The Manufacturing Institute–BKD
Small and Medium-Sized Manufacturers Survey
September 2021: The "New Normal" and Impacts on the Workforce

This is the second in a series of special surveys of small and medium-sized manufacturers (i.e., those with fewer than 500 employees) that are being conducted by The Manufacturing Institute's Center for Manufacturing Research and BKD, a national CPA and advisory firm. The topic will vary with each report, and for this survey, manufacturing leaders were asked to describe the "new normal" for their operations in the aftermath of severe disruptions due to the COVID-19 pandemic and to look at how disruptive technologies might have altered the worker profile or training requirements of the job. The MI and BKD administered this survey from Aug. 19 through Aug. 30 and received 302 responses. The survey was anonymous.

Highlights:

- **Workplace safety:** Nearly 79% of small and medium-sized manufacturers have enhanced workplace safety measures and requirements since the COVID-19 pandemic began. In addition, firms reevaluated their supply chain, increased worker flexibility, instituted more remote work and reengineered their production processes with social distancing in mind.

- **New normal:** Many of the survey respondents reported additional workplace flexibility, with others noting supply chain and workforce challenges. At the same time, several companies noted that the changes they needed to implement have made them a stronger company and more prepared for future crises. Some respondents noted that their new normal is not much different from the old one or that it is too soon to tell.

- **New workforce models:** Since the beginning of the pandemic, companies have needed to adapt, with more work taking place remotely, understanding that much of the production process is not able to shift work away from the shop floor. Still, for those employees where it is possible, companies have shifted their perceptions of the value of remote work, and many see a hybrid model continuing post-pandemic.

- **Return to work:** More than 71% of respondents said their firms had not received any resistance or hesitance to returning to work, where working remotely was an option, with 18.4% saying they had faced some resistance.

- **Transitioning the business:** Nearly one-quarter of respondents said the pandemic had changed or heightened their desire to transition or sell their business. Of those who said this, 68.1% were working on a plan where they might not have before.

- **Disruptive technology investments:** One-third of SMMs had accelerated their investments in disruptive technologies since the pandemic began, with 61.4% noting that such investments were done to improve the operational performance in

production. Other motivations included achieving greater efficiencies and to stay competitive with others in the industry. Worker shortages were also a factor.

- **Worker needs in light of technology investments:** Respondents offered free response comments, featured below, on both how the worker profile might change as a result of investment in disruptive technologies and how upskilling opportunities for existing employees might be altered.

Examining the "New Normal" for SMMs

Manufacturing production has bounced back year to date, with output being the strongest since August 2019 in the latest data. As such, production in the sector now exceeds pre-pandemic levels. Demand continues to be very robust, and companies remain mostly upbeat in their expectations about growth. In the most recent NAM Manufacturers' Outlook Survey, 87.5% of respondents felt positive about their company's outlook. Employment and wage growth are both expected to rise the most on record over the next 12 months, with capital spending increasing at a pace not seen in more than three years. Yet, there are also notable challenges, including soaring raw material prices, difficulties in attracting and retaining workers and lingering supply chain and logistical hurdles.

There are a record number of job openings in the U.S. economy (nearly 11 million in the July data), with an all-time high number of postings in the manufacturing sector (889,000). Indeed, there are once again more job openings than people who are actively looking for work in the economy—returning to a phenomenon that challenged firms in the two years before COVID-19. With that as context, it should not be a surprise that so many manufacturing business leaders tell us that they struggle to find sufficient talent, especially with 378,000 fewer workers today than before the pandemic.

While manufacturing output has rebounded convincingly since plummeting sharply in spring 2020, small and medium-sized manufacturing businesses have needed to adapt quickly since then. SMMs were asked about business impacts from the COVID-19 pandemic (Figure 1), and respondents cited worker safety and flexibility as top concerns.

