

## Prism | 1 | 2006

## Purchasing Performance Excellence: Results from Arthur D. Little's Benchmarking Study

Carsten Vollrath and Can L. Ünal

To reduce costs, many companies are relocating activities or outsourcing pieces of their value chain, making them ever more dependent on the performance of their purchasing organisation. Arthur D. Little's benchmarking study "Purchasing Performance Excellence 2006" provides insights about how best-in-class purchasing organisations in a broad range of industries are capable of creating tremendous value for their stakeholders.

Whatever the state of the economy, unrelenting global competitive pressure is forcing companies to reduce costs continuously. As companies have been rethinking their value-creation processes and outsourcing major parts of their activities, excellence in purchasing has become a critical capability for ensuring competitiveness.

In order to identify best-in-class performers in purchasing - and the factors that enable them to achieve purchasing excellence - Arthur D. Little, in cooperation with the Kuehne-Institute for Logistics at the University of St Gallen, recently conducted a benchmarking study involving some 100 large and mid-sized European companies from a wide variety of industry sectors (see "About the study", p.p. 52-53).

The study focused on two questions:

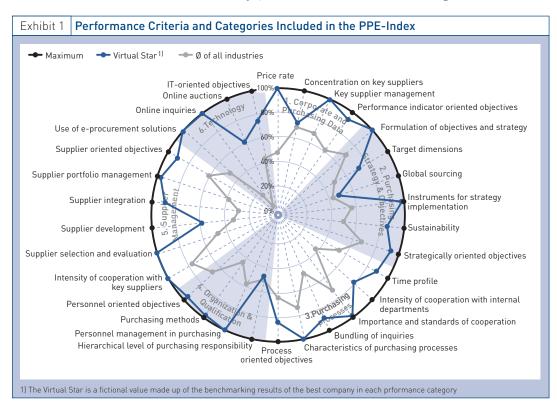
- How can purchasing successfully reduce costs while simultaneously building collaborative relationships with strategic suppliers?
- How can purchasing be turned into a function with high value-added?

Through statistical analysis of the results of the study, we identified five elements for achieving excellence in purchasing performance:

- 1. **Clarity**: Align the purchasing strategy with the corporate strategy through clear goals, objectives and tasks for the purchasing department.
- 2. **Competency**: Make the purchasing workforce skilled in advanced purchasing methods.
- 3. **Consistency**: Build consistent and standardised purchasing processes and systems to reduce order lead times and costs.

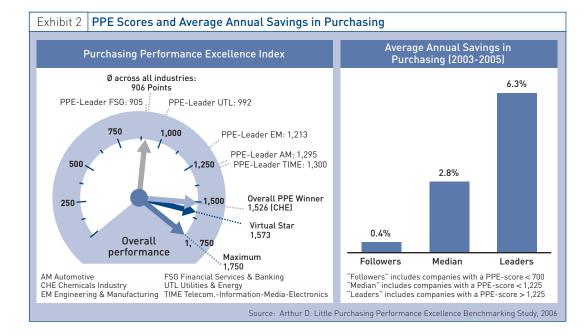
- 4. **Concentration**: Consolidate demand among key suppliers to achieve economies of scale and scope.
- 5. **Collaboration**: Collaborate with internal customers and external partners to reduce the total cost of ownership and shorten time-to-market.

Companies that follow these requirements score significantly better in purchasing performance. In order to measure purchasing performance we developed a Purchasing Performance Excellence index (PPE index). This is composed of 30 criteria grouped in six performance categories (see exhibit 1, with more details in "About the study"). The maximum score is 1,750 points.



The average PPE score was 906 points. The "PPE Winner", a global player from the chemical industry, scored 1,526 points (87 percent of the maximum). The "Virtual Star", a theoretical construction made up from the highest scores in the individual performance categories, scored 1,573 points (89 percent of the maximum). Most interestingly,

the leaders, i.e. companies with a PPE score above 1,225, represent 4 percent of the total number of study participants, and realised average annual savings in purchasing of 6.3 percent. This amounts to more than 15 times higher annual savings compared to only 0.4 percent savings for the followers, i.e. companies with a score below 700, representing 19 percent of the total number of participants (see exhibit 2).



In the remainder of this article, we will explain in more detail what each of the five "Cs" (Clarity, Competency, Consistency, Concentration and Collaboration) means, and how you can achieve purchasing performance excellence. The first three elements of the 5C model can be described as "enablers" whereas the last two represent "actions", which have to be managed properly in order to achieve purchasing excellence.

