
INDUSTRY OVERVIEW

The information and statistics set out in this section and other sections of this document were extracted from the report prepared by iResearch, which was commissioned by us, and from various official government publications and other publicly available publications. We engaged iResearch to prepare the iResearch Report, an independent industry report, in connection with the [REDACTED]. The information from official government sources has not been independently verified by us, the Sole Sponsor, or any of our or their respective directors and advisors, or any other persons or parties involved in the [REDACTED], and no representation is given as to its accuracy.

SOURCES OF INFORMATION

Founded in 2002, iResearch is an independent and a PRC-based market research institution that provides consumer insights and online user data to companies in various industries, including consumer goods, advertising, mobile internet, finance, e-commerce, big data, information technology, etc.

iResearch has agreed to be paid a commission fee of approximately RMB550,000 for the “**iResearch Report**” on China’s advertising, to-B virtual goods and services and lottery solutions industries. The iResearch Report was compiled using both primary and secondary research conducted in China. Data for the iResearch Report on market size is mainly obtained through interviews with industry participants, marketing surveys, secondary sources and other research methods.

iResearch has prepared the iResearch Report on the assumptions that (i) the social, economic and political environments of China will remain stable during the forecast period, which ensures a sustainable and steady development of China’s advertising, to-B virtual goods and services and lottery solutions industries, (ii) the data quoted from authoritative agencies remain unchanged, (iii) related key industry drivers remain relevant and applicable in the forecast period, and (iv) there will be no subversive changes to the related industries. iResearch believes that the basic assumptions used in preparing the iResearch Report, including those used to make future projections, are factual, correct and not misleading.

After making reasonable inquiries, our Directors confirm that there has been no adverse change in the market information presented in the iResearch Report since the date of its issuance which may qualify, contradict or impact the information in this section.

INDUSTRY OVERVIEW

OVERVIEW OF MARKETING INDUSTRY IN CHINA

The Definition and Classification of the Marketing Industry

Marketing refers to activities a company undertakes to promote the buying or selling of a product or service. There are different marketing channels to promote a product in person or via different media. Marketing activities used in China mainly include: (i) Advertising: Refers to marketing methods that publicly and extensively deliver information to the public through a certain form of media and consumes a certain amount of cost, including online and offline methods such as traditional offline advertising, display advertising, content marketing, search engine advertising and e-commerce advertising; and (ii) Loyalty marketing: Loyalty marketing refers to a kind of marketing that focuses on attracting new customers and retaining existing customers through incentives such as membership system, point rewards, and value-added services.

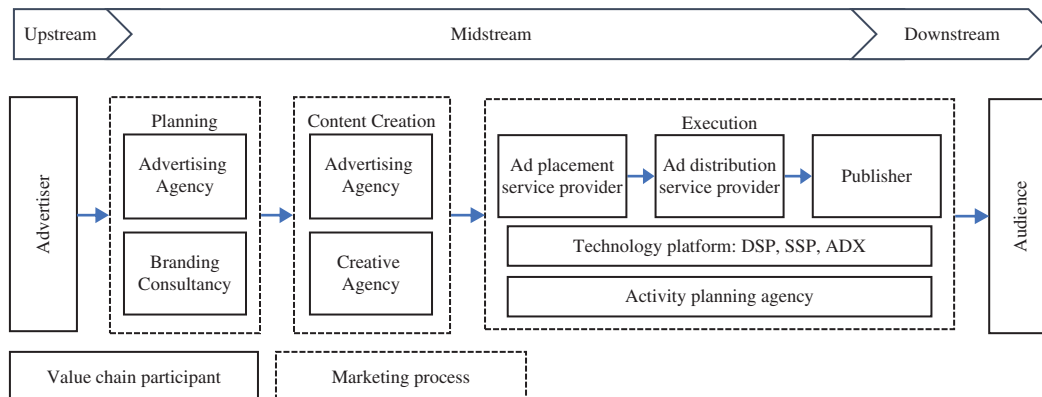
OVERVIEW OF ADVERTISING INDUSTRY IN CHINA

The Definition and Classification of the Advertising Industry

Advertisement refers to a marketing method that conveys information to the public openly and extensively through a certain form of media and consumes a certain amount of cost. The main advertising forms used in China can be divided into: (i) online advertising: display advertising, content marketing, search engine advertising and e-commerce advertising; and (ii) offline advertising: paper media advertising, TV advertising, radio advertising, outdoor exhibition board advertisement, cold calling and SMS advertising.

The Value Chain of the Advertising Industry

Intermediate advertising service providers connect the advertisers and media publishers in the advertising value chain. Typical functionalities of intermediate advertising service providers include (but are not limited to): (i) to connect with advertisers, integrate media sources of publishers and conduct advertisement placement services; (ii) to provide advertising optimization and analytics services for advertisers; (iii) to connect with publishers and app operators to help them monetize traffic by providing advertisement distribution services. The following diagram sets forth the value chain of the advertising industry:



INDUSTRY OVERVIEW

Core values of the intermediate advertising service providers include resource connection with media publishers, optimization and analytics, and the prepayment ability. As most advertisers have only limited in-house optimization capability, they are shifting reliance from direct procurement of marketing services to procurement through intermediate advertising service providers, who are equipped with better technology, expertise, and data sufficiency to perform optimization for their clients. As advertisers place more focus on online marketing and the marketing technologies rapidly develop, the intermediate advertising service providers are becoming increasingly important in the value chain of the marketing industry.

Advertising publishers, as the intermediary that ultimately present advertising content to audiences, mainly include various online and offline media such as social networks, video platforms, newspapers, and television. At the same time, with the development and diversification of Internet services, some service providers who reach consumers through the provision of content, tools or SaaS systems have also been qualified as advertising publishers and become new advertising media for advertisers. Typical new advertising media include: (i) Private domain traffic pool: refers to chat groups or official accounts that can directly convey information to consumers; (ii) Internet tools: refers to Internet applications providing users with system security services, software services, and file management services; (iii) SaaS platform: refers to software services that can reach consumers through its system or platform while providing solutions for SaaS users.

