

than that of one's own company. Despite the disadvantages mentioned that would arise from implementing supply chain management, it is still profitable to follow this path. The instruments as well as methods are varied to an extent and reveal great potential in bolstering a company's competitive capacity. Therefore it is not urgent whether all levels of a supply chain can be managed. It is already beneficial for suppliers and customers alike to enjoy reaping the benefits associated with supply chain management.

## **11.Summary**

Acceleration of the market dynamic, increased complexity, the continually rising flow of information, these are all developments attributed to globalisation. There are new economic powers, which on account of their social structure, operate differently than in the previous markets. Markets are changing and trade currents are shifting. Customer needs are aligned to these conditions at a rapidly increasing tempo. New global trends are already at the implementation stage. There is a sharp inclination towards megacities. Essential factors associated with this inclination are already being embedded in the area of strategic planning among many companies. These factors include, for example, the necessary

infrastructure, or a transport system that can ably bring externally-produced goods into these cities. The European steel industry is in the midst these turbulent developments, which has its sights set on profiting from these new global opportunities. This paper endeavours to establish foundations in order to recognise the environment in which the European steel industry is situated today.

At the initial phase, a theoretical basis was developed. From this basis, sector-specific characteristics of supply chains as well as special features for the steel industry were examined. Four basic types could be pinpointed, which serve as the foundation for this paper. These types comprise the lean, consolidated, flexible and fast supply chains. Further, the automotive industry was established as a primary customer for the steel industry and used as the basis for further evaluation.

The next step was to explain and delineate supply chain management. Current developments to this end were then explored, for instance, sustainable supply chain management or demand sensing. Supply chain finance has become an important approach, which is concerned with the interfaces between a company's finance department, purchasing, and supply chain management. Consequently, capital costs are reduced in order to optimise financing. A component of this approach is known as net working capital management, which are the "order to cash", "forecast to fulfill" and "purchase to pay" approaches. In order to enable the implementation of supply chain management, an intact

and integrated change management process is mandatory. For this purpose, 10 action fields were incorporated as mentioned by Capgemini in a report regarding successful initiation of change management. The goal of the practical portion was to create a valid basis for illustrating the present day situation of the steel industry in Europe within a global context.

From this exercise, it was soon evident that worldwide competition in no way operates on a level playing field, whether for energy prices or environment taxes. In addition, no sanctions are imposed in Europe. However, this claim is only true for the most part, since effective March 26, 2015, the European Union imposed anti-dumping taxes on cold rolled stainless steel sheets from China with a maximum of 25.2% and up to 12% from Taiwan.<sup>234</sup> Despite this announcement, it indicates that the European market is freely accessible, which is not the case in other nations outside Europe. In some countries, the government very specifically controls exports and imports by assigning punitive duties on products. For the European steel industry this presents another challenge: global excess capacities. These excess capacities amounted to about 25% based on the nominal existing steelwork capacity in the year 2012. Europeans must continually draw on their own strength to enhance their competitive capacity in order to be able to stand up to global competition.

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<sup>234</sup> Cf. Stahl Online.de, 2015, <http://www.stahl-online.de/index.php/eu-beschliesst-anti-dumping-zoelle-gegen-china-und-taiwan/> [surveyed on 10.04.2015]

The survey involving steel companies proved to be difficult. However, this eventuality was already recognised in choosing the subject matter for this paper. Since supply chain management deals with the core areas of the respective companies, certain restraint was exercised. Despite the challenges, several questionnaires were subsequently collected that allowed for evaluation. Results obtained regarding the improvements achieved by implementing supply chain concepts were much lower than expected. However, this can be ascribed to the restricted choice of answer options, which enabled managing the complexity of the issue at hand. When regarding the improvements achieved in an overall context, the potential for supply chain management is evident, since improvements not only visibly impact the EBIT but also the net working capital, which is ultimately recovered in the shareholder value. For the domain of supply chain finance, there was only a small selection of pertinent questions. Supply chain finance is solely concerned with the cash conversion cycle. Other potentials offered by supply chain finance were outlined in this paper. The survey rate of return enabled a qualitative evaluation, wherein it could be ascertained that the implementation of supply chain management in the USA has long been a reality. China is significantly gaining momentum in this regard, whereas in Europe over 60% steel companies do not envision implementing supply chain management. Yet this statistic is very surprising when one casts a glance at the current market situation. There was one aspect where all individuals surveyed had a consensus. The absolute primary

competition criterion for the steel industry is costs. Price pressure on the European steel industry as a result of globalisation has substantially increased. For this reason, it is no surprise that prices followed in second place. Successes achieved from implementing supply chain management appear on the lower scale of the pre-defined values. To be sure, it is not solely the level of improvements achieved that are to be considered, but also the spectrum. This indicates how many parameters can be altered. This improvement potential then became the deciding factor for its allocation to the supply chain type for the respective supply chain, taking the amount of mentions per supply chain type into account. As a result, the iron scrap supply chain was allocated to the lean supply chain type, the alloys SC to the own, the electrodes SC as well as refractory were each assigned to the consolidated supply chain type. In order to shed light on the future of the steel industry in Europe, global development up to the year 2050 was also investigated in this paper, taking a variety of literary sources into account. Thus a portrait could be created in terms of where and in which products the European steel industry can deliver their finished goods. Future as well as potential challenges for the steel industry were also examined and outlined. Within this context, it was also specified what supply chain management concepts can contribute in order to render the steel industry more competitive as well as how the return can be increased.

It is clear that competitive capacity does improve and returns do increase by implementing supply chain management concepts.

Therefore, it is necessary to provide these concepts as soon as possible to companies in the steel industry. Initiating as well as exercising these concepts requires a high degree of commitment and willingness to change for all parties concerned. However, those who want to set the pace for competitive conditions in the steel industry cannot avoid supply chain management. The automotive industry is exemplary, adhering to the slogan “think globally, act locally” in terms of its suppliers. For steel companies, this means making optimum use of globe-spanning production opportunities. This approach demands a high amount of capital resources in order to stem such a major undertaking. Furthermore, expansion of information technology requires massive investments in order to satisfy customer requests in the future. An appropriate level of personnel is also essential for this endeavour. In addition to their competence, they must contribute the willingness and ability to help make the change. This is a tall order since the demographic shift is in full swing. There are existing opportunities for the European steel industry for the future. Nevertheless, the course must be set for the near future in order to realise these opportunities. This is applicable to politics as well as the economy.