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AI-Enabled Diversification Strategies Based on Core Competencies: Evidence from Leading Chinese Internet Firms

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Abstract. The central theme of this paper is to analyze the strategic transformations and diversifications of the top Chinese internet companies in the face of the blistering AI advancement, and how their core competencies affect AI-based strategies. The existing research has been predominantly concerned with the way AI transforms business models and competitive dynamics whereas little attention has been paid to how real-life firms are different in their strategic responses, in specific patterns of diversification, and the role of core competencies in determining these strategies. According to the case study of Alibaba, Tencent, and ByteDance, all three companies position AI at the center of their strategic change, but they have different diversification strategies based on their competitive advantages. Alibaba is more oriented towards cloud infrastructure and large model services, Tencent is more oriented towards ecosystem integration and user connection, and ByteDance is more oriented towards algorithm optimization and scenario-based application. This research also reveals that the AI technological positioning and market expansion of firms are much aligned with their core competencies using patent data and search trend data. Based on these results, AI-based diversification can become a capability-based process, and the combination of existing and new AI capabilities is an ability that companies should consider as a valuable approach to transitioning the company and supporting existing competitive advantages.

Keywords: Artificial Intelligence, Diversification Strategy, Core Competencies, Business Model Innovation

1. Introduction

The blistering evolution of artificial intelligence (AI) has had an enormous impact on the strategic decisions of companies and competition. Over the recent years, AI has evolved to become not a helpful tool to optimize productivity but a significant source of strategic change of a company. The Chinese Government Work Report of 2025 highlights the adoption of the AI + initiative which strongly promotes the use of the large models throughout the Chinese industries. Concurrently, the leading Chinese internet companies are experiencing growth limitation and pressure of structural transformation. As conventional business development is decelerating and user markets are

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saturated, the companies in the lead are frantically seeking new sources of growth. In this instance, this paper attempt to analyze how the existing dominant internet firms in China are strategically evolving during this age of artificial intelligence in order to create and sustain their new bases of competitive advantage.

There are two streams that the current literature refers to in connection with the impacts of AI on businesses. The first stream is regarding the role of AI in corporate business models and what innovation is all about. Two types of AI applications in organizations are primarily interdependent, namely, automation and augmentation. These approaches are not mutually exclusive, but instead form a paradoxical tension [1]. They should be moderate since excessive focus on either can result in negative consequences, e.g., erosion of skills in the face of excessive automation, or inefficiency in the face of excessive augmentation. Business models are described as the architecture of value creation, delivery, and capture and it is important to note that effective dynamic capabilities can enable firms to design and perfect AI driven business models [2]. In this instance, at the micro level, three key bundles of routines, including data pipeline, algorithm development, and AI democratization, should be fostered by manufacturing companies to allow scalable business model innovation [3]. Through their ability to increase knowledge acquisition and recombination, AI implementation also has a strong positive correlation with technological diversification of firms especially in unrelated areas [4]. Large-scale empirical data further show that AI-investing companies enjoy greater growth in sales, employment, and market value, and the growth is mainly due to the rise of product innovation, and not cost reduction or higher productivity [5].

Another stream is about how AI can reshape the competitive strategies by creating both new opportunities and serious challenges for current firms. Deep learning can be used widely, which enables firms to apply predictive capabilities across many business domains and opening new opportunities for their diversification [6]. However, they also notice that this technological shift may introduce new competitive risks, as control over large datasets may become a durable source of competitive advantage, allowing early movers to establish barriers to entry [6]. Meanwhile, generative AI can reshape firms' internal capability structures by sharing best practices of top performers [7]. In addition, the economic and non-economic elements, including the cultural values and political institutions, can affect the way the society controls the morally disputable practices. This is becoming more applicable to the adoption of AI, as companies are experiencing several emerging issues regarding ethics, bias and data privacy [8]. An innovative framework has been suggested to assists companies to answer five questions, including those related to the playing fields, business value, financial impact, implementation, and dynamics, in a more effective fashion that takes into consideration the unique properties of the technology, such as its black-box nature and its potential to perform better than humans do at certain tasks [9]. In a more comprehensive view, such digital technologies, such as AI, affect the value creation, delivery, and capture in various industries [10].

