

# RESILIENCE

DISCUSSION PAPER

## Developing Business Resilience

Author: Mei-Li Lin, PhD Senior Vice President of DEKRA Consulting Service Division

During the 7th Global Conference and Exhibition on Health, Safety and Environment, I had the privilege to chair a distinguished panel of thought leaders to address questions about the role and impact of Health, Safety and Environment (HSE) on an organization's business resilience. This article is a synthesis of the lively discussion and insightful perspectives exchanged during the session. I hope it encourages further dialogues on this important topic.

Business resilience refers to an organization's ability to quickly and adaptively respond to unexpected changes and opportunities to recover from internal and external disruptions while minimizing interruption to operation and threats to people, assets, brand, and overall business interests. Business resilience requires integrated solutions across process safety, asset integrity, organizational safety, operational reliability, and cybersecurity to manage all types of risks from intentional and unintentional man-made or natural threats.

### The panelists included:

- > Mr. Mohammed Alsayed Alhashmi, Senior Vice President – Business Resilience, Abu Dhabi National Oil Company (ADNOC) LNG, UAE
- > Mr. Talal Al Anazi, Director, Corporate Safety and Security, MA'ADEN
- > Mr. Saad Al-Ayedh, Executive Vice President - Petrochemicals, TASNEE, KSA
- > Mr. Ian Henderson, Managing Director, Marsh JLT Specialty

The panel had very active discussion and great interaction with its audience. This is a summary of the viewpoints shared during the panel discussion.

## Challenges to Business Resilience

Developing business resilience requires a comprehensive approach and an acute awareness of potential risks. Business resilience suffers when organizational culture is ignored. The period 2016-2019 has seen catastrophic losses resulting from large industrial tragedies. Causes can be traced to cultural misalignment within organizations together with an insufficient understanding of human performance and reliability. Dismissing human factors not only leads to incidents and disruptions but makes system reliability and business resilience much more difficult.

Also, while technology brings new solutions for detecting, monitoring, and alerting deviations and potential events, the uncertainties that accompany emerging technologies and the pace of change pose new challenges to business resilience. One consequence of these advances is a trend toward greater integration and centralization in the way that organizations operate. The promise is improved efficiency and sustainability, but as interdependencies multiply, businesses may become less agile, require advanced skillsets that are hard to maintain making them more vulnerable to new risks and cyber threats. Ultimately, without thoughtful strategic assessments and preparation, business resilience can be impaired.

## Formulating a Resilience Strategy

The critical first step in developing business resilience is to recognize how complex it is. An effective business resilience program must cover every aspect of the entire life cycle of an organization's operations. At the same time, whether man-made or nature-triggered, threats to these operations are inherently dynamic and somewhat unpredictable. The appreciation of this complexity and its impact can guide the business resilience model as it reinforces alignment and seamless interconnectivity across the hardware, software and liveware systems, ensuring speed and agility in the face of unexpected disruptions.

When formulating a plan, considerations range from resilience strategies, assessments, business processes, skillsets, operations and supply chain to **data security** and recovery. Also consider technological and non- technological assets and resources, products, facilities, recovery, legal, and internal as well as external communications. A focus on existing synergistic programs such as asset management and IT can help coordinate resilience efforts. In addition to program design, careful implementation with focused and active management support and participation is important to ensure the success of the program.



Figure 1: Main challenges for organizations to achieve business resilience

Indeed, leadership is central when implementing a business resilience model. Leaders are responsible for communicating the business resilience approach and mindset across the organization with employees at all levels. Engagement is key when leveraging and ensuring alignment with existing practices. Top management must also take the results of risk-based assessments into account when making investment decisions that impact their organization's ability to weather change and disruption. A business impact analysis can help drive the prioritization of resilience measures, recovery planning, and scenario testing.

Progress toward resilience needs to be measured, monitored and updated to avoid stagnation and to stimulate a continuous improvement cycle. This means establishing metrics and reporting mechanisms that provide timely feedback and objective evaluations. The goal is to keep learning and reviewing core roles, competencies and requirements so that systems are aligned, and gaps are closed.



