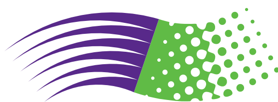
Executive Summary

Strategies for Recovery and Renewal in 2010 and Beyond

study conducted and summary developed by The MPI Group



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Introduction

The *Manufacturing Growth Study* was designed to assess business-building practices and investment plans among manufacturers. The study, conducted by The MPI Group (MPI) and sponsored by Infor, provides a unique look into manufacturing organizations at a critical juncture — when many firms still are attempting to minimize costs while at the same time preparing to expand their operations for economic recovery.

The *Manufacturing Growth Study Executive Summary* provides a wealth of benchmarks against which manufacturers can gauge their readiness for recovery and plot their own paths to business improvement in 2010. This summary presents the study findings based on responses from 224 participating manufacturers *(for a profile of participants see page 16)* and MPI analysis of the overall research as well as selective cross-tabulations of study data to illuminate trends. Findings throughout this summary are presented in approximately the same sequence as questions were presented to study participants.

Study Highlights

It's clear from the *Manufacturing Growth Study* findings that manufacturers expect recovery to begin in first-half 2010, and that most firms are putting spending and corporate objectives in place to take advantage of opportunities that a recovery would present. Study highlights include:

Business performance trends

Following a year in which most manufacturers saw revenues and profits fall, projections for first-half 2010 are decidedly optimistic for increased revenues (64% of study participants project an increase) and profits (69%). Some manufacturers weathered the recession quite well: One in eight manufacturers reports revenue and profit increases in 2009 vs. 2008 as well as projected revenue and profit increases for the first six months of 2010. In light of these findings:

- Was your organization among those firms with improved revenues and profits in early 2010? If not, how will you evaluate and improve your growth prospects vs. competitors?
- Will your firm capture all the revenue and profit available in an improving economy, given your cost structure, investment strategies, and stakeholder mandates? A rising tide will lift all boats, but if your company only achieves average improvement vs. the faster growth of market leaders, you'll fall even further behind in both performance and profits.
- Will your firm invest in new technologies at the same rates as best-in-class competitors? How will you develop and implement the management expertise and information tools to make sure your firm keeps pace?

Will your firm capture all the revenue and profit available in an improving economy, given your cost structure, investment strategies, and stakeholder mandates?

Organizational objectives

The *Manufacturing Growth Study* identified the importance of key objectives in four areas — operations, supply chain, green/asset sustainability, and growth. In those areas, manufacturers are most focused, respectively, on "contain/reduce production costs" (59% of participants rate this as "highly important"), "improve the cash-to-cash cycle" (24%), "improve process sustainability" (15%), and "attract more customers in existing markets" (56%). Operations objectives remain sharply focused on controlling production, purchasing, and inventory costs. Key questions for executives include:

- Are your company's corporate strategies focused *only* on cost reductions? Many firms remain conservative at a time when they should be transitioning to growth-oriented planning.
- Are your current operational processes an advantage or a liability? Despite widespread adoption of lean manufacturing and other improvement methodologies, few organizations tap the true potential of their plants and workforces. How will you plan for *real* continuous improvement?
- Are corporate objectives aligned throughout your organization and with key partners? Study data indicates many manufacturers are leaving key players, especially suppliers, out of planning for growth.

Spending and planning

As revenues and profits are turning around for manufacturers, so too are their investment plans: One-third of manufacturers plan to increase spending for first-half 2010 on capital equipment (36% of participants), direct labor (34%), and information technology (35%). Manufacturers that expect to increase revenues in first-half 2010 are more likely than other manufacturers to boost spending. Key questions for executives include:

- How reliable are equipment and information technology systems throughout your company? Many manufacturers have held off on upgrades while waiting for an improved economy.
- Are your employees and managers ready for growth? Layoffs and attrition have left many organizations understaffed and overworked. How will you retain and augment leadership and talent?

IT purchases and upgrades

Three-quarters of manufacturers will purchase or upgrade an IT application or applications over the next six months. Manufacturers are most likely to purchase or upgrade specific applications of enterprise resource planning (41% of participants), customer-relationship management (39%), and sales and operations planning (35%). Most applications to be purchased or upgraded are likely to be located on-premises rather than in a cloud- computing environment, though "cloud computing" (where IT resources are located on the internet and accessed on demand) is gaining attention for a range of applications. Key questions for executives include:

Three-quarters of manufacturers will purchase or upgrade an IT application or applications over the next six months.

- Are you tracking the performance of existing IT systems and applications? Aging technologies can put your organization and customers at risk. How will you identify the impact of system weaknesses and the use of patchwork solutions on workforce productivity?
- Are you exploring the potential of systems and applications that don't reside on-premises (i.e., cloud computing)? The time could be right to move off-premises. How will you evaluate potential ROI?

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Business Performance and Objectives

The *Manufacturing Growth Study* established a baseline of financial performance among manufacturers, examining revenue and profit growth in 2009 vs. 2008 and projected growth for first-half 2010 vs. second-half 2009. There are stark differences in reported/projected financial growth for these two periods, as declining revenues and profits in 2009 are expected to take a sharp turn upward in first-half of 2010. A substantial majority of participants report that revenues (70% of participants) and profits (61%) declined in 2009 vs. 2008. Meanwhile, most participants project that revenues (64% of participants) and profits (69%) will increase in first-half 2010 vs. second-half 2009 *(Table 1)*. This optimistic news hints at a waning recession, even though a noticeable percentage of firms report they expect decreases in revenue (15% of participants) and profit (14%).

Large manufacturers (annual revenues of $100 million or more) are more likely than small firms (annual revenues of less than $100 million) to report a revenue increase in 2009 vs. 2008 — 31% vs. 20%. Small manufacturers are more likely to project a revenue increase in first-half 2010 vs. second-half 2009 — 66% vs. 58%. Large firms appear to have been better able to keep revenue streams flowing even during the darkest days of the recession, probably because of more diverse customer bases and broader distribution channels. The early 2010 economic uptick appears most helpful for small firms, allowing them to reverse losses and project stronger growth. Yet large and small firms both appear to be managing their sales vs. expenses similarly: profit increases are more comparable between the two groups in 2009 vs. 2008 — 29% of large manufacturers report a profit increase vs. 24% of small manufacturers. Expected profit increases also are more comparable for first-half 2010 vs. second-half 2009 — 69% of large firms vs. 68% of small firms.