The current literature has already investigated the transformation of business models and competition through AI in detail. Nonetheless, the differences among the firms in terms of strategic response to these changes and particularly to their diversification strategies is a topic that is under-researched. Even though the existing literature suggests the significance of dynamic capabilities, it focuses more on them as already existing conditions, instead of analyzing them in relation to the AI technologies and how they develop throughout the actual transformation process of the companies.

In order to fill these gaps, this paper draws on the example of the major Chinese internet companies to analyze how companies strategically react to the emergence of AI, particularly their diversification strategies and how core competencies affect the development of new sources of

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competitive advantage. This research paper dwells on two broad questions. First, what are the diversification policies of the most successful Chinese internet companies during this era of AI and what are the similarities and differences between those policies? Second, it looks at the ways in which AI technologies are combined with the core competencies of firms to create new competitive advantages and evaluates the work of the core competencies in the process of AI-oriented diversification.

2. Overview of case

The Chinese internet industry has been in a new phase in the recent years. It is also featured as deceleration of user growth, market saturation, and stiff homogenous competition. The old business models e-commerce, online advertisement and online entertainment are slowly maturing, which allows companies to pursue more new growth opportunities. Artificial intelligence (AI) and, most recently, the new trend of creating large language models (LLMs) have emerged as a major source of change in this instance. Backed by the government policies like the so-called AI + initiative, AI is gradually becoming the part of the daily business processes and strategic planning of the companies.

The rivalry between the domestics that are the internet companies has thus moved to the technological strength, data assets, and ecosystem development. Business is not only competing in its own domain but also diversifying in new areas with AI-enabled diversification. Innovation of proprietary models, integration of AI in core offerings, and construction of platform ecosystems have become the primary focus of maintaining their competitive edge.

This paper will examine three typical Chinese internet firms, namely, Alibaba, Tencent, and ByteDance. The reason why these companies are chosen is because of their dominance in various sectors of the digital economy and their own unique ways of transforming through AI. Alibaba is a model of cloud- and infrastructure-based, Tencent is an ecosystem-based model with its focus on social connectivity, and ByteDance is a content- and algorithm-based model. Overall, they can present a broad picture of how the leaders of firms in China are reacting to the emergence of AI.

To be more specific, Alibaba is one of the biggest online retail enterprise and cloud computing firms in China, and websites like Taobao are central to online shopping. Over the past few years, the company is becoming more about consolidating its cloud infrastructure and building large-scale AI models to be used in enterprise-level applications in any industry.

Tencent is a top internet business that has a robust social media, digital entertainment and gaming presence. Through apps like WeChat and QQ, Tencent has created a very interdependent ecosystem, which combines communication, payment, and content services, providing the basis of AI implementation at scale.

ByteDance is an international technology corporation, specializing in the content platforms and digital marketing. Its products such as Tik Tok and Douyin depend on sophisticated recommendation algorithms to provide personalized content. The company has also gone into enterprise tools and AI applications where it can capitalize on its expertise in optimising algorithms using data.

3. Analysis

Considering the above-presented gaps in research and questions, the presented section proceeds to the empirical analysis to explore how companies react to the transformation caused by AI. Specifically, this section will examine the AI-based diversification strategies of three major Chinese Internet companies, namely, Alibaba, Tencent, and ByteDance. Subsequently, using the core competence framework by Prahalad and Hamel [11], it discusses how their core competencies

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influence such strategic decisions, which gives a better insight into the ways AI affects the diversification paths of firms and their competitive edge in the market.