Advertisement Placement and Advertisement Distribution Service

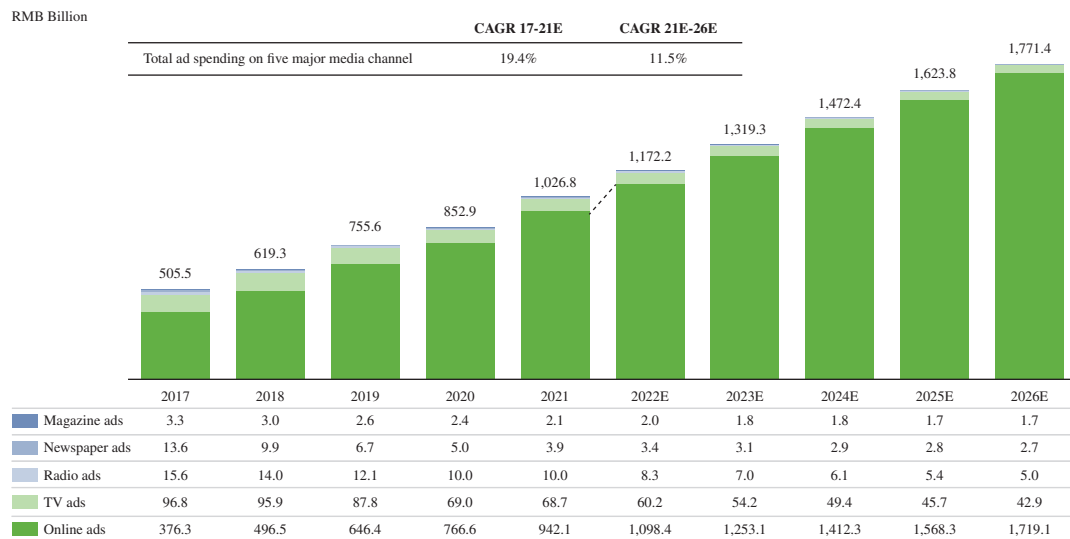
Intermediate advertising service providers can be generally divided into advertisement placement service providers, advertisement distribution service providers and technology platforms by major functions. Advertisement placement service providers refer to companies which purchase designated advertising spaces from various publishers (including platforms operated by large-size media publishers) and set advertisement display time on behalf of advertisers. Advertisement placement service providers are normally required to make prepayment to the publishers for purchasing the advertising spaces for the advertisers. Advertisement distribution service providers usually provide advertising SDKs for publishers to help them monetize traffic. Different from advertisement placement service providers and advertisement distribution service providers, technology platforms such as DSP, SSP and ADX usually act as integrators of advertisement resources to offer intelligent advertisement placement, distribution and related management and analysis services. With the quick evolution of functionalities of intermediate advertising service providers, overlaps of their business scopes are becoming increasingly common in the industry.

INDUSTRY OVERVIEW

The Market Size of Advertising Industry in China

In terms of corporate advertising expenditure, the total advertising market value of China’s five major channels has increased from RMB505.5 billion in 2017 to RMB1,026.8 billion in 2021, representing a CAGR of 19.4%. Driven by the continuous innovation of the Internet and mobile technologies, the increased time consumers spend on digital devices, and the data-driven potential of online advertising, advertisers are gradually shifting their advertising expenditures from offline channels to online channels in order to reach a wider range but more targeted audiences and provide more customized advertising information in a cost-effective way. Therefore, the market size of the online advertising industry had recorded growth at a CAGR of 25.8% during 2017-2021 and is expected to further grow at a CAGR of 12.8% from 2021 to 2026. The total market size is expected to grow rapidly to RMB1,771.4 billion in 2026, which is equivalent to a CAGR of 11.5% from 2021. The following table sets forth the actual and expected growth of the market size of China’s advertising industry by channel.

**Market size of the advertising industry by channel
in terms of advertising spending, China, 2017-2026E**



Note: The market size refers to all advertising spending received by ultimate media publishers, including the spending flowing through advertising agencies and intermediate marketing service providers, as well as the spending directly paid by the brands.

Source: National Radio and Television Administration, State Administration for Industry and Commerce of the People’s Republic of China, Report on Development of China’s Radio and Television Media (2016-2021), Report on Development of China’s Media Industry (2016-2021), Statistical Bulletin of China’s Radio and Television Industry 2021, expert interviews, public disclosures of companies, iResearch.

INDUSTRY OVERVIEW

Market Drivers of Advertising Industry in China

- *Continuous growth of GDP.* Advertising spending correlates with the health of an economy. China’s macroeconomy, as indicated by its nominal GDP growth rate, has undergone a steady increase from the past years, providing economic support for the further growth of the advertising industry.
- *Internet and technology upgrades.* Internet and infrastructure upgrades have increased the amount of time people spent on mobile devices, which allows online advertising to have higher exposure and reach more people, and drives the growth of the online advertising market. Technological developments such as big data, artificial intelligence, 5G and others can better meet the enterprises’ increasing demands for high efficiency and targeting precision of marketing. Thus, such technologies are expected to upgrade and transform the advertising industry.
- *Integration of data resources.* Top online media platforms are offering increasingly diverse formats of online content, such as online games, online video, online music, live streaming, and online paid knowledge, which enables them to collect multi-dimensional consumer behaviour data. Integration of such data resources will contribute to more comprehensive consumer tagging and therefore more efficient targeting, which is expected to support the future development of the advertising industry.

Market Trends of Advertising Industry in China

- *Increasing traffic acquisition cost.* With the retreat of the rapid growth period of Internet user traffic and the improvement of the bargaining power of large-size publishers, the traffic acquisition cost of advertisers has gradually risen, and it has become increasingly difficult for them to attract new consumers and promote their consumption.
- *Digital advertising based on SDK.* With the rapid technological innovations and the increasing concern of the advertisers over the efficiency of marketing activities, online advertising is becoming increasingly prevalent while the demand for traditional marketing and promotion services has been declining. The advertising SDK offers small and medium publishers a simple and convenient tool for commercialisation by connecting publishers with technology platforms and advertisement placement service providers. As a result, the advertising SDKs are being increasingly widely applied in the digital advertising market.
- *Reliance on intermediate advertising service providers for better optimization.* As most advertisers have only limited in-house optimization capability, it is expected that advertisers may shift reliance from direct procurement of marketing services to procurement through intermediate advertising service providers, who have better technology, expertise, and data sufficiency, for better ROI improvement in the advertising market

INDUSTRY OVERVIEW

- *Increasing application of big data and AI for precision marketing.* Big data and AI are applied to help brands in the whole advertising lifecycle and different consumption scenarios, such as targeting, content creation, delivery, and monitoring, to accurately grasp the advertising opportunities and provide comprehensive services for clients.
- *Rise of the O2O marketing model.* The rising cost of online advertising and the diminishing gap of online-offline advertising price are forcing advertisers to draw emphasis back to the offline channels in their marketing strategy, which give rise to the O2O marketing model. This model involves crossovers of online and offline experiences during the full user journey with each step tracked digitally, and thus provides better cost-efficiency, user experience, and digitalization of consumer journey.

