

# Explore the Ways to Strengthen Duolingo Business in the Asian Market

Zixuan Li<sup>1, \*, †</sup>, Jiasi Yuan<sup>2, †</sup>, Xinyan Zhang<sup>3, †</sup>, Xiaoyu Zuo<sup>4, †</sup>

<sup>1</sup>Shenzhen RDF International School

<sup>2</sup>Henan Experimental High School

<sup>3</sup>Nanjing Foreign Language School

<sup>4</sup>Hefei No.8 High School

\*Corresponding author. Email: [guanghua.ren@geccademy.cn](mailto:guanghua.ren@geccademy.cn)

†These authors contributed equally.

## ABSTRACT

Duolingo is an online language learning software. Since 2012, its market share has accounted for a large part of the industry in Europe and the Americas. Especially during the outbreak of the epidemic, its users have increased dramatically. In the first few weeks of the epidemic, 30 million new language learners were added. However, Duolingo has only entered the Asian market since 2019, and its development in the Asian market is far less than that of the European and American markets. Therefore, this article focuses on the phenomenon of Duolingo's poor performance in the Asian market. The research method of this paper is literature analysis, and the development of language learning software is analyzed by collecting the research results of online language learning software in China and abroad. Therefore, we conclude that the main reasons for Duolingo's poor Asian market are poor promotion and marketing, limitations in the Asian market, and competition from other brands. In this regard, we suggest Duolingo to increase its share in the Asian market by improving software content, adjusting prices, increasing marketing, fighting for investment, and increasing international recognition.

**Keywords:** Duolingo, Epidemic, Asian Market, Communication

## 1. INTRODUCTION

Thanks to the rapid advancement of internet technology, various types of offline traditional learning methods have been combined with the internet and gradually developed into online learning. This mode has become popular due to its unique combination of knowledge transfer and the Internet. Among them, language learning apps have become popular in recent years, and learners cover all levels of society, but the main learners are young people who need to provide language scores for studying abroad or job applications [1].

One of these language learning and testing platforms is Duolingo. It was founded in 2011 by Luis von Ahn and Severin Hacker and has officially entered the Asian market in 2019. The company offers courses in 40 languages, including popular languages such as English, Japanese, and Korean. Also, Duolingo Test has been accepted by more than 3,000 higher education institutions worldwide

[4]. The test method uses artificial intelligence and remote proctoring to enable students to take the test online, on-demand, from anywhere in the world. This convenience, the biggest advantage of Duolingo, has made this company become the most popular test-taking method in the 2020-2021 epidemic, which is rapidly gaining popularity throughout the Asian market. This is due to the widespread cancellation of population-based exams such as TOEFL and IELTS as a result of the epidemic, and the announcement by the Ministry of Education Examination Center on April 20, 2020 that all overseas exams scheduled for May have been canceled. In this situation, many universities abroad have announced one after another to accept the results of the Duolingo Test as proof of language proficiency in order to ensure smooth international admissions.

At the end of 2020, Duolingo released the related "Language Learning Trends in 2020 Report". The data show that the total number of users of Duolingo exceeded 500 million worldwide in 2020. In particular, during the outbreak of the new crown epidemic, its global users

added 30 million people, twice and 1.5 times more than in 2020 and New Year's Day 2019, respectively. During this period, its Asian user base grew 301% year-on-year from March to April 2019 and now accounts for 15% of total users, compared to less than 5% two to three years ago.

## **2. METHODOLOGY**

### ***2.1 Chinese research overview***

At present, Chinese research time for language applications is relatively short, and three main articles have been selected as references for this article. Sun Zhaoyang's "Study on the Foreign Language Learning Product Service System Based on Analysis of Situation Mode"[2] and Liu Xixin's "Language Learning App User Experience Design Research" [1] mainly judge from the user's point of view to explore the impact of gamification products on the user's learning experience. From the perspective of Duolingo, He Jipai's "New Conquest of Duolingo" mainly investigates and analyzes the profit and loss of Duolingo, the market audience, and the products and diversity of Duolingo. The detailed research results are as follows:

