How to build more resilient businesses and communities: A proposal

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Abstract

Business continuity is in a comfortable state of established maturity. However, while most risk managers believe their current plan is fit for purpose, future disruptions are likely to take on different forms and have different impacts. At a time when the need for business continuity management is greater than ever, the need to expand its service offering is also great. This paper proposes an operational resiliency programme that would operate as a complement to business continuity management by incorporating key aspects from other fields of expertise. This programme is designed to provide businesses with the tools to identify potential sources of disruption and implement changes before such disruptions occur, thus limiting impacts to the business, its employees and customers and their respective communities.

Keywords: business continuity, operational resilience, project management, risk management, agile

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INTRODUCTION

The term 'business continuity' is broad umbrella, covering such practices as business continuity planning, disaster recovery, risk management and others. These established fields of practice have been around for many years and have contributed much to the business operating environment.

Traditional continuity plans provide organisations with a strategic line of sight into what they will do when a disruption occurs and many businesses have now developed incident and crisis management mechanisms to support their ability to continue operations during disruptions.

The field of business continuity management (BCM) should look on the

experience of the COVID-19 pandemic as an external force that has pushed the field in new directions, generating new approaches to expand its value and relevance.

One new direction is to combine methods from other areas of expertise into a new, strategic operational resilience programme that takes a holistic look at the organisation to identify incremental improvements that, if implemented prior to a disruption, will enable that organisation to better navigate the disruption when it does arise and ensure continuity of operations.

The goal of this new programme is to bring innovation to the business continuity planning process and create new opportunities for businesses to understand the risks they face and implement appropriate changes to improve their ability to continue business in the event of a disruption.

This operational risk programme examines risks associated with the following key areas:

- Changes in consumer buying behaviour, to consider changes in how customers or clients interact with a product or service;
- Corporate functions, to consider the degradation of processes required for critical business functions and other legacy processes;
- External environmental factors, to consider changes in the political, economic, environmental, legal, social and technological landscape;
- Marketing/branding, to consider the company's social media reputation and business strategies;
- The resilience of people, to consider how to prioritise employee needs for physical and mental health support;
- Re-engineering processes, to identify ways of continuous improvement specifically to automate processes to reduce risks;
- Service vs skill-based transitions, to build a corporate mindset of organisations going into business with their employees;
- Supply chains, to consider the feasibility of ethical sourcing and stress testing; and
- Technology and cyber, to consider how to innovate and be secure about it.

This new operational resilience programme identifies operational blind-spots by developing organisational assets (eg policies, procedures) that enable a business to understand its processes, assets and dependencies more holistically than the separate BCM, disaster recovery, emergency management, risk management programmes do now. The proposed operational resilience programme also puts the onus on the BCM professional to lead ways to identify areas of vulnerability and to invoke change within their organisation in order to maintain operations in the event of a disruption.

CONCEPTS FROM OUTSIDE TRADITIONAL BUSINESS CONTINUITY

The proposed operational resiliency programme blends key concepts from five areas of expertise outside of the traditional business continuity umbrella:

- *Agile user stories*: Agile user stories lend themselves well to ideation and stakeholder perspective analyses. When presented with a business disruption scenario during a planning session, stakeholders of business units are asked to envisage the expected impacts ('benefits') on other stakeholders during the business disruption scenario. For example, if a grocery store closes its

doors due to pandemic-induced social gathering restrictions, customers will still be able to acquire food, albeit through other channels, such as online ordering, kerbside pick-up, home delivery, etc.