Entry Barriers for Advertising Industry in China

- *Case accumulation.* Accumulation of successful marketing cases is crucial in business development for intermediate advertising service providers, as marketers rely heavily on past cases to evaluate their competences. New entrants without any real case record will find it hard to demonstrate their capabilities and win clients.
- *Professionalism and optimization.* Established companies have built comprehensive understandings of user behaviours and preferences which can be leveraged to form more effective advertising strategies for their clients. New entrants without such knowledge will not be able to provide the optimization service, which largely weakens their competitiveness.
- *Technology & expertise.* New entrants have to invest considerably in the recruitment and training of technological expertise required to successfully deploy various IT tools for advertising.
- *Data accumulation.* Lack of data accumulated through real cases limits the effectiveness of new entrants’ use of advanced technologies like precision marketing, big data and AI.
- *Economies of scale.* Large players can negotiate advantageous prices and policies from suppliers and are more resistant to the fluctuation of demands and supplies over time. New entrants have to bear higher prices from suppliers and higher risks of operation during market fluctuation.

INDUSTRY OVERVIEW

Competitive Landscape of Intermediate Advertising Service Providers in China

According to the iResearch Report, China’s advertising industry is currently highly fragmented. A large number of online advertising agencies connect advertisers with designated agents of advertising publishers, or directly connect them with advertising publishers. It is common and more cost-efficient for enterprises to conduct their marketing activities through intermediate advertising service providers. In 2021, there were more than 1 million corporates in advertising industry in China. According to the iResearch Report, in terms of revenue, the top five intermediate advertising service providers accounted for 6.4% of the market share in 2021. Our Group’s revenue from promotion and advertising services accounted for approximately 0.0116% of the total market size in 2021.

The following table sets forth information about the top five intermediate advertising service providers in China by revenue in 2021.

Top 5 intermediate advertising service providers, in terms of revenue, China, 2021

Ranking	Company	Year of establishment	Place of listing	Headquarter	Main Business	Revenue	Market Share by Revenue
						<i>(RMB billion)</i>	
1	Leo Group Co., Ltd.	2001	Main Board of SZSE	Shanghai	Integrated online advertising and marketing solutions	16.2	1.6%
2	Zhewen Interactive Group Co., Ltd.	1993	Main board of SSE	Beijing	Integrated online advertising and marketing solutions	14.2	1.4%
3	Hylink Digital Solutions Co., Ltd.	1994	Main board of SSE	Beijing	Integrated online advertising and marketing solutions	13.2	1.3%
4	Guangdong Advertising Group Co., Ltd.	1979	SME Board of SZSE	Guangzhou	Online and offline advertising, marketing solutions	13.0	1.3%
5	Bluefocus Intelligent Communications Group Co., Ltd.	1996	GEM of SZSE	Beijing	Integrated online advertising and marketing solutions	9.5	0.9%
					Top 5	66.1	6.4%
					Others	960.7	93.6%
					Total	1,026.8	100.0%

Note: possible calculation differences due to rounding

Source: public disclosures of companies, iResearch

INDUSTRY OVERVIEW

OVERVIEW OF THIRD-PARTY TO-B VIRTUAL GOODS AND SERVICES INDUSTRY IN CHINA

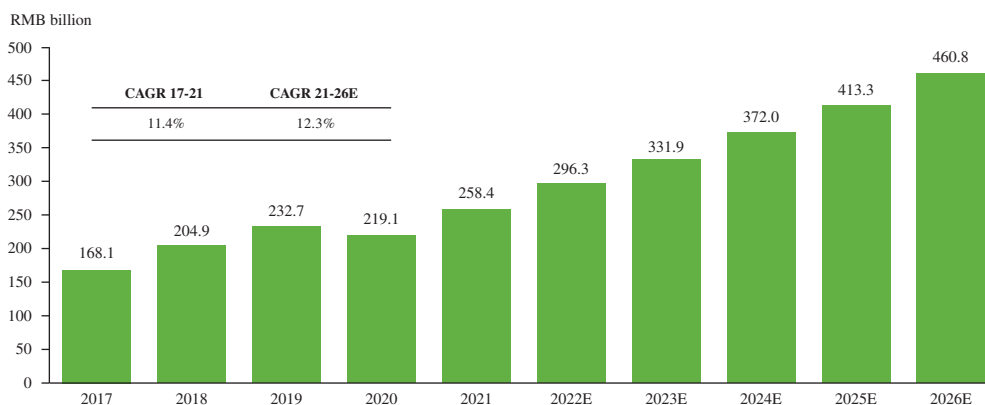
Definition and Characteristics of Loyalty Marketing

Loyalty marketing refers to a marketing method that focuses on attracting new customers and retaining existing customers through incentives such as membership systems, point rewards, value-added services, etc. These incentives form part of consumers’ measurement on the comprehensive value of products and purchase decisions, which can help companies increase the utilisation rate of consumers’ lifetime value, and thereby increasing operating profits. As an important part of incentive methods in loyalty marketing, virtual goods and services are the main purchase objects for enterprises when they conduct loyalty marketing. Enterprises can purchase virtual goods and services from upstream product suppliers and their resellers or third-party to-B virtual goods and service providers, and they can also purchase virtual goods and services from virtual goods and services procurement agents.

Market Size of Loyalty Marketing Industry in China

In terms of corporate expenditure on loyalty marketing, the total market size of loyalty marketing industry in China has increased from RMB168.1 billion in 2017 to RMB258.4 billion in 2021, representing a CAGR of 11.4%. Driven by the increasing difficulty and cost of acquiring new customers as well as the increasing attention from corporates to loyalty management on existing customers, the total market size is expected to grow rapidly to RMB460.8 billion in 2026, which is equivalent to a CAGR of 12.3% from 2021.

