

COMMENTARY

## A call for I-O psychologists to contribute to business continuity planning and assessment

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The COVID-19 global pandemic necessarily disrupted regular business operations for arguably every organization on the planet. Efforts to mitigate and respond to the rapid and unpredictable spread of the virus required organizations in every industry to adjust to the changing environment. In the face of this emergent crisis, businesses of all sizes scrambled to ensure the survival of their organization through the economic shifts that accompanied the pandemic. Suddenly, business continuity (BC) became a top priority for all organizations.

Rudolph et al. (2021) highlighted the relevance of many traditional industrial-organizational (I-O) psychology topics, including job insecurity, during the COVID-19 pandemic. In addition to these topics, we propose that the pandemic has brought to light that I-O psychologists can and should also contribute to less traditional topics like BC. To a certain extent, BC provides job security at the organizational level, and therefore job security is contingent on BC. Thus, helping organizations stay afloat will have a direct influence on the job security of their employees. We highlight some of the ways that I-O psychologists can contribute to the science and practice of BC.

### Business continuity planning

BC planning is a proactive strategy directed at minimizing risks and damages to the business caused by disasters prior to their occurrence (Cerullo & Cerullo, 2004). Further, the primary goal of BC planning is to quickly reestablish essential business functions in order to avoid interruptions to workflow (Mello et al., 2011). As Cerullo and Cerullo (2004) explained, BC planning processes should (a) identify risks to business processes, (b) design a plan to mitigate the effects of said risks, and (c) train employees (specifically a disaster recovery team) and assess the effectiveness of the plan. Further, the Federal Emergency Management Agency (2009) recommends including telework in BC plans. When COVID-19 became a pandemic, numerous organizations did not have a BC plan or formal telework policy in place.

Consistent with Rudolph et al.'s (2021) call for retrospective reports of organizational practices, shortly after the COVID-19 crisis was declared a pandemic, we sought out data on the prevalence of BC plans, formal telework policies, and previous experiences with disruptions. In the next section, we present the findings from the data. Then, we elaborate on how I-O psychologists can contribute to BC planning and assessment.

### BC planning and telework before COVID-19

In April of 2020, using a snowball recruitment strategy, we administered an online survey to individuals employed at that time. After screening out nonserious responders based on a few directed response items, 1,074 respondents from hundreds of distinct organizations were retained. We

**Table 1.** Employee Reports of Policies and Previous Events by Industry

Industry	Total	Business continuity only	Telework policy only	Both policies	Previous event (yes)
Construction	26	0	15%	0	42%
Financial activities (finance and insurance, real estate and rental and leasing)	88	8%	7%	45%	53%
Government (federal, state, and local) and public administration	94	4%	10%	44%	64%
Health services (anything medical)	130	7%	11%	15%	39%
Higher education	169	6%	5%	17%	47%
Information (broadcasting, telecommunications)	26	4%	8%	15%	31%
K–12 education	80	3%	6%	0	50%
Leisure and hospitality (restaurants)	25	8%	4%	4%	20%
Manufacturing	36	3%	14%	39%	69%
Natural resources and mining (includes energy, oil & gas)	63	10%	3%	32%	68%
Professional and business services (consulting)	159	1%	18%	21%	39%
Religious, grant making, civic, professional, and similar organizational services	15	0	7%	7%	20%
Trade, transportation, and utilities (wholesale, retail, transportation and warehousing)	65	11%	6%	14%	31%
Other services (e.g., repair and maintenance, personal and laundry services; private households)	37	0	3%	3%	8%
Nonprofit	9	0	11%	22%	33%
Retail including fast food but not restaurants	18	22%	0	0	22%
Information technology	25	0	12%	32%	40%
Other	9	11%	22%	11%	56%

asked respondents if their organization had a BC/emergency preparedness plan in place (29% yes, 33% no, 38% unsure) and whether their organization had a formal telework policy (47% yes, 38% no, 15% unsure). The number of respondents who indicated “no” and “unsure” are concerning, given that BC planning experts claim that organizations should not be concerned about “whether” but rather “when” they will have to execute such plans (Contingency Planning and Management and Strohl Survey, 2002, as cited in Cerullo & Cerullo, 2004, p. 72).

We anticipated that organizations that operate 24 hours a day are more likely to have BC plans in place to deal with disruptive events, so we present these data in Table 1 in the context of the employees’ industry. Recognizing that there is considerable variability in the extent to which any given industry is represented, the financial sector and government had the largest percentages of respondents (45% and 44%, respectively), with employees indicating their organization had both a BC plan and a formal telework policy.

