Never waste a good crisis: Lessons in staying ahead for Industrial Manufacturing leaders
Global edition
“When not at war, sharpen the sword”

Jim Nicol, CEO Tomkins Plc
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Foreword

Business leaders have taken their companies through some unprecedented times recently and now face new challenges in embedding the lessons learned and driving for growth in a rapidly changing environment. In this report we show how some leading players in the Industrial Manufacturing sector have used the period to adapt and strengthen their businesses providing lessons for those tackling their own particular stage of the cycle.

Graeme Billings, Global Industrial Manufacturing Leader
PricewaterhouseCoopers LLP

Acknowledgments

Our Industrial Manufacturing team conducted research based on:

- Interviews with leading CEOs
- Analysis of the financial performance of the top 20 companies in the sector
- Comparisons of case studies from our client base
- Insights gained through our partnership with the Institution of Mechanical Engineers’ Manufacturing Excellence programme.

In particular, we would like to give special thanks to the following for providing their time and insights:

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- Philip Bowman, CEO, Smiths Group Plc
- Jim Nicol, CEO, Tomkins Plc
- Keith Cochrane, CEO, Weir Group Plc
Summary

The recent global financial crisis created an environment of significant instability and uncertainty for Industrial Manufacturing companies during late 2008 and into 2009. In most sectors, there was little warning as order and shipment levels dropped off sharply. CEOs had to react with minimal visibility as to the magnitude of impact the crisis would ultimately have on their business and its respective industry, customers and suppliers.

PricewaterhouseCoopers’ view at the time was that the industry would survive the economic downturn; the key question was whether business leaders would be able to take decisive action and implement the right strategies, so that they would emerge stronger and be positioned for future growth ahead of their competitors. To find out the answer to this question, PricewaterhouseCoopers UK conducted research and interviewed leading manufacturers in the UK, the majority of which operate internationally around the world. Given the global nature both of the economic crisis and the industry itself, the best practices and opportunities created out of the downturn by UK based industrial manufacturers will resonate strongly with businesses around the world. In this global edition of ‘Never waste a good crisis’, we share the results of the survey with additional commentary drawn from PricewaterhouseCoopers Manufacturing Barometer survey, Q2 2010.

So how did businesses respond?

Over a year later, we find that the leading businesses in the sector were able to not only improve working capital by up to 15% but also to improve gross margins by 1.5% through the various cost savings initiatives implemented. Best practices identified include:

- Preparing for a range of potential outcomes through robust scenario planning for up to 10%, 20% and 30% declines in revenue
- Aligning incentives to cash and working capital performance to ensure they were ‘top-of-the-mind’ within management teams
- Realigning manufacturing base including accelerating the shift of either manufacturing plants and/or commodity products to Lower Cost Countries (LCCs) or temporarily in-sourcing product to fill excess capacity and retain skilled workforce
- Directing the product mix towards markets more resilient to cycle and downturn (and increasing prices in these markets)
- Multi-skilling the workforce to increase flexibility, improve utilisation and avoid losing skilled resource.

1. “PricewaterhouseCoopers” refers to PricewaterhouseCoopers LLP (a limited liability partnership in the United Kingdom) or, as the context requires, the PricewaterhouseCoopers global network or other member firms of the network, each of which is a separate legal entity.
While the downturn affected all companies differently, the key factors which affected their trajectory included: the relative change in growth prior to the decline and the rate of decline itself, visibility of inventory levels in the channel, flexibility of business models to enable quick and efficient cost reduction, exposure to the decline in demand for OEM products and access to market intelligence and accurate forecasts.

So where next? Five key things to consider going forward

With uncertainty remaining in the economy and several of the end markets for Industrial Manufacturing still to see the bottom of their cycles, we hope that this report will provide useful tips and practical lessons for business leaders and financial investors worldwide in preparing for either continued difficulties or renewed growth.

