

# Research on the establishment and operation mode of virtual e-commerce entrepreneurial organization under the background of innovation and entrepreneurship

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**Abstract.** With the development of E-commerce in China, in order to quickly seize the fleeting market opportunities, many market entities using modern information technology to form trans-regional, cross-industry, benefit sharing, risk sharing Virtual E-commerce Entrepreneurial Organizations. However, many virtual e-commerce entrepreneurial organizations have not successfully completed their entrepreneurial projects and failed due to various reasons. In this paper, the characteristics and operation process of Virtual E-commerce Entrepreneurial Organizations were analyzed, and the operation mode of Giants Alliance Inside with Non-core Members Outside (GAI-NMO) was proposed, which is the members engaged in core business constitute the core of virtual entrepreneurial organization which can maintain competitive advantage, and members engaged in non-core business form a flexible network structure around the kernel.

**Keywords:** Virtual E-commerce Entrepreneurial Organization; operation mode; profit distribution.

## 1. Introduction

New models and formats of e-commerce are constantly emerging, and "popular products" are constantly emerging on major e-commerce platforms. E-commerce has become the preferred field for many entrepreneurs. However, with the development of e-commerce, the entrepreneurs will face greater opportunity cost and entrepreneurship risk. E-commerce entrepreneurs have a stronger requirement to disperse opportunity cost, investment risk and market competition pressure through cooperation. In order to seize the fleeting market opportunities, market entities constitute virtual entrepreneurial organizations which can be trans-regional, cross-industry, benefit and risk sharing to gain profits around common goals.

The Internet technological revolution has promoted the development of virtual organization. As a new value creation system, virtual organization can integrate the superior resources on the value chain, grasp market opportunities and continuously create value for customers. The concept of Virtual Organization was first proposed by KENNETHPREISS, STEVENLGOLDMAN, ROGERNA-GEL from Lehigh University[1] in their report "21st Century Manufacturing Enterprises Strategy: an Industry-Led View " in 1991, which provided a new perspective for enterprise organizational innovation. Virtual organization is a dynamic alliance rapidly formed by two or more independent enterprises with core resources or capabilities in order to realize a certain market opportunity, relying on information network technology platform and using information flow to dominate material flow[2]. Now, many small and medium-sized enterprises compete with large enterprises through virtual alliance to share market, profits and business opportunities [3]. Virtual operation complied with the rapidly changing competitive environment, and promoted the development of cooperative competition and win-win business model. Up to now, the vigorous development of information technology, personalized and complicated customer needs, dynamic and more intense competition, and the fuzzy industrial boundary all make virtual organizations have a greater space for development. This paper will start from the analysis of the characteristics of Virtual E-commerce Entrepreneurial Organizations in China, and research on the operation process and cooperation mode of Virtual E-commerce Entrepreneurial Organizations.

## 2. Definition and characteristics of China's Virtual E-commerce Entrepreneurial Organizations

Now, the development logic of e-commerce is changing, growing from rely on network traffic to supply efficiency, which further lead to the cycle of e-commerce entrepreneurship longer, and more and more rely on "assets", a single entrepreneurs will be hard to combine the supply chain resources, internet marketing, logistics and other hardware and software, which promote the birth of virtual e-commerce entrepreneurial organizations. Virtual e-commerce entrepreneurial organization is the application of virtual enterprise organization in the field of e-commerce innovation and entrepreneurship, but it is not a simple combination of virtual enterprise management mode and e-commerce entrepreneurship, e-commerce expands the connotation of virtual enterprise management.

This paper defines the virtual e-commerce entrepreneurial organization as: In the field of rapid development of e-commerce in China, in order to seize fleeting market opportunities quickly, market entities constitute virtual entrepreneurship alliance which is cross-regional, cross-industry and benefit-sharing, risk-sharing, each member participate in the activities of Alliance, business operations with the same business goals. Now Virtual e-commerce entrepreneurial organizations in the market are mostly a complementary combination of supply chain resources and e-commerce operation and promotion technical skills resources. The e-commerce partners emerging in recent years in China are also virtual e-commerce entrepreneurial organizations in essence.

Any enterprise's resources are always limited, virtual e-commerce entrepreneurial organization as a new resource allocation and ability reorganization specialized operation mode, provide a kind dynamic organization form of cross-border resources, can make the market entities have opportunities to use resources which they don't have.

Virtual e-commerce entrepreneurial organizations have the following characteristics:

(1) Good at discovering business opportunities and make quickly response

It is Sensitive to changes in the market and industry, can response quickly to business opportunities, and able to analyze the information collected in the business field, and quickly integrate relevant resources to start a business.

