

# Role Positioning and Synergistic Mechanism of Relevant Subjects in the Development of the County's Urban-rural Logistics System

## -- Based on Analysis of Enabling Government and Effective Market

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### Abstract

This paper conducts an exploratory study on relevant subjects' role positioning and synergistic mechanisms in the construction of the county's Urban-rural logistics system using the grounded paradigm research method and based on the interview data. We argued that the subjects of synergistic development of the county's Urban-rural logistics system primarily include relevant government departments, Urban-rural logistics operators, and participating subjects. Their interaction can be interpreted under the framework of the enabling government and effective market. Following the logic of "driving factors-process mechanism-result formation", this paper clarifies the synergistic mechanism between an enabling government and an effective market in the construction of the county's Urban-rural logistics system, that is, solving the contradiction at the cognitive level through establishing a "contract relationship", and forming an effective action mechanism through constructing organizations, to further promote the synergistic development of the county's Urban-rural logistics system.

### Keywords

The County's Urban-rural Logistics System; Subject; Synergistic Mechanism; Grounded Theory.

### 1. Introduction

The county's Urban-rural logistics system is the primary facility channel for consumer goods downward into villages and the agricultural sideline products upward into cities. It is the basic support for serving agricultural production activities, boosting rural consumption, and promoting rural revitalization. In recent years, the construction of the Chinese county's Urban-rural logistics system has made significant progress. However, developmental problems such as level gaps in the logistics between Urban-rural areas, insufficient capacity of terminal service, and sustainability dilemmas still exist. Recently, the academic community has paid continuous attention to the issue of Urban-rural logistics systems. Still, there are very few studies on the issue of rural logistics systems from the perspective of counties, particularly the perspectives of synergistic issues in the analysis of the role positioning and the interaction of relevant subjects in the development process of the rural logistics system are greatly different. This paper employs the grounded paradigm research and relies on the data from on-site interviews to conduct an exploratory study on the relevant subjects and their role positioning in the construction of the county's Urban-rural logistics system, attempt to clarify the synergistic path and interactive mechanisms in the development of county Urban-rural logistics system.

**Table 1.** Summary of analysis information sources

Data Type	Content	Quantity (1,000 words)	Source
Semi-structured interviews	Three interviews, including enterprise executives and operators of the county's Urban-rural logistics, and one small symposium	31	Modern Logistics Industry Park
	Henan provincial transportation authorities, postal authorities, and three county-level government officials	33	Office Locations
	Interviews with university faculty and doctoral students	16	College of Economics and Management, Henan Agricultural University
Case materials	The typical case of efficient distribution in Urban-rural areas across the country (the first batch)	44	Jointly released by six departments, including the Circulation Industry Development Department of the Ministry of Commerce
	Typical cases with experience of rural logistics service brands	23	Transportation Department
	Application materials for the model county of passenger, cargo, and postal integration in Henan Province	17	Henan Provincial Department of Transport
Policy materials	No. 1 document of the Central Committee and policy documents related to rural logistics issued by various ministries and commissions	15	Official websites of the State Council, Ministry of Transport, Ministry of Commerce, etc.
Internet materials	Reports on the development status of agricultural logistics, industry news, etc.	50	Related news websites

## 2. Research Methods and Process

### 2.1. Research Methods

Grounded Theory was proposed by Glaser and Strauss [1] in 1967 and is widely used in qualitative research. The basic research logic is to investigate the relevant data in specific situations and repeatedly compare the relationships between the data. After conceptualization and abstraction, theories are constructed inductively to refine the definitions and categories from them. Grounded Theory is broadly divided into three schools: classical Grounded Theory school, procedural Grounded Theory school, and constructive Grounded Theory school. In this paper, on the basis of the comprehensive comparison of the similarities and differences among the three schools, we defend the core epistemological value of "grounded spirit" and the perspective of the research object to understand and explore issues [2], and also use cognitive maps and mind mapping software as auxiliary tools.