Nearly 79% had enhanced workplace safety measures and requirements, with 55.9% noting a need for increased worker flexibility. The priority was keeping the labor force healthy, but with child care options limited and schools often operating virtually, companies also recognized the logistical hurdles that many employees were facing in their personal lives. With that in mind, roughly half had reevaluated what work could be done remotely where possible, and 41.0% noted that their business was working to reengineer the production process with social distancing in mind. In addition, 67.5% of SMMs reported they were reevaluating their supply chain.

With that data as context, respondents were asked to describe what the "new normal" looks like for them in their own words. The following are samples of actual responses (edited

only for clarity). There were a lot of comments about workplace flexibility, with others noting ongoing supply chain and workforce challenges. In addition, many noted that COVID-19 improved their processes, with an acknowledgement that there will be future crises that manufacturers will need to confront (including new COVID-19 variants). Finally, it is important to note that the concept of a "new normal" seems nebulous to some, either because it is too soon to focus on the post-COVID-19 world or because for many, it looks a lot like the "old normal."

- **Manufacturers will continue to cope with supply chain and logistics disruptions and workforce shortages.**

  - "Adjusting to longer lead times."
  - "Increased inventory, more allied with true partnering customers and suppliers, with perhaps more nearshoring."
  - "Labor shortages and supply chain issues are our everyday focus now."
  - "More focus on logistics to overcome deficiencies in transportation."
  - "Trying to find bodies daily to fill positions."
  - "Very stressful with day-to-day supply disruptions and lack of appropriate personnel."

- **Workplace safety is the norm, with employee health paramount.**

  - "Changes in factory operation and layout. Need to evaluate efficiencies and develop safety protocols not previously necessary. Still evolving and not all answers currently known or developed."
  - "Hopefully a lot like the old normal, but with some additional safety precautions in place."
  - "More mask wearing; better hygiene practices; increased emphasis on social distancing when possible."
  - "More space per employee and reduced number of groups."
  - "Nothing changes other than social distancing and masks."
  - "Workers being more cautious of their coworkers and surroundings."

- **There will be increased worker flexibility in scheduling, with continuing virtual work where possible.**

  - "More flexibility in work schedules."
  - "More nimble, flexible, adaptable."
  - "More virtual meetings—even when on-site. No more large-group meetings."
  - "Not radically different, but allowances for those who can work remotely to do so, at least on a part-time basis."
  - "Only people required to be in the office every day are people directly tied to the manufacturing process."

- "We want people in but will allow flexibility for some efficiency and to stay competitive with others offering."
- "We will continue to have some remote employees."
- "Workforce safety and flexibility to allow employees to deal with family needs, day care, school, etc."

- **Acknowledging that there will be future crises to deal with, and manufacturers need to be prepared for them.**

  - "A company that looks at viruses as a disruptive force in the global economy."
  - "Keep our focus on things we can control and don't worry about exterior factors, including politics!"
  - "Realization that removing overlap of shift-to-shift communication led to better communication than the overlap because folks were forced to write things down. Better appreciation for on-site collaboration opportunities."
  - "These events have brought management and those working in manufacturing closer together and opened more dialogue."

- **Firms will accelerate their investments in new technologies.**

  - "More automation and more highly skilled workforce."
  - "More connected, more digital/virtual."
  - "More emphasis on automation."
  - "More work from home, higher wages, more automation."

- **Some manufacturers are eager for additional fiscal spending.**

  - "Hoping that the economic recovery will continue and that we are able to take advantage of a broad infrastructure program."

- **The "new normal" looks like the old normal for some manufacturers.**

  - "Same as before the pandemic."
  - "There is no such thing as the new normal; there is just the current business climate."
  - "There is no such thing in the foreseeable future. Only new abnormal."

- **Several respondents said it was too soon to know what the "new normal" might look like.**

  - "Don't know. We aren't there yet."

