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Crisis breeds innovation—and there is no better proof of that than 2020. As they once did during World War II, American manufacturers of all kinds stepped up to help the nation in its hour of need. Simultaneously facing a pandemic and economic downturn, U.S. manufacturing organizations juggled protecting their people and keeping their businesses afloat to continue producing goods and services vital to the functioning of the U.S. economy. Some went above and beyond their call of duty—pivoting or increasing production of personal protective equipment (PPE) like masks and gloves, or even ventilators to aid in the fight against COVID-19.

Manufacturers in the middle market are no exception: Representing an estimated 17% of all middle market companies in the U.S., and millions of American jobs, mid-market manufacturers have fought hard to protect their workers’ lives and livelihoods through the thick of the pandemic.

To some extent, the dust has since settled, but while many manufacturers have persevered through the initial turmoil of the Coronavirus Recession, they are not out of the woods yet. Nearly three-quarters of CFOs at mid-market manufacturers say their businesses are currently struggling or just surviving, according to the 2021 BDO Manufacturing CFO Outlook Survey. And even though most manufacturers expect customer demand to increase this year—a critical driver of their recovery—most project that it will take more than a year from now for their business to fully recover from the effects of the pandemic.

51% of manufacturing CFOs project an increase in customer demand in the next 6 months

83% of manufacturers say their business will take at least a year to recover

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For manufacturers, the road to recovery is more than a financial one. Prior to the pandemic, the Industry 4.0 paradigm shift was already underway, bringing together the physical and digital worlds to change the fundamentals of production. COVID-19 has accelerated the paradigm, compressing the timeframe for the industry to get on board. At the top of the CFO agenda for 2021 is not cost cutting but investing in technology or infrastructure to adapt to the post-pandemic Industry 4.0 world.

### TOP BUSINESS PRIORITIES FOR 2021

<table>
<thead>
<tr>
<th>Priority</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investing in Technology or Infrastructure</td>
<td>26%</td>
</tr>
<tr>
<td>Cutting Costs</td>
<td>17%</td>
</tr>
<tr>
<td>Managing Through an Economic Downturn</td>
<td>16%</td>
</tr>
<tr>
<td>Merger and Acquisition Integration</td>
<td>12%</td>
</tr>
<tr>
<td>Outsourcing Roles or Functions</td>
<td>12%</td>
</tr>
<tr>
<td>Data Privacy</td>
<td>11%</td>
</tr>
<tr>
<td>Recruiting/Retaining Top Talent</td>
<td>6%</td>
</tr>
</tbody>
</table>

Manufacturers went above and beyond in 2020—not only by keeping American jobs but also by producing essential goods and actively taking part in the fight against COVID-19. 2021 will be no less challenging, but resiliency is in manufacturers’ DNA, and they have bold plans for meeting the challenges ahead while capitalizing on new opportunities.

**ESKANDER YAVAR**
Manufacturing National Practice Leader, BDO USA and NAM Board Member
Despite cautious optimism about customer demand increasing and a slow but steady recovery ahead, most middle market manufacturing CFOs expect to face financial challenges in 2021.

### CURRENT FINANCIAL CHALLENGES

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insufficient cash on hand</td>
<td>40%</td>
</tr>
<tr>
<td>Inability to obtain financing for the business</td>
<td>32%</td>
</tr>
<tr>
<td>Debt in excess of book value of assets</td>
<td>29%</td>
</tr>
<tr>
<td>Deteriorating relationships with lenders</td>
<td>26%</td>
</tr>
<tr>
<td>Inability to meet debts as they come due</td>
<td>25%</td>
</tr>
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</table>

### FINANCIAL CHALLENGES PROJECTED IN NEXT 12 MONTHS

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deteriorating relationships with lenders</td>
<td>31%</td>
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<tr>
<td>Insufficient cash on hand</td>
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</table>

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>None of the above</td>
<td>22%</td>
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</table>

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the above</td>
<td>23%</td>
</tr>
</tbody>
</table>
While government assistance helped carry manufacturers through 2020—and additional relief measures could be on the horizon—cashflow will continue to be a major hurdle in 2021, whether because of continued operational disruptions, delayed payments from cash-strapped customers or suppressed revenues. Over half of manufacturers expect their revenues will either stay the same or decrease in the next 12 months.