Table 1: Please indicate how the following performances changed (2009 vs. 2008) and will change (first-half 2010 vs. second-half 2009)?

	2009 vs. 2008	First-half 2010 vs. Second-half 2009
Revenues	**% of participants**	**% of participants**
Decrease	70.4%	15.3%
No change	6.7%	20.6%
Increase	22.9%	64.1%
Profits		
Decrease	61.3%	13.6%
No change	12.7%	17.8%
Increase	25.9%	68.5%

Some manufacturers weathered the recent downturn quite well due to recession-proof markets, savvy management or a combination of the two plus good fortune. Indeed, a sizeable percentage of firms not only boosted revenues and profits in 2009, but also project increases going forward. Approximately 15% of manufacturers report/project a revenue increase for both periods reviewed by the *Manufacturing Growth Study,* and 18% report/project a profit increase for both periods; 12% of manufacturers report/project both revenue and profit increases for both periods. Two-thirds of manufacturers (67%) that had increased revenues in 2009 vs. 2008 project an increase for first-half 2010, and 15% of manufacturers that report decreased revenues in 2009 vs. 2008 project a decrease. Similarly, 71% of manufacturers that had increased profits in 2009 vs. 2008 project a profit increase for first-half 2010, and 15% of manufacturers that report decreased profits in 2009 vs. 2008 project a decrease for first-half 2010. The message is clear: Financial inertia tends to carry a firm on the same path — whether up or down — unless a change in practices or investments (for better or worse) alters the firm's trajectory.

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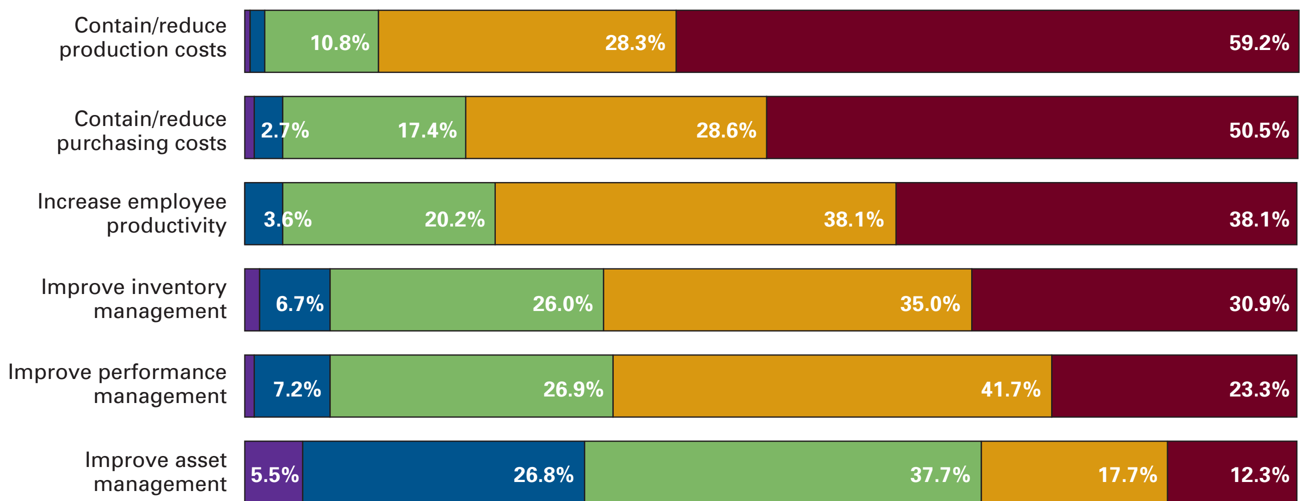
With the financial picture improving for many manufacturers, investing those past and projected gains and establishing key objectives will be critical to success in 2010 and beyond. The *Manufacturing Growth Study* explored the importance of objectives for the next six months in four organizational areas.

Operations Objectives

The most important operations objectives among manufacturers — rated as "highly important" — are "contain/reduce production costs" (59% of participants) and "contain/reduce purchasing costs" (51%), which indicates that although the recession may soon become history, managements are still wary of potential downturns and are trying to keep costs in check *(Chart 2)*.

Chart 2: How important are the following objectives to your company over the next six months?



A majority of manufacturers also report that "increase employee productivity" (76% of participants) was either "highly important" or very important (rated 5 or 4 on a scale of 1-5), as was "improve inventory management" (66%) and "improve performance management" (65%). Lagging among operations objectives was a need to "improve asset management" (30% of participants rated it "highly important" or very important). Given the underutilized assets at many facilities, it's not surprising that a need to squeeze capacity out of existing assets has temporarily taken an operations back seat.

Small manufacturers (less than $100 million in annual revenues) are more likely to focus on operations, especially improving key efficiency ratios: small manufacturers are more likely than large firms to rate the following as "highly important":

- *Contain/reduce production costs:* 61% of small manufacturers vs. 55% of large firms.
- *Increase employee productivity:* 41% vs. 29%.
- *Improve performance management: 25% vs. 19%.*

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Large firms with more locations and complex supply chains are more likely than small firms to examine their procurement processes and focus on reducing overall spend: large firms are more likely to rate the following as "highly important":

- *Contain/reduce purchasing costs: 55% vs. 49%.*
- *Improve inventory management: 35% vs. 30%.*

