

THE 2019

Building Product Manufacturing Benchmark Report

20 Essential AECO Insights
Changing the Building Industry



“

SmartBIM is made of AEC, marketing, sales and product professionals who understand that digital content is the currency of commercial buyers. ”

- Kip Rapp CEO of SmartBIM

SmartBIM's mission is to provide industry-leading solutions for manufacturers of building products that enable more effective relationships with their commercial customers. SmartBIM's Design Portal is the only platform purpose-built for manufacturers to provide up-to-date technical product content for the entire design journey on their website, where the AECO community expects it.

To learn more about how to create brand loyalty with your commercial customers, visit us at www.smartbim.com. We would be happy to show you how many of the world's leading manufacturers rely on SmartBIM to optimize the digital journey for their commercial customers.

SCHEDULE A DEMO >

Manufacturers Who Rely on SmartBIM Solutions:

CertainTeed



HunterDouglas



General Cable

Armstrong

AIREX

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1. INTRODUCTION

The U.S. manufacturing industry is one of the largest in the world, producing [18.2 percent of the world's goods](#). Its importance in the global economy is exponential, with the manufacturing gross domestic product in 2018 coming in at \$2.33 trillion, and driving 11.6 percent of U.S. economic output, according to [the Bureau of Economic Analysis](#). On top of that, manufactured products and goods constitute half of U.S. exports. By every statistic available, the manufacturing industry is driving significant amounts of business throughout the country.

But what's driving you, the building product manufacturer?

The market is driving manufacturers, and in this case, the market consists of architects, engineers, contractors, and owners (AECO). They are all pushing for greater efficiency, cost savings, productivity gains, and risk mitigation.

However, sales and marketing for a manufacturer are unique because products are sold direct as well as through a complicated omnichannel design-build process. Selling through an omnichannel design-build process is now more technical in nature and shows no signs of slowing down. The digital transformation in this industry is manifesting through technical product content. And that is precisely where workflows can slow or speed up and exactly where manufacturers can differentiate themselves by providing an Amazon-like experience for the AECO's.

In today's marketplace, your commercial customers expect a streamlined shopping experience on your website, and you as a marketer have to be armed with the insights and analytics to give your customers the buying journey they deserve.

To deliver the optimal buying journey, you're going to need the data about what your customers are looking for, as well as their business interests and how they're interacting with your technical product content. **If you're not measuring what your customers are asking for, what they're looking for, or how they're getting what they're interested in, then you're in the dark when it comes to predicting your customer's behavior.**

At SmartBIM, we understand the sensitivity of a frictionless workflow on the front end, and we also understand how important it is to provide clients with the analytical information about engagement on the backend. With both of these opportunities, manufacturers can optimize the analytical information needed to market to their customers in the most efficient and streamlined way, and use the information they learn to build a smarter, more effective marketing strategy.

Recently, we conducted extensive research on how AECOs are interacting with manufacturers and the industry. Here's a breakdown of the audiences that participated:

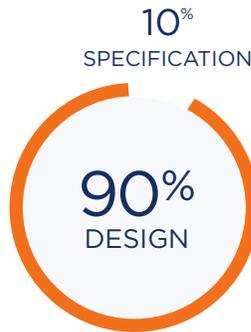
Out of 4931 U.S.-based professionals, 145 completed the survey:



23 had BIM in their job title. Positions ranged from drafter to director.



NICE DISTRIBUTION
ACROSS THE U.S.
**MOST FROM NYC,
COLUMBUS AND D.C.**



VAST MAJORITY
DOWNLOADED BIM
IN DESIGN AND
SPECIFICATION PHASES:
**90% IN DESIGN,
10% IN SPECIFICATION.**

How to Interpret and Apply What We Found

This proprietary study was conducted to examine the expanding importance and role of technical product content, including BIM and its relationship between the manufacturer and their commercial clients. To do this, we examined many different points that relate to the design and construction process in terms of customer experience, engagement, and content delivery. Here's what we'll cover:



What You Need to Know

This benchmark report was designed as a baseline study to help you improve your relationship with your commercial customers. **This study represents how the best performing strategies can help you identify gaps in your company's process and achieve a competitive advantage.**



Practical Application

Throughout this report, we offer many suggestions, pro tips, and takeaways from each data point. Before implementing any strategy surrounding these benchmarks, **we recommend that you first determine your own company goals and outline where you would like to improve.**



Additional Resources

We have included a section with additional resources that can help bring clarity to our findings, keep you updated on the latest industry news, and provide relevant marketing insights that you can implement in your overall strategy.