Many of the survey respondents cited the need for flexibility and remote work, with numerous comments discussing hybrid work as the "new normal." Obviously, this is not an option for all manufacturing employees, but it could be an option for attracting and retaining some workers, offering a sense of flexibility.

SMM leaders were asked if attitudes toward remote work at their company's senior levels had changed during the pandemic. Many of the comments noted the obvious: most production workers are not able to work virtually. At the same time, for those workers who were able to perform work from home, perceptions improved for a lot of the respondents. Manufacturers were asked about what they had done in response to shifting attitudes toward remote and virtual work, including from a human resources perspective, and the following are some sample responses:

- "Considering more formal policy around work from home but on an as-needed basis."
- "Established core working hours when all employees are available in the office or online in an attempt to create more serendipity events."
- "Hybrid—return to work, but still allow some days per week to work from home."
- "Limited to office staff and not significant to manufacturing operations."
- "Positioned the workforce with equipment to facilitate work from home where possible."
- "Remote and virtual work still comes down to the employees' general sense of work ethic. Folks who were engaged at the office remained engaged when working from home and vice versa."
- "Struggling to find workers who want to work 40 hours a week in person."
- "We are manufacturing. We need to be here to work the machines. Need people!"
- "We've always been flexible with our team members."
- "We have openly embraced remote work and adapted HR policies to support. However, it does impact company culture, and we are hoping for an eventual return to company spaces."
- "We have tried to accommodate, but it is very difficult. We are a small company, and having staff remote for extended periods hinders production."
- "We now have a telecommuting policy in place that didn't exist prior to COVID-19."
- "We want everyone back on-site once the dust settles. Exceptions would require unusual circumstances."

At the same time, a return to normal also means that some or many of those who have been working from home will return to the office at some point, if they have not done so already. Interestingly, 71.4% of survey respondents said their firms had not received any resistance or hesitance to a return-to-work setting, with 18.4% saying they had faced some resistance.

Finally, 24.5% said the pandemic had changed or heightened their desire to transition or sell their business. Of those who said they were considering, 68.1% were working on a plan right now where they might have only considered it before.

Disruptive Technologies and the Impact on Worker Profiles for SMMs

Manufacturers continue to invest heavily in disruptive technologies. Figure 1 suggests that roughly one-third of SMMs had accelerated such investments since the pandemic began. Figure 2 dives into the motivations for doing so. First and foremost, 61.4% said these technology investments were made to improve the operational performance in the production process. The other top choices included achieving cost efficiencies in the production process (57.9%), to help fill labor shortages (53.5%), to stay competitive with others in the industry (48.6%) and to help facilitate better operational excellence (44.5%). Specific to those responses, 64.3% reported that making investments in disruptive technologies had made their production process more efficient and more flexible (Figure 3).