• Ensuring robust detailed plans are in place to cope with both upturn and downturn scenarios for future market dynamics

• As markets and volumes return, customers will undoubtedly apply price pressures, careful consideration must be given to the trade off between cost, inventory and service levels

• Continue the tight controls to ensure the margin benefits of increased volume flow through to the bottom line

• With many European countries suffering from a weak currency and limited purchasing power, manufacturers will have to re-examine overseas markets and whether these are delivering required value

• There are often more involuntary liquidations in an upturn as companies seek orders and growth without being properly prepared. Businesses will need trade credit and working capital to get factories back to a higher level of production, so should be talking now to trading partners and relationship managers at their banks.

Crunch time – key decisions and actions

Initially, the biggest challenge faced by CEOs was to understand whether this was a short-term decline or a more long-term recession, with the collapse of Lehman’s in September 2008 confirming it was the latter.

Next, the challenge was to predict the length and depth of the recession and the scale and severity of the actions needed to survive.

Communication was key, as the recession and mitigation strategies caused massive uncertainty and unrest, with many CEOs holding daily meetings and calls to allow concerns to be expressed, issues discussed and plans to be shared.

“The biggest issue was the uncertainty of demand, customers couldn’t even forecast their own demand, so what chance did the supply chain have?”

Industrial Manufacturing CEO
The findings of PwC’s Manufacturing Barometer Q2 2010 (which surveys large, often multinational, US-based manufacturers) reflects a similar uncertainty surrounding world economic growth prospects for the coming twelve months. Of the US-based industrial manufacturers who market abroad, only 38% said they were optimistic about the prospects for the world economy over the next 12 months, compared to 53% in the prior quarter, while 46% were uncertain.

Tentative signs of recovery for manufacturing across Europe
Manufacturing output vs. GDP: EU27

Manufacturing across Europe went into a sharp and deep recession in Q4 2008, with a rate of decline that took many by surprise. 2009 saw a further four quarters of declining output, with a total peak-to-trough decline in manufacturing output of 20%. The sector burst out of the blocks in the first half of 2010 driven by a return to strong growth in emerging markets, a recovering Eurozone and supply chain restocking. For UK exporters the weak pound has provided a further much-needed lift. However, at the time of writing the Eurozone recovery is faltering and sterling has started to appreciate against the Euro, making the recovery appear more vulnerable than recent results would indicate.

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View of the world economy, next 12 months

Source: PwC Manufacturing Barometer Q2 2010
The timing and scale of the downturn have been different across industry sectors... which will impact the timing of their recovery.

**End market snapshot**

As expected, various key industry sectors serviced by Industrial Manufacturing firms were impacted differently by the downturn and for some the worst is still to come.

The table below gives insights on the timing and scale of the recession across industry sectors, as well as the timing of the expected recovery.

<table>
<thead>
<tr>
<th>Impact of downturn</th>
<th>Current outlook</th>
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| **Aerospace and Defence**                                                          | • Commercial: Yet to feed through to aircraft deliveries due to strength of order books and ‘late cycle’ effect. Starting to impact supply chain.  
• Defence: limited impact to date.                                                                                                                                 |
| **Automotive**                                                                     | • Global automotive sales were down c.21% in 2008, with a recovery in 2009 due to government incentives and Far Eastern demand.  
• Commercial: Decline in deliveries expected from 2011.  
• Defence: Cuts expected in Western defence budgets.  
• The key driver remains which programmes businesses are exposed to.                                                                                                                                 |
| **Construction and building products**                                            | • In developed countries, the sharp decline in building between 2007 and 2009 caused a slump in construction output amounting to over $650bn (€448bn) a year.  
• The developed world’s construction output is forecast to return to 2007 levels only in 2013. Global growth will continue to be driven by emerging economies. |
| **Mining and Metals**                                                               | • Global demand for major minerals and metals fell by c.3-5% in 2009, impacting prices of major commodities by up to 60%.  
• Demand and prices are recovering, driven by strong demand from China. Volume growth is forecast to be robust in all major emerging markets. |
| **Oil and Gas**                                                                    | • World crude demand fell year-on-year in both 2008 and 2009 -- the first time since the early 1980’s of two back-to-back negative years.  
• Demand returned to growth in H2 2009, and is forecast to grow at c.2% p.a. 2010-12. |

Source: Eurostat, Teal, JD Power, EIA, Broker notes, Thomson, ICIS, PwC Automotive Institute, PwC analysis
Best practice downturn strategies... and where next?