### 2.2. Research Process

The first step is to collect data. Under the grounded paradigm, sampling is not done all at once. Nonetheless, the first purposive sampling occurs after the research question is posed, followed by the next theoretical sampling based on the sample data analysis. The method of data collection in this paper is based on interviews, supplemented by secondary literature sources

such as web cases, etc., and reinforced by triangulation tests. In this research, the total interview time was 8 hours and 52 minutes, and the original manuscript containing nearly 80,000 words of audio materials was compiled. The data types, quantities, and sources are shown in Table 1. The next step is to process the data. The data processing was carried out according to the classical grounded theory approach, in which the substantive coding consisted of open and selective coding. Depending on the content of the interview, coding was done on a "sentence-by-sentence", "paragraph-by-paragraph", or "word-by-word" basis at the end of each interview. During the open coding, 656 codes were obtained, among which data and coding of social organizations related to the synergistic development of the county's Urban-rural logistics system emerged continuously. Thus, this paper proposes the concept of "The main subject of synergistic development of the county's Urban-rural logistics system", which was supported by 369 open coding at five levels. This concept produces three core categories, including "operation subjects of Urban-rural logistics", "government-related departments" and "participant subjects of Urban-rural logistics". In the selective coding stage, the above three core categories were supported by a total of 348 codes or categories, and their saturation status was determined by the assumption that no new core categories emerged, as shown in Table 2.

**Table 2.** Core categories and coding statistics

Core categories	Open coding		Selective coding	
	Level	Quantity	Level	Quantity
Urban-rural logistics operating entities	5	183	7	179
Government-related departments	5	139	6	131
Urban-rural logistics participating subjects	4	44	6	35

The third stage is to construct the theory. At this stage, two essential concepts of "enabling government" and "effective market" are obtained. By recording the data related to these two core concepts, the support of a total of 43 codes or categories at five levels of "enabling government" has reached saturation status. The "effective market" is saturated with support from 64 codes or categories at six levels. These two concepts have been proposed in a large amount of literature. Thus, this study constructs a model of the developmental mechanism of the county's Urban-rural logistics system based on the enabling government and the effective market by comparing it with the related literature.

### 3. Main Subject of Synergistic Development of the County's Urban-rural Logistics System

The main subject of the synergistic development of the county's Urban-rural logistics system refers to the organizations or individuals that can influence the county's Urban-rural logistics activities, including relevant government departments, Urban-rural logistics operation subjects, and Urban-rural logistics participating subjects.

#### 3.1. Government-related Departments

The first core category discovered in the coding analysis is the "government-related departments", which indicates that government departments play an essential role in constructing the county's Urban-rural logistics system. On the one hand, in terms of division of the labor, provincial governments and functional departments are mainly responsible for planning and policy research, while county governments are the specific executors; In contrast, practice shows that county governments have a strong ability to integrate resources within the

county. The sign of agreements with county governments is the basic condition for interviewed Logistics enterprises to develop the market for the construction of the county’s Urban-rural logistics system.

The county government participates in the synergistic development of the county’s Urban-rural logistics system. First of all, it is necessary to solve the dilemma of private enterprises as the main subject of operation in land allocation and infrastructure construction; Secondly, we must do an excellent job of coordination, including coordinating the relationship between various functional departments related to the construction of the Urban-rural logistics system and promoting the participation of all participants in the planned logistics nodes through some mechanisms such as synergy, reform, and purchasing public services. The last is to do effective market supervision. (Table 3 for partial data of open coding)

### 3.2. Urban-rural Logistics Operating Entities

During the interview, several government officials mentioned that the construction of the county’s Urban-rural logistics system needs an "operation subject". The core category of "Urban-rural logistics operation subject" was discovered through the analysis of grounded data and codes, and defined as "achieving the overall optimization of the logistics system within the scope of the county via integrating resources and optimizing business processes to realize the unified distribution of logistics services in regions, and the economic organization of entering the countryside".

**Table 3.** Open coding of relevant government departments (partial)

Data	Coding
<p>G (Government staff):</p> <p>Doing research is at the provincial level and critical. It is a leading development direction, and county-level inside is to complete it. The county can unite the research together after grasping the implementation.</p>	<p>It is easier for county governments to coordinate the cooperation of various departments to achieve logistics integration.</p>
<p>Z (Business manager):</p> <p>The most important point is whether the county government wonders to do it. The local government plays an important role in every respect. The first point is to solve the land issue.</p> <p>The critical problem for the county and township (logistics) center at any level, is to integrate logistics and express together, and also the enterprise can integrate the enterprise, which is very difficult. Only one (method) to solve it is that I rely on administrative force to intervene in the emerging issues, such as illegal unloading, poor road crossings, and fire protection failures. County governments can be unified into logistics parks to solve them.</p> <p>I define this project as a half-assed government project.</p>	<p>The top priority of the Urban-rural logistics system construction: is the will of the government.</p> <p>Reasons for the support of the government in the construction of the Urban-rural logistics system: land allocation, concentrating the logistics express companies that need to be integrated into the logistics park.</p> <p>The construction of an Urban-rural logistics system requires the joint participation of the government and enterprises</p>

