

## COOPERATIVE BUSINESS MODELS IN STEEL ENTERPRISES IN POLAND

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The paper presents the concept of cooperative business models in steel enterprises in Poland. The starting point is the presentation of the concept of business models, which is defined as a way of doing business based on cooperation between enterprises. This paper presents two collaborative business models, namely outsourcing and alliance networks, comparing the theoretical assumptions with the results of research carried out in steel enterprises in Poland.

*Key words:* steel enterprises, cooperative business model, outsourcing, alliance network

### INTRODUCTION

The shape and the image of the market where the competitive game is played determine the new areas of management of enterprises. The product (service) offered to the customer is one of the factors enabling the company to achieve a competitive advantage. Modern enterprises do not compete through products or services but through precisely constructed business models. The construction of business models is one of the biggest problems facing enterprises around the world. This is because they shape the logic of profit generation. Business models, together with their components, directly influence the competitive advantage achieved by the company. They also support the company's value growth which means that they should be protected from competition. On the other hand, weaknesses in the construction and management of the business model can contribute to the destruction of the company's value. This also means that the place and role of the strategy in the management of the company is constantly changing. This is particularly important in times of global economic crisis, which forces companies to look for new sources of competitive advantage. Business models are more and more popular amongst Polish enterprises. They are supported by greater links between the Polish economy and the world economy, and the presence of global corporations in Poland. From these models, special attention should be paid to business models based on inter-organizational cooperation, both bilateral and multilateral. It is assumed that instead of competing, it is always better to cooperate with a potential (or direct) competitor. Taking into account the deliberations presented, the aim of the paper is the presentation of

two selected business models based on inter-organizational cooperation, namely outsourcing and alliance network, and the comparison of the theoretical assumptions with the results of direct research carried out in steel enterprises in Poland.

### THE CONCEPT OF THE BUSINESS MODEL

Different definitions of the business model are presented in the literature, within which we can observe both similarities and differences. According to Morris [1], a business model is the set of products and services delivered to the market by the company, which ensures a strong relationship with current and future clients. In turn, Linder and Cantrell [2] claim that a business model is a coordinated plan based on the optimal utilization of resources and relations in order to create a strategy which will be compatible with the customer's needs. Both of these definitions emphasize the importance of relationships and connections between the companies. This understanding of the concept of a business model allows for a change in strategic thinking. It relates to the building of a competitive advantage through flexible implementation of the business decisions in the system of "the current business model of today, to the current business model of tomorrow" [3]. Based on the concept of business models, a cooperative business model can be defined as a way of doing business with the utilization of cooperation between enterprises. This cooperation can take different forms, e.g. bilateral arrangements (dyadic alliances, joint ventures) or multilateral agreements in the form of alliance networks, virtual organizations, clusters, franchising, and outsourcing. Their most important features are close relationships amongst enterprises and trust. It is hard to imagine the effective functioning of any business models without these factors included. Cooperative business models are becoming

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ing more and more popular throughout the world. For example, the results of the leading Japanese automotive companies, i.e. Toyota and Honda, are determined to a large extent by the partnership cooperation with their partners in the keiretsu group. More importantly, cooperative business models are not only the domain of one sector but are becoming widely used throughout the global economy. It should be noted, however, that the problem is not to develop a business model, even the most innovative, but to implement it and thereby achieve a competitive advantage, defeat competitors and increase the company's value.

## THE CONCEPT OF OUTSOURCING

According to the concept of outsourcing, the company focuses on its key business instead of dealing with the activities of the entire area of the value chain, and simultaneously sets up constant cooperation with different companies to purchase their products or services, which previously have been produced in-house. A long-term and permanent relationship between companies and the mutual benefits resulting from long-term cooperation and mutual partnership is central to this concept. This represents a shift of perception and location of the supply functions within the company. Outsourcing occurs in most countries as well as in various sectors of the economy. It is utilised by large, multinational corporations and small entities alike. It helps companies to take advantage of external services and resources, ensuring high quality and competitive prices. An advantage is that the partnership is based on the principle of specialization and professionalism [5]. No wonder that the total value of the field of electronics has reached \$ 100 billion, while in the computer chip manufacturing industry value has increased from a few billion dollars in 1992 to more than \$ 50 billion in 2002 [6]. Although at the end of the twentieth century, this concept was used mainly in the IT field, now we can observe dynamic growth in other industries, primarily in the area of human resource management [7]. Outsourcing has been and continues to be widely used in traditional sectors of the economy, such as the steel industry. This was particularly evident in the second half of the 90's and the beginning of the current decade, when the steel plants used this concept on a large scale in the restructuring process. One of the classic activities was the spinning-off the processes which were not regarded as part of the core business. These processes included: protection of property, maintenance, medical services, transportation, accounting, and others. These activities were carried out in almost all steel plants. The scale and scope of outsourcing activities executed by particular plants were the only differentiating factors [8]. These restructuring activities were not only a feature of the Polish steel industry, but were also observed in other countries, especially those from the former Eastern bloc. This was mainly due to the similarity of their pre-