- *Waterfall project management*: This is a method for implementing ideas that have been identified as ways to improve operational resiliency. These are identified and implemented prior to a business disruption, following a standard project management process.
- *Information mapping*: Information mapping is a process for providing information in a clear, concise and consistent manner to facilitate effective communication — for example, what an employee needs to do during an emergency, or how to apply a new process that was identified during the business continuity planning process. Via information mapping, organisations can support the buildout of effective organisational assets such as policies, procedures and direct internal and external communications.
- *Lean Six Sigma*: Lean management is the process of embedding a culture of continuous improvement across the organisation to identify and remove the following types of waste:
  - *Defects*: Defects impact time, money, resources and customer satisfaction, and may relate to manufactured goods or poor service;
  - *Excess processing*: Poor process design related to management or administrative issues, including lack of communication, duplication of data, overlapping areas of authority and human error;
  - *Overproduction*: The production of more than is needed/required;
  - *Waiting*: When people, material equipment or equipment are sitting idle;
  - *Inventory*: Waste related to holding costs or eventual financial loss due to expired goods;
  - *Transportation*: The financial impacts resulting from higher fuel and energy costs, as well as higher labour costs in the form of, for example, additional truck drivers and added wear and tear on equipment;
  - *Motion*: Costs related to unnecessary/excess physical motion such as, reaching, lifting and bending; and
  - *Non-utilised talent*: When organisations maintain environments that do not ensure all potential employee talent(s) is utilised.
- *Data analytics*: Organisations can use internal and external datasets to support business decisions, for example, to implement process changes before a disruption in order to eliminate waste(s) and hence improve business operations in general and during a disruption in particular. Data analytics can strengthen commitment from key stakeholders to support budgets for projects. For example, using an internal data set derived from information captured during the business impact analysis process with a data visualisation tool (eg Microsoft BI, Tableau), one might show how the loss of a process in one department leads to an unacceptable amount of 'waiting waste' in another department not previously seen as dependent. This visualisation can then be used to secure funding for projects to minimise the risk of loss in the first place.

The proposed operational resiliency programme also adapts key concepts from the ten risk-management groupings of processes introduced by the International Consortium for Organizational Resilience in its organisational resiliency framework:[1]

- *Business continuity/continuity of operations*: The embedding of processes for risk assessment, continuity planning and incident response;
- *Crisis management and communications*: Processes for strengthening external communications and managing public relations;
- *Critical environments*: Server availability processes, purposeful degradation tests and real-time assessments instead of planning from a disaster recovery perspective only;
- *Financial health and viability*: Assessments to gauge the organisation's financial security, liquidity and adaptability to market risks;
- *Human resource management*: People-centric mental and physical health processes to mitigate against loss of people or knowledge;
- *Incident response*: An organisation's ability to respond to incidents using centralised commands and quick response tactics;
- *Information security*: Layers of cyber security and measures to prevent social engineering to reinforce the organisation's ability to mitigate external technological threats or information breaches;
- *Legal, audit and compliance*: Audit practices that go beyond an organisation's culture and command requirements for meeting regulatory or legal requirements;
- *Organisational behaviour*: Processes of aligning employee goals and behaviours to the strategic vision of the organisation; and
- *Risk management*: The integration of risk management practices for overarching operational resiliency governance.

The proposed operational resiliency programme also adds two additional groupings for a more comprehensive picture:

- *Supply chain resilience*: Relationship management practices for managing key supplier resiliency practices by working together to solve mutual problems; and
- *People health and safety in virtual and physical environments*: The integration of multiple aspects of regulatory legal frameworks to support the health and safety of people whether in virtual or physical environments.

USING THE OPERATIONAL RESILIENCY PROGRAMME

The following sections highlight how the key concepts identified previously can be used to improve business resilience and create a strong operational foundation for improved business continuity response during disruptions.

Agile user stories

> 'All business stakeholders' needs must be part of the resiliency process.'

In agile methodology, a user story is a process that is expected to contribute to the value of the overall product (or process).

In an operational resiliency programme, the agile user stories concept is used to imagine (or ideate) strategic business transformation initiatives or explore how key stakeholders might be affected should a future change occur (ie if this happens, what is the effect on specific stakeholders and what can be done to improve or mitigate that effect?).

The traditional business continuity tabletop exercise scenario method is used to develop these agile user stories, which are then completed by individuals representing specific stakeholders. These stakeholders may include employees, company leadership, community members, investors, third-party service

providers, etc. Each user story contains different perspectives of what the intended impact for that stakeholder might be as the business moves through the tabletop scenario.

These impacts (known as benefits) are turned into statements that help to ideate business transformation initiatives to mitigate negative impacts for the stakeholder or identify additional gaps in risk management and mitigation planning.