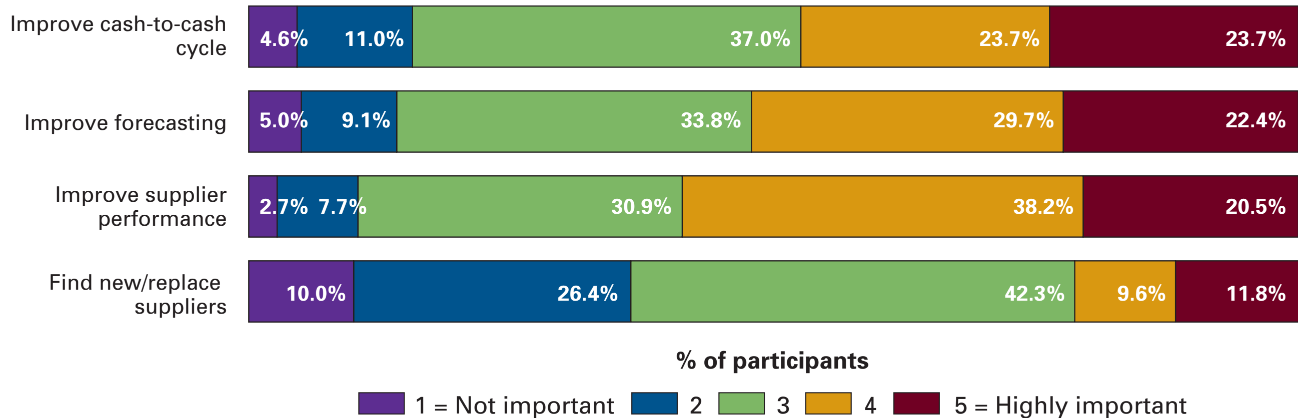
Supply-Chain Objectives

The most important supply-chain objectives among manufacturers — rated as "highly important" — are "improve the cash-to-cash cycle" (24% of participants) and "improve forecasting" (23%). A small majority of manufacturers rate "improve supplier performance" (59%) and "improve forecasting" (52%) as either "highly important" or very important (rated 5 or 4 on a scale of 1–5) *(Chart 3)*. It's clear that most manufacturers (though certainly not all) are focusing on their supply chains and seeking to improve their performances.

Pain from the recession has cascaded through extended supply chains, from customers' customers to suppliers' suppliers. Some manufacturers were suddenly without key vendors due to business failures, and other firms dealt with less-than-favorable outcomes of supplier belt-tightening (delays in meeting schedules because of reduced resources, cheaper and inferior supplier materials and components as suppliers attempt to reduce costs). The fact that 12% of manufacturers rate looking for new or replacement suppliers in the next six months as "highly important" should serve as a wakeup call for suppliers pinching their operations too tightly.

Small manufacturers (less than $100 million in annual revenues) are more likely than large firms to rate "improve cash-to-cash cycle" as "highly important" (26% vs. 17%), while large firms are more likely to rate "improve forecasting" as "highly important" (32% vs. 20%).

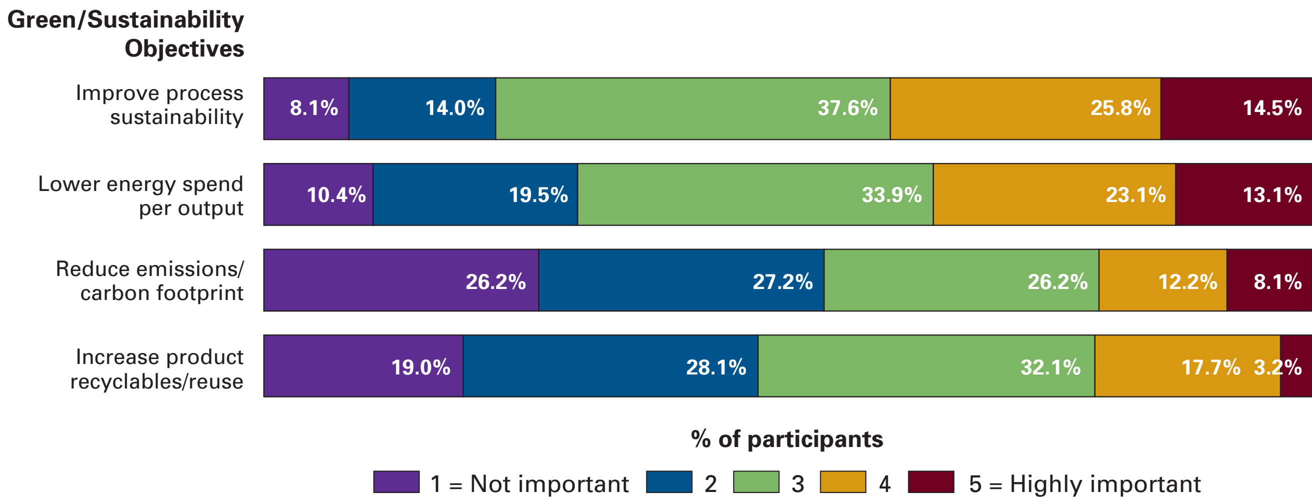
Chart 3: How important are the following objectives to your company over the next six months?



Green/Asset Sustainability Objectives

Despite increasing media attention to green/asset sustainability issues, green objectives are not yet a high priority for most manufacturers. The most important green objectives among manufacturers over the next six months — rated as "highly important" — are "improve process sustainability" (15% of participants) and "lower energy spend per output" (13%). None of the green objectives listed on the *Manufacturing Growth Study* was rated "highly important" or very important (rated 5 or 4 on a scale of 1–5) by a majority of study participants *(Chart 4)*. This means that early adopters of green practices are likely gaining a competitive advantage, especially in markets that rate suppliers on sustainability measures.

Chart 4: How important are the following objectives to your company over the next six months?



Savvy organizations are already focused on green. The four green/asset sustainability issues covered in the study are rated as "highly important" or very important by percentages ranging from 20% to 40% of participants. Approximately 36% of participants rate "lower energy spend per output" as "highly important" or very important: given the volatility of energy supply and pricing, any strategy of energy-management that lowers consumption per unit of production is likely to bring long-term benefits to manufacturers.

