

Evaluating the Marketing and Behavioral Drivers Behind the Success of Doubao in ByteDance Among Generation Z in China

Xiaofu Qiu^{1†}, Yutong Song^{2*,†}, Linzi Zhang^{3†} and Boying Lin^{4†}

¹*Adcote School, Shanghai, China*

²*HD Shanghai School, Shanghai, China*

³*Xi'an Tiewi International Curriculum Center, Xian, China*

⁴*Shenzhen College of International Education, Shenzhen, China*

†Xiaofu Qiu, Yutong Song, Linzi Zhang and Boying Lin are the co-first authors.

*Corresponding author: Xiaofu Qiu.

Abstract

This paper adopts a mixed-method approach combining questionnaire survey and secondary data analysis to explore the marketing and behavioural drivers behind Doubao's popularity among Chinese Generation Z. Drawing on the Technology Acceptance Model, this study examines Doubao's product, pricing and promotion strategies, and applies SWOT and VRINE frameworks to assess its competitive advantages. Results show that Doubao's consumer-oriented product design, freemium pricing and ByteDance's ecosystem-fuelled social promotion satisfy Gen Z's psychological and social adoption demands. Its sustainable advantage mainly stems from the traffic ecosystem rather than pure technological superiority. This research identifies limitations including small sample size and offers insights for consumer AI product development, while suggesting future research on user retention and cross-group adoption differences.

Keywords

generative AI, Doubao, generation Z, marketing strategy, consumer behavior

1. Introduction

In recent years, generative artificial intelligence (GenAI) has changed how people use technology. Unlike traditional artificial intelligence which was mainly applied in professional and industrial fields, generative AI has become increasingly accessible to ordinary users through natural language interaction which accelerates the transformation of AI from a specialised technology into a consumer-oriented service.

China is a fierce marketplace for generative AI because of its tremendous digital platforms and strong presence of tech companies. In terms of various AI applications, ByteDance's Doubao stands out among other

products due to its popularity among Generation Z in China. The product's success does not come from its technology but rather from its ability to eliminate the barrier of market entry for consumers, which is achieved through product design, free pricing, and effective marketing. Therefore, Doubao can be considered as a good case for studying mass adoption of consumer AI products.

Previous studies have looked into AI development and technology acceptance. However, there is limited research about both marketing strategies and consumer behaviour contributing to the success of consumer-oriented AI products among Chinese Generation Z audience. Adoption of digital products by Generation Z is influenced by not only functional value but also by convenience, social influence and the desire to explore innovation [1].

By analysing datas from questionnaire and secondary research, the study examines how marketing strategies affect consumers' use of artificial intelligence based on their behavioral circumstances. In addition, it highlights the application of SWOT model to Doubao which provides reference for the future development of consumer AI applications.

2. Literature Review

2.1 Development of Artificial Intelligence in China

In recent years, the rapid advancement of Generative Artificial Intelligence (GenAI) has evolved from a technology mainly applied in scientific research to a daily tool for ordinary consumers. Generative AI products represented by ChatGPT have lowered the barriers for users through the usage of daily languages, making it more versatile in its applications of searching for information, making stories, and assisting in learning [1].

In China, the development of artificial intelligence does not only rely on technological innovation, but is also driven by policy support, digital infrastructure, as well as the construction of an industrial ecosystem. The Chinese users of AI applications have reached the number of 515 million untill 2025 collected by China Internet Nestwork Information center (CNNIC). Within the competitive market, the monthly active users (MAU) of Doubao are around 200 million which has a figure much larger than other first-class AI platforms including DeepSeek and Qianwen. These large technology companies have played a significant role in the development of various algorithms to promote AI market. According to the Khanal [2], AI technologies are already transforming from the stage of research and development to commercialization. As a result, the competition in the AI industry of China has gradually shifted from being merely about model improvement to building up better user experience and acceptance in the market.

2.2 Consumption Habits of Generation Z in Digital Technology Adoption

Generation Z is perceived as a generation who were raised in a rapidly-changing digital environment, thus their consumption behavior is closely related to digital lifestyle. Compared with traditional consumers, Generation Z depends more on digital platforms for searching information and making consumption decisions. Therefore, their choice of digital products is not only determined by the functional value of the products, but also some factors such as convenience and social impact.