Market size of the loyalty marketing industry in terms of corporate expenditure, China, 2017-2026E



Sources: Ministry of Industry and Information Technology, China Banking and Insurance Regulatory Commission, China National Tourism Administration, Civil Aviation Administration, expert interviews, public disclosures of companies, iResearch

INDUSTRY OVERVIEW

Definition and Classification of To-B Virtual Goods and Services Industry in China

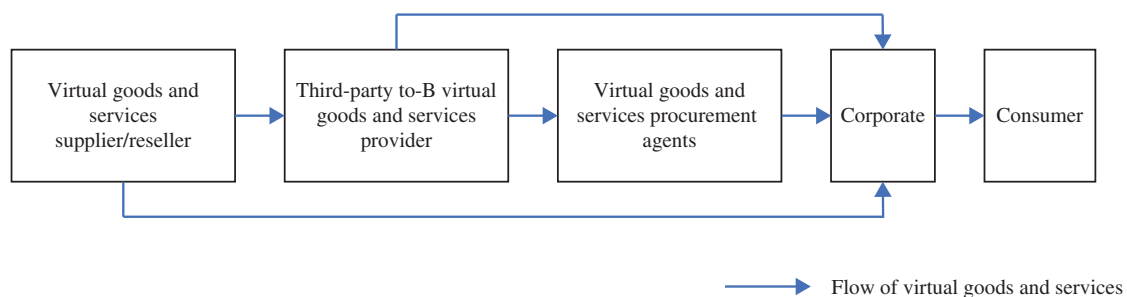
The virtual goods and services refer to goods and services in digital forms, such as gift cards of e-marketplaces, telecommunication top-ups, membership of online entertainment platforms, virtual items of online games, etc., as well as the virtual claims for physical goods and offline services, such as gift cards of offline marketplaces, gift cards of gas stations, prepaid vouchers, or meals at restaurants, etc.

The market of virtual goods and services in China can be classified into two segments: (a) to-C market, consisting of resellers of virtual goods and services, who distribute, resell or operate the retail channels of virtual goods and services to end consumers for the upstream providers; (b) to-B market, consisting of to-B virtual goods and services providers and virtual goods and services procurement agents, who source the virtual goods and services for enterprises to use in their marketing and customer retaining processes.

Typical uses of virtual goods and services in enterprises’ marketing and customer retaining processes include registration incentives, membership benefits and promotional campaigns. Typical enterprises of virtual goods and services are from the financial, internet, telecom, and airline industries.

Overview of Third-Party to-B Virtual Goods and Services Providers in China

Third-party to-B virtual goods and services providers connect goods and services suppliers with enterprises in the value chain by purchasing goods and services from their respective suppliers or resellers, and providing enterprises with integrated product solutions. They can broaden the range of end customers that virtual goods suppliers or resellers can reach, and help virtual goods sales channels to deepen customer relationships. The value chain of the third-party to-B virtual goods and service industry is shown in the figure below:



In addition to third-party to-B virtual goods and services providers, the value chain of the to-B virtual goods and services industry also mainly includes other two types of third-party institutions, which are third-party virtual goods and services resellers and virtual goods and services procurement agents. Third-party virtual goods and services resellers refer to companies that sell virtual goods and services on behalf of suppliers as their agencies. Because there are certain thresholds and costs to obtain agency qualifications from suppliers, and due to the pressure of sales KPIs, resellers usually have a certain price advantage compared to suppliers when the purchase volume is small, third-party to-B virtual goods and services providers may also purchase products from those resellers in addition to purchasing directly

INDUSTRY OVERVIEW

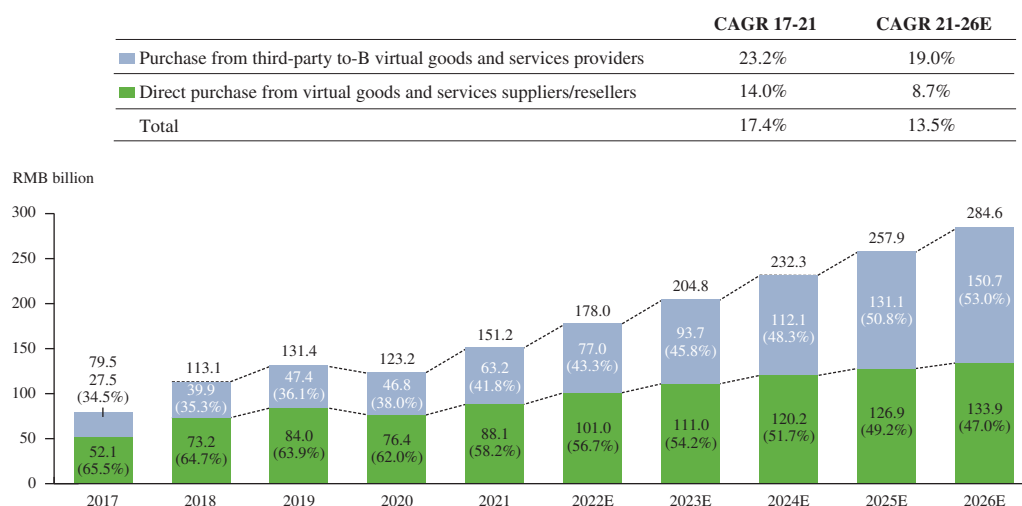
from suppliers. Virtual goods and services procurement agents refer to companies who usually act as agencies for downstream corporates to source virtual goods and services from resellers and third-party to-B virtual goods and services providers. Because the thresholds of becoming a virtual goods and services provider for some large corporate customers are relatively high, and the process of bidding and reviewing is also required, third-party to-B virtual goods and service providers may also resell the goods and services to downstream corporate customers through these qualified virtual goods and services procurement agents.

The key value of third-party to-B providers is to provide integrated offerings of goods and services at lower costs of money and management than what enterprises can achieve with in-house teams alone. Third-party virtual goods and services providers usually get favourable prices from suppliers or resellers of virtual goods and services with aggregate demands from enterprises, and they are experienced in internal control and after-sales services. In order to meet the diverse needs of customers for product portfolios, it is an industry practice for different third-party to-B virtual goods and services providers to purchase products and services from each other in order to achieve better distribution efficiency and satisfy customers’ diverse product portfolio needs.

The Market Size of To-B Virtual Goods and Services Industry in China

According to the iResearch Report, the total market size of China’s to-B virtual goods and services industry in terms of GMV will increase from RMB79.5 billion in 2017 to RMB151.2 billion in 2021, with a CAGR of 17.4%. It is expected that it will rapidly grow to RMB284.6 billion in 2026, which is equivalent to a CAGR of 13.5% since 2021. The following chart sets forth the actual and expected growth in the market size of China’s to-B virtual goods and services industry:

Market size of to-B virtual goods and services in terms of GMV, China, 2017-2026E



Sources: expert interviews, public disclosures of companies, iResearch

INDUSTRY OVERVIEW

In 2021, third-party to-B virtual goods and service providers accounted for 41.8% of the total market GMV. With its ability to provide enterprises with integrated products, better pricing and convenient management platforms, the number of third-party to-B virtual goods and service providers engaged by enterprises to purchase virtual goods and services will increase continuously. Therefore, the market share of third-party to-B virtual goods and service providers is expected to further increase to 53.0% in 2026, which is equivalent to a GMV of RMB150.7 billion and a CAGR of 19.0% from 2021 to 2026. As the industry naturally transitions from the initial stage to a more mature stage, the CAGR is expected to decrease over time.

