



BUILDING RESILIENCY IN AN AGE OF CRISIS

BLACK SWAN EVENTS ARE CRISIS situations no one has planned for, or even imagined. In a world where such events must be considered not just as possibilities, but inevitabilities, how can businesses prepare? How can they increase resiliency in the face of such unknowns?

In the years preceding the COVID-19 pandemic, Hope Koch, PhD, the Godfrey Sullivan Professor of Information Systems and Business Analytics, was studying digital transformation. Her observation: It was taking much longer than expected.

But then a black swan event occurred. When COVID arrived in March 2020, it brought a time-sensitive imperative—companies had to change rapidly and embrace the digital transformations they had been resisting.

Koch witnessed what she wouldn't have imagined just weeks before.

"Most companies in the grocery industry had been struggling to adopt digital transformation for years, and now they were using digital to a great magnitude in a way that hadn't even been imagined," Koch said.

After working for decades with corporations, Koch knew they had emergency plans for disasters they could foresee—hurricanes, droughts and fires. Yet these plans don't account for black swan events. She suspected the decision-making that was happening needed to be studied so these transformations could be replicable. She and a team of PhD students went to the one place they were allowed to go during COVID: grocery stores.

"A lot of the research came from our experience as customers," Koch said. "The grocery industry was proud of how they upgraded their practices to serve people in a time of need to help citizens access food. They shared a lot of this information publicly and with the class."

As they analyzed the data, Koch, Russ Browder, PhD '20, and Sean Dwyer, PhD '24, saw much of the technology used by these companies had been there all along, it was

just latent. When the crisis ushered in uncertainty, it allowed employees to operate entrepreneurially and innovatively. In the middle of this turbulent time, transformation occurred and the companies emerged resilient and successful.

By watching these changes, the team found five main strengths: Virtual access, which helps people connect to systems; Virtual collaboration, allowing people to work together; Fast decision-making with up-to-date information for quick plan adjustments; Flexible systems that adapt to changes like labor or product shortages; and Tools that support workers in making smarter choices.

Each of these capabilities was published in *Strategic Entrepreneurship Journal* as key findings for "Upgrading Adaption: How Digital Transformation Promotes Organizational Resilience."

The team observed that once these capabilities were developed, they were in place for the next black swan event. For these Texas companies, that event came in February 2022 when the electrical power grid failed.

"Who would have thought a state with major oil reserves would lose power?" Koch said. "But then it did."

Because they had learned to perform well under pressure, these food distribution companies were able to feed Texans. As the world becomes more uncertain and crises more common, Koch strives for her research to continue to address these issues.

"I hope our work will lead to preparedness on an even greater scale," Koch said. ■



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