In the research of Duolingo products, He Jipai (2019) explored the profitability of Duolingo company, their products, and their uniqueness and market audience. Research and discussion pointed out that the original intention of Luis Von Ahn, founder of Duolingo, was to hope that all people in the world, especially children, can get equal educational opportunities. Therefore, Duolingo's language learning software is continuously open to users all over the world for free. This decision not only did not plunge Duolingo into a crisis, but also helped it obtain multiple rounds of financing and growth opportunities. In recent years, Duolingo's revenue has doubled due to the increase in users. Research predicts that its annual revenue will reach 170 million U.S. dollars in 2020. This is because Duolingo carries out a certain degree of market expansion every year. Starting from the United States, the goal is to expand to every country in the world. Five years ago, when Duolingo decided to use the original method to expand into the Chinese market, Duolingo was surprised to find that the method was not feasible. But they did not give up. They found that the problem was in the user registration process: Chinese users were not used to and did not tend to register accounts by email. So Duolingo made a quick adjustment. They added WeChat, a very popular social software in China, to register channels, thereby increasing the convenience of Chinese users. When this method was launched in the Chinese market, the number of new user registrations increased rapidly, and Duolingo was gradually succeeding in the Chinese market.

In the research of language learning products in Duolingo, Sun Zhaoyang [2] and Liu Xixin (2020) [1] discussed the user research of language applications and how gamified learning is good or bad for users. First of all, it is undeniable that gamified learning enhances the user's experience. More specifically, gamified learning makes users more willing to devote their time to language learning. For example, Duolingo has adopted a similar approach. They set up different game levels, and every time the user finishes a unit or completes a certain period of learning, they will receive similar rewards as in the games. At the same time, the time of each level is very short, just like playing a game, so the users can use any fragmented time to complete the learning. However, research also shows that people must be aware that gamified learning can greatly distract users. Users may ignore important content that should be learned because of the pursuit of accomplishment or speed. Users may be more concerned with the form of gamification rather than the content of language learning. In this way, the purpose of using language learning apps is unattainable. Therefore, various studies have shown us the advantages and disadvantages of Duolingo's gamified language learning apps.

### ***2.2 International research overview***

At present, the research time span of foreign language learning applications, such as Duolingo, is long. This article mainly contains five articles for reference. Its research mainly focuses on the learning trends of each language in the Duolingo language learning app[3], what additional work Duolingo has done after entering China[3], and the solution that Duolingo has raised to address the problem of delisting in the Chinese market[5]. Specific research results are as follows:

In terms of language learning research, Cindy Blanco (2020) explored the languages in Duolingo's language learning app in 2020[6]: English is the most popular language as always, while Spanish, replacing France, becomes the second most prevalent language learned by the users. Since Duolingo users are likely to be students, the reason that most users learn languages in Duolingo application is to do some extra practices to better comprehend the languages that they are currently learning.

In the study of Duolingo's Chinese market, Ouyang Shijia (2019)[3], Brenda Wu (2021)[5] and two other anonymous articles[4] discussed Duolingo's entry into the Chinese market and its subsequent performance and changes. First of all, due to the inconvenience for Chinese users to register Duolingo accounts by emails, Duolingo has developed a WeChat user registration channel for Chinese users. Secondly, During the epidemic, due to various reasons such as lockdown and quarantine, the number of users of Duolingo have grown rapidly, especially the number of users in China. On February 20, 2020, after the start of city lockdown, Chinese new users increased by more than 300% even in March and April.

Finally, in 2020, Duolingo application was removed from Huawei and Tencent's application stores because they believed that Duolingo had free language learning which may affect the individuals whose purpose is to make money by teaching languages. However, Duolingo has not changed its original intention, and it keeps to offer free language learning platform. After Duolingo entered the Chinese market, despite all the difficulties, Duolingo has always adhered to its original aspirations and has overcome one difficulty after another.

### **2.3 Research overview**

Based on the above overview, it is not difficult to find that, whether in China or abroad, most of the researches on language learning applications are focused on the audience of the product and pay more attention to the user experience, especially the needs and strategies in the Chinese market. However, it cannot be ignored that there are still obvious differences between the two fields of research. The subjects of the Chinese studies are relatively broad with not too much focus on discussing the Duolingo product, but on the overall situation of language learning apps. On the contrary, foreign research is more specific, with particular emphasis on discussing Duolingo's product and the company behind it. This article combines the Chinese and international researches, with references to the entire market environment of language products, and focuses on in-depth discussions on Duolingo's Asian market, not just confined to China.