3.1. AI-enabled diversification strategies

The AI policy of Alibaba primarily revolve around the design of cloud infrastructure and foundation models. On the basis of this cloud system, Alibaba has created its own LLM that is Tongyi Qianwen. It is integrated into the cloud ecosystem to offer end-to-end AI services. In addition, it leverages the Model-as-a-Service (MaaS) model to provide AI in the form of standardized services to industries, including manufacturing, finance, and healthcare. Consequently, the Alibaba AI-based diversification is mainly business-to-business (B2B) in nature, and the objective is to act as a fundamental technology provider.

By building a platform-level AI system based on Hunyuan large model and AI agents, Tencent builds an ecosystem-oriented synergy. In particular, AI is incorporated into its main apps, including WeChat, QQ, and gaming services, to enhance the user-interaction level. The company has more than 1.3 billion monthly active users on WeChat, meaning that it has a massive user base that is highly connected.

The AI approach of the Bytedance focuses on enhancing the power of the algorithm and empowering the productivity of the enterprise situation. It applies AI throughout its content lifecycle, including production, distribution, and consumption, through various social media. Its recommendation algorithms are able to continuously learn about user behavior in order to provide a feedback loop which can improve the relevance of the content as well as user engagement. Tik Tok alone has reached over one billion monthly active users in the world, which offers a substantial data base to optimize the algorithm [12]. Meanwhile, ByteDance has already launched AI products like Doubao model and Feishu AI tools, to enhance enterprise productivity and workflow in customized design. In particular, the tools are aimed at extending generative AI into the daily operations of every individual company, such as document writing, data processing, and internal communication to save on operational expenses and make it more efficient. This means that Feishu (Lark) has been installed by more than 10 million users in more than 200, 000 organizations around the globe as of 2023.

Once these pioneer firms have been presented and their various wayways of AI-driven strategies have been illustrated, a number of common characteristics can be identified. First, the three companies take AI as a fundamental diversification instrument rather than an ordinary supporting one. They too put a lot of investment in creation of their own big models in terms of technological control and patent protection. Second, every company develops a specific ecosystem based on the benefits of its AI capabilities, whether it is cloud services, social platform, or content-driven environment. Third, AI is a key part of their existing business processes, enhancing efficiency, experience, and scalability. These recurring trends are a clear indication of the trend of AI becoming a core strategic direction of most internet powerhouses in the digital economy. All these trends vividly demonstrate that AI is becoming a core strategic path of the major internet-based firms in the digital economy. Nevertheless, there are differences which still exist. Alibaba demonstrates high industrial depth, Tencent is good at connecting its ecosystem, and ByteDance is more efficient in application situations.

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3.2. Core AI competencies

Reference [11] defines core competencies as the organizational learning, in particular, the capability of firms to organize various production skills and the ability to combine varied technologies. These are not the competences specific to a particular product or business unit. Rather, they enable companies to generate value in different markets and promote sustained competitive power.

The most significant competences of Alibaba are its cloud infrastructure and complete-stack AI. It has a long-term commitment to cloud computing which gives it a stable platform to deploy AI. This is not only challenging to duplicate but also very transferable to other industries and that is why Alibaba can expand its services to other industries. Its AI implementation with its cloud platform also increases its value offer, which turns the infrastructure into an intelligent service layer [13].

The social network and ecosystem are the main strengths of Tencent. The company has an upper hand of linking users, service, and third-party developers, which forms a strong platform of AI diffusion. In particular, it is in the form of relational assets, like user networks, communication channels and ecosystem partnerships, which can be used to integrate AI into the daily interactions of users. This is also what renders its AI applications to be highly scalable in its current dynamic.

The optimization of algorithms and solid knowledge of consumer behavior are the core competence of ByteDance. Its recommendation systems are constantly improved based on mass data feedback of user preferences, enabling the company to achieve the relevance of the content and user interest with a fairly high degree of accuracy. This promotes speedy experimentation, which assists ByteDance in using AI efficiently in digital marketing on the short-video platform and organizational productivity.