(2) Integrate social advantages of resources

The cooperative nature of virtual e-commerce entrepreneurial organizations enables them to integrate e-commerce ecological resources for innovation and entrepreneurship projects. In the future, the competition of e-commerce is not just competition between platforms, nor a single supply chain, but a supply chain ecological competition driven by new technologies and new logistics. Virtual e-commerce entrepreneurial organizations undoubtedly have advantages in the field of entrepreneurship that a single market entity does not have.

(3) It is Profit-driven and a alliance between giants

The core members of virtual e-commerce entrepreneurial organizations have unique core competitiveness and provide their most specialized functions, so as to form a unity of complementary advantages, realize the combination of strong and strong, and obtain entrepreneurial benefits based on their respective contributions, risks and opportunity costs in the project.

(4) Flat organizational structure and the pursuit of management efficiency

Members of virtual e-commerce entrepreneurial organizations has the same goal, and they are equal and complementary. The relationship between business of upstream and downstream stronger than the management of the hierarchy, so the organization is very flat and efficiency, and can quickly adjust the strategic and tactical decisions for the rapidly changing market environment.

(5) Its survival depends on the development of entrepreneurial projects

Virtual e-commerce entrepreneurial organization is a dynamic alliance, which is organized based on new market opportunities in the field of e-commerce. Therefore, it will become more stable due to the stable development of entrepreneurial projects, but also disintegrate due to the failure of entrepreneurial projects, and then seek new opportunities to form new virtual e-commerce entrepreneurial organizations.

### 3. Operation process and mode of virtual e-commerce entrepreneurial organizations

#### 3.1 Construction and operation process

The entrepreneurial process of virtual e-commerce entrepreneurial organizations can be divided into two stages: organization construction and entrepreneurial implementation. See Figure 1.

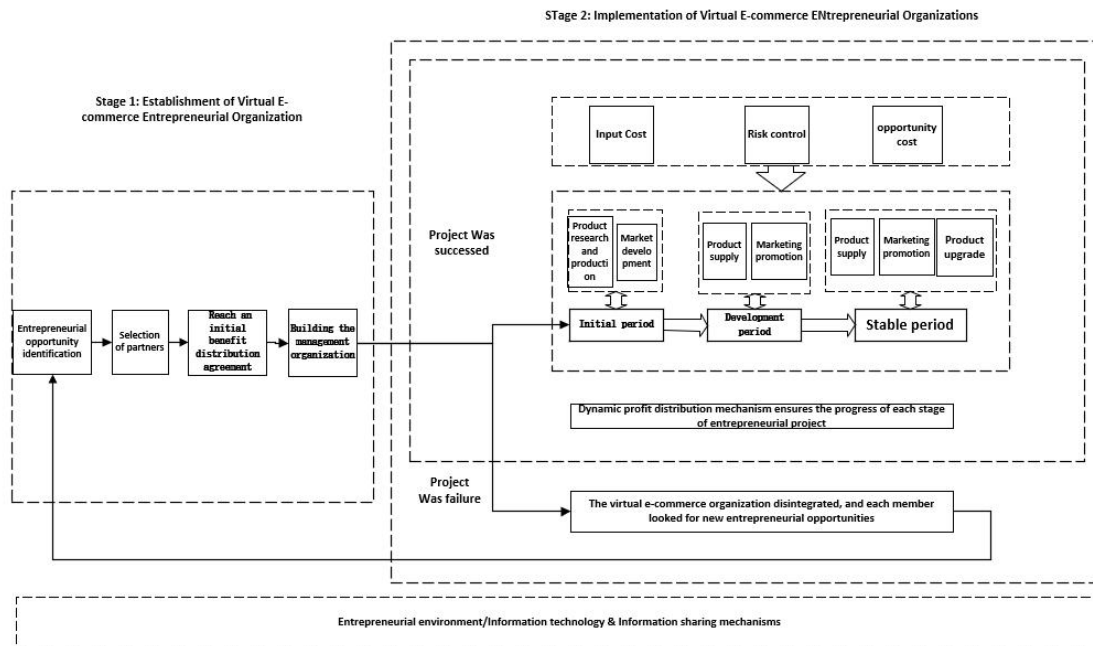


Fig. 1 Operation process of virtual e-commerce entrepreneurial organization

##### 3.1.1 Construction of virtual e-commerce entrepreneurial organization

The first stage is the construction stage of virtual e-commerce entrepreneurial organization. This stage starts with identifying entrepreneurial opportunities, completing the selection of partners, reaching the initial benefit distribution agreement, and constructing the management organization.