The recession has undoubtedly been the most turbulent period many CEOs have ever experienced, but for the leading edge businesses this was a unique opportunity to build for the future.

Scenario planning

Prior to the recession, the majority of the companies interviewed had some form of cost reduction plan. However, these had often been given low priority as either:

• The main focus was on satisfying growth in demand and increasing market share; or
• The plans were being implemented at a pace so as to cause minimal business disruption.

Although, in many cases, the implementation of these plans was accelerated as the recession started, most of the original plans were insufficient for the declines being seen, requiring them to be either expanded or completely redeveloped. What were initially more ‘housekeeping’ saving plans became full blown restructuring, given the significant and cost reductions needed. Unfortunately, this often caused implementation delays whilst validation, financing, legal and other factors were resolved.

Only a minority of the companies interviewed had proactive and robust downturn scenario plans to deal with a 10%, 20% and 30% decline in revenue, whilst maintaining operating margins and not affecting the long-term future of the business. These plans not only allowed the business to be ahead of the game in terms of strategy and implementation, but also included trigger points to detect the levels of revenue / volume reduction and KPIs which enabled them to measure the benefits achieved following implementation.

“We achieved 94% of the benefits from our downturn scenario plans, due to their robustness, the process and execution, which became part of each division’s DNA”

Industrial Manufacturing CEO

“Next time we would model greater extremes.”

Industrial Manufacturing CEO

Where next?

With the possibility of a double dip recession still looming, the impact sovereign debt could have on GDP growth and the potential of future FX fluctuations, uncertainty remains.

Having robust detailed plans in place to cope with both upturn and downturn scenarios, would help prepare businesses for this uncertainty.
Case study

Pre-recession planning

One company had prepared downturn scenario plans to deal with a 10%, 20% and 30% decline in revenue, whilst maintaining operating margins and not affecting the long-term future of the business.

The development of these plans arose from the CEO and Managing Directors of the three divisions sensing that the market was softening. They set about developing robust action plans in preparation for this, which included:

- Autonomous plans for each division;
- Revenue reductions of 10%, 20% and 30%;
- Trigger points to identify order intake reductions, which would then invoke various actions;
- No loss of operating margins, although a small reduction was permitted on the 30% revenue reduction scenario;
- Retain key skills / resources;
- No loss of market share;
- No impact on future long-term growth strategies and sustainability; and
- KPIs to track the strategies, benefits and costs.

Whilst the initial plans included headcount reductions, operating cost savings, working capital improvements, reduction in capex and R&D, it was recognised that they were not robust enough and lacked the detail, depth and innovative ideas to give the level of savings needed, without impacting the long-term future. After challenge from Group management, the divisions developed extremely detailed plans which not only stood up to diligence, but included early warning triggers, different strategies for various scenarios, whilst maintaining skills and supporting future growth plans.

The downturn scenario plans delivered

- Significant overhead cost reductions.
- In-sourcing low end machining as a short-term measure, to keep hours in the plants.
- A c.10% reduction in headcount, but maintaining skills by getting people to carry out the lower skill operations (e.g. Engineering staff operating fork-lift trucks).
- Moving supply to low cost countries.
- A significant improvement in cash, achieved through:
  - Tightening up on receivables;
  - Implementing lean principles to reduce inventory;
  - Changing the bonus scheme to include working capital metrics.
- Reducing capex, but not stopping, focussing on investments where payback was less than 2 years.
- Maintaining R&D projects, but with more focus on the gate process, continuously validating the benefits and costs.

