



Building products manufacturers get “smart”

Invest in technology to get—
and stay—ahead of your
competition

Digital developments

The construction industry is stereotyped as being a bit behind the times—deals get done with handshakes, facilities are run by paper, progress is tracked on white boards. While there is, or at least was, a kernel of truth that Luddites are in charge, many players across the industry have made tremendous investments in digital capabilities over the past few years to handle the challenges posed by the pandemic, raw material shortages, labor shortages, and now a very volatile construction end-market.

KPMG conducted a survey of 100 building material manufacturing executives across the U.S. to learn what digital capabilities had been implemented—and to find out what is in the pipeline for the next few years. We asked about a wide range of digital capabilities, spanning from construction design, sale, fulfilment, and post-sale support, to get more insight than the ever-present but vague “digital transformation” banner.

Among the highlights of the results:

- Building Information Management (BIM) integration (91 percent), e-commerce-like capabilities (89–98 percent), and Internet of Things (IoT) on the production line (98 percent) were the most commonly adopted technologies
- Online delivery (re)scheduling (62 percent), AR/VR for design (49 percent), and connecting internal data sources (64 percent) are the biggest gainers in interest for the next few years
- Increasing competitive advantage (75 percent) is the top reason to implement these technologies, followed by desire to reduce cost (56 percent)

With an uncertain economy and declining residential construction activity, many building materials manufacturers may be tempted to cut back spend, including on technological investments. Our experience suggests that many of these investments generate both cost and revenue benefits, and can be structured to achieve payback in limited time frames.

Before jumping on the “digital transformation” bandwagon, it is imperative to understand and answer:

- What is your business case—what value will this change unlock?
- What are your competitive benchmarks—will you close the gap, or leapfrog ahead?
- What are your customers’ perspectives—how will they react to the change?
- How will this work—what is the implementation plan, and what will it require from your team?

The KPMG Engineering & Construction team advises building materials manufacturers on these challenges.

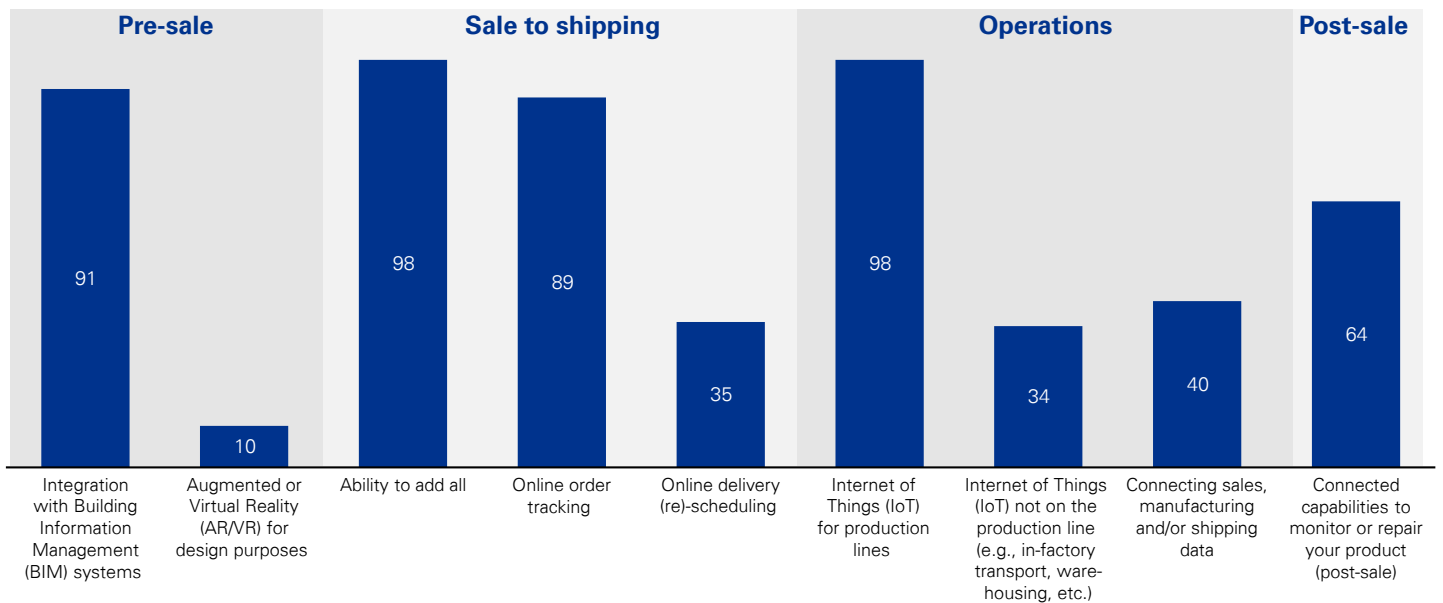
Overall results

KPMG surveyed 100 building material manufacturing executives in the U.S. to understand what technological investments they had made—or were planning to make—and for what reasons

