

Chapter 15

Collaborative Relationship in a Global Supply Network

Adriane A. Farias S. L. de Queiroz
UFMS, Brazil

Marcos André Mendes Primo
UFPE, Brazil

Marcos Mendes de Oliveira Pinto
USP, Brazil

Susana Carla Farias Pereira
FGV-EAESP, Brazil

ABSTRACT

The shipbuilding industry is characterized overall by make-to-order production, based on the mobilization of many suppliers for one final product's construction. Moreover, this industry presents a global nature, because its strategic position is defined by its global position (Cho & Porter, 1986). The shipbuilding industry faces a new wave of competition, due to demand from countries for their own national fleets, the increasing growth of exports and, as a consequence, the use of naval transport as added value to foreign commerce. In this preliminary investigation, we seek to find out if local conditions favor the retaking of this industry within a country, which in turn raises another question: how should the local suppliers become interconnected so that the shipbuilding industry can become competitive globally? This study identifies types of relationship and practices adopted by the shipbuilding industry in Brazil, in order to contribute to supply network structuring based on key-suppliers' capabilities and cooperation between players.

INTRODUCTION

This study looks into the shipbuilding industry, an industry characterized by its global nature, make-to-order production and the fact that it is

growing and expanding around the world. The main objective of this study is to identify the practices (involving production and supply chain management) adopted by the shipbuilding industry in Brazil. The ultimate goal is to contribute to the structuring of a supply network based on the

DOI: 10.4018/978-1-61692-862-9.ch015

individual capabilities of its key suppliers and the cooperation between the players.

This research was based on a quantitative survey of 1,160 companies, with a response rate of 16%. Responses to the web-based questionnaires were analyzed using statistical software. The results indicate that the practices incorporated by these companies lay the foundation for the development of collaborative relationships. Despite the low level of industry development within the Brazilian shipbuilding market, this possibility is a fact of great importance which, unfortunately, does not allow for large scale production from these companies at the moment.

THE SCENARIO OF ANALYSIS: THE SHIPBUILDING INDUSTRY

The theme of the structure of relationship networks has most recently been studied in the shipbuilding industry (Queiroz, 2009). The main focus of these cases is elaboration of the principles of integration and the collaboration between all links of a production chain, to obtain an increase of competitiveness in order to benefit the chain as a whole. One of the characteristics of this industry, which arouses attention to the management of relationships in networks, is its strong accomplishment with productive outsourcing. This has generated a decreasing dependency on the shipyard and its technical skills over the years and a gradually increasing need for management capacity, since the diversification of the supply network has increased significantly. According to Kanerva (2004), only about 20% to 30% of the value of ships is produced in the shipyards today, opposed to 70% to 80% manufactured in its own premises in the early 1980s.

Overall, world production of ships in recent years is largely concentrated in three countries: South Korea, Japan and China, with approximately 75% of production concentrated in them (Collin & Pinto, 2006). The authors show that the strate-

gies adopted by the most prominent shipbuilding countries are very diverse, noting that specialty, productivity or governmental politics do not guarantee success in competitiveness. Competence in management stands out as the fundamental characteristic to be pursued, demonstrating that there is a chance for success for the shipbuilding companies of other countries that now participate in a small way within this global market, such as Brazil.

Thus, the combination of the dynamism in this industry and its complex nature, involving various sectors in the same purpose, suggests a level of competitiveness based not only on continuous technological development, but also on management. The results can be surprising for a country like Brazil, which has already experimented with significant involvement in the global market. This is important because shipbuilding is an industry that possesses great potential for broadening socio-economic development, as a creator of a large number of jobs and as a stimulator of innumerable co-related industries, such as marine equipment and services.

The experiences of a historically dormant industry can be shown in ICN, when observed in light of the new competitive paradigm that occurs between networks, rather than between companies. In this scenario, it is possible to assume that there exists great collaborative potential for the best parties in this industry, such as the shipyards and suppliers from the first tier, which would thus strengthen a supply network and help it to become capable of acting globally.

Clegg and Hardy (1998) emphasize that this shift in the competitive paradigm, proceeding from an essential change in the way of producing, occurs as elimination of borders which limit the organizations, verified in the proportion in which they establish and recharacterize themselves, forming new arrangements that are inter-organizational. Thus, production systems in the new competitive environment tend to shift the focus from internal efficiency to a collective efficiency. The posses-

14 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/collaborative-relationship-global-supply-network/48477

Related Content

Service Quality in Supply Chain: A Case of Indian Automotive Industry

Asad Ullah and Mohd. Adil (2016). *Innovative Solutions for Implementing Global Supply Chains in Emerging Markets* (pp. 173-186).

www.irma-international.org/chapter/service-quality-in-supply-chain/145292

Reflections of the Ukraine-Russia War on World Trade and Supply Chain and Examination of Its Effects on Turkey

Ahmet Fidanolu and Bekir Deirmenci (2024). *Strategic Innovations for Dynamic Supply Chains* (pp. 275-300).

www.irma-international.org/chapter/reflections-of-the-ukraine-russia-war-on-world-trade-and-supply-chain-and-examination-of-its-effects-on-turkey/344335

Controlling Bullwhip Effect in Supply Chain by BANDAI Co: Lessons From the Tamagotchi™ Case

Toru Higuchi (2022). *Frameworks and Cases on Evolutional Supply Chain* (pp. 115-132).

www.irma-international.org/chapter/controlling-bullwhip-effect-in-supply-chain-by-bandai-co/302801

Pricing and Bundling Strategies for Competing Mobile Phone Supply Chains With Network Externality

Yunpeng Yue and Tiaojun Xiao (2020). *International Journal of Information Systems and Supply Chain Management* (pp. 54-77).

www.irma-international.org/article/pricing-and-bundling-strategies-for-competing-mobile-phone-supply-chains-with-network-externality/252819

A Multicircle Order Acceptance Strategy for Dynamic Vehicle Routing Problems Considering Customer Choice of Last-Mile Delivery Modes and Time Slots

Hanguang Qiu, Cejun Cao, Jie Zhen, Hongyong Fu and Jixiang Zhou (2021). *International Journal of Information Systems and Supply Chain Management* (pp. 1-19).

www.irma-international.org/article/a-multicircle-order-acceptance-strategy-for-dynamic-vehicle-routing-problems-considering-customer-choice-of-last-mile-delivery-modes-and-time-slots/287376