Prism | 1 | 2006 Arthur D Little

The 10 companies that have

the clearest and most trans-

parent goals for purchasing

in terms of the reduction of

*are the best performers* 

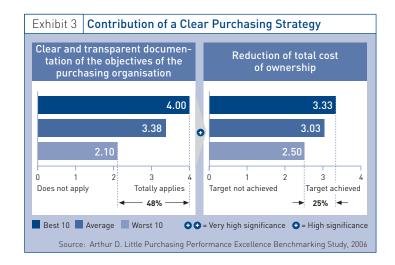
total cost of ownership.

1. Clarity: Align the purchasing strategy with the corporate strategy through clear goals, objectives and tasks for the purchasing department

Companies need visions and strategies that are understandable to every member of the organisation. It is even more important that these are communicated and diffused broadly within the company. An excellent vision that nobody knows is useless. This simple nexus is also valid for the purchasing strategy. The purchasing department should have clear goals as a guideline for effective management:

- First, the company should identify the output goals of purchasing. They should be concrete and easy to measure. Important goals to consider are often operational, such as the reduction of purchasing prices, inventory, or total cost of ownership;
- Secondly, the company should use a holistic purchasing performance management approach in order to reach its goals;
- Thirdly, the company should continuously monitor how well purchasing attains its goals.

Our research has identified a high correlation between the clarity of purchasing goals and the reduction of the total cost of ownership. The 10 companies that have the



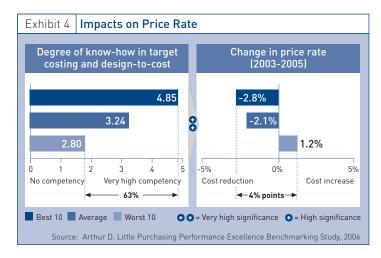
In order to implement the purchasing strategy and attain the purchasing goals, the purchasing department needs a workforce that is skilled in applying purchasing methods. Our study has identified a measurable correlation between specific purchasing methods and performance.

clearest and most transparent goals for purchasing are the best performers in terms of the reduction of total cost of ownership (exhibit 3).

Clarity in terms of transparent strategies, goals, processes, responsibilities and tasks is one of the most important enablers for purchasing excellence.

## **2. Competency:** Make the purchasing workforce skilled in advanced purchasing methods

Competencies are areas of personal capabilities that enable people to perform successfully in their profession by achieving goals or completing tasks effectively and efficiently. In order to implement the purchasing strategy and attain the purchasing goals, the purchasing department needs a workforce that is skilled in applying purchasing methods. Our study has identified a measurable correlation between specific purchasing methods and performance. We have detected a significant relationship between the use of target costing and design-to-cost methods and the reduction of purchasing prices.



As exhibit 4 shows, the 10 companies with the highest competencies in target-costing and design-to-cost have achieved a considerable reduction in purchasing prices, whereas the 10 companies without these have suffered under increased purchasing prices. Intensive use of the target-costing method requires that purchasing be involved more strongly and earlier in the product development

Prism | 1 | 2006

#### **Arthur D Little**

It is essential to use a

consistent performance

management system that

supports the management

of continuous improvement

programmes in purchasing.

process. To exploit the benefits from these methods, companies should develop specialised training programmes for purchasing managers in order to improve their methodical know-how. Furthermore, intensive collaboration with suppliers becomes paramount in accomplishing design-to-cost goals, given today's highly fragmented supply chains and strong tendencies for outsourcing.

Consistency: Implement consistent and standardised purchasing processes and systems to reduce order lead times and costs

As value chains are being reconfigured, purchasing processes are becoming increasingly complex. Therefore, consistency in systems and efficient coordination across the entire value chain are crucial requirements for reducing order lead times and costs. Best-in-class purchasing organisations have a high degree of automation and make intensive use of e-procurement tools in their purchasing processes. They have clearly defined interfaces between the purchasing department and other functions, and have integrated their suppliers into their own processes. Last but not least, they have a transparent and consistent purchasing control system.

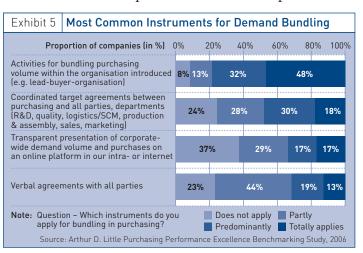
It is essential to use a consistent performance management system that supports the management of continuous improvement programmes in purchasing. 24 percent of the participating companies indicated that they have established purchasing control based on a consistent performance indicator system, such as a purchasing balanced scorecard. On the other hand, nearly half of the companies have purchasing information systems installed.