Market Drivers of Third-party to-B Virtual Goods and Services Industry in China

- *Acquiring new customers is increasingly difficult.* The increasing cost of user acquisition and the slowing down natural population growth rate in China require companies to adopt more efficient tools, such as virtual goods and services, for user acquisition and engagement to fully exploit the potential value of each user.
- *Demands for online virtual goods and services grow as users’ consumption behaviors shift.* The development of the mobile internet is reshaping people’s consumption behaviors. Also, the improving cognition for IP protection and user payment behaviors contribute to recognition for the value of online membership and online gift cards, driving the demand for virtual goods and services.
- *The trend of outsourcing is on the rise as companies pursue better operation efficiency.* The growing trend of business process outsourcing among domestic companies, especially large numbers of small and micro enterprises, will continuously drive the growth of third-party to-B virtual goods and services providers from the demand side.

Market Trends of Third-party to-B Virtual Goods and Services Industry in China

- *More industries will introduce virtual goods and services for marketing activities.*
- *Provide end-to-end marketing and operation service packages for corporate customers.* Solution providers can deliver more end-to-end services, covering back-end IT infrastructure construction, mid-end software development and product design, as well as front-end publicity and event operations.

Entry Barriers for Third-party to-B Virtual Goods and Services Providers in China

- *Client accumulation and proven track record.* Due to the high risk and long reaction time (1-6 months) of changing providers, corporate clients tend to rely on the provider with a stable business relationship. In addition, enterprises in certain industries, such as banking, are highly conservative in working with outside providers, making the proven track record within the same industries especially important in bidding.

INDUSTRY OVERVIEW

- *Access to upstream suppliers.* Existing players may build long-term contracts with key product suppliers. New entrants may not have enough orders from clients to qualify for direct cooperation with or discounts from the suppliers.
- *Capital barrier and prepayment ability.* It is the market practice in the industry for third-party virtual goods and services providers to pay the suppliers in advance and allow corporate clients to pay the bills at the end of a certain billing period, such as one month or one quarter, requiring enough amounts of capital.

Competitive Landscape of Third-Party to-B Virtual Goods and Services Providers in China

According to the iResearch Report, the to-B virtual goods and services market in China is relatively fragmented. There are over 1000 to-B virtual goods and services providers in China in 2021, most of which are local players serving regional markets. In terms of revenue of virtual goods and services in 2021, the top 5 players together account for 16.5% of the market share. Our Group’s revenue from virtual goods sourcing and delivery services accounted for about 0.3% of the total market size in 2021.

The following table sets forth information about the top 5 third-party to-B virtual goods and services providers in terms of revenue in China in 2021.

Top 5 third-party to-B virtual goods and services providers, in terms of revenue, China, 2021							
Ranking	Company	Year of establishment	Place of listing	Headquarter	Main Business	Revenue <i>(RMB million)</i>	Market Share by Revenue
1	Shanghai Viplus Science and Technology Development Co., Ltd.	2007	Not listed	Shanghai	Providing loyalty marketing solutions to corporates	780.0	6.1%
2	Qitian Technology Group Co., Ltd.	1996	GEM of SZSE	Shanghai	Providing loyalty marketing solutions to corporates	626.4	4.9%
3	e-Buy Information Technology (Shanghai) Co., Ltd.	2011	Not listed	Shanghai	Providing loyalty marketing solutions to corporates, selling and distributing virtual products and services	340.0	2.7%
4	Shaanxi Jiazhiyi Network Technology Co., Ltd.	2015	Not listed	Shaanxi	Providing loyalty marketing solutions to corporates	200.0	1.6%
5	Shanghai Toplist Information Technology Service Co., Ltd.	2009	Not listed	Shanghai	Providing loyalty marketing solutions to corporates	155.0	1.2%
Top 5						2,101.4	16.5%
Others						10,667.1	83.5%
Total						12,768.5	100.0%

Source: expert interviews, public disclosures of companies, iResearch

INDUSTRY OVERVIEW

Due to the different charging rates of third-party to-B virtual goods and services providers on different virtual goods and services, and their different business focuses of major products provided, the ranking of third-party to-B virtual goods and services providers in terms of GMV is different from that in terms of revenue. At the same time, due to the existence of transactions between third-party to-B virtual goods and services providers, there may be duplication between their GMVs, which leads to an increase in the market share of the top five companies in the ranking in terms of GMV, reaching 22.6% in 2021. Our Group’s GMV from virtual goods sourcing and delivery services accounted for about 1.3% of the total market size in 2021.

Top 5 third-party to-B virtual goods and services providers, in terms of GMV, China, 2021

Ranking	Company	Year of establishment	Place of listing	Headquarter	Main Business	GMV	Market Share by GMV
<i>(RMB million)</i>							
1	Fulu Holdings Limited	2009	Main board of HKEX	Hubei	Providing loyalty marketing solutions to corporates, selling and distributing virtual products and services	6,000	9.5%
2	Shanghai Viplus Science and Technology Development Co., Ltd.	2007	Not listed	Shanghai	Providing loyalty marketing solutions to corporates	2,600	4.1%
3	Qitian Technology Group Co., Ltd.	1996	GEM of SZSE	Shanghai	Providing loyalty marketing solutions to corporates	2,500	4.0%
4	e-Buy Information Technology (Shanghai) Co., Ltd.	2011	Not listed	Shanghai	Providing loyalty marketing solutions to corporates, selling and distributing virtual products and services	1,700	2.7%
5	Shaanxi Jiazhiyi Network Technology Co., Ltd.	2015	Not listed	Shaanxi	Providing loyalty marketing solutions to corporates	1,500	2.4%
Top 5						14,300	22.6%
Others						48,864.1	77.4%
Total						63,164.1	100.0%