We expected organizations that had experience with previous disruptions would be better prepared, so we also asked respondents whether their organization had to deal with a temporary shutdown/emergency in the past and, if so, to briefly describe the event and the amount of time that the organization was shut down. As noted in Table 1, respondents from all industries reported experiences with previous disruptive events. About 45% of the respondents indicated their organization had dealt with a temporary shutdown/emergency in the past, and just about all of them

**Table 2.** Frequency of Reasons for Previous Shutdowns

424	Weather (all kinds, including all of the specific forms of weather below)
205	Hurricane/tropical storm
137	Snow/blizzard/ice
44	Flood
35	Building-specific (e.g., construction, move)
28	Financial (e.g., furlough)
23	Security
15	Power outage
13	Tornado
11	Fire (wild and contained)
4	Health
3	Earthquake

Note. Open-ended responses to the previous shutdown question coded into categories. Some responses were coded into more than one category.

wrote in some information about that event or multiple events. These responses were coded into categories by one author and one research assistant to consensus and summarized in Table 2.

Some respondents wrote about specific events (e.g., “*Yes, government shutdown of 2020 due to the inability of our elected officials to do their jobs in a timely manner and pass a budget.*”). Others wrote general statements like “*weather-related*” or “*ice storms and major power outages.*” Many respondents described multiple reasons for previous shutdowns (e.g., “*Yes, furlough and snow*”). These were coded separately, so any response could be classified into multiple categories. General comments about the weather and specific types of weather were coded into the broad weather category. It is important to note the range of reasons for shutdown. Beyond weather-related reasons, there were building-specific events (e.g., “*broken pipe flooded building’s electrical connections*”), financially related events (e.g., “*government shutdown*”), security-related events (e.g., “*Freddie Gray Riots 2015*”; “*bomb threat*”), and health-related events (e.g., “*pig flu. SARS*”). It should also be noted that one event can lead to another. For example, it is not uncommon for hurricanes to lead to flooding and fires to cause power outages, extending the shutdown time.

Twenty-six percent of the open-ended responses included information about the time frame for shutdown. A little over half were relatively short term, from 1–3 days (56%). However, the remaining were more than that: 4–7 days (24%), 1–4 weeks (15%), and a month or more (5%). These data highlight the regular occurrences of events that could disrupt regular business operations. According to historical data collected between 1998 and 2002 by BC planning experts, power outages, hardware and software failures, and communication failures were more common than natural disasters (Hagg, 2002, as cited in Cerullo & Cerullo, 2004). Clearly, the COVID-19 pandemic is only one event that has required organizations to focus their attention on BC. However, potential business disruptors will continue to occur well beyond this pandemic’s lifespan.

### Contributions that I-O psychology can make to BC planning

Whereas our data showed that some organizations did have a BC plan in place, it is clear there is a need for more BC planning. Next, we highlight various ways that I-O psychologists can help organizations be more prepared to persist through inevitable future disruptions.

***Use job analysis methods to identify essential workers***

According to the federal government, critical infrastructure includes health care as well as providers of goods and services considered essential to maintaining public health and safety, economic security, and national security (U.S. Department of Homeland Security, 2020). It is important to note that the government describes the “Essential Critical Infrastructure Workforce” list of industries as advisory, not a directive or standard, and therefore it is overly inclusive. In fact, the government seeks feedback on this list and anticipates that it will evolve in response to feedback. The main objectives for the list are to ensure that critical services are provided but to also limit the extent to which the virus (in the case of a pandemic) spreads. I-O psychologists can contribute data to the effort to identify essential workers, which could maximize BC and job security for individual employees.

When conducting a job analysis, I-O psychologists identify the importance of various tasks as well as the knowledge, skills, abilities, and other characteristics (KSAOs) that are necessary to do these tasks. Equipped with this information, businesses will be in a better position to scientifically determine which jobs and personnel are essential to the business. I-O psychologists can also identify nonessential tasks that require similar KSAOs, facilitating the identification of personnel who could quickly cross train to complete essential tasks to maintain BC.

Unfortunately, it is well documented that essential workers are more likely to be women, minorities, and people of lower socioeconomic status, putting some groups of individuals at more risk than others. Specifically, in the case of a pandemic, essential workers are put in the vulnerable position of maintaining employment at the risk of disease exposure for them and their families. I-O psychologists can help organizations systematically evaluate the extent to which a disproportionate number of vulnerable people are identified as essential and work to rectify this in advance.