**4. Concentration:** Consolidate demand among key suppliers to achieve economies of scale and scope

Bundling purchasing volume is high on the agenda of purchasing departments in many companies. The average concentration rate on key suppliers (defined as the number of key suppliers divided by the total number of suppliers) has fallen from 13 percent to 11.6 percent since our last benchmarking round two years ago. But a high degree of key-supplier concentration can only be achieved

The average concentration rate on key suppliers (defined as the number of key suppliers divided by the total number of suppliers) has fallen from 13 percent to 11.6 percent since our last benchmarking round two years ago.

if bundling purchasing volume is treated as a strategic issue, with top-management attention. As exhibit 5 shows, almost 80 percent of study participants have approaches such as a lead-buyer organisation for bundling purchasing volumes. In addition, 50 percent of companies have established coordinated target agreements between purchasing and other functional departments. For cost-effective implementation of demand bundling, it is necessary to develop and implement a system that makes the demand bundling process transparent and allows control of the results. Only 17 percent of companies have transparent presentation and documentation of corporate-wide demand volumes and purchases on an online platform.



Best-in-class purchasing organisations achieve further competitive advantage by bundling their global purchasing negotiations. Global sourcing allowed 35 percent of the participating companies to achieve annual net savings (based on total cost of ownership considerations) of more than 10 percent.

**5. Collaboration:** Collaborate with internal customers and external partners to reduce the total cost of ownership and shorten time-to-market

Top performers in purchasing collaborate extensively with internal customers to define product specifications. In addition, they collaborate with suppliers during the product development phase to design components and new materials and to implement more efficient and flexible

Prism | 1 | 2006

#### **Arthur D Little**

Best-in-class purchasing organisations are embracing core design principles that focus on collaboration, re-use and standardization to reduce costs and improve performance.

production processes. They are more likely than others to have effective methodologies and processes in place for managing product life-cycles and optimising the total cost of ownership.

One of the most important drivers of effective collaboration is the active management of the entire supplier portfolio. In order to accelerate product development and improve product quality, it is critical that companies access and leverage the specialised skills and knowledge available through their strategic suppliers. Managing this process effectively requires tight integration between the manufacturer and the supplier, through a collaborative design process and tight linkage between design and sourcing processes. This gives companies the capability to manage product cost and target profitability over the product design life-cycle. Similarly, companies with a considerable spend on indirect materials look for best-in-class capabilities in external partners in order to optimise their total costs.

Furthermore, internal collaboration between purchasing and R&D is an important means of shortening time-to-market and ensuring new-product success. More specifically, best-in-class purchasing organisations are embracing core design principles that focus on collaboration, re-use and standardisation to reduce costs and improve performance. Our study found that top performers in purchasing also pay a great deal of attention to the cooperation of the purchasing department with functions other than R&D, such as production, quality, logistics, controlling and marketing and sales.

#### Case study - Leading Global Automobile Manufacturer

## Enhancing collaboration, responsibility and visibility

Several years ago a leading German car manufacturer took part in Arthur D. Little's benchmarking process and identified a number of areas of potential improvement in its global purchasing organisation. Based on the company's long-term aspirations and vision, targets and initiatives were defined focusing on the following aspects:

#### Purchasing strategy and objectives

Aligned strategy and scope definition as well as improved implementation and tracking models to maximise the utilisation of strategy potentials and benefits.

#### Purchasing processes

- Optimised Key Supplier Management (KSM) with improved resource spent, standardised KSM procedures, processes and interfaces;
- Improved management of internal customer coordination based on adjusted resources, strengthened internal know-how pooling and enhanced process efficiency.

#### Organisation and training

 Introduced lead-buying concept and procedures based on empowering material group leaders, process alignment and strong commitment and ownership.

## Supplier management

• Optimised supplier portfolio implemented (key and supplementary supplier set) aligned with local buyers (plant procurement) and internal customers.

#### Technology

• Implemented purchasing information system as strategic tool with improved data completeness, consistency and transparency, enabling optimised business monitoring and management.

So far the results are promising: a drop in the number of suppliers by over 25 percent and a balanced time and resource budget per key supplier and internal customer relationship. Thus our client achieved a top-performer ranking within the benchmarking. The search for purchasing excellence is a never-ending journey in which awards and acknowledgments are mere celebrations of steps reached, not an end in themselves.

Prism | 1 | 2006

# Insights for the Executive - How your Company can Benefit from the Survey Results

In order to become a top performer in purchasing, you are encouraged to keep our 5C Framework for Purchasing Performance Excellence in mind:

- Clarity: Define a comprehensive purchasing strategy aligned to your corporate strategy. Clearly define the objectives and responsibilities of your purchasing organisation. Install a transparent and seamless purchasing controlling process for monitoring progress in achieving the objectives.
- Competency: Apply continuous price and cost benchmarking. Build a high degree of know-how within your purchasing organisation about cross-functional material group management, target costing and design-to-cost, in order to reduce the total cost of ownership dramatically.