Critical success factors

- Diligence of the downturn plans, through detailed review, and continuous push back to divisional management to ensure robustness.
- Processes developed within the downturn plans and methodology of execution, which became part of each divisions DNA.
- Early warnings – Triggers and trends (Service, Original equipment, Spares, etc) mainly relating to order intake, but also bi-weekly analysis of market reports to understand exactly what was going on in each business sector, level of cancellation of orders, etc (rolling model).
- Detailed reviews and continuous tracking (rolling model) of achievement against target.
- Management incentivised through bonus plan to achieve, but limited to ensure business was not damaged.
- Not cutting too deep, which could have hindered future growth strategies.
- Focus on plant utilisation.
- Rolling models to give early warning.
“Good leaders in a thriving business do not necessarily make good restructuring/change managers”
Jim Nicol, CEO Tomkins Plc

Flexing the workforce

The best companies used a wide range of solutions to not only reduce and optimise their workforce during the downturn, but also improve its flexibility, value-add and costs. These included:

- Headcount reductions (direct and indirect), averaging 10% across companies reviewed;
- Use of temporary unemployment solutions supported by Governments in both Western and Eastern Europe;
- Temporary plant shutdowns and/or shortened work weeks to reduce costs while retaining skilled labour force. Some plants ran for the same hours but less days, to reduce other costs such as energy;
- Implementing universal pay freezes to control costs;
- Use of temporary labour force to manage demand variability, including developing a more variable labour base, especially in Western Europe, to improve flexibility, whilst avoiding long-term employment/redundancy costs;
- Multi-skilling the workforce to increase flexibility, improve utilisation and avoid losing skilled resources (including training skilled staff for different skill sets, warehouse/forklift duties, etc);
- Consolidating and centralising support functions and staff, coupled with training to facilitate multi-tasking;
- Recognising weaknesses in senior management and replacing them. Although many managed the business competently in a steady/growing market, they lacked the experience and skill sets to manage and drive change during a downturn.

Overall, the impact of these changes on the long term performance of the company is viewed as extremely positive with the downturn providing an opportunity for management to address long term issues such as defined benefit pension schemes and improving the flexibility and agility of the workforce.

Companies surveyed reduced headcount by c.10%, improving revenue per employee by c.8% a combination of productivity improvement and increased outsourcing to Low Cost Countries (LCCs)

Where next?

A key concern has been the unavoidable loss in places of skilled employees where management cut too deep and are now struggling to re-employ as volumes return.

In preparation for the upturn, management need to be considering recruitment and training programmes such as apprenticeships, graduate schemes and work experience programmes.
Re-scaling manufacturing

The recession created an urgent need for most businesses to rescale operations, improve efficiency and rapidly reduce costs, due to both the decline in volumes and the sudden price erosion, especially in commodity products. The leading manufacturing improvement programmes adopted included:

- Footprint rationalisation through large-scale closure of plants in Western countries to reduce overhead costs and improve utilisation;
- Using the recession as an opportunity to either exit Western European plants with high closure costs by obtaining dispensation on traditional redundancy terms, or renegotiate contract terms and conditions to improve flexibility and reduce future liabilities (pensions, redundancies, etc);
- Adapting the manufacturing plants to accommodate new products and/or solutions / service offerings;
- Accelerating the shift of either manufacturing plants and/or commodity products to LCCs;
- Temporarily in-sourcing product to fill excess capacity and retain skilled workforce;
- Manufacturing in the country of sale to avoid/reduce FX exposures, transport costs and lead-times;
- Deployment of lean manufacturing programs and techniques to increase flexibility, reduce costs and inventories. These included waste elimination (MUDA), continuous improvement (Kaizen), automation and cellular manufacturing, reduced set-up times (SMED), etc.

“Operations were the biggest headache with lead-times and batch sizes reduced, impacting set-up to run ratios, incurring additional costs”

Industrial Manufacturing CEO

Where next?

Leading businesses believe they have significantly improved their manufacturing footprint and locations, especially those derived by acquisition. Coupled with more focus on efficiency, this is allowing companies to competitively support the new products, solutions and service offerings, making them more resilient to competition from LCCs and currency fluctuations.