The agile user story concept may be used in an operational resiliency programme as follows:

- *Your business*: The business provides inbound call centre services for other organisations and has contracts to handle 80 per cent of the daily call volume of your clients (ie your stakeholders).
- *Scenario*: Indirect suppliers on whom you depend have failed, affecting your ability to meet your contractual agreements.
- *Agile user story*: The expected benefit to your client is that you will always meet the 80 per cent daily call volume requirement. The agile user story process will help to identify blind-spots in the continuity planning process and document corresponding strategies (or outputs) that mitigate the risk to your client, for example:
  - Developing strategies to assess physical work locations to ensure staff are on different hydro grids or have different internet service providers to mitigate against single points of failure;
  - Arranging continuous hiring, training or re-skilling initiatives to meet client requirements; and
  - Establishing strategies for business process improvement that include regular meetings with indirect suppliers to determine any changes to the services on which you depend (eg changes resulting from pandemic restrictions).

Waterfall project management

> 'Business resiliency projects must be implemented in proven ways.'

Waterfall project management is a sequential, linear process of project management that consists of several discrete phases, where no phase begins until the prior one has been completed.

In an operational resiliency programme, the waterfall project management concept is used to provide a foundation for resiliency project management and ensure business transformation initiatives are implemented by following a well-defined path.

The seven steps that form the core of resiliency project management, which should be followed in order, with each step being completed before moving on to the next one, are as follows:

(1) *Define what resiliency means to you*: A definition of resiliency might be 'resiliency is having the capability to make the best possible decision during a disruptive event with the right tools, data and people at the right time'.
(2) *Have an open mind*: This simply means being open to change as the business adapts to evolving circumstances in order to survive in a competitive landscape.
(3) *Understand that improvement is up to you*: For improvement to occur, there must be a desire to make the necessary changes to improve the capabilities of the business and, in turn, drive value for the business and its business continuity programme.
(4) *Understand the business*: Understanding the business requires pooling data from whatever sources are available,

such as spreadsheets, documents, continuity planning software databases, business impact analyses, risk assessments, process maps, etc. Use anything that helps to better understand the line of business's processes, impacts, recovery strategies and dependencies.

(5) *Do not limit the scope of the assessment*: To really improve operational resiliency, there should be no limits to the scope of what is assessed to determine potential impacts to the business. For example, the business impact analysis may already include information about work volume impact, reputation and employee recruitment challenges. This information can be used to identify where a resiliency project may be opened to deal with what matters most in your environment, community or organisation. After deciding which impacts need to be assessed, rate each according to a high, medium or low metric rating to indicate their respective impact and justify the rating with supportive data and comments.

(6) *Define a set of actions for each metric rating category*: A defined set of actions for each metric rating category will drive how the organisation's resiliency projects proceed. For example, the following list outlines actions for an impact rated 'high':
   - Perform a strengths, weakness, opportunities and threats (SWOT) analysis to clarify what is driving the impact rating to be 'high'.
   - Meet with business leaders and identify ways to reduce those impacts.
   - Write down the potential solution(s); take time to explain each category based on the traditional components of a project proposal.
   - Under each category, have a project with content from a project proposal and charter, including the following:
     - Project name
     - Introduction/background
     - Business objective
     - Current situation and problem/opportunity statement
     - Critical assumptions and constraints
     - Analysis of options and recommendations
     - Preliminary project requirements
     - Budget estimate and financial analysis
     - Potential risks
     - Stakeholders
     - Project champion
     - Anticipated value this will generate for the business (ie monetary and/or time benefits).

   Note: If multiple impacts are rated 'high', this can serve as a method for identifying new projects and helps with the prioritisation of projects.

(7) *Begin project*: Begin the project by following the standard project management framework, starting with a business case and so on. If feasible, use agile project management to build the components of the project. If necessary, engage senior leadership to support the use of a project manager to implement these changes.

Information mapping

> 'Business resiliency information must be shared in a clear, concise and consistent manner.'

Information mapping is a research-based method for writing clear and user-focused information, based on the audience's needs and the purpose of

the information. There are close ties to information visualisation, graphic design, information architecture, data analysis, information design, graphic user interface design, experience design and knowledge management systems.

For an operational resiliency programme, information mapping is useful for sharing communications across the entire business (ie policies and procedures that share a common tone, terminologies, visual design, etc) and for developing clear, concise and consistent crisis management communications.