2. THE STATE OF THE INDUSTRY

Section 1: Building Product Content

According to AIA, **as much as 85% of architects visit a manufacturer’s website first because they find the information is more reliable than an aggregate marketplace.**

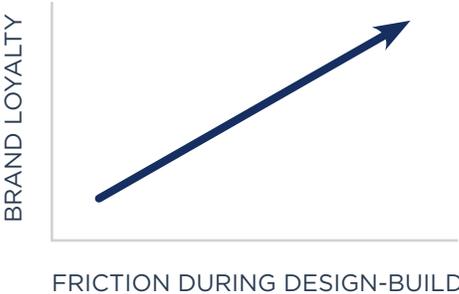


OF ARCHITECTS VISIT A MANUFACTURER’S WEBSITE FIRST.

In our own research, we found the exact same thing, but there’s more: **Architects will visit a manufacturer’s website on average 4-5 times, and many visit over 6 times during the same project.**

Observation

Specifying architects prefer the experience of working directly with the manufacturer. However, most manufacturers are still relying on aggregate marketplaces to reach their consumers.



Takeaway

Architects are people too! In a digital-first world, they expect the same thing as any other consumer or professional — as little friction as possible. There are so many more technical content pieces involved in the design-build process that NOT having them consolidated in one place and on your website creates a convoluted workflow.

Consider This

Use aggregate sites sparingly and only if you can correlate the traffic directly to an increase in business. Because they are 3rd party providers, they can’t deliver insights into buyer behavior, and you have to compete with every other manufacturer without a clear way of differentiating your products and services. The best way to distinguish between unique traffic is to never link out to an aggregate site from your own pro marketplace. Instead, create your own marketplace on your own website. Some manufacturers try to accomplish this through an iframe from an aggregate site which is less than optimal. In addition to a diminished experience, an iframe is typically not mobile responsive and doesn’t provide SEO benefits.

Primary Use for Content Downloads

What is the primary use for content downloaded from an aggregate library?



GENERIC
(DESIGN)



CONSTRUCTABILITY
(PROJECT READY TO BUILD)



SPECIFICATION
(SELECTING SPECIFIC PRODUCTS)



What is the primary use for content downloaded from a manufacturer's site?



CONSTRUCTABILITY
(PROJECT READY TO BUILD)



SPECIFICATION
(SELECTING SPECIFIC PRODUCTS)



GENERIC
(DESIGN)

User Challenges

When asked about the challenges associated with trying to find accurate and up-to-date technical product data/assets for downloading, **47% of respondents mention issues related to Revit.**



OF RESPONDENTS
MENTION ISSUES
RELATED TO REVIT

Takeaway

The most significant challenges for specifying architects come from outdated, inaccurate data that is also hard to find. Several AECOs mention poorly built Revit families, and this significantly increases the possibility that a customer will not return to a site, product, or brand.

Consider This

Poor quality information has many causes, but here are the top three reasons:

- Manufacturers typically don't have Revit so they cannot edit the information in the Revit files.
- They can't even verify the information in the Revit files.
- Even if they have Revit, they don't have an organizational tool to manage the content and easily publish it to their website.

Many manufacturers don't have an organizational tool for their data files or haven't considered it because until recently, there has been no tool to accurately and efficiently manipulate the information beyond Revit itself, which requires an FTE and advanced training. However, those tools do exist now, and with the appropriate system, you can significantly decrease the risk of delivering incorrect product information.



Content Reliability

Reliability of content is scored at an average of **7.53 out of 10 for manufacturers' websites versus an average of 6.6 out of 10 for aggregate sites.**



AVERAGE CONTENT RELIABILITY RATING FOR **MANUFACTURER'S SITES**



AVERAGE CONTENT RELIABILITY RATING FOR **AGGREGATE SITES**

Observation

26% gave the reliability of content from the manufacturer's website a score of 9 or 10, versus 14% who gave the same high score to aggregate libraries.



RATED **MANUFACTURER'S SITES** 9 OR 10 FOR CONTENT RELIABILITY



RATED **AGGREGATE LIBRARIES** 9 OR 10 FOR CONTENT RELIABILITY

Takeaway

The main reason for going to an aggregate website is that all the manufacturers are consolidated into a central location. As retailers like Amazon have become more popular with digital shoppers, we understand that aggregate marketplaces offer simplicity and more choices for a consumer. But because architects prefer manufacturers during the product specification phase for the most up-to-date and accurate content, manufacturer's websites have the advantage.

