



How fit are your suppliers?

On a tough global playing field, supply chain management is critical in the quest for competitive advantage. Distributors need an effective system for managing the performance of their suppliers if they themselves want to perform optimally.

by Brandon Smith and Konrad von Leipzig

For distributors who want to stay at the top of their game, the performance of suppliers is a critical parameter in their capacity to meet the demands of downstream customers. At the same time, supplier performance is not a simplistic concept. It goes far beyond merely offering the cheapest

prices among competitor suppliers. Quality, delivery, and accompanying service levels all contribute to a more holistic experience of a particular supplier by a distributor. These factors, in turn, impact on the distributor's ability to offer products at competitive prices.

The importance of supplier management has been recognised for some time in the management of the supply chain. Suppliers are screened and once they have been accepted, distributors should strive to develop a partnership relationship with them rather than engage in a series of random transactions. The motivation for longer-term relationships lies in the potential of competitiveness in the partnership that can be further developed to the benefit of both parties. Continuous improvement in the relationship and in supplier performance is an important cornerstone of supplier management. However, a model for managing and evaluating the performance of suppliers has not thus far emerged.

A study done at the University of Stellenbosch Business School (USB) has developed a scorecard model by which distributors in the food and beverages industry can evaluate the performance of their suppliers. Such a scorecard will give organisations the ability to manage the relationship with their suppliers, and not only to detect the under-performers, but also to improve the performance of the better suppliers.

Competing in a global league

The advent of the global marketplace has accelerated the rivalry between firms competing for the same markets. Geographical boundaries no longer deter foreign players. Rapidly advancing information technology has facilitated the establishment of business linkages and commercial agreements over long distances. Customers can shop globally for the best deal, and suppliers can find buyers for their products in any country.

As a result, sophisticated supply chain management models have emerged in the battle for competitive advantage. Yet competitive advantage is usually not lasting, as rivals soon catch up. A continuous quest for improving and seeking new sources of competitive advantage is part of the game.

Managing the supply chain

Supply chain management is a far-reaching concept that spans over a wide range of business activities and functions. In essence, it seeks to create better value for customers and therefore focuses on optimal value-adding right through the supply chain. Processes



that do not add sufficient value are eliminated. In addition, supply chain management aims to integrate all processes, across enterprise as well as internal functional borders, thereby reducing cycle times and making companies more responsive to customer demands.

The picture below shows a simple supply chain. For the distributor in the middle, supply chain management means seeing the whole chain from manufacturer to end-consumer as an integrated system which must be managed as such.

Selecting and managing your supplier team

Securing the right suppliers is an important compo-

nent of managing the supply chain. Suppliers offer certain advantages that are more than likely a complex trade-off between price, quality, delivery lead-times, and the additional services they offer. For example, a particular supplier may offer products more cheaply, but take longer to deliver. The distributor would have to keep larger quantities in stock as a safety buffer, which may offset the price advantage.

Because it is meant to be a long-term arrangement, choosing the right suppliers is a critical facet of running one's own business at the desired levels of performance. The right suppliers are those that provide acceptable and stable prices, deliver on time, offer suitable support services, have a solid market

reputation, have high-calibre management, and display the right attitude toward their customers.

But a long-term supplier partnership may also be detrimental. Buyers easily move into a comfort zone with existing suppliers and may hold on to suppliers that gradually let their performance levels slide. It is vital to have an objective system for evaluating suppliers so that their performance can be monitored

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on an ongoing basis. Such a system must ensure that performance levels are managed and that any drop in performance or poor comparison with other suppliers can be addressed immediately.

What makes a supplier a good player?

The Supply-Chain Operations Reference (SCOR®) has become a popular model for supply chain improvement. Developed by the Supply-Chain Council Inc. in 1996, it has continuously broadened its coverage with regard to its associated methodologies through the efforts of industry practitioners and academics. In the SCOR® model, benchmarking is applied extensively.

Although the SCOR® model covers supplier management, its focus is much wider and it does not provide a detailed evaluation model for managing suppliers. In the USB study, scrutiny of a wider body of supply chain literature and research findings revealed a number of key performance areas that suppliers need to be good at. The most important are: supplier performance against delivery schedules; delivery lead times compared to industry norms; supplier prices compared to the market; the efficiency of cash-flow conditions; and the supply booking procedures.