We broke down categories of technology across the product journey, from pre-sale (design, specification, and customization) to sale and shipping, operations, and post-sale support. Over 90 percent of respondents reported their company had deployed four categories of technology (see Exhibit 1):

- Integration with BIM systems
- Ability to add all items from design into shopping cart
- Online order tracking
- IOT for production lines

Exhibit 1: Technologies implemented by building materials manufacturers



Looking to the future, building materials manufacturers remain committed to technological improvements, with 50 percent planning to invest in at least one area over the next three years (see Exhibit 2). This high level of interest, even at a time of market uncertainty and declining demand, marks the strategic advantage of technological improvements for building materials companies.

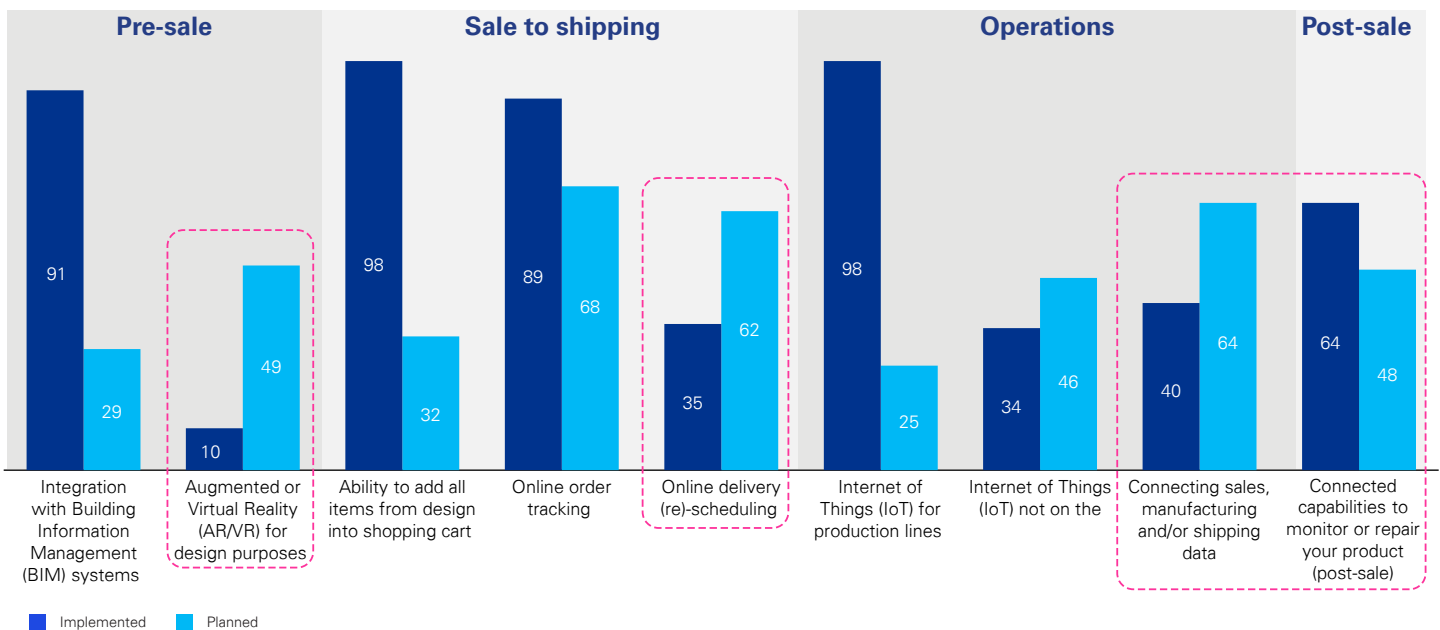
However, they appear to be shifting their focus—the top “gainers” (those with largest difference between past and future values) include:

- Augmented or virtual reality for design purposes (+39 percent)
- Online delivery (re)scheduling (+27 percent)
- Connecting sales, manufacturing and/or shipping data (+24 percent)

Online order tracking (already implemented in some form by 89 percent of respondents) will continue to see investment as new or improved capabilities are rolled out by 68 percent of respondents, making it the most popular planned technological improvement.