## **3. CASE STUDY**

In 2019, the COVID-19 has spread around the world, bringing about a great change in people's lives. Governments are advocating less going out, online education and jobs are becoming more common, and the number of users in Duolingo, as an online language learning app, is on the rise. In the short weeks following the World Health Organization's announcement that the new coronavirus was a global epidemic (March 11 to April 30), more than 30 million new language learners were added to the list, 67 percent more than in the same period in 2019, according to Duolingo's 2020 annual report. From 2016 to 2020, downloads for Duolingo app rose from 150 million to 500 million. [12].

At the same time, the number of online Duolingo examinations have also increased significantly. Under the influence of the outbreak, TOEFL IELTS' offline language tests were largely cancelled, so Duolingo test became the only option for most students. By the fall semester of 2020, it had been accepted by more than 2,500 institutions worldwide. More than two-thirds of those in the U.S. so far this year, Duolingo's overall test taker has grown by more than 1500 percent. [14]. The company's chief strategic engagement manager Jeremy Matula, declined to provide specific figures on how many students

will take the test in 2020, but said "hundreds of thousands of tests have been taken." According to the company's blog post, the number of candidates in 2020 increased by 2,000 percent year-on-year. [13]. This has resulted in a significant increase in the total profitability of Duolingo.

According to the data, in Duolingo's non-Asian markets, such as Brazil, there have been several small-scale increases since the city closure decision was implemented. In the U.S, the number of new learners in Duolingo app rose 51 percent between March and April. [16]. In Asian market, Duolingo entered China in 2019. The reason for "the Chinese market is that the population base is large, and the Chinese users have a large demand for language." Wang Wei, head of the Asian team in Duolingo, said. Although it showed an increasing trend in 2020, in the early stages, the Chinese market was the only one in that did not grow naturally. The reason is that China's online education has grown to a nearly perfect market, especially in 2020, before Duolingo come in. The language education market, in which Duolingo is located, is already a state of competition saturated. It also brought a lot of challenge to the development in Asian market. For exams, the participation of Duolingo English Test has also grown in Canada and the UK. This year, the former increased the number of institutions receiving DETs from 26 to 187, while the latter expanded from 18 to 144. [14]. The increase in the number of examinations and the increase in institutions has greatly contributed to the development of Duolingo examination.

## **4. THINGS THAT DUOLINGO NEEDS TO IMPROVE IN THE ASIAN MARKET**

Based on previous data analysis and surveys, Duolingo's performance was not that good in the Asian market as it is in the United States or other countries. The main reasons are as follows:

First of all, Duolingo's promotion and marketing methods in the Asian market are not good.

Promotional marketing here can be divided into three categories: advertising, school promotion, and brand cooperation. Regarding advertising, Duolingo has not adopted this marketing method very much. Even though it is undeniable that if users log in to some websites such as Hong Kong or Macau, users will occasionally find advertisements from Duolingo. However, Duolingo must be aware that many users from mainland of China rarely log on to those websites. In other words, if Duolingo wants to make some enhancements in advertising, it should pay more attention to the number and location of advertising. Regarding the promotion in schools, Duolingo has indeed practiced this, but the number is still insufficient. Data analysis shows that most of the countries in Asia have not yet visited by Duolingo, let alone preached in schools. Regarding brand cooperation, Duo-

lingo has done relatively little. For example, when students attend classes at an after-school tutoring institution, almost no teacher mentions the language test or language learning application provided by Duolingo. In addition, there are only a few organizations that provide tutoring related to Duolingo's English proficiency test. This phenomenon is enough to prove that the cooperation between Duolingo and brand institutions is insufficient and needs to be increased.

Secondly, Duolingo also has certain limitations in the Asian market. More specifically, there are only a small number of students in Asia who choose to take Duolingo English Proficiency Tests and use them as materials for their university applications. This is mainly due to the popularity of other two similar language exams-TOEFL and IELTS. TOEFL and IELTS have been established longer and more authoritative. In the United States, for example, TOEFL and IELTS are almost widely accepted, but Duolingo is not the case. From this we can see that Duolingo's English Proficiency test branch is limited in the Asian market mostly because of two very strong competitors.

Finally, regarding Duolingo's competitors, TOEFL and IELTS. If comparing the exams alone, Duolingo does have advantages over the TOEFL and IELTS exams—shorter time to finish the test, cheaper registration fees, more test positions, and shorter time to get the final score. However, due to the repeated epidemics in the past two years, TOEFL and IELTS have made changes. For example, they have introduced a home version of the test. The home version of the test allows students to take the test at home and the cost is cheaper. In other words, the advantages of Duolingo have been gradually weakened in the case of the epidemic, which is why more candidates still take TOEFL and IELTS as their first choices.

