

OLIVER WYMAN

Manufacturing Industries

Managing Costs in a Time of Crisis



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How to Improve Profit in a Limited-Growth Environment

In recent years, manufacturing revenues grew at the highest rates since the 1950s. Consequently, companies focused on increasing EBIT by managing top-line growth. Product cost reduction was secondary, and most initiatives in that area yielded limited impact on the bottom line. Given that economic indicators are signaling a slowdown, product cost reduction will likely become a more important lever to increase EBIT.

Oliver Wyman recently conducted a comprehensive study on past and future product cost reduction practices of European manufacturing companies. The study revealed a significant opportunity to close the expected EBIT gap caused by lower growth rates.

Lower growth will require higher contribution of product cost reduction

When revenue growth rates exceeded 10% annually and utilization rates 90%, companies put their effort behind getting products out the door. They could increase EBIT accordingly as volume effects and price increases compensated the factor costs increases. On average, EBIT profitability annually rose by roughly 1% of sales since 2004. With the focus on top-line growth, only 43% of the manufacturers' total product cost (COGS) was addressed through initiatives over the past three years. From a bottom-line perspective, the average impact of these efforts was rather limited at 1.3% annual savings of the total cost base (see Figure 1). Best-in-class companies were able to more than triple the cost reduction impact at rates of 5-7% per year.

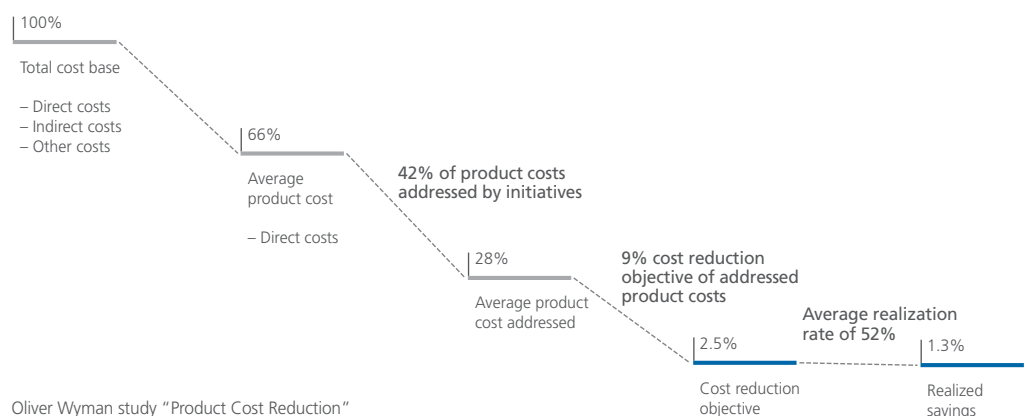
The main drivers for EBIT improvements are shown in Figure 2. We anticipate that if growth rates slow down, the ability to raise prices will be limited because of intense competition. Furthermore, volume effects (e.g., fixed cost depression) will diminish. As it is unlikely that the full impact of both effects will be compensated by lower factor cost increases (e.g., lower wage levels), cost reduction will become the most important lever to avoid a lower or even negative growth in EBIT. Figure 2 shows that product cost reductions will boost profit regardless of whether the economy proceeds along continued but slower growth or slides into a substantial downturn.

Historic initiatives leave significant cost reduction potential untapped

There are several reasons for the relatively low impact of past product cost reduction initiatives:

