YouDao’s Competitive Strategy after Transformation based on the “Double Reduction” Policy: Taking YouDao Online Education Service as an example

Haotian Chen *

School of Management Studies, Shanghai University of Engineering Science, Shanghai, 201620, China
* Corresponding Author Email: 031520221@sues.edu.cn

Abstract. With the implementation of my country’s “double reduction” policy, the education field is facing important changes. This article takes YouDao Online Education as an example to explore its competitive strategy in the policy context. YouDao Online Education has experienced the development of multiple business sectors, such as YouDao dictionary, online courses, intelligent hardware, etc. However, policy changes require the transformation of educational institutions to reduce the burden on students, strengthen quality education, and improve teaching quality. YouDao actively responds to this challenge and achieves differentiated competition through technological and product innovation. They launched the country’s first large-scale education model, "Zi Yue," and the virtual eloquence coach, "HiEcho," to provide personalized oral training and essay correction to help students develop in an all-around way. Secondly, YouDao has comprehensively updated new curriculum standards and launched the “Smart YouDao” quality development plan, emphasizing skill-based curriculum innovation and personalized guidance. They work with teachers and industry experts to provide high-level teaching content to attract more students. Finally, YouDao has accelerated the application of artificial intelligence technology in quality education services and launched the YouDao Zongheng Chess Academy App, which supports a variety of chess games and enables personalized practice. These initiatives provide important support for YouDao Education to build a reputation in the fierce market competition, increase brand awareness, meet the needs of different students, explore multi-dimensional profits, and innovate business models.

Keywords: “Double reduction” policy, Quality education, AI empowerment, Transformation strategy.

1. Introduction

1.1. “Double Reduction” Policy

In recent years, our country has actively promoted the “double reduction” policy and achieved initial results. However, schools still have problems, such as a large amount of after-school homework and insufficient management. College teaching and training also face challenges such as being ahead of schedule, overloading, and high costs, which restrict the full use of educational resources. These problems pressure students and parents, affect school development, and arouse social concern. The “double reduction” problem is an issue involving two levels. In terms of school, it can improve the school’s education, teaching, services, etc., to a greater extent, make the school’s homework assignments more scientific, and allow the school’s after-school services to meet the needs of students better so that they are better equipped to return to school. Outside the school, newly established subject-based training institutions will be registered as non-profit organizations, with restrictions on their listing financing and capital investment, and an approval system will be implemented. At the same time, training services are standardized, a filing and supervision system is formulated, and subject-based training is prohibited during holidays. Various courses have been better standardized, and the enthusiasm for training within the school has gradually cooled down.

In the context of “double reduction”, some new changes have occurred in teaching content. First, subject construction must conform to the trend of the times, eliminate the “examination-oriented” tendency, and focus on the all-round development of people; second, according to market needs, we must provide students with education and training products and services that suit their needs. Since
the “double reduction” policy was implemented in July 2021, the "cash-burning" expansion has suddenly stopped. Online education companies are constantly stopping or divesting course training business in the compulsory education stage. While they have to deal with losses caused by refunds, layoffs, campus closures, etc., they must also find new business models in the short term. Under the general environment, various education and training organizations have developed new courses focusing on quality education, vocational training and study abroad. Over a dozen online education companies mainly engage in the K12 field, but few can maintain sustained profitability. Some companies’ marketing expenditures exceed operating income, their acquisition costs are high, and their customer stickiness is poor, which makes it impossible for them to realize the profits of online education. Their business models have also been questioned. According to data released by the Off-Campus Education and Training Supervision Department of the Ministry of Education in February this year, the original 124,000 offline off-campus training institutions were reduced to 9,728, a reduction rate of 92%; the original 263 online off-campus training institutions were reduced to 34, the reduction rate is 87%; the completion rate of "business-to-non-profit" and "reform review" has reached 100%; prepayment supervision has achieved full coverage, with the total supervision exceeding 13 billion yuan. All provinces have introduced government-guided price standards, and fees have dropped by more than 40% on average compared with before the introduction; schools have generally achieved "5+2" full coverage of after-school services [1].