In the process of adopting digital technology, the perception of consumers towards the product is a vital factor. The Technology Acceptance Model (TAM) points out the adoption of new technologies by users depends on perceived usefulness and perceived ease of use. Perceived usefulness refers to the degree to which consumers believe a technology can improve their task performance. Due to the nature of their upbringing, Generation Z requires that digital products are incorporated into their daily lives while also providing actual benefits. In this regard, products that perform specific functions are more likely to get the attention of young people, as illustrated by the popularity of AI applications that help customers perform such operations as content creation.

Generation Z consumers also attach great importance to the level of convenience and user experience of products. as most of their lives are spent in a fast-paced digital environment, they have a strong desire of obtaining information quickly and meeting their needs instantly. Therefore, complex operation processes with high learning costs may reduce their willingness to use it. In that case, an artificial intelligence with simple and intuitive interactive method can reduce their worries about technology novelty, thus increasing their

acceptance of new technological products. Hence, lowering the usage threshold has become the key factor for determining the success of high technologies among youth

Meanwhile, social influence plays a significant role in the consumption choices of Generation Z. Research on Electronic Word-of-Mouth shows that user recommendation through social media impact both product exposure and consumers behavior intentions [3]. While social media has evolved further into the lives of Generation Z the social trends on it can affect their evaluations of digital products. For AI products, discussions on social media can further drive consumers to step from "understanding the product" to "trying it out" .

Moreover, Generation Z exhibits a high need for innovation. The technological revolution compels them to test new products in search of novelty and to engaged in various technology trends as innovators. While artificial intelligence meets the practice demands for improving efficiency, it also satisfies users' pursuit of novelty.. thus young users' psychological need to explore new technologies can be satisfied through their adoption of AI products.

2.3 Research Gap

The research conducted so far involved major emphasis on the designs of Artificial intelligence and acceptance factors of users on technologies. However, for consumer-oriented AI products, technical capabilities cannot fully account for their market success and the relationship between enterprise marketing strategies and consumer behavior still lacks in-depth research. In particular, there are relatively limited studies analyzing the influence of Generation Z social networking on the adoption of AI applications in China. Therefore, the objective of this study is to analyze Doubao as a case study revealing how its marketing strategies combined with the consumption and spending habits of Generation Z leading its success.

3. Methodology

This research employs mixed methods, combining primary survey data and secondary research to investigate the marketing and behavioural drivers behind Doubao's success among Generation Z users in China. of Doubao amongst Generation Z users in China. The utilization of empirical user data and the market data give a complete understanding of the consumer behavior and business tactics.

3.1 Questionnaire Survey

The questionnaire survey shows that the majority of respondents were Generation Z users (95.96%), aged between 14 and 28, which gives an overall number of 102. In the survey, respondents answered questions about demographic characteristics, frequency of product usage, its use cases, sought functionalities, and readiness to recommend. The whole process is carried through Wenjuanxing which is an online survey platform used for questionnaire design in China. The survey is mainly distributed through the social media to reach the students parties and online communities with interest of using AI platforms. After the distribution, the data are automatically collected via the platform and turn out the ultimate results of the survey. The results of the survey provide primary evidence to analyze behavioral factors behind the success of Doubao.

3.2 Secondary Research

Simultaneously, our research utilizes secondary data analysis to investigate the growth of the AI market in China and strategies of Doubao, including a variety of academic and corporate reports such as the research on Technology Acceptance Model by Davis for establishing the analysis of behavioral drivers towards Doubao's success in this article. The industry reports from authoritative organisations including Chinese Internet Network Information Center illustrates the market structure of the artificial intelligence applications which is useful for the further exploration of the marketing strategies of Doubao. The combination of primary questionnaires and secondary data allows the article evaluate the reasons responsible for the success of Doubao based on the perspectives of marketing strategies and consumer behavior patterns.