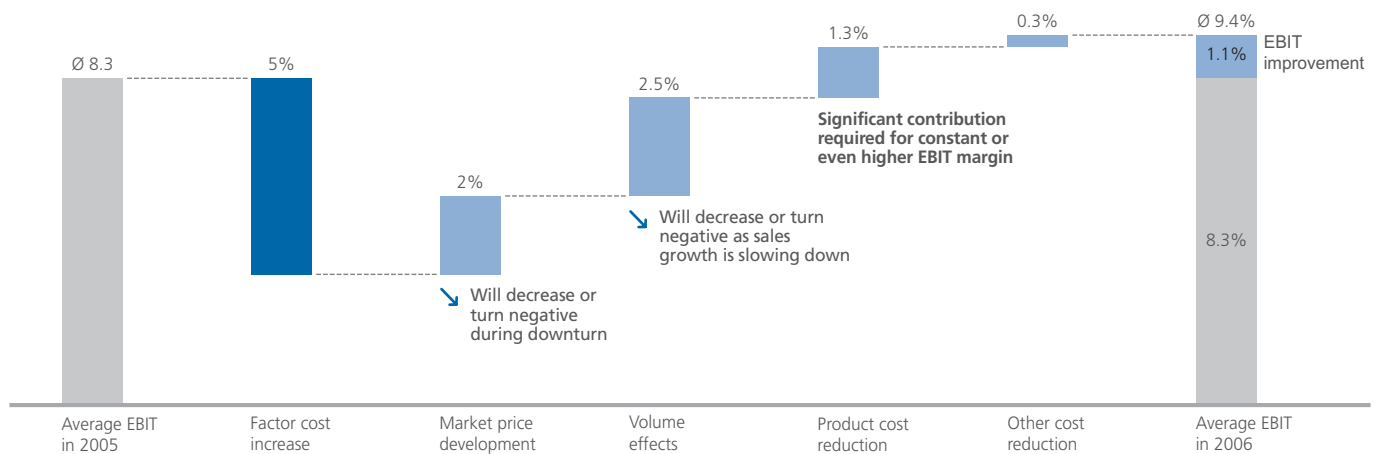
Objectives for individual initiatives are too conservative: Target setting is often based on low historic results. Targets of best-in-class companies were two to four times higher than

Figure 1: Average annual cost reduction realized within the last 36 months
In % of total cost base



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Figure 2: EBIT bridge
In % of sales (2005-2006)



Oliver Wyman analysis of 260 manufacturing companies in Europe

“Manufacturing companies’ recent focus on revenue growth has left major product cost reduction potential untapped. To keep EBIT margins in a reduced growth environment, this potential needs to be unlocked.”

average, based on a comparable set of methods. Companies with more aggressive targets have realized significantly higher results than companies with low targets.

Companies create a patchwork of individual initiatives within functional silos: Roughly 70% of companies do not (or rarely) coordinate product cost initiatives centrally. As a consequence, inefficiencies such as contradictory synergy potentials or double-counting of effects appeared. In addition, savings initiatives were often planned and executed within a function. Greater opportunities through cross-functional efforts remained untapped.

Standard methods dominate: Many companies tend to apply proven, well-known methods. They rarely attempt new, more sophisticated methods or a specifically targeted mix of methods.

Limited efficiency of execution: Shortcomings during the execution of initiatives pushed the realization rate of the lower quartile of study participants to below 32%, compared to 69% for the upper quartile. The study identified an unbalanced approach between project and line organization, insufficient management attention, as well as a lack of controlling measures to sustain results.

Comprehensive, cross-functional programs enable 20+% savings

Our study results, combined with benchmarks from other cost-intensive industries (e.g., automotive suppliers) indicate that product cost reduction initiatives achieve higher results through a comprehensive, cross-functional approach. Typical steps to shape such a program run as follows:

Target setting: Senior management defines an ambitious overall savings target as well as a timeframe for realizing savings.

Selection of relevant levers: Depending on the company’s situation and the proposed timeline, it may be appropriate to choose more strategic levers (e.g., product strategy, product portfolio, or modularization) or operational levers (e.g., product design, sourcing, and manufacturing optimization).

Scoping across functions: To effectively scope the approach, examine which functions and cross-functional teams should be involved.

Choice of methods: Assess and prioritize the different methods (e.g., for sourcing, by aligning the methods with the commodities with the highest leverage). Even at the methods level, selection should be aligned among functions, in order to realize cross-departmental synergies and manage interdependencies.

Efficient execution: To ensure efficient execution and avoid slipping back to old ways, a number of elements come into play: skilled and trained project teams, top management focus on the initiatives, tailored controlling tools, and aligned incentives (e.g., through MBOs). Our survey shows one promising trend, in that 80% of participants are planning to use dedicated project teams rather than just function teams, compared to historical levels of around 55%.

