

Competitive Analysis of Digital Content and Knowledge Sharing Market for Continuing Education in China

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ABSTRACT

The digital content market for continuing education in China became an industry of popularity in the mid-2010s. Companies in this industry provide content products curated to the need of customers who would like to better use fragmented time for self-improvement. This market was boosted by the rising population of the middle class, the high mobile payment penetration, the growing popularity of content KOLs on social media, and by strengthened IPR protection.

Audio content has been the most popular form of products in this niche market. The audio content market for continuing education is dominated by top market players. Platform thinking framework will be introduced to evaluate and compare business models of top market players. The network effect is strong at some level, but top IP rights owners can still change the power dynamics between content suppliers and platforms. Customers tend to multi-home, i.e. participating on multiple platforms providing similar services, because of diverse content tastes and the convenience of switching platforms. Niche market players can still exploit the market due to high differentiation opportunities. With the entire content market growth for continuing education beginning to slow down after market hype, companies sought ways of diversification to drive revenue. Lastly, the growing popularity of smart speakers, “hearables”, and smart car systems is expected to bring a new growth driver to the audio content market in the future.

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1. The Digital Content Market for Continuing Education in China

1.1 Market Definition

The digital content market for continuing education in China started to grow in the early 2010s. Around the year 2016, the Chinese market saw an increasing number of internet companies providing digital content for continuing education purposes. Successful content providers in this industry can turn theories into understandable and relatable topics for the layman. Both the consumers and the capital market responded to this rising industry with enthusiasm.

The Chinese term “知识付费” (“Pay for Knowledge”) was invented to describe this industry in China. Companies in this industry provide content products to serve the people who seek self-improvement. They encouraged consumption by saving customers the pain of selecting high-quality content in the face of information overload. By erecting a paywall instead of offering content for free, these companies are also encouraging the production of high-quality content. Most of the revenue from this industry comes from customers’ direct payment. Platforms can also offer services for free and profit from large traffic through paid ads.

Companies in this field were different from the Massive Online Open Course (MOOC) platforms or language training service providers. Nor were they training schools for professional certificates such as CPA, PMP, or CFA. They did not serve systematic learning purposes. Rather, they catered to the need of consumers who would like to better use their fragmented time during the day for self-improvement. The content provided was more general and less rigorous than the college curriculum. Content providers translated individual wisdom, personal and professional experiences, into information service products, and monetized through online content platforms. The content provided covered a wide range of topics from personal investment to product management, from time management tips to public speaking skills, from secrets of having a happy marriage to dealing with troublesome two-year-olds, etc. A broader definition would include e-books and audiobooks into this industry as well. But both are considered complementary to the core products rather than being at the core of the business.

Exhibit 1: Baidu Index Trend for the Chinese Term “知识付费” (“Pay-for-Knowledge”)



Source: Baidu Index¹ (index.baidu.com)

¹ Baidu Index (百度指数 in Chinese) is an online keyword research tool owned by Baidu.com, the largest search engine in China. It provides keywords search trend data. Website: index.baidu.com

According to the Baidu Index, an online keyword research tool backed by Baidu, the largest search engine in China, the term “知识付费”, or “Paid Content”, began to take off in the mid-2016, reached its peak in early 2018 and has been gradually going down since then. There was a boom after the breakout of COVID-19 in China early this year. But it is hard to tell for now if this phenomenon is sustainable or temporary.

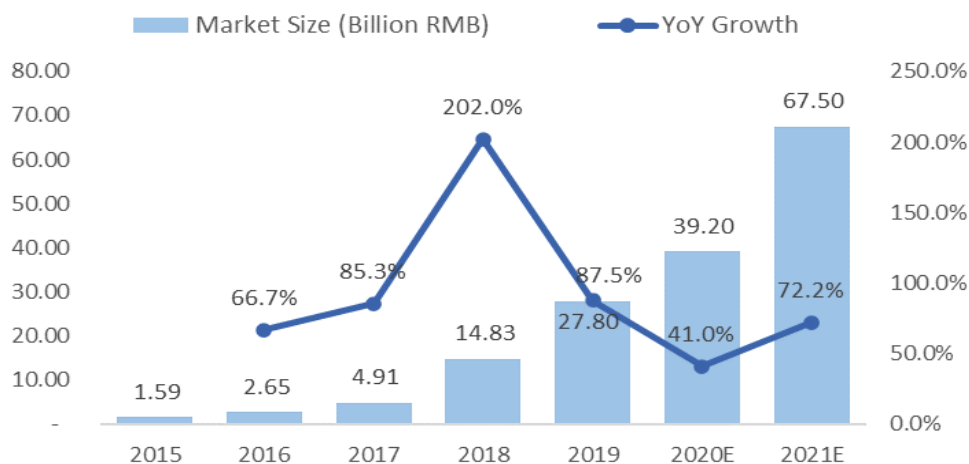
1.2 Market Growth

It is hard to define a clear boundary to this market, especially for platforms that are providing content ranging from recreational to educational categories. There are no clear-cut parameters for the content in the middle whether it should count towards content for self-improvement or recreation. But data from different sources show the same trend of high growth in this market.

According to iiMedia² Research, the digital content market for continuing education has been growing at a CAGR of 204%. The market size increased from CNY 1.59 billion (USD 0.22 billion) to CNY 27.80 billion (USD 3.93 billion) in 2019. Because of the positive outlook on online video and audio consumption, the digital content market for continuing education is expected to continue its robust growth. According to Guanyantianxia, a Beijing-based consultancy, this market is expected to increase from CNY 4.91 billion (USD 694 million) in 2017 to CNY 23.51 billion (USD 3,323 million) in 2020 at a CAGR of 68.5%.

The number of paid users was forecasted to grow from 188 million in 2017 to 387 million in 2019 at a CAGR of 43.5% according to iResearch³, a consumer research service provider in China.

Exhibit 2: The Digital Content Market for Continuing Education in China (2015 – 2021E)



Source: iiMedia Research, 2020

² iiMedia Research (艾媒咨询 in Chinese) is a third-party data mining and analysis company founded in 2007 and based in Guangzhou, China. The company specializes in mobile data mining in the Chinese market. Company Website: www.iimedia.com.cn

³ iResearch Consulting Group (艾瑞咨询集团在 Chinese) is a professional market research and consulting company founded in 2002, based in Beijing, China. It focuses on in-depth research in China’s internet industry. Company Website: www.iresearchchina.com

1.3 Market Drivers

The market is boosted by several factors. From the consumer side, the number of middle-class customers is increasing, so does their spending. The fast-changing environment becomes their source of anxiety over career development and outdated skills. From the production side, the rise of We Media since the launch of WeChat has made successful several key online influencers who have the capability and incentive to convert their free customers into paid customers. And from a technology perspective, the wide adoption of the mobile phone has reshaped the way people consume information and spend money. Mobile payment is widely adopted, which facilitates the success of several companies providing digital content for continuing education in the mid-2010s.