12-MONTH REVENUE PROJECTIONS

To improve liquidity and free up cash, manufacturers should focus on separating the good costs from the bad with a zero-based costing approach, with no budget line item held sacred. Converting fixed costs into variable ones can also provide more financial flexibility while the broader financial picture remains uncertain.
THE ROAD TO RECOVERY

The manufacturing industry’s recovery hinges on a confluence of factors, including supply chain stability, keeping input costs low, productivity, overall market demand and trade policy stability.

FACTORS MOST CRITICAL TO RECOVERY OF U.S. MANUFACTURING, ACCORDING TO MIDDLE MARKET MANUFACTURERS

- Supply chain stability: 20%
- Keeping input costs low: 17%
- Productivity gains: 17%
- Market demand: 16%
- Trade policy stability: 14%
- Funding for innovation: 10%
- Access to talent: 6%

Some of these factors are outside organizations’ direct control. For instance, reimplementation of COVID-19 lockdown measures could lead to further supply chain disruptions and a double dip recession that severely reduces market demand.
A TALE OF TWO MANUFACTURERS

Not all mid-market manufacturers were impacted equally by the pandemic, however. Some manufacturers were forced to temporarily close their facilities last spring due to state and local mandates intended to prevent the spread of COVID-19. For the purposes of this survey, organizations are categorized in two groups, according to their self-assessment:

- **Uninterrupted Manufacturers** (manufacturers who had no locations temporarily close due to the pandemic)
- **Interrupted Manufacturers** (manufacturers that were forced to temporarily close some or all locations due to the pandemic)

### INTERRUPTED VS. UNINTERRUPTED MANUFACTURERS

<table>
<thead>
<tr>
<th></th>
<th>Uninterrupted Manufacturers</th>
<th>Interrupted Manufacturers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18%</td>
<td>82%</td>
</tr>
</tbody>
</table>

Lockdown measures have long been lifted, but they had a lasting impact on mid-market manufacturers’ current performance and outlook.

### LASTING IMPACT OF TEMPORARY SHUTTDOWNS

- **50%** say their company will recover in less than one year
- **78%** say they will be thriving one year from now
- **83%** say their revenue will increase over the next year

Interrupted Manufacturers not only lost revenue from the orders they could not fulfill during the shutdown, but they may have also permanently lost revenue from customers who had to shift suppliers while they were closed. Former customers may be wary that an Interrupted Manufacturer will be forced to close again if lockdown orders are reimplemented. They may also be reluctant to make new changes to their supply chains unless necessary, as they are likely focused on other immediate business priorities, such as protecting their own revenue.

The lesson for manufacturers is that short-term events can have long-term consequences. You need to be prepared for disruption before it happens to mitigate the impact on your business. While you cannot prepare for every eventuality, you do need to be agile enough to respond to disruption when it occurs. For 2021 and beyond, manufacturers will prioritize meeting immediate challenges while simultaneously making investments that increase their business’ resiliency for the long term.

The biggest focus for resiliency investments in 2021 will be the supply chain.
At the onset of the pandemic’s outbreak in the U.S., middle market manufacturers acted quickly to protect their people, which shows in their workforce priorities for 2021. Manufacturers are focused on measures to reduce infection risk in their workplaces, which they will likely keep in place until a viable vaccine is developed, proven and distributed. These plans include adding distance and physical barriers between workstations, as well as leveraging Industry 4.0 technologies to enable both frontline and back-office professionals to work remotely. They also plan to automate manual labor, which will help achieve dual goals of cost savings and enabling social distancing by reducing the number of staff needed on site at any one time.

