MICHIGAN MANUFACTURING TECHNOLOGY CENTER

Know how you stack up against your competition. Use this information to help improve your quote win rates, demonstrate to your customers why you're better than the competition, or fulfill benchmarking requirements set forth by customers and quality management systems.

It can be difficult to identify where the biggest opportunities for improvement exist. **Michigan Manufacturing Technology Center's Transformation** Planner uses your company's financial and operating data to model the financial impact decision making will have on your **PROFITABILITY**.



Transformation Planner

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Success doesn't just happen. It takes driven, dedicated, experienced, full-time professionals - like the kind at Michigan Manufacturing Technology Center (The Center), working together to keep Michigan manufacturing strong.

Since 1991, The Center has assisted Michigan's small and medium-sized businesses compete and grow. Through personalized services fitted to meet the needs of clients, we develop more effective business leaders, drive product and process innovation, promote company-wide operational excellence and foster creative strategies for business growth and greater profitability. Supported by the Michigan Economic Development Corporation as Michigan's National Institute of Standards and Technology Manufacturing Extension Partnership (MEP) affiliate, we bring welltested services to our MEP clients.

MEP Affiliate



Operations and Profitability Report

As you review your report, we commonly refer to the "Percentile." This is your relative position in the selected comparison group for each Transformation Driver. For example, if your percentile is 70, you perform better than 70% of the other companies in the comparison group. Conversely, you perform more poorly than 30% of the other companies in your comparison group.

Next to each driver is a click-able image with a description of the Transformation Driver along with other information that we think can add insight into the value of the respective Driver.

Transformation Drivers on this report require the completion of the <u>Operations and Profitability Survey</u>. If you haven't done so already, please complete this Survey. Once completed, please return to view the results.

Operations and Profitability

Economic ups and downs can make managing profitability feel like something beyond the owner or leader's control. The reality is that profitability, by and large, is a choice. Owners and leaders who have withstood recessions in the past realize that many of the decisions to managing profitability are within their control, and protecting that profitability is a discipline and mindset that can lead to innovations that fuel future growth.

The measures below help provide insight as to how a company's investments in production and other expenses compare relative to their output, and ultimately the level of profitability they achieve.



Operations and Profitability Distribution

Operations and Profitability Distribution						
	Percentile					
	25%	50%	75%	90%	Your value	
Revenue Less COGS as a Percent of Revenue	6.78%	14.50%	21.24%	25.29%	9.52%	
SG&A as a Percent of Value-Added	34.31%	27.42%	20.84%	12.97%	18.39%	
Profit Before Taxes as a Percent of Revenue	6.59%	9.46%	15.55%	23.04%	7.63%	
Value-Added per FTE	\$51,111.19	\$67,611.85	\$82,279.85	\$92,508.59	\$68,162.35	

Metric Description

Revenue Less COGS as a Percent of Revenue	Sometimes called "Gross Margin," this metric captures what is left from revenue after subtracting manufacturing-related expense. It is the source of funds needed to cover Sales, General and Administration (SG&A) expenses, and for net profit. While higher Gross Margin is always preferable, locations with very little marketing and sales expense – such as captive suppliers who sell to other branches of their own company might be fine with lower rankings on this metric. Companies with significant marketing and sales outlays, such as those making final products under their own brands, must score well on this metric or risk low profits.
SG&A as a Percent of Value-Added	In general, the lower this ratio the better. While selling expenses may behave more as a variable expense in certain companies (e.g. if sales compensation is purely incentive based or if outside reps are utilized), SG&A expenses should be relatively fixed and the ratio of these expenses to value-added revenue should decline over time with growth. SG&A expenses that vary directly with sales growth (or do not fall with sales declines) can be indicative of inefficient sales, accounting or IT processes that are very manual in nature or require continuous investment to support activity on the shop floor.
Profit Before Taxes as a Percent of Revenue	Generally, the higher this ratio the better. While relative profitability can be impacted by decisions such as owner compensation levels or other discretionary items, the most important company to benchmark this result against is your own. Companies that can generate consistent profitability generally command higher valuations in the marketplace at the time of sale due to their lower risk profile and ability to support a higher level of debt service.
Value-Added per FTE	People are the most valuable resource in any manufacturer. With the current skilled workforce shortage, the ability to leverage human capital more effectively is critical to long-term success and indicative of flexible and scalable operations. Because different manufacturers require different levels of indirect support in their operations (i.e. engineering, procurement, etc.), measuring value-added per full-time equivalent is a better way to measure overall productivity of labor across a peer group. In a high-wage economy, the only way to stay globally competitive over the long term is to keep improving on this fundamental measure of labor productivity.
Percent of Revenue from Top 5 Customers	Concentrations exist in almost every manufacturer. Concentrations can be with customers, products, technology, geography or industry to name a few. Diversification of a customer base, particularly in small to medium sized manufacturers, is critical to longer-term health and sustainability. Manufacturers with a well diversified customer base will also generally command higher valuations in the marketplace, especially when accompanied by average to above average profitability.