1.3.1 Rising Middle Class

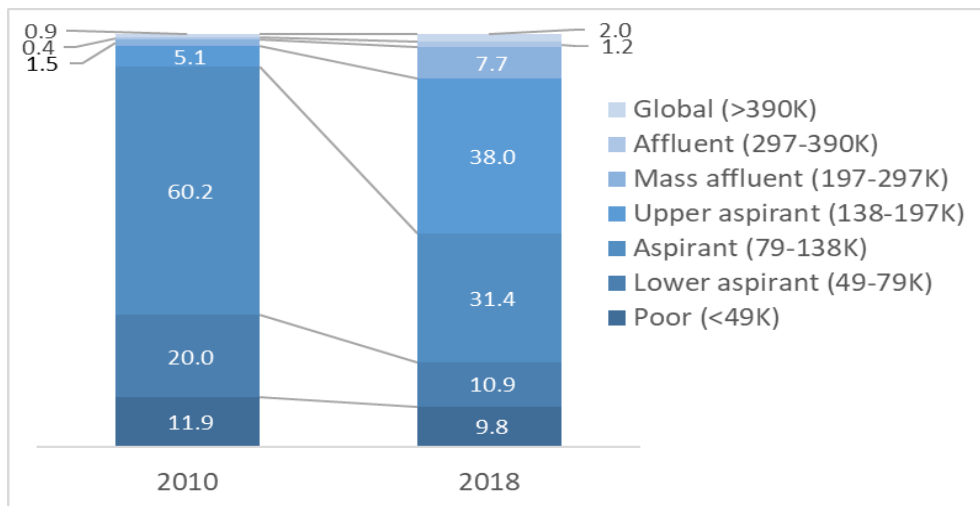
The increasing middle-class population in China is the main driver of this market. According to a New Middle-Class report by Wuxiaobo Channel, 62.7% of the New Middle-Class said that they had spent money on online courses or education products in 2017. The percentage increased to 70.4% in 2018 and further increased to 90.4% in 2019.

Wuxiaobo Channel defined the New Middle Class as people living in households that meet any of these four criteria: (1) households with an annual disposable income of CNY 100,000 to CNY 500,000; (2) households with a total income of CNY 200,000 to CNY 1,000,000; (3) households with an investment capital of CNY 200,000 to CNY 5,000,000; (4) households with a total capital of CNY 1 million to CNY 20 million.

A China Consumer Report by Mckinsey says that the middle-class population in China has been rising fast. In 2010, only about 8% of households in China had an annual household disposable income of over CNY 138,000 (USD 19,500). By 2018, the percentage had increased to 49%.

Exhibit 3: The Middle-Class Population is Rising in China

% of urban households in China, by annual household disposable income*



*2018 real RMB terms

Source: McKinsey, China Consumer Report 2020

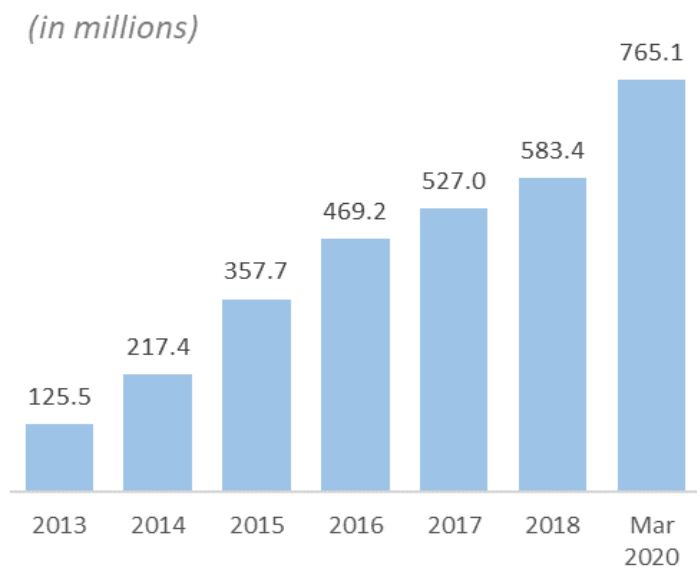
The rising income has not exempted people from anxiety. According to the survey conducted by Wuxiaobo Channel, the New Middle Class in China are anxious about their careers. 70.5% of people said they were worried that their knowledge structure would be outdated soon in this rapidly changing world. 52.1% said they were anxious about how to achieve financial freedom. And 47% of people expressed pressure from age in the labor market. The content market came out in a way to relieve the anxieties of the New Middle Class.

Another factor in consideration is that the number of people who have received higher education has been increasing fast in the recent decade. 62.7 million people graduated from college or universities from 2008 to 2017. The number was 20.6 million between 1998 and 2007. And it was much fewer before 1998. Among the New Middle Class, about 94.9% have a college/bachelor diploma or higher. The educational background also helped explain the increase in demand for educational products.

1.3.2 High Mobile Payment Adoption

The number of mobile payment users in China reached 469 million by 2016 and increased to 765 million by 2020 Q1. The adoption of mobile phones and mobile payments enabled the rapid increase in the digital content market for continuing education.

Exhibit 4: Number of Mobile Payment Users in China (2013 – March 2020)

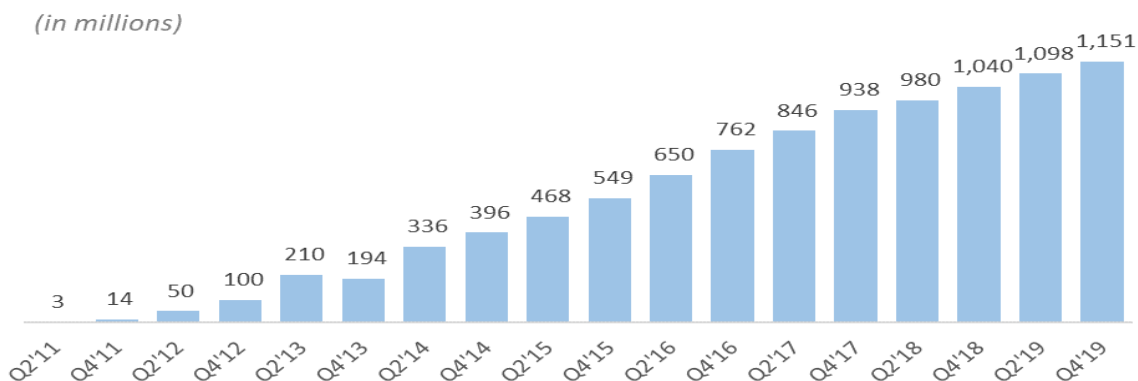


Source: Statista, 2020

1.3.3 Knowledge Content KOLs Willing to Convert Fans into Sales

With the wide adoption of mobile phones, the number of people using social media platforms is increasing rapidly. According to Statista, since WeChat was launched in 2011, the number of Monthly Active Users (MAU) had increased to 762 million by 2016 Q1. The number reached 1,151 million by 2019 Q4. Key Opinion Leaders (KOLs) who post on WeChat official accounts have the incentive to convert the increasing number of followers into sales. Several top content IPs in the continuing education market had their early days posting on their WeChat public account or other social media platforms.

