Manufacturing & Logistics
Today’s solutions combine automation, talent

In our Thought Leadership Roundtable, executives at Bastian Solutions and Spot discuss recent manufacturing and logistics challenges and how automation is a solution to many—but not all—of those problems.

Q: What are some of the market pressures today that are pushing manufacturing and logistics companies to automate?

Andrew Elsener: In June, consumer prices surged to a four-decade peak, further pressuring our industry. Operating costs and fuel prices remain high, which hits small carriers and independent truckers especially hard. And customer demands continue to grow, meaning that shippers must provide customized services that are faster and more accurate. With pressures like these, and many others, it’s a necessity to maximize productivity—something that is increasingly difficult with manual processes alone. At Spot, we are problem-solvers and spend every minute of every day working through a variety of freight transportation challenges with shippers and carriers to find and provide the best solution. Thanks to our proprietary software and our team of experts, our solutions are future-focused, helping us achieve our customers’ goals more efficiently.

Matt Kuper: The pandemic completely changed consumer expectations, and those expectations have increased the pressures brands face to maintain service-level commitments. Consumers want in-stock inventory, free next-day delivery, and free no-hassle returns—along with excellent customer support. Paired with those demands, companies are seeing labor shortages, increased wage costs, supply chain challenges and increased freight and shipping costs. These added pressures and changing expectations have companies across the globe wondering how they can compete with global, big-box ecommerce giants. The question for these companies used to be “should we automate?” but now it is “how much should we automate?” A client recently said to us that in their business it’s “innovate or die.” Essentially, you either must automate and move forward or your business is left behind.

Q: How do companies embark on the automation process and make sure it is a worthwhile investment?

Matt Kuper: The discussion around ROI for automation can be a difficult one because the initial investment can be substantial. Many companies are not only weighing the traditional financial aspects of ROI but are also balancing the expectations of their customers and partners. ROI factors have shifted. While headcount has always been an important piece of ROI assessment, now we are seeing it’s not an over-abundance of labor that’s the issue but rather the lack of available workers. Automation cases those labor challenges while also leading to a healthier and safer workplace, which contributes greatly to a reduction in attrition. Another ROI factor not often considered is warehouse space. We’re seeing that warehouse capacity is at an all-time low. This is driving up the cost of storage rates. As companies are making these ROI assessments, they need to consider how they can maximize their existing space to keep storage rates manageable. Automation allows them to rethink and transform that space, with several vertical and compact solutions now available.

Andrew Elsener: While it may be tempting to jump right in, I think it’s important for any company to make sure they understand the needs of their customers first, and then implement an appropriate plan. What challenges are they facing with and what are some gaps in efficiencies? What problem are they trying to solve? At Spot, we realized that having the right technology in place would not only increase efficiency but streamline communication. Rather than implementing a basic out-of-the-box solution, we developed a proprietary software that provided complete visibility into our customers’ supply chain operations. With this solution, our sister company, Red Technologies, was born. We have been able to address many challenges for our customers and offer great services for potential customers. But it began by listening to our customers and understanding their needs.

Q: How does automation change the equation when it comes to recruiting and retaining talent?

Andrew Elsener: We have found that automation in the logistics industry will not replace people. Instead, it will allow them to develop stronger, more efficient processes and provide a better customer experience. At Spot, we believe in providing the best experience. Our technology is only as good as the people that use it. While headcount has always been an important piece of ROI assessment, now we are seeing it’s not an over-abundance of labor that’s the issue but rather the lack of available workers. Automation cases those labor challenges while also leading to a healthier and safer workplace, which contributes greatly to a reduction in attrition. Another ROI factor not often considered is warehouse space. We’re seeing that warehouse capacity is at an all-time low. This is driving up the cost of storage rates. As companies are making these ROI assessments, they need to consider how they can maximize their existing space to keep storage rates manageable. Automation allows them to rethink and transform that space, with several vertical and compact solutions now available.

Andrew Kuper: For many years, the automation focus was on how to reduce costs, but now we’re also applying automation as a response to the labor availability problem. Being able to get orders out the door on time given seasonality and demand spikes, has become mission-critical, and now there just isn’t enough available labor. Not only does automation allow you to meet customer demand more consistently and reliably, but your employee retention will increase as you are able to reallocate your workforce to more fulfilling work and leave the more dangerous, monotonous, and repetitive jobs to automation.

Q: What role do third-party logistics companies play in the overall automation mix?

Andrew Elsener: Many retail and e-commerce companies employ...
Andrew Elsener: The logistics industry plays an essential role in Indiana’s economy. With an estimated 127,000 jobs, Indiana’s logistics and transportation industry accounts for just over 4% of the jobs in the state. Additionally, IEDC recently reported that $650 billion in goods moves through Indiana annually. There is an undeniable opportunity for Indiana to capitalize on the logistics industry. For Spot, Indiana’s location as a transportation hub provides proximity to many customers and carriers while having the added benefit of a solid local university network that provides the top talent we need to continue growing.