1.2. Development History of NetEase YouDao

NetEase YouDao is a company under NetEase. It operates big data services and is mainly engaged in research on search engines, YouDao Dictionary, YouDao Notes, etc. It has a huge user base, including the number of users of YouDao Dictionary. That’s more than 600 million. Among dictionary apps with low thresholds and numerous similar products, YouDao Dictionary is already one of the best. In addition to "YouDao Dictionary", "YouDao Translation", "Spoken Language Master", "Language Master", "Super Calculator", "YouDao Postgraduate Entrance Examination," "YouDao Level 4-6" and other "YouDao the Number and activity of users of the "Department" teaching APP are increasing at an alarming rate. "YouDao Series" has many online education products. Relying on tool products such as YouDao Dictionary and Cloud Notes, it has a user base of 15 million daily active users. The product functions have been gradually upgraded to various segmented learning tools and platforms and finally achieved User diversion, focusing on launching high-quality courses on YouDao, a comprehensive learning platform [2]. In the past two years, "YouDao" has also been creating "YouDao" quality courses. This is a high-quality online education platform under NetEase. It pursues to allow students to obtain better results in the learning process. Learning effect, thereby obtaining a better learning effect.

The competitive strategic goal of NetEase YouDao’s online education products is to fully use the favorable development trend of the Internet and seize the historic opportunities in online education. Based on the accumulated user base of online education learning tools and NetEase’s excellent brand reputation, the company aims to give full play to the advantages of existing technology, capital, talents and products, further expand the online education business, and build an integrated independent learning platform. With the core of meeting the actual needs of users, the company will be committed to developing high-quality teaching content. With the help of excellent product quality and service, the company aims to influence users and realize the transformation of user value profoundly. Based on high-quality content, combined with a large user base and strong technical support, the company will adopt the most convenient way to deliver excellent educational resources to most Internet users.
2. YouDao Transformation

2.1. Industry Environment and Transformation Trends

With the continuously improving information technology, the public is no longer limited to face-to-face ways of acquiring knowledge. Especially in the context of the Internet, online has become a new trend. Online education breaks traditional education's time and space limitations and fundamentally changes how the public obtains knowledge. According to the traditional classification of Internet business models, education includes the C2C model, B2C model, B2B model, O2O model and B2B2C model. According to the breakdown of business fields, online education includes K12 education, language education, examination and certification training, children’s interest cultivation and early education, online learning tools, etc. Recently, it has mainly focused on the K12 field [3].

K12 education and training companies have shown three major characteristics in the transformation process: first, lack of preparation; this transformation is a long process, and they have yet to make any preparation before; lack of strength. To achieve this transformation, there must be corresponding technical and strength support. Some companies need more strength to open up a new world in a short time quickly; they need more patience and a long-term plan of three to five years during the transformation process. The current performance of the company could be more impatient. "Securities Daily" reporters found that this transformation is mainly concentrated in three aspects, the most common of which is concentrated in education and training subdivisions, such as vocational education and quality education, followed by education informatization, including educational intelligent hardware and SaaS Software services and cultural services, etc.; in addition, it also includes expansion and attempts in new fields, such as live streaming e-commerce [4].

K12 education and training companies have strong product design capabilities, Internet technology capabilities, customer service capabilities and marketing capabilities. It is difficult for traditional vocational education institutions to have the global resource integration capabilities of K12 education and training companies. Achieve classes for tens of thousands at ultra-low cost [5].

2.2. YouDao’s Transformation Path

Finally, on the evening of September 30, 2021, YouDao planned to divest the K9 subject-based off-campus training business in response to the “double reduction” requirement of subject-based off-campus training institutions in the compulsory education stage. On November 16, 2021, YouDao announced that it would officially terminate its subject training business in the compulsory education stage on December 31. At the same time, NetEase YouDao’s net revenue from smart hardware products increased by 138.8% year-on-year. At present, the transformation path of the original education and training institutions is based on previous technological and resource advantages. NetEase YouDao has successively provided top-level designs for regional education informatization in Haidian District of Beijing, Binjiang District of Hangzhou, and Haicang District of Xiamen, focusing especially on homework reform, after-school services, precision teaching, and Scenarios such as teaching evaluation form an overall information product solution that "takes the data resource platform as the core and the digital transformation of the scenario as the key" [6]. The YouDao smart education system has been promoted in 26 provinces (autonomous regions and municipalities) across the country, and more than 300 primary and secondary schools have begun to apply it officially.