Note: possible calculation differences due to rounding

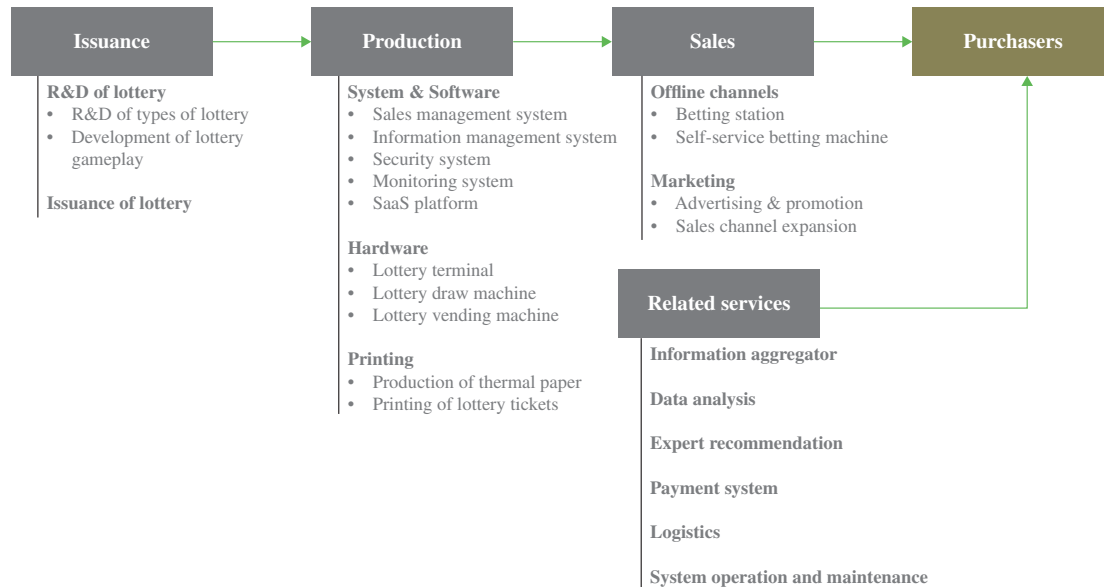
Source: expert interviews, public disclosures of companies, iResearch

INDUSTRY OVERVIEW

OVERVIEW OF LOTTERY SOLUTIONS INDUSTRY IN CHINA

The Definition and Classification of Lottery Solutions

The industry value chain of the lottery market in China involves the issuance of lottery (R&D and issuance), lottery production (security systems, lottery terminals, printing services, etc.), lottery sales (various sales channels, marketing, offline sales channel expansion) and other lottery-related services (data analysis, payment system operations, logistics, etc.). The entire value chain is regulated and supervised by the PRC government.



Source: independently prepared by iResearch

Lottery solutions providers refer to companies that provide hardware, system and software, printing, marketing and/or other related services of the lottery market in China. Lottery hardware mainly include lottery terminals, lottery draw machines and lottery vending machines, while lottery system and software generally include sales management systems, information management systems, security systems, monitoring systems and SaaS platforms.

Involving SaaS platforms is an emerging method to improve the digitalization of lottery retail. Through SaaS platforms, lottery station owners are able to enhance their operation model and generate new revenue and value-producing opportunities. In terms of store management, SaaS platforms can equip lottery station owners with convenient tools to manage inventory, in-store payment and staff. As regards customer management, SaaS platforms can offer lottery station owners comprehensive customer management tools with online channels such as apps and social media programmes to utilise customer data, conduct marketing activities and offer customer services. Moreover, with SaaS platforms, station owners would also be able to monetize user traffic by publishing advertisements through online channels and generate new income sources. SaaS platform providers can benefit from user traffic monetization activities as well by the potential profit sharing among station owners and SaaS platform owners.

INDUSTRY OVERVIEW

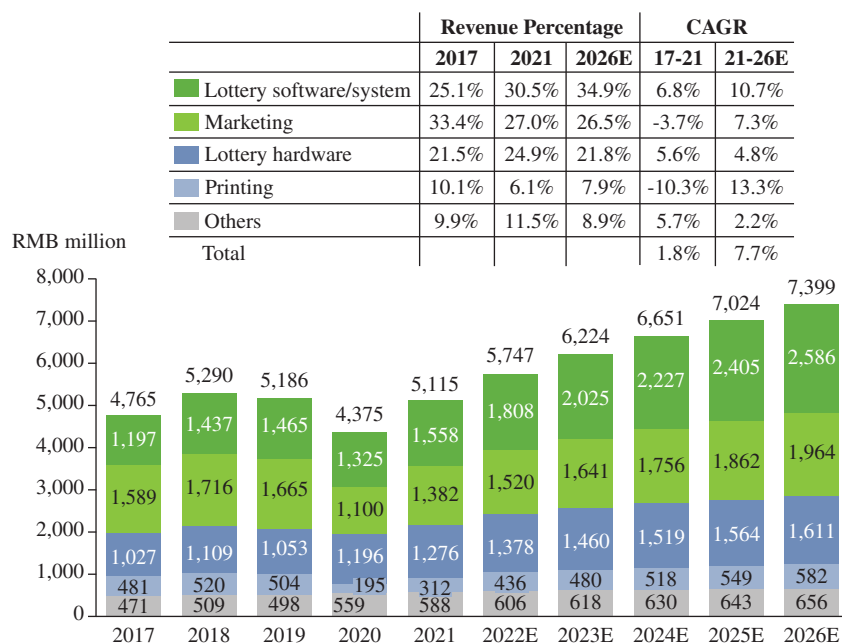
The Market Size of Lottery Solutions Industry in China

From 2017 to 2018, the lottery solutions industry escalated from RMB4,765 million to RMB5,290 million. However, there was a decrease in market size in 2019 due to the tightened government control on high-frequency lottery, sports lottery and unauthorized online lottery sales which led to a drop of investment in related lottery solutions.

Moreover, the decrease in market size in 2020 was majorly due to the COVID-19 outbreak as the government fund used to invest in lottery solutions was transferred to pay for epidemic prevention and control supplies. As a result, the market size of the lottery solutions industry in China dropped by 15.6% from RMB5,186 million in 2019 to RMB4,375 million in 2020 with a CAGR of 1.8% from 2017 to 2021. However, with the importance of developing more intelligent lottery hardware and system and upgrading the existing lottery sales channel and the stagnation of such development and upgrades in 2021, the government investment is expected to get back to normal and the market size of the lottery solutions industry is expected to increase to RMB5,747 million in 2022.

Due to (i) the rapid development of the lottery industry in the PRC, (ii) the innovation of lottery games and (iii) the adoption of the franchise store model for lottery sales channels in China, the market size of the lottery solutions industry in China is expected to grow to approximately RMB7,399 million at a CAGR of 7.7% from 2021 to 2026. Due to the sharp decline in the lottery printing service market during the epidemic, the market has the highest CAGR from 2021 to 2026. However, among all other categories, lottery software and systems shows the fastest pace of growth and is expected to become the largest category in 2026.