4. Findings and Analysis

4.1 Marketing Drivers

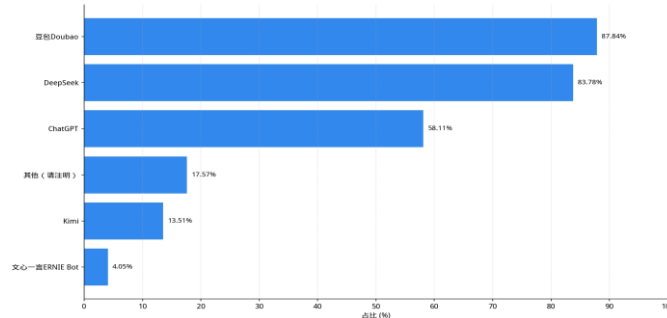
There are four vital elements in the marketing strategies which are product strategy, pricing strategy, promotion strategy and placing strategy [4]. As an artificial intelligence application mainly used online, the placing strategy of Doubao is relatively lack in depth, thus we will mainly focus on the discussion about its promotion strategy with relevant analysis around product strategies and pricing strategies.

4.1.1 Product Strategy

The rapid growth of Doubao in the competitive artificial intelligence market in China can be attributed to its unique consumer-oriented strategy around product functionality, accessibility, and practicality. Unlike other AI applications, Doubao aims to make artificial intelligence an everyday tool for common users instead of positioning itself as a technical tool that only applies to professionals. By combining multiple functions into one platform, it allows Doubao to provide academic support, create content, search for information, and improve productivity in many different environments. The combination of these capabilities increases Doubao's value to users and sets the stage for the use of AI on a daily basis.

Regarding DeepSeek with advanced reasoning skills in programming and math, Doubao focuses more on a multimodality strategy to develop an everyday-use product. This illustrates two distinct approaches to AI-product development: DeepSeek emphasizes its specialization of superior technical while Doubao focuses on the wideness of the market. For Generation Z users, who often seek efficient tools for studying, creativity, and managing daily tasks, Doubao is able to provide multiple services within one platform which improves user experience.

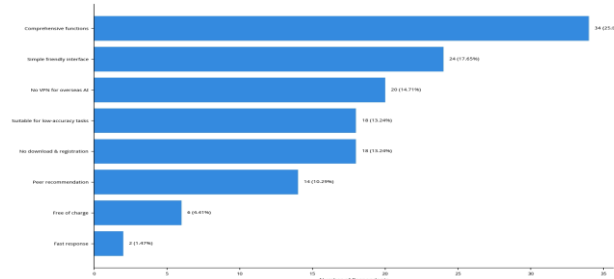
Figure 1: The usage of frequency of each AI applications



Doubao's simple conversational interface makes the process of accepting AI easy. Users do not need professional technical knowledge to operate the product through a simple interface allows first-time users to start using AI. This accessibility is valuable for attracting younger users who may be interested in new technologies but favour easy-to-use products [5].

Therefore, Doubao's product strategy contributes significantly to its success by making AI more useful and attainable for the Generation Z users. Rather than relying on only its technological advanced products, Doubao distinguishes itself by applying AI technology into daily lives.

Figure 2: The advantages of Doubao that users agree

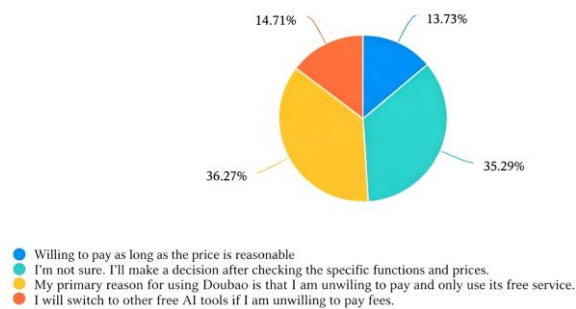


4.1.2 Pricing Strategy

Doubao's pricing strategies are closely related to the promotion strategies which generate its quick popularity among Generation Z in China. It adopts a freemium model that lowers consumer resistance to trying the product. As a result, a significant amount of Generation Z users have been attracted to this approach who are often reluctant to spend money on new or different technology. Therefore, Doubao is able to reach more customers through its freemium, and build a habit of regularly using their services.