Consider This

This statistic makes one thing crystal clear: Manufacturers have a unique opportunity to have content on their own site and build a direct relationship with the customer. If an architect visits a manufacturer's website and has a consolidated experience, the architect is going to dramatically improve the project workflow not just for themselves, but for the engineers and contractors who follow them on the project. By providing added value, manufacturers can become the authority on their own content, and architects will know that working directly with the manufacturer is the most simple, and accurate process. This can be done by hosting your own marketplace and providing unique options and products to your professional/commercial customers on your own site.

How AECOs Use Manufacturer Websites

Importance of Assets (out of 10):

BIM	9.02
Cut Sheets	8.26
Specifications	7.84
Submittals	7.46*
CAD	7.00
Sustainability	5.61
Warranty	5.40
Brochures	4.80



How often do you interact with a manufacturer's website over the duration of a project?

19%	1-2 Times
41%	3-4 Times
15%	5-6 Times
23%	More than 6 Times
2%	Never

How often do AECO'S use a manufacturer's website tools?

59% of AECOs use a tool from a manufacturer's website for submittals.



USE A TOOL FROM A
MANUFACTURER'S WEBSITE
FOR SUBMITTALS



Specs - BIM Integration

Only 28% of AECOs tie their specs to their BIM.



OF AECOS **TIE THEIR SPECS TO THEIR BIM**

Observation

Most architects are still using the old workflow of completing a drawing in AutoCAD or Revit, and then manually tagging everything based on the scale on their firm's standard conventions. This product selection journey is often completed in three different ways: 1.) The architect provides generic information about a product, such as "black toilet bowl," 2.) An architect who uses a particular brand may call out only the brand name as a placeholder, such as "Kohler," 3.) The architect provides significant detail in the product description, such as the model number, the valve size, the tank measurements, and more. Because of these different methods, when a spec writer is tasked to research and assign an actual product in the construction document phase, the best product may not fit into the early descriptions.

Takeaway

There is a great opportunity here for manufacturers to optimize their product information and provide architects with a complete information model as early as the product research phase. If manufacturers can supply the necessary information directly to architects before they begin two-dimensional illustrations, then the original product is more likely to remain in the project. Providing this detailed information efficiently and accurately is one of the biggest challenges of the industry, but with the proper tool, it can be a reality.



Technology Trends

Only 3% of AECO firms use software to manage and organize technical product content that they've downloaded, and over **80% of AECOs store their content on a network drive, while 12% use a local computer.** One person even said that they only keep hard copies printed out. On top of that, 98% said that they would be interested in a tool that helped them manage the technical content required for projects.



OF AECO FIRMS **USE SOFTWARE TO MANAGE TECHNICAL CONTENT**



OF AECOS **STORE THEIR CONTENT ON A NETWORK DRIVE**

Takeaway

We asked this question because we were curious: How are AECOs using specific tools to make their process more efficient? What our research found is clear: **97% of AECOs are not utilizing the latest technology to streamline their process, but are instead working in a manual mode that increases their production time.**



OF AECO FIRMS **ARE FORGOING TECHNOLOGY FOR MANUAL PROCESSES**

Consider This

Outside of just providing better information, manufacturers can also support the building community by providing a digital tool that is simple and easy to use. With an internal library of product information hosted on their own website, manufacturers can help AECOs streamline their overall internal process and address all of the challenges that are associated with hard copies, including unsearchable product files, inaccurate data, difficult-to-find products, and an unnecessarily complicated process. Product Content Management Portals hosted on manufacturer websites are not yet the standard, but they are the future. B2B shoppers are becoming increasingly similar to B2C shoppers in terms of wanting information readily available where they are already looking for these products.

Section 2: Building Information Modeling (BIM)

On average, **71% of AECOs use a BIM workflow, and 90% of their process is in BIM.**



OF AECOS **USE A BIM WORKFLOW AND...**



OF THEIR PROCESS **IS IN BIM.**

Takeaway

As a manufacturer, you can (and should) be providing BIM data to whatever platforms your products are currently available on. This statistic proves that the time efficiencies, productivity improvement, risk mitigation, and cost savings of utilizing BIM as a workflow is worth the investment.

Consider This

Conflicts are going to come up during a project lifecycle, but they don't have to be product content related. By supporting the design community with updated and accurate content in a BIM workflow, you can optimize your market share and reduce the risk of "breaking the spec."