These results indicate that core competencies are not only facilitating the adoption of AI but will automatically affect the diversification direction. Here, cross-industry expansion involves infrastructure capabilities, internal integration and network effect involve ecosystem capabilities, and scenario-based innovation involves algorithmic optimization. Overall, the concept of AI-enabled diversification can be interpreted as the process whereby firms combine existing competitive capabilities with the emerging technological opportunities to develop differentiated competitive advantages.

4. Descriptive evidence

In order to offer empirical evidence of the analysis, the study will integrate patent data and search interest data to analyze the development of AI by various firms. In particular, the World Intellectual Property Organization (WIPO) database of AI-related patent records, covering the years 2022 to 2026, when AI has been growing rapidly, is retrieved and searched by keywords in the descriptions of patents to determine key technological priorities of companies. Subsequently, a comparison of the relative popularity of the most popular LLMs such as Tongyi Qianwen, Hunyuan, and Doubao in terms of search interests in Google Trends in various quarters in 2025 and annual shares is made.

4.1. AI patent distribution analysis

As shown in Figure 1, ByteDance has a total of 22 AI-related patents between 2022 and 2025, which are mainly concentrated in image and video processing (10), recommendation systems (6), AI advertising/AGI (3), and general AI methods (3).

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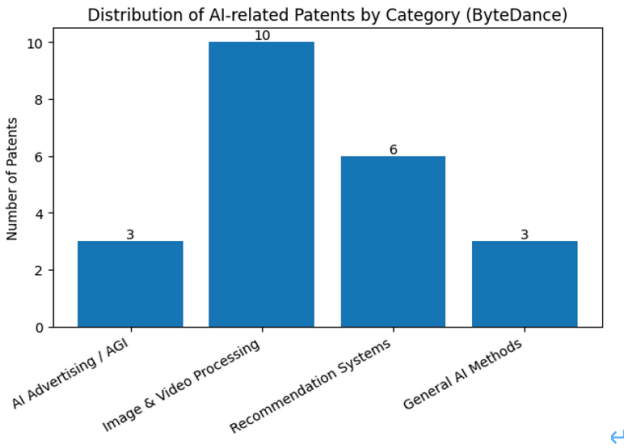

Figure 1. Distribution of AI-related patents by category (ByteDance, 2022–2026)

Image and video processing and recommendation systems clearly dominate. This distribution well aligns with ByteDance's core competence in algorithm optimization and content recommendation. It can directly support Bytedance's short-video platforms such as TikTok and Douyin, since recommendation systems enhance user engagement through personalized content delivery. This result support the previous argument in descriptive analysis that ByteDance's AI strategy is highly scenario-driven and content-centric for reinforcing its competitive advantage in digital media market.

As shown in Figure 2, Alibaba holds a total of 72 AI-related patents during the same period, with a relatively diversified distribution across categories, including smart commerce search and decision support (17), large models, NLP, QA and agents (16), generative marketing and content production (14), cloud AI infrastructure, testing and operations (10), multimodal vision and media generation (7), user profiling and analytics (5), and external AGI advertising (3).

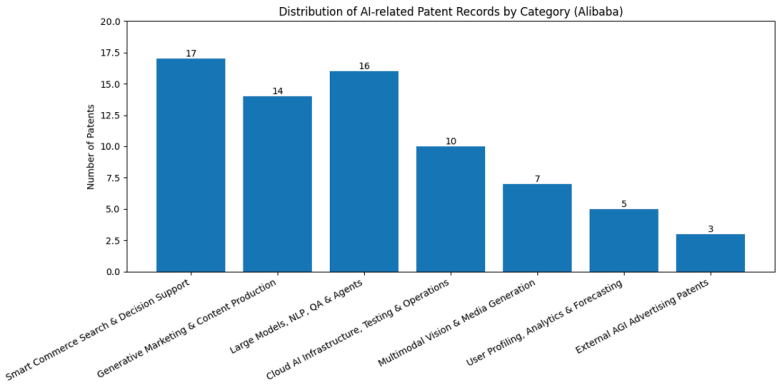

Figure 2. Distribution of AI-related patents by category (Alibaba, 2022–2026)

Alibaba shows a broad and balanced range of technologies, with large emphasis on both cloud infrastructure and application layers. This is consistent with its core competence in cloud infrastructure and full-stack AI capability, supporting its development of e-commercial competitive advantage by various AI advancements.

