

Resilience: The best way to beat coronavirus

Here's how you ensure operational and financial stability - no matter the circumstances



table of contents

3



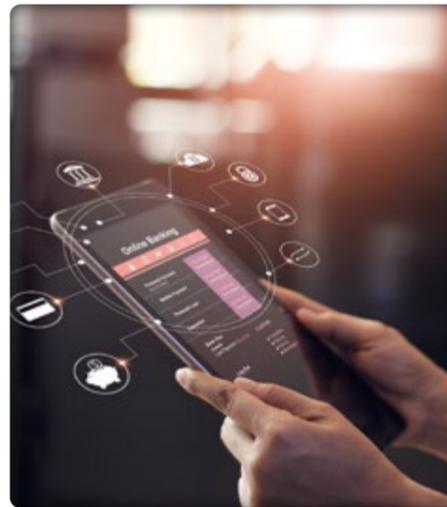
Resilience in
the face of
unpredictability

5



Digital transformation:
Key to a post-
COVID-19 world

8



How operational
agility builds resilience

10



Enhancing resilience
for years to come

12



The 5 pillars of
organizational
resilience



Resilience in the face of unpredictability

Resilience is about being prepared for the future in whatever form it might take. Organizations routinely do this by creating business continuity and disaster recovery plans. Their primary goal is to keep the organization functioning (at some level) until the crisis passes. But this is a reactionary strategy.

To be truly resilient means proactively seeking ways to ensure operational and financial stability no matter the circumstances. Resilience is:

- The ability to carry on despite unpredictable events.
- A capacity to move with speed and agility and to marshal resources, including people, operational processes and your organizational infrastructure.
- Embedded data and analytics in your decision-making processes.

With data and analytics as a natural part of your resiliency-building efforts, you can:

- Predict demand for goods, materials and services.
- Quickly assess multiple risk factors to maintain financial solvency.
- Keep your supply chain moving.

Your trove of historical data and new data sources can be mined for insights, scenario planning and risk mitigation. These insights can help identify weak points in processes, teams that need additional resources, missing strategy, etc.

Resilience in the moment

It's important to understand the normal ebb and flow, growth and shrinkage or the demands on your organization. [AI models built with machine-learning algorithms](#) can alert you to impending crises, or at least their early stages.

A bank might use an AI model to monitor current data and compare it to historical data on an ongoing basis, and automatically send an alert when conditions mimic a past crisis.

Another key measure of resilience is how quickly an organization can recover from a significant event. This is important because its extent can intensify the negative impact.

Analytics guides you to a more resilient future

Determine how to better prepare for the next crisis with answers found in your data - because data is what all digital processes produce. Data can open doorways to the future.

Solutions in place to clean, govern and safeguard your data instills the kind of confidence that builds resilience.

One example is [scenario analysis](#) for creating agile, anticipatory strategies for dealing with the coronavirus outbreak and other such upheavals.



Digital transformation: Key to a post-COVID-19 world

Digital transformation refers to the processes and strategies for using digital technology to change how organizations serve their citizens or customers. Digital transformation efforts continue to grow in importance as organizations increasingly rely on data and technology to operate more effectively and deliver greater value.

Before COVID-19, digital transformation was a top priority, with gradual progress until a major disruptive event. The pandemic increased the rate of transformation for many organizations as they condensed years of planned digital projects into months, or even weeks.

Digital transformation is an imperative because people now live so much of their lives online. The whole world has redefined everyday living in terms of online interactions—raising expectations for better digital experiences. For example

Health care providers must determine how to fast-track telemedicine and other technology-driven options.

Retailers must adapt to create compelling digital experiences that capture customers and drive revenue.



Resilience in the face of unpredictability

Digital transformation: Key to a post-COVID-19 world

How operational agility builds resilience

Enhancing resilience for years to come

The 5 pillars of organizational resilience

Three industries that were made more resilient with AI

The explosion of data has resulted in about 2.5 quintillion bytes of data being created every day. To put that in perspective, the Mediterranean Sea holds about 3.75 quintillion liters of water.

Only recently has computing power reached the point to enable widespread, scalable use of data and AI to generate better insights from this ever-rising sea of data.

AI advances, such as machine learning models, allowed for rapid responses to the coronavirus outbreak:



In health care, many turned to their data to optimize limited resources (such as ICU beds and ventilators) to make sure they were available for the right patients at the right time. Also, many providers turned to IoT solutions for patient monitoring to help augment health care staff, enabling decisions about whether to add capacity based on real-time epidemiological modeling.