The common types of urban and rural logistics operating entities are Urban-rural Passenger Transport Company, China Post Group Limited, and third-party logistics enterprises of state-owned nature. Among them, the first two types of subjects can load limited types of goods, and

cannot fully meet the county's basic requirements for Urban-rural logistics activities. The government-led and funded third-party logistics enterprise is a more reasonable operation subject to the synergistic development of the county's Urban-rural logistics system, which is very suitable in terms of capacity and operating business scope. The only shortcoming is that, due to the limitation of material flow in rural areas, such enterprises often operate for a small profit or even rely on government administrative subsidies to maintain operations, which leads to limited sustainability.

The interviewed logistics enterprises, as high-quality urban and rural logistics operators in Henan Province and even nationwide, have high research value and reference significance as operators through the comparison of interview data with literature, news reports, and typical cases. In the process of coding the interview data of the logistics enterprises, the core category of "agribusiness logistics synergic organization" gradually emerged, which is different from the aforementioned third-party logistics enterprises. The organization which is based on business expansion and technological improvement in the logistics functions already possesses the primary characteristics of supply chain service enterprises. After selective coding, this paper defines the Urban-rural logistics operation subject represented by the interviewed logistics enterprises as "agribusiness logistics synergic organizations". With the government's help, this organization integrates production factors such as land, capital, and transport capacity via capital going to the countryside, developing logistics operation services for the county's Urban-rural areas, and developing comprehensive economic organizations to serve agriculture and commercial trade. Based on the free flow of production factors, these Urban-rural logistics operators can give full play to the guiding function of the market's main subject in order to achieve the goal of synergistic development of the county's Urban-rural logistics system, and eventually realize the new pattern of integrated development of the first, second, third industries within the county's Urban-rural areas by expanding the supply chain of commerce and agricultural products.

Table 4 illustrates the partially coding related to Urban-rural logistics operators, with the names of all interviewees are indicated by letters.

### **3.3. Participating Subjects of Urban-rural Logistics**

There are three main types of Urban-rural logistics participants, one is the Urban-rural logistics system in logistics organizations, namely, LTL logistics enterprises and mail logistics enterprises. This kind of enterprises in the county's areas shows characteristics of small and mixed, scattered and weak, and low efficiency. It is challenging to complete the courier (logistics) into the village services, but also no dynamic to "integrated" for co-distribution; The second is the Urban-rural logistics system in the trade organizations. Participants are mostly individual entrepreneurs or micro-enterprises, and a township or village logistics/courier site is only an additional business; Thirdly, the Urban-rural logistics system of farmers and agricultural e-commerce operators, as agricultural logistics is an important object of operation in the county's Urban-rural logistics system, so farmers and agricultural e-commerce operators are vital participants in Urban-rural logistics.

## **4. The Role Positioning of the Enabling Government and Effective Market in the Development of the County's Urban-rural Logistics System**

In the development of the county's Urban-rural logistics system, how to deal with the relationship between operation subjects of Urban-rural logistics represented by agribusiness logistics cooperative organizations and local government is also an urgent issue to be clarified. The positioning of the county government and logistics operation subjects in the county's Urban-rural logistics operation system and their relationship can be analyzed in the framework

of the government with a purpose and an effective market. New structural economic theory shows that the key to the success of China's road lies in the complementary and mutually reinforcing roles of the government and the market, which play the roles of both the "enabling government" and the "effective market" in economic development and transformation [3]. The "visible hand" and the "invisible hand" form an organic and unified pattern.