With many European countries suffering from a weak currency and limited purchasing power, manufacturers will have to re-examine overseas markets and whether these are delivering required value. Some that outsourced processes abroad might find value in bringing them back home, however, FX movements must be considered.
Supply chain

Although not the main focus for the majority of the companies in the sector, many have implemented programs to reduce procurement and distribution costs, with the best using the following strategies:

- Shifting to global procurement and consolidation of spend, often aided by the rationalisation of the manufacturing footprint and product portfolio;
- Rationalisation of the supply base to better leverage the reduced volumes;
- Temporarily in-sourcing production of some parts to maintain plant utilisation and absorb overhead costs;
- Reduction of distribution and warehousing costs, supported primarily by manufacturing in the country of sale and improved manufacturing processes, which reduced lead-times and inventory;
- Procure from country of sale to avoid FX effect and reduce transportation costs, lead times and inventory;
- Procurement of commodity product from LCCs.

Some companies adopted supply chain strategies that complemented their market, product and manufacturing strategies, giving greater focus to leveraging the materials, components and volumes across the organisation, whilst improving service levels.

Where next?

As markets and volumes return, customers will undoubtedly apply price pressures, requiring companies to review these strategies. There must be careful consideration to the trade off between cost, inventory and service levels, to ensure businesses remain competitive and protect their market share.

Sales, General and Administration costs (SG&A) cost

Another key area of focus for many was to reduce operating and discretionary costs, albeit these represented a smaller part of their cost base. Generally, management focused on:

- Reviewing each cost item, eliminating all non-value add costs;
- Greater focus on variable costs (energy, packaging, transport, etc); and
- Reduction of miscellaneous expenses (travel, phone, entertainment, etc).

Many of the businesses we interviewed recognised this as an area where they have not cut deeply, on the basis that infrastructure and support staff are required to protect market share as the recession ends and support the business as it returns to normality.

Where next?

Continuing the tight controls will be instrumental in ensuring the margin benefits of increased volume flow through to the bottom line.
Companies increased focus on cash management during the downturn, achieving significant reduction of inventory and receivables... however, this success could lead to cash constraints as volumes/working capital requirements pick up

Cash and Working Capital

Initially, working capital and cash management became a huge challenge, with customers delaying and cancelling orders, customers de-stocking, a pipeline of in-bound materials and payment terms being rapidly extended as customers experienced the financial impacts of the recession.

Companies focused their initiatives on cash management and working capital reduction, often achieving significant reductions in inventories and receivables. In the midst of a recession characterised by an unprecedented lack of liquidity, companies needed to maintain a sound financial footing, ensure financial covenants were being met and maintain adequate cash generation to finance on-going investments.

The best strategies used included:

• Increased management attention on cash management through the implementation of appropriate KPIs;
• Alignment of incentives / bonuses to cash and working capital performance to ensure they were ‘top-of-the-mind’ within management team;
• Ensuring the initiatives to improve manufacturing efficiency such as site consolidation, portfolio rationalisation and centralisation of spend had a positive impact on inventory reduction,

Particularly, on receivables management, the best practices during the recession included:

• Reviewing total credit exposure and associated risk on a daily/weekly basis;
• Structured, coordinated and systematic approach to improving payment terms with customers and suppliers across territories;
• Investigating viable potential alternatives to credit insurance (instead of maintaining historic over-reliance on insurance);
• Adopting a more disciplined and rigorous approach to debt collection; and
• Taking control of payment timing to suppliers.

All companies included in our research, became significantly more focussed on cash and working capital, and, whilst overall revenues fell by c.2%, on average, they delivered excellent results in managing working capital effectively during this period. This was mainly achieved through inventory reductions and improved debtor collections, although credit came under increasing pressure as suppliers reduced payment terms due to the volatility in the market.

“Our working capital to sales ratio improved through tightening up on receivables and stretching payables, with good internal controls on inventory.”

Industrial Manufacturing CEO
Where next?

There are often more involuntary liquidations in an upturn than a downturn as companies seek orders without being properly prepared, fail to win them and then crash. Businesses will need trade credit and working capital to get factories back to a higher level of production, so should be talking now to trading partners and relationship managers at their banks. When business does pick up, they must have a tight focus on cash management, on supplies, inventory levels and following up invoices efficiently.
Protection of IP, especially from Asia, was seen as the biggest area of concern and a key factor in both products and manufacturing strategies.