Exhibit 5: Number of Monthly Active WeChat Users in China (Q2 2011 – Q4 2019)



Source: Statista, 2020

1.3.4 Stronger IPR Protection

China has been strengthening its intellectual property rights (IPR) protection. On November 27th, 2016, China released a guideline on the better protection of property rights. It was the first time for China to issue a guideline of state-level on protection of property rights. By end of 2016, the State Council has issued the 13th Five-year Plan (2016-2020) on the National Intellectual Property Protection and Utilization, which said that efforts will be made to speed up the establishment of a comprehensive management system of intellectual property rights, including the intellectual property protection in internet-related new business models.

1.4 Product Types

Content is at the centerpiece of this industry. Professionally Generated Content (PGC) is the predominant type of content in the educational content industry because of customers' increasing requirement for high-quality content. User Generated Content (UGC) is displayed for interactive purposes or to scale up content coverage.

Unlike traditional education products, in the digital content market for continuing education, products have the following attributes. First, the courses are usually taught in shorter segments, making them easier to fit people's often fragmented schedules. Second, the average product price is much cheaper than the cost of traditional education, making such products accessible to more customers. Also, different from most of the free content online, this digital content market features relatively high-quality content and services. Consumers are paying to avoid spending time searching for high-quality content as well.

Content is delivered mainly in four ways.

1.4.1 Online Video or Audio Courses

The first type is online courses delivered via video or audio format. These kinds of courses can provide relatively in-depth and systematic knowledge in a specific field. Online courses are costly to produce, especially when the market has high expectations on the quality of the content because they have paid for it. There are several distinctions between these courses and MOOCs. Within the digital content for the continuing education market, the courses are tailored to the need of customers who have no time

or willingness to allocate long hours and to study systematically as in higher education. The depth of the content is limited to cater to the mass market. The length of the course is typically shorter than college courses.

1.4.2 Audio Book Summaries

The second type is the curated audiobook content products. This type of product offers book summaries in audio format. The key element here is to help customers save time when acquiring knowledge. By condensing the content of a book into a 20-minute podcast, the product fits the need of those who do not have time to read but are anxious to learn. This type of content is easier and less costly to produce than online courses. There are as many choices of topics as there are books.

1.4.3 Question-and-Answer Platforms

The third type is question-and-answer and knowledge sharing social platforms that attract both people who have questions in a specific field and people or organizations that can offer professional knowledge, or in-depth and reliable information in a specific field. Picture and text, live audio streaming, online to offline consulting, etc., are the forms of delivery. The content in this field is more customized but less systematic.

1.4.4 Virtual Learning Communities

The fourth type of products are offered in the form of online learning communities. These learning communities are more interactive than standalone courses, but they are harder to manage as well. The communities are formed either through WeChat mini-programs, or standalone APPs. Hosts for each group can either be professionals who can teach and facilitate group learning or non-professionals who help maintain the robustness of the communities.

Forms of Content

The content comes mainly in four forms: video, audio, a combination of pictures and text, and live video/audio streaming. Among these forms, online audio content is leading the growth at an impressive scale. Enjoying audio content is hands-free. It is an escape from the screen. It does not require the customers to concentrate as much as the other forms of content do. Typical user cases include taking public transportation, driving, exercising, doing the cleaning.

Exhibit 6: Typical User Cases for Different Online Content Formats

User Case	Text+Picture	Video	Audio
Driving			★★★
Exercising	★	★	★★★
Public Transportation	★★★	★★★	★★★
Cleaning	★	★★	★★★
Waiting	★★★	★★★	★★★
Dining	★★	★★★	★★★
Before Sleep	★★★	★★★	★★★
Leisure Time	★	★★★	★★

Source: Oppenheimer & Co., 2019

According to *China Internet Wee*⁴, a Chinese magazine focusing on the internet and IT industry in China, and supervised by the Chinese Academy of Sciences, the top three educational digital content providers in China are mainly focusing on audio content. This research will conduct case studies on online audio content platforms for continuing education purposes.

Exhibit 7: Top Digital Content Companies on Continuing Education in China

Rank	Companies	English Translation	Positioning
1	得到	Dedao	PGC audio content platform
2	吴晓波频道	Wuxiaobo Channel	PGC video and audio content focusing on finance and economics
3	喜马拉雅 FM	Ximalaya FM	PUGC audio content platform
4	樊登读书	Fandeng Reading	Online book club featuring PGC video and audio content
5	知乎大学	Zhihu Live	Live audio streaming knowledge sharing platform
6	荔枝微课	Lizhi Micro Class	Live video streaming knowledge sharing platform
7	好多课	Haoduke	Video content platform targeting enterprise training needs
8	有书	Youshu	Online book club featuring interactive study community
9	三节课	Sanjieke	PGC video content platform focusing on internet industry
10	蜻蜓 FM	Qingting FM	PUGC audio content platform

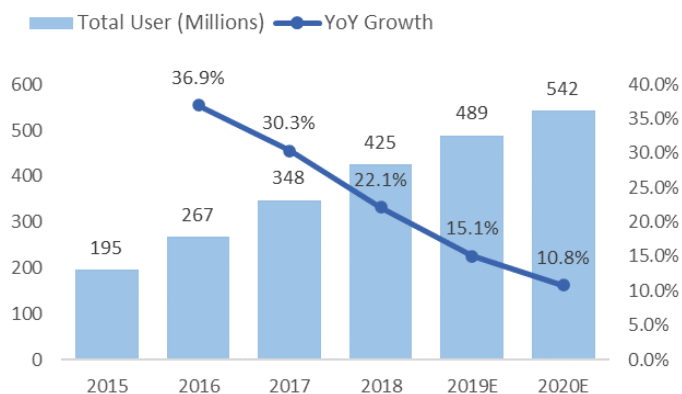
Source: China Internet Weekly⁵, 2019

2. Online Audio Content Platforms

Audio content becomes mainstream among various forms of digital content products because it enables the effective use of one's fragmented time. Listening to audio content can accompany many activities. It does not take your time away from doing less-intensive tasks at the same time. People can listen while doing exercise, cleaning, driving, or taking public transport at rush hours when there is little space to do anything else. 4G technology also enables the fast streaming of audio content. Audio content also provides an escape from the screen.