But middle market manufacturers’ biggest workforce priority in 2021 will be prioritizing diversity and inclusion. With increased national attention on and engagement in issues of systemic racial inequality, many manufacturers are taking action to increase diversity and foster inclusivity in their workforces. To that end, companies have launched initiative programs that include sourcing a more diverse talent pool, introducing reskilling and leadership development programs for underrepresented populations, ensuring equitable pay and tackling areas of unconscious bias. Diverse perspectives are essential to innovation and growth, and to fostering a workplace culture rooted in empathy that employees and customers alike can be proud of.

Our business is very fortunate—we’ve been able to keep our facilities open and avoid layoffs in our manufacturing facilities. Our market share has actually increased. But that doesn’t negate the impact of the pandemic on our people’s daily lives. We recognize that balancing work with new responsibilities at home has never been harder—and we have to do that much more to help our employees stay engaged and acclimate to change. We’re currently in the process of upgrading our facilities to improve the everyday experience for our frontline workers and make their jobs safer and easier. We’re also very focused on strengthening our company culture through a variety of initiatives, from introducing new benefits to offering training and mentorship programs and opportunities for career advancement.

SUE VANDERBILT
CFO, Stoughton Trailers, LLC
Manufacturers spent much of 2020 dealing with immediate challenges caused by the pandemic, such as unexpected delays, shortages and other disruptions. These issues exacerbated preexisting supply chain headwinds caused by trade policy turbulence, including tariffs and other sanctions.

**SUPPLY CHAIN STRATEGIES**

In 2021 and beyond, middle market manufacturers’ priorities will shift from crisis management to investing in increased supply chain resiliency and agility for the long term. More than half plan to invest in supply chain technologies this year to introduce new efficiencies, increase end-to-end visibility, and improve flexibility and responsiveness. Savvy manufacturers recognize that digitizing the supply chain is no longer optional at this point, but—provided they move quickly enough—is also a source of competitive advantage.

Manufacturers say supply chain stability is the #1 factor most critical to the recovery of the manufacturing industry.
GEOGRAPHIC DIVERSIFICATION

In 2021, middle market manufacturers also plan to address a major supply chain weakness that the trade turbulence of the last few years exposed and COVID-19 made incontrovertible: overreliance on one location or source. Manufacturers have historically relied heavily on China for sourcing due to cheap labor and materials, but years of geopolitical tensions, multiple rounds of tariffs and rising labor costs have made it a less attractive region for intermediate materials and components. As companies evaluate alternative and backup suppliers or consider reshoring to mitigate supply chain vulnerabilities, manufacturers must consider their global network footprint and factor in the holistic tax and trade implications.

MOST STABLE LOCATION OUTSIDE OF U.S. FOR SOURCING PRODUCTS IN LONG TERM

- Europe: 24%
- North America: 14% (Excluding U.S.)
- South America: 14%
- East Asia (Excluding China): 11%
- India: 11%
- Southeast Asia (Excluding India): 8%
- Middle East: 3%
- Australia: 3%
- Africa: 2%
- China: 10%
- India: 14%
- East Asia (Excluding China): 11%
SUPPLY CHAIN RISKS

While risk mitigation and increasing resiliency will be significant goals in the next year, they are not manufacturers’ main priorities. Manufacturers actually say that meeting higher customer expectations is their biggest supply chain management challenge for 2021, ahead of risk management.

BIGGEST SUPPLY CHAIN MANAGEMENT CHALLENGE FOR 2021

- 28% Meeting higher customer expectations
- 19% Risk management
- 18% Accurate demand and inventory management
- 18% Supplier relationship management
- 17% Cost control

To meet higher customer expectations and seize emerging opportunities, manufacturers have innovative plans in mind.

“We are entering into a new era of supply chain management, where manufacturers must balance investments in resiliency and risk management with value creation. Success is no longer just moving a product from point A to point B quickly and cheaply; it’s about optimizing every node in the supply chain for greater collective benefit.”

ESKANDER YAVAR
Manufacturing National Practice Leader, BDO USA and NAM Board Member
Innovation on the Agenda

PANDEMIC SILVER LININGS

There are numerous negative business consequences from the Coronavirus Recession, but manufacturing CFOs have identified a few positive outcomes despite all the bad. They say the pandemic has enabled faster decision making, led to product or service innovation and even accelerated digital transformation.

