



Home Improvement on a Foundation of Data and AI

To BCG's network around the world,

I love sharing stories of how advanced analytics and artificial intelligence flip our perspective on challenges, solve seemingly intractable puzzles, and open up opportunities that used to seem out of reach.

A couple months ago, I wrote about some incredible [advances in retail](#) made possible by AI and data science. I want to come back to that topic today with a story of how we helped The Home Depot build a data and AI foundation to translate the experience it offers consumers in its stores to the realm of online shopping (also recently featured in this [Wired article](#)).

The Home Depot, the largest home improvement retailer globally, created a name for itself by appealing to two general customer segments: professionals, such as contractors, plumbers, and painters; and do-it-yourself types. For each, the company aimed for face-to-face customer service, with orange-aproned associates active throughout stores, ready to help shoppers get what they needed to get the work done.

Translating that personal experience online seemed daunting, in part because it is significantly harder to identify exactly what kind of project someone is working on, which products they will need (out of millions in the online catalog), and which of those they already have.

BCG and The Home Depot came together to build a strong data and analytics foundation that could tackle those challenges.

We built an agile code base to consolidate and interpret the heaps of customer data—

across both in-store and digital experiences—and assign consumers to a range of personas. Advanced data models can then predict which experience a customer needs, delivering a superior digital journey with the online equivalent of the store associate’s expertise.

Our work not only improved the overall customer experience but also automated steps and decisions for The Home Depot’s associates, freeing up 20% to 40% of their time. This significantly accelerated the activation of new campaigns, reducing some data science and engineering processes from eight weeks to one by allowing the engine to do the heavy lifting and the associates to spend more time creating seamless customer shopping experiences.

These kinds of data-driven insights can enhance the relationship companies have with the consumer, boost the brand, and drive value—changing the game even for organizations we think of as having a model that cannot be easily altered. Deep data and AI offer a customer experience for the future that would have seemed impossible just a few years ago.

Until next week,



Rich Lesser
Global Chair

Further Reading



The Home Depot Doubles Down on Data Science

The advent of online shopping presented The Home Depot with a challenge: how to bring its famous project expertise and personalized guidance into the digital space. Here’s how they are doing it.

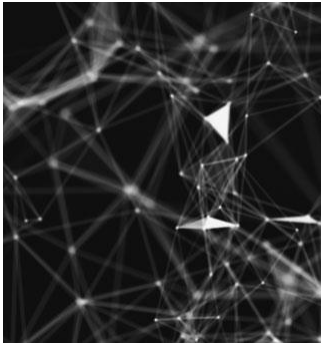
[READ MORE →](#)



A Guide to IT Innovation for Packaged Goods Makers

For the biggest impact, companies should focus on using AI, digitizing must-have capabilities, and adopting new ways of working.

[READ MORE →](#)



War in Ukraine: Global Update and Risk Impact

The war in Ukraine has elicited an unprecedented international response. What business risks do the sanctions and policy actions pose, and how can companies best respond?

[READ MORE →](#)