating the Development of Sports Industry and Promoting Sports Consumption issued by The State Council elevated national fitness into China's national strategy. Policies related to the sports industry have been continuously introduced. Meanwhile, with the development of mobile applications and people's increasing demand for healthy life, it provides a good development environment for gyms and online fitness apps. After the start of the new coronavirus epidemic in 2020, people's awareness of healthy life has been further improved, and the requirements for physical fitness have also been increased, which has further promoted the popularity of fitness and online fitness. In the busy modern era, people's spare time is not enough to support a large number of offline fitness, so the form of online fitness and mobile fitness apps are more popular with the public. [1] [10]

At the same time, the rapid development of mobile applications in this digital era, coupled with the rapid development of AI, "smart fitness" has gradually entered the public's eye, many fitness apps came into being, and based on the huge characteristics of mobile terminal user base, these apps can be rapidly popularized and used, bringing new opportunities and

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development prospects for the fitness industry. Keep is one of those apps. These apps provide people with many fitness resources, fitness courses, etc., so that people can exercise and learn fitness without leaving home. In the big industry of online fitness, Keep, as the largest fitness App in China, is worth discussing and studying how to improve user stickiness through its operational strategy.

The theoretical purpose of this study is to explore the operation strategy of the fitness platform Keep, analyze the advantages of its operation strategy and the room for further improvement, and give suggestions for optimization. At the same time, it can give people a preliminary understanding of the operation mode of Keep, which has certain theoretical significance.

The practical significance of this paper is that the research results can provide optimization suggestions for Keep and other similar or similar software or platforms, which can help this software, or platforms optimize user operation strategies, so as to provide users with a more complete and high-quality user experience. At the same time, it can also promote the development of online fitness industry in a disguised way, which has certain practical significance.

This paper uses the case study method. This study chooses fitness App Keep as the research object and analyzes the operation mode of Keep by collecting secondary literature and Keep official data.

Secondly, this paper uses the interview method. In part of the study, structured interview method was used. After obtaining the consent of the visitors, voice recordings were made and converted into text, which was sorted into text information, and text information was regarded as an important data source in the study.

This study will start with the research background, research purpose and significance, describe the academic and social background of this study, and pave the way for the subsequent paper. In the second part, it mainly explains what user stickiness is, what factors can affect user stickiness, and gives the cases related to some factors, or the results of first-hand research, and analyzes and summarizes; The third part will first introduce Keep fitness App and explain why it can be used as the research object of this paper. Then, it will start to analyze the current operational strategies implemented by Keep platform one by one, and why these strategies can improve the user stickiness of Keep and point out the advantages and areas for improvement of these strategies. Finally, the optimization suggestions are given. In the fourth part, the paper will make a summary and analysis of the whole research and point out the future research direction in this field, as well as suggestions.

## **2 Adhesiveness of user and examples to evaluate**

### **2.1 The brief of Keep**

Keep is a one-stop sports App, which was officially launched on IOS, Android and OS platforms on February 4, 2015. Its services include teaching fitness, running, cycling and other sports, fitness diet guidance, purchasing various sports equipment, making friends online and other functions, which are comprehensive. It has become a popular app in the sports and fitness category and was selected as "App of the Year 2015" by the App Store in 2015. On July 12, 2023, Keep officially landed on the main board of the Hong Kong Stock Exchange. In 2022 and 2023, Keep's annual revenue reached 2.212 billion yuan and 2.138 billion yuan respectively [2] [9].

## 2.2 The concept of adhesiveness of user

User stickiness refers to the degree of dependence and re-consumption expectation formed by the combination of customer loyalty, trust and benign experience for the brand or product, and refers to increasing the number of users from both sides, which can be evaluated according to user retention, number of active users, frequency of user use, etc. Simply put, it is the extent to which users continue to use a product or service. Therefore, user engagement plays a key role in the success of a business or a product.

The main factors that influence user engagement are user experience, product/content quality, personalized service, social interaction and rewards. Here are some examples and analyses [3][8]

## 2.3 Users' experience case

The sense of user experience refers to the subjective emotional feelings generated by users when using a product, which largely determines whether users will continue to use the product. It also requires product design to consider various issues, such as whether the user experience brought by the App interactive interface is simple and clear or complex and difficult to operate.

In recent years, aging has become more serious, the Ministry of Industry and Information Technology issued the "Internet Application aging and barrier-free transformation of the special action Plan" in 2020, and food, takeaway App "Hungry" in order to adapt to this social trend, launched the "elder mode" version, this version has enlarged font, simplified color, Clearer overall layout and other optimizations [4]. This action has greatly improved the efficiency of the elderly using "Hungry?" and reduced the phenomenon that the elderly will not use the App to facilitate life.