Nonetheless, a surprisingly high percentage of manufacturers are not yet giving green objectives much attention (i.e., rated them as "not important"). For example, "reduce emissions/carbon footprint" was cited as "not important" by 26% of participants. As emissions/carbon-footprint credits become more commonplace, a failure to track and better manage emissions will be the equivalent of burning cash.

The green/asset sustainability objectives are generally comparable among small and large manufacturers, with one exception: small manufacturers (less than $100 million in annual revenues) are more likely than large firms to rate "improve process sustainability" as "highly important" (17% vs. 7%).

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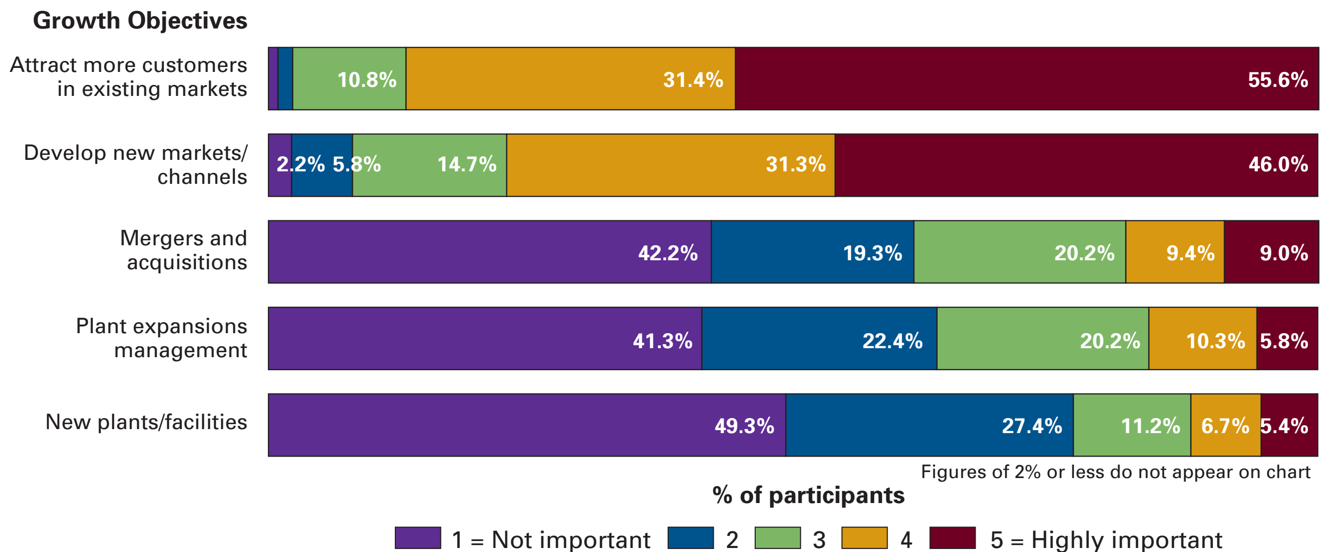
Growth Objectives

It's not surprising that manufacturers, emerging from two years of recessionary pressures, are intensely focused on growth objectives over the next six months, especially as markets and customer spending begin to open up. Their primary growth efforts will be to gain more customers and more channel opportunities. The most important growth objectives among manufacturers — rated as "highly important" — are "attract more customers in existing markets" (56% of participants) and "develop new markets and channels" (46%) *(Chart 5)*. One-third of manufacturers (32%) rate both as "highly important," indicating a strong desire at many firms to find customers anywhere; 70% rate both as "highly important" or very important.

Growth objectives that involve capital investments and that usually occur once increased customer orders are certain — plant expansions (16% rate as "highly important" or very important) and new plants/facilities (12% rate as "highly important" or very important) — are probably still months down the road for most manufacturers. Many companies will likely deal with short-term demand for capacity via outsourcing before increasing capital expenditures. Some manufacturers look to pick up business bargains or stabilize their own companies via "mergers and acquisitions" — 18% rate this objective as "highly important" or very important. But M&A is not on the radar of most companies (42% rate it as "not important").

Small manufacturers (less than $100 million in annual revenues) are more likely than large firms to rate "attract more customers in existing markets" and "develop new markets/channels" as "highly important": 58% vs. 47% and 48% vs. 42%, respectively — not surprising given that small manufacturers need to find more customers and markets if they want to become larger manufacturers. Large firms are more likely to rate "mergers and acquisitions" as "highly important": 17% vs. 7% of small firms.

Chart 5: How important are the following objectives to your company over the next six months?



Talent, Tools and Technologies

As the revenues and profits of most manufacturers begin to increase for the first six months of 2010, so too should their spending. Approximately twice as many manufacturers will spend more in first-half 2010 vs. second-half 2009 than did so in 2009 vs. 2008, and dramatically smaller percentages of manufacturers will spend less in early 2010 *(Table 6)*.

Approximately one-third of manufacturers will increase spending for first-half 2010 vs. second-half 2009 on capital equipment (36% of participants vs. 20% that increased spending in 2009 vs. 2008); information technology (35% vs. 19%); and direct labor costs (34% vs. 15%). Manufacturers that expect to increase revenues in first-half 2010 vs. second-half 2009 are far more likely to increase spending than manufacturers expecting a decrease or no change in revenues:

- *Capital equipment:* 46% of firms with projected revenue increases will increase spending vs. 20% of firms where revenues are not expected to change and 15% of firms where revenues are expected to decrease.
- *Information technology:* 42% of firms with projected revenue increases will increase spending vs. 20% of firms where revenues are not expected to change and 27% of firms where revenues are expected to decrease.
- *Direct labor costs:* 46% of firms with projected revenue increases will increase spending vs. 16% of firms where revenues are not expected to change and 9% of firms where revenues are expected to decrease.