Comparison Group Price Ranges

Low, average, and high prices per unit for selected comparison group.

Price Ranges					
	25%	50%	75%	90%	Your value
Lowest Unit Price	\$0.01	\$0.03	\$0.06	\$0.31	\$5.00
Average Unit Price	0.09	0.32	1.50	8.75	75.00
High Unit Price	\$1.75	\$5.04	\$22.00	\$265.02	\$150.00

Production Flow Characteristics

Production Flow characteristics of the selected comparison group.

Production Flow Types					
	Percentile				
	25%	50%	75%	90%	Your value
Engineered to Order Work	.00%	.00%	2.00%	10.00%	75.00%
Job Shop Parts and Services	.00%	.00%	2.50%	5.00%	10.00%
Make to Order Jobs Run Regularly	50.00%	73.75%	90.00%	95.00%	10.00%
Make to Stock Work	.00%	.00%	.00%	10.00%	5.00%
Percent of Shop Labor Time Spent Doing Assembly/Manual Work	4.00%	10.00%	17.50%	25.00%	.01%

Percent of Revenue From Customers

Percent of Revenue From Customers' Industries for the selected comparison group.

Customer Industries

		Percentile			
	25%	50%	75%	90%	Your value
Consumers, institutions, wholesalers, or retailers (i.e., NOT to other manufacturers)	.00%	.00%	.00%	1.75%	68.00%
Defense/military-related?	.00%	.00%	.00%	5.00%	32.00%
Medical/healthcare-related?	.00%	.00%	.00%	2.75%	.00%
Customers in Automotive	.00%	.75%	35.00%	66.25%	.00%
Customers in Aircraft/Aerospace	.00%	.00%	.00%	1.00%	.00%
Customers in Computer, Communications, or Electronic Equipment	.00%	.00%	.00%	10.00%	.00%

Batch Size

Batch Size distribution for the selected comparison group.

Batch Size

One or Very Few	0.00 %
Dozens to Hundreds	8.33 %
Thousands to Tens of Thousands or More	58.33 %
No "Typical"; Varies from a Few to Thousands	33.33 %
Your Answer: Dozens to Hundreds	

Comparison Group Demographics

Industry and Geographic details for the selected comparison group.

Industry Breakdown

Aircraft & Aerospace	0.00 %
Apparel & Other Cut-and-Sew	0.00 %
Automotive & Heavy Truck	2.78 %
Casting & Other Primary Metal Processing	2.78 %
Commercial Sheetfed Printing	0.00 %
Computer & Electronics Parts, Assemblies	0.00 %
Consumer & Commercial Products	0.00 %
Discrete Products, Not Included Above	0.00 %
Food Processing	0.00 %
Furniture and Assembled Wood Products	0.00 %
Instruments (incl. Medical Devices)	0.00 %
Large, Powered Industrial Machinery	0.00 %
Metal Forming & Fabrication	88.89 %
Metals Services	0.00 %
Plastic and Rubber Products	0.00 %
Screw Machine Products	2.78 %
Textiles	0.00 %
Tooling & Machined Parts	0.00 %
Other Electrical Assemblies	0.00 %
Other Industrial Machines & Assemblies	2.78 %
Lumber & Wood Products	0.00 %
Paper & Paperboard Products	0.00 %
Chemicals, Resins & Compounds	0.00 %
Pharmaceuticals	0.00 %
Process Industries, Not Included Above	0.00 %
Wholesalers, Retailers and Services	0.00 %
Your Answer: Tooling & Machined Parts	

Geographic Breakdown

US -Great Lakes	69.44 %
US - Northeast	13.89 %
US - South	8.33 %
US - Plains	0.00 %
US - West	0.00 %
Canada	8.33 %
Mexico, Latin America, or Caribbean	0.00 %
Western Europe	0.00 %
Eastern Europe, Turkey and Caucasus	0.00 %
Australia, Japan, New Zealand	0.00 %
Hong Kong, S. Korea, Singapore, Taiwan	0.00 %
Other Asia and the Pacific	0.00 %
Africa	0.00 %
Your Answer: US -Great Lakes	

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