**Explore the strategic evolution of “Architects” in different business ecosystems in China**

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**Abstract:** Nowadays, enterprises are eager to transform and upgrade themselves in the face of a new social environment. In China, the concept of business ecosystem is gradually introduced, and many companies have successfully built business systems as architects. This paper mainly classifies and summarizes different types of architects in China's business ecosystem, and analyzes the process of their strategic evolution. By reading a lot of literature, use the method of example analysis to summarize the rules. This article serves as a guide for businesses looking to innovate and transform, and is designed to help businesses match the right type when architecting their business ecosystem

**Keywords:** Business ecosystem, Architects, Strategic evolution, Transformation

1. **Introduction.**

In recent years, the Internet has developed rapidly. Digital economy is also gradually improving, its essence is information, using data to guide the use of resources. The digital economy is the third largest economy after the agricultural and industrial economies. The digital economy has led to the “Reindustrialization” of developed countries in Europe and the United States, moving industrial technology and manufacturing to developing countries. Against this backdrop, the Chinese government has proposed an “Internet plus” action plan to promote the integration of emerging technologies such as the Internet of things, cloud computing, big data and artificial 5G with modern manufacturing. Due to the sharing of information, the concept of western business ecosystem was quickly introduced into China and became the mainstream business operation mode in contemporary Chinese business circles.

[The term “Business ecosystem” was coined by American scholar Moore in 1993 [1].](https://www.paperfree.cn/online/2022100300/16660816741659438/htmls/sentence_detail/0.htm)[A business ecosystem is defined as an economic union formed by the interaction of different organizations or species.](https://www.paperfree.cn/online/2022100300/16660816741659438/htmls/sentence_detail/1.htm)[The business ecosystem originally refers to the enterprise and the external environment as well as the stakeholder macroscopic community, but along with the partial enterprise presents the ecology tendency, individual Enterprises can also choose their own growth, operation and competition strategies according to the model similar to the micro-business ecosystem.](https://www.paperfree.cn/online/2022100300/16660816741659438/htmls/sentence_detail/2.htm)Therefore, the construction of commercial system has become the transformation goal of enterprises to cope with the information age. Big companies such as Meituan, Tencent and Ali have built open ecosystems. [Meituan net 20212020 net profit of 4.71 billion yuan and full-year revenue of 114.79 billion yuan, up 17.7 percent from a year earlier, according to financial indicators released on March 26. The market forecast is 13.95 billion yuan.](https://www.paperfree.cn/online/2022100300/16660816741659438/htmls/sentence_detail/3.htm)Meituan's net profit rose nearly 18 percent in 2020 during the pandemic's national downturn, suggesting that ecology is crucial to Meituan's growth. As you can see from Totem's annual profit growth chart for Tencent, excluding the 2020 pandemic, operating profit growth rates are very high, up to 49 percent.

In the innovation ecosystem, the various innovators with complementary resources and capabilities interact and are connected in a loosely coupled manner, the interaction and symbiosis of the participants ensure the sustainable development of the ecosystem [2]. In addition, the industry ecology can also promote the development of the sharing economy. Sharing the economy's natural advantages of capacity reduction, inventory reduction and cost reduction allows companies to learn and practice at lower cost. [3] This gives the firm a lasting competitive advantage. [4]

Based on the above background, the transformation of enterprises can obtain huge benefits, from the enterprise itself to build an ecosystem, to the large-scale ecological small enterprises, small companies to build a smaller enterprise ecology, companies that want to build an ecosystem often refer to the strategies of other successful transformational companies to transform themselves. The existing research has done a detailed analysis and collation based on the ecological construction and development strategy of enterprises in all walks of life to build an industrial ecosystem although it is very important for enterprises, but the development strategy of each enterprise is not the same. The existing papers do not summarize and analyze the ecological types of enterprises.