⁵ China Internet Weekly, founded in 1998, and supervised by the Chinese Academy of Sciences, is a Chinese magazine focusing on the internet and IT industry in China. Website: www.ciweek.com

Exhibit 8: Online Audio Content User Growth in China 2015 –2020E



Source: iiMedia Research, 2019

According to iiMedia Research, the online audio content user base has been increasing steadily from 195 million in 2015 to 425 million in 2018, representing a CAGR of 30%. The market is expected to grow to 542 million in 2020.

2.1 Market Economics

2.1.1 Strong Internal Rivalry

There are many companies in the online audio content market competing in consumer acquisition and high-quality content production. This market is dominated by a few firms, but competition among top firms is still strong. Ximalaya is taking up the majority of the market as a top player. According to its company website, Ximalaya FM has 600 million mobile users and 4 million paid users. According to Analysys, an internet data analysis company based in China, Ximalaya was leading the market with 81 million Monthly Active Users (MAU) by the end of 2018, almost four times that of Qingting FM, the second player in the game.

The competition is also strong if we only look at the continuing education content. Among the top ten companies in the online content market for continuing education (“Pay-for-Knowledge”) ranked by China Internet Weekly, five provide audio content as the main form of products. Ximalaya claims to own 70% of the bestseller audiobook rights in the market and 2,000 hosts who provide content for continuing education. Dedao features PGC courses and audiobook summaries. Wuxiaobo Channel focuses on finance and economics audio content with Mr. Wu Xiaobo, a financial writer, being the biggest IP of the firm.

2.1.2 High Entry Barrier

The entry barrier is high because of the high cost associated with IP rights acquisition, content production, and platform operation. As both content quality and content richness are important in the continuing education market (“Pay-for-Knowledge” market), for PGC platforms, the cost for content acquisition can be overwhelming when initially entering the market. The cost of audio content production on a large scale also sets a high entry barrier. Ximalaya paid a high upfront fee to top IP owners in its early days to expand its top rate content offerings. Dedao paid high royalties to attract experts and professionals to host online courses. Capital markets were funding the costly competition

among platforms. Ximalaya raised more than CNY 4100 million (USD 580 million) in round E financing in August 2018. Dedao raised CNY 960 million (USD 136 million) in round C financing.

Besides, the cost to acquire online customers is increasing as well. According to Hubspot, the cost of acquiring new customers has increased by over 50% in the last five years. If we also consider that most of the target customers of continuing education have a college degree or higher degree, obtaining customers can only be more difficult.

2.1.3 Top-Tier Content Providers Have High Supplier Power

Suppliers in this market are experts, KOLs, and professionals who can produce high-quality content for continuing education purposes. Because the market is dominated by a few platforms who own large traffic, and who have a final say on what content to promote through their limited marketing resources, supplier power is relatively weak.

However, top-tier content providers are scarce resources. Thus, they usually have high negotiation power due to their ability to attract paid customers. When Ximalaya launched an exclusive audio course *Madong: HaoHaoShuoHua* (马东: 好好说话 in Chinese) on communication skills by KOL Ma Dong in 2016, it generated a revenue of CNY 5 million (USD 0.71) within 24 hours, and CNY 10 million (USD 1.41) within 10 days. The top course on Dedao was taught by Xue Zhaofeng, a former economist at Peking University. By April 2020, more than 492,000 users have paid CNY 199 (USD 28) each to listen to his economics class on Dedao APP.

Publishers and authors who own audio rights for popular titles also have power at hand. Similar to the traditional book market, few top titles sell millions of copies while a majority of the books won't sell more than 10,000 copies.

As a result, content platforms are willing to pay a high upfront fee or high royalty payment to top IP owners for exclusive content.

For mid- to low-tier content providers, platforms with higher traffic often have more power. Content providers usually accept standard payment terms requested by the platform. As platforms grow bigger, the power dynamics tend to change as well.

2.1.4 More Substitutes than Complements

The number of substitute products is enormous. The first layer includes digital content providers that meet customers' learning needs with other product forms. Video course platforms, ask-and-answer online communities, live video streaming platforms featuring learning content, and virtual learning communities are all considered substitutes for audio content.

The second layer includes traditional learning products such as MOOCs, educational TV programs, e-Books, magazines, etc. A few top Chinese publishers are building their mobile APPs to provide learning content built upon their IP rights as well. The competition from these products is less fierce because the target customers either lack time for long-time study or are aiming to better use their fragmented time.

Broadly speaking, anything that draws people's attention away is considered a substitute. News, blogs, social media posts, even recreational content is eroding this market. After all, who wants to study when watching Tic Tok videos is fun and relaxing?

In terms of complements, the increasing popularity of smart speakers and wireless audio devices could drive further growth of the audio content market. Bundling audio APPs to car audio systems is another area to tap into.

2.1.5 Strong Buyer Power

Buyer power in general is strong because of the large number of competitors and substitutes. However, for top-rated exclusive content, the platforms can charge a premium.

2.2 Market Player Responses

The online audio content market for continuing education is a competitive market dominated by a few top market players. The entry barrier is high due to the cost of production and rights acquisition. KOLs are both blessings and curses to companies that rely on them to attract customers. In response, companies in the industry are adopting different ways to lower cost, improve profitability, and boost demand.

2.2.1 Lower Cost

Once the platform is past the initial growth period, it can lower the cost of content acquisition by reducing upfront payments and royalty payments. It can also impose stricter payment terms to its suppliers. But only the top players in the market can enjoy the benefit and they, too, must be cautious, because the content is essential in this market. Losing top exclusive content to an opponent may result in long-lasting damage to company revenue.

PGC companies can also lower the cost of content generation by adding UGC products. Efforts should be made to guarantee the quality of UGC products. Ximalaya has opened its platform for UGC hosts at the risk of lower content quality. Dedao is sticking to PGC for its courses, but it has opened an online community within its APP for customers to share their study notes. The notes are open to other Dedao users who can provide comments or re-post. Dedao assigned operation managers to promote well-written notes within the community. Due to its 30 million customer base and the high education level of the customers, much thoughtful content is being created daily.