While on average study participants have achieved only a cumulative 4% product cost reduction in the past three years, project experience as well as study benchmarks suggest that companies can achieve more than 20% with the right approach and the right set of initiatives, executed well.

Exploit Performance Improvement Opportunities

The European industrial sector has shown tremendous growth in the recent past in terms of revenues and profitability. Its working capital performance, on the other hand, remained stable at a level well below that of comparable U.S. companies. Moreover, there is a significant spread in performance among subsectors. While some of the reasons are company-specific, other reasons are systemic and derive from the lack of senior management ownership, the lack of transparency, and the lack of appropriate management tools.

Over the past decade, working capital management has received more attention from senior management. Yet this development has not led to continuous improvement in bottom-line figures or Key Performance Indicators (KPI) – at least not over the past few years. Our high-level analysis of the working capital performance of European industrial companies highlights several improvement opportunities.

Current performance shows room for improvement

Compared to comparable, public U.S.-based industrial companies, European players show a significant performance gap. While U.S. companies in 2006 had a median 78 days of working capital, European players had 98 days – an overall gap of 25%, with all working capital components contributing to that gap. There

are also significant differences among subsectors and among direct competitors within the sectors. Working capital management has not been at the head of the agenda in times of capacity constraints and material shortages; more's the pity, as effective working capital management not only helps improve financial performance and value, but also helps strengthen the business design and operations (e.g., improving lead times).

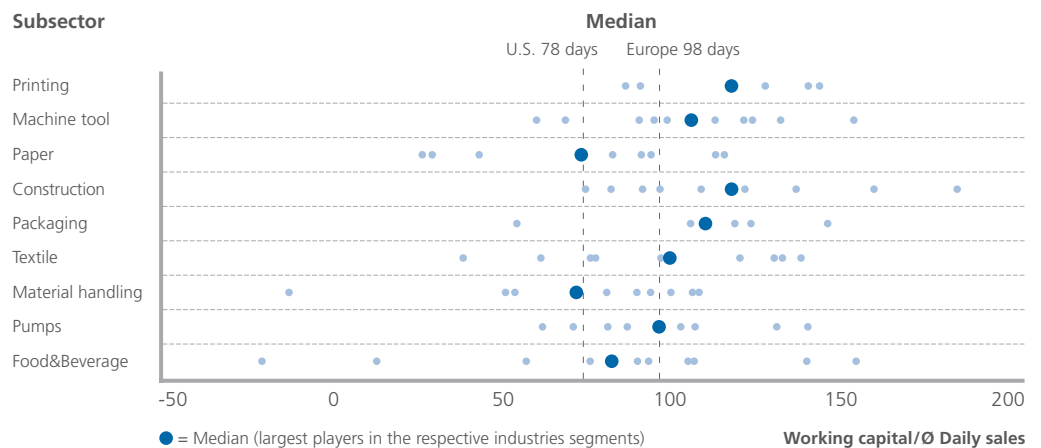
Working capital as a key value driver

Many management tools have been designed to improve working capital performance, covering accounts receivable, inventory, accounts payable, and so on. What differentiates the leaders from average players and poor performers is not just a better knowledge and application of such tools, but the fact that they have been able to create a platform for continuous, sustainable improvement. Key elements of a best-in-class system are:

- Transparency through a consistent set of KPI across functions and levels of the organization.
- Senior management focus.
- Clear ownership of the problem and KPI.

For most industrial companies, there is significant room for improvement, both from a financial and operations point of view. Executives thus should include working capital management as one of their business priorities.

Working capital
In days of sales (2006)



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Cure-All or Bottomless Pit?

Optimizing the site structure is one of the key cost-cutting levers for manufacturing companies. As a result, many companies move production sites to low-cost countries. In some cases, however, flawed product selection or mistakes in implementation turn anticipated savings into unexpected losses.

When managers focus on optimizing the production network, they are typically driven by such motives as tapping new markets, optimizing the logistics chain, maximizing capacity usage and, in particular, realizing savings potential (up to 20 percent of total costs) with regard to factor costs. Nokia, Osram, and Fleischmann are prominent examples of recent relocations. At the same time, Steiff recently announced the abandonment of its production facilities in China.