Market size of the lottery solutions industry, China, 2017-2026E



Sources: Centre of China Government Procurement, public disclosures of companies, iResearch

INDUSTRY OVERVIEW

Market Drivers of Lottery Solutions Industry in China

- *The rapid development of the sports industry.* The State Council released a plan in September 2019 to promote mass-market sports and high-quality development of the sports sector. As a major part of the sports industry and a major source of income for sports facility development, the sales of sports lottery rose constantly, and it surpassed the sales of welfare lottery in 2018.
- *The innovation of lottery games.* The Ministry of Civil Affairs and General Administration of Sports of China are both advancing the research and development of new lottery types and new games and promoting the high-quality and healthy development of welfare lottery. The lottery will become more interesting to play and will attract more people to purchase.
- *The adoption of the franchise store model.* Lottery sales channels in China are predominantly offline channels and most of these channels are specialty stores. These lottery betting stations have only limited room for further growth due to higher operation costs, limited coverage and a single source of income. In contrast, such specialty stores are absent in the overseas market, where lottery sales are commonly attached to convenience stores, gas stations, supermarkets and other retail outlets across the country, which is also known as the franchise store model. In recent years, following the ban on online lottery sales and the rise of new retail concepts to converge digital and offline experiences, lottery solutions providers and internet giants are shifting their focus on offline sales channel expansion and gradually adopting the franchise store model in China.

Entry Barriers of Lottery Solutions Industry in China

- *Strict regulations from the government.* The lottery industry in China is strictly regulated, and companies need to have certain qualifications, past project performance, and permit from relevant regulatory authorities in order to participate in this industry. Thus, the products and services that are allowed to be provided by lottery solutions providers are dominated by several large independent lottery solutions providers and the market is relatively concentrated.
- *Client accumulation, credentials, and reputation.* Leading lottery solutions providers take advantage of their strong brand recognition and proven track records. Once the business relationship becomes stable, the lottery authorities are highly likely to continue to cooperate with the chosen providers as changing providers would bring extra administrative and time costs.

INDUSTRY OVERVIEW

Market Trends of the Lottery Solutions Industry in China

- *The shifting focus to the young generation of customers.* The development of the franchise store model in lottery sales and new forms of lottery games would attract younger customers and increase their willingness to purchase lottery. The lottery authorities would also seek help from lottery solutions providers to gain insights and target young generations.
- *The demand of customer management for station owners.* Most lottery solutions providers cooperate with national and provincial lottery authorities to provide lottery solutions. However, each lottery betting station has certain geographical coverage, and it is very important for them to retain existing customers, cultivate their loyalty and stimulate lottery purchase in the long term. Thus, there lies an opportunity for lottery solutions providers to serve station owners directly and develop customer management platforms for their lottery purchasers.
- *Increasing demand for keno terminals.* The new keno-type game “Happy 8” of China Welfare Lottery has been approved for pilot sales across the country since October 2020. It is estimated that there will be demand for 300,000-400,000 keno terminals nationwide in the next two years.
- *The upgrade to smart retail of traditional lottery betting stations.* China Sports Lottery Administration Centre is upgrading the traditional sports lottery betting stations into smart retail channels, which can provide sports event viewing, information consultation, multi-screen sports data display and interaction between online and offline channels. The digital development trend will also bring procurement demand for corresponding hardware, systems and SaaS solutions.

Competitive Landscape of Lottery Solutions Providers in China

The lottery solutions market in China is relatively concentrated. In 2021, there are about 150-200 lottery solutions providers in China. In 2021, The leading 5 lottery solutions providers accounted for 15.5% of the market share. Leading providers vary in their core competence and focused expertise but are expanding to the upstream and downstream of the industry to provide integrated solutions. The lottery solutions market in China contains a wide range of lottery related solution services which are required by lottery sales points. For example, lottery software and systems solution services include but not limited to solutions for internet and systems connection, cybersecurity, ticketing, information management and display, operations and office automation.

Our Group’s IT solutions services in respect of lottery-related software systems and equipment generally relate to the provision of internet and systems connection services and software in relation to cybersecurity. Due to the vast number of products and types of services in the lottery solutions market in China, our Group’s market share remained limited and our Group’s revenue from lottery solutions accounted for about 0.9% of the total market size in 2021.

INDUSTRY OVERVIEW

The following table sets forth the top 5 lottery solutions providers in terms of revenue in China for the year of 2021

Top 5 lottery solutions providers, in terms of revenue, China, 2021

Ranking	Company	Year of establishment	Place of listing	Headquarter	Main Business	Revenue <i>(RMB million)¹</i>	Market Share by Revenue ³
1	Telling Telecommunication Holding Co., Ltd	1997	Main board of SZSE	Beijing	Lottery software/system, lottery hardware, marketing and others	316.4	6.2%
2	AGTech Group Limited	2003	GEM of HKEX	Hong Kong	Lottery software/system, lottery hardware, marketing and others	171.0	3.3%
3	Shenzhen Sinodata Tech Co., Ltd.	1998	Not listed	Shenzhen	Lottery software/system, lottery hardware, marketing and others	112.4	2.2%
4	Jiangsu Yingmai Culture Media Co., Ltd.	2003	Not listed	Nanjing	Online and offline advertising	97.3	1.9%
5	China Ecotourism Group Limited	2000	Main board of HKEX	Hong Kong	Lottery software/system, lottery hardware and marketing	94.9 ²	1.9%
					Top 5	792.0	15.5%
					Others	4,323.5	84.5%
					Total	5,115.5	100.00%

Notes:

- 1 Calculated based on HDK/CNY exchange rate (~0.81) at the end of 2021.
- 2 Unaudited.
- 3 Possible calculation differences due to rounding

Source: expert interviews, public disclosures of companies, iResearch

INDUSTRY OVERVIEW

Competitive Landscape of Lottery Marketing Solutions Providers in China

Lottery marketing solution providers refer to companies that provide advertising services, advertisement publishing devices, promotion activities planning and execution services, publicity program production and other services or products used for attracting new lottery purchasers and managing relationships with existing lottery purchasers to lottery centers or lottery stations.

The lottery marketing solutions industry in China is relatively concentrated. In 2021, there are about 60-100 companies participated in lottery marketing solutions industry in China. Other than companies focusing on providing marketing services, television companies and retail companies were also active in the industry by offering program production services or goods used for lottery marketing and advertising activities. In 2021, The leading 5 lottery solutions providers accounted for 19.1% of the market share.