Lowering the cost of acquiring new customers can also lead to a higher margin. Dedao allows customers to share content that they have purchased with many friends for free via social networking APPs, to attract new customers or repetitive purchases.

2.2.2 Improve Profitability

Companies can build strong brands to improve profitability. By associating the brand with high-quality content through marketing efforts, Dedao was able to profit mainly from charging customers directly.

Indeed, top IP content can bring in top-level revenue. But this kind of revenue usually comes at the expense of higher cost for content acquisition. Without a strong brand, most of the content is homogenous in the eyes of customers. There is too much content on writing, on history, on public speaking, and on time management. In the age of information overload, our pain point is not the lack of information, but the lack of time.

Part of the revenue of Ximalaya comes from advertisers. Ximalaya can improve profitability by adding more ads to the content. But this is not a sustainable strategy as it hurts customer experience. In fact,

2.2.3 Boost Demand

Make the pie bigger before dividing the pie. If people are paying for self-improvement products because they are anxious in the labor market, then how about escalating their anxiety through marketing to create more demand? In my point of view, this is a short-term strategy that will hurt the brand in the long run. Customers who shop on an impulse are not likely to come back.

Both Dedao and Ximalaya are bundling their services with smart speakers. Nudging people to consume more of their audio products. However, the question remains on how much more demand can be generated in this way. Remember that smart speakers can provide services by substitutes as well.

Another way to boost demand is to lower prices. This is a controversial strategy. Dedao's favorite courses used to be priced at CNY 199 (USD 28). In recent years, it started to offer more and more products at CNY 99 (USD 14) and CNY 19.9 (USD 2.8) pricing points. The average price was lowered by more than 50%, but the length of the content was cut even further. It is not surprising that the lower prices did not lead to increased content consumption.

Why is it so hard to boost demand? According to the New Middle-Class report by Wuxiaobo Channel, 90.4% of the New Middle Class paid for educational content in 2019. Does this mean that we have reached the ceiling of this market?

There is also a limit on the amount of time one customer can spend each day on audio content. Ximalaya's customers are already spending an average of 128 minutes using the APP (to consume content both in and outside of the scope of continuing education). How many more growth opportunities are beyond that? Wuxiaobo Channel says that 40% of the new middle class are working over 50 hours per week. Can audio content providers extract more time out of the target customers' shrinking free schedule?

2.3 The Platform Thinking Perspective

Another perspective to interpret is to look through the lens of platform thinking. Companies in this market fall into the spectrum between "closed products" and "open platforms". The degree of openness varies across different companies. And it evolves as companies grow and industry dynamics change.

2.3.1 The Choice Between Product and Platform

Building an open platform solves the problem of content scale-up. But quick content expansion risks quality control. An open platform in this market allows User Generated Content (UGC) on its platform as opposed to only include Professional Generated Content (PGC) by inviting KOLs, experts, and professionals for content contribution.

Opening the platform to content creators can improve content richness and lower cost. But it is hard to monitor and control and content quality. The more openness to UGC, the more risk the company bears of adding low-quality content to its platform. As content richness and content quality are both considered essential to win market share, companies are making a hard choice on achieving a balance.

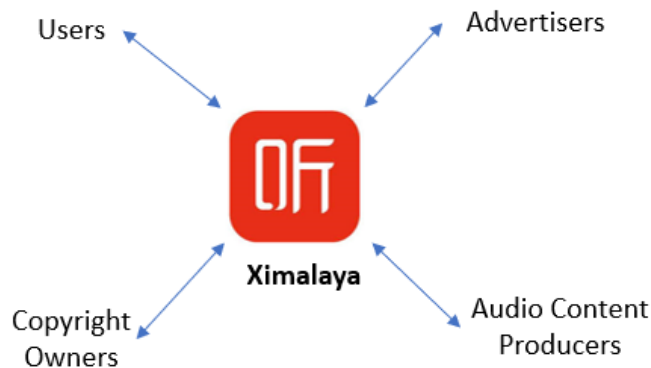
Exhibit 9: The Strategic Choice Between Product and Platform*



*With reference to the framework from Sloan course 15.904 Strategy & CEO by Prof. Michael Cusumano

Ximalaya operates more like an open platform. On one hand it invites KOLs to contribute Professionally Generated Content to ensure the quality of its top offerings. On the other hand, it opens its platform to text content creators for User Generated Content to increase content richness. It links audio producers to text content creators to make audio products. Advertisers are linked to the platform as well as Ximalaya profit from paid ads for its free content.

Exhibit 10: Ximalaya as a Multi-Sided Platform



Dedao takes a different path from Ximalaya. It only offers exclusive audio content from invited professionals. It offers some degree of openness by launching a virtual learning community within its ecosystem where both course hosts and customers can post study notes and check on others' notes. The platform links content providers and customers together to encourage content production and consumption. Publishers are also linked to Dedao's platform to sell e-books in a la carte or subscription model.

Wuxiaobo Channel specializes in finance and economics content targeting the middle class in China. Its content is mostly created by Wu Xiaobo, a famous finance writer in China. Wuxiaobo Channel serves as content providers to both audio content platforms (Ximalaya) and video content platforms (Iqiyi). In recent years, Wuxiaobo Channel was trying to build a content platform for continuing education, focusing on finance and economics vertical. It launched a mobile APP in 2019 featuring Professionally Generated Content by KOLs. Recently it changed the name of the platform from Wuxiaobo Channel to 890 New Business to downplay the brand association with Wu Xiaobo's influence, paving the way for transitioning itself from a content provider to a content aggregator.

According to *The Business of Platforms: Strategy in the Age of Digital Competition, Innovation, and Power*, there are four market drivers to consider when evaluating businesses of platforms: network effects, the impact of multi-homing, niche competition, and supply-side barriers to entry.

2.3.2 Strong Network Effect with Caveats

The platforms in this market can benefit from the network effect. A dominant platform that owns millions of monthly active users also dominates the limited promotion resources. The platform has the final say on which content to promote and which not to. From this perspective, the content providers are more than willing to come to the platform and profit from its large user base. Customers, on the other hand, are coming to the platform for its content richness.

But there are some caveats. KOLs, experts, and professionals who can generate high-quality content for continuing education purposes are scarce resources. Customers who come to the platform only to follow a specific KOL are not likely to stay in the platform once the KOL leaves. Top-tier KOLs have the incentive to move to other platforms that offer more profits or to cooperate with multiple platforms to increase revenue without fearing of losing followers because the followers will go with them rather than staying with the platforms.