YouDao is very confident in the smart hardware industry. The growth rate last year was 100% this year. The growth rate will be even greater in the future. The company’s operating income in the first quarter of 2022 increased by 25.4% compared with last year's period, which is a stable profit growth point.

In terms of technical capabilities, YouDao has developed more than 100 AI capabilities in 8 categories, including image, voice, data mining, natural language processing, etc., focusing on the needs of educational scenarios, and has built more than 10 educational scenarios. Apply AI solutions and independently build multiple AI platforms and infrastructure such as storage, labeling, training,
and online services. "In terms of quality, YouDao Zongheng, the basic software for children’s Go, has seen its revenue increase by 180% year-on-year [7].

NetEase YouDao’s business focus has shifted from subject after-school tutoring to its original four business segments: intelligent learning hardware, quality education, adult education and education informatization [8]. On July 26, 2023, NetEase YouDao officially released the "Zi Yue" large model.

3. YouDao SWOT Analysis

3.1. Strength

NetEase Group can provide certain assistance to NetEase YouDao. NetEase has a good industry reputation and strong capital, technology, and marketing capabilities. NetEase YouDao’s online education product development has received strong support from NetEase Group. NetEase YouDao is a company of NetEase, which mainly operates educational courses. YouDao courses, NetEase open courses, and NetEase Cloud Classrooms are major features of NetEase. At the beginning of its establishment, YouDao received strong support from NetEase, which provided a large workforce and material and financial resources and encouraged YouDao to establish a complete business model independently. NetEase has had a good reputation in the industry for many years and already has a group of high-quality users and loyal users, which has a positive significance for expanding NetEase YouDao’s online teaching products.

NetEase YouDao has the dual attributes of IT and education. Both attributes are necessary for developing an online education company, especially a comprehensive learning platform requiring a team of teachers who can provide high-quality content. The team also needs a set of advanced technologies to support and ensure the platform's operation. NetEase YouDao is an online education company based on technology, and its high-quality courses absorb many outstanding teachers from online education to form a core educational IP. This is why NetEase YouDao is an online education company. One of the few online education companies with teaching resources and technical support.

Have good network product development and application capabilities. In addition to technology and publicity, another important reason for YouDao Dictionary and Translators's success is YouDao’s excellent product development team. The development of online education products mainly includes developing and designing platform systems and software, including the design of courses, courseware, teaching materials, and videos. NetEase YouDao’s online education products, in terms of product development, product design, operation, and promotion, all have great advantages, and the strength of product development is also the key to determining the success of YouDao products.

In the company’s main business areas (translation, language training), the company has become an industry leader with a large customer base. NetEase YouDao leads China’s translation and dictionary industry with its early start and technological leadership. So far, the number of users of dictionaries alone has exceeded 600,000, far exceeding other industries. This type of learning tool already has a large number of users. In addition, NetEase YouDao’s English level 4 and level 6 platform also has a large market share in foreign language testing. Through vigorous promotion of "testing" teams such as Zhao Jiankun, the company already has many loyal university students. Students these students will not only be loyal students of foreign language tests but also become high-quality students of other online courses under YouDao.

3.2. Weakness

Relatively needs market competitiveness. At present, YouDao still needs to establish a good marketing model. Although the company has been established for a long time, it is still in the market introduction stage, attracting market consumers. However, in actual marketing, problems include more strategic integration and a single model. On the one hand, the high cost of offline investment, on the other hand, is only carried out by the sales department in marketing, resulting in a low conversion rate for free user charges and poor market competitiveness in a large market industry environment.
The way users develop offline is relatively simple. Currently, the company’s customer development channels are limited to online development and purely offline development, including activities held by universities and variety shows. Both of these channel expansion methods have some limitations. Although we are rapidly developing the Internet, offline users still account for a large part of the education industry. A key question is whether we can discover and turn this part of users into loyal online users. The ultimate goal of user development. Compared with traditional offline education institutions such as New Oriental and TAL, they have gained a large number of high-quality users offline. Online education companies like YouDao are at an absolute disadvantage in offline development.