## 5. SUGGESTIONS

Duolingo language proficiency test has become the test of choice in the Asian market in the past two years mainly because of the epidemic, and the uniqueness of its ability to be tested at home is the biggest advantage it can have over other language tests. However, its disadvantages are also fatal: it is far from authoritative due to the lack of a very strict proctoring system and the high cheating rate compared to other language companies. As more authoritative language test providers, such as IELTS, TOEFL, gradually introduce programs for taking tests at home, Duolingo is becoming less popular than they were during the epidemic.

Therefore, Duolingo should pay more attention to and strictly control the discipline of the examination room and eliminate cheating. This institution could establish the following rules.

1. Duolingo should enhance online monitoring. Mirrors should be placed properly behind candidates during

exams, allowing the auditing team to clearly see the candidate's computer screen, desktop, and keyboard, which is a good way to eliminate cheating.

2. Duolingo should expand the scope of the question pool. Because of the drawbacks of a fixed pool of questions from multiple neighbors, students will repeatedly practice a fixed set of questions as well as repeated test questions, and the final excellent test results will not reflect their true language level.

3. Duolingo should improve system functionality. If the AI system detects that a candidate enters another website for searching, the exam should be terminated immediately and treated as cheating.

Improvements to the system would greatly reduce the rate of cheating and increase the authority and international recognition of Duolingo.

There are many language apps in the Asian market, and these are undoubtedly the biggest rivals of Duolingo. Many people who start with Duolingo tend to choose other language learning apps later on when they are charged for using some functions continually, which are free initially. On the contrary, other language apps in the market charge less for programs than Duolingo, which has a very negative impact on the development of Duolingo. Therefore, Duolingo can reduce the courses that charge fees and see advertising revenue as the main source of income.

In the face of multifaceted competition, Duolingo can also try to find other advantages and enhance them to counter the constant stream of competitors and new products that appear to retain users and attract new ones for a longer period of time. First, the famous gamification learning of Duolingo. This special product design makes it stand out from the boring language learning apps on the market. It also incorporates artificial intelligence technology to provide a targeted, one-size-fits-all learning experience for each learner. This customized game-like product design and step-by-step design mechanism encourage users to use their time efficiently and greatly stimulate learners' interest. Secondly, the big data of Duolingo stands out from other language learning companies, as it has built the world's largest collection of language learning data and leverages it by developing new artificial intelligence models at the intersection of machine learning, natural language processing and cognition. As an example, it counts the number of times you see a word and then very accurately predicts how long you are likely to retain the word in your memory. Even more unexpectedly, it can also predict whether you've forgotten something because you haven't seen it often or recently. As a result, Duolingo always gives users more targeted and personalized learning for optimal learning.

To increase publicity, Duolingo can try to partner with educational institutions in the Asian market. These schools and educational institutions will undoubtedly

provide Duolingo with more demanded learners. The two can complement each other by providing a more convenient platform for the learners of the institutions, and the institutions can increase the publicity and audience for Duolingo. Duolingo can also seek investment from educational institutions in these Asian markets, as research and development costs are a major expense for it, which is expanding its losses while providing free education to learners. The prospectus shows that Duolingo R&D expenses for 2020 are \$53.024 million, up 68% year-over-year. R&D expenses for the first quarter of 2021 are \$22.529 million, up 135.27% year-over-year. Therefore, choosing to cooperate is a win-win response.

## 6. CONCLUSION

In 2019, the emergence of covid-19 led to the rapid development of one company in the industry, Duolingo. However, through data analysis of Duolingo's profit and loss in Asia (Southeast Asia, China, Japan, and South Korea), North America and Europe, the study found that the income of the Asian market is far lower than that of the European and American markets. Therefore, the article analyzes the three aspects of poor promotion and marketing, limitations in the Asian market, and competition from other brands. It is concluded that Duolingo should increase its share in the Asian market by improving software content, adjusting prices, increasing marketing, fighting for investment and increasing international recognition. When collecting Duolingo's income, downloads and number of users in various countries to support the conclusion that Duolingo's Asian market is not as good as European and American markets, specific data are difficult to find. In this regard, the article gives examples for several representative European, American and Asian countries. Therefore, the article still has the problem that the data is not representative enough. This situation can be improved by collecting data from more countries.

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