2.3.3 The Chicken-and-Egg Problem: Content Comes First

How do platforms solve the chicken-and-egg problem at the early stage of their development? Because the nature of the “Pay-for-Knowledge” market is to pay for high-quality content, it makes sense for platforms to spend big money to attract top-tier content creators. Ximalaya attracted Ma Dong, a KOL, to launch a communication course on its platform in 2016 when the “Pay for Knowledge” market began to take off. Dedao’s initial users came from followers of Luo Zhenyu, co-founder and CEO of Dedao. Luo Zhenyu used to be a KOL content creator who was famous for his knowledge talk show and WeChat posts. Dedao has successfully converted his fans from the early days into sales revenues for itself. The early customers of Wuxiaobo Channels came from book fans of Wu Xiaobo, one of China’s leading financial and business writers. He authored several bestselling business books. Wuxiaobo Channel is still in the early stage of building up a platform. With its core content available on other platforms, it may be challenging for Wuxiaobo Channel to get through the early stages of a platform.

2.3.4 Reinforce Network Effect Through Brand Building

After solving the chicken-and-egg problem, Dedao focused on building a strong brand to avoid heavy reliance on its top KOLs for growth. The credentials of the course hosts were still important. But Dedao also developed a method of working to ensure the popularity of its content for continuing education (“Pay for Content”). For instance, the courses were cut into small 10-minute chunks to fill in users’ fragmented time. The narrative design, content structures, tone, speed of speaking were all part of the secret source. Dedao tried to associate its brand with high standards and high quality and disassociate itself from any particular KOL.

2.3.5 Hard to Discourage Multi-Homing

Customers multi-home by accessing different platforms for the same type of services. Multi-homing weakens the network effect. With different content service APPs only one-click away, it is easy for customers to multi-home in this market. To discourage multi-homing, platforms can subsidize both the customer side and the production side at the same time. For example, Ximalaya subsidized some KOL

content creators with upfront fees and subsidized customers by providing many free content in the early stage.

Even giving content for free cannot prevent multi-homing as customers in this market are selective about which KOL to follow and what content to follow. They are loyal customers to KOL content rather than loyal customers to platforms.

2.3.6 Differentiation Creates Possibilities for Niche Market Players

There are many possibilities for differentiation in the content for the continuing education market. The content market is hardly homogeneous. Audio content cannot substitute for video content. Content on finance and economics is not considered the same as content on child-raising. Among numerous communication courses online, KOL Ma Dong's course can sell almost 100 million copies while others are way behind. Room for differentiation reduces the network effects but opens opportunities to companies focusing on small niches. While Ximalaya is trying to build a comprehensive audio content platform, Wuxiaobo Channel focuses on finance and economics content, and Dedao features premium content.

2.3.7 Entry Barrier

The entry barrier is high because of the upfront cost of IP rights acquisition, the cost of content production, and the increasing cost of customer acquisition. The cost of operating a B2C platform also increases the barrier to entry.

To summarize, the digital audio content market for continuing education is dominated by a few highly competitive market players. The entry barrier is high due to cost on content acquisition and operation. The network effect is strong at some level, but top IP rights owners can still change the power dynamics between content suppliers and platforms. Customers tend to multi-home because of diverse tastes. Niche market players can still exploit the market due to high differentiation opportunities.

3. Case Study

3.1 Ximalaya

Ximalaya, founded in 2012, offers a wide range of audio content including content in the continuing education area. It also has music streaming, podcasts, live audio streaming, online audio courses, online radio, audiobooks, etc. It has 600 mil users (Oct 2019), 81 mil Monthly Active Users (2018).

3.1.1 Source of Revenue

Revenues come from paid ads, a la carte sales, and subscription.

3.1.2 Platform Strategy

Ximalaya is building itself into a transaction platform. It opens its platform to IP rights owners, audio producers, advertisers, and customers and benefits from the network effect. It provides complementary services to text content owners with resources of audio producers. It provides free content to customers by charging advertisers.

3.1.3 Competitive Strategy

Ximalaya focuses on building a comprehensive audio content platform. It diversifies its business through overseas expansion, tapping into the K12 audio content market, and bundling with smart devices and car audio systems. Its competitive advantage comes from owning a large number of audiobook rights (70% of bestseller rights), 600 million users, high market penetration (62.8%), and audio producer resources.

3.1.4 Tipping by Quantity

By building the content business through a platform, Ximalaya solved the problem of content scale-up. But tipping by quantity still cannot let Ximalaya claim victory in the audio digital content market for the continuing education area. The rapid content build-up may jeopardize the content quality and the appeal of new content to the customers. Top IP rights are still scarce resources in the continuing education sector and are expensive to acquire. Thus, a platform that relies heavily on top KOLs to bring in traffic will have a hard time finding ways to improve profit.

As said earlier, there is a hard balance to strike between scaling up content quantity and ensuring content quality. As its market data show us, the strategy of Ximalaya at least has proven successful in the audio content market in general.

3.2 Dedao

Dedao was founded in 2016 and focuses on providing premium content in the continuing education area. It is a comprehensive learning service platform that integrates audio courses, audiobooks (book summary), e-books, e-commerce, and community learning services (Dedao University). It has 30 million users (May 2019) and 1.76 million monthly active users (April 2019).

3.2.1 Source of Revenue

Dedao charges customers directly through the course a la carte sales or ebook, audiobook a la carte sales, and subscription. Revenues also come from e-commerce business and community learning services (Dedao University).

3.2.2 Platform Strategy

Its secret source or method of working for converting any knowledge content into understandable and enjoyable “Pay-for-Knowledge” content makes it resemble an innovation platform. Content creators can follow these rules to create products for Dedao just like developers can use the open-source to develop software for Android. The difference is that while software developed for Android is not able to work on iOS, the audio content produced for Dedao can also be distributed through other channels. Dedao uses its production team to co-develop courses with its hosts and requires exclusivity.