Figure 2: Resilience strategy development steps

## How HSE Boosts Business Resilience

While business resilience does cover a much broader scope, HSE and business resilience are synergistic and interdependent. Weaknesses in one can compromise the strength or integrity of the other. HSE plays a critical role in establishing business resilience as it touches every individual in the organization, regardless of role or function. It recognizes and establishes that everyone in the organization is a risk manager. With HSE's built-in connection with the individuals who make up the organization, it has a pivotal role in driving resilience. It can help ensure that employees feel ownership of the resilience program at each site and every level so that its efficacy is sustainable.

Through **HSE**, organizations can implement scenario-based training, simulations and routine or random testing. These practices, as well as embedding a risk-minded culture throughout the organization are elements identified as critical success factors for an effective resilience program. In addition, open communication mechanisms to capture and address concerns helps to sustain resilience programs and support their evolution. When it comes to measuring and monitoring progress, traditional KPIs may not properly represent the real HSE risks or system performance, so audits, monitoring, and visualization technologies should be utilized to identify hidden and emerging issues.

## At the Intersection of New Technologies and Business Resilience

Technology is already supporting business resilience in various ways. For example, cloud services have made large scale data

recovery a reality. Robotic applications allow us to perform remote inspections that help prevent human exposure to 3D – dirty, dangerous, demanding – situations. Robotics also produce more accurate results by using advanced vision technology and pattern recognition algorithms. In fact, human-managed interfaces and processes are being phased out in many companies in favor of automated processes, sensors, controls and alerts for risk identification, assessment, and action. Communication among systems are in real-time. We can also access mixed reality technology for scenario-based training, **testing, and simulation**. Advanced computing enables us to examine complex contextual cause-effect relationships that were previously hidden. Artificial intelligence-driven predictive maintenance ensures the integrity of assets, critical safety equipment, and monitoring and control systems.

Business continuity management (BCM) software is another technological tool that often supports key components of the business resilience measures. Yet, we are far from reaching the full potential of proven technology. Artificial intelligence, for example, offers vast opportunities that are yet to be further explored.

Each change comes with certain risks. Technology, if not thoroughly assessed, selected, and implemented, can be a double-edged sword. While automation and digitalization can reduce human error and enhance performance, they may introduce new types of errors and risks. Examples would be bias, false sense of security, and competency mismatch. Setting the proper stage for the technology to be adopted and used to support its intended purposes is critical. Only then can technology improve operations in significant and sustainable ways.



## Summary

As the scope, speed and intensity of changes in the way we work continue to increase, the types of threats vary and are harder to diagnose and remedy. In addition, the consequences of adverse outcomes are becoming more difficult to anticipate. It is no wonder, then, that business resilience is taking center-stage in many loss prevention conversations. This forces the HSE perspective to move from isolated process, organizational, and people-centric safety disciplines to a more lifecycle-oriented, systems-based view.

The system-based view further amplifies the interconnectivity between human performance, technology, and operational processes such as assessing, prioritizing, aligning, implementing, and monitoring. This integration allows us to see the operation holistically to ensure decision making that supports business resilience. An organization that can best leverage its HSE efforts and take full advantage of technology to ensure its business resilience can turn this asset into a competitive edge to thrive in the face of uncertainties.

### MEI-LI LIN, PHD

Mei-Li has over 20 years of experience in engineering, research and academics with a focus on integrating safety, environmental and sustainability goals into business strategy. She serves as the Senior Vice President of Innovation, Solution & Strategic Partnership at DEKRA. Mei-Li is responsible for leading her team to combine science, technology, and DEKRA's expertise and knowhows to create innovative safety solutions for the Industry 4.0 era. Previously, she specialized in operational risk management in conjunction with human and organization performance.

### DEKRA Consulting

DEKRA Consulting combines evidence-based science, cutting-edge technology, and internationally renowned expertise to create innovative safety solutions for today and tomorrow. We aim to lead safety transformation at the workplace and business practices, within operations and processes as well as in the dynamic and rapidly changing digital era.

Since organizations require diverse approaches to protect their operational business environment, data, people and processes, we designed our services as multi-faceted as your needs to support you in any safety issue. We offer consulting resources to complement each of the following safety areas, resulting in comprehensive support and a robust approach to safety.

For more information, visit [www.dekra.com/consulting](http://www.dekra.com/consulting)

Would you like more information?

Contact Us