This paper focuses on solving the above problems, and classifies the existing business practice ecosystem based on a large number of successful transformed business ecology. According to its construction mode, it is divided into two dimensions, and finally it is divided into three kinds of enterprise ecosystem architects. Through the analysis of its characteristics and the evolution of development strategy to reach a conclusion. The purpose of this paper is to help New Enterprises to refer to the corresponding enterprise strategy when constructing ecology, and to improve the probability of successful transformation.

1. **The composition of the business ecosystem.**
   1. ***Builder identity.***

Based on the core enterprise, some scholars put forward the concept of “Archi-tect” to describe the core organization that can influence the construction and evolution of the whole industrial ecosystem [5] [5]. “Architects” are fundamental and salient features of an ecosystem [6], the “Architect” sets system goals, coordinates relationships among members, and leads the members of the ecosystem to co-evolve toward common goals. [6]

[As Jacobides et al. (2018) put it,](https://www.paperfree.cn/online/2022100300/16660816741659438/htmls/sentence_detail/38.htm)an ecosystem does not emerge spontaneously [6]. In addition to the core firms within the ecosystem that may become architects, the architects may also come from outside forces. And as the industry's innovation ecosystem evolves. The role of architect and strategic behavior change, and the mechanism of action is different. Therefore, it is very important to sort out the influence of strategic behavior on the evolution of Core Enterprises' ecosystem. However, the enterprise ecological architecture is not only derived from the business ecosystem led and built by the core enterprises within the ecosystem, it is also possible to regulate and Macroeconomic regulation and control entire business ecosystems from outside the ecosystem, often by governments and related agencies, because it has the power to modify and adjust macro-policy, it can have an impact and effect on the whole industry's enterprise ecology. These two different identities can be divided into two dimensions of the architect of the business ecosystem in China. One is that the architect is assumed by the core enterprise in the business ecosystem, or from outside forces or at the top of the system.

* 1. ***Business ecosystem networks.***

The network of relationships in a business ecosystem consists mainly of different roles in the ecosystem, the essence of which is that in its ecological environment, a network of relationships in which organizations and individuals interact, depend on each other, integrate each other, and develop in synergy. An economic complex consists of a core business, a consumer, a supplier, a broker, an investor, a risk-taker. Those in power (including the government and related departments and legislators), as well as competitors. The value exchange between each role forms the value chain in the business ecosystem, [in the constant exchange of matter, energy and information,](https://www.paperfree.cn/online/2022100300/16660816741659438/htmls/sentence_detail/40.htm)the interweaving of the chains forms a web of values. And the natural and social environment where the economic union is located is the ecological environment of the enterprise ecosystem, [it covers natural resources, markets, policy, technology, etc.](https://www.paperfree.cn/online/2022100300/16660816741659438/htmls/sentence_detail/41.htm)

In general, the complexity of the business ecosystem network is determined by the number of roles and the degree of interaction in the ecosystem, that is, the upstream and downstream enterprises of the core enterprise. [But with the innovation of the enterprise ecosystem,](https://www.paperfree.cn/online/2022100300/16660816741659438/htmls/sentence_detail/42.htm)[some core firms choose to expand their ecosystems across borders,](https://www.paperfree.cn/online/2022100300/16660816741659438/htmls/sentence_detail/43.htm)through co-development to open up new markets in new areas, and from which to gain new momentum to expand the enterprise. According to Burgelman's understanding of the concept of Cross-Boundary [7], it usually includes two meanings: one is the vertical Cross-Boundary behavior of the enterprise, which is upstream and downstream of the industry chain within the industry, and the other is the organizational behavior of the enterprise across different industry systems, this paper mainly discusses the entrepreneurship development behavior of the latter enterprises in different industry systems. Therefore, we can draw the second dimension of the classification of China's business ecosystem architects, that is, the complexity of the network within the system. One is the complexity of the network, with cross-border expansion in multiple areas, the number and diversity of upstream and downstream connections, with a wide range of markets and consumers. The other is for a certain field or industry, by connecting upstream and downstream vertical development, transformation and evolution into a business ecosystem. By building an ecosystem, these core companies can enhance their core competitiveness in the industry, strengthen their upstream and downstream positions, and lay the foundation for further development.