3.2.3 Competitive Strategy

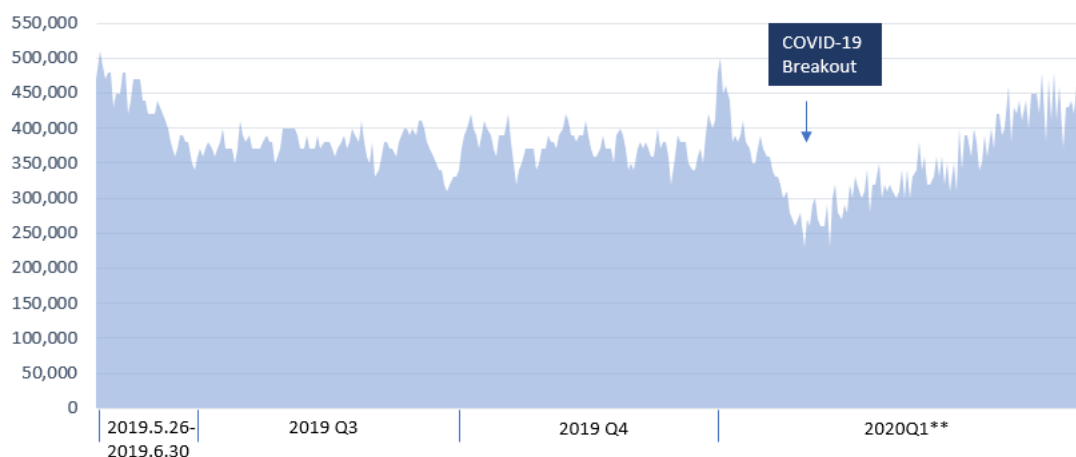
Dedao focuses on the audio content market for continuing education (“Pay-for-Knowledge” market). It diversifies its business through e-commerce, K12 audio content market, video content for continuing education, e-books (including content and devices), offline training, virtual learning communities, etc. E-books are complementary to its core business. Dedao emphasizes brand building. Its competitive advantages include exclusive premium content, its expertise in making audio content for education, and its brand.

3.2.4 Tipping by Quality

Since it was founded, Dedao has been trying to build a brand image of superior content quality in the market. It aims to offer the best content in each area that interests adult learners. The top course in economics has attracted 492,000 paid subscribers in total, bringing in CNY 98 million (USD 13.8 million) in revenue. Dedao made efforts to avoid being reliant on top KOLs alone for revenue growth. Its secret source in producing short clip digestible knowledge content helped Dedao to expand its content richness while ensuring consistency in its content quality.

As much as offering the best content in each interest area is an attractive selling point, there is a limit on the number of areas that can draw wide attention. And return-on-investment analysis of tapping into smaller niche subjects may not justify itself for a comprehensive knowledge content platform. Data show that Dedao's Monthly Active Users (MAU) stayed flat since late 2018. The number of times listened to its featured free program stayed flat in H2 2019, fell by 30% in Jan 2020, and only began to recover after the COVID-19 breakout. This explains why Dedao has been seeking diversification in areas other than audio content courses. For instance, Dedao expanded its business into K12 education. The new platform had attracted 2 million users and 1 million monthly active users by November 2019, less than two years since it was launched.

Exhibit 11: Time Listened Per Episode of Featured Free Content on Dedao*



*" Shaoheng Toutiao" (邵恒头条) is a featured free audio content program on Dedao. It is a daily updated podcast introducing trends and insights in education, medical, politics, economics, business, and technology industries.

**Starting from 1 Feb 2020, the program began to offer two episodes a day instead of one episode.

Source: Dedao APP, 2020

3.3 Wuxiaobo Channel

Wuxiaobo Channel is a niche market player providing finance and economics content in the field of continuing education. It positioned itself to appeal to the New Middle Class in China. Most of its customers work in Tier 1 or Tier 2 cities and have a college degree or above. Its crown jewel content is provided by Wu Xiaobo, a famous financial and business writer in China who has authored several bestselling business books.

3.3.1 Sources of Revenue

Wuxiaobo Channel sells membership subscription services through WeChat Official Account, and 890 New Business APP. It is an audio content provider to Ximalaya and Qingting FM. It also provides video content to video platform IQIYI. Its other business revenues include paid ads, offline training, and e-commerce.

3.3.2 Platform Strategy

Wuxiaobo Channel started as a product company and is moving into the direction of a platform company. The success of the Wuxiaobo Channel has been reliant on the fame of Wu Xiaobo himself. To change from a single KOL company to a platform, Wuxiaobo Channel changed the name of its branding to Bajiuling, the pronunciation of which refers to people born in the 80s and 90s, the target group of its product. The company invited many KOLs to provide content onto its platform to enrich its top-tier content. It has also tried to incubate new KOLs by providing mini-seminars or courses through its distribution channels.

The content featuring Wu Xiaobo as a host is still popular on various channels. But the platform that Wuxiaobo Channel is trying to build does not look competitive in the market. For one thing, Wuxiaobo Channel is targeting niche market audiences who are interested in the field of finance and economics, but on its platform, the invited PGC contributors, though famous, are putting on courses that are not relevant to this field at all.

Bajiuling failed its backdoor listing attempt in 2019. It had 3.5 million users by the end of 2018. The user growth declined slightly in 2018 YoY. But its core content did thrive on other platforms. Its top program was listened to 584 million times on Ximalaya and 170 million times on Qingting FM. Maybe Wuxiaobo Channel is seeking ways to scale up through building a platform, but at its current stage, it looks much more successful as a content creator in the finance and economics vertical. For a niche market player to tap into other areas is not easy. Disney ran for years and made several acquisitions before being able to offer Disney+ as a platform of its own to compete with other open-ended platforms. Wuxiaobo Channel does not have a deep pocket for such acquisitions. Riding on the traffic of major distribution channels is not a bad idea for the short-term.

3.3.3 Competitive Strategy

Wuxiaobo Channel has diversified business revenues since its early days. It profited from the traffic drawn by Wu Xiaobo's audio talk shows, books, etc., by providing business consulting services, offline corporate trainings, and by cooperating with advertisers. The core of the company is the capability to provide insightful opinions on finance and business in China. But it is not close to building a brand without heavily relying on Wu Xiaobo's influence.

Wuxiaobo Channel targets the middle class in China. This segment has been growing both in the total number of people and in their purchasing power. There is more than one way to profit from the rising middle class. Wuxiaobo Channel has the first-mover advantage in becoming a niche market content KOL in finance and economics owing to Wu's bestselling books years before the hype of We Media in China. But it seems too late now for the company to expand to other fields of studies now when there are too many competitors in the continuing education (or "Pay-for-Knowledge") industry.

3.4 Strategy Summary

Selling content of knowledge is not a new game in the internet era. The print and newspaper industries know it all too well. Revenue can be derived from selling good content directly to the customers or from selling ads if the content has enough readers. In the digital content business, content richness and content quality are both critical.