Large manufacturers ($100 million or more in annual revenues) are more likely than small firms to increase spending for capital equipment and information technology in first-half 2010 — 42% vs. 34% and 42% vs. 33%, respectively. Large manufacturers were more likely to report revenue increases in 2009 vs. 2008, likely giving these firms the capacity to increase spending. In addition, investments in IT and equipment are often a necessity at large firms, as more complex systems and facilities require regular maintenance and upgrades. Small firms, on the other hand, are more likely to increase spending on direct labor — 36% vs. 29% — a cost target that frequently flexes up and down as the economy and small-company sales ebb and flow.

Table 6: Please indicate how spending for each category changed (2009 vs. 2008) and will change (first-half 2010 vs. second-half 2009)?

	2009 vs. 2008	First-half 2010 vs. Second-half 2009
Capital equipment	**% of participants**	**% of participants**
Decrease	48.2%	12.6%
No change	32.0%	51.8%
Increase	19.8%	35.6%
IT (hardware and software)		
Decrease	37.6%	8.1%
No change	43.4%	57.0%
Increase	19.0%	34.8%
Direct labor costs		
Decrease	61.1%	14.0%
No change	24.4%	52.0%
Increase	14.5%	33.9%

Firms that increased spending on capital equipment, IT and labor in 2009 vs. 2008 are more likely than other firms to have increased revenues in that one-year period, demonstrating that upgraded infrastructures (e.g., better tools to attract customers, better machines to fulfill orders) correlate with improved sales performances. For example, 36% of those firms that had increased IT spending in 2009 vs. 2008 report that revenues increased in 2009, vs. 28% of firms that kept IT spending the same and 11% of firms that decreased IT spending.

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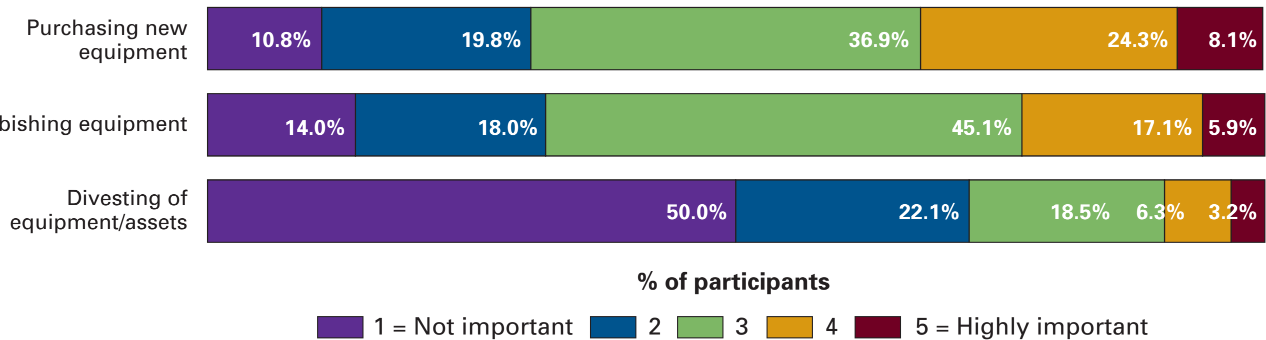
The *Manufacturing Growth Study* identified where manufacturers will be focusing their attention in the next six months; study participants were asked to identify the importance of activities related to capital equipment, employee, and information-technology plans:

Capital Equipment Plans

Approximately one-third of manufacturers rate "purchasing new equipment" as "highly important" or very important (rated 5 or 4 on a scale of 1–5), and 23% rate "refurbishing equipment" as "highly important" or very important. Half of manufacturers (50%) rate "divesting of equipment/assets" as "not important" *(Chart 7)*.

Chart 7: How important are the following to your company over the next six months?



An expectation of revenue increases in first-half 2010 vs. second-half 2009 had no clear correlation with increased importance of capital equipment plans, but those firms that decreased revenues in 2009 vs. 2008 and those firms that projected decreased revenues in first-half 2010 vs. second-half 2009 are a bit more likely to rate "divesting of equipment/assets" as "highly important" or very important.

Large manufacturers ($100 million or more in annual revenues) are more likely than small firms to rate "purchasing new equipment" as "highly important" or very important — 42% vs. 29%.

It's telling that chief operating officers and directors and managers of manufacturing/operations are more likely than other personnel to rate as "highly important" or very important "purchasing new equipment" (46% vs. 27%) and "refurbishing equipment" (27% vs. 21%). These executives are closest to the operations that would benefit most from these investments, and likely see most clearly the returns that new or refurbished equipment will deliver.

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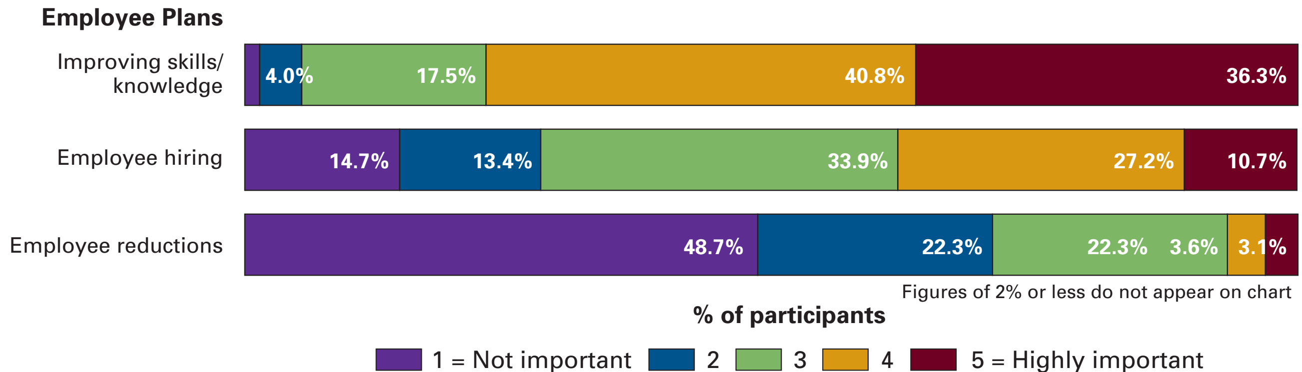
Employee Plans

Coming out of the recession, many companies will be bringing back laid-off workers and hiring new staff as orders increase. Both employee groups come to the workplace rusty, so it's no surprise that "improving skills/knowledge" is a top priority in the next six months: 77% of manufacturers rate this as "highly important" or very important (rated 5 or 4 on a scale of 1–5), compared to 38% that rate employee hiring as "highly important" or very important and 7% that rate employee reductions as "highly important" or very important *(Chart 8)*.