As shown in Figure 3, Tencent shows a much larger volume, with a total of 3,567 AI-related patents, heavily concentrated in cloud infrastructure and data systems (1877), followed by computer

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vision and generative media (747), recommendation and advertising (212), NLP and large models (196), games, virtual worlds and XR (177), as well as other categories such as speech, security, and applied AI.

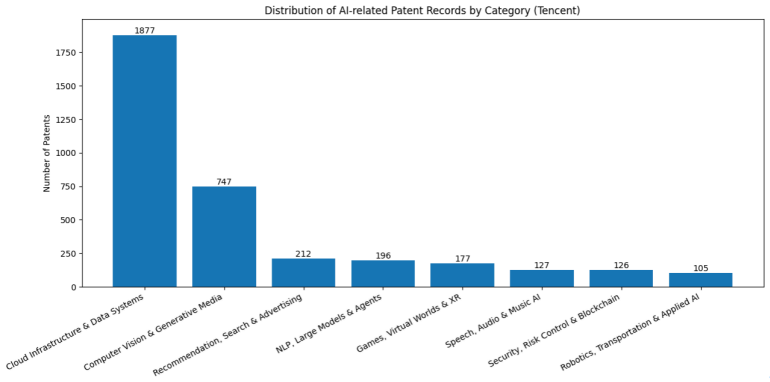

Figure 3. Distribution of AI-related patents by category (Tencent, 2022–2026)

4.2. Relative popularity of LLMs

The dominance of infrastructure-related patents supports Tencent's core competence in ecosystem integration and platform connectivity, as such capabilities enable large-scale AI deployment across multiple services. Additionally, the patent data also reveals an additional insight that Tencent has a notable number of patents related to games, virtual worlds, and XR. Although AI applications in gaming are not always highly visible to users, this suggests that Tencent is actively applying its AI technologies to strengthen its gaming ecosystem as well, representing a less visible but strategically important extension of its core competence.

The quarterly comparison of Tongyi Qianwen, Hunyuan and Doubao as illustrated in Figure 4 reveals that there are distinct differences in the development patterns. Hunyuan still has the largest share in the first quarter of 2025, which is over 70 percent, indicating that Tencent has good early presence in the AI model market, although its share would gradually decrease over the years. In comparison, Tongyi Qianwen is steadily rising, with more than 35 percent in the mid-year, indicating the rising influence of Alibaba by its cloud-based AI strategy. In the meantime, Doubao shows an evident increasing trend, especially at the end of 2025 and at the beginning of 2026, when it will exceed 40 percent, which means that the user-facing AI application of ByteDance is growing rapidly. These trends indicate that Tencent had an advantage of being exposed early and Alibaba has more of a gradual growth given that Tongyi Qianwen has been presented relatively recently and is still growing in its infrastructure-oriented framework. In addition, the application-based adoption has enabled ByteDance to experience rapid growth.