Taking into account diametrically opposed effects

All too often, savings in direct wage costs are the only reason cited for production relocations. This may be fine when it comes to products with a low degree of automation, because they offer the highest savings potential for direct wage costs. However, this category also includes “old” products with specific produc-

tion processes and low unit numbers, where high reject rates and complexity costs at the new location will quickly absorb savings in direct wages.

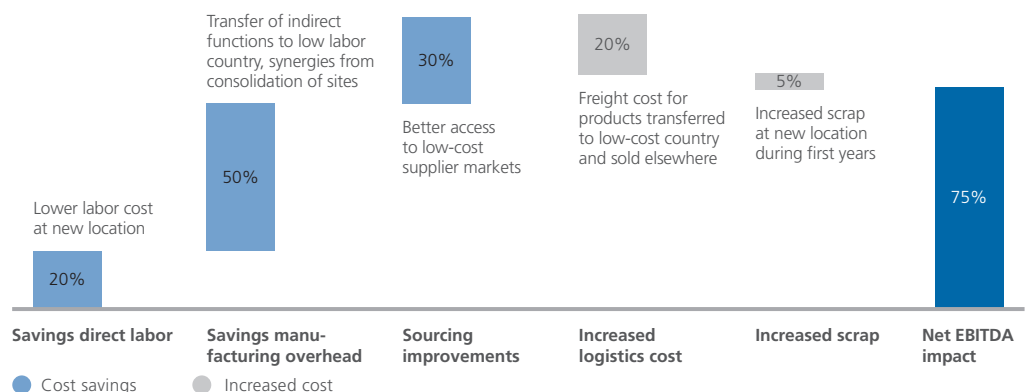
Another important aspect is the product portfolio at the new location. A low-cost location also requires a clear orientation toward a certain product or technology segment; if too many – often unpopular – products are concentrated at the new location, effective on-site production will not be possible. Finally, additional management complexity, such as dispatching and recruiting qualified employees, or tying up resources at headquarters, should also be incorporated into the decision.

Careful planning, strict implementation

Successful production relocations require a clear strategy for positioning the new location; detailed planning of the relocation process, with the involvement of the plants giving up production, support functions, and customers; implementation through a dedicated transfer team as well as detailed planning of all cost factors and necessary investments; and close monitoring during the implementation phase to recognize and prevent deviations.

Typical earnings impact of manufacturing footprint redesign

In % of gross EBITDA improvement



Truck Makers Should Heed Customers' Concern About Operating Costs

The truck sector worldwide is going through a cyclical downturn. Over the next few years, the main goals of makers of heavy commercial vehicles will be to retain customers and to tap new sources of revenues and earnings. To accomplish these goals, they must have a better understanding of customer needs and address these needs with customized products. Oliver Wyman's study, "Truck Customer 2008", offers insights into the priorities of commercial vehicle customers and identifies the most pressing areas for manufacturers to act.

For the second time, Oliver Wyman conducted a survey of truck customers that focused on the present and future significance of roughly 50 buying criteria in six categories, as well as the fulfillment of these criteria by individual manufacturers. In all, about 1,000 commercial vehicle customers in China, France, and Germany were surveyed.

Costs are the most crucial customer issue

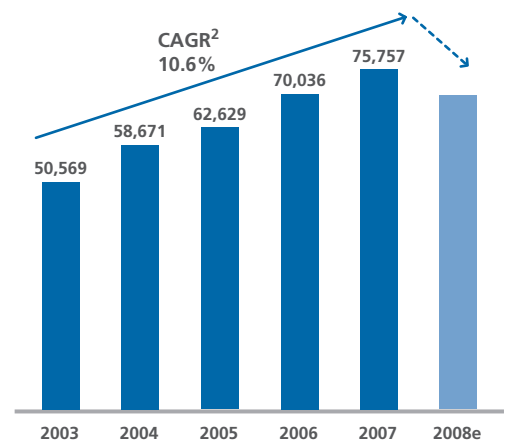
The quality of the vehicle itself remains extremely important. However, truck customers see no need for changes in terms of comfort, safety, or technical innovation. By contrast, customers focus on cost-related issues such as purchase price, operating costs, and range of services. In all countries and customer segments, purchase and life-cycle costs are the most crucial buying criterion for trucks, now and in the near future. Particularly in cost-relevant areas, the importance of the issue to customers and the follow-through by manufacturers are far apart. There is a clear need for action on the part of the manufacturers. Truck customers expect manufacturers to help them lower their operating costs.