Chart 8: How important are the following to your company over the next six months?



Among those firms that expect revenues to increase in first-half 2010, 51% rate employee hiring as "highly important" or very important vs. 22% of firms where revenues are projected to be unchanged and 6% where revenues are expected to decrease.

Smaller manufacturers (annual revenues of less than $100 million) are more likely than large firms to rate "improving skills/knowledge" as "highly important": 39% vs. 29%. Manufacturers with fewer than 250 employees are more likely than firms with more employees to rate employee hiring as "highly important" or very important (42% vs. 31%). That's not surprising given the relatively recent upturn for smaller firms, and their heavier reliance on staffing increases and decreases as a means to manage costs.

Budgets drive planning, and that's the case with employee plans: Manufacturers that expect to decrease direct-labor costs in first-half 2010 vs. second-half 2009 are more likely to rate "employee reductions" as "highly important" or very important — 16% of these firms vs. 5% of manufacturers where direct-labor costs are projected to be unchanged and 5% where direct-labor costs are projected to increase. Similarly, manufacturers increasing direct-labor costs in first-half 2010 are more likely to rate "employee hiring" as "highly important" or very important — 63% of these firms vs. 26% of firms where direct-labor costs are projected to be unchanged and 26% where direct-labor costs are projected to decrease.

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IT Plans

Approximately one-fourth of manufacturers rate “business collaboration platforms,” which enable individuals within a company or across companies to share and find information, and “virtualization,” by which virtual software or hardware is utilized rather than actual assets put in place, as “highly important” or very important (rated 5 or 4 on a scale of 1–5) *(Chart 9)*. Other IT initiatives just beginning to become better known (and better-supported with robust applications), such as “cloud computing” (where IT resources are located on the internet and accessed on demand), are also attracting attention among manufacturers.

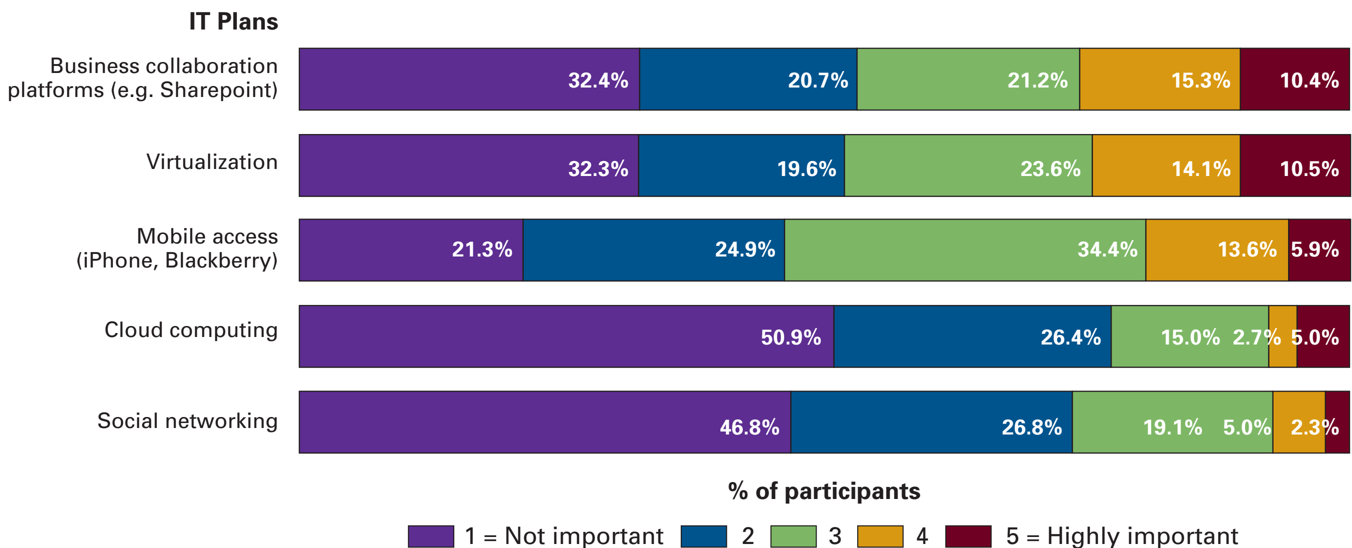
Manufacturers are somewhat more likely to rate IT initiatives as “highly important” if they expect revenues to increase or stay the same in first-half 2010; for example, 10% of firms where revenues are projected to increase rate “cloud computing” as “highly important” or very important vs. 6% of firms where revenues are projected to remain the same and 0% of firms where revenues are expected to decrease. In addition, manufacturers are still sorting out how to leverage “social networking” technologies such as Facebook and LinkedIn for business advantage.

Large manufacturers ($100 million or more in revenues) are more likely than small firms to rate as “highly important” or very important the use of “business collaboration platforms” such as Microsoft’s SharePoint or IBM’s Lotus (41% vs. 21%) and “virtualization” (39% vs. 20%). Small manufacturers are more likely to rate “social networking” as “highly important” or very important (9% vs. 2%) — likely because upstart companies without large marketing budgets may see social networks as a cost-effective way to communicate with more customers, prospects and potential employees.

Not surprisingly, CIOs or IT VPs, managers and directors are more likely than non-IT personnel to rate the following IT initiatives as “highly important” or very important (and, as with virtualization, they’re probably more aware of the implications for manufacturers):

- *Virtualization:* 51% of IT personnel vs. 17% of non-IT staff.
- *Business collaboration platforms:* 31% vs. 25%.
- *Mobile access:* 30% vs. 17%.

