The manufacturing experience executive research brief
How firms would invest a marginal dollar with their company

There is a significant amount of content available on the varied problems manufacturers are facing. And there is a significant amount of research on manufacturing outlooks. But there isn't a lot of information available to manufacturers that focuses on HOW their peers are aiming to address these challenges. The Cognizant manufacturing team thought it would be helpful for manufacturers to answer this one simple question: With many options for manufacturers to invest in, if they had an extra marginal dollar, where would they start?

That was the beginning of our Marginal Dollar survey with The Manufacturing Institute, an affiliate of the National Association of Manufacturers. This study explores the different approaches that manufacturers take in making investment decisions. If a manufacturer had an extra $1 million (or $10 million or $100 million) to invest, how would they utilize those dollars? Would they purchase new equipment? Build a new facility, spend it on new disruptive technologies, digital transformation and/or research and development? Or would they hire new workers and invest in training existing employees? If it is a combination of these elements, how is the pie split up? In addition to the survey, nine manufacturing executives were interviewed for their insights on this topic.
Driving growth

Increasing quality while improving efficiency is, was and will always be a top priority for manufacturers. The top 3 overall priorities for survey respondents reflect this.

- Building a robust, trained workforce: 73.7%
- Improving process and operations: 60.2%
- Optimizing existing equipment: 53.4%

However, when we dive a little deeper into the report, it’s interesting to note is that if budgets are status quo, training existing workers is a top priority at 61% followed closely by investing in new equipment at 56%. However, with those extra marginal dollars, new equipment becomes the #1 investment at 61% with training existing workers falling to 50%.

What’s driving that flip in thinking? More than half of those interviewed—Acutech, International Paper, L&L products, Schneider Electric and Tusco cited automation investment as key component of their marginal dollar spend and a driver for future growth.

But as the full research study notes, lowering costs and increasing productivity as well as building a stronger, more resilient workforce should not be considered as competing interests, but rather as interdependent strategies. Having a trained workforce is crucial to capitalize the full potential of equipment, technology and facilities. Having streamlined processes, integrated automation and optimized workspaces in turn allow employees to maximize their productivity.

Common thread: A different workforce strategy

The qualitative and quantitative research highlighted that workforce challenges are much more than a workforce shortage. Executives across various sized manufacturers noted that workforce expectations have changed. And in turn, their organizations need to adapt to these new norms. Quality of life, willingness to work overtime, length of commute, paths for professional growth, predictable schedules, appeal of physical locations, benefits and extras are all considerations for new hires accepting or rejecting job offers. While 44% of organizations have encouraged possible retirees to stay longer in their roles, this is a stop gap measure that does not prevent the inevitable.
Leaders are assessing key roadblocks to meeting their hiring needs and mapping solutions to overcome those objections. Whether it’s introducing more flexibility, adding benefits like daycare or providing training and education, the consensus is that traditional manufacturing workplaces need a new strategy.

And an interesting similar point surfaced among leaders. With the addition of marginal dollars, many organizations would upskill and hire in more attractive, higher paying roles like engineering, product and R&D, while leveraging newer advanced automation and technology to help close the gap in the shortage. This seems, for many, to be the real path to solve labor issues and drive continued growth.

With the growth they are seeing, Acutec will need as many workers as they do today, but the roles of these employees might shift as new technologies and processes are introduced. Elisabeth Smith, President and CEO, was particularly interested in creating a new process engineer role—machinists that would focus specifically on optimizing production. Beyond the efficiency gains, this would also serve as an aspirational role for the more than 200 machinists that work at Acutec, many of whom could be trained to become a process engineer, setting up an important avenue for professional growth and increased pay. Moreover, this new opportunity would allow Acutec to tap into college graduates, potentially offering a position that would be more marketable.

**Common thread: Technology as a driver of operational efficiency and strategic growth**

Another key area where the research highlighted a consensus was, of course, technology. With marginal dollars, new technology and automation of processes to increase productivity, product and data quality, speed of delivery and ultimately ROI was high on executive wish lists.

As mentioned in the previous workforce page however, automation and technology were not commonly seen as a plan to reduce jobs but rather a shift of open roles to higher paying and more strategically focused jobs—roles that are more attractive to today’s workforce and ultimately more aligned to helping develop organizational strategic goals like introducing new products, services and intellectual property.
Aside from the traditional reasons for new technology and equipment, an interesting point emerged. Technology can retain employees and boost morale. Along with the myriad of changing expectations, technology can be another benefit manufacturers offer. Manufacturers that consider how technology can improve the quality of the day to day of various teams can ultimately not only improve efficiency, processes and insight but increase retention and morale.

With some of his marginal dollars, Tom Kleino, President L&L Products anticipated investing in new compounding equipment as well as equipment that his PhD team would like.

Conclusion

Whether their answers were to split marginal dollars between present challenges and future big bets or to go all in on current challenges, the research makes clear that most executives feel that marginal dollars would be best spent at an intersection of strategy, people and technology.

To use an analogy, the research clearly shows that manufacturing investments are a three-legged stool. If they lean too heavily toward one leg without supporting the others, the stool will topple. The ratios of investment might shift from one organization to the next depending on current pain and future growth plans, but not one executive interviewed, or survey respondent identified one magic bullet investment that they’d use all their marginal dollars toward.

As a whole, with extra marginal dollars, manufacturers said they would make smarter hiring decisions that focused on innovation and growth and use automation and technology to close the gap in the labor shortage.

No matter the mix right for them, manufacturers must:

- Identify the roadblocks that are making hiring and retention difficult for their unique situation and then determine a strategy to create incentives, different roles and paths for growth.
- Leverage technology to assist in shifting worker needs and employee satisfaction
- Implement automation to refocus employees into more strategic roles that drive innovation and growth
“What areas of investment would your company consider if you had a marginal $1 million that you could spend on your priorities?”

- New equipment: 61.54%
- Training existing workers: 50.00%
- Operational and process transformation: 42.31%
- Optimizing existing equipment: 42.31%
- Updating existing facilities: 33.65%
- Research and development: 31.73%
- Raising wages/benefits: 31.73%
- Hiring new workers: 27.88%
- Digital transformation: 19.23%
- New disruptive technologies: 19.23%
- Supply chain resiliency: 16.35%
- Acquiring new facility or business: 10.58%
- Other: 7.69%
- New facility: 6.73%
- Service transformation: 5.77%

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