As organizations fought to survive during the COVID-19 pandemic, they imposed hiring freezes, halted all unnecessary spending, cut employees’ hours and pay, furloughed employees, and laid off many workers. I-O psychologists can use job analysis information to facilitate these decisions and to propose alternatives including early retirements, reorganization, job sharing, and transfers.

***Use job analysis methods to support telework***

I-O psychologists can use job analysis methods to systematically identify which workers and which jobs are best suited for working from an alternative work location. It would be important to take both work and worker approaches to determine the extent to which the job and all its tasks are conducive to completion elsewhere and the extent to which a given worker is receptive to working from a different location. Rather than rating tasks for frequency or importance, I-O psychologists can ask subject matter experts (SMEs) to rate tasks for place dependence. Observations and interviews with SMEs can reveal the extent to which employees rely extensively on special tools and equipment that they may or may not have access to at an alternative location.

As noted earlier, some agencies (e.g., the Federal Emergency Management Agency) have recommended including telework policies into BC plans. Due to the widespread stay-at-home orders during the COVID-19 pandemic, many organizations used telework practices to continue business operations while maintaining physical distancing between coworkers as recommended by the Center for Disease Control and Prevention. As noted by Rudolph *et al.* (2021), I-O psychologists have contributed extensively to the science of telecommuting/telework (Allen *et al.*, 2015) and can advise companies accordingly on best practices, challenges, and strategies (Greer & Payne, 2014). They can also help supervisors prepare for managing and evaluating employees from a remote location. Perhaps BC plans can also take into consideration other flexible work practices (e.g., job sharing, flextime, compressed workweeks) and the science that many I-O psychologists have contributed about these practices (e.g., Baltes *et al.*, 1999).

Our data suggest that more organizations had formal telework policies than BC plans; however, there is room for more organizations to adopt telework policies. COVID-19 forced many organizations to embrace telework no matter how much they had considered and/or enacted it before. Organizations that had permitted telework, even if only on an ad hoc basis, were likely in a better position to have employees work from home than organizations that had vehemently denied employees opportunities to do so.

### **Assess business continuity plan effectiveness**

I-O psychologists are well prepared to evaluate the effectiveness of BC plans and their various components. Although there is considerable research identifying components of and providing recommendations for BC strategies, there is relatively little research on the evaluation of these plans. I-O psychologists are trained to conduct rigorous research, develop and use psychometrically sound measures, and regularly assess the effectiveness of organizational interventions. Correspondingly, they can facilitate the collection of data to evaluate the extent to which plans worked well and where there is room for improvement.

One tool that I-O psychologists can implement in this context is an after action review, “a systematic technique that turns a recent event into a learning opportunity through a combination of task feedback, reflection, and discussion” (Keiser & Arthur, 2021). This technique is used extensively in the medical fields and in the military to review the intended outcome(s) of an event, effective and ineffective actions, future objectives, and strategies to facilitate meeting those objectives. An after action review is firmly grounded in existing theories related to feedback, observational learning and behavioral modeling, and goal setting. Assessment of BC plans can help identify where there are inequities in outcomes, devise new plans to close these gaps, and reduce risks for all stakeholder groups. The results of the assessment become inputs for future BC planning to help organizations continue to proactively guard themselves against the threats of business disruptors.

### **Conclusion**

The I-O psychology toolbox is full of tools that can contribute to the planning associated with BC business strategies. I-O psychologists are in a strategic position to develop policies for new work processes, analyze job functions, reskill and retool employees, and ensure equitable treatment of employees. They can determine the employees who are most threatened by business disruptions and work to minimize the harm. I-O psychologists can play a pivotal role in helping organizations prepare for, maneuver through, and assess their responses to disruptors that threaten BC. They possess the skills needed to assess the effectiveness of BC plans.

We urge I-O psychologists to contribute to BC planning and assessment to ensure that organizations will be in a better position to deal with business disruptions in the future. In addition to the traditional topics addressed by I-O psychologists and identified by Rudolph et al. (2021), we highlight the importance of BC planning and the potential role that I-O psychologists can take in helping organizations successfully and proactively prepare for disruptive events before they occur. Equally important is the role they can take in assessing whether the plans were effective during the crisis to ensure preparation for the next disrupting event.

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