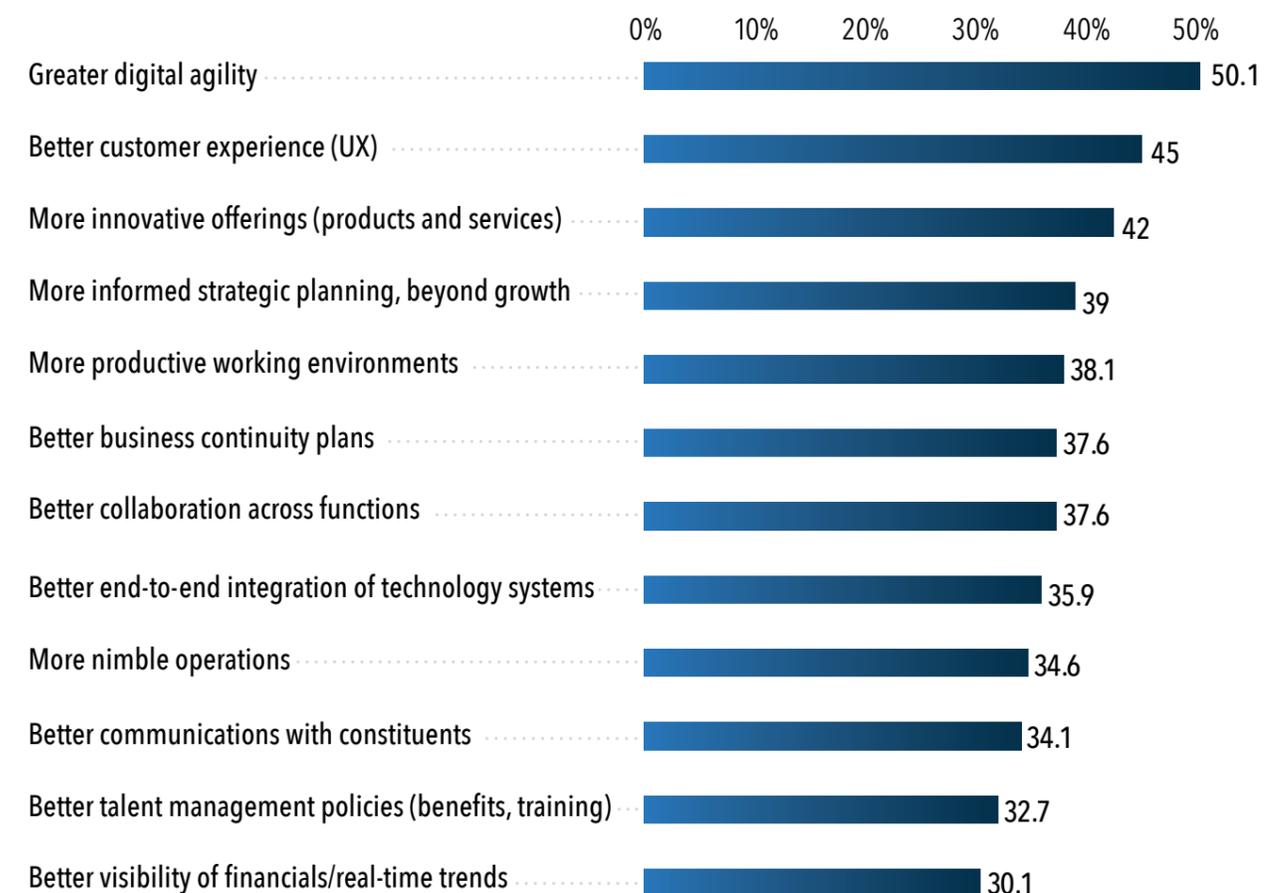


In retail, the need for accurate forecasting and supply chain management during a disruption with no modern parallel forced large global consumer products companies to rethink how they serve customers. Many have found viable answers to supply and demand problems using insights they've gained with AI models applied to data.



In government, some tax agencies were asked to run their tax systems in reverse in a matter of weeks, getting economic support to families that need it. Social benefits agencies needed to quickly make better decisions in conjunction with public health agencies.

Greatest opportunities for post-COVID resilience



Greater digital agility leads the way in post-COVID resilience, according to a [global survey](#) of government and business leaders by The Economist Intelligence Unit.

© 2020 The Economist Intelligence Unit Ltd. All rights reserved. Whilst efforts have been taken to verify the accuracy of this information, neither The Economist Intelligence Unit Ltd. nor its affiliates can accept any responsibility or liability for reliance by any person on this information.