**Table 4.** Open coding of urban and rural logistics operators (partial)

Data	Coding
<p>G (Government staff):</p> <p>There must be a subject to operate this event because the whole layout and network still rely on the county. The network's layout needs to produce an operation subject from county to township, which can help cost saving.</p>	<p>Considering the overall network layout and total cost savings, there is required for an operating entity to coordinate the overall operation.</p>
<p>Z (Business manager):</p> <p>We regard operation as two networks and a platform. One of the networks is the logistics network, that is, the county, township, and village logistics network; The second network built a trade network, and each town has its own outlets, right? The kiosk is there at the village entrance, I hang a sign on its door to make a cooperation. I also provide our professional team with stocking shelves. For example, this shelf for drinks, that shelf for instant noodles, etc. We are responsible for the supply.</p> <p>The goods were sent from manufacturers so that I must go into villages every day. In this way, I can deliver the express and the logistics in trucks at one time. I can do the daily distribution, but the dealer cannot do it.</p> <p>I will bring back the agricultural products when coming back to the cities.</p>	<p>Operating business: logistics network, trade network.</p> <p>Enterprises provide professionals and supplies shelves to rural stores.</p> <p>Commercial supply and logistics, courier co-distribution.</p> <p>Delivery frequency is increased, supplying a full range of goods; Co-distribution vehicle backhaul can complete the upstream of agricultural products</p>

#### 4.1. Effective Markets are the Basis for the Synergistic Development of the County's Urban-rural Logistics System

General Secretary Xi Jinping pointed out: "The market determines the allocation of resources is the general law of the market economy, the essence of the market economy is the market determines the allocation of resources" [4]. The market should adhere to the principle of effectiveness, achieve the full play of the market law, and achieve the effective allocation of market factors. The sustainable development of the construction of the county's Urban-rural logistics system depends on adherence to the laws of the market. Under the leadership of the Urban-rural logistics operation subjects represented by the agricultural and commercial logistics cooperative organization, the effective market-oriented operation of the county's Urban-rural logistics is realized through the cooperation mechanism with the Urban-rural logistics participating subjects. In the effective allocation of production factors to the market law as the criterion, through the organic integration of the logistics production factors, effectively improve the county Urban-rural logistics crude production methods, fragmented organizational forms, and backward business philosophy, the realization of logistics unified common warehouse distribution, the formation of scale effects, to reduce the total cost of social logistics, and improve the efficiency of logistics distribution; to achieve logistics into the village, and solve the problem of rural residents' production and life materials circulation.

#### **4.2. Effective Market is the Basis for Synergistic Development of the County's Urban-rural Logistics Systems**

The county government as the core of the relevant departments in the county's Urban-rural logistics system in the synergistic development of the role of leaders and night watchmen upholds the "effect" principle to provide the market with a policy environment, infrastructure construction, public services, and other environmental protection, to create good prerequisites for the market, and the allocation of logistics factors of production to the market, and to give the right to the market. To fully exploit the market's ability for independent innovation. In the practice of the construction of the county's Urban-rural logistics system, the government's excessive intervention in the development of the Urban-rural logistics industry, although it can gain in the short term, the construction of field stations, part of the scope of the common distribution and other results. However, in the long term, there may be a policy "cliff effect" and "welfare trap", that is not conducive to the sustainable development of the county's Urban-rural logistics system. While the county government is playing its role, it should pay special attention to the government's own failures and reduce the direct allocation of market resources and improper regulation of microeconomic activities.

#### **4.3. The Synergistic Development of the County's Urban-rural Logistics System Requires the Organic Combination of the Enabling Government and Effective Market**

The synergistic development of the county's Urban-rural logistics system requires the organic combination of an enabling government and an effective market. Among them, an enabling government responded to the widespread failure problems and requirements of the market. Only when the government really fulfills the corresponding social responsibilities can it effectively maintain the actual operation of the market economy; The primary mechanism of resource allocation determines an effective market, and only when the market price signal is used as the basis can it contribute to a reasonable and effective way of behavior, establish stable and lasting market competition, and then promotes sustainable economic development.

### **5. The Synergistic Mechanism of the Enabling government and Effective Market in the Construction of the County's Urban-rural Logistics System**

the synergistic mechanism between an enabling government and an effective market in the construction of a county Urban-rural logistics system follows the logic of the "driving factor-process mechanism-result formation". As can be seen by grounding the study data and coding (Figure 1 and Figure 2). On the one hand, the county government participates in the construction of the county's Urban-rural logistics system due to the performance pressure, whereas agricultural and cooperative organizations of commercial logistics participate due to the need to expand the market, the driving factors between participants are different. Furthermore, the county governments expect to establish a perfect county and village logistics system. In contrast, agricultural and commercial logistics cooperative organizations hope to realize the profitability of the trade and agricultural supply chain through the construction of the Urban-rural logistics system. The results they expect to achieve are not precisely identical, and the actions of different organizations based on different motives will inevitably lead to deviations. It can be seen that the synergic development of the county's Urban-rural logistics system faces the dilemma of how to deal with the relationship between the two types of participants to achieve the coordination and complementarity of the organizations, thereby forming a win-win result.