Chart 9: How important are the following to your company over the next six months?



IT Purchasing/Upgrading

Three-quarters of manufacturers (75%) will purchase or upgrade an IT application or applications in the next six months (Chart 10). One-third or more of manufacturers report they are likely to purchase or upgrade specific applications of enterprise resource planning (41% of participants), customer-relationship management (39%), and sales and operations planning (35%) in the next six months *(Table 12 on the following two pages)*. Large manufacturers ($100 million or more in annual revenues) are more likely than small firms to purchase or upgrade most applications listed on the study questionnaire, e.g.:

- *Enterprise resource planning:* 48% of large firms vs. 39% of small firms.
- *Sales and operations planning:* 44% vs. 32%.
- *Supply-chain planning:* 42% vs. 25%.
- *Business intelligence:* 39% vs. 23%.
- *Performance management:* 32% vs. 22%.

Big differences in applications purchasing and upgrading are seen among manufacturers planning to increase IT spending in first-half 2010 compared to manufacturers at which IT spending would remain the same or decrease:

- *Enterprise resource planning:* 54% of firms increasing IT spending vs. 34% of firms where IT spending will be the same or decrease.
- *Customer-relationship management:* 52% vs. 32%.
- *Sales and operations planning:* 40% vs. 31%.
- *Supply-chain planning:* 37% vs. 17%.
- *Performance management:* 34% vs. 20%.
- *Business intelligence:* 32% vs. 24%.
- *Global financials:* 28% vs. 9%.

Location for Applications

The majority of specific applications to be purchased or upgraded are likely to be located on-premises rather than in a cloud environment *(Table 12 on the following two pages)*, but cloud computing is receiving attention among manufacturers as a sole source for applications or in combination with on-premises computing. Two-thirds of manufacturers (67%) report that they will use cloud computing for at least one application, alone or in conjunction with on-premises applications, in the next six months.

Chart 10: Application(s) likely to be purchased or upgraded in the next six months:

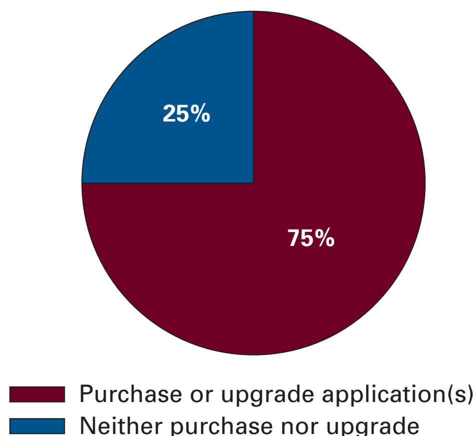
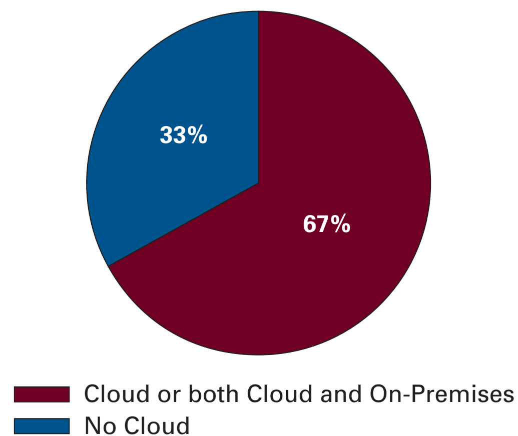


Chart 11: Application(s) as Cloud environment or both Cloud and On-Premises (OP):



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Applications most likely to use cloud computing, alone or in conjunction with on-premises computing, are human-capital management (27% of participants), customer-relationship management (25%), business intelligence (22%), global financials (18%), and performance management (18%).[1]

Small manufacturers (annual revenues of less than $100 million) are more likely than large firms to place applications in a cloud environment for the following applications

- *Workforce management: 23% of small firms will use cloud vs. 6% of large firms.*
- *Product-lifecycle management:* 21% vs. 5%.
- *Global financials:* 21% vs. 13%.
- *Sales and operations planning:* 14% vs. 4%.

Large manufacturers ($100 million or more in annual revenues) are more likely than small firms to use a cloud environment for the following applications:

- *Workforce management:* 21% of large firms will use cloud vs. 16% of small firms.
- *Customer-relationship management:* 28% vs. 24%.

Manufacturers that plan to increase IT spending in first-half 2010 are more likely to use a cloud environment for all applications cited on the study than firms where IT spending will remain the same or decrease. The biggest differences included:

- *Workforce management:* 33% of firms that will increase IT spending plan to use cloud computing vs. 7% of manufacturers with flat or decreasing IT spending.
- *Supply-chain planning:* 26% vs. 8%.
- *Performance management:* 28% vs. 10%.
- *Human-capital management:* 35% vs. 21%.
- *Customer-relationship management:* 33% vs. 18%.

[1] Some participants that are neither upgrading nor purchasing applications still designated a location (cloud computing, on-premises, or both).

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Table 12: Indicate which applications are likely to be purchased or upgraded in the next six months, and if the application will be part of a Cloud environment or On-Premises (OP) application:

	Six-Month Purchase/ Upgrade Plans		Location
Enterprise resource planning (ERP)	% of participants		% of participants
Purchase	4.6%	Cloud	3.6%
Upgrade	36.1%	OP	87.3%
Neither	59.3%	Both	9.1%
Customer-relationship management			
Purchase	12.6%	Cloud	12.8%
Upgrade	26.5%	OP	75.2%
Neither	60.9%	Both	11.9%
Sales and operations planning			
Purchase	2.8%	Cloud	1.1%
Upgrade	31.8%	OP	89.0%
Neither	65.4%	Both	9.9%
Supply-chain planning			
Purchase	3.3%	Cloud	4.8%
Upgrade	25.6%	OP	84.5%
Neither	71.2%	Both	10.7%
Business intelligence			
Purchase	4.1%	Cloud	6.2%
Upgrade	22.5%	OP	77.8%
Neither	73.4%	Both	16.1%
Supply-chain execution			
Purchase	3.3%	Cloud	5.2%
Upgrade	21.1%	OP	81.8%
Neither	75.6%	Both	13.0%
Performance management			
Purchase	3.7%	Cloud	8.9%
Upgrade	20.6%	OP	82.3%
Neither	75.7%	Both	8.9%

