IS A JOINT OWNER A GUARANTEE OF COORDINATED EFFORTS OF ENTITIES IN THE VALUE NETWORK?

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Abstract

Systematic establishing of the value network and development of cooperation among members can significantly increase its success rate. However, it is necessary to be an entity that is actively engaged in building a functional value network and has an adequate position and tools for such activities. As there is generally a better opportunity for the development of cooperation in chains and networks where a single owner controls a number of entities, better opportunities open up in this field for enterprises of metallurgical and chemical industries, where there are traditionally strong ownership links. The paper presents results of primary qualitative researches undertaken in the chemical industry. It presents the current form and manner of cooperation of these enterprises with other entities of the value network. It analyzes the areas and degree of tightness of cooperation in these networks. The authors discuss the possibility to further improve activities in the business value networks as a result of the strengthening of the coordinating function of the entity that owns a significant number of individual links of the value network.

Keywords: value network, value network strategy, subjects of value network, cooperation.

1. INTRODUCTION

Firms increasingly face competitive pressures related to rapid and continuous adaptation to a complex, dynamic, and highly interconnected global environment [1]. In rapidly changing business environments, companies usually focus on their core competencies and collaborate with others to capture or create business opportunities [2]. The empirical results show that firms in general have a positive attitude towards inter-organizational collaboration [3]. This cooperation should be developed not only between suppliers and consumers, but also with other entities involved in meeting the needs of direct customers and customers of these consumers. This leads to the formation of a value network. Its performance, as well as the performance of individual entities depends on whether the value network is created in a systematic way and activities performed in it are coordinated. It is therefore desirable to have an entity with a direct interest in the creation of a functional value network. This entity can be an owner of several links of the value network. Generally, there are greater opportunities for creating value networks in sectors with strong ownership links, as in the chemical and metallurgical industries. Moreover, in these industries the necessity of the technical quality of inputs contributes to strengthening relationships between business partners. For example the main objectives of blast-furnace operators include maximum production of pig iron of required chemical composition at minimal cost. This can be ensured only in case of quality raw material basis and trouble-free operation of blast-furnace [4]. However, the question arises if a sole owner is sufficient to guarantee a coordinated effort in the value network. The article contributes to the answer to this question based on the results of a primary research conducted in 2012 in selected enterprises of chemical industry. First, the paper presents areas, the degree of closeness as well as the way of cooperation of selected enterprises of the chemical industry and other entities of the value network (some of which are owned by the same owner). Subsequently, it discusses the possibility of further improving activities of business value networks as a result of strengthening the coordinating function of the entity which owns a significant number of individual links of the value network.
2. THEORETICAL BACKGROUND

It is widely accepted that customers derive value through resource integration, by integrating their own resources with those provided by organization and other network actors [3]. For this reason successful companies do not just add value with a fixed set of activities, but they reinvent the value-creating system, with different economic actors (e.g. suppliers, business partners, allies and customers) working together to co-produce value [2]. Group of stakeholders differs for each company; similarly, the importance of each member of the group is different [5]. Companies’ key strategic task is the reconfiguration of roles and relationships among this constellation of actors in order to mobilise the creation of value in new forms and by new players. [2].

In value network must be the interface between innovation superstructure and innovation infrastructure [6,7,8]. The innovation superstructure consists of clients, regulators and professional institutions. The innovation infrastructure comprises component suppliers, trade contractors and specialist consultants [8], see Fig.1.

![Fig.1 Innovation structure in complex product systems industries [6,7,8]](image-url)

The members of the value network must trust one another. Then there will be ways by which the two parties can work out difficulties such as power conflict, low profitability, and so forth [9,10].

In creating and running a value network, a system integrator plays an important role. The system integrator can generally be any member of value networks. It can be the customers. In this case they must acquire the necessary skills and knowledge to be effective resource integrators as they engage in activities that facilitate or create value. Supporting customer learning, then, is a pressing new challenge for firms that recognize customers engage in resource integration in the course of their value-creating processes [3]. Systems integrators add value through systems integration: they integrate components, technologies, skills and knowledge from various organizations into a unified system for an individual customer. To do so, systems integrators set-up a strategic network of organizations and coordinate the process of integrating dispersed resources of the network members [8].

The role of systems integrator comprises two main tasks [8]:

1) Systems integrators set-up a network of various organizations. From a strategic viewpoint, they configure the organizational network in terms of members, relationships and division of work. This
includes decision making regarding issues such as sourcing (insourcing vs. outsourcing) and the type of contractual terms (formal vs. informal) to be adopted in relationships.

2) Systems integrators coordinate the work of the organizations involved in the network. By orchestrating the activities of the network members systems integrators guarantee the coherence of the network output.