Table 1 **Outsourcing in US Steel Kosice [9]**

No.	Area	Description	Year
1.	Maintenance	Installation and handling of power equipment	1991
2.	Distribution and logistics	Handling of duty free zone, storage of strategic raw materials	1991
3.	Administration	Protection of property	1991
4.	Maintenance	Forklift service	1992
5.	Repairs	Machine maintenance, painting, storage	1992
6.	Production	Laboratories, quality control	1993
7.	Maintenance	Manufacturing of refractories	2002
8.	Social sphere	Laundry, health clinics, training, recreation centers	2003

vious organizational structures, because all the steel mills in these countries were constructed according to a similar scheme (pattern), assuming maximum self-sufficiency. Table 1 shows the outsourcing activities in Kosice steel plant, which is now part of U.S. Steel.

This means that outsourcing is a potential source of competitive advantage, reducing business risk and bringing many benefits. In other words, it should be treated as a cooperative business model.

## FUNCTIONING OF ALLIANCE NETWORKS

Strategic alliances are treated as the response to changes in the market, caused by both technological factors (convergence of products and services), market factors (increase demand) and economic factors (increasing competition from global companies as well as smaller local companies) [10]. This means that companies, in order to maintain a competitive advantage are forced to cooperate with other firms. It is even believed that participation in a strategic alliance is the foundation

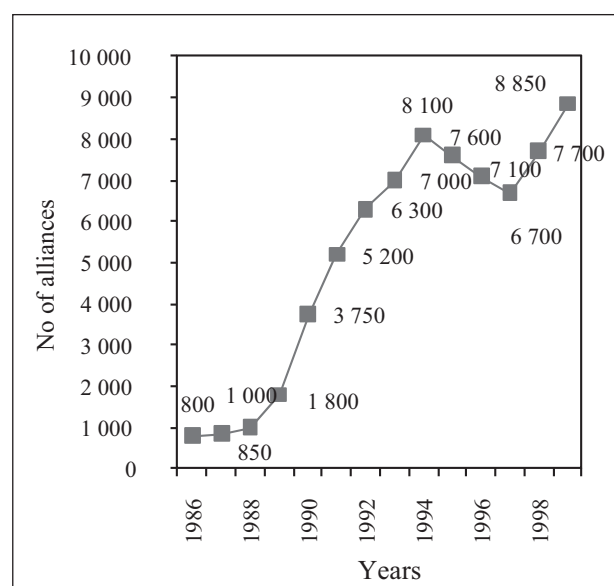


Figure 1 The growth of no. of strategic alliances in the years 1986- 1999 [12]

of a company's competitiveness. One of the reasons is that alliances facilitate the implementation of world class manufacturing standards [11]. Small wonder that between 1986 and 1999, the number of alliances has increased more than tenfold (Figure 1). Alliance network, i.e. alliances built up on the basis of network organizations is one of the most widely used cooperative strategies. They are a beneficial alternative compared to other forms of a company's growth. They allow the production of products and goods that are beyond the capabilities of the individual companies, facilitate innovation, maintain a high growth rate and increase flexibility. As a result, they create opportunities to achieve a long-term competitive advantage [13]. Thus, they can be regarded as a classic example of a cooperative business model.