Exhibit 2: Technologies in plan (versus already implemented) by building materials manufacturers



Four surprising insights

1

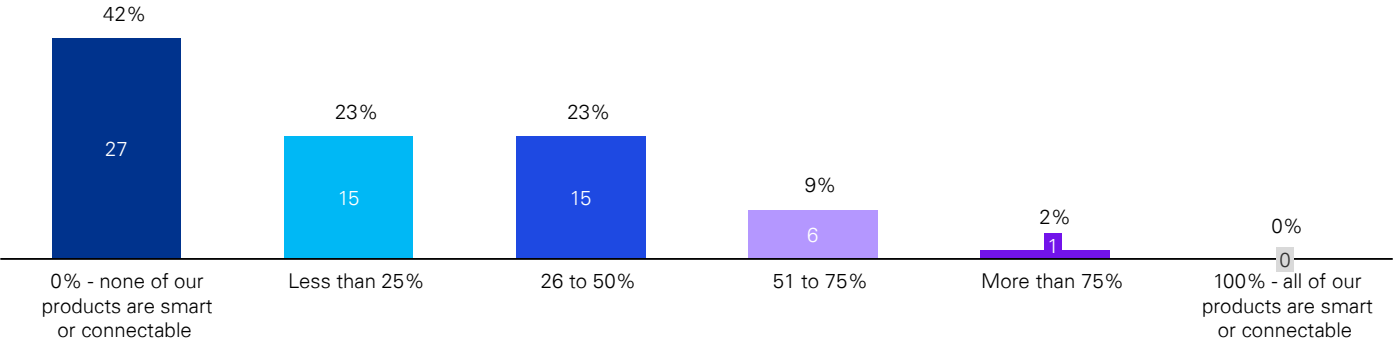
Connected capabilities can work without “smart” products

We were expecting post-sale connected capabilities to monitor or repair your product to only be applicable to “smart” products (such as air conditioners, thermostats, security systems and the like). However, 42 percent of respondents that have already implemented connected

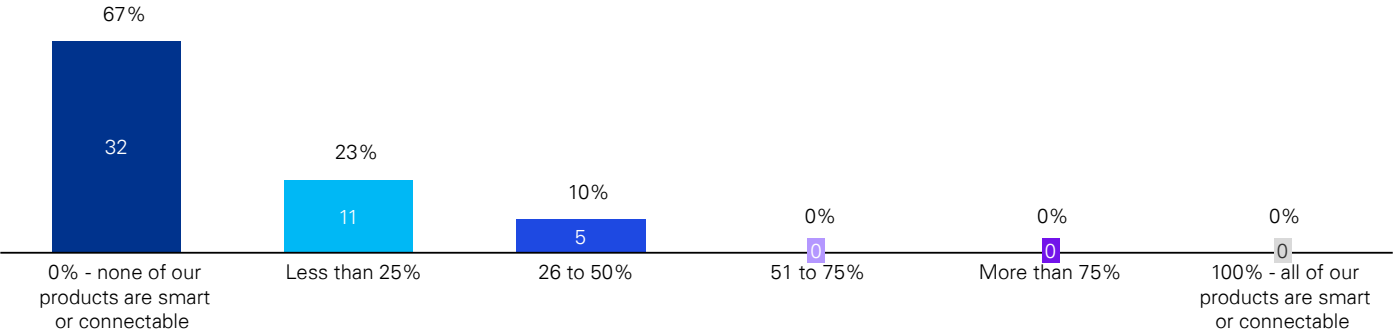
capabilities and 67 percent of respondents who plan to implement these technologies in the next three years have no products with any smart features. This demonstrates that digitally-enabled, post-sales support is an opportunity for any building materials manufacturer.

Exhibit 3: Share of revenue from “smart” products within companies that have implemented and plan to implement connected capabilities

How much revenue comes from ‘smart’ or ‘internet-connectable’ products within companies that **have implemented** connected capabilities to monitor or repair your product?



How much revenue comes from ‘smart’ or ‘internet-connectable’ products within companies that **are planning to** implement connected capabilities to monitor or repair your product in the next three years?



