Science of Business Goldratt Implementation Group US

The U.S. manufacturing landscape: a summary of results from the 2005 IW/MPI Census of Manufacturers.(CENSUS OF MANUFACTURERS)(Cover Story)

_Industry Week; 11/1/2005; Vinas, Tonya

PLANT PROFILE

WHILE MANY ASPECTS OF U.S.-based manufacturing have been debated in recent years--usually with the goal of "fixing" manufacturing--two attributes have not been widely addressed: We are old and stubborn. * Like elderly parents who long since should have abandoned the family home for a condo in Florida, manufacturers are refusing to leave older facilities for ones more suited to modern production. Despite advances in technology and operations that require far less space and far more integration, U.S. manufacturing is done largely in plants built at least two decades ago. Are manufacturers missing an opportunity to lower overhead--and therefore costs--and improve processes, by not updating or abandoning old facilities? Perhaps. * Additionally, the IW/MPI Census shows that almost half of U.S. manufacturers are in the industrial equipment, automotive or construction sectors. For all of the lip service politicians like to give to high-tech and biotech manufacturing taking over, most of manufacturing going on in the United States today is "old school."

OPERATIONS

THOSE THAT HAVE JUMPED on the process improvement bus seem to be headed in the right direction. But those that haven't are like homeowners who don't heed mandatory evacuation warnings before a hurricane or tornado--it's easier in the short term but could be deadly in the long. * The good news is that about fourth-fifths of the manufacturers surveyed for the 2005 IW/MPI Census recognize the value of process improvement, have embraced one or more methods and are spreading these methods to areas other than production at their plants. The bad news is that one-fifth of those surveyed have no primary improvement method and an even larger percentage report no progress toward world-class status, which puts them at an incredible disadvantage. Additionally, respondents are to be commended for making quality, continuous-improvement certifications and customer service top strategic practices, but they could be leaving money on the table by not looking closer at other practices: energy usage management and open-book management, for instance.

OWNERSHIP

Private	84.9%
Public	15.1%

Note: Table made from pie chart.

TYPE OF PLANT

Discrete	71.9%
Process	16.6%
Both of Hybrid	11.5%

Note: Table made from pie chart.

LOCATION

Midwest	38.6%
Northeast	17.1%
West	14.8%
South	27.8%

No response or other 1.6%

Note: Table made from pie chart.

YEAR SINCE START-UP

More than 20 years	68.3%
11 to 20 years	19.2%
5 to 10 years	9.1%
Less than 5 years	3.3%

Note: Table made from pie chart.

VOLUME/PRODUCT MIX

Low volume/High mix	46.3%
High volume/High mix	19.8%
Low volume/low mix	17.1%
High volume/Low mix	16.8%

Note: Table made from pie chart.

REVENUE OF PARENT COMPANY

LESS THAN $100 MILLION	7.5%
$100 MILLION-$499 MILLION	9.5%
$500 MILLION-$999 MILLION	4.2%
$1 BILLION-$5 BILLION	4.5%
$1 BILLION-$10 BILLION	3.2%
MORE THAN $10 BILLION	3.5%

INDUSTRY

Industrial equipment and machinery	19.8%
AUTOMOTIVE	12.7%
CONSTRUCTION	11.9%
CONSUMER PRODUCT DURABLES	9.2%
CONSUMER PACKAGED GOODS/NON DURABLES	8.5%
PHARMACEUTICALS, BIOTECHNOLOGY, MEDICAL	5.1%
PRINTING AND PUBLISHING	4.8%
HIGH-TECH	4.7%
AEROSPACE	4.2%
CHEMICALS	3.7%
DEFENSE INDUSTRY	1.9%
NONE OF THE ABOVE	13.5%

FOCUS ON MARKET STRATEGY

HIGH QUALITY	71.8%
SERVICE AND SUPPORT	56.4%
TOTAL VALUE	39.0%
FAST DELIVERY	35.3%
CUSTOMIZATION	32.4%
LOW COST	26.5%
INNOVATION	21.6%

PRODUCT VARIETY	14.1%
NONE OF THESE	0.2%

Note: Table made from bar graph.

PRIMARY IMPROVEMENT METHOD

Lean manufacturing	35.7%
Total Quality Management	15.9%
Lean and Six Sigma	8.0%
Other	7.0%
Agile Manufacturing	4.4%
Theory of Constraints	4.0%
Six Sigma	1.5%
Toyota Production System	1.5%
None	21.9%

Note: Table made from pie chart.

CHANGE IN OUTPUT
UNIT VOLUME/PAST 12 MONTHS

Decreased more than 20%	3.8%
Decreased 11%-20%	4.5%
Decreased 1%-10%	7.2%
Stayed the same	10.0%
Increased 1%-10%	32.0%
Increased 11%-20%	24.5%
Increased more than 20%	18.0%

Note: Table made from pie chart.

WHERE METHOD IS APPLIED (MULTIPLE RESPONSES POSSIBLE)

PRODUCTION	82.3%
MATERIALS MANAGEMENT	43.4%
SHIPPING AND LOGISTICS	39.3%
PURCHASING	32.1%
CUSTOMER RELATIONS	26.5%
ENGINEERING	23.2%
SUPPLIER RELATIONS	19.7%
ADMINISTRATION	19.4%
FINANCE AND ACCOUNTING	16.3%
RESEARCH AND DEVELOPMENT	9.3%
OTHER	3.1%
NONE OF THESE	11.1%

STRATEGIC PRACTICES (MULTIPLE RESPONSES POSSIBLE)

CONTINUOUS-IMPROVEMENT PROGRAM	66.5%
QUALITY CERTIFICATIONS (E.G., IOS)	45.4%
CUSTOMER SATISFACTION SURVEYS	45.1%
BENCHMARKING	34.6%
ENVIRONMENTAL MANAGEMENT	25.3%
TOTAL PRODUCTION MAINTAINANCE	21.7%

ENERGY MANAGEMENT	16.1%
OPEN-BOOK MANAGEMENT	15.0%
NONE OF THESE	13.6%

[GRAPHIC OMITTED]

ABOUT THE 2005 IW/MPI CENSUS OF MANUFACTURERS

Methodology: The IW/MPI Census of Manufacturers was conducted in late spring 2005. We asked more than 100 questions of manufacturers across the United States. There were 668 respondents (540 by mail and 128 online), and all responses were anonymous.

Results: INDUSTRYWEEK will report on the survey results in dedicated features and as part of related coverage. Dedicated features in future issues include:

Dec. 2005: Benefits, transportation and raw material costs. Jan. 2006: IT investments and effectiveness.

April 2006: Managing customers and suppliers.

Online: Census results will be included in a twice-a-month Continuous Improvement newsletter. For more information on all of INDUSTRYWEEK.COM newsletters, see www.industryweek.com.

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

For a summary of the complete results or industry-specific data from the 2005 IW/MPI Census of Manufacturers, contact MPI at 800-603-22 72 or online at www.mpi-group.net. For specific questions regarding the study or the IndustryWeek/MPI Benchmarking Toolkit, an interactive manufacturing improvement tool, e-mail support@mpi-group.net.