The Supply-Chain Council Inc. specifies four areas of proficiency in procurement. These have been found to represent the most appropriate framework for a supplier scorecard model. The areas are price and cost considerations, quality of supplies, delivery aspects, and the levels of service offered. The literature also highlights a wide range of metrics that can be used to evaluate performance in these categories.

Price

Price metrics can compare several things, for exam-

Performance management models

Models for managing performance have gradually changed with the ever-increasing complexity of running an enterprise.

- In the 1970s a *functional approach* dominated, with a focus on performance goals and measurement. Companies strove to optimise performance in each area of the business. This had the effect of creating multiple and often divergent performance drives within an organisation.
- The integrative nature of the modern business has severely challenged this functional model, however, and by the 1990s the *Balanced Scorecard® approach* was introduced in an attempt to align metrics of a diverse kind to support the strategic objectives of an enterprise.
- Another approach to managing performance, which has become common practice today, is *benchmarking*. Benchmarking means studying the results and performance levels of competitors or similar industries and using these to set one's own performance standards.

SUPPLIER PERFORMANCE SCORECARD

Supplier:

XYZ

A: Reliability performance

No	Performance criteria	Weight	Metric description	Unit of measure	Target	Industry average	Supplier performance		
							Current month	Previous month	Comments
1	On time delivery achieved on shipments received	10%	Number of orders delivered on schedule / total number of orders received from supplier	%					
2	Order fill rate for shipments received	10%	Total quantities filled / total quantities ordered	%					
3	Documentation correctness for shipments received	8%	(1 - number of deliveries with incorrect documentation) / total number of deliveries received	%					
4	Rejection rate of products received	7%	Number of units rejected / total number of units received	%					
Category weighting		35%	Overall category performance		100%				

ple, how closely a price matches the planned price (also referred to as price proficiency), the impact of paying a specific price on one's own competitiveness further downstream, the price variability, and the validity period of a specific price.

Quality

Quality is viewed not only in respect of the product itself, but also takes into account the packaging, labelling and documentation. The more common metrics that evaluate the quality associated with dealing with a specific supplier are those measuring the ratio of product rejection, the correctness of documentation, and the promptness in dealing with corrective action requests lodged by the distributor with the supplier.

Delivery

There are several aspects of supply deliveries that impact on a distributor's operation. The first one is *order lead time*, which measures the number of days from placing an order to receipt of the order. As has been mentioned before, lead time affects the investment in stock needed in order for a distributor to meet the requirements of its customers. *On-time delivery* is another important metric, especially in a supply

chain where just-in-time (JIT) production methods are closely followed. Other delivery metrics are: the *order fill rate*, which measures the supplier's ability to deliver the supplies and quantities ordered; the *on-time order fill*, which combines the on-time delivery rate with the order fill rate in a more composite measure; and the *total delivery cost*, which evaluates cost of shipping and delivery as a proportion of the total value of orders.

Service

Service criteria attempt to judge to what extent a supplier: (a) has some spare capacity in order to absorb fluctuations in demand, especially upward fluctuations; (b) has the correct supplies when needed, and (c) offers a wider product range, which means that the same supplier can be used for a range of supplies.

A scorecard for rating supplier performance

Based on the various trends and approaches in the literature examined, as well as in the SCOR® model, the USB study developed its proposed scorecard along four performance areas: reliability, cost, responsiveness, and flexibility. The model therefore

comprises a set of four scorecards, each of which focuses on one of the performance areas.

A Reliability performance

Reliability performance refers to the ability of suppliers to deliver the correct product to the designated place, at the right time, in the ordered quantities, in the desired condition and packaging, and with the correct documentation.

The proposed reliability scorecard component is shown **above**.

It must be noted that the 100% target set for overall performance (the last row of the scorecard) does not mean that all scores should necessarily be 100%. It requires that the targets should be met 100%, but the individual targets may be below 100%. For example, a rejection rate of 2,5% may be the industry average and set as a target. A supplier that does not exceed the 2,5% meets the target 100%.

The weights chosen are used as examples. They may differ for a particular business and across industries. As can be seen above, the weight of the total scorecard adds up to 100%. The weight set for the reliability performance score is set at 35% of the total supplier score.

