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The Marquette-ISM Report on Manufacturing was prepared by Onamica Dhar, graduate student in Applied Economics at Marquette University, and distributed by Kelly Wesolowski, Associate Director of the Center for Supply Chain Management.  

Please direct data questions and requests for media commentary to Dr. Marko Bastl.  

This report should not be confused with the Report On Business®, PMI®, NMI®, published by the Institute of Supply Management® (ISM®). While a reasonable attempt has been made to remain consistent with the national report, the contents of this report reflect only information pertinent to the southeast Wisconsin and northern Illinois region. This report is not used in the calculation of the national report.  

Summary  

<table>
<thead>
<tr>
<th>Milwaukee-area PMI</th>
<th>August 2021</th>
<th>July 2021</th>
<th>June 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seasonally adjusted</td>
<td>57.81</td>
<td>57.54</td>
<td>62.62</td>
</tr>
</tbody>
</table>

(Milwaukee, Wisconsin) – August’s Index registered at 57.81, an increase from 57.54 in July. August’s index indicates positive territory.  

What are respondents saying in August 2021:  

- High freight costs are hampering the business.  
- Raw material and logistic costs are increasing.  
- Employment shortage is still a big challenge. Shortage of labor causes delay in delivery products.  
- No improvement on material lead time. For both domestic and international business, raw material delivery is still challenging.  
- Covid crisis remains a big challenge for supply chain system.
## MANUFACTURING AT A GLANCE: August 2021*

<table>
<thead>
<tr>
<th>Index</th>
<th>Series Index</th>
<th>Series Index</th>
<th>Percentage Point Change</th>
<th>Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aug-21</td>
<td>July-21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PMI</td>
<td>57.81</td>
<td>57.54</td>
<td>0.3</td>
<td>growing</td>
</tr>
<tr>
<td>New Orders</td>
<td>62.66</td>
<td>57.26</td>
<td>5.4</td>
<td>growing</td>
</tr>
<tr>
<td>Production</td>
<td>53.32</td>
<td>40.29</td>
<td>13.0</td>
<td>growing</td>
</tr>
<tr>
<td>Employment</td>
<td>49.55</td>
<td>60.67</td>
<td>-11.1</td>
<td>declining</td>
</tr>
<tr>
<td>Supplier Deliveries</td>
<td>90.18</td>
<td>87.45</td>
<td>2.7</td>
<td>declining</td>
</tr>
<tr>
<td>Inventories</td>
<td>33.34</td>
<td>42.05</td>
<td>-8.7</td>
<td>declining</td>
</tr>
<tr>
<td>Customers' Inventories *</td>
<td>28.57</td>
<td>10.00</td>
<td>18.6</td>
<td>declining</td>
</tr>
<tr>
<td>Prices *</td>
<td>94.74</td>
<td>94.74</td>
<td>0.0</td>
<td>growing</td>
</tr>
<tr>
<td>Backlog of Orders *</td>
<td>76.32</td>
<td>75.00</td>
<td>1.3</td>
<td>growing</td>
</tr>
<tr>
<td>Exports *</td>
<td>58.33</td>
<td>57.14</td>
<td>1.2</td>
<td>growing</td>
</tr>
<tr>
<td>Imports *</td>
<td>46.15</td>
<td>60.00</td>
<td>-13.8</td>
<td>declining</td>
</tr>
</tbody>
</table>

(*The indices are seasonally adjusted except for the Customers' Inventories, Prices, Backlog of Orders, Exports, and Imports Indexes, which do not meet the accepted criteria for seasonal adjustments. **Note:** A reading above 50 percent indicates that the manufacturing economy is generally expanding (growing); below 50 percent indicates that it is generally contracting (declining). Supplier Deliveries is the one exception, where it is the reversed relationship. Above 50 percent indicates declining, below 50 percent indicates growing.

### What are respondents saying in August 2021:
- Longer lead time causes longer holding time.
- Company wants to hire more, however, applicants’ rate is low.
- Overall supplier capacity decreases.
- Commodity prices are increasing due to supply chain disruptions.