1. **Three Architects.**
   1. ***Command-and-control business ecosystem architect.***

Command-and-control business ecosystem architects mainly include all ecosystem architects from outside the system or from the top of the system. Such architects are characterized by external forces that can influence the role of the regulatory control system that drives the development of their enterprise ecosystem. The government and the relevant departments or policy makers are often the mainstream members of this type of enterprise eco-architecture, passing legislation and policies and Macroeconomic regulation and control at the highest level, can construct a business ecosystem that spans one industry or multiple industries. Such business ecologies are more subject to external influences. In China's original government-enterprise economic system, the government was the architect of the ecosystem. But as China's economic system shifts, the role of the government in such ecosystems will change as its strategic behavior evolves. By slowly reducing economic and policy intervention, [to enhance the core competitiveness of the business ecosystem.](https://www.paperfree.cn/online/2022100300/16660816741659438/htmls/sentence_detail/44.htm)To cultivate its adaptability. To exercise the core members of the system through continuous circular devolution to the role itself and strong supervision, while adjusting with economic means and policy mix, [to achieve the stable development of industrial innovation ecosystem.](https://www.paperfree.cn/online/2022100300/16660816741659438/htmls/sentence_detail/45.htm)

An example of a command-dominated business ecosystem is the innovation ecosystem of China's rail transit industry [8], which is also an enterprise ecosystem gradually structured by relevant government departments. The business ecosystem encompasses a wide range of roles, from the Ministry of Railways to affiliated Universities, research departments, upstream component suppliers, downstream equipment suppliers and customer groups. In this business ecosystem, there is a synergy between the various roles. There is also the active promotion of the whole industrial ecosystem by the government and the upper levels, including industrial policies, funding for various kinds of scientific research, and related administrative measures. Up to now, the main body of rail transit industrial ecosystem has been transferred from the government to the core enterprises, and the core enterprises have gradually become the main role of the innovative industrial ecosystem.

* 1. ***The architect of a transforming and evolving business ecosystem.***

Transforming and evolving business ecosystem architects belong to the core enterprises within the ecosystem, aiming at specific industries by improving the vertical structure of the enterprise and laying the platform to strengthen the upstream and downstream links, and the Innovation Enterprise Operation Pattern constructs the enterprise ecosystem to enhance oneself and the ecosystem in the environment competitive power. At the same time, enterprises will actively collect external information, optimize and transform themselves according to the ecological environment, establish mutual relations with other entrepreneurs and enterprises, share external resources, and realize symbiosis dependence. One is that symbiosis makes it easier to share data, resources, technology, and so on, promoting collaboration among stakeholders, while other co-conspirators collaborate to innovate and seek more opportunities. On the other hand, the symbiotic relationship also enables enterprises to maximize the utility of resources through sharing and reasonable allocation of existing resources.

Taking Zheng Shuai and Wang Haijun (2021) 's research on Haier Group as an example [9], Haier's strategy evolves from Open innovation to network, from innovation to ecological innovation, and completes its transformation. In the initial pioneering period, Haier's core goal is to explore the external environment and internal value chain changes, integration of internal resources,[according to the market demand to develop and optimize their own products,](https://www.paperfree.cn/online/2022100300/16660816741659438/htmls/sentence_detail/46.htm)brand building. Later, Haier improved the coupling between Haier and the members of the system by structuring the platform system as a leader, managing the organization, connecting and sharing information. In the end, Haier becomes an integrator, focusing on market demand, emphasizing an open, collaborative and mutually beneficial development model, giving full play to the influence of the hub enterprises to drive the innovation and development of the overall business ecosystem.