SUPPLIER PERFORMANCE SCORECARD									
Supplier:		XYZ							
B: Cost performance									
No	Performance criteria	Weight	Metric description	Unit of measure	Target	Industry average	Supplier performance		
							Current month	Previous month	Comments
1	Price proficiency (the ability to offer acceptable pricing)	10%	Targeted price / actual price from supplier	%					
2	Total delivery cost (shipping cost as % of order value)	10%	Amount spent on shipping costs / total orders value	%					
3	Order lead time (period between order date and delivery)	10%	Period from date of order to date of receipt	Days					
Category weighting		30%	Overall category performance		100%				

B Cost performance

The cost of supplies for a distributor is more complex than merely the price paid. Besides the product price, delivery costs, overhead costs, administration costs and the investment in inventory all add up to a total cost of doing business with a particular supplier.

Three measures are suggested, namely price proficiency, the effect of shipping and delivery costs on the total cost, and the order lead time with its impact on inventory costs. **Above** is the proposed scorecard that measures the cost performance of a supplier.

The price proficiency metric needs further

explanation. The distributor will, based on its profit targets, calculate what price it needs to pay to achieve acceptable profitability levels on a particular product line. Should a supplier be more expensive, the metric will indicate a score of less than 100%. The distributor will obviously set a target close to 100% (say 99%). If a supplier

SUPPLIER PERFORMANCE SCORECARD									
Supplier:		XYZ							
C: Responsiveness performance									
No	Performance criteria	Weight	Metric description	Unit of measure	Target	Industry average	Supplier performance		
							Current month	Previous month	Comments
1	Corrective action requests (re document correctness)	10%	Ratio of settled complaints versus total corrective action requests	%					
2	Product range extensiveness	10%	Number of products offered by supplier measured against a scoring table	Score from 1 to 5					
Category weighting		20%	Overall category performance		100%				

SUPPLIER PERFORMANCE SCORECARD

Supplier:

XYZ

D: Flexibility performance

No	Performance criteria	Weight	Metric description	Unit of measure	Target	Industry average	Supplier performance		
							Current month	Previous month	Comments
1	Availability (ability to ensure continuous supply)	10%	Number of times orders were met / number of orders placed	%					
2	Capacity utilisation (ability to maintain some spare capacity)	5%	Present capacity utilised / total capacity of supplier	%					
Category weighting		15%	Overall category performance		100%				

regularly scores below 99%, its products may start to become too expensive.

need suppliers that are flexible enough to adjust to demand swings and seasonality patterns. Two

research constructed weightings based on how companies rated several variables measuring the categories of reliability, cost, responsiveness, and flexibility. The respective weights were 34,2%, 30,7%, 19,7% and 15,4%, which were rounded off as shown in the corresponding scoring tables.

Distributors need suppliers that are flexible enough to adjust to demand swings and seasonality patterns

C Responsiveness performance

Responsiveness measures how fast a supplier responds to the needs of a distributor. Two measures are suggested to capture its essence: the speed at which suppliers deal with requests for corrective action, and the extent of their range of products. A supplier with a larger range of products will more likely be able to respond to expanding on-supply needs of the distributor. The proposed scoring is shown on the left-hand page.

measures are proposed to evaluate flexibility, namely the general level of availability of a supplier's products, and a measure of its spare capacity to meet sudden increases in demand. See above.

Weightings

The weightings shown in each category are, as stated before, set arbitrarily by way of example. These should be considered carefully when setting up a scorecard for a specific distributor in a specific industry. The category weightings may similarly differ from enterprise to enterprise and industry to industry, but the weightings suggested here are based on findings of a United Kingdom survey published in 2004. That

D Flexibility performance

The last component of the proposed model captures the agility of distributors to respond to fluctuating market conditions. Distributors



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This study was conducted by Brandon Smith (bsmith@ceres.co.za) as his MBA research project at the USB, supervised by Konrad von Leipzig. The research report: *Constructing a supplier score card to evaluate the performance of export suppliers in the food and beverage industry* was presented in December 2007.



Write to us :

Do you suspect that your company's bottom line is being affected negatively by the dwindling performance of key suppliers over time? Suggest areas for further research.

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