"The mix change from cyclical products was a huge mitigation as was the variable cost base model, which allowed restructuring at minimal cost.”

Industrial Manufacturing CEO

Getting closer to the customer
The majority of companies interviewed took action to improve and protect their top line revenue and margins, some of the areas of best practice included:

- Offering ‘solutions’ rather than just products (e.g. Full systems, installation and service offerings, “life of assets” pricing);
- Rationalising the product portfolio by discontinuing “dead wood”, commoditised and low / negative margin products;
- Increasing prices in more resilient markets (repair & maintenance, value-added services, brand leaders, etc);
- Shifting towards markets more resilient to cycle and downturn (e.g. military, repair & maintenance, services, etc);
- Investing in IP and R&D to focus portfolios on differentiated, high-technology and high-value products;
- Bolt-on acquisitions of “good and/or complementary products” to increase portfolio value.

The majority of CEOs interviewed believe they have improved their relationships with their customers and have moved, or are moving towards, more resilient markets with more robust portfolio / service offerings, which will not only improve revenue and margins as the markets return, but also minimise the impact of any future downturn.

Where next?
In addition to implementing cost cutting programs, most CEOs interviewed took advantage of the downturn to initiate long-term portfolio reviews so as to be better positioned for the recovery. Balancing between OEM and after-market, combined with a move to solutions and service could provide greater stability in dynamic markets.

With increased pricing stability many CEOs will now focus on M&A activity to bolster product and market positioning, acting quickly whilst mitigating strategic and financial risks will be key. The findings of the Q2 2010 Manufacturing Barometer suggest this focus is increasing amongst US manufacturers – with 38% of those surveyed who were planning new capital investments looking at acquisitions – see p15.
It has been encouraging to see R&D spend being maintained to support new technology, innovation and product differentiation.

“We were under financial pressure the past couple of years, but didn’t take out capex. Our private equity owners were keen that we invest to build the right business for the future”

Industrial Manufacturing CEO

Capex and Research & Development

To support their strategies, which for some included moving towards more resilient markets and/or differentiated and higher value products, most companies retained their development resources and continued to invest in capital equipment.

- Although capex was somewhat reduced due to liquidity constraints, investment did not stop, rather management improved the screening process to focus resources and expenditure on high return projects.

- R&D expenditure, as a percentage of sales, was maintained throughout the recession to support new product and emerging market developments. However greater focus was paid to the development process, with rigorous gate reviews to manage timescales, costs, revenue and margin potential.

Where next?

Companies must ensure they now maximise the benefits from their sustained investment programmes in R&D. In addition they must ensure capacity and/or investment funding is in place so as to retain or gain market share during the upturn.
In the US, the picture is similar. The Manufacturing Barometer Survey asks respondents whether they plan major new investments of capital over the coming twelve months. In the Q2 2010 report, 33% were planning such new investments, compared with 28% last quarter. And of the respondents indicating plans to increase operational spending over the past five quarters, R&D spend has consistently placed second behind new product or service introduction until this quarter when it dropped to third following a jump in plans for new business acquisitions.

### Percent planning major new investments of capital

**Industrial manufacturers**

<table>
<thead>
<tr>
<th></th>
<th>2Q '09</th>
<th>3Q '09</th>
<th>4Q '09</th>
<th>1Q '10</th>
<th>2Q '10</th>
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<tr>
<td>27</td>
<td>37</td>
<td>35</td>
<td>28</td>
<td>33</td>
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Mean investment as a % of total sales:

- 6.2% (2Q '09)
- 3.9% (3Q '09)
- 4.6% (4Q '09)
- 8.4% (1Q '10)
- 7.0% (2Q '10)