The following are three examples of information laid out according to general information mapping guidelines (note: the focus in these examples is on the format and the way in which the information is laid out, rather than the content itself):

- *Electrical power failure (local or building-specific)*:
  - Known controls — per geographic area:
    - Frequency of checking/testing of generators;
    - Gas levels and extended dependency on generators;
    - External outage reporting;
    - Power setup.
  - Business continuity strategy — internal processes:
    - List teams that need to recover, in priority order, from alternative locations (home, office, shared workplace);
    - Understand gas levels and extended dependency on generators to have a line of sight into recovery time;
    - Develop a communication template library for internal communications on advising staff on recovery processes;
    - Have a crisis management command centre to act as single point of information gathering.
  - Communications — external communications (websites and social media, per business unit):
    - Develop a communication template library for external communications for each social media platform;
    - Develop predefined banners for external websites that speak to existing controls, what steps the company is taking to recover the organisation, anticipated recovery timelines (if applicable) and resources available for support in the event of a long-term outage.

- *Telecommunications failure (voice or data)*:
  - Known controls — per geographic area:
    - Carrier failover testing — assess carrier resiliency through active (ideally mutual) testing and request annual attestation of their continuity plans;
    - Co-location testing — annual testing of the co-location programme;
    - Third-party supplier failover testing — work with third-party suppliers to develop mutual methods of communications during an outage.
  - Business continuity strategy — internal processes:
    - Telecommunication teams in partnership with IT teams, both internally and externally, to conduct incident and management calls to obtain lines of sight into resolving problems;
    - Crisis management command centre to act as single point of information gathering.
  - Communications — external

communications (websites and social media, per business unit):
    - Develop a communication template library for external communications for each social media platform;
    - Develop predefined banners for external websites that speak to existing controls, what steps the company is taking to recover the organisation, anticipated recovery timelines (if applicable) and resources available for support in the event of a long-term outage.
- *Major snowstorm (regional)*:
  - Known controls — per geographic area:
    - Assess the ability of contracted snow removal services to remove ice and snow from the property.
  - Business continuity strategy — internal processes:
    - Employees should be encouraged to work from home if they have their laptops or wait for roads to clear to arrive at the office late;
    - Utilise automated call trees to appraise staff of shutdowns and provide major updates on the resumption of businesses from the premises.
  - Communications — external communications (websites and social media, per business unit):
    - Develop a communication template library for external communications for each social media platform;
    - Develop predefined banners for external websites that speak to existing controls, what steps the company is taking to recover the organisation, anticipated recovery timelines (if applicable) and resources available for support in the event of a long-term outage.

Lean Six Sigma

> 'Business resiliency must be approached with a continuous improvement mindset.'

Lean Six Sigma relies on a collaborative team effort to improve performance by systematically removing waste, reducing variation and providing a framework for overall organisational culture change that focuses on growth and continuous improvement through process optimisation.

In an operational resiliency programme, Lean Six Sigma is used to review process maps to identify and generate recommendations to reduce waste that can impact recovery actions.

Figure 1 provides an example of a process map that was created after a crisis to outline what happened during the crisis management response.

The following applies Lean Six Sigma principles to this process map to remove waste from the crisis response capabilities.

- *Defects*:
  - *First activity — waste identified*: Line of Business 3 (LOB 3) is worried about a looming deadline to finish a process. The team has no known workarounds so is investigating other methods to complete the process — during rather than prior to the disruption.
  - *Second activity — recommendations*: Assess the workarounds and recovery strategies of critical processes and applications. Be very aware of critical lines of business with daily deadlines. If necessary, add a field to the business impact analysis or plan to indicate deadlines. At the end of planning, perform a tabletop like this incident to identify possible workarounds should an incident occur close to the deadline.