### COOPERATIVE BUSINESS MODELS IN PRACTICE

Since the 90's, the steel industry in Poland has followed the latest trends in business management. Before privatization, the largest steel mill in Poland, Huta Katowice, had formed several alliances in the form of joint ventures with foreign companies. One of them was the company HK ABB, formed with the Swiss-Swedish group ABB, and the second was Alkat, set up with the French company Air Liquide. A similar situation was observed in other mills, especially in Huta Sendzimir. Other mills, due to much lower potential and capacity, entered into cooperation arrangements on a much smaller scale. Among the broadly defined cooperative business models, the most important were links based on outsourcing. Frequently, the main separated areas of activity were: maintenance, rail and road transport, automation, widely understood services (cleaning, protection of property, water, medical services). From the very beginning it was assumed that the spun-off companies were oriented towards maximum reduction of operating costs. Those companies had also various protective packages, e.g. priority in receiving orders from the mills. Generally, after the take-over of the Polish steel enterprises by foreign capital at the beginning of the current decade (ArcelorMittal, CMC, Celsa) the new owners applied one of two strategies: merging the spun-off companies with the core business, or leaving the companies outside the structure. Currently, companies providing services which are necessary in the production process are usually included within the structure of consolidated enterprises [14]. For example, American CMC, the owner of Huta Zawiercie, decided to follow this course of action, and since 2005 they have operated as the plant's departments. Spanish Celsa, which is a strategic investor in Huta Ostrowiec, applied a completely different approach. Prior to privatization, the mill had spun-off companies providing different services, including despatches of refractories, industrial gases and transport. Seven companies with different le-

gal status currently work for Celsa Huta Ostrowiec. The most complicated situation was observed in steel mills owned by ArcelorMittal Poland, mostly due to the scope and scale of past outsourcing activities. Initially, the situation remained unchanged as it enabled compliance with the EU requirements regarding the number of employees. A comprehensive strategy for all the subsidiaries was subsequently prepared. The companies (activities) needed to ensure the production process were incorporated into the structure of the ArcelorMittal Poland. For non-core business entities, such as companies dealing with the provision of medical services and tourism, the company is open to potential investors. The fact remains that some auxiliary functions are still outsourced, such as transport and wastes processing [15]. In 2011, a research team from the Academy of Business in Dabrowa Gornicza conducted direct research which included a group of 125 companies operating in five traditional sectors of the Polish economy: steel industry and steel-related sectors such as machinery, coke, mining and energy. The research attempted for the most part to identify the scale and scope of the 10 selected management concepts in Polish companies in these sectors [16]. The concept of outsourcing was one of the most widely used by the companies surveyed (24 indications). Respondents were able to choose the use of outsourcing by: reduction of the company's organizational structure, reducing the number of management levels, employment reduction, business process outsourcing, outsourcing in processing and information management, IT outsourcing, outsourcing of HR functions, payroll, staff leasing. Of these, two concepts were most frequently indicated: "reduction of the company's organizational structure, and "reducing the number of management levels" and "employment reduction" – responses of this type were given by 15 and 18 companies respectively. All other proposals were much less common (less, than 10 indications). The relatively minimal interest in the outsourcing of IT and HR functions is surprising, as they are generally considered amongst the most common. Nine and four companies indicated the utilization of these concepts respectively. In these same studies, one of the concepts analyzed was inter-organizational cooperative strategies (alliances, networks, virtual organizations). However, in contrast to outsourcing, inter-organizational cooperation strategies were among the least popular management concepts utilized by the companies (only nine indications). Respondents were able to choose from the following options: bilateral alliances in the form of: 1) partial purchase of shares in the partner company, mutual exchange of shares (cross-sharing), creation of a separate entity (a joint venture company), loose agreements such as the appointment of a task team to work in R&D; 2) network organization; 3) virtual organization. Respondents mainly favoured the formation of bilateral alliances, among which "loose agreements ..." were strongly dominant. Other forms of bilateral alliances were seem-

ingly utilized only two or three times. It is worth noting that two respondents identified the creation of virtual and network organizations, which means that the respondents mainly use the simplest forms of inter-organizational cooperation. On the other hand, it should be noted that virtual organizations, by nature, are rather the domain of other sectors of the economy.

## CONCLUSION

Cooperative business models are regarded as the most promising strategy. This is an opportunity to gain access to the resources of the partner, learn from it and acquire new skills. In other words, it is a chance to improve the competitive position of the company, irrespective of the sector of activity. On the other hand, the research has shown that the potential for cooperation in the steel mills has not yet been fully optimised. This particularly relates to the alliances and alliance networks, because outsourcing is widely used by the companies surveyed. This means that there is a chance for a company to expand activities in the field of alliances, while keeping in mind that it is always better to cooperate than to compete, even with direct competitors.

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**Note:** The responsible translator for English language is Andrew Gillin, Katowice, Poland