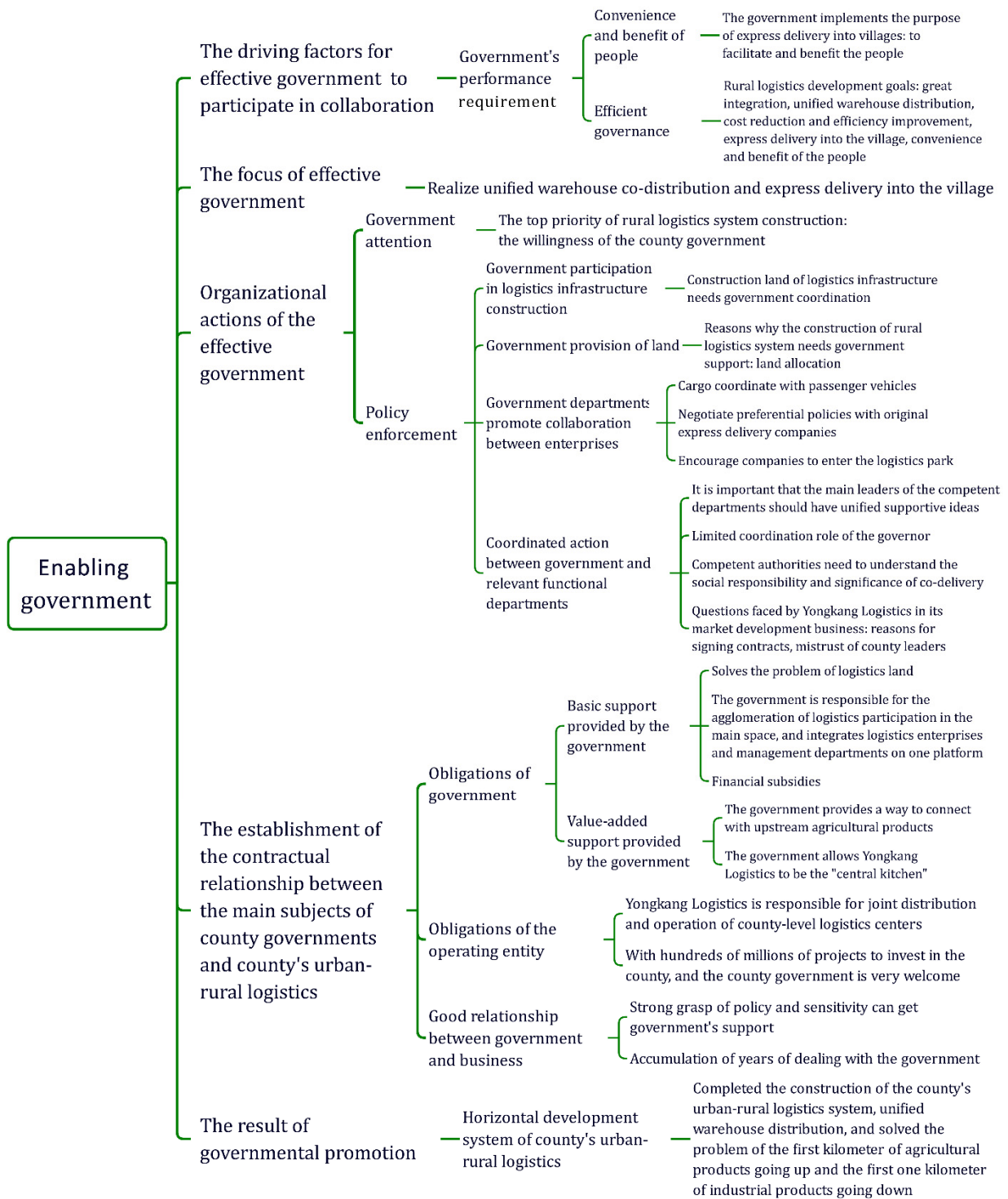


Figure 1. Partial diagram of the theoretical coding of the enabling government



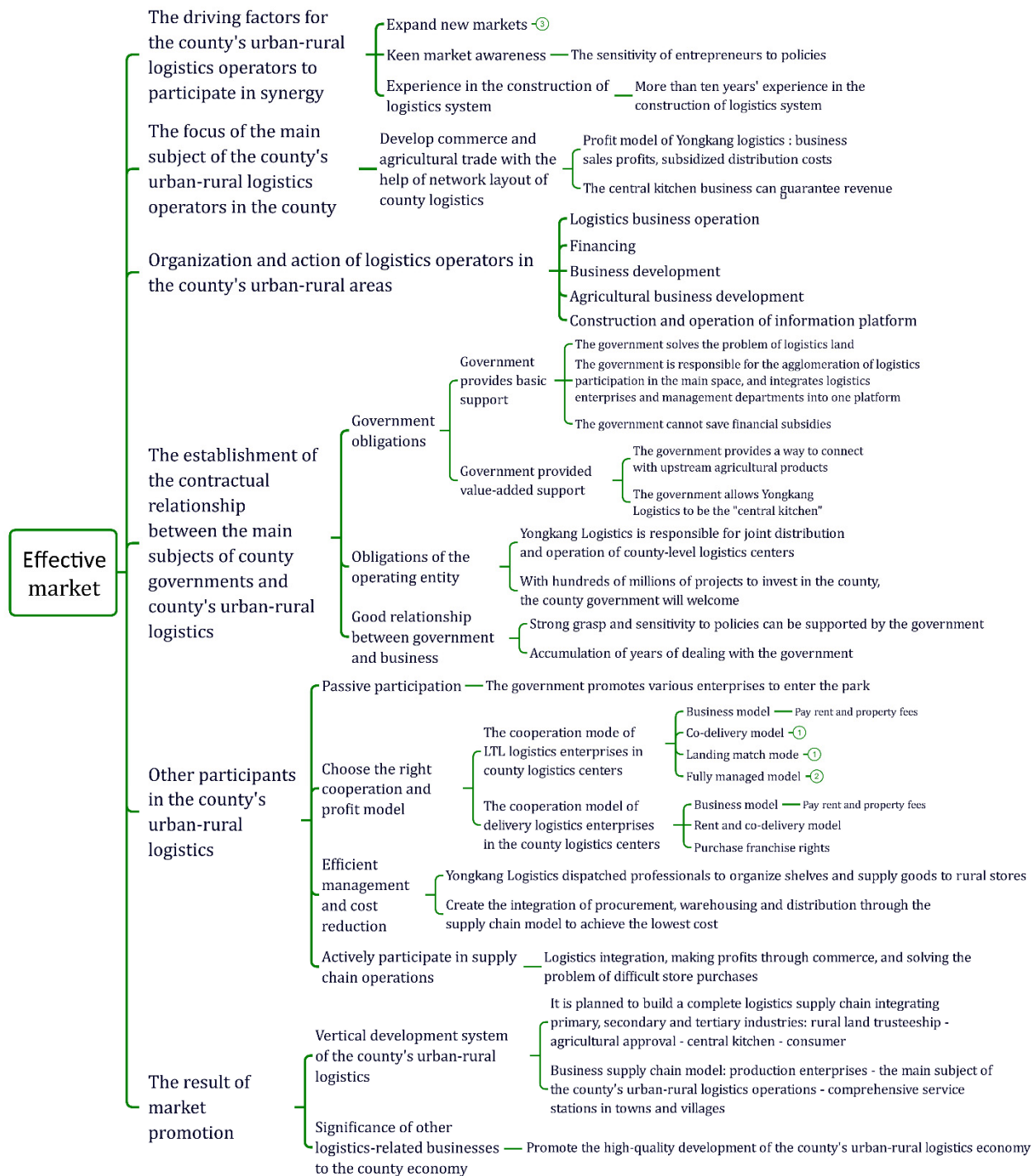


Figure 2. Partial diagram of the theoretical coding of the effective market

### 5.1. To Balance the Differences in Driving Factors between Two Organizations, the First Step should be to Resolve the Conflict at Cognitive Level

Although the driving factors of county governments and the cooperative organization of agricultural and commercial logistics in the construction of the county's Urban-rural logistics system differ, they share a common focus in that they both require co-distribution and express delivery into villages within the county's Urban-rural areas to realize the construction of the county's Urban-rural logistics system. In terms of causal logic, this is the goal of the synergy of county governments. It is also necessary for collaborative organizations of agribusiness logistics to establish a profitable supply chain. As a result, they both hope to develop a peaceful Urban-rural logistics system as a unified cognition. In order to achieve the goal, the county

government must also provide facilities for agribusiness logistics collaborative organizations to facilitate the achievement.