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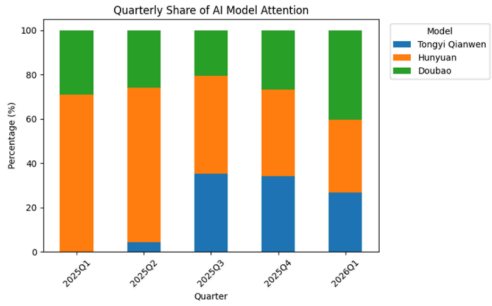

Figure 4. Quarterly distribution of search interest in major AI models

According to Figure 5, The overall annual distribution further helps this trend. Hunyuan owns the majority of the stake, at 43.9 percent, Doubao, with 28.7 percent, and Tongyi Qianwen, with 27.4 percent. Although Tencent is the leader in terms of total visibility, the similarity between the shares of the other two models suggests that competition is growing. This together with the trends in the quarterly basis, indicates that despite Tencent being the current leader, both ByteDance and Alibaba are fast catching up on their own strategic directions

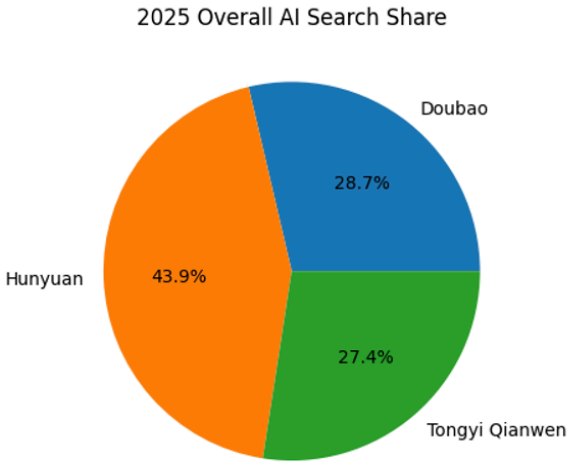

Figure 5. Overall annual share of AI model search interest (Google Trends, 2025)

5. Suggestions

Based on the above findings, the first key implication is that companies need to not only leverage the existing core competencies, but also proactively build new capabilities that are specifically AI-oriented. As an illustration, companies should enhance their capacity in data handling, model training, and human and AI integration. The capabilities are gaining more significance as AI technologies are applied in more varied business contexts. In the long-term approach, organizations that will be able to develop and refresh these AI-related capabilities on a consistent basis will make them more situated in the marketplace that is shifting and allow them to maintain their competitive advantage.

Second, companies must not be too narrow-minded regarding one of the AI development paths. The examples indicate that various companies focus on different approaches depending on each of their technological strengths including cloud infrastructure, platform ecosystems, or algorithm optimization. Nonetheless, sticking to only one of them may decrease the flexibility and expose

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companies to the technological or market uncertainties. Companies, therefore, must seek various complementary approaches and have some degree of balance. This can assist them to be more responsive to uncertainty and adjust to emerging possibilities as AI landscape continues to change.

Lastly, companies need to focus more on the governance and ethical issues of AI-driven change. The problems of data privacy, algorithmic bias, and regulatory compliance are getting more apparent. These problems may have both a direct effect on the trust of the users and the brand reputation in the long-term. Companies must be proactive in handling these issues and incorporate morality issues in the strategy decision making model so as to maintain user loyalty and keep driving innovation.

6. Conclusion

This paper primarily focuses on the transformation of the diversification strategy and competitive advantage of firms by artificial intelligence in the examples of the major Chinese internet companies. The results indicate that AI has ceased to be an ancillary tool but a fundamental force of strategic change. Alibaba, Tencent, and ByteDance all consider AI as a key driver of diversification, but each of these companies has a different strategic direction, which is a characteristic feature of their core competencies. In particular, the capabilities based on infrastructure facilitate cross-industry growth, the capabilities based on ecosystem facilitate platform integration, and the capabilities based on algorithms facilitate scenario-based innovation. These findings indicate that AI-based diversification is not a homogenous process but an ability-based transformation that depends on the strength of various firms.

There are also limitations of this study, though. At first, it is based more on the analysis of cases and descriptive data, which can reduce the transferability of the results to other sectors. Second, use of patent and search data to measure the development of AI might be an incomplete measure of the actual technological capabilities and market performance of firms. Third, this paper centers on the dominant Chinese internet companies, which are based in a distinct institutional and market framework, and further investigation may extend the study to other geographical areas or may use more quantitative measures to confirm these results.

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