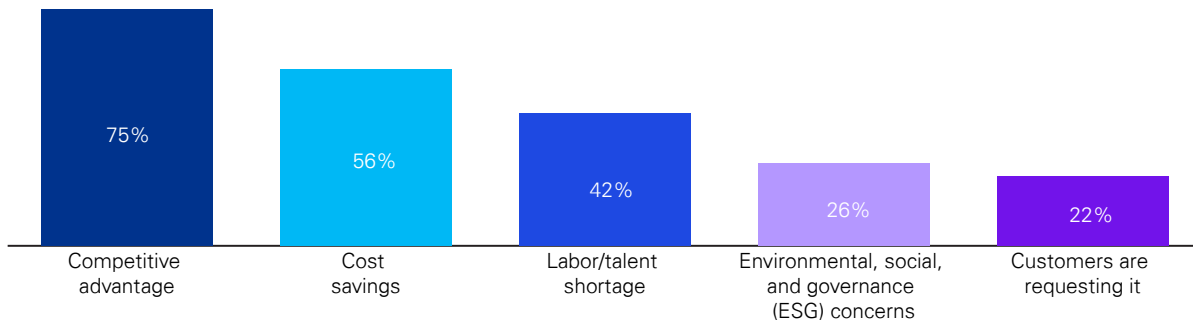
2

Technology can drive both revenue and cost benefits

Building materials manufacturers who plan to implement new technologies report that competitive advantage (75 percent), cost savings (56 percent), and labor/talent shortage (42 percent) are the largest influences behind

their decision, which demonstrates a tight focus to deliver a high return on investment through increased revenue or reduced costs. Of note, the reasons did not differ significantly across technology or company types.

Exhibit 4: Stated reasons for implementing new technologies, multiple selections allowed



3

AR/VR technology is in addition to—not a replacement for—outreach teams

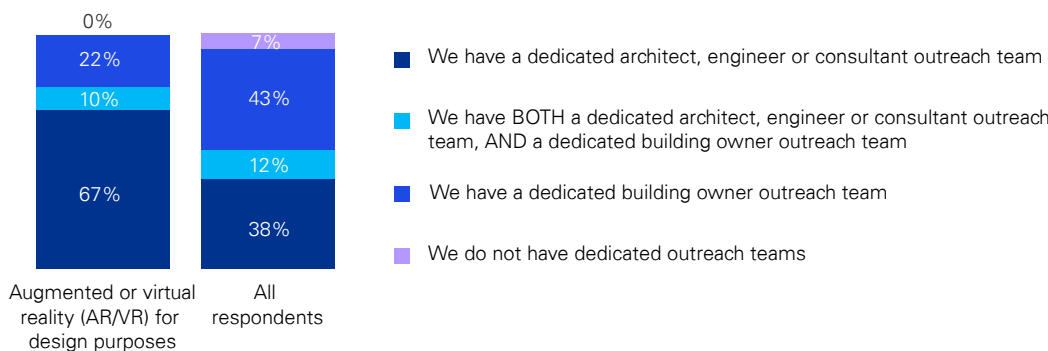
New technology can sometimes be perceived as a threat. Just consider how many news headlines you’ve recently seen about the artificial intelligence chatbots capable of writing everything from code to sales prompts to college essays. We wanted to explore the role of AR/VR in the sales process for building materials manufacturers, and whether it would displace the role of sales support teams, such as the dedicated architect, engineer, or consultant outreach teams who help shape the building specifications.

Instead, what we found is that 78 percent of companies investing in AR/VR technologies and remote monitoring to help the pre-sale process have dedicated architect, engineer, or consultant outreach teams. This is higher than

the general average of 50 percent of respondents with the same teams but without the technology in place. It therefore appears that companies are making investments in AR/VR technologies to “supercharge” the outreach teams’ efforts (not replace them).

We expected the presence of a building owner outreach team to increase post-sales technological activities (e.g., remote monitoring or maintenance), but we were surprised that it didn’t turn out to be a statistically significant finding. Post-sales support was also more prevalent for companies with pre-sale outreach teams, suggesting that those companies may have an more customer-centric culture overall.

