

The importance of network goals for strategic chain management

Gagalyuk T.¹ and Hanf J.H.²

¹ Leibniz Institute of Agricultural Development in Central and Eastern Europe/Department for Structural Development of Farms and Rural Areas, Halle (Saale), Germany

² Leibniz Institute of Agricultural Development in Central and Eastern Europe/Department for Agricultural Markets, Marketing and World Agricultural Trade, Halle (Saale), Germany

Abstract— Nowadays food products are increasingly produced in supply chain networks that involve numerous firms. Due to their pyramidal-hierarchical structure, such networks possess a focal company that coordinates the network. The managerial task of the focal company is to work out collective strategy that addresses cooperation and coordination problems at the firm, dyadic and network levels. These strategies must take into account that at each level specific goals must be achieved. Though the focal company is a strategy setting unit that sets network goals, other network actors may perceive these goals as firm-level goals of the focal company. Therefore, conflicts may occur in supply chain networks.

Keywords— Supply chain networks, focal company, network goals.

I. INTRODUCTION

Food products are increasingly produced in vertically cooperating networks that consist of inter-organizational relationships among more than two firms (Omta et al., 2001). A self-evident reason for the formation of vertical networks instead of single line chains is the differing size of firms along the food chain. Striving for economic independence, protection against market power, and economies of scope are other examples for reasons to collaborate. In the agri-food business, strictly coordinated vertical linkages are relevant to guarantee the consumer the correctness of credence attributes, and to gain cost advantages. Thus, generally networks in this sector are strategic networks defined as “netchains” or “supply chain networks” (Lazzarini et al., 2001).

Strategic networks can be characterized as pyramidal-hierarchic collaborations (Jarillo, 1988; Gulati et al., 2000). On account of this, they possess a focal firm coordinating the network in a hierarchical style. The focal firm is in general identified by the

consumers as “responsible” for the specific food item, e.g. manufacturers in the case of producer brands and retailers in the case of distributors’ own brands. The other network actors are dependent on the focal company because of (long lasting) explicit or implicit contracts. In the case that the focal organization itself is dependent on critical inputs of its supplier, a mutual dependency exists so that the supplying organizations restore some power of the focal company (Medcof, 2001). Nevertheless, the focal company has the power to align the actions of the network partners in order to realize the strategic objectives.

A managerial task of the focal company can be divided into two domains – the task of cooperation and the one of coordination. Problems of cooperation esteem from conflicts of interests leading to motivation problems (Gulati et al., 2005). Problems of coordination refer to difficulties of alignment of actions of independent firms created by a lack of shared and accurate knowledge about decision rules of the other parties and by the unawareness of existing interdependences.

Since many years, in business practice as well as in theory the firm boundaries overlapping concept of supply chain management has been introduced. Since the logistics driven concept of supply chain management focuses mainly on the alignment of distribution processes and related questions on data exchange and standardization, it does not take into account questions regarding cooperation. Additionally, small and medium sized enterprises are not addressed despite the fact that they are the majority of the agri-food business. As modern competition does not take place between individual companies but between entire supply chains, the emerging challenges have to be faced at the supply chain level. However, because supply chain networks consist of a multitude of collaborating firms, one can assume that not only one common goal exists but also many others. Thus, for

successful chain management, mechanisms have to be worked out to align the goals of the different parties.

On account of this, the **aim of this paper** is to answer the two questions. First, we answer the question “**What are the goals of supply chain networks?**” Second, we find an answer to the question “**How do the goals effect cooperation and coordination?**” In order to complete this task, we elaborate on supply chain network goals and their role for successful chain management. We conclude by presenting some implications for science and managerial practice as well as a short summary.

II. WHAT ARE THE GOALS?

The strategic chain management literature emphasizes the superior importance of collective strategies. Numerous authors define collective strategies as systematic approaches by collaborating organizations that are jointly developed and implemented (Bresser and Harl, 1986; Sjurts, 2000). Collective strategies are regarded as instruments dealing with the variation in the inter-organizational environment, i.e. they aim to stabilize and dominate the interdependent task environment. The aim of such strategies is that the involved organizations jointly manage common interdependencies (Bresser and Harl, 1986). Thus, one could conclude that the sole goal of a network is to create a set of mechanisms that manage the existing interdependencies, i.e. the creation of a strategic management itself is the networks’ goal. Because strategic chain management takes into account the existence of different levels of a network (Duysters et al., 2004), network goals have the scope to be addressed in the same way. On account of this, goals of chain management have to be considered at least at the firm and network levels. Furthermore, because strategic chain management consists of mechanisms that address cooperation and coordination, network goals have to be divided in these two dimensions (Table 1).

Under network-related goals we understand goals set within a network that can only be met if all networked firms work jointly to achieve them. An example is to enhance the total chain quality to meet the end consumer requirements. In general, we suppose that such aims are rather of non-pecuniary or

intangible nature. This is a reason why their indication is complicated in terms of supply chain networks. Firm-level goals refer to goals that single firms strive to achieve for themselves entering the network. Examples might be higher sales, risk reduction, etc.

However, given the character of supply chain networks, the focal company is able to set the overall network goals. Due to this fact, it might be often difficult to distinguish between the network level goals and the firm level goals of the focal company (e.g. end consumer satisfaction can be regarded as either a firm-level aim of a retailer or a network-level aim because its fulfilment involves many firms though it is addressed by retailer as a focal actor).