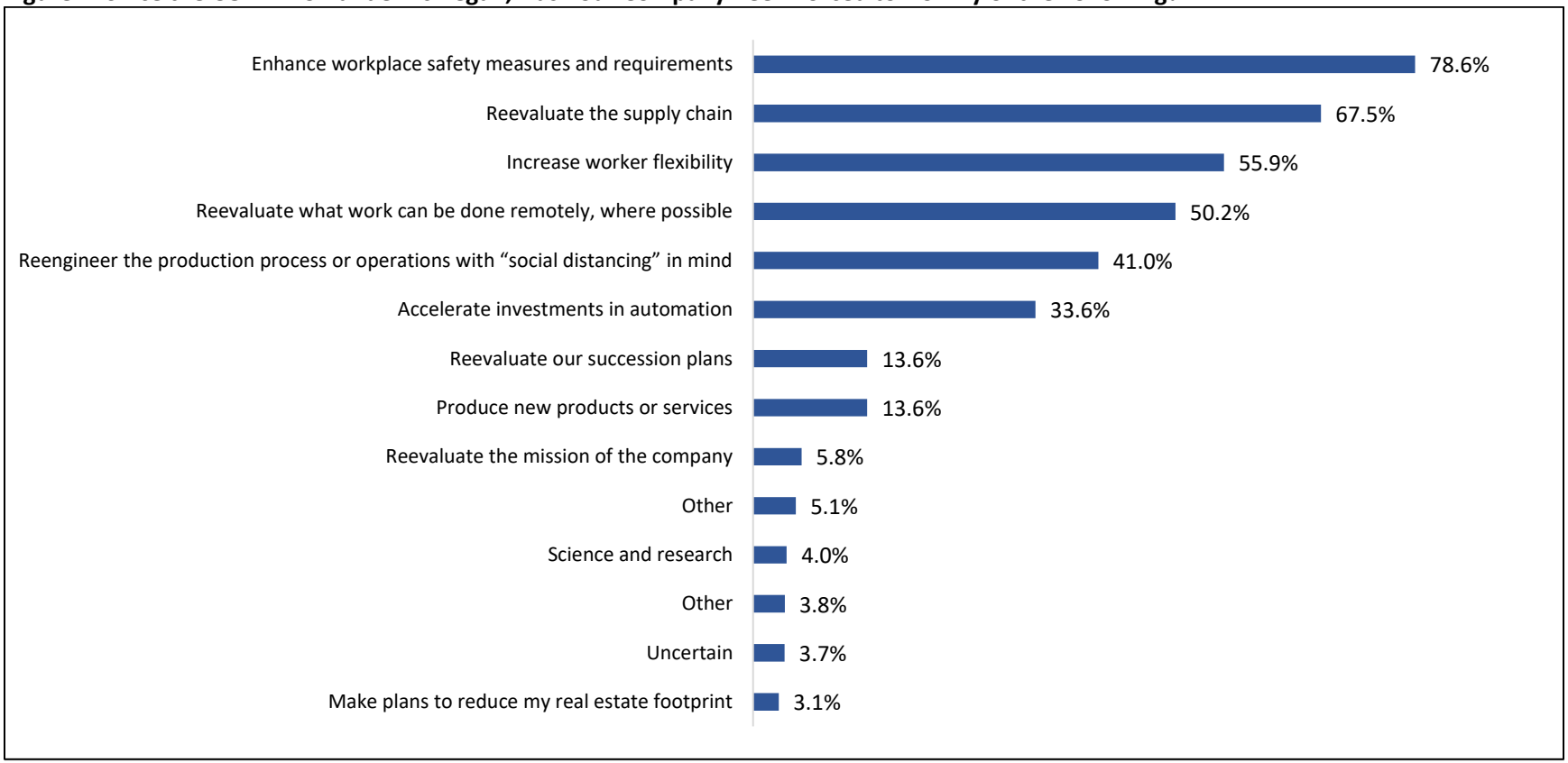
Perhaps more importantly from a workforce perspective, we know that new technologies change the types of workers that manufacturers need to hire and the types of training that might need to be offered for existing employees. Firms were asked about such changes, either in the worker profile or for upskilling opportunities. Here are some of the sample comments:

- "Ability to grow, learn and understand what our mission and position in the industry is. He or she is not just a laborer."
- "Computer skills are more necessary for the new employee on the production floor."
- "Focusing more on flexible skill sets and flexibility in interests and willingness toward cross-training."
- "Higher attention to detail, stronger technical skills."
- "Improved our onboarding process. Automated some of our training systems. Developing new training systems for technical positions."
- "Improved skillsets on the technical side of automation."
- "Increasing ability to work with disruptive technologies—automation. Interestingly, we have recent success in hiring several young workers who are on the autism spectrum for some of the new technology applications."
- "Lack of skills required, so must do more on-the-job training."
- "Must be more fluent in the use of technology versus solely being production labor."
- "Need constant education to stay current."
- "Need more analytical and math skills."
- "Need more nimble, smarter and able to work on computers and technology."
- "Need more skilled workers to operate machines."
- "Need team members who are more versed in technology and ability to work with programming."