Another key criterion for customers is repair-shop services, with service quality and the availability of replacement parts cited as needing improvement. In emerging markets, customers also criticized the extent and the quality of the repair-shop network. Customers voiced a desire for increased reliability and shorter downtimes, and additional related services are particularly important for larger fleets and mature truck markets.

Significant regional differences

Although the list of top criteria among truck customers contained similar issues, the ranking of customer needs and expectations differ significantly by country, suggesting that truck manufacturers must increasingly adjust their product lines to meet regional requirements. While German and Chinese customers focus on the overall costs of trucks, French customers say that the purchase price is the critical factor and that operating costs play a second

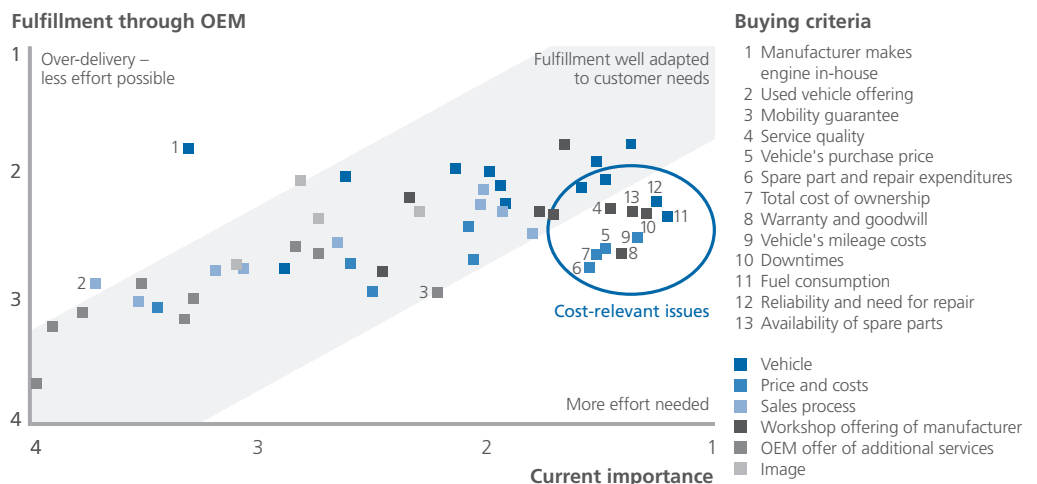
New registrations of heavy commercial vehicles¹ in Germany



¹Heavy commercial vehicles = trucks > 7.5t and trailer tractors
²CAGR = compound annual growth rate 2003-2007
 Source: KBA (Germany's motor transport authority), Oliver Wyman analysis

The greatest need for action is in cost-relevant issues

Customer priorities, average of respondents in Germany, grading from 1-6¹



Source: Truck Customer 2008, Oliver Wyman analysis

ary role. Of the countries surveyed, the French are the most safety- and environmentally conscious buyers of trucks. In Germany, the length of repair times is the third most important factor, while it ranks seventh in France and 15th in China. Germans are concerned about warranties and goodwill, while Chinese commercial vehicle customers pay more attention to the vehicle brand – a sign of a fragmented market with wide differences in product characteristics.

In China, foreign truck manufacturers still lag in service

Generally speaking, Chinese commercial vehicle customers do not rate foreign brands higher than domestic ones such as FAW or Dongfeng. Chinese customers do consider foreign vehicles to be technically superior to domestic models, particularly in terms of maintenance requirements and cabin comfort. But European models cost significantly more and have a much smaller service network than domestic competitors do.