To achieve a win-win partnership, establishing a dual governance model of "contract relationship" [5] is an effective way tested in practice. Among them, contractual governance is equivalent to "law" [6], with clear objectives and rigid implementation methods, that stipulate the specific rights and obligations of both parties to the contract which can effectively solve the short-term incentives, organizational actions, and penalties in the synergistic development of the county's Urban-rural logistics system. However, contractual governance has limitations, such as inadequate completeness and inflexibility in practice. Relational governance is equivalent to "affection" [6] and has the characteristics of flexible governance, which primarily establishes a positive interaction between government and enterprises through trust, communication, coordination, incentive and supervision mechanisms, and coordinates and integrates various contradictions and conflicts in the synergistic development of the county's Urban-rural logistics system to achieve the effectiveness, tightness, and sustainability of synergy. In the process of cooperative development of the county's Urban-rural logistics system, both the rights and obligations and due diligence between county governments and agribusiness logistics cooperative organizations in the process of the construction of the logistics system should be agreed upon by contract. Simultaneously, an excellent government-business relationship should be established based on both parties' efforts to jointly promote the county's Urban-rural logistics system towards benign development.

## **5.2. Effective Division of Labor between Two Organizations in Action and Full Commitment to do Their Due Diligence**

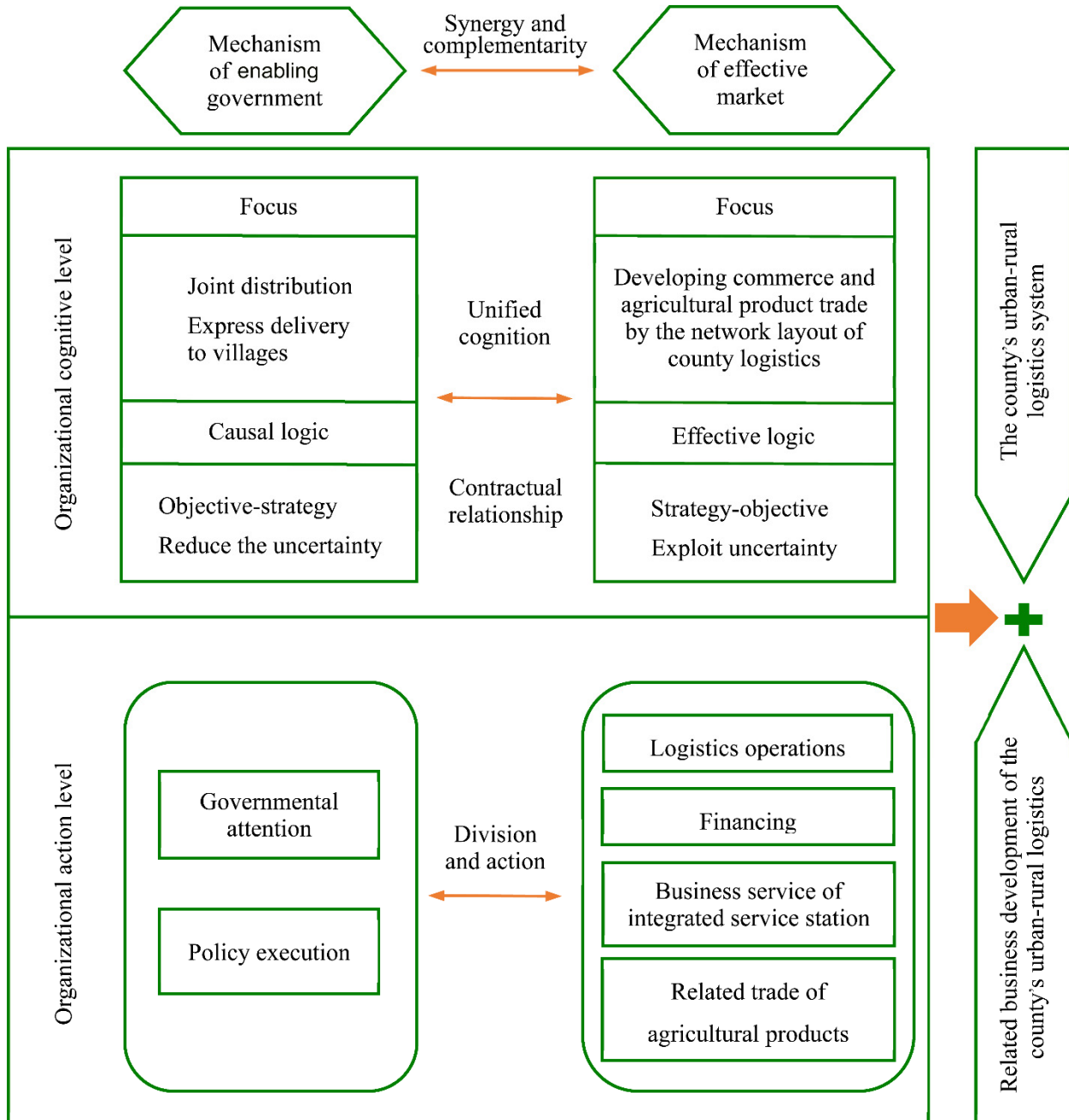
According to the "attention affecting policy implementation" theory, attention allocation is the premise and foundation of government governance decisions [8]. The development of the county's Urban-rural logistics system should be prioritized by the county government and its related functional departments. Generally speaking, the government's attention stems from government leaders' interest demands and rational preferences. Because the cooperative relationship between the two parties is determined by contracts, the government should devote sufficient attention to the construction of the county's Urban-rural logistics system to deal with the various difficulties encountered in the construction and synergic development of the system and improve the implementation of its policies.