This means that the system integrator is responsible for all activities related to setting the form of the value network. According to literature [2, 11, 12], this means in particular to create:

3) Network structure – referring to the physical footprint of resources, including the size, number, types/roles of network members and the rationale of network design.

4) Operations processes – referring to the flow of material and information between network members to create valuable output to customers.

5) Governance system – referring to the mechanisms to direct and control the network, including authority structures, performance measurement and coordination mechanisms.

6) Support infrastructure – referring to the enablers for network members to work together, including information systems, tools, resources, cultures and behaviors.

7) External relationships – referring to the interaction with external partners, including suppliers, customers, users and collaborators [2].

After establishing the form of the value network, it is necessary to create a value network strategy. The system integrator appears to be a suitable element for its creation. As part of this strategy, it needs to be solved how global network operations will contribute to customer value and thus the overall competitiveness of a firm through: generating innovative ideas and selecting ideas efficiently; encouraging innovative conceptual design and establishing efficient development processes; producing and delivering products/services efficiently and flexibly; and providing flexible services and supporting customers efficiently [2].

It is also necessary to determine the degree of closeness of cooperation between the links in the chain. According to Kampstra et al. [13] it is possible to distinguish:

- The initial level of collaboration is “Communication” assuming there is no starting collaboration. The goal of this level is to improve productivity and enable information sharing through simple IT applications.

- The second level of collaboration is “Coordination,” which focuses on the coordination of intra- and inter-entity processes. The main purpose at this level is to synchronize flows and to automate certain routine decision-making processes to improve speed and accuracy.

- “Coordination” necessarily involves additional investments in IT infrastructure. The third level of collaboration is “Intensive collaboration,” which implies increased involvement of the collaboration members to improve the strategic management decision-making and enhance innovation in the chain. A high level of collaboration creates a more open dialogue amongst collaborative entities and tends to spread to other areas of the enterprise other than just those related to logistics.

- The fourth level of collaboration is “Partnerships,” which involves extended financial linkages, such as sharing of investments and profits [13].

Through systematic creation of the value network and value network strategy, greater efficiency may be achieved through mechanisms such as economies of scale/scope, international operation synergies, resource sharing, and reusing existing knowledge and solutions; and a network may achieve greater
effectiveness through mechanisms such as quick response to environmental changes, market/technology-driven innovation, mobile resources and flexible operation approaches [2,14].

3. PRIMARY RESEARCH RESULTS

The primary research carried out in the first half of 2012 in enterprises of several industries was also focused on the detection of the form of the value network, in which a company is also involved, as well as of areas and forms of cooperation among individual entities of the value network. The research was also conducted in chemical industry enterprises developing cooperation with other entities of the value network that are owned by the same owner.

3.1 Company A and its Cooperation with Other Entities in the Value Network

The chemical industry company, where the primary research was conducted, produces basic chemical compounds used for next processing. Its business relations arise from historical approaches to the construction of the chemical industry, where production processes within firms and the entire economy were built as complementary. Currently, the firm buys inputs from partners and sells the majority of its production to Czech and Slovak companies as customers. They are part of the same ownership group. In meeting its customers’ needs, the company collaborates with other institutions as well, particularly with transport companies, state administration authorities, higher education institutions and a research institute. It thus develops not only customer-supplier relationships, but also relationships within the value network.

The company cooperates with suppliers and customers mainly in collecting market information, in analyzing and forecasting demand, planning and realizing procurement, production and sales, but also in planning supporting processes, especially maintenance. The partners work together also in eliminating problems resulting from discrepancy (in particular logistics) of plans and reality as well as in crisis situations. As far as cooperation with other entities is concerned, the company cooperates closely with a contractor providing transportation by rail, in the planning and implementation of research it cooperates with universities and a research institution (which is also part of the ownership group). The company assesses cooperation with the transport provider as particularly important. The company provides appropriate tanks for temporary storage of products and gradually assumes responsibility for the maintenance of railway lines within the territory of the company. The company and this partner also share information to enable fast and flexible response from this partner. The importance of this cooperation is increasing also because the partner serves to other entities (manufacturing companies) within the group.

Regarding the degree of closeness of cooperation, the company with its business partners in the value network applies the lowest form, i.e. communication. They share information helping in particular to adapt the production volume to the market situation and the continuity of material flow. It enables the partners to align business plans and activities carried out. Purchasing and selling operations are contractually treated in the usual way (orders, sales contracts), and the company also uses framework agreements.

The company cooperates only with direct consumers and immediate collaborators in the creation of value for direct customers; there is no cooperation with other partners across the supply chain (customers of these consumers).