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Marquette ISM® Report on Manufacturing
We have collected input on Blue and White Collar Employment. The indices are below for August 2021, July 2021, and June 2021.

<table>
<thead>
<tr>
<th></th>
<th>Diffusion Index</th>
<th>Diffusion Index</th>
<th>Diffusion Index</th>
<th>Direction</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aug-21</td>
<td>July-21</td>
<td>June-21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blue Collar</td>
<td>46.9</td>
<td>60.7</td>
<td>49.6</td>
<td>declining</td>
<td>-</td>
</tr>
<tr>
<td>White Collar</td>
<td>46.9</td>
<td>58.1</td>
<td>49.6</td>
<td>declining</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: These have been calculated based on the seasonally adjusted (SA) Blue and White Collar indices. A reading above 50 percent indicates that the manufacturing economy is generally expanding (growing); below 50 percent indicates that it is generally contracting (declining).

What are respondents saying in August 2021:

- Labor shortage. An increase in working hours increases stress level.
- Raw material shortage.

Buying Policy

Average commitment lead-time for Capital Expenditures increased from 139 to 152 days. Average lead-time for Production Materials increased from 82 to 92 days. Average lead-time for Maintenance, Repair and Operating (MRO) Supplies decreased from 43 to 42 days.

Six- Month Outlook on Business Conditions

In this outlook, there is a downward shift in negative expectations compared with August and June in terms of market conditions. Approximately 33% of respondents expect positive conditions, 39% expect conditions to remain the same and 28% of the respondents expect conditions to worsen within the next six months.
Milwaukee versus the Nation –
January 2011 – August 2021 Graph

ISM Milwaukee vs. National 2011-2021
Red= National; Blue= Milwaukee

January 2017 – August 2021 Graph

ISM Milwaukee vs. National 2017-2021
Red= National; Blue= Milwaukee
Insights on the ISM® PMI® from Institute for Supply Management®:

ISM® Manufacturing Report On Business® Background

In February 1982, the PMI® was developed by the U.S. Department of Commerce (DOC) and ISM. The index, based on analytical work by the DOC, adjusts five components of the Institute’s monthly survey — new orders, production, employment, supplier deliveries and inventories — for normal seasonal variations, applies equal weights to each and then calculates them into a single monthly index number.

An update of research originally done by Theodore S. Torda, the late economist for the DOC, shows a close parallel between growth in real Gross Domestic Product (GDP) and the PMI®. The index can explain about 60 percent of the annual variation in GDP, with a margin of error that averaged ± .48 percent during the last ten years. George McKittrick, an economist at the DOC, said "Not only does the PMI® track well with the overall economy, but the indication provided by ISM data about how widespread changes are, complements analogous government series that show size and direction of change."

In January 1989, the Supplier Deliveries Index from the Report became a standard element of the DOC’s Bureau of Economic Analysis Index of Leading Economic Indicators. The data was incorporated into the index from June 1976 forward. In January 1996, The Conference Board began compiling this index.

What Is a Diffusion Index?

Diffusion indexes have the properties of leading indicators and are convenient summary measures showing the prevailing direction of change. The percent response to the “Better,” “Same” or “Worse” question is difficult to compare to prior periods. Therefore, the percentages are “diffused” for this purpose. A diffusion index takes those indicating “Better” and half of those indicating “Same” and adds the percentages. This effectively measures the bias toward a positive (above 50 percent) or negative index (below 50 percent). For example, if the response is 20 percent “Better,” 70 percent “Same,” and 10 percent “Worse,” then the diffusion index would be 55 percent (20% + [0.50 x 70%]). The data for each question is converted to a diffusion index and then seasonally adjusted.

For each index, a reading above 50 percent indicates expansion of an index, while a reading below 50 percent indicates it is generally declining. And a reading of 50 percent indicates “no change” from the previous month. Supplier Deliveries is an exception. A Supplier Deliveries Index above 50 percent indicates slower deliveries, and below 50 percent indicates faster deliveries.