###### (1) Identification of entrepreneurial opportunities

Any participant in the organization may be the identifiers of entrepreneurial opportunities, and the identifiers are generally the initiators of virtual entrepreneurial organizations. They always pay attention to the development trend of e-commerce, find the existing market opportunities, and then decide whether they can respond to this opportunity for entrepreneurial activities. For enterprises, market opportunities are customer demands, which may be explicit or implicit, and their feasibility can be determined only after analysis and judgment. The analysis of market opportunity, on the one hand, is to analyze the value of market opportunity itself, mainly including the value to customers and enterprises; On the other hand, it analyzes the resources needed to grasp the market opportunity, so as to judge the feasibility of the opportunity. If it determined to seize the opportunity, it need to further identify the core competencies and resources needed to start the business. If the initiator does not have the core capabilities and corresponding resources required for entrepreneurship, it needs to find partners to form a virtual entrepreneurship organization for joint entrepreneurship.

###### (2) Selection of partners

On the premise of defining the core competencies and corresponding resources required by the entrepreneurial project, the qualifications of the partners should be defined in combination with their own capabilities and resources as the criteria for partner selection. For example: a E-commerce enterprise in Zhejiang China found that a demand for certain types of new products in overseas markets, it has cross-border e-commerce operation capacity, but lack of product researching, production, warehousing and other supply chain resources, so it need to find the supply chain

resources as a partner. Generally, there are the following ways to select partners : (1) The initiator has grasped the information of relevant partners, and directly evaluated and cthem, and gave them the opportunity to join the virtual entrepreneurial organization or persuaded them to join the virtual entrepreneurial organization. (2) Open recruitment of partners. Open partner recruitment in China's e-commerce sector has become a common phenomenon in recent years.

#### (3) Reach an initial benefit distribution agreement

Obtaining economic benefits is the fundamental purpose for each party to join the virtual e-commerce entrepreneurial organization. In the actual stage of cooperation, conflicts of interest among members are inevitable. Members play different roles, bear different costs and face different risks at different stages of entrepreneurship. Fixed profit distribution is not enough to motivate continuous investment of each member and thus cannot guarantee the success of entrepreneurial projects. Therefore, in the early stage of entrepreneurship, all members should reach an initial agreement on the distribution of benefits, and dynamically optimize the mechanism of the distribution of benefits in the future operation to ensure that the element of the distribution of benefits always has the maximum incentive effect in the start-up project.

#### (4) Building the management organization

The success of entrepreneurship depends on the cooperation ability of each member enterprise, which is supported by reasonable organizational structure and management mode. Virtual e-commerce entrepreneurial organization has no independent and specific forms of enterprise, management institutions was made up of distributed in the different members of the company staff, the staff with their own recognition of different enterprise culture, management system and working style, so in order to quick response to market, business process of virtual organizations reconstructing should be starting from the overall goal of virtual organization, and the initiator should be given the maximum power in information acquisition, coordination and control, and resource allocation.

### 3.1.2 Operation process of virtual e-commerce entrepreneurial organization

The second stage is the implementation stage of the virtual e-commerce entrepreneurial organization, which is the specific operation stage of product research and development, market development, marketing promotion and other specific operations. The operation in this stage gives feedback to the rationality of the business process, management organization and benefit distribution designed in the first stage, so as to make timely adjustments. The second stage can be divided into the initial period, the development period and the stable period. In each period, members have different cost input, risk control and opportunity cost, and the benefit distribution mechanism needs to be adjusted constantly to encourage the continuous investment of cooperative members, so as to ensure the success of the project. In each period of the second stage, start-up projects may die due to early market judgment errors, withdrawal of core members, inadequate investment and other reasons. According to the survey, there are many cases of failure due to the withdrawal of core members because of dissatisfaction with profit distribution in china.

#### (1) Initial period

The initial period is an important stage to test the rationality of business process, management organizational structure, especially power allocation. Any problems found during this period should be carefully analyzed so as to optimize business process and organizational structure, unify the understanding of all members, and ensure the implementation of entrepreneurial projects.

#### (2) Development period

In the development period, virtual entrepreneurial organizations have gone through the running-in period, basically formed a unified understanding, smooth business process, organizational structure can perform various management responsibilities. However, there is a phenomenon that the members of the organization withdraw due to reasons such as dissatisfaction with the distribution of benefits and different business philosophies. The withdrawal of core members will have a great impact on the entrepreneurial project, which may directly lead to the abortive of the entrepreneurial project. For example, in one entrepreneurial process of an

e-commerce virtual entrepreneurial organization, the core product manufacturer quitted the organization because the product sells well and does not bring reasonable profits, and then looks for dealers to seek higher profits. Therefore, it is necessary to stimulate the entrepreneurial passion of each member by ensuring that the reasonable profit even higher than the average profit of the market.