*Source: PwC Manufacturing Barometer Q2 2010*

### Percent planning to increase operational spending

**Industrial manufacturers**

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<tr>
<th></th>
<th>2Q '09</th>
<th>3Q '09</th>
<th>4Q '09</th>
<th>1Q '10</th>
<th>2Q '10</th>
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<tbody>
<tr>
<td>Percent planning to increase spending (net)</td>
<td>53%</td>
<td>68%</td>
<td>65%</td>
<td>70%</td>
<td>80%</td>
</tr>
<tr>
<td>- New product or service introduction</td>
<td>30%</td>
<td>40%</td>
<td>37%</td>
<td>43%</td>
<td>52%</td>
</tr>
<tr>
<td>- Business acquisition</td>
<td>18%</td>
<td>33%</td>
<td>23%</td>
<td>23%</td>
<td>38%</td>
</tr>
<tr>
<td>- Research and development</td>
<td>18%</td>
<td>35%</td>
<td>37%</td>
<td>28%</td>
<td>32%</td>
</tr>
<tr>
<td>- Geographic expansion</td>
<td>17%</td>
<td>22%</td>
<td>27%</td>
<td>22%</td>
<td>28%</td>
</tr>
<tr>
<td>- Facilities expansion</td>
<td>8%</td>
<td>18%</td>
<td>22%</td>
<td>20%</td>
<td>23%</td>
</tr>
<tr>
<td>- Information technology</td>
<td>12%</td>
<td>17%</td>
<td>22%</td>
<td>20%</td>
<td>22%</td>
</tr>
<tr>
<td>- Marketing &amp; sales promotion</td>
<td>10%</td>
<td>7%</td>
<td>12%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>- Internet commerce</td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>- Advertising</td>
<td>7%</td>
<td>3%</td>
<td>8%</td>
<td>12%</td>
<td>5%</td>
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*Source: PwC Manufacturing Barometer Q2 2010*
The bottom line – impact on financial performance

We analysed the financial performance of the top twenty leading UK Industrial Manufacturing companies to understand the impact the recession had on their revenue, margins and working capital.

Despite revenue decline, both Gross Margin and Working Capital improved.

**FY08-09 Revenue, Margins and Working Capital Change**

<table>
<thead>
<tr>
<th>Revenue GM% EBIT% WC as % of Revenue</th>
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<tr>
<td>-16%</td>
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<td>-12%</td>
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<tr>
<td>-8%</td>
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<td>-4%</td>
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<tr>
<td>0%</td>
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<tr>
<td>4%</td>
</tr>
<tr>
<td>-2.2%</td>
</tr>
<tr>
<td>1.5%</td>
</tr>
<tr>
<td>-4.1%</td>
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<tr>
<td>-15.0%</td>
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Source: Factiva, PwC analysis

Discussion with the CEOs also highlighted that in many cases revenue growth reflected new products and markets, price and FX impact and acquisitions, which disguised the rapid decline in volumes experienced from H2 2008 through H1 2009, and which for some exceeded 35%.

**FY08-09 Revenue vs GM% Change**

Source: Factiva, PwC analysis
Conclusion

Although Industrial Manufacturing has just experienced one of its worst periods of decline and turmoil, the majority of the companies we spoke to used it as an opportunity to carry out radical restructuring, implement cost reduction strategies, improve agility and flexibility, and renegotiate previous contractual commitments, such as terms and conditions and pension liabilities.

Coming out of the recession, the businesses are more focussed, cost effective and clear on the markets, products, people and manufacturing strategies, with improved reporting and metrics to help manage the dynamics of the business.

Given the turmoil in the segment, focus on strategic opportunities has also increased. Potential acquisitions or divestures are actively being evaluated in order to strengthen market position and take advantage of opportunities (e.g. acquisitions of strategically valuable distressed assets in the market). Up to this point, merger and acquisition (M&A) activity in the sector has been limited to small bolt-ons due to significant fluctuations in valuations and the disconnect on value between buyers and sellers. Increased stability and alignment of valuation expectations will see the return of M&A activity in the sector.

One of the consequences of these businesses having demonstrated resilience and often emerging from the recession leaner and more efficient, is becoming potential takeover targets, in particular by overseas conglomerates looking to benefit from weak sterling and gain from recovery upside opportunities.