Service is a general problem for Chinese customers. Only 15 percent of commercial vehicle customers surveyed in China use the brand's repair shop; the rest rely on their own or independent workshops. Those who do use brand repair shops complain about high prices and long delivery times for replacement parts. In particular, they criticize the frequently higher hourly costs for mechanics' work and the long distance to the nearest repair shop of foreign brands.

At the same time, local brands in emerging markets cannot meet the rising demands being placed on vehicles and must be retrofitted. All truck manufacturers in emerging

markets should think about investing heavily in services. The survey's findings in China clearly show that both domestic and European brands will be in a good starting position if their service is solid and affordable. In this area, too, partnerships with competitors or specialists should be considered, as they allow for the sharing of high initial investments. In such markets, the range of financing services is critically important, and the survey found that needs in this area were insufficiently covered.

Low-cost trucks have little appeal

The Oliver Wyman survey asked about demand for Asian and Eastern European low-cost trucks in Germany and France. German customers have no interest in low-cost trucks made in emerging markets, with about two-thirds of German customers considering vehicles produced in China, India, and Russia to be of unacceptable quality. Vehicles from Eastern Europe fared only slightly better. French customers have a more positive attitude toward vehicles made in these countries, with 15 to 20 percent of French customers viewing these vehicles as having comparable quality. Customers expressed doubts about low-cost trucks' reliability, safety, and service network.

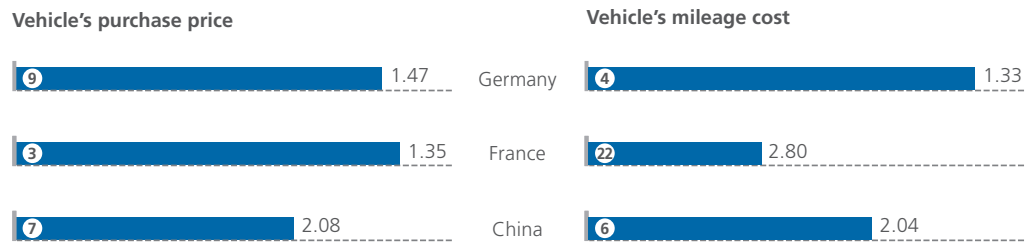
Rethinking the business design

The study highlights areas that are especially relevant in the context of the current slowdown in sales worldwide, and suggests a number of recommendations.

First, the broad task is to reduce overall vehicle costs for the customer. Vehicle manufacturers must examine their entire value chain to determine how they can influence costs

Diverse customer priorities in Germany, France and China

Average score from respondents; grading from 1-6¹



¹1 = very important, 6 = completely unimportant ○ Ranking among all criteria per country

Source: Truck Customer 2008, Oliver Wyman analysis

“The agenda of commercial vehicle manufacturers must be built around the customer. This includes the design of trucks that are optimized in terms of operating costs and offerings, as well as value-added services tailored to individual customer needs, and that support the customer’s business design”

in order to lower customers’ overall costs. Significant savings might be found by reducing the vertical integration of manufacture, since customers no longer consider in-house production of engines to be a decisive factor.

Taking a long-range perspective, the study results also raise the question of whether the truck industry’s current business design, with its focus on added value in development and production, is sustainable. If cost increasingly becomes a decisive factor and the vehicle itself has little differentiation, manufacturers could reduce focus on vehicle conception and integration of the entire vehicle, as well as operation of sales and service networks. These are crucial elements of customer satisfaction and will likely remain so in manufacturers’ responsibility in the future. Meanwhile, production of components could be gradually turned over to value-added partners.

Creating needs-based products

In mature markets such as central Europe, products and services should be tailored for specific regions and customer segments. The definition of each segment should stem from detailed knowledge about customer priorities, leading to corresponding vehicle and product ranges.

For higher-value services such as fleet management, mobility guarantees, or short-term rentals, the study shows that offerings – possibly through partnerships with specialized providers in individual areas – and customers’ perception of those offerings must be improved. To date, customers have not been won over by the current range of offerings. But many consider it to be very important in the future.