### (3) Stable period

In the Stable period, virtual entrepreneurial organizations have been running in for a long time and have acquired some characteristics of real organizations. They have reasonable organizational management structure, mature business processes, and relatively consistent corporate culture, management system and work style. How to keep the organization open, flexible and pioneering to ensure that the organization continues to carry out market innovation and constantly find new entrepreneurial opportunities has become the top priority in this period.

## 3.2 Operation mode of virtual e-commerce entrepreneurial organizations

There are three typical operation modes of virtual organization: Backbone center type, Strong combination type and Synbiotic network type <sup>[4]</sup>. (1) Backbone center type. There is a backbone enterprise in the leading position, the integration effect of management is strong, coordination and communication is easy, can unify the understanding of all members, is conducive to the formation of the virtual organization's overall strategy and competitive advantage, but vulnerable to the limitations of the traditional enterprise management concept, the agility and adaptability to market changes weakened. (2) Strong combination type: its constituent units often have different key technologies and are highly complementary to each other. They often exchange resources to create better competitive advantages and have stronger market adaptability and competitive advantages. (3) Synbiotic network type. Its virtual organization consists of many units and is relatively looser, so the dynamic characteristics of the virtual organization are more obvious.

E-commerce entrepreneurship needs the integration of supply chain resources, Internet marketing and promotion technology, logistics and distribution, e-commerce services and other soft and hard resources. Therefore, virtual e-commerce entrepreneurial organizations should adopt the operation mode of Giants Alliance Inside with Non-core Members Outside (GAI-NMO), which is the members engaged in core business constitute the core of virtual entrepreneurial organization which can maintain competitive advantage, and members engaged in non-core business form a flexible network structure around the kernel, as shown in Figure 2.

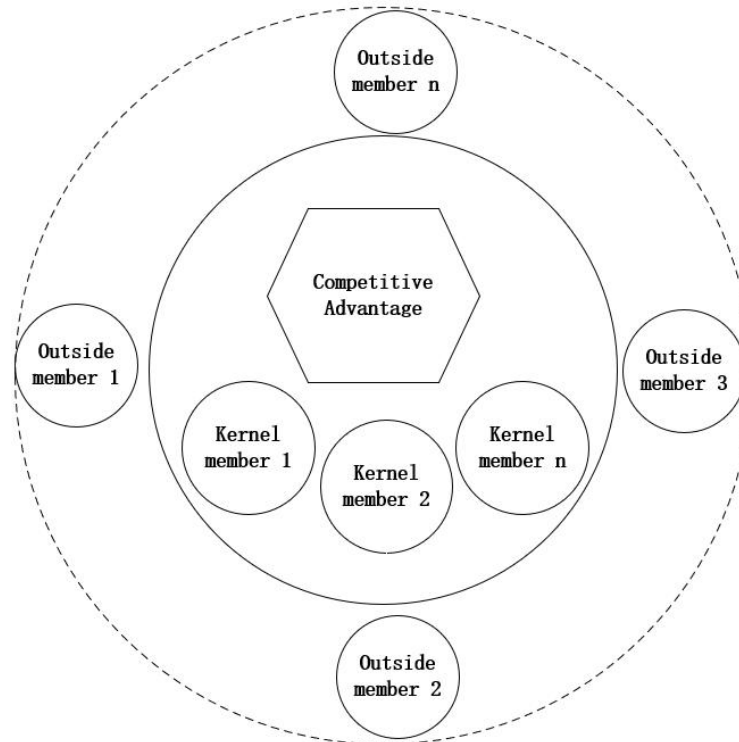


Fig. 2 Structure diagram of GAI-NMO mode

(1)Giants Alliance Inside maintain competitive advantage

Core members have the key technologies and resources required for e-commerce entrepreneurship, which are highly complementary to each other. Cooperation creates market competitive advantages and plays a decisive role in the success or failure of entrepreneurship projects. Therefore, the coordination management, relationship management and risk management among core members are the focus of management, and the reasonable interest demands of core members should also be given priority in interest distribution.

(2) Non-core Members Outside ensures flexibility

Non-core Members Outside exist on the premise of the lack of resources and capabilities of kernel enterprises, and strive to achieve just-in-time production, immediate response.

#### 4. Summarize

E-commerce entrepreneurs can disperse opportunity cost, investment risk and market competition pressure by constructing virtual e-commerce entrepreneurial organizations. This paper analyzes the characteristics and operation process of virtual e-commerce entrepreneurial organizations, and proposes to adopt the operation mode of internal strength and external dispersion, which can not only ensure the competitive advantages of the organization, but also ensure the flexibility of the organization. As the case in this paper is from China, the research conclusion has certain limitations. Since the cases in this paper are from China, the research conclusion has some limitations and is more suitable for Chinese entrepreneurs.

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