- Consistency: Implement a consistent performance management system for continuous improvement programmes aimed at purchasing excellence (e.g. a purchasing balanced scorecard). Strive for a high degree of automation in purchasing processes (e.g. e-procurement) and establish clearly defined interfaces between purchasing, other functions and external partners.
- Concentration: Consolidate corporate-wide purchasing volume (regionally or globally) in order to optimize the degree of concentration among key suppliers. Use standardized supplier evaluation programmes based on total cost of ownership. Strive for intensified supplier relationship-management activities.
- Collaboration: Actively manage your whole supplier portfolio. Work with multi-disciplinary teams and use supplier know-how to encourage internal and external collaboration on new product innovations and total cost management.

## About the study

The benchmarking study was conducted in late 2005 and early 2006. Senior executives from nearly 100 well known large and medium-sized European companies participated, from industries including automotive, engineering and manufacturing, utilities and energy, chemicals, telecommunications-information-media-electronics (TIME), and financial services and banking.

#### PPE benchmarking methodology

Our study elicited responses from purchasing and supply-chain executives from leading companies through a written questionnaire. The measure of purchasing performance excellence for each participant (PPE score) was determined by using a point-scoring technique based on six performance categories (corporate

and purchasing data, purchasing strategy and objectives, purchasing processes, organisation and training, supplier management, technology) with different weightings comprising a variety of success criteria and sub-criteria. The maximum number of points possible was 1,750. In addition, several best-in-class criteria derived from previous studies were given higher PPE weights and served as "differentiating characteristics".

## Statistical analysis of results

The in-depth statistical analysis was based on correlation coefficients, computed with a bivariate Pearson's correlation procedure as a measure of linear association. Two kinds of significant levels were considered: 5 percent level (high significance) and 1 percent level (very high significance). To show even more evidence for a detected relationship, several extreme-

group comparisons were conducted between the worst and best-in-class companies and their results in terms of a specific target value. In conclusion the results can be clustered in four main performance categories (exhibit 6):

■ World class: > 1,400 to 1,750 PPE points

Professional: > 1,050 to 1,400 PPE points

Standard: > 700 to 1,050 PPE points

Followers: 0 to 700 PPE points

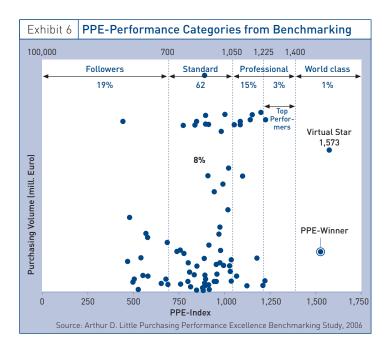
Sixty-two percent of participating purchasing organisations belong to the performance category "standard". Here solid purchasing activities dominate through traditional approaches. Eighteen percent of all companies have a "professional" purchasing organisation with innovative approaches at a respectable performance level. Nineteen percent are "followers" with residual structures at a non-competitive performance level. Only one company reached

the world-class level in purchasing, becoming the PPE winner for 2006.

The analysis identified a wide spread of performance. As exhibit 2 showed, there are several differences between industries with regard to purchasing performance. Companies in the automotive, engineering and manufacturing, chemicals and TIME industries are among the leaders, followed by companies in utilities and energy and financial services and banking.

The benchmarking results also showed a significant correlation between total purchasing volume and overall purchasing performance. While small companies (purchasing volume < 100 million €) achieved on average only 871 (49 percent) of the possible 1,750 PPE points, large companies (purchasing volume > 1,000 million €) achieved on average 1,033 PPE points (59 percent).

Prism | 1 | 2006 Arthur D Little



Achieving top performance in purchasing is difficult at best. But without purchasing excellence, companies eventually fritter away any competitive edge they may have built on the marketing and sales side. As our research shows, companies with an in-depth understanding of the challenges, opportunities and capabilities needed for building an excellent purchasing organisation are rewarded with high profits, sustainable growth and more value for all stakeholders - including their suppliers.

## Acknowledgements

The authors would like to give special thanks to Professor Dr Wolfgang Stölzle, Managing Director of the Kuehne-Institute for Logistics at the University of St Gallen, and Phillip Kirst, Research Associate at the Kuehne-Institute for Logistics, for their critical contribution to this report on both the analysis and management sides.

For more information on Arthur D. Little's Benchmarking Study "Purchasing Performance Excellence 2006" please visit our website.

#### Carsten Vollrath

... is a Director in Arthur D. Little's Wiesbaden office in Germany and head of the Operations Management Practice in Central Europe. He specialises in the implementation of operational improvement programmes with immediate and sustainable effects on efficiency, quality and costs.

E-mail: vollrath.carsten@adlittle.com

## Can L. Ünal

... is a Consultant in Arthur D. Little's Munich office and a member of the Operations Management Practice in Central Europe. His expertise lies in strategic and operational methods from the supply chain, procurement and logistics perspective, primarily in international assignments.

E-mail: uenal.can@adlittle.com