Exhibit 5: Presence of pre-sale support teams at companies planning AR/VR technology implementations, versus all others





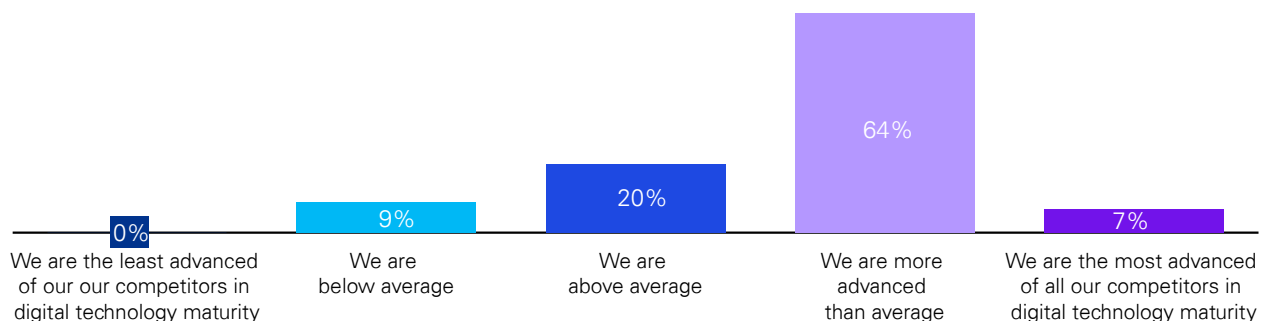
4 Companies overestimate their technological sophistication levels

Executives were asked “Where do you think you stand, compared to your direct competitors, in terms of your digital technology maturity?” Seventy percent of respondents believe they are more advanced than average, or the most advanced in terms of technological maturity compared to their direct competitors (though by definition, that is impossible, as only 50 percent can be “above average”). Further, no respondents staked a claim to being the “least advanced of all our competitors in digital maturity.”

The more technologies a company selected as “implemented,” the more likely they were to self-rate as being above average or best-in-class in terms of their technological maturity compared to competitors.

While quantity certainly helps, quality of execution is a determining factor in how effective these technologies are. And, unfortunately, with technological deployments being so broad-based across the industry, competitors may be more advanced than companies expect.

Exhibit 6: Respondents self-rating of their companies’ technological maturity as compared to competitors



What this means for building products manufacturers

Building materials manufacturers and the overall construction ecosystem may not realize the extent to which their competitors have already embraced technology across all areas of the company. For some, this may be a needed wake up call to reassess internal capabilities and understand whether competitors are gaining market share and/or profit margins.

While it may be tempting to delay investment in technology in periods of slow demand, this may be the perfect window of opportunity to redirect some internal “bandwidth” to these projects. In addition, improvements to the customer experience or internal productivity can

rapidly and tangibly translate into margin and market share expansion opportunities and would better prepare the business to keep up with the volume increases once demand comes roaring back.

However, a deep understanding of building materials manufacturing, and the overall construction ecosystem, is required in order to formulate a compelling and believable business case for the investment. The Engineering and Construction team at KPMG has deep experience supporting building material companies through business and operating model evolutions.

How KPMG can help



Diagnostic

Assess digital capabilities and opportunities, and determine what you need to be competitive and define what is possible



Market assessment

Compare digital capabilities against competitors



Implementation planning

Identify how to stand up new technologies quickly and minimize disruption



Provide systems execution support

Roll out these new technologies

Authors



Serena Crivellaro

Managing Director, Advisory

Serena helps clients design and execute winning growth strategies to get—and stay—ahead of the market. She knows that technological disruptions can be a challenge and a growth opportunity, and works with clients across the construction value chain with a focus on building materials manufacturers. As the U.S. lead for Deal Advisory and Strategy in Construction, she supports clients on both organic and inorganic growth opportunities.



Len Prokopets

Managing Director, Advisory

Len helps Global 1,000 manufacturers define and transform advanced service business capabilities and product supply chains. As the KPMG U.S. lead for Industrial Manufacturing Aftermarket and Field Service, he spearheads the development of process, organization, technology, and data capabilities to support an increasing range of service delivery, contracting, and revenue models. Additionally, he brings expertise in analytics, automation, and supply chain optimization.

We would like to thank our contributors:

Jenna Miller, Monika Juzwiak , Michael Gelfand, and Katherine Wheeler

For more information, contact us:

Serena Crivellaro

Managing Director, Advisory

347-873-9429

scrivellaro@kpmg.com

Len Prokopets

Managing Director, Advisory

203-233-9077

lprokopets@kpmg.com

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