This app optimization measure for specific groups not only improves the user experience of the current elderly group, but also enables more elderly groups to become potential users or users of "Hungry" app. At the same time, this optimization initiative can improve the user stickiness of the elderly group, that is, loyalty, because the user experience has reached a good indicator, it is likely to stimulate the reuse behavior of the elderly group, and most of the elderly do not want to use too much app, because it will increase the mental burden, which can also make the elderly group of "hungry" more trust in the app.

## 2.4 Product/content quality case

The quality of the product, for Keep, is the quality of the App content. High-quality products tend to attract more users to use and will retain more users. In this part, I interviewed three of my senior high school classmates and made the interview records into the following Fig 1:

Transcript of the interview	Question: Are you willing to choose a higher quality product, even if its price will be higher. If so, why?
Interview subject	Answer record
Student A	When money is sufficient, I will consider choosing high-quality products, because the quality is high and the use is guaranteed
Student B	I will choose high-quality products, such as high-quality but more expensive face cream, because it is better quality, will not hurt the skin, but also more absorbent, and the use experience will be better
Student C	Of course, high-quality products, because high-quality products can usually be used for a long time, very good value. For example, I have a set of 3 years can also be insulated cup

Fig. 1. Interview record.

Thus, it can be seen that consumers are more willing to choose high-quality products, even if they are more expensive. The level of product quality directly determines the purchase intention of consumers, consumers will be more willing to consume high-quality products, because

If the quality of the products purchased by users is guaranteed, users will be more inclined to repeat purchases of the same products or have continuous consumption of the brand of the products. such positive shopping experience will enhance users' trust and loyalty to the products or the brand of the products, and will further enhance user stickiness.

## **2.5 Personalized service case**

Personalized service is defined in this paper as a service in which an App pushes content that users are interested in or need by analyzing user preferences based on big data algorithms.

Taobao is an e-commerce platform familiar to the public. When you open the Taobao App of two different users, you will find that the products pushed by the home page of the two users may be completely different, the former may be beauty products, the latter may be boutique furniture, and there will be some similar content, which is the result of personalized services. If a user continues to search for a product over a period, the user's home page may be flooded with similar products, which is also a result of personalized services. At the same time, it can also be found that the goods in the user's shopping cart and the goods in the home page push have great similarities, which is also an example of Taobao through big data analysis to achieve personalized push.

Taobao continuously optimizes the algorithm to calculate the collected user data, create more valuable push for users, and maximize the click-through rate and conversion rate. When users are continuously pushed to the products they need or like, users will often choose to continue using the App, which not only improves user stickiness, but also improves the purchase conversion rate.

## **3 Keep's current user operation strategy analysis**

### **3.1 Medal Run Challenge**

Keep medal run has always been a popular form of activity on the Keep platform. By paying to participate in medal run activities and participating in them, MEDALS are awarded by reaching different kilometers. The medal design is novel and beautiful, and it is loved by many young people.

Keep's MEDALS have been jointly signed with many well-known ip. For example, from the end of 2023 to the beginning of 2024, Keep and Maltese jointly launched the "Love will Stick" medal run, setting two running distances of 1.314km and 5.21km. After completing the registered distance, users can get a certificate of completion. One Maltese sticker, one virtual badge and one physical badge. From the end of 2023 to the beginning of 2024, Keep and Minions jointly launched the "Bello" medal run, setting a running distance of 2.33km, and also, after completing the distance, you will get the prize provided by Keep. In addition, Keep also linked up with childhood memories of ip Ba La la little magic fairy, the hit drama Ghost Killing Edge, the national treasure giant Panda, the popular ip Loopy, etc., which set off a wave of medal running craze on Keep [5].

In the modern era filled with heavy work or study, people will have less energy and motivation to exercise when they are busy, and few people will exercise in a planned way, so "lack of self-discipline" has become one of the obstacles to exercise. Medal running is an excellent way to urge Keep users to exercise and become a sports booster. Reaching the

required number of kilometers within a limited time will improve the enthusiasm of participating users. Winning MEDALS and certificates after the completion of the race can also increase users' sense of accomplishment and confidence, obtain psychological satisfaction, and achieve a virtuous circle. At the same time, Keep's exquisite medal design also attracts many young people to continue to participate, which also increases Keep's user stickiness and loyalty in disguise. The Keep medal run has become an irreplaceable and unique form of sports challenge, which exists in the hearts of many sports enthusiasts.

Keep medal run is a very good operation mode, combining "challenge", "reward" and "exercise", which can provide the participants with sports motivation, but also let them get the spiritual joy and material rewards after exercise [6]. While urging users to exercise, medal run has become a unique sports mode exclusive to Keep. While attracting a large number of users, it also allows many old users to adhere to the form of medal running, which greatly enhances the trust between the Keep brand and users and the loyalty of users to Keep, that is, improves user stickiness.