- “Problem-solving and communication skills.”
- “We have always placed a big reliance on bringing in entry-level workers and training them up through a career progression.”
- “We look more intensely at the employee’s ability to learn.”

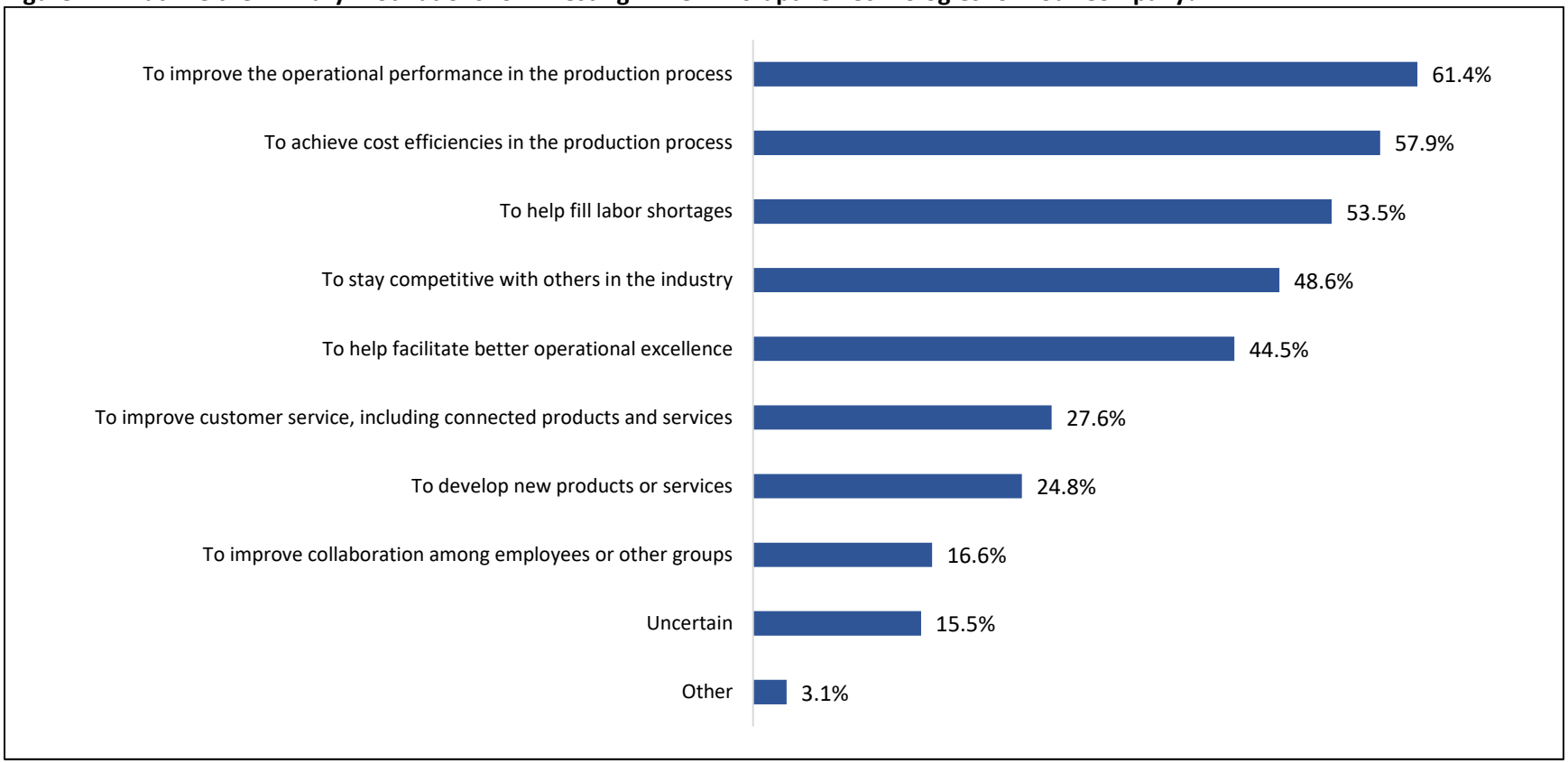
It is worth noting that a fair number of the responses to this question referred to the extreme difficulties right now in finding enough workers. Many addressed frustrations with the educational system, particularly as it related to meeting their needs, but they also spoke about a desire to have “soft skills” better instilled in prospective candidates. This ranged from strong communications skills to a willingness to work. With that in mind, many manufacturers have chosen to train new entrants once onboard.