However, with the possibility of a ‘double dip’ recession still looming and continued uncertainty remaining there is a real opportunity for businesses to ensure they have robust detailed plans in place to cope with both upturn and downturn scenarios.

While we have been impressed at the improvements in gross margin and working capital during the recession, we are already seeing examples of cash constraints as businesses begin to fund growth. The trade off between cost, inventory and service levels, coupled with the financing of inventory and investments as volumes return, will be essential for retaining or gaining market share.

Manufacturing and the supply chains will need to be continuously reviewed and if appropriate rescaled, relocated and/or restructured, whilst ensuring key skills are retained, and flexibility and service levels improved.

Benefits from ongoing investment in R&D need realising and continuous consideration given to markets and portfolios that are more resilient to cycles and downturn, with the potential to broaden and differentiate the portfolio by offering service and/or solutions.

Reviewing and adopting some, if not all, of these strategies, coupled with making scenario planning a board agenda item, will ensure businesses are maximising their potential and prepared for an uncertain future.
Lessons for the future

**Prepare for various scenarios and future market volatility**

- A robust, diligence scenario-planning tool that not only plans for revenue decreases, but also includes early warning triggers, KPIs, detailed and targeted initiatives that can help companies proactively manage restructuring during the downturn and deliver the predicted savings. Such a tool could also be used as effectively to anticipate revenue upsides, ensuring that growth is translated into margin, with funding requirements clearly identified.

**Improve manufacturing, workforce and procurement flexibility to deal more effectively with demand variability and reduce cost**

- Manufacturing: the lean techniques implemented during the recession helped the companies not only to reduce costs and inventories but also to reduce lead times in order to improve customer service.
- Workforce: the use of temporary labour force, reduced working weeks and temporary plants shutdown have allowed the companies to balance supply with demand and reduce fixed costs. Multi-skilling has improved agility and flexibility, whilst facilitating retention of the skilled workforce.
- Sourcing: In-source where and when necessary to improve / maintain utilisation and consolidate to leverage volumes across the whole organisation.
- Contracts: Renegotiate business-limiting contracts, terms and conditions.

**Most companies initiated costs reduction programs prior to the recession, however, they subsequently realised that those plans were not drastic enough.**

- Look to scale and position manufacturing footprint and support staff in line with the business, products, customers and market requirements, going beyond ‘low hanging fruit’ improvements to tackle the key cost and cash drivers.
- Where a brand leader and/or in a resilient market, apply price increases, no matter how small.
- Remain focussed on R&D, quality, reliability and responsiveness, and if you do not have the right / experienced people, with the right skill sets, to manage the business through the different challenges of a recession, then either train, change or contract the necessary resources.
- But don’t be reckless, in particular retain critical staff with unique skills.
- Ensure the KPIs provide meaningful measures and management is incentivised on all key areas, including working capital, cash, service levels, costs, etc.

**Increase customer focus and evolve product/solution propositions**

- As the recession has shown, decline does not affect all markets with the same speed, timing and scale. Therefore, companies, where possible, should seek to position themselves in markets more resilient to cycle and downturn, particularly balancing between OEM and Repair/Replacement markets.
- Invest in knowledge and IP in order to offer differentiated high value products that are more difficult for new entrants to copy and mass produce at lower cost.
- Focus on offering value-added solutions and/or services to customers, from product design to after-sales support, services that rely on their unique expertise and are impossible to replicate, even in a cheaper location.
- Moving product to LCCs should be a consideration for commodity products.
- Portfolios should be rationalised to eliminate/minimise low/negative margin products.
- Understand your customers and suppliers pains and wherever possible support them though the recovery. In the future, you will need them just as much as they will need you, and your support and loyalty will cement future relationships and revenue streams.
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Additional reading

The Future of UK Manufacturing
- Observations, analysis and recommendations for the UK manufacturing industry

PwC Manufacturing Barometer
- Quarterly survey of US-based Industrial Manufacturing executives

Assembling Value
- Quarterly report focusing on the global M&A trends in the Industrial Manufacturing sector