Doubao was able to monetize because it attracted users and offered services that are more professional. The company's features, such as long-text analysis and advanced data analytics, are under premium services with greater limits of usage, leading more users to pay for a membership who have greater need for AI. Hence, Doubao managed to convert its big free user base into potential revenue sources while still being able to provide ordinary users with free use of the tools.

Figure 3: The willingness of paying for advanced mode of Doubao



Moreover, Doubao uses a series of subscription plans to serve the interests of different categories of clients. Various plans are made for different customers according to their needs for artificial intelligence. This brings Doubao a much larger market coverage as well as more revenue from clients needing advanced features.

In addition, its time-based discount encourages long-term subscription as the average cost of continuous usage is reduced. This improves user retention and supports sustainable growth. Overall, Doubao's pricing strategy contributes to its success by combining large-scale user acquisition, effective user conversion, and long-term customer retention.

4.1.3 Promotion Strategy

According to the survey, 88 respondents were asked about the channels through which they first learned about Doubao, 65.91% discovered Doubao through friends or classmates, while 50% came from Douyin recommendations. Traditional channels like app store searches and offline advertisements contributed only 7.95% each. These figures confirm that Doubao's user acquisition relies on algorithmic content distribution and users' recommendation, which form the core of its promotion strategy.

Doubao's marketing approach has been instrumental in the swift uptake of the app among Gen Z clients in China. Unlike traditional marketing approaches that mainly rely on direct advertising, Doubao combines platform-based marketing with user communication to boost awareness. Because of ByteDance's ecosystem, Doubao benefits from access to massive digital traffic and effective content distribution channels which allow it to reach potential users more efficiently.

Another applications of ByteDance called Douyin has further enlarged the promotion of Doubao. Through its recommendation algorithm, Douyin can deliver AI-related content to matched users. This form of promotion goes beyond simply introducing product features and shows how products can be addressed to problems in reality. In this way, Doubao makes its product appealing and intriguing to the potential users.

Moreover, word-of-mouth marketing strengthens Doubao's promotional effectiveness. Generation Z values recommendations offered by peers and discussions on the Internet when using new digital services. The users benefiting from Doubao can indeed communicate their experiences with the product on social networks which may lead to electronic word-of-mouth (eWOM) [5]. This eWOM further promotes the phenomenon of user-generated content, as the users are satisfied from the using experience they will share their recommendations

not only in their private social net but also online. Data from the survey support this: 12.5% of respondents reported discovering Doubao through user-generated contents on social media. In comparison to traditional advertisements, user-generated recommendations often appear more reliable and authentic which increasing trust in the new services.

Doubao's promotion strategy contributes to its success by combining traffic from ByteDance's ecosystem with social media-based communication. Through effective exposure, practical demonstrations, and organic user sharing, Doubao successfully increases brand awareness and establishes a solid position among Generation Z consumers.

4.2 Behavioral Drivers

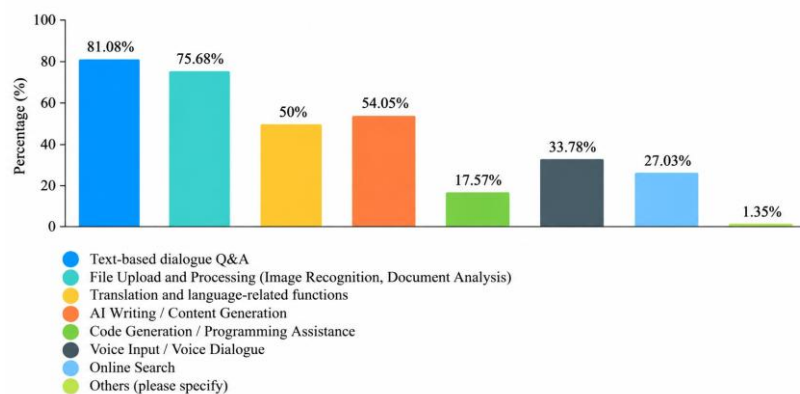
4.2.1 Psychological Factors

Psychological factors have an overwhelming impact on Doubao's success among Gen Z in China. Although marketing approaches create interest among users, what matters more in keeping Doubao's users loyal for a long time is the extent to which their psychological needs are satisfied. The survey we applied among the young brought us to the conclusion about the presence of four main psychological motivations of using Doubao: relieving mental stress, achieving personal development, making contribution to creativity and receiving emotional fulfillment.