Table 1 Network goals

Goals	Network levels		
	<i>Firm level</i>	<i>Dyadic level</i>	<i>Network level</i>
<i>Examples of cooperation sub-goals</i>	Knowledge generation	Avoidance of opportunism Gaining or distribution of power Trustful relationships	Chain transparency Trustful relationships
<i>Examples of coordination sub-goals</i>	Increase in sales Risk reduction Consumer satisfaction	Access to information Customer satisfaction	Chain quality Consumer satisfaction

III. HOW DO GOALS AFFECT CHAIN MANAGEMENT?

As argued above, the goals of the focal company can be regarded as also network goals. Thus, whereas one can understand the creation of a chain management concept as the general goal on network level, some of the focal company’s firm-level goals can be regarded as particular goals on network level, e.g. end consumer satisfaction. Considering the importance of such network goals for the design of the strategic chain management concept, one has to address them explicitly to achieve a competitive advantage for the network and thereof for the focal company.

Particular attention has to be paid to the design of the partnering strategies that address the alignment of the interests of the involved actors. The focal actor has to carefully align the interests and thereof the goals of all involved parties. Thus, when designing the collective strategy and the resulting management concept, the focal company has to assure that goals on the three different networks levels are considered. Because networks are of dynamic nature, mechanisms have to be worked out how to include changes in the relevant goals. Additionally, the alignment of actions is of importance for the chain management because it ensures harmonious work of all the network actors to achieve the network goals. A prerequisite for this is that the focal company is accepted by all parties to be the chain captain (Hingley, 2005).

IV. FUTURE RESEARCH AN MANAGERIAL IMPLICATIONS

We believe that the current theoretical elaboration can provide some insights that are useful for science and managerial practice. Future questions and tasks for research can be addressed in the strand of network goals and their implications for chain management and the success of networks. As long as the goals of all participants are not clear, a true validation of the success of the network and its management can not be conducted. This leaves room for dissatisfaction of the involved firms. A result can be lower motivation and higher opportunism. Because there is a consensus in strategic management literature that structural equation modelling is a preferable way to analyse success and success factors, structural equation models can be used for validation in the future.

Besides this rather general recommendation, studies on the network goals have to be encouraged. Particularly, the translation of the interests of the different chain actors in their specific goals is of concern. A set of the different goals (on all network levels) can help to categorize the goals in conflicting, independent and complementary ones. Based on this categorization, (theoretical) managerial implications can be derived. Because the goal analysis demands rather in-depth knowledge, the conduct of case studies and qualitative empirical methods is necessary.

We suggest that the main managerial implication of this paper is that for the successful management of food supply chain networks the knowledge of different goals is essential. Knowing that there is a difference between network goals and the goals of the individual firms allows lowering the risk of setting wrong incentives. Particularly, if the network specific goals are mostly determined by the goals of the focal company, confusion and misunderstanding can develop in the supply chain network. In accordance to this argumentation, we perceive the duty and responsibility of the focal company as to work out a strategic approach that considers the common aims of all participants on one hand and includes incentives on the firm level on the other hand. In the case that conflicts exist between chain- (network-) related and firm specific goals, the focal company has to include conflict solving mechanisms.

V. SUMMARY

Taking into account the above analyzed chain management aspects, it gets evident that network goals must be also discussed in the light of cooperation and coordination and the three network levels. In our perception, particularly goals on network level and on firm level bear the potential of conflicts. Thus, chain management concepts have to include conflict solving mechanisms.

Due to the particular characteristics of supply chain networks, the focal companies are the primary strategy setting entities of networks. Therefore, their firm level goals are to some extent the goals for the entire network. In this context, a collective strategy has to be understood as an approach induced by the focal company to address the alignment of actions and interests of independent but collaborating companies to achieve the focal company's goals. Specifically, successful chain management requires that the focal company has extensive knowledge about the different goals of a network and its member firms. This knowledge has to be included into the design of the collective strategies on all three network levels.

REFERENCES

1. Bresser R K F, Harl J E (1986) Collective Strategy: Vice or Virtue? *Academy of Management Review* 11:408-427
2. Burr B (1999) Koordination durch Regeln in selbstorganisierenden Unternehmensnetzwerken. *Zeitschrift für Betriebswirtschaft* 69:1159-1179
3. Duysters G, Heimeriks K H, Jurriens J A (2004) An integrated perspective on alliance management. *Journal on Chain and Network Science* 4:83-94
4. Gulati R, Lawrence P R, Puranam P. (2005) Adaptation in vertical relationships: Beyond incentive conflicts. *Strategic Management Journal* 26:415-440
5. Gulati R, Nohria N, Zaheer A (2000) Strategic Networks. *Strategic Management Journal* 21:203-216
6. Hingley M K (2005) Power to all friends? Living with imbalance in supplier-retailer relationships. *Journal of Industrial Marketing Management* 34:848-858
7. Jarillo J C (1988) On strategic networks. *Strategic Management Journal* 9:31-41
8. Lazzarini S, Chaddad F, Cook M (2001) Integrating Supply Chain and Network Analysis: The Study of Netchains. *Journal on Chain and Network Science* 1:7-22
9. Medcof J W (2001) Resource-based strategy and managerial power in networks of internationally dispersed technology units. *Strategic Management Journal* 22:999-1012
10. Omta A W F, Trienekens J H, Beers G (2001) Chain and network science: A research framework. *Journal on Chain and Network Science* 1:1-6
11. Sjurts I (2000) Kollektive Unternehmensstrategie. Grundfragen einer Theorie kollektiven strategischen Handelns. Habilitation, Wiesbaden.

Corresponding author:

- Taras Gagalyuk
- Leibniz Institute of Agricultural Development in Central and Eastern Europe
- Theodor-Lieser-Str. 2
- Halle (Saale)
- Germany
- Email: gagalyuk@iamo.de