



LOWE'S GOES HIGH ON INNOVATION

The home-improvement chain is experimenting with all sorts of futuristic technology. But can it make a difference? BY PHIL WAHBA

TECH

INSIDE A LOWE'S STORE in Christiansburg, Va., an employee easily plucks a 40-pound air conditioner from the shelf, assisted by a robotic suit that helps with heavy lifting.

The contraption, which resembles a harness the Terminator might wear, is built with carbon fiber rods that act as extra artificial tendons, giving store workers bodybuilder strength and, the company hopes, increased productivity.

The so-called exoskeleton was created by Lowe's Innovation Labs in partnership with Virginia Tech university. The labs' mandate is simple but crucial: work with outside organizations like Google and Microsoft to develop technology that will improve

store operations and customer experience.

Why does a retailer that sells faucets and ceiling fans have an interest in futuristic exoskeletons? At a time when Lowe's is struggling to keep pace with Home Depot, and Amazon is increasingly eyeing the do-it-yourself market, its appetite for new retail technology is unending. Many chains, from Walmart to Kohl's to Macy's, have also sought to duplicate Silicon Valley's tech know-how by building innovation labs far from headquarters and stifling bureaucracy so that employees are freer to dream up the next big thing.

"Everyone gets mired in the how and the what and then ends up not being able to change," says Kyle Nel, the Seattle-based chief of the Lowe's >>

Lowé's virtual reality tool, HoloRoom How To.

labs. “That’s why there aren’t too many stories about large retailers disrupting themselves.”

Other sci-fi experiments from Lowe’s labs include Holoroom How To, a virtual reality tool that debuted in March for teaching customers to do basic home renovations. For example, people who put on a VR headset can crouch down and seemingly mix cement in a bucket—all while never leaving a store showroom or holding anything other than video-game-like controllers.

Self-guided robots called LoweBots started on the job in the fall by leading customers to the screwdrivers they’re looking for, pulling up information about paint, and checking inventory so that staff can order more wood varnish when supplies run low.

Yet no matter how cool all these innovations may be, Lowe’s has, so far, put them to use in a handful of stores. The exoskeleton, for example, is being tested at only one store out of more than 1,800 in the U.S., while the Holoroom How To is available in just one U.S. outlet and another two in Canada.

Nel, a behavioral scientist by training who set up the innovation labs in 2013, is keenly aware of the perils of inventing things for the sake of inventing them, mindful of executives’ concerns about runaway costs.

In February, Target CEO Brian Cornell abruptly pulled the plug on the retailer’s “Store of the Future” project that was partly aimed at competing with Amazon’s planned cashier-free Go convenience stores. He told investors that his discount chain would instead focus on projects with a quicker and more certain payoff.

It’s easy to understand why many are skeptical about retail innovation. A lot of store technology pitched as the future ends up being adopted more slowly than expected—or never. Whatever happened to beacons, a technology that lets retailers zap coupons to shoppers’ smartphones while they’re in the store? Or RFID tags, small sensors that were supposed to revolutionize how

retailers track inventory? So far, both have failed to live up to the hype.

Doug Stephens, a retail consultant and admirer of Lowe’s efforts, says many retail technology labs were created to help companies “portray themselves as future ready”—in other words, PR ploys. Retailers don’t need specific innovation labs because they already own hundreds of stores where they can learn firsthand about what shoppers want and need.

Yet the pull is irresistible. This spring Walmart created a tech incubator that it says will be independent of its corporate brass. Retailers that fail to at least pay lip service to innovation can be punished by Wall Street as tech laggards, an all too easy dig considering how late most of them were in responding to Amazon’s rise.

Still, Nel seems to know the dangers of letting nerds run wild. So the guiding question before he and his team act on any new ideas is to ask themselves, “Is there truly a need for this?”

“It’s got to stay true to something real and tangible, otherwise you become this fringe group,” he says about innovation teams.

And what could be more tangible than giving stockroom employees superhuman strength? ■

○ Lowe’s exoskeleton helps store workers with heavy lifting.



WORKERS FLEX A NEW MUSCLE

HIRING WORKERS WHO HAVE SUPERHERO strength is nearly impossible. As an alternative, some companies are outfitting employees in suits called exoskeletons that help with carrying heavy loads.

Lowe’s home-improvement stores, which partnered with Virginia Tech to develop its exoskeleton,

is among a number of employers testing the technology. The suit, which resembles a long vest or mini-jet pack, uses carbon fiber rods that store energy when workers crouch. When they pick up a heavy paint can, for example, the energy is released, making it seem like they have extra muscles.