3.3. Opportunity

Potential P/E ratio. “Double reduction” is a "double-edged sword", and finding the right direction of change is also an opportunity. After the “double reduction,” many cram schools closed down. Still, the purpose of the “double reduction” is not to eliminate K12 online education but to put more burden on students, let them get rid of the shackles of funds, and let them return to a normal educational environment. The “double reduction” policy mainly targets K12 professional training and has little impact on adult vocational and quality training. However, K12 education and training institutions focusing on education and training will also greatly impact future development. The change, YouDao Online Education is an education company that entered the Internet industry relatively early. With its strong development momentum and advantages, it occupies a good position in the industry, laying the foundation for future mergers and acquisitions with other competitors. A solid foundation. At this time, it is a good development opportunity for YouDao Online Education to find the direction of transformation accurately, enter early, and seize the market.

Economic benefits: The rise of paid knowledge has filled the mobile education industry with confidence. As society intensifies, the new middle class is restless and eager to improve themselves, creating a need to pay for high-quality content. In addition, the deep integration of online finance and the domestic market and the popularization of mobile payment also bring convenience to knowledge payment. Thirdly, my country’s Internet industry is developing rapidly; online education has just started, the market is vast, the potential is huge, and investors are enthusiastic. Among them, quality education, research, vocational education, preschool education and other industries have attracted many investors and entrepreneurs. The growth rate of online education companies has reached about 30% per year.

Moreover, the country has also invested heavily in online education. To support online education, the national finance invests a large amount of money in education every year. This shows the government’s determination to develop education and encourages private capital to achieve collaborative student aid. Relevant data shows that the government’s funding investment in the education industry 2019 mainly involved informatization construction. Among them, online education and education big data accounted for the highest proportion of funding, accounting for 11.34% and 11.17%, respectively, followed by 10.82%. % education cloud platform. It can be seen that the state is investing more and more in online education, which provides a good environment for the development of online education.

Positive effects of social culture. Although there are some obstacles to the development of online education, such as parents’ inherent attitude of using mobile phones for learning and users’ consumption habits of free Internet services, overall, social and cultural factors are increasingly promoting online education. The more obvious it is. This is mainly reflected in the following: as the post-80s and post-90s generations have gradually become the majority of parents of primary and secondary school students, they have a more positive attitude and higher acceptance of the Internet and online education; the modern and fast lifestyle has made people’s time change. Become fragmented, and online teaching can integrate fragmented, lightweight, and better integration to adapt to modern education. In our country, education is a long-term investment with a high output ratio, and in our country, parents also show high enthusiasm for spending on their children’s education.
Therefore, developing NetEase YouDao’s online education products is very beneficial in a favorable social and cultural environment.

Technological dividends. Technological progress has laid a solid foundation for development and brought new development opportunities. Technological dividends have further promoted social development in the context of the rapid development of science and technology. In education, multimedia technology has laid a solid foundation for development. With modern technologies such as VR and AR in the teaching process, visual and realistic courses have been further constructed, and the advantages of virtual reality, emotion recognition, big data algorithms, etc., have been used to carry out different technologies effectively. Application, and at the same time, reliable and scientific data conclusions were obtained. In response to this, teachers can also make appropriate assessments of students’ performance in the learning process so that teachers can better grasp the actual situation of students and better provide personalized education. In the context of the rapid development of live broadcast platforms, many traditional education practitioners have also begun to enter the field of educational live broadcasts, and Internet courses have followed suit. In this way, the learning needs of students in various regions can be better met. At the same time, students can obtain high-quality educational resources through network signals and are no longer restricted by geography. Obviously, with new equipment and technologies, the YouDao online education industry will have a lot of room for development.

The development of modern education has shown a trend of informatization, and economic development is an important opportunity for industrial upgrading and supply-side structural reform, thus further improving the ability of independent innovation. It is very valuable from the perspective of the enterprise and the country. In the context of the new era, with the deepening of educational reform, traditional education is also facing greater changes. From the perspective of an education enterprise, it should actively put its innovation capabilities in a position of improvement so that it can achieve corresponding breakthroughs based on existing technologies and determine its relationship with other enterprises. At the same time, the company can gain greater development space in the fierce market competition, and these are the challenges and opportunities that enterprises must face in the development process.