3.4.1 Build Content Richness

To increase content richness, companies can create content themselves, acquire content directly, or build a transaction platform to attract content creators to contribute. The advantage of creating by oneself is that the quality is consistent and under control. But the disadvantage is that it takes time and there is a high cost of production. Acquiring content directly is fast, but it requires a high upfront cost. Also, the top content KOLs may require more profit sharing and damage the profit of the firm. Building a transaction platform and scaling up the number of content through the network effect is a faster and less costly way. But it is very challenging in the beginning.

3.4.2 Ensure Content Quality

The paywalls in the newspaper industry tell us the value of curated information. High-quality content is the key to attract and retain customers in this digital content business. Acquiring content is an effective but costly option. Open platforms often need to heavily subsidize content producers at the beginning. Once the platform gets too reliant on a few top IPs, the profit margin will be at risk because of high supplier power. Developing a systematic way to ensure the quality of knowledge product is a less costly way. Dedao standardized the product quality control process with insights from user behavior data. By reinforcing this quality control process, Dedao was able to maintain product quality while increasing its number of content offerings.

3.4.3 Control Cost and Improve Profitability

Lowering cost often goes hand in hand with lowering content quality or content richness. It is hard to achieve an economy of scale in terms of high-quality content creation. Thus, many market players are seeking to build content platforms instead of building content at their own cost. Strong branding can help companies charge a brand premium and be less reliant on top content IPs. Seeking synergy through business diversification is also an option to increase return on investment. For example, Dedao launched a K12 education platform that has brought in two million users within two years. Dedao's 30 million adult users were the early adopters of Dedao's K12 product. The synergy lies in the cost-saving of new user acquisition.

3.4.4 Diversification

Diversification strategy could be a blessing to revenue but a curse to profitability. If companies target the current customer segment with new products, they can create synergy by lowering the cost of customer acquisition for the new products. Ximalaya diversified its audio content offerings to cover a wide range of categories including music, live streaming, radio, continuing education or knowledge products, audiobooks, foreign language content, entertainment, etc. Dedao offered new services to its existing customer segment. As its user base expanded, it began to sell e-books content and e-book devices and video content products. It began to offer offline trainings through the Dedao University brand. It also sells physical products through e-commerce.

Exhibit 12: Diversification Strategies of Knowledge-Centric Audio Content Providers

	Current Customer Segment	New Customer Segment
Existing Products	<p>Main Business</p> <ul style="list-style-type: none"> - Audio content for continuing education 	<p>New Customer Segments</p> <ul style="list-style-type: none"> - Overseas market (Ximalaya) - K12 (Ximalaya and Dedao)
New Products	<p>New Products/Services</p> <ul style="list-style-type: none"> - Comprehensive audio content (Ximalaya) - E-commerce (Dedao) - E-books (Dedao) - Offline Training (Dedao) - Video Courses (Wuxiaobo Channel, Dedao) 	<p>New Product & Customer Segment</p> <ul style="list-style-type: none"> - Consulting service to corporate clients (Wuxiaobo Channel)

Companies also target new customer segments with existing products and services at little or no marginal production cost. One example is that Ximalaya has expanded its footprint to the overseas market.

Companies are also targeting new customer segments with new products. Both Dedao and Ximalaya have launched APP for K12. They both could benefit from lower user acquisition costs as their adult customers are adopting the new APP for their kids. Wuxiaobo Channel offers consulting services to enterprise clients, leveraging the company’s specialty in finance and business management to expand its business and increase the influence of its brand. However, the synergy with its audio content business is neither direct nor obvious.

4. Conclusion

4.1 Summary

In summary, the digital content market for continuing education in China became an industry of popularity since the mid-2010s. Companies in this industry provide content products curated to the need of customers who would like to better use their fragmented time for self-improvement. This market was boosted by the rising population of the middle class, the high mobile payment penetration, the growing popularity of content KOLs on social media, and strengthened IPR protection. The content is delivered in the form of video, audio, and text and picture. Audio content has been the most popular in this niche market because of its flexible use case scenarios. The audio content market in China is expected to grow into a 542 million user market by the end of 2020.

The audio content market for continuing education is dominated by a few highly competitive market players. The entry barrier is high due to the costs of content acquisition and operation. The network effect is strong at some level, but top IP rights owners can still change the power dynamics between content suppliers and platforms. Customers tend to multi-home because of diverse tastes in content and the convenience of switching platforms. Niche market players can still exploit the market due to high differentiation opportunities.

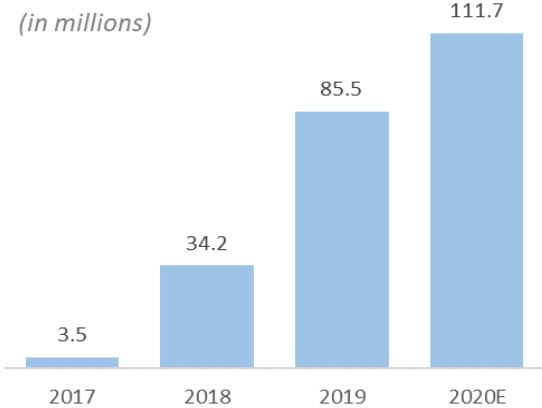
In the digital content business, content richness and content quality are both critical. While building a platform business enables rapid scale-up of content, content quality can only be ensured through acquiring top IP rights or imposing high standard quality control with extra cost and effort. With the entire content market growth for continuing education beginning to slow down aftermarket hype, companies are seeking ways of diversification to drive revenue, such as tapping into new market segments or providing new forms of products and services.

4.2 Growth Opportunities

4.2.1 Smart Devices

The increasing popularity of smart devices could be a blessing to the audio content market. According to iResearch, the number of smart speaker users is expected to grow from 34.2 million in 2018 to 248.8 million users in 2023. The adoption rate will increase from 2.5% to 17.6% in the same period.

Exhibit 13: Number of Smart Speaker Users in China (2017 – 2020E)



Source: Statista, “Smart Speakers in China”, 2020

4.2.2 “Hearables”

“Hearables” is another demand booster. According to *The Economist*, led by the success of Apple’s AirPods, and followed by Amazon’s black Echo Buds and Xiaomi’s Airdots, the earbuds grow symbiotically with streamed audio content in addition to music, i.e. podcasts.

4.2.3 Smart Car System

With 5G technology quickly becoming reality, the smart car system is expected to be widely adopted. Bundling audio content APPs with a smart car system can also give users a nudge to access audio content.

In a nutshell, the growing popularity of smart speakers is expected to increase the demand for audio content in the foreseeable future. The introduction of better earbuds is a boon to the audio content market. And bundling audio content APPs with smart car systems can also nudge users for audio content adoption. Riding on these changes, the digital content market for continuing education will be able to expand user scenarios and to encourage more content consumption in the future.

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