Even if commercial vehicle manufacturers do a decent job of meeting the needs of their customers across brands and markets, this is not sufficient to gain a competitive edge. In the future, manufacturers will have to tailor their offerings to specific customer requirements in different segments and regions. In mature markets, two goals should be to improve the interface between the customer and the manufacturer, and to generate additional revenue by offering intelligent services. In emerging markets, the service structure must be improved in order to match brand promises and to remove doubts about vehicle availability.

Five recommended actions for truck manufacturers

- 1 Improve workshop service:** This is a decisive purchasing factor and the place where the customer’s cost position can be improved. Starting points are standardized repair-shop formats and intelligent planning of the sales and service networks.
- 2 Create cost-optimized offerings:** Costs are customers’ most important concern and can be addressed in numerous areas, from purchase and use to residual value.
- 3 Develop specific offers for regions and segments:** The best offering for each customer requires deep knowledge about the customer’s segment and region.
- 4 Optimize value-added services:** Boost customers’ willingness to buy and their satisfaction with tailored offerings and improved communication of the service range.
- 5 Use customer-centric business designs:** Value-added services can help the customer earn money and reduce tedious work. This is particularly important in mature markets. These business designs are especially profitable for OEMs and also promote customer loyalty.

Aligning Crisis Prevention with Growth Plans

Senior executives at manufacturing firms are expecting the business climate to cool significantly, but do not think a downturn will be uniformly spread around the world, according to an Oliver Wyman survey. The survey was conducted in the second quarter of 2008 and asked respondents about their economic expectations and preparations for a downturn. European executives were found to be generally less pessimistic, in part because they are benefiting from the extraordinary demand generated by solid growth of Eastern European economies.

Against the backdrop of a weakening U.S. economy, the ongoing financial crisis, as well as volatile energy and raw material prices, many experts see an economic downturn as a significant threat. Oliver Wyman's survey asked board members and managing directors of global industrial companies from all sectors to assess the situation. Most expected an economic downturn, but no global recession. Two-thirds of survey respondents viewed the emerging crisis as a temporary economic phenomenon.

Executives at U.S. companies were particularly pessimistic, as they have greater exposure to

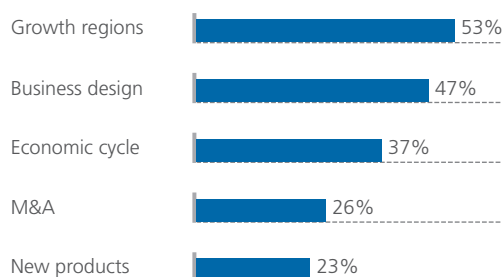
the American market. Yet even in the United States, only 25 percent of respondents expressed concerns that their company might suffer stagnant or declining sales. A total of 42 percent expected to be able to achieve growth of more than 5 percent. Macroeconomic developments were expected to negatively impact all sectors, and the risk of a recession was rated highest in the United States (61 percent).

Crucial factor: the business design

To achieve sustained growth, the business design will play a more decisive role than will cyclical developments. For example, 47 percent of respondents rated their own business design as their most important internal factor for growth. Key external factors included market position in growth regions (53 percent) and economic developments (37 percent).

Serious crises will no doubt occur again, yet about two-thirds of companies surveyed do not have a planning unit that formulates contingency plans for deep economic downturns. The surveyed managers attributed this gap to a shortage of suitable employees and tools, and to insufficient pressure to act.

Growth drivers¹



¹Share of factors rated "very important" and "important"
Source: Oliver Wyman Senior Executive Survey, Q2 2008

Success factors in crisis prevention

- 1 Crisis-resistant business design: diversified business mix regarding regions, customer sectors, and products, a broad range of services, and flexible cost structures.
- 2 Transparency regarding the impact of possible crisis scenarios on sales, results, cash flow, and funding requirements.
- 3 Contingency plan: a strategy that can be rapidly implemented in crisis situations.

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Manufacturing Industries

Oliver Wyman's Manufacturing Industries practice supports manufacturing companies in restructuring and realizing profitable growth. The practice combines deep industry expertise with specialized skills. Based on that experience and knowledge, we publish industry-specific studies and benchmarking databases that are available to our clients. Our goal is to rapidly make a real business impact for industrial enterprises around the world.

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