“ The time efficiencies, productivity improvement, risk mitigation, and cost savings of utilizing BIM as a workflow is worth the investment. ”

LOD Expression

54% of respondents get their construction details directly from the 3D model, and this is true for LOD 300 and above (Level of Development, Construction Document) level modeling. But in addition to that, only **36% could express the LOD-level of their typical model as a correct LOD** (100-500) or architectural scale (1/8th scale, 1/4th scale, etc.). Out of these answers, most indicated LOD 300, 350 or 400 in roughly equal proportions.

LOD 300

The model element is graphically represented within the model as a specific system, object, or assembly in terms of quantity, size, shape, location, and orientation. Non-graphic information may also be attached to the model element.

LOD 350

The model element is graphically represented within the model as a specific system, object, or assembly in terms of quantity, size, shape, location, orientation, and interfaces with other building systems. Non-graphic information may also be attached to the model element.

LOD 400

The model element is graphically represented within the model as a specific system, object, or assembly in terms of size, shape, location, quantity, and orientation with detailing, fabrication, assembly, and installation information. Non-graphic information may also be attached to the model element.

***PRO TIP:** LOD 300-500 address highly-detailed manufacturer content, not generics.



Observation

The fact that **only 36% of respondents could express what LOD they are working** is a startling discovery. As explained in the previous statistic, **71% of respondents are working with a BIM workflow**, but according to the responses here, **less than half of them are experts in it.**



CAN EXPRESS **WHAT LOD**
THEY ARE WORKING

Takeaway

What this indicates is that the current BIM workflows are not optimized to provide users with the content they need, when they need it. They are overly complicated and difficult to use. Though the majority of respondents were not able to express what LOD they are working on, LOD 300-500 are still becoming increasingly relevant information models, and are being used in projects more and more — not less and less. These high-level, detail manufacturing content models are essential during the later stages of the product life cycle.



ARE WORKING WITH
A BIM WORKFLOW

Consider This

BIM information is challenging to organize and utilize — there's no doubt about it. However, because it's becoming increasingly essential to the project lifecycle, it's only getting more popular. What does this mean for manufacturers? It means there's an opportunity to provide a solution to the poor organization. The best way to do this is to provide an efficient tool for managing and delivering your product data to your end user. By utilizing a platform that organizes, streamlines, and automates the download process like SmartBIM, you'll be lightyears ahead of your competition by providing a better customer experience.



ARE EXPERTS IN
BIM WORKFLOW

BIM + Scheduling

68% of AECOs get their schedules automatically from BIM.

Takeaway

By having all BIM assets going straight to their schedules automatically, the majority of AECOs are saving a lot of time compared to the remaining 32% who are doing it manually. If each step of the process is optimized, then projects happen faster, more efficiently, and in a more streamlined way, decreasing the time to completion.



OF AECOS **ARE USING**
MANUAL PROCESSES FOR
SCHEDULING

BIM + Energy Analysis

Only 18% of AECOs use BIM for energy analysis, but more SHOULD be using it.

Observation

BIM for energy usage is still a new frontier. However, BIM's usage in energy analysis is growing. Currently, manufacturers use BIM at this level to include physical attributes such as R-values, U-values, density, etc., and it's very helpful for simulating the energy performance of the project based on the building products that are used. With BIM, simulation goes beyond just energy performance: Designers can get information about lighting quality, structural behavior, human behavior, and much more.



OF AECOS **USE BIM**
FOR ENERGY ANALYSIS

BIM + Metadata

When it comes to understanding what the right amount of metadata is for a BIM asset, **the responses range from 0% to 100% and everything in-between.**

Takeaway

As BIM continues to gain momentum, there is no standard for the right amount of information in a BIM asset. It further complicates things that the different stakeholders will have vastly different expectations.

Consider This

While there is no standard for how much is enough, by providing the right information specific to your audience in the right amount, you solidify the relationship between your customer and your brand. There is a considerable liability in providing incorrect content or a huge time commitment for architects who have to come back for more information at a later date, so if you deliver accurate content, you build customer loyalty.

Pro Tip

To know what your customer needs before making a buying decision, you need insights into how they're shopping. By engaging a technical content management platform, you can get insight into consumer trends, interests, and downloads, which can help you provide better products, a better customer experience, and also improve your sales team strategy.

“...by providing the right information specific to your audience in the right amount, you solidify the relationship between your customer and your brand... [So] if you deliver accurate content, you build customer loyalty.”

Manufacturer vs. Generic-Built Content

80% prefer manufacturer-built content vs. generics in Revit.