Top 5 lottery marketing solutions providers, in terms of revenue, China, 2021

Ranking	Company	Year of establishment	Place of listing	Headquarter	Main Business	Revenue <i>(RMB million)</i>	Market Share by Revenue
1	Beijing Century Lottery Video Media Technology Co., Ltd.	2011	NEEQ	Beijing	Lottery video marketing solutions	100.6	7.3%
2	Jiangsu Yingmai Culture Media Co., Ltd.	2003	Not listed	Nanjing	Online and offline advertising	97.3	7.0%
3	CTV Golden Bridge Advertising Co., Ltd	2010	Not listed (Branch of an HKEX Main board company)	Shanghai	Advertising and media operation	24.9	1.8%
4	Guangdong Advertising Group Co., Ltd.	1979	SME Board of SZSE	Guangzhou	Online and offline advertising, marketing solutions	21.7	1.6%
5	China Telecom Co., Ltd. Chongqing Branch	2008	Not listed (Branch of an SSE Main board company)	Chongqing	Telecommunication and information system services	19.6	1.4%
Top 5						264.1	19.1%
Others						1,117.5	80.9%
Total						1,381.6	100%

Source: expert interviews, public disclosures of companies, iResearch

INDUSTRY OVERVIEW

Competitive edge of the Group in the lottery marketing segment includes:

- (i) Business relationships built with provincial WLIACs and a large amount of lottery sales points by offering IT solutions which can become potential clients for lottery marketing solutions;
- (ii) The Group’s case accumulation, technologies and experience of offering advertising and promotion services as well as virtual goods and services solutions in marketing industry would equip the Group with marketing-related capabilities in serving clients in lottery industry;
- (iii) Lottery purchaser network built by establishing social media chatting groups and social media accounts for WLIACS and lottery sales points which has equipped the Group with user traffic, advertising channels and experience in managing consumer relationship to offer marketing services to WLIACS and lottery sales points;
- (iv) Technology base and business relationships with lottery centres and lottery sales points allow the Group to develop and promote SaaS solutions, which would be helpful in attracting new consumers and managing relationships with existing consumers for lottery centres and lottery sales points by engaging online apps or social media programmes of the SaaS platform. Moreover, because the SaaS platform would bring extra income sources to lottery centres and lottery sales points by monetizing user traffic through advertising, it would be easier for the Group to achieve clients and maintain long-term relationships with them.

OVERVIEW OF NEW RETAIL SAAS INDUSTRY IN CHINA

The Definition of the New Retail Industry

New retail refers to the retail model that companies, relying on the Internet, upgrade and transform the process of production, circulation and sales using advanced technology such as big data and artificial intelligence, thereby reshaping the industry structure and ecosystem, and deeply integrating online services, offline experience and logistics in retail businesses.

Different from traditional offline retail and online retail that rely on single sales and operation channel, new retail models usually combines online and offline sales and operation channels. For example, for online retailers, they can set up offline stores to provide consumers with product experience, broaden the source of consumer traffic, and collect more comprehensive consumer data, so as to improve the consumer journey and enhance consumer experience. Meanwhile, for offline retailers, using online apps or social media programs and other tools can allow consumers to browse product information online, participate in interactive marketing activities, and even complete product purchases through online channels, thereby enhancing consumers’ loyalty and shopping experience. In addition, evolvement of

INDUSTRY OVERVIEW

online payment methods, technology optimization of logistics, and development of SaaS system to assist retailers in store and customer management also form part of the new retail models, which further improves the operational efficiency of retail companies and the shopping experience of consumers.

New retail is not only an empowerment of physical retail stores, but also an adjustment of the online retail structure. The introduction of more precise and high-quality traffic brings back momentum to online retail. Moreover, not only core retail industries like food and consumer goods can benefit from new retailing, other retail related industries like telecommunication and lottery industries can also benefit from new retailing by applying new technologies. Adopting SaaS solutions is an important method for retail companies to drive sales, leverage customer data, expand customer acquisition channels, improve shopping experience and generate new income streams.

The Definition and Application of New Retail SaaS Industry in China

New retail SaaS providers refer to companies that provide technical solutions for the transformation of offline and online retail enterprises to the new retail model. Typical solutions offered by new retail SaaS providers include customer management, precise marketing, intelligent customer services, inventory analysis, intelligent operation and unmanned retail services.

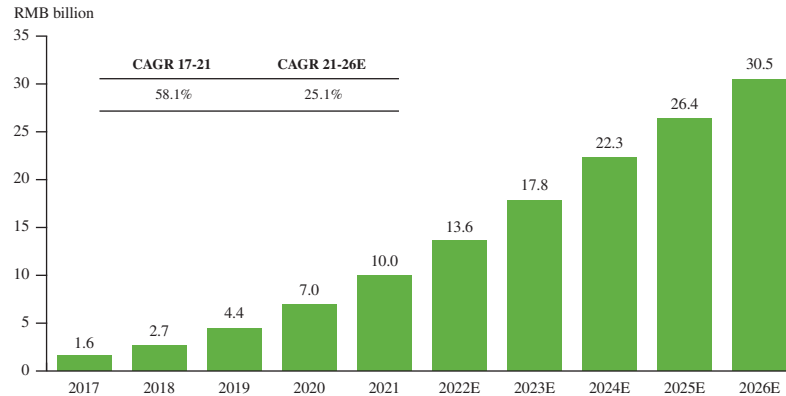
In core retail industries such as food and consumer goods, new retail SaaS can help merchants integrate online and offline sales data, perform inventory management, and use data accumulation to help merchants conduct precision marketing and customer management. In addition, in retail related industries such as telecommunications and lottery, store owners can also use SaaS systems to realise the digitalization of customer management and inventory management. At the same time, through online channels such as app and social media programmes of the SaaS platform, store owners can also conduct customer service and marketing activities more conveniently. Moreover, these online channels can also help store owners monetize traffic through advertising and generate new sources of income.

The Market Size of New Retail SaaS Industry in China

Since 2017, the penetration rate of new retail SaaS in core retail industries like food and consumer goods has rapidly increased, resulting in a rapid growth in its market size. In 2021, the market size of new retail SaaS was approximately RMB10.0 billion, with a CAGR of 58.1% since 2017. It is expected that in the future, although the growth rate of the new retail SaaS market will slow down to a certain extent, due to the increase in the coverage of the new retail SaaS in the retail related industries such as telecommunications and lottery, its market size will still maintain a relatively high growth rate. It is estimated that in 2026, the scale of the new retail SaaS market can reach RMB30.5 billion, with a CAGR of 25.1% since 2021.

INDUSTRY OVERVIEW

Market size of new retail SaaS industry, 2017-2026E



Sources: National Bureau of Statistics, expert interviews, public disclosures of companies, iResearch

In 2021, there were approximately 600-800 new retail SaaS companies in China, and as the market size is expected to grow, the number of market participants will also increase. The concentration of the domestic new retail SaaS industry is relatively low, with an unapparent effect of leading enterprises to carry out full business coverage. Companies with relative advantages (such as technology capability and access to customers' network) tend to extend their value-added services to capture a higher market share in the industry.