* 1. ***An architect of an expanding business ecosystem across borders.***

The architect of a business ecosystem for cross-border expansion is the core enterprise within the ecosystem, but this kind of architect based on an existing industry or even platform to strengthen their core industry, market monopoly as the ultimate goal of consumer demand research, improve product quality and expand platform coverage. In addition, the cross-border expansionary eco-architects focus more on building large-scale ecosystems across industries to cover more members, dredge the network and exchange of material information within the ecosystem, and provide complementary resources for the ecosystem. The key difference between the above two architectures is that these architects spontaneously expand their industries, increase the number and diversity of products, and have a complex and dense ecological network. Each member in this kind of ecosystem can continuously increase the connection with other members, expand the business scope.

Meituan, as a typical architect of a cross-border expanding business ecosystem, has a very developmental process in its strategic evolution. According to GE and Tang Fangcheng, Meituan started out in the restaurant industry, attracting large numbers of customers by increasing its big data cloud computing capabilities and offering high subsidies. [10] [11] With such a large number of consumers, Meituan has gradually expanded its business, building a business ecosystem that includes catering, leisure and travel. Later, Meituan ended up with a full coverage of most of its life services businesses, such as food, clothing, housing and transportation, through acquisitions of other businesses. In the process of innovation, Meituan's bike-sharing and ride-hailing services have also developed, [become an important travel tool for people today.](https://www.paperfree.cn/online/2022100300/16660816741659438/htmls/sentence_detail/47.htm)As Meituan matures, it is beginning to consolidate the ecosystem of these life-service industries. To provide information and resources to its enterprises and associated members, and to become an important manager to maintain the health of the ecosystem.

1. **Conclusion.**

This paper reviews the discovery and study of the concept of business ecosystem at home and abroad, and analyzes the current framework of business ecosystem in China from the perspective of enterprise strategic evolution, according to the case and literature, the Chinese ecosystem is divided into three major categories according to the two dimensions. By introducing the characteristics and components of the business ecosystem, the paper draws out whether the architect is a core enterprise or an external force in the system, and the complexity of the network of the business ecosystem in order to discuss the structure of the business ecosystem in China. [12] [13] Those three types of architects are presented in Table 1.

Table 1 The kinds of Architects of Business Ecosystems

|  |  |  |  |
| --- | --- | --- | --- |
|  | Command and Control | Transforming and Evolving | Expanding |
| leading entities | *external forces* | *core enterprises* | *core enterprises* |
| characteristics | *regulatory* | *specific and vertical* | *monopolistic* |
| examples | *China's rail transit* | *Haier* | *Meituan* |

Sources: Author.

Based on the strategic objectives and evolution of different enterprises, the three types of business ecosystems have different development objectives. First of all, command-dominated business ecosystem is influenced by external forces, through the balance of internal and external, constantly adjusting to adapt to the environment to achieve a stable development model. The evolutionary transformation ecosystem is eager for win-win cooperation. It can develop vertically by constructing platform and sharing resources, enlarge the depth of upstream and downstream, and improve the core competence and industry status of enterprises. Finally, it is the cross-border expansion enterprise, which holds a certain monopoly position to the core industry of the enterprise and seeks the expansion and development of the cross-industry and cross-enterprise. Such firms expand their networks, setting up branches, setting up subsidiaries in other areas, and eventually forming a vast ecosystem of firms, with core firms consolidating the networks and allocating mutually beneficial resources.

The practical value of this paper is to sort out the current diversified business ecosystem in China, and to summarize the evolution of its development strategy. For the follow-up emerging enterprises or enterprises with a structured business ecosystem has a great reference role, you can take this table of contents to mark their own enterprises, from this huge amount of information to extract the development strategy in line with the enterprise itself, to establish the development goals and operational models.

Finally, the development of business ecosystem in China is short, and the research done by scholars is very limited. The classification summary based on the limited research can not cover all enterprises, at the same time, the conclusion of the three types of business ecosystem may not be enough, and need to be revised by the following scholars.

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