3.4. Threat

New competitors and existing competitors are increasing, and their strength is increasing. The online education industry has great development potential. After entering a stable development period, existing competitors have gradually figured out a development model suitable for their products, showing a trend of increasing strength, and new competitors are constantly emerging.

Educational products have industrial characteristics such as long investment cycles, difficult returns, and difficulty in making profits in the short term. These characteristics put forward higher quality and better service requirements for NetEase YouDao’s online education products, enhancing user satisfaction and Loyalty, user stickiness, and entering the market.

4. YouDao’s differentiation strategy

4.1. Technological innovation, AI empowerment

On July 26, 2022, NetEase YouDao launched the country’s first large-scale education model, "Zi Yue" and released six innovative applications covering areas such as oral training, composition correction, and problem-solving, fully demonstrating the role of this large model in technical strength and broad application prospects in the field of natural language processing. This model uses large-scale modeling to achieve individualized analysis and guidance, similar to teacher-guided learning, integrating multi-modal knowledge to meet students’ dynamic needs and improve comprehensive abilities.

Unlike general large models, the "Ziyue" model starts from the education vertical scenario and establishes an individualized model consistent with the situation, providing basic semantic
understanding and knowledge expression capabilities for downstream applications. The powerful teaching function and broad application prospects of the "Zi Yue" big data model are demonstrated in teaching scenarios such as oral training, composition correction, and problem-solving.

Among them, the one that has attracted much attention is the virtual eloquence coach "HiEcho," which can be used for English-speaking training. Echo demonstrated her ability to quickly understand situations and perform realistically during conversations with YouDao’s business manager. She can patiently explain, guide, and provide real-time feedback like a real teacher. In addition, she can correct pronunciation and grammar, helping students solve long-standing problems such as the fear of saying the wrong thing.

NetEase YouDao is scenario-driven technology-empowered and provides users with multi-level and efficient learning solutions based on the "Zi Yue" model. In English composition, the "Grammar Intensive" function provides problem-solving ideas and recommends similar test questions to help students understand the key points of the exam. In addition, the "AI Composition Guidance" software was released, which combines "composition guidance" and "composition correction" to solve the problems of student writing and teacher correction and guide students to write with spirit while also focusing on expression, structure, content depth, emotional richness, etc. Provide suggestions for improvements.

4.2. Market segmentation, product innovation

YouDao conducts a comprehensive update of new curriculum standards and launches the "Smart YouDao" quality development plan. The new curriculum standards put the cultivation of core abilities at the center, clarify the curriculum objectives, teaching requirements, teaching activities and learning quality, and guide the upgrading and structural optimization of teaching. Compared with free courses, which are mainly learning-oriented, premium courses pay more attention to the division of courses in vertical subdivisions and highlight the skill-based characteristics of different subdivisions. Therefore, if the free courses are mainly learning-based and supplemented by skill-based courses, then the premium courses are just the opposite, forming a curriculum system characterized by mainly skill-based courses and supplemented by learning-based courses. Regarding course types, quality courses implement the principle of vertical segmentation. There are 9 major areas of quality courses, with 814 courses. Specific statistics on the number of courses are available: 407 personal improvement courses, 20 vocational courses, 20 reading courses, 20 famous courses, 20 parenting courses, 20 life courses, 20 humanities courses, 90 economics courses, and 197 education courses. It can be seen that quality courses mainly export personal improvement knowledge and educational knowledge [9]. For example, they launch professional skills courses like programming, design, marketing, etc., to meet users’ career development and skill improvement needs. At the same time, to attract more users to register and participate, YouDao Premium Courses will cooperate with excellent teachers and industry experts to open famous teacher lectures or expert-sharing courses to provide higher-level teaching content and attract more students to join so that users can Learn all kinds of interesting knowledge on the platform and communicate and interact with other students, thereby attracting more users to register accounts.