Necessity is the mother of invention—and 2020 forced manufacturers to get creative to survive. Manufacturers leveraged Industry 4.0 solutions like automation and holoportation to enable social distancing in their workplaces and even allow some frontline staff to work remotely. Others discovered opportunities for product or service innovation. For instance, TSG Resolute, a manufacturer that specializes in die cutting, metal fabrication, plastic extrusion and robotic assembly, pivoted to producing full-face masks, half-face shields and sneeze guards, and it is now primarily fulfilling orders for the healthcare industry.

PIVOT TO NEW POTENTIAL

Middle market manufacturers will not just play defense in 2021—they have bold, innovative plans to transform their businesses and capitalize on emerging opportunities.

STRATEGIES TO ADJUST TO CUSTOMER OFFERINGS

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Taken</th>
<th>Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pivot to produce PPE or other critical COVID-19 supplies</td>
<td>26%</td>
<td>18%</td>
</tr>
<tr>
<td>Temporarily halt production of some product lines</td>
<td>26%</td>
<td>23%</td>
</tr>
<tr>
<td>Take on direct-to-consumer sales</td>
<td>31%</td>
<td>30%</td>
</tr>
<tr>
<td>Introduce new aftermarket services</td>
<td>32%</td>
<td>44%</td>
</tr>
<tr>
<td>Simplify the total number of product variants or rationalize SKUs</td>
<td>34%</td>
<td>25%</td>
</tr>
<tr>
<td>Ramp up production to meet higher demand</td>
<td>35%</td>
<td>37%</td>
</tr>
<tr>
<td>Pivot to new products in higher demand</td>
<td>37%</td>
<td>42%</td>
</tr>
<tr>
<td>Adjust pricing model</td>
<td>48%</td>
<td>43%</td>
</tr>
</tbody>
</table>

Strategies taken | Strategies planned
76% of manufacturers have introduced or are planning to introduce new aftermarket services.

Manufacturers are making transformative changes to their businesses, such as shifting to a direct-to-consumer (DTC) model, effectively cutting out the retail middleman. While there is significant potential upside, including greater control of the relationship with the end-consumer and better engagement, going direct opens up a host of new marketing, logistics and fulfillment challenges. If you get into the DTC game, prepare for fierce competition, where customer experience, cost and overall efficiency will determine the winners.

Some manufacturers plan to diversify and increase revenue by expanding their aftermarket service offerings. Aftermarket services, an Industry 4.0 trend already underway pre-pandemic, can provide recurring revenue streams at a time when demand for new purchases may be unseasonably low.

Manufacturers also plan to stay in the fight against COVID-19. Nearly a fifth will continue to produce PPE or other critical supplies, and if there is a nationwide COVID-19 resurgence, more manufacturers will likely lend a hand. When a viable vaccine is developed, we will likely also see manufacturers volunteer their logistics expertise and capacity to help distribute it to all corners of the globe as fast as possible.

**AFTERMARKET SERVICE IDEAS FOR MANUFACTURERS**

- **Product Repairs or Equipment Maintenance**
- **Product Insurance Programs**
- **Subscription-Based Analytics or Reporting Dashboards**
- **Condition Monitoring & Preventive Maintenance**
- **Onboarding & Training Programs**
- **Rent-to-Own Products**
NEW MARKET TRENDS

The Coronavirus Recession has also had permanent or at least semi-permanent impacts on customer purchasing behavior, preferences and demand patterns, all of which have implications for manufacturers’ businesses. In many cases, these big shifts can create new opportunities for competitive advantages and innovation for those companies agile enough to seize them. Many middle market manufacturers have capitalized on these opportunities and are already seeing positive benefits.