It should be clear that the primary social responsibility and obligation of agribusiness logistics cooperative organizations is to build a good county's Urban-rural logistics system and to do an excellent job in the county logistics of the unified warehouse, common distribution, and rural villages. It should grasp the boundaries in its relationship with the government, not only requesting the government to provide the corresponding policy environment and convenience, but also avoiding the use of power to seek rent, following the market rules, and acting on the premise of not harming the interests of the relevant participants in the county's Urban-rural logistics system, to create an "affection-clear" government-business relationship and effective market rules, and realize the rational allocation of resources.

## **5.3. Integrate Mechanisms of the Enabling Government and Effective Market to Promote the Synergistic Development of the County's Urban-rural Logistics System**

The synergistic development of the county's Urban-rural logistics system should full advantage of guiding and promoting the role of the competent government on the one hand, while forming a benign and sustainable development mechanism through an effective market on the other. Finally, the theoretical coding of "enabling government" and "effective market" is formed by reorganizing and generalizing the selective coding of the "the county's Urban-rural logistics

system's synergistic development of main subjects". The model of the synergistic mechanism between the government and the effective market in the construction of the county's Urban-rural logistics system is shown in Figure 3.



**Figure 3.** Model of the synergistic mechanism between the enabling government and the effective market in the construction of the county's Urban-rural logistics system

To achieve the synergy between government and market mechanisms in the construction of a county's Urban-rural logistics system, two aspects should be considered: first, market norms and market ethics together constitute the cornerstone of an effective market [7], and the agribusiness logistics cooperative organizations, as the operation subjects of the county's Urban-rural logistics system, should build the county's Urban-rural logistics system based on full compliance with market economic ethics in the organizational actions aimed at playing an

effective market. The general guidelines and behavior of the market mechanism, discovering the most effective way of cooperating with the participants of the Urban-rural logistics, realizing the scale effect through resource integration and reasonable allocation, to achieve the maximum output of market effectiveness and efficiency. In addition, at the early stage of the construction of the county's Urban-rural logistics system, the county government should "enter the field" at the right time to provide public services and public products such as infrastructure that the market cannot supply, formulate corresponding institutional rules to realize the initial allocation of resources that the free market cannot complete and build a "contract relationship with the county government. The "contract relationship" will direct the "entry" of agribusiness logistics cooperative organization into the market. When the general rules of the market mechanism are established and implemented, the county government should "exit" at the appropriate time and turn to market supervision the "behind the scenes" to prevent the market failure that may be brought by the excessive profit-seeking of the operation main enterprises. Overall, the county's Urban-rural logistics system in the construction of the government cannot enter the field at the proper time; The operation subject cannot system construction goals through the market autonomy; The government cannot exit the field at the appropriate time, or even a big package to replace the role of the market in the county's Urban-rural logistics system is not sustainable.

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