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Table 12 (continued): Indicate which applications are likely to be purchased or upgraded in the next six months, and if the application will be part of a Cloud environment or On-Premises (OP) application:

	Six-Month Purchase/ Upgrade Plans		Location
Human-capital management	% of participants		% of participants
Purchase	3.7%	Cloud	14.9%
Upgrade	12.2%	OP	73.1%
Neither	84.1%	Both	11.9%
Workforce management			
Purchase	1.9%	Cloud	7.5%
Upgrade	14.0%	OP	82.1%
Neither	84.2%	Both	10.5%
Global financials			
Purchase	1.4%	Cloud	5.6%
Upgrade	14.0%	OP	81.7%
Neither	84.7%	Both	12.7%
Product lifecycle management			
Purchase	3.8%	Cloud	4.6%
Upgrade	10.9%	OP	84.6%
Neither	85.4%	Both	10.8%
Asset Management			
Purchase	4.2%	Cloud	2.9%
Upgrade	9.3%	OP	88.2%
Neither	86.6%	Both	8.8%
Travel and expense management			
Purchase	0.5%	Cloud	5.5%
Upgrade	8.0%	OP	85.5%
Neither	91.6%	Both	9.1%
Other:			
Purchase	2.8%	Cloud	2.1%
Upgrade	4.4%	OP	83.0%
Neither	92.8%	Both	14.9%

Profile of Participants

Most participants in the Manufacturing Growth Study (86%) responded on behalf of a “company.” The majority were based in the U.S. and Canada (88% and 8%, respectively) and had annual revenues of less than $100 million (75%) *(Tables 13, 14 and 16, respectively)*. Approximately two-thirds of participating manufacturers (62%) have less than 250 full-time employees *(Table 17)*. The industries represented in the study findings consist of a diverse mix of manufacturers *(Table 15)*. The titles of executives who participated on behalf of their organizations also are diverse *(Table 18)*.

Table 13: Are you answering for a company or division?

	% of participants
Company	86.1%
Division/unit	13.9%

Table 14: In which country is your organization headquartered?

	% of participants
United States	87.8%
Canada	7.7%
Other	4.5%

Table 15: Which of the following best describes your industry? (multiple selections allowed)

	% of participants
Metal fabrication	26.9%
Industrial equipment and machinery	21.5%
Plastic fabrication	10.3%
High tech and electronics	9.0%
Food and beverage	7.6%
Consumer package goods	5.4%
Aerospace	4.9%
Automotive	4.9%
Chemicals	4.0%
Distribution	3.6%
Life sciences	2.7%
Apparel and footwear	0.5%
Shipbuilding	0.5%
Other	21.5%

Table 16: What are the annual revenues of your organization (companywide)?

	% of participants
Less than $19 million	25.3%
$20 million to $99 million	49.8%
$100 million to $399 million	15.4%
$400 million to $1 billion	5.9%
More than $1 billion	3.6%

Table 17: How many full-time employees (or equivalents) at your organization (companywide)?

	% of participants
Fewer than 50	4.0%
50 to 249	58.7%
250 to 999	21.1%
1,000 to 2,499	9.9%
2,500 or more	6.3%

Table 18: What best describes your title?

	% of participants
VP, Dir., Mgr. – Mfg./Operations	26.2%
VP, Dir., Mgr. – IT	20.4%
CFO	20.8%
CEO/President	10.0%
COO	4.5%
Other C-level officer	3.6%
Non-leadership role	2.7%
CIO	1.4%
Other	10.4%

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Manufacturing Growth Study Methodology

The *Manufacturing Growth Study* was conducted using an online questionnaire. There were 224 total participants, with responses received in April and May 2010. Responses were received by The MPI Group, and then entered into a database, edited, and cleansed to ensure answers were plausible, where necessary.

The overall findings from the *Manufacturing Growth Study,* based on 224 responses, have approximately a ±6.5 confidence interval (margin of error) at 95% confidence level. (Some respondents did not answer every question.) Please note that cross-tabulations have a wider margin of error given smaller sample sizes. Both the overall findings and cross-tabulations are valuable benchmarks against which companies can measure their practices and performances.

All respondent answers to the survey are confidential. As an incentive, respondents were offered a copy of a Customized Benchmark Report, which provides a performance and practice evaluation of their organization and compares their responses to those of firms with a similar profile, and this *Executive Summary* of study findings.

About The MPI Group

The Manufacturing Performance Institute is a Cleveland, Ohio-based research organization specializing in research development, analysis, and communications. MPI services include:

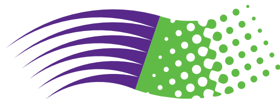
- Survey creation and fielding.
- Research analysis.
- White paper and social-media development (e.g., blogs, ebooks, ezines).
- Webcast and live presentations of research.
- State-of-industry reports.
- Creation of online, interactive database tools that house performance data, whether developed by MPI or others.

MPI is led by John R. Brandt, former editor and publisher of *IndustryWeek* and *Chief Executive* magazines. MPI's customized products and services are designed for organizations, associations, and economic regions facing critical development issues. MPI's core research services address operational excellence, employee development, customer value, leadership and strategy, and innovation.

About Infor

There is a better way.

At Infor, we work with a core belief. We believe in the customer. We believe that the customer is seeking a better, more collaborative relationship with its business software provider. And a new breed of business software: created for evolution, not revolution. Software that's simple to buy, easy to deploy, and convenient to manage. Our 8,000+ employees in more than 100 countries and 70,000 customers stand with us. We look forward to your sharing in the results of our belief. There is a better way. For additional information, visit **www.infor.com**.



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