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Cases in Purchasing and Supply Management: Category Sourcing

Reading Paper

Supported by



Christopher Jahns • Roger Moser • Gerhard Trautmann

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Cases in Purchasing and Supply Management: Category Sourcing

Reading Paper from the
Supply Management Institute's series
Purchasing and Supply Management

Supply Management Institute SMI™
Univ.-Prof. Dr. Christopher Jahns

A collaborative publication from



Verlag Wissenschaft & Praxis

The German Library – CIP-Affiliation

The German Library lists this publication in the German national bibliography;
detailed bibliographic data is available on the Internet at <http://dnb.ddb.de>.

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CH-9000 St. Gallen, Teufener Strasse 25

Tel.: +41 (0)71 226 10 60, Fax: +41 (0)71 226 10 69

homepage: www.smg-ag.com, e-mail: contact@smg-ag.com

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SMG™ Publishing AG
ISBN 3-907874-40-4



Verlag Wissenschaft & Praxis
ISBN 3-89673-340-0

Printed in Germany

About Supply Management Institute SMI

Supply Management Institute SMI™ is the leading research institute focusing specifically on the fields of purchasing, logistics and supply chain management. Connected to the Chair of Purchasing, Logistics and Supply Chain Management at **ebs European Business School**, Wiesbaden, Germany, the institute also teaches on-campus students, arranges executive education and builds and maintains a worldwide network of academic and industry representatives.

About Ariba, Inc.

Ariba, Inc. is the leading Spend Management solutions provider. It helps companies to develop and leverage spend management as a core competency to drive significant bottom line results. Ariba Spend Management software and services allow companies to align their organizations with a spend-centric focus and deploy closed-loop processes for increased efficiencies and sustainable savings.

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For information or permission to reprint, please contact SMI at:

E-mail: ebs@supplyinstitute.org

Phone: +49 (0)611 - 36018 800

Address: ebs European Business School
Supply Management Institute SMI™
Söhnleinstrasse 8
D-65201 Wiesbaden
Germany

Foreword

The Supply Management Institute SMI™ of the European Business School developed together with Ariba this reading paper containing five case studies which discuss the sourcing process for different categories. The case studies were written for readers with basic purchasing knowledge to illustrate the complexity that purchasing managers are confronted with when sourcing a particular commodity.

We especially would like to thank the following students for their support in developing these case studies: Patrick Rudolph, Oliver Meinicke, Luisa Müller, Mathias Specht and Adrian Renner.

In addition, we would like to thank the involved Ariba category managers for the time and expertise they dedicated to this reading paper.

We hope that the case studies will provide you with some interesting insights and that you enjoy your reading.

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Case I: Sourcing Steel

Abstract

This case study demonstrates how a tier-1 automotive supplier managed to bring its spend on steel coils under control with the help of Ariba, a provider of sourcing solutions. The automotive supplier needed to source steel coils of different grades and thicknesses – many of them non-standard – at a historic cost of US\$ 17.7m in a market featuring no common marketplace and experiencing a 20 percent year-on-year price increase. In particular, the case study outlines how market intelligence and online reverse auctions can be employed to increase market transparency for buyers. The case study illustrates how Ariba helped the client to save US\$ 1.2m by adopting a new sourcing approach.

Introduction

On a March morning in Brussels in 2005, Joe Bloggs, a long-time category manager for raw metals at Ariba, received a call from one of his clients: “Joe, I need your help!” said Marvin Gaye, purchasing manager at an American tier-1 automotive supplier. “I have to buy 545 different sorts of steel coil for our operations in the UK and Germany next year, worth more than US\$ 17m in total. But I am confused by the lack of transparency in the market and I have no idea how to cope with the skyrocketing prices.” “Let’s see what we can do”, Joe replied.

Ariba spend management solutions were conceived to help organizations manage their spend effectively, thereby improving their bottom line. With a focus on speed, sustainability and coverage, the company empowered its customers to fully realize the potentials of spend management. By offering extensive services, intelligence, and rapidly deployable solutions, Ariba supported faster rollout and greater traction in under-managed spend areas.

Ariba was founded in September 1996 and headquartered in Sunnyvale, California. The company was present worldwide with roughly 1,700 employees. Ariba’s success was built on the idea that companies are not able to control the economy, but that they can control the amount of money they spend. The increasing pressure to cut costs forced companies to look for solutions to rapidly and systematically drive a breakthrough in managing their enterprise-wide spend. Due to their lack of expertise in purchasing many companies were relying on the help of external professionals, such as Ariba.

With particular regard to sourcing, Ariba had developed a solution that enabled its customers’ sourcing professionals to quickly identify top suppliers across a broad range of categories to negotiate advantageous deals. It allowed an organization to leverage and aggregate spend, implement best practices, and create better contracts. This was done by providing clients with a complete set of products and services that ensured a rapid and sustainable implementation of improved sourcing processes. As far as the sourcing of steel was concerned, Ariba was among the

market leaders. It had been one of the first companies to provide its clients with software solutions that enabled them to buy all sorts of commodities more efficiently. Therefore, its expertise in the development of highly sophisticated offered web-based services was considered as one of the main reasons for Ariba's success in the past.