China’s quality education and training industry has formed diversified training services to improve students’ literacy in different subdivisions, including enlightenment education, language ability training, mathematical thinking, physical education, art education, STEAM and other emerging literacy improvement categories, and each segment can be subdivided into many different categories. These subdivided tracks are not completely independent but are intertwined and related. They are all designed to serve the comprehensive development of Chinese students’ moral, intellectual, physical, artistic and physical skills [10]. Since the first quarter of 2023, NetEase YouDao has accelerated the application of artificial intelligence technology in multiple business fields, especially in quality education services, and has achieved remarkable results. Among them, YouDao has launched the YouDao Zongheng Chess Academy App, which covers various chess games such as Go, chess, and Chinese chess and supports human-machine games. In human-machine games, AI can adjust the
difficulty according to the user’s level and achieve personalized practice. In addition, the AI voice review function has also been optimized. It uses TTS technology to generate voice and applies large language models to intelligently modify the analysis results of the Go AI engine to achieve more personalized chess game reviews and help users improve their chess skills. These intelligent experiences drove sales of Go courses to increase by nearly 40% year-on-year in the first quarter.

5. Summary

YouDao Education has experienced positive transformation and innovation under the background of my country’s “double reduction” policy. Faced with the problems of students’ homework burden and off-campus training pressure, YouDao Education has adopted a differentiated competitive strategy and adapted to the new situation through technological innovation and product innovation. It has launched artificial intelligence applications such as "Zi Yue," China’s first large-scale education model, and virtual eloquence coach "HiEcho" to provide students with personalized oral training, essay correction, and problem-solving services, effectively promoting education methods. of innovation. Through the “Smart YouDao” quality development plan, YouDao uses technological innovation to promote innovation in educational content and personalized guidance to help students develop in an all-around way.

At present, information courses have entered a relatively mature stage in quality education and training; there are already some projects with strong operability and low complexity, such as music, art, etc., which can be used online to increase the number of users of the products gradually. Experience. Highly operable and highly complex activities such as dance training can also be implemented online with the help of advanced technological means such as AR and VR. However, there are still three main problems in China’s quality education and training industry. First, in the teaching process, quality education colleges often encounter the homogeneity of course products, low industrial barriers, and course content that other colleges easily imitate; second, due to the lack of relevant evaluation indicators, it makes it difficult for other professional types to Compared with training, it is difficult to quantify. Because the results are slow and the learning cycle is long, it is difficult for parents and children to stick to it, which leads to a low continuation rate. Third, compared with K12, there is a huge talent gap in the quality education industry, and it is difficult to find suitable teachers for some subjects (such as niche music).

Therefore, given the fierce market competition in the future, the first thing YouDao needs to do now is to establish a good reputation, build a good brand, and reduce the cost of customer acquisition. NetEase YouDao is also an established company in China’s online education industry. Still, compared with New Oriental Online, if it wants to gain more users, it must have a better user experience. In similar companies' current high marketing situation, the continuously rising marketing expenses are to prevent themselves from being left behind. It would be best to have a brand with a good reputation and consumer recognition to stand out in the market.

The second step is cooperating with authoritative institutions to craft high-quality courses. Although most courses are time-limited, like "Lian Lian You Ci", a classic course with one teacher, will be updated every year, making it a golden course in the eyes of users. NetEase YouDao has never offered such a course. If it is because it is not strong enough, it should cooperate with some big companies to better attract more funds and customers. This will have a great impact on the company’s development. Development is of great help and can also give investors more confidence in the company.

Third, dig deep into consumer needs to achieve multi-dimensional profits. Online education platforms and profit-making goals are mostly one-time transactions, while consumer demand often comes one at a time. For example, if a person learns a skill, he may use this skill to find a job. Users who have purchased professional qualification certificate training courses will also have follow-up needs such as registration and receiving certificates. Third-party educational institutions selling on the platform also need user feedback and the platform’s analysis based on big data. Provide
suggestions for improvements. NetEase YouDao can solve these problems and find more profits by exploring user needs and increasing user profits.

At the same time, YouDao can use its platform's resources and AI empowerment to explore more business models. In the B2B field, YouDao can provide schools with customized quality education solutions, use AI technology to meet personalized quality education needs in various scenarios and provide learning analysis and evaluation methods to help schools improve the quality and efficiency of quality teaching. In the O2O field, YouDao can combine online platforms with offline physical scenes to create a richer quality education and vocational education experience, such as combining online courses with offline tutoring and organizing educational activities and lectures to promote students’ comprehensive development.

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