<table>
<thead>
<tr>
<th>TREND</th>
<th>PERCENT POSITIVE IMPACT</th>
<th>KEY TAKEAWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-commerce Acceleration</td>
<td>66%</td>
<td>Most customer transactions shifted online during COVID-19 shutdowns, and manufacturers now have an opportunity to ramp up their e-commerce capabilities to increase market share. Consider taking a page from the retail omnichannel playbook to build your online presence and market your products.</td>
</tr>
<tr>
<td>Greater Focus on Value/Price Sensitivity</td>
<td>62%</td>
<td>When your customers are hurting financially, price and service become their top priorities. Focusing on customer service in the months ahead will help you retain your customers. If you achieve new cost savings or efficiencies, consider passing some or all of those savings on to your customers to lower your prices, or create preferred pricing plans to keep key accounts.</td>
</tr>
<tr>
<td>Contactless Delivery</td>
<td>42%</td>
<td>Similar to e-commerce acceleration, contactless delivery will likely remain the norm until a viable vaccine is developed and distributed. Even after that, contactless delivery offers time and cost efficiencies that make it unlikely to disappear. Manufacturers should continue investing in capabilities to make contactless deliveries to their customers a part of their customer experience strategies.</td>
</tr>
<tr>
<td>Fewer Product Variants</td>
<td>40%</td>
<td>When customer demand is down, it becomes more expensive to keep producing different variations of the same product. It also makes your supply chain more susceptible to disruption. Manufacturers should reevaluate their product suite to determine if they should streamline or simplify their offerings. Rationalizing the product portfolio can help manufacturers lower supply chain costs and reduce risk of shortages by focusing their supply chains on just a few key, high-performing products.</td>
</tr>
<tr>
<td>Shift to Bulk-Buying</td>
<td>39%</td>
<td>Panic buying and lockdowns during the start of the pandemic led to supply chain disruptions and shortages for some goods. To prevent future interruptions in case of a COVID-19 resurgence or other unforeseen disruption, manufacturers should reevaluate their just-in-time inventory strategies and consider developing alternative sources of supplies or stockpiles of critical materials or products.</td>
</tr>
</tbody>
</table>
The Way Forward

The manufacturing industry is at a crossroads. On one end are the continued headwinds that manufacturers will face due to the pandemic recession. On the other are emerging opportunities for growth and innovation that organizations cannot afford to ignore. 2021 will be a balancing act between mitigating risk, navigating continued uncertainty and seizing new opportunities. The stakes have never been higher, but manufacturers are ready to meet these challenges head on.

To succeed, manufacturers must balance making investments that increase connectivity and resiliency to mitigate disruption with longer-term plans for transformation to meet changing customer expectations and adapt to shifting market trends.

Where does your business go from here? Check out our Resilience Through Recession framework to learn strategies for navigating turbulence and seizing new opportunities, customized to where your business is today.

Our research goes beyond Manufacturing.

View the survey results from 600 CFOs across industries in our 2021 BDO Middle Market CFO Outlook Survey.
Respondent Profile

The 2021 BDO Manufacturing CFO Outlook Survey polled 100 manufacturing industry CFOs with revenues ranging from $250 million to $3 billion in September 2020. The survey was conducted by Rabin Research Company, an independent marketing research firm, using Op4G’s panel of executives.

Average tenure in current CFO role: 5.5 years

**ANNUAL REVENUE**

- **33%** $751M-$999M
- **19%** $1B-$2B
- **16%** $250M-$500M
- **4%** $2B-$3B
- **28%** $501M-$750M

**COMPANY TYPE**

- **50%** Private
- **50%** Public

**REGION OF OPERATIONS**

- **50%** U.S. & other countries
- **50%** U.S. only

**PRODUCTION HALTS IN LAST 6 MONTHS**

- **18%** No
- **82%** Yes (Some or all locations)
ABOUT BDO’S MANUFACTURING PRACTICE

BDO has been a valued business advisor to privately-held, private equity-owned and publicly-held manufacturing and distribution companies for more than 100 years. We work with a variety of companies from all industrial sectors, ranging from global distributors to startup and niche manufacturing corporations, on a myriad of accounting, consulting, tax and other financial issues.

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