Commodity Analysis: Steel in Automotive Supplies

Together with the traded metals sub-category, the steel sub-category composed the raw metals high-level category at Ariba. This high-level category was part of the metals Ariba vertical, which also included the metals with tooling (comprising castings, forgings, stampings, tooling and powder metal) as well as the metals without tooling (diversified fab, fasteners, machining, refractory, sheet metal) high-level categories. The main reason for grouping raw metals with the other two metal high-level categories (instead of with other raw materials, for example) was the insight that it would be easier for Ariba's staff to build expertise around one single kind of material at different stages of the value chain rather than several raw materials at the same stage. In addition, this organizational solution took into account that the frontier between raw metals and welded materials was often fuzzy from a purchasing point of view, depending on the actual activity of a firm.

Steel mills, for instance, considered their steel output – manufactured in either a long or a flat form – as semi-finished. Long products – featuring a square cross section or a T, O or H profile – were generally made for construction purposes. Flat steel or plate products were typically rolled between sets of rollers to produce the final thickness. Plate products varied in dimensions from 10 mm to 200 mm and thin flat rolled products from 1 mm to 10 mm. Plate products were used for ship building, construction, large diameter welded pipes and boiler applications. Thin flat products found end use applications in automotive body panels, domestic “white good” products, tin cans and a variety of other products ranging from office furniture to heart pacemakers.

Whether long or flat, steel always consisted of iron ore and / or scrap metal. Depending on the production technique employed, the percentage of each of those raw materials in the final product varied: while the oxygen blast furnace – the traditional way of steel making – used less than 20 to 30 percent of scrap, it accounted for 60 to 100 percent in the electric arc furnace method. The essential difference between the two production techniques was the energy input; coke being employed in the oxygen blast furnace and electricity in the electric arc furnace. Which of them was chosen eventually depended on the desired volume: about 200 t were produced in one batch using the oxygen blast furnace, 20 t in the electric arc furnace. Thus, the latter was more flexible, but also slightly more capital intensive, making the traditional way the method of choice for larger volumes. Roughly 60 percent of steel were produced using the oxygen blast furnace method in 2003, while 40 percent were made via the electric arc furnace road.

Steel coils used as raw material by automotive suppliers for the production of door panels left steel mills as large coils, about 1.6 m wide. In order to fit them into a press that molded them in the desired shape, these large coils needed to be slit into smaller pieces. Slitting took place in service centres which also arranged for the final logistics product just-in-time. About 50 percent of worldwide service centre capacity was owned by steel mills, a further 30 percent was accounted for by big independent service centres and the remaining 20 percent by smaller players.

Strategic Objectives when Sourcing Steel

Steel accounted for 15 to 20 percent of an automotive supplier's total cost. The complexity of buying steel was mainly shaped by three factors: (1) The desired steel grade; (2) the price; (3) and the desired steel thickness.

The first thing to be considered was the desired steel grade. Worldwide, more than 1,000 different grades of steel existed, compared to only e.g. 120 aluminium grades. Apart from a certain number of standard grades, many of them had been developed by steel mills to meet the specific requirements of a certain customer.

Secondly, price was an important determinant. Since steel mills only shared the physical properties, but not the chemical composition of a new grade of steel with their clients, customers sometimes found themselves strategically deadlocked when attempting to change suppliers in order to obtain a lower price. This dependence from one or a few suppliers lead to weak bargaining power in price negotiations.

Thirdly, the same could be said for the thickness of steel coils: when the bloom – measuring about 0.2 m x 2 m x 15 m – came out of the steel mill it was warmed until white (to roughly 1,200 to 1,300 °C) and then flattened into a 100 to 150 m long “hot roll” (hot rolled steel coil). As it was difficult to achieve a specific thickness in this process, the steel coil was later rolled again in a cold state (“cold rolls”, cold rolled steel coil), usually at a service centre. Unless a company stuck to the standard tolerances for cold rolls, it often had trouble finding another supplier which could provide the desired non-standard thickness at a later date.

The Global Steel Market

Competitive Structure of the Steel Market

The global steel market at that time could best be described as an oligopoly. Particularly in Europe, it was a seller's market characterized by supplier's consolidation dominated by a few very big players such as Riwa, ThyssenKrupp, Corus and Arcelor. These steel mills also owned a majority of service centres. Prices tended to fluctuate according to supply and demand as well as stocks. As a result of China's increasing steel purchases (mainly in the form of long products for construction purposes) and increasingly also purchases of raw materials for its own steel production since 1995, prices had been rising sharply from year to year in the rest of the world. In 2002, China consumed 244m t of steel. In particular, a total vehicle production exceeding four million units and car production at 1.8m units along with significant growth in other industrial sectors were contributing to the increasing steel consumption, equalling to one fifth of the world's steel demand at the time. This development culminated in 2004 when 1b t of steel were produced in a situation where demand nearly exceeded production capacity – demand equalling 94 percent of production capacity – for the first time in 30 years. Due to a complex nexus of political and economic considerations steel mills shied away from large investments required to boost capacity, thus keeping steel prices at record heights.