To begin with, Doubao meets its users needs by making cognitive burden less of a problem. The research shows that Doubao is used by 87.67% of respondents for academic purposes and by 75.34% for matters related to everyday life. Generation Z has huge pressure from studies and tanglesome information, and Doubao makes complex tasks easier and renders immediate assistance. The perception of its usefulness motivates users to use Doubao more often, thereby ensuring high retention rates.

Secondly, Doubao supports users' desire in self-improvement, while the most widely used functions include AI writing (54.05%) and translation functions (50%). By helping users improve their quality of work, Doubao instils the sense of competence and positions AI as a helpful instrument for personal development [6].

Figure 4: The scenarios of using Doubao



Thirdly, Doubao promotes creative expression by lowering the barriers to content creation. 38.36% of users use Doubao for creative inspiration, such as generating writing ideas. This enables users without professional skills to transform ideas into outputs, increasing engagement with the platform [5].

Doubao meets users' emotional needs, as 32.88% of users reveal the app helps entertain or connect emotionally with others. Therefore, Doubao's non-judgemental approach gives comfort and increases the connection of users to the app. Hence, the success of Doubao is attributed not only to the technological benefits it enjoyed but also to the fact that it suits the psychological needs of Gen Z, changing AI as a simple tool into a friend.

4.2.2 Social Factors

Social influence is an important factor contributing to the success of Doubao among Generation Z users. As digital natives, Generation Z is highly influenced by peer behavior and technology trends online. When

more students and young users around them begin using Doubao for studying daily tasks, AI usage gradually becomes a social norm, encouraging others to adopt the tool through social proof. Moreover, user-generated content on social media platforms further accelerates Doubao's diffusion. Users share their practical applications and creative ways of using AI, which reduces its unfamiliarity among potential users. ByteDance's existing digital ecosystem also strengthens this effect by allowing AI-related discussions to spread quickly among young users. Therefore, social factors contribute to Doubao's success by transforming individual adoption into a collective trend among Generation Z [7].

5. Discussion

5.1 Analysis with SWOT Model

To further discuss the factors influencing Doubao's long-term development, a SWOT analysis is applied which can examine its capabilities and challenges. While Doubao has achieved significant success among Generation Z users in China, its future competitiveness is strongly related to its current market advantages and its ability to address technological and strategic limitations.

5.1.1 Strengths

One of the major strengths of Doubao is its strong accessibility and user-oriented product design. Unlike some AI applications that primarily target professional users, Doubao positions itself as an everyday AI assistant combining multiple functions to an assistant tool. The wideness of its functionality increases the perceived usefulness which attracts abundant ordinary users.

Another advantage is its existence in the digital ecosystem of ByteDance. ByteDance is fully-experienced in the content distribution and user engagement due to its operation of Douyin. In that case, Doubao has outstanding advantages in the promotion pattern on social media, as Doubao can benefit from Douyin's traffic channels and social influence which can accelerate its adoption among Generation Z consumers.

5.1.2 Weaknesses

Despite its rapid growth, Doubao still faces several internal limitations. One major weakness is the accuracy of its responses. Although Doubao performs effectively in general conversations and daily assistance, it may generate inaccurate information, due to weaker technical algorithm capabilities compared with platforms such as DeepSeek, when dealing with complex academic or highly specialised tasks. Since user trust is essential for the long-term development of applications, inconsistent accuracy may limit consumers' deeper connection with the platform and even decrease the amount of future users.

In addition, although Doubao's interface with simple design lowers the barriers for most of the consumers to use, it also decreases the professionalism of the application. As the page of the application is designed in a simple pattern, many advanced technical functions are therefore sacrificed and causing the decrease of usability for academic purposes.