Takeaway

Architects trust manufacturer-built content over generic content in Revit because it ensures that they have the correct specifications. When they download non-specific content, it's a toss-up that could cost them extra time as they get deeper into the project. By going directly to the manufacturer-specific content, architects save time, money, and effort.

Consider This

If manufacturers are providing content to save architects time and money, they're also improving the customer experience. By building loyalty through correct information, manufacturers have a better chance that their product makes it into the project and they're not a victim of "breaking the spec."

Investing in BIM

84% of AECOs see an increase in BIM investment in the next 5 years and **89% of AECOs will spend more this year on technology** to create efficiencies in their workflow.

Takeaway

An investment in BIM shows dedication and a commitment to streamlined, efficient processes. Because a best-in-class BIM strategy produces sufficient, downloadable content in an optimized package, it is ideal for architects who are skeptical about the content that they're about to download. Most architects have a long history of downloading bad information from websites, but BIM closes the gap between what the customer needs and what you, as a manufacturer, can offer them.

Consider This

As a manufacturer, you need to better answer the direct challenges of your customers to increase sales. You need to provide a solution to each of the challenges they face, so they successfully make it to their end goal: specifying and purchasing. That customer journey starts with searchability and ends with great product content. With BIM, you can provide the validation your customer seeks in your products, and simultaneously grow your brand loyalty. But to properly manage all of your technical product content, including BIM, you need a strategic plan and an organizational tool.

3. CONCLUSION

The Future of the Building Product Manufacturing Industry

Your industry — the manufacturing industry — is changing, and not unlike many industries, manufacturers are going through a digital transformation in terms of technical product content. If you would like more background around this transformation, here is a link to our last white paper, [The Role of Technical Product Content in Digital Marketing](#). The key to staying ahead of the curve is using data and strategic content marketing to build an effective plan that grows your business while answering your customers' needs.

For the manufacturer, the most important takeaway is that AECOs are interested in a solution that helps them organize, search, filter, and use the content you provide. Whether they're working in Revit, CAD, or other BIM software, content needs to be organized and accessible in a streamlined and efficient way to save time and money, and to complete projects faster than ever before. That's the promise and expectation in the digital age.

To answer the needs of your clients, you need to provide a content experience that offers a solution for their challenges. Currently, SmartBIM is the only company to provide a single, optimized content management system that allows you to maintain your complicated technical content in real time. So, if you're not currently leveraging your product information, industry insight, and marketing to promote your brand, your bottom line is already suffering. To jumpstart your marketing efforts and see a significant return, you need a platform like SmartBIM.

**Interested in a quick version of our benchmark findings?
Download this one-pager stat sheet for an overview.**

DOWNLOAD THE STATS SHEET >

4. RESOURCES

Additional Resources

Tools You Need To Succeed At Every Level

- [SmartBIM Blog](#)
- [SmartBIM Use Cases](#)
- [ecoScorecard](#)
- [SmartBIM Library](#)

Industry News

- [What Every Manufacturer Should Know About LEED v4.1](#)
- [Domestic & International CIM Mandates Increase with the Transformation of the Building Industry](#)

Marketing Tools

- [Whitepaper: The Role of Technical Product in Digital Marketing](#)
- [5 Sustainability Features Every Manufacturer Should Highlight on Their Website](#)
- [Building Project Lifecycle for Design-Bid-Build](#)
- [The SmartBIM Platform Infographic](#)

Schedule a Consultation

Before you go...

Now that you understand the data — it's time to do something about it.

If you're interested in learning more about optimizing your approach to marketing your technical product content including BIM contact us. We'll schedule a demo of our proprietary platform, discuss your goals, and help you make sense of where your business can make the biggest return for your investment. We can even do an audit of your technical content to ensure that you are meeting the expectations of your commercial/professional customers.

SCHEDULE A CONSULTATION >

OR

GET AN AUDIT >

About SmartBIM

SmartBIM is a pioneering global leader in technical content management solutions for building product manufacturers (BPMs). We offer an AECO portal, called [Design Studio](#), that simplifies the process of managing up-to-date content, including BIM and CAD along with tools such as submittals, specs, warranties, and LEED. The Design Manager provides insights and solutions for product marketing, content creation, and sustainability. Our technology, the SmartBIM Platform, is a comprehensive solution that helps manufacturers more effectively market their products to architects, engineers, and contractors.

Ready to get started?
We're excited to be your partner.

Visit smartbim.com or
give us a call at **877.436.9031**.