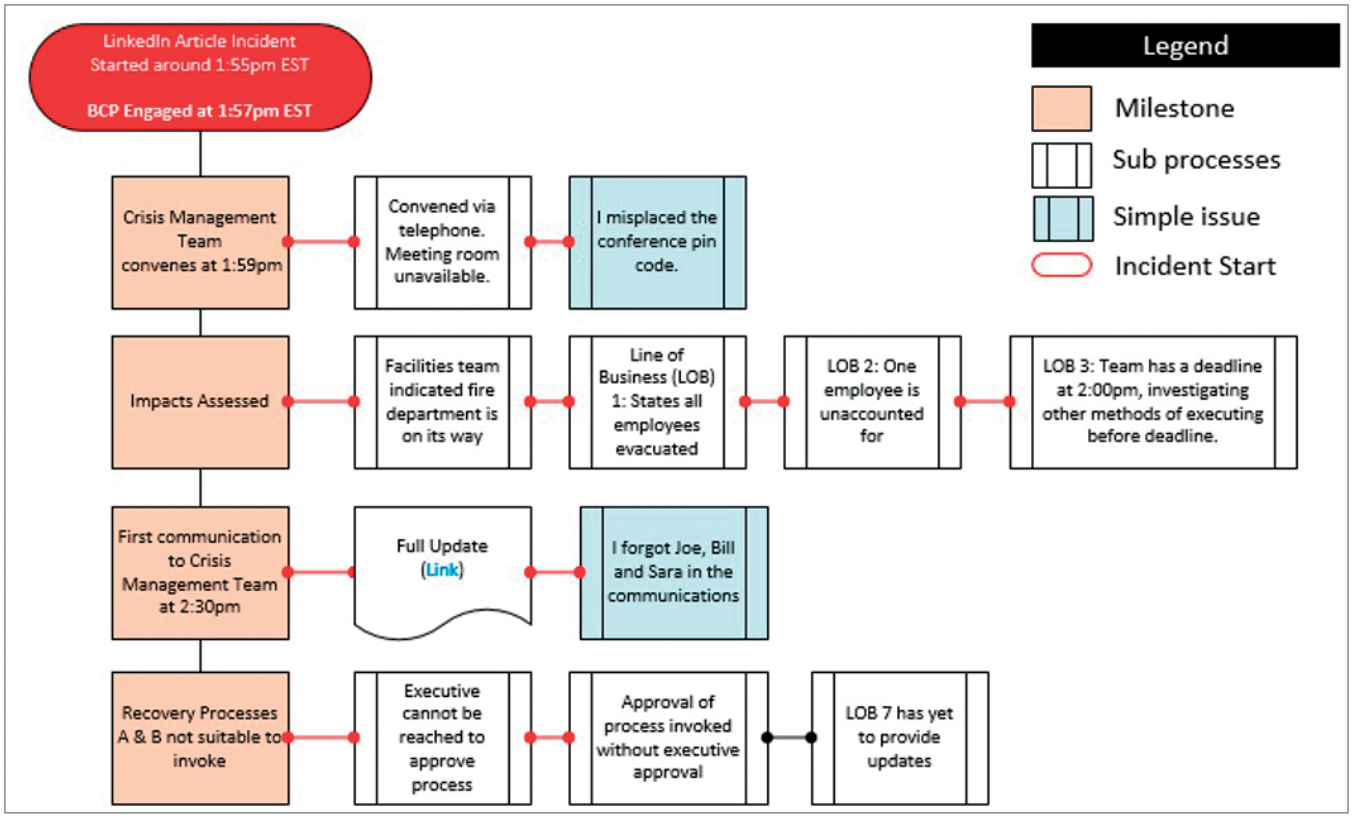

Figure 1 Example process map

- *Over-production*:
  - *First activity — waste identified*: For no apparent reason, the first communication to the crisis management team contained a link to the full update of the incident. Creating extra work can cause delays and communication issues.
  - *Second activity — recommendations*: Whoever is leading the crisis management communication process must ensure they pre-build crisis communications that, ideally, include:
    - Convene and command locations;
    - Who is part of the crisis team;
    - What information is needed to accurately assess impacts and predefined scrum booking templates for each line of business; and
    - A link to a document that outlines applicable recovery triggers that can/need to be pulled.
- *Waiting*:
  - *First activity — waste identified*: Line of Business 7 (LOB 7) has not provided any updates. This could be an issue if LOB 7 is deemed a critical team.
  - *Second activity — recommendations*: Assess lines of business and make sure the crisis team has individuals or leaders that can represent all lines of business. Establish a process to keep this list up to date.
- *Non-utilised talent*:
  - *First activity — waste identified*: Joe, Bill and Sara were initially omitted from the crisis management communications and thus did not receive