Figure 1: Since the COVID-19 Pandemic Began, Has Your Company Been Forced to Do Any of the Following?



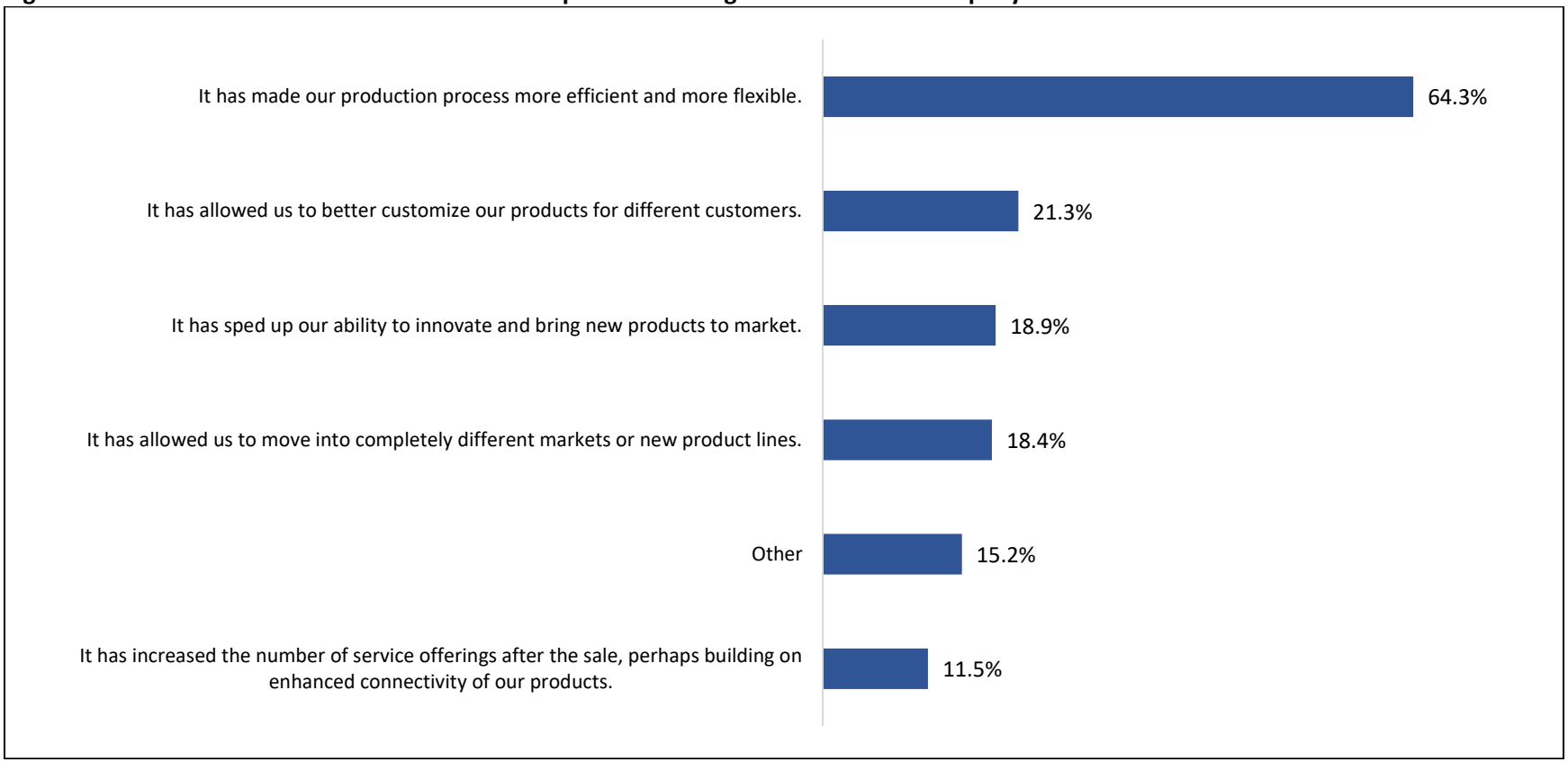
Note: Respondents were able to check more than one response; therefore, responses exceed 100%.