5.1.3 Opportunities

The development of social media provides massive opportunities for the future development of Doubao. As a member application of ByteDance, the promotion of Doubao can easily combine with the algorithm towards users through social platforms such as Douyin. In the future, Doubao can further bundle with Douyin and reach its potential users more efficiently.

Besides, as the Chinese Government is strongly supporting the development of AI to strengthen the technological infrastructure of the nation, Doubao can invest more on their technical features with the support. This may help attract more users with higher professional demands with demands of higher professionalism which is also helpful for it to stand out from other rival applications.

5.1.4 Threats

However, the competition within the AI market is vigorous that domestic competitors such as DeepSeek and other large language model platforms are improving their technical capabilities continuously, it is

challenging for Doubao to maintain its market position. Especially for AI services industry, the current advantages can become outdated quickly under the rapid technical development.

Additionally, concerns regarding data privacy, AI reliability may influence consumer trust. As users relies more on AI tools, their expectations for information safety and accuracy will increase. If these concerns cannot be addressed properly, the future adoption of Doubao may be challenged.

Overall the SWOT analysis demonstrates that Doubao's success is supported by its high acceptance and ByteDance's ecosystem. However, maintaining sustainable growth also requires the improvement in technological capability which Doubao needs to invest more on, and the proper address of consumers' concern [8].

5.2 Sustainability of Doubao's Success

Using the VRINE framework to evaluate the competitive advantage of Doubao, we can analyze that the success of its sustainability also depends on the ecological resources with ByteDance. ByteDance's massive traffic resources and the mature recommendation algorithm greatly reduce the user access cost for Doubao, and further strengthen the market access ability of Doubao in Generation Z. Doubao further introduce the multi-modal functions and free value-added pricing model to meet the diversified needs of users.

Among the resources of Doubao, the ecological advantage of ByteDance is the most important. Because few competitors can be in the same situation as ByteDance, while it is based on years of accumulated user behavior data and network effects, which all have path-dependent characteristics cannot be quickly copied by new entrants.

At the same time, competitive products continue to expand the function and optimize the user experience, causing the scarcity of the product function and easy-to-use interface of Doubao is weakening. With the rapid spread of artificial intelligence technology, competitors are relatively easy to imitate the functions at the product level, such as conversational interface, integration tools and so on.

Generally speaking, the sustainable competitive advantage of Doubao is mainly based on the ByteDance's digital ecology, rather than the technology itself. To a large extent, the ecosystem meets all five standards of the VRINE framework, while product functions are increasingly commercialized with the market. Therefore, Doubao should continuously strengthen technological innovation and differentiation in order to transform temporary market leadership into lasting competitive advantage. Although the free premium model has higher the user access, it also poses a challenge to long-term profitability. It is necessary to continuously enhance the value of value-added services while maintaining an affordable price level for public users [9,10].

5.3 Limitations of the Study

There are several limitations in this study that should be taken into account while interpreting the findings in this study. Many data only represent Generation Z users in China. This study concentrates on user behavior and marketing factors, but due to a lack of data, it is hard to evaluate issues such as the finance in the long-term. In future studies, it would be helpful to include a larger sample and additional quantitative data concerning the retention of users, conversion rate of subscribers and market outcomes.

Nonetheless, this study is helpful in determining how product, pricing, promotion strategies, and consumer psychology contribute to the success of Doubao in particular

among Generation Z users. In the future, improvements should relate to increasing

research coverage and following the changing relationship between consumer behavior and AI technologies.

6. Conclusion

This study uses a mixed research method, which combining questionnaire survey and secondary data, to investigate the marketing drivers and behavioral drivers of Doubao's success among Chinese Generation Z users. The study found that the rapid growth of Doubao depends on three major marketing strategies: the positioning of high acceptance products, the pricing model consider both user access and commercialization

and the promotion path based on social trend. From the behavioral level, Doubao meets the psychological needs of Generation Z and the user-generated content further promote the group adoption of AI tools.

In the long run, Doubao needs to deal with three major challenges: balancing the user scale expansion and sustainable profitability and improving AI accuracy. In the future, researcher can further explore the mechanism of retaining customers in the long-term and the adoption differences among different user groups.

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Conflicts of Interest

The authors declare no conflict of interest.

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