the first update and were unable to provide information about their respective teams' recovery processes.
    - *Second activity — recommendations*: Create a formal distribution list with corresponding process to update it monthly. A cost-effective solution is to use e-mail distribution groups to manage crisis management teams
- *Transportation*:
    - *First activity — waste identified*: During the 'impacts assessed' process, the facilities team indicated that the fire department was on its way. During the wait, the facilities team could have provided more details about the incident, such as the location of the fire and the extent of the damage, etc.
    - *Second activity — recommendations*: While safety is the most important aspect of any incident, each team should be aware of what else it can do while waiting for first responders, such as counting staff, assessing potential impacts if work is not being done, gathering where it is warm and dry if the weather is bad, etc.
- *Inventory*:
    - *First activity — waste identified*: When the crisis management team convened at 1:59 pm, the PIN code for the conference bridge was not available.
    - *Second activity — recommendations*: Some emergency notification providers include the option to join a conference by pressing a button. Where this option is not available, create a draft e-mail that includes the group distribution list, conference bridge information, conference room locations and other details. Save this e-mail but keep it as simple as possible so that quick edits can be made when needed.
- *Motion*:
    - *First activity — waste identified*: Line of Business 2 (LOB 2) stated that one employee was unaccounted for and that other team members were trying to locate the missing employee in the evacuated crowd or by text/call.
    - *Second activity — recommendations*: Most emergency notification providers allow users to create predefined groups with options for response. Create a premises-specific group with all employees and create response options that indicate floors, wings or sections.
- *Extra processing*:
    - *First activity — waste identified*: Executive could not be reached to approve activation of the recovery process/business continuity plan. While this ties into over-production and waiting wastes, it is important to show leadership during crisis events. Every effort should be made to reach the executive, but if they cannot be reached, someone must take ownership to move the recovery forward and minimise business impacts. Some decisions may have to be made in the absence of the executive.
    - *Second activity — recommendations:* Always know who the backups are for critical roles.

Data analytics

> 'Business resiliency decisions must be based on analysis of internal or external datasets.'

Data analytics is the science of analysing raw data to make conclusions about that information. Many of the techniques and processes of data analytics have been automated into mechanical processes and algorithms that work over raw data for human consumption.

For an operational resiliency programme, data analytics is used to inform business leaders where gaps exist in their business continuity planning process that may affect the ability of the business to recover and support resiliency projects and business process transformation initiatives.

The following outlines how data analytics may be used in an operational resiliency programme:

- *Resiliency profiles*: Aggregate the data collected in the various business impact analyses to create online dashboards that display comprehensive profiles for specific business entities as well as the business as a whole. These dashboards improve the impact assessment process by showing how risks and gaps from one department affect the entire business. Additionally, the effect of a resiliency project to address a specific gap can be seen across the whole business to determine widespread impacts.
- *Workforce location diversity dashboard*: Combine data from human resource systems to display office locations. This information can support resiliency projects designed to mitigate location cluster issues, provide building-specific employee counts that can be used by emergency notification groups, or guide real-estate recovery planning initiatives.
- *Work-at-home business continuity plan workforce dashboard*: Collect data from employees about their respective home internet service providers (ISPs) and local electricity providers to identify how many employees may be affected when a specific ISP or hydro provider is experiencing an outage. This information can be used during severe weather events to help business leaders ascertain whether an outage situation is an inconvenience or a crisis.

SUGGESTED PRACTITIONER COMPETENCIES

The proposed operational resiliency programme will require the business continuity or resiliency practitioner to have behavioural and technical competencies beyond those traditionally required for business continuity certification. These additional competencies are as follows:

- Lean Six Sigma (white or yellow belt should be sufficient);
- Project management and an understanding of the related core professional standards; and
- An 'impact and influence' mindset to influence, persuade or convince others to adopt a specific course of action.

CONCLUSION

There is a natural tendency for well-established fields of practice to continue to operate in much the same way as they always have.

COVID-19 was an external force that pushed most businesses to find new ways to operate and continue operating, and the shockwaves from this push have shaken business operating models to such an extent that things will never return to a pre-COVID state.

Business continuity managers should take this opportunity to undertake a bit of process re-engineering and expand their ability to help businesses improve their respective operations before the next disruption hits.

Adopting an operational resiliency programme that incorporates proven concepts from other professional disciplines is one change that business continuity management can make for its client businesses and the communities in which they operate.

Now is the time for change.

Reference

(1) International Consortium of Organizational Resilience (n.d) 'Organizational Resilience Framework', available at: https://www.build-resilience.org/organizational-resilience-framework.php (accessed 24th January, 2022).