However, the form of medal running is relatively simple, almost all are: users run a certain number of kilometers at a time, as the content. In the future, "medal running" can be expanded to "medal sports", which can cover more forms of exercise, such as jumping rope. Or the content of the "medal run" can be diversified, for example, you can carry out "relay race", "inconsistent running" and other running forms.

### **3.2 Online sports mall**

Keep sports mall sells a variety of sports equipment, sports equipment and sports diet. For example, sports equipment includes home spinning bike, home treadmill, home rowing machine, etc. Sports equipment has skipping rope, dumbbell, fitness mat, fitness elastic circle, etc. Sports diet has instant chicken breast, low fat hot and sour noodles, protein bar, soba noodles and so on. Keep can calculate the difference of products required by different users through big data analysis and algorithms, so as to recommend suitable products to users in the commodity purchase interface [7].

Keep's online sports mall is characterized by product diversification. Home sports equipment to meet the needs of users at home exercise, such as home spinning bike; Sports equipment can improve the user's comfort and sports experience during exercise, such as sports quick-drying clothes; The sports diet meets the user's dietary needs of healthy diet, shape and fat reduction meals, such as protein bar, buckwheat noodles.

This integrated operation mode, which integrates sports fitness, equipment purchases and nutrition supplement, enables users to meet all sports-related needs in one App, greatly reduces the tedious behavior that users may have to switch between different apps, facilitates users' fitness, increases users' frequency of use and dependence on Keep, and thus increases user stickiness. On the digital side, it can continue to optimize the user's purchase process, reduce the steps from selecting goods to completing purchases, and continue to improve personalized recommendation services and optimize product screening functions. In terms of products, Keep continue to enrich the types of products and provide users with a wider range of product choices. In terms of after-sales service, continue to provide high-quality after-sales service, so as to enhance users' trust in the brand, so as to continue to enhance user stickiness.

### **3.3 Free/paid fitness classes online**

The Keep platform provides users with fitness teaching videos for different sports, from yoga to marathon, from entry level to professional level, from free to paid, from general to personalized. Whether it is a free course or a paid course, Keep allows professional coaches on the platform to record courses for everyone to learn. At the same time, Keep also provides

personalized customized courses to customize personalized exercise programs for users who want to achieve a certain exercise goal. Of course, the platform will also charge users certain fees, for example, students only need 4 yuan for the first month of Keep monthly membership, and automatically renew it at 19 yuan a month after expiration [1].

To a great extent, Keep online courses make it more convenient for people to learn fitness. They don't need to spend any money and spend time to go to offline fitness stores for private training courses, and they can also get high-quality teaching resources. At the same time, Keep's diversified courses meet the different needs of users with different interests. When users start to learn or finish a set of courses, they may choose to continue to learn courses on the Keep platform after realizing the value of the courses and the convenience different from other platforms, which also increases the user stickiness of the platform [7].

Of course, it is undeniable that online courses cannot correct users' wrong actions in time and prevent users from being injured during exercise like offline courses. Therefore, Keep can upgrade App functions and introduce functions that can monitor users' movements from time to time, which can effectively reduce the occurrence of such situations. Similarly, although the service of personalized fitness classes is provided, there is still a lack of interaction and communication between users and trainers, and users may feel that there is a lack of interactive experience, and thus lack of motivation when exercising. Therefore, in general, although Keep is convenient and diversified in teaching, it lacks real-time guidance and high self-discipline requirements, so it needs to be continuously optimized to improve user experience and increase user loyalty.

## **4 Conclusion**

This study mainly explores the operational strategies of Keep and analyzes why these strategies can increase user retention and loyalty. Then, the main goal of this study is to understand through which mechanisms and methods Keep effectively increases user engagement and loyalty.

Through analysis, Keep uses different and innovative methods, including medal run with reward mechanism, professional online fitness courses, personalized fitness services, convenient and diverse sports mall, etc., which significantly improves user experience, user engagement and user loyalty. Of course, Keep should also continue to develop its service content to make it more innovative, higher quality and more attractive. For example, Keep sports AI can be developed to participate in fitness services, so that each user can get more personalized and humanized services. In short, if an app wants to keep users engaged

By analyzing the strategies of Keep to increase user stickiness, this article increases the understanding of digital fitness platforms, and also Outlines how to use personalized services and continuous innovation of technology to maintain user engagement. This may have certain reference value for the developers of Keep, and it can also bring certain inspiration and reference schemes to the developers of other fitness apps.

The literature used in the research comes from authoritative websites, journals or advanced academic dissertations, which is reliable and authoritative. However, some of the articles are collected by websites, so it is impossible to find the authors, which may lack the accuracy of the literature sources.

However, this study also has many shortcomings, such as the analysis of only three operational strategies, may not be comprehensive; Without a comparative analysis of Keep with other similar apps, it may not be possible to fully explain its advantages. Therefore, in the future research, these contents can be used as research objects.

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