Matt Kuper: With Bastian Solutions being in the global supply chain, we see every day how impactful the economic reach of materials handling is. This is especially exciting for us because our roots are in Indiana. Our global headquarters is in Carmel, along with three manufacturing sites in Westfield, Greenfield and Indianapolis. We also hire heavily from Purdue, Rose-Hulman and Notre Dame. Along with that, at our manufacturing sites, we are keeping Americans and especially Hoosiers in stable jobs. From Indiana’s excellent colleges and especially Hoosiers in stable jobs. From Indiana’s excellent colleges to supporting innovation on a global scale, it starts and grows here in the Hoosier state!

Q: What other challenges are manufacturing and logistics companies facing today?

Andrew Elsener: There is never a dull moment in logistics as we’ve seen with record high inflation and operating costs mixed with port congestion and inventory capacity issues. In 2021, demand for truck and trailer space surged as individual spending patterns shifted away from experience-based purchases (travel, concerts, etc.) and toward acquiring consumer goods. We now see that trend reversed as people are more open to experience-based purchases. This has caused volatility within the logistics industry. Additionally, many new operators who recently joined the industry are unlikely to have seen a market downturn or run a business in the middle of one. They may have bought their trucks and hired drivers at peak market pricing.

Matt Kuper: Supply chain challenges remain rampant. Companies continue to face a shortage of materials, extended shipping times and volatility at every stage of a product’s creation—raw materials through delivery. All these challenges create ongoing uncertainties, price increases and customer dissatisfaction that greatly impacts a business’ viability.

Q: What are some of the most exciting innovations today in manufacturing and logistics?

Matt Kuper: These past few years have felt like a second industrial revolution. We are seeing new technologies enter the marketplace every day. It’s an exhilarating time to be a part of the manufacturing and supply chain industry. At Bastian, we are excited about the increased interest and development in AGVs (automated guided vehicles) and AMRs (autonomous mobile robots). AGVs and AMRs provide a more flexible and reliable alternative to conventional material transport methods involving fork trucks, static conveyors, and manual transport. Market pressures have increased the speed of innovation. This is one area where technologies have and continue to mature. They are incredibly safe, highly flexible, have improved space utilization and are relatively fast and easy to install. Another rapidly growing technology is in robotics. Robotic arms have been around for years, but with the addition of AI technology those robots can see various types of products and make specific selections with 99% accuracy and with incredible speed.

Andrew Elsener: Innovation is critical for success in the logistics industry. While exciting things are happening with automation, autonomous and electric vehicles, and more, we are most excited about the people we work with daily. At the end of the day, we are a people business, a business based on relationships. At Spot, we stay at the forefront of innovation to allow our people to excel in their careers while driving more business for our customers.

Q: Talk a bit about the importance of manufacturing and logistics to Indiana’s economy.

Andrew Elsener: Co-founded Spot in 2009 with business partner Andy Schenck. He is primarily responsible for the oversight of all sales, marketing, communications, and customer service-related functions while setting strategic growth initiatives. Prior to Spot, Andrew managed another logistics brokerage and taught high school biology. Outside of work, he is an avid reader and enjoys spending as much time as possible with his wife and five children.

Matt Kuper: Vice President of Global Sales and Applications at Bastian Solutions, a Toyota Advanced Logistics company. Matt joined Bastian Solutions in 2013, overseeing some of the company’s largest and most complex integration projects. In his current role he manages the sales departments, researches new business and client opportunities, and builds positive relationships with clients.

3PLs to keep up with high customer expectations. As these consumer demands grow, so does the pressure on 3PLs to provide more customized services and faster delivery. To overcome the challenge of meeting current client needs while also growing their business with new customers, 3PLs must maximize productivity with efficient operations. This is becoming increasingly difficult with manual processes. When armed with the right automation tools, 3PLs can increase productivity and efficiency across the supply chain, resulting in more sales for the client and faster, more accurate orders for the end customer. At Spot, this is precisely what we have done with our sister company, Red Technologies. Our transportation management system provides visibility into shippers’ transportation spend and streamlines operations. Our carrier portal allows unlimited access to a carrier’s freight, all in one place. The system was once a frustrating process. We have built a mobile app for drivers that will enable them to spend less time hunting for work and more time hauling freight, no matter where they are in the country. Dynamic and innovative solutions like these are precisely what our customers are looking for. These are the solutions we are passionate about delivering.

Matt Kuper: 3PLs are a great option for companies that want to improve inventory management, warehousing or fulfillment when those areas of focus are not part of the company’s core competencies. 3PLs can also be a great option if the company has a commodity that has unique requirements like refrigerated or freezer storage, or kitting of products. Also, if a business sees a lot of seasonal surges requiring additional labor or on-site storage to successfully meet consumer expectations and delivery times, 3PLs can better flex to achieve these spikes in demand. Think of Black Friday holiday peaks or back-to-school summer sales as great examples.

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