

## **Current state of the implementation of the supply chain by leading, internationally recognized companies in the food industry and possible improvements**

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### **Abstract:**

Leading companies in the Chinese food industry play a major role in the food product supply chain. Their implementation of the supply chain makes it increasingly clear just how valuable and strategically important this chain is for agriculture. This article analyses the experiences of the 151 main companies in the food industry on a national level. This evaluation addresses the following three aspects: (1) upstream coordination and stability; (2) if we consider the five steps to be developed in the supply chain (which are the construction of infrastructures, functional integration, internal integration of the supply chain, widespread integration of the supply chain, and finally, active combination with other integrated supply chains), what are the characteristics of these steps towards the integration of the food supply chain in China? (3) management concept innovations.

The overall state of supply chain implementation in the main Chinese food industry companies is as follows: (1) for most of the companies in question, the upstream section of the supply chain is relatively stable. 60% of these companies use one or more new, high technology solutions to increase the stability, mastery and flexibility of the upstream section of the supply chain. (2) 77% of these companies have improved the management or computerised at least one of the company's activities. About 12% have been able to carry out a relatively complete and efficient internal integration of their supply chain by applying ERP and SCM solutions along with other autonomous systems or techniques. The few companies that have completely converted to ERP and SCM solutions and other incorporated technical applications have successfully achieved the first phase in the external integration of their supply chain. For the time being, there are no examples of an active combination of other integrated supply chains. (3) Other essential elements for implementing the food supply chain have been increasingly consolidated. These elements include the large-scale development of a more fitting geographic redistribution, a tendency towards strengthening strategic alliances, an awareness of the philosophy of collaborative competition and increased importance placed on the value of the client based on SCM technology.

The five main characteristics of the implementation of the supply chain by leading food industry companies are the following:

(1) The creation of an ERP system (enterprise resources planning) is one of the most common methods of implementing the supply chain. 23 out of the 151 companies in the article use an ERP system for the internal integration of their supply chain. One company uses an ERP system as the centre of its system and then incorporates other technical applications based on the ERP system, allowing it to begin the process of external or widespread integration of its supply chain.

(2) The upstream collaboration and integration of the supply chain are currently underway. For example, the Shandong Hengdiancaoye Gongsu company has built an exceptionally precise agricultural system through the use of GIS (geographic information system), GPS (global positioning system) and RS (remote sensing) technologies, which proves that the upstream section of the chain was capable of reaching a value generating degree of precision and level of quality. This radically reduces the quality differential that separates the upstream section from the downstream section of the supply chain.

3) Companies are waking up to the opportunities afforded by the principles of collaborative competition and realising the value of the client through the use of SCM technology. Many companies are working towards their own optimisation or the optimisation of their position in the organisation of the integration process of the food industry. They are now considering the

competitive advantages in the market from a food supply chain standpoint and are making an effort to optimise the chain in its entirety, the objective of which is customer satisfaction in general.

(4) The downstream section of the chain has become the new centre of attention and we are witnessing a shift in food supply chain management models. The three main models used (alone or combined) are the following: the integration model (of distribution) through partnerships or direct control, the e-commerce model associated with logistics externalisation (or 3PL – Third-Party Logistics) and the industrial mutation and extension model (where the leading companies in the food industry and manufacturing industry extend their activities to services, making services the driving force of the manufacturing sector).

(5) We are also witnessing the emergence of a horizontally integrated model based on the primary, distinctive core competitiveness of the companies. A leading company like Guangming is therefore past the beginning stages of understanding the mechanisms of “the development of the industrially integrated chain.” It is working instead on studying and gradually building up its core competitiveness to form strategic alliances in view of horizontal integration [M1].

The author makes three suggestions that could help build up the Chinese food supply chain: (1) reinforcing internal management, establishing solid foundations; (2) intensifying and targeting research and development pertaining to integrated supply chains; helping software developers to have a better understanding of the upstream link in the food supply chain; (3) China is not currently up to speed as far as the implementation of food supply chain theory is concerned. Closer monitoring and government aid will be necessary.

[End]



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