3.2 Company B and its Cooperation with Other Entities in the Value Network

Company B, where the primary research was conducted, produces high-quality cosmetic products for personal and hair care. The wide range of products is further extended with preparations to sweeten a stay in a hotel or customer comfort during a flight. The products are intended for direct consumption by end users who are direct customers of hotels and hotel chains.

The company products are made:
1. to order, when they are produced on the basis of precisely defined customer requirements regarding the composition of the product, design, supplier of raw materials and other inputs, method of manufacture and packaging, number of supplements, etc.

2. to stock - where all the activities from the creation of the future shape of the product through the production planning to the implementation of the final version are planned and implemented by the company itself.

The company is the last manufacturer in the value network. When selling, it collaborates with other members of the ownership group, i.e. selling institutions, which enables customer service anywhere in the world. For the sale, however, it uses completely independent distributors as well. In satisfying its customers, the company collaborates with other institutions, both with other manufacturers, to whom responsibility is devolved for part of the production process (in particular finishing and completing operations) and with logistics assistants (providing storage and transport operations). It also cooperates with universities (providing personal development of the staff and cooperating in the research and development of new technologies).

Cooperation of the company with suppliers, consumers and other entities basically takes place under normal commercial relations, ordering of products and other services takes place among the partners in the value network through orders and confirmation thereof and through sales contracts. The only long-term contract is a contract between the company and the management of the entire ownership group specifying the range of powers and responsibilities. Among the partners there is no significant information sharing. Hotels and hotel chains share information on experiences and satisfaction with the use of products, but information to support continuous material flow is not forwarded. Collaboration with suppliers is significantly influenced by the line of business; great emphasis is placed with supplies on the delivery of inputs exactly according to technical specifications and on the stability of supplies. Neither the cooperation with other entities in the value network can be regarded as beyond normal relationships, there are repeat purchases at maximum. Framework contracts are not used to stabilize the material flow either. It can therefore be stated that the closeness of cooperation is less than the lowest form, communication.

4. DISCUSSION OF PRIMARY RESEARCH RESULTS

Content analysis of the results of primary research carried out in the Company A revealed that a sole owner contributes to the successful building of the value network. A sole owner of the ownership group, to which the Company A belongs too, affects the choice of suppliers and customers, suppliers belonging to the same ownership group become preferred. As a result, it influences the structure of the entire value network. At the same time, it affects the use of other entities by individual enterprises of the group, for example, the transport company gradually expands its services towards other businesses. This gives a basis for optimizing transport services across a considerable part of the value chain.

It is quite obvious that the sole owner significantly reduces the fear of misuse of information provided to the business partners (if the supplier or customer misused it, they would damage the same owner). Businesses in supplier-customer relations not only readily share market information, but also information enabling greater continuity of material flow. Indications can be traced of derived planning in the related enterprises that are part of the same ownership group and joint emergency and crisis response. Much less fear of misuse of information undoubtedly contributes to the development of cooperation and we can expect a gradual transition to a higher form of cooperation. However, cooperation with other organizations in the value network currently takes place in a rather haphazard way and aims especially to increase the continuity of the material flow. The shift to a higher form of cooperation would undoubtedly be facilitated, if a so far non-existent single basic strategy was created (and a common strategy by business functions).
The analysis of the information obtained in the Company B revealed that the given value network is much less influenced by the sole owner. Its influence has scarcely any impact here. This value network works in essentially the same manner as the value network without an owner controlling several of its entities. In this case, the sole owner did not help to develop cooperation at least at the level of communication that would become the basis for the coordination of activities in the value network. In this value network, all business relationships are, at best, on the level of repeat purchases. In this case, the sole owner does not fulfill the role of the system integrator at all, nor does it formulate a value network strategy.

Regarding the improvement of the activities of the value networks, the sole owner does not guarantee optimal functioning of the value network. To do so, it needs to fulfill the role of the system integrator. It must actively and purposefully build a functional value network, create a value network strategy and, in order to fulfill it, coordinate activities carried out in the value network. It needs to have sufficient position and tools for its activities. The strategy created should be focused on the emergence of strategic benefits in the value network.

5. CONCLUSION

Pressing challenges include keeping pace with shorter product life cycles, incorporating multiple technologies into the design of new products, co-creating products and services with customers and partners, and leveraging the growth of scientific and technical knowledge in many sectors [1] including metallurgical industry, too [15]. Joint creation of products and services is not possible without the development of cooperation among partners in the value network, which must be coordinated and focused on creating strategic benefits. As shown by the primary research conducted, this kind of work has not yet been routinely applied in practice of Czech chemical companies. Therefore, further scientific work of the team shall focus on the formulation of recommendations leading to the strengthening of relations among the entities in the value network in order to increase the performance of the value network and its individual parts.

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LITERATURA