Resilience in the face of unpredictability

Digital transformation: Key to a post-COVID-19 world

How operational agility builds resilience

Enhancing resilience for years to come

The 5 pillars of organizational resilience



How operational agility builds resilience

We make daily decisions based on how they affect our safety and well-being. Organizations are also reconsidering and rethinking almost every aspect of operations (and even pausing operations) until the very nature of operational processes can be reimagined.

The new normal: Technology takes center stage

Many activities have shifted online, with working remotely, bans on large-scale events and social distancing. [Internet use is surging by as much as 70%](#). Our online [habits have shifted](#) and engagements with customers and other stakeholders are mostly online. Online activities are enabled by data and they also generate data streams. The way that recovery and reimagining a new normal both use data and analytics makes data valuable because they reveal relationships among the data points that enable leaders to:

- o Make better assessments of evolving situations.
- o Confidently make projections and predictions.
- o Lay the groundwork for resiliency.

Digital transformation is accelerating

Virtual experiences and processes have been effective at ensuring business continuity. The enabling factors are:

- A proliferation of connected devices.
- Increasing sophistication of purpose-driven applications.
- Falling costs of connectivity, data storage and processing.
- Emergence of cloud-based solutions.

One outcome is that the sudden shift to remote work and virtual experiences has underscored the critical value of data, analytics and AI.

THE CRUCIAL ROLE OF THE CLOUD

The flexibility and scalability of cloud environments have been the most potent enabler of digital transformation. Why? The cloud allows an organization to quickly deploy applications to many users and reduce resource requirements when they're no longer needed. This is important because the cloud reduces resource issues related to constrained time, money or both.

Cloud-based solutions emerge as a cheaper way to address:

- The strain that the Internet of Things can place on your existing operational infrastructure and processes.
- The imperative to make working, shopping, learning, connecting and entertaining into virtual experiences.
- The shifts in regulatory frameworks responding to the ebbs and flows of the coronavirus outbreak.

sas.com/cloud



Enhancing resilience for years to come

10

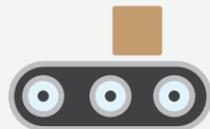
Leadership, vision and ability to execute all contribute in varying degrees to resilience. A **mature analytics foundation** is the one similarity across all companies surviving the pandemic. Below are six industries that are using analytics to build resilience.



A global life sciences company measures engagement in a new online learning system for health care providers.



An energy company analyzes shifts in load demands from commercial and industrial customers in order to balance power contracts.



A global consumer packaged goods company navigates changes to supply chains in nearly real time to source materials and forecast demand to keep products on the shelves.



A grocery store uses heat-mapping technology to monitor room capacity and identify high-touch areas that may require more frequent cleaning.



A drugstore chain optimizes personal communication to keep customers informed through customer-preferred channels.



A financial lender rapidly adapts fraud detection models to cut identity theft by 80% and keep lines of credit available.



The 5 pillars of organizational resilience

Resilience requires a comprehensive approach across the organization and, in particular, with your analytical efforts. Here are the areas you need to consider when building analytical resilience.

1

Integrate and safeguard data

- Organizations need a comprehensive understanding of how governed data is being used and how analytics is applied to make data-driven decisions.
- Building a data and analytics strategy will ensure that the analytics that unlock the value in normal times also work when crises erupt.

2

Mitigate financial risk and fraud

- During a disruption, it is important to evaluate financial interactions across the entire customer life cycle to reduce the risk of identity and digital fraud.
- Analytics provides insights that protect all parties while monitoring changes of customer behavior that may indicate heightened risk.

3

Upskill in forecasting and predictive modeling

- Organizations that have already established competencies in forecasting and predictive modeling know where to go for answers.
- Advanced analytics solutions augment this process by making models more repeatable and easily governable.

4

Evaluate and adapt the optimal supply chain

- Quickly and accurately estimate the effect on product availability and revenue, including total costs for various demand scenarios due to COVID-19 and other disruptions.
- Create a set of consistent and synchronized plans for all supply chain components.

5

Analytically savvy leadership

- It is the challenge of any leader to determine the path forward in the face of uncertainty.
- Whether entering new markets, determining product design or adapting during a crisis, organizations use [analytics and AI](#) to model various scenarios and predict operational impacts.

Resilience in the face of unpredictability

Digital transformation: Key to a post-COVID-19 world

How operational agility builds resilience

Enhancing resilience for years to come

The 5 pillars of organizational resilience



Find COVID-19 answers with data and analytics

Follow us:



To contact your local SAS office, please visit: sas.com/offices