Figure 2: What Are the Primary Motivations for Investing in New Disruptive Technologies for Your Company?



Note: Respondents were able to check more than one response; therefore, responses exceed 100%.

Figure 3: How Have Your Investments in New Disruptive Technologies Altered Your Company's Business?



Note: Respondents were able to check more than one response; therefore, responses exceed 100%.

Survey Responses

1. Since the COVID-19 pandemic began, has your company been forced to do any of the following? (Select all that apply.)
    a. Reevaluate the mission of the company – 5.76%
    b. Produce new products or services – 13.56%
    c. Reevaluate the supply chain – 67.46%
    d. Reengineer the production process or operations with "social distancing" in mind – 41.02%
    e. Accelerate investments in automation – 33.56%
    f. Enhance workplace safety measures and requirements – 78.64%
    g. Reevaluate what work can be done remotely, where possible – 50.17%
    h. Increase worker flexibility – 55.93%
    i. Make plans to reduce my real estate footprint – 3.05%
    j. Reevaluate our succession plans – 13.56%
    k. Other – 5.08%
    l. Uncertain – 3.73%

2. What are the primary motivations for investing in new disruptive technologies for your company? (Select all that apply.)
    a. To achieve cost efficiencies in the production process – 57.93%
    b. To improve the operational performance in the production process – 61.38%
    c. To help fill labor shortages – 53.45%
    d. To develop new products or services – 24.83%
    e. To improve collaboration among employees or other groups – 16.55%
    f. To improve customer service, including connected products and services – 27.59%
    g. To help facilitate better operational excellence – 44.48%
    h. To stay competitive with others in the industry – 48.62%
    i. Other – 3.10%
    j. Uncertain – 15.52%

3. How have your investments in new disruptive technologies altered your company's business? (Select all that apply.)
    a. It has sped up our ability to innovate and bring new products to market – 18.85%
    b. It has allowed us to better customize our products for different customers -21.31%
    c. It has allowed us to move into completely different markets or new product lines – 18.44%
    d. It has made our production process more efficient and more flexible – 64.34%
    e. It has increased the number of service offerings after the sale, perhaps building on enhanced connectivity of our products – 11.48%
    f. Other – 15.16%

4. How has the profile or skill set of a typical new employee on the shop floor changed in the manufacturing space?

5. Has the pandemic changed or heightened your desire to transition or sell your business?
    a. Yes – 24.49%
    b. No – 75.51%

6. If you said yes to the previous question, are you working on a plan where you may have only considered it before?
    a. Yes – 68.06%
    b. No – 31.94%

7. How have attitudes toward remote work at the company's senior levels changed?

8. Has there been resistance or hesitance to a return-to-office setting?
    a. Yes – 18.37%
    b. No – 71.38%
    c. Uncertain – 10.25%

9. What have you done in response to shifting attitudes toward remote and virtual work? What HR policies and workplace expectations have changed due to COVID-19?

10. What does the "new normal" look like for your company?