FOREST PRODUCTS: THE SHIFT TO DIGITAL ACCELERATES
INTRODUCTION

While the digital revolution has transformed many industries, its impact on forest products companies has been relatively limited, as the industry has lagged behind others in making investments in digital technology. But that appears to be changing, according to recent Accenture research.

In an Accenture survey of industry executives, a large majority of respondents—82 percent—said that their investments in digital have been increasing, and 88 percent said they plan to continue to grow those investments in the next three years. About 1 in 5 expect those investments to increase by 25 percent or more.

Executives foresee a range of benefits from those investments. But they also appear to be driven by a recognition that the technology is rapidly reshaping the industry landscape. When asked about the downside of not investing enough in digital, they most often cited “lost opportunities for market share growth” and “loss of competitive advantage due to cost.” In short, digital technology is becoming a fundamental necessity in the industry.
THE INDUSTRY'S APPROACH TO DIGITAL TECHNOLOGY

Today, forest products companies are investing in digital technology across the organization. However, they are most often focusing their digital efforts on quality management (cited by 62 percent) and IT (59 percent), followed by production execution and the supply chain.

Currently, forest products companies are using a variety of digital technologies, but cloud is the most widely deployed, with 61 percent of respondents having adopted it or piloted it in their organizations. However, companies seem to be shifting their focus to other technologies—in particular, analytics, artificial intelligence (AI) and advanced process control (APC). Executives see these three technologies as being strategically important and having a positive impact across a wider range of activities (e.g., quality management, maintenance, etc.), compared to other technologies. They also see them as having the greatest potential for overall return on investment. Not surprisingly then, analytics, AI and APC are expected to be the top areas of digital investment over the next three years.

These findings suggest that the executives feel that the shift to the cloud is well in hand, and they now are focused on the next phase of digital adoption. For example, forest products companies have been capturing large amounts of data from process control systems for years, especially in paper mills. Analytics and AI will enable them to make effective use of that data to improve operations. And by extending the use of APC from paper mills to downstream converting operations, they will be in a better position to take advantage of data-driven intelligent automation, which will not only increase efficiency, but also help address growing shortages of skilled production labor.

When asked about the potential benefits they see from digital technology, executives most often cited predictability in manufacturing, and greater service differentiation. These were followed by improved ecosystem collaboration, more effective operations and plant management, and faster process/reduced lead time to market.

But executives also see challenges to realizing these benefits, such as a lack of internal data management capabilities or the immaturity of digital technology. However, data security concerns topped that list, with operational reliability being viewed as a key area of cybersecurity risk.

Forest products companies are not especially confident about their ability to deal with growing cybersecurity threats. More than half of the respondents said their organizations are not able to execute various cybersecurity activities, such as managing financial risk from breaches, minimizing disruption from a cybersecurity breach, and identifying the cause of a breach. Most forest products companies (83 percent) track cybersecurity breaches. However, while 39 percent said breaches were successfully detected within hours, more than half (55 percent) said that it took days, weeks or months to do so.

Almost all (94%) are able to determine the financial value of using digital in their organizations.
TAKING ACTION

As forest products companies proceed with their digital initiatives, they need to think not only about the technology itself, but also about how that technology works in the organization. That means employing change management techniques to help employees succeed with new tools; re-thinking operating models to take advantage of new capabilities; and finding ways for people and technology to work in concert.

Take, for example, the emerging concept of the connected industrial worker. Using mobile, sensor, analytics and wearable technologies, companies can track workers’ locations, and provide them with vital information and expert advice about procedures as they work. This approach—which has already found success in other asset-heavy industries such as mining, oil and gas, and chemicals—promises to improve productivity, decision making and safety, while helping to increase asset efficiency and reduce operational costs.

At the same time, forest products companies need to keep an eye on evolving digital technologies. For example, rapidly emerging blockchain technology now allows parties across the value chain to work with one set of shared data that is accurate, secure and automatically updated. Blockchain could be used to track and certify fiber from the wood yard through processing, the customer and back, which is key to sustainability and circular economy efforts.

To stay ahead of it all, forest products companies need to move beyond piecemeal approaches and develop comprehensive digital strategies. Typically, these should take a two-pronged approach: using digital to enhance and expand today’s existing technology core; and using digital to create entirely new business models and new revenue streams enabled by a collaborative value chain.

Digital technology promises to disrupt the forest products industry, but at this point, no forest products company has wholeheartedly made the move to digital. As the research shows, however, the technology is taking root. When one company embraces digital across its organization, others are likely to follow quickly. This disruption is likely to be sudden and deep—which means being ready to move quickly will be key to staying competitive.
ABOUT THE SURVEY

Accenture conducted an online survey of 200 C-level and top management executives and functional leaders in the forest products industry. The survey focus was on the use of, and investment in, digital technologies in the forest products industry. Data for this study was carried out through a global quantitative online survey that focuses on companies with global annual revenues greater than $500 million and who currently leverage digital technologies and/or are pursuing digital transformation, including but not limited to cloud, analytics (including big data and edge computing), mobility (including wearables), advanced process control, artificial intelligence/machine learning, collaboration and social tools, intelligent/smart sensors, robotics and industrial cybersecurity. The survey was fielded between October and November 2017 and included executives from forest products companies headquartered in Australia, Brazil, Canada, Finland, Indonesia, Malaysia, Norway, Singapore, Sweden and the United States.

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