

Innovation Emerging From Adversity: Lessons from History

Crises hit the headlines all the time. We have gotten used to reading that there is a climate crisis, a water crisis, an economic crisis, a migration crisis, a health care crisis, and so on. One of the reasons why crisis is all over the place is because there is no simple definition of the term.

The Global Federation of Competitiveness Councils (GFCC), in partnership with the Japan Science and Technology Agency (JST), embarked on a mission in 2022 to redefine crises, understand how they shape our lives, and unravel their potential to drive innovation and competitiveness.

The **Driving Innovation in Times of Crisis** initiative seeks to illustrate the intricate relationship between crisis and innovation through highlighting real-world examples and reviewing the circumstances that allowed innovation to flourish.

On August 30, we hosted a webinar with JST to present first-hand our crisis definition and discuss the lessons learned from three pivotal historical events: the 9/11 terrorist attacks, the Global Financial Crisis (GFC) of 2008, and the COVID-19 pandemic. The discussions highlighted how these historical events informed innovative policies and solutions to global challenges.

The webinar included Rogerio Studart, Distinguished Fellow at the GFCC and the Brazilian Center for International Relations; Jerry Hultin, Distinguished Fellow of the GFCC and CEO of Global Futures Group; and Jonathan Filippou, Senior Lecturer in Health Systems at the Centre for Public Health & Policy of Queen Mary University of London.

Additionally, the research team formed by Ailun Gu, Lecturer at the University of Auckland; and John Katsos, Ph.D. candidate at the Center for Leadership, Ethics and Organization at Queen's University Belfast, and Scholar at American University of Sharjah, shared the findings from a preliminary study on crises in the 20th century.

Roberto Alvarez, GFCC Executive Director; Deborah L. Wince-Smith, GFCC President; and Kazuyoshi Shimada, Director of JST at Washington D.C., moderated the conversation.

Defining crisis as a social construct

At first, it may be challenging to provide a crisis definition. Terminologies such as emergency, disaster, and crisis are frequently used interchangeably and in combination. Since no universal definitions exist for each term, their scope depends on the context. However, such a lack of clarity does not help those who aim to study the phenomenon, act to improve crisis and disasters situations or invest in research to advance preparedness. Therefore, there is a need to clearly define these concepts.

After extensive literature review by the research team and deep discussions within the GFCC community, we reached a new definition: **a crisis is a recognized period of increased danger, requiring action to limit severe and cascading consequences that are systemic and transboundary due to its complex nature.**

9/11: Innovations Amidst Global Fear

The aftermath of the 9/11 terrorist attacks in the United States was marked by widespread global fear, unprecedented damage in a major global financial center, and the ignition of a two-decade-long conflict against Islamic extremism.

One of the biggest innovations on record was the creation of the U.S. Department of Homeland Security (DHS). The DHS brought together 22 federal offices and agencies from around the country, which shared best practices for the first time, enhancing security efficiency and effectiveness.

Additionally, after 9/11, air travel, finance, and national security went through an overhaul. Through the introduction of measures like biometric technologies, fortifying cockpit doors, and strengthening global coordination efforts, airlines were able to restore confidence in their travel.

In finance, similar fears of exploitation by terrorist groups led to tightening global financial regulations, and enhanced technologies were adopted globally to detect and report suspicious financial activities.

Furthermore, the need for global coordination and national security also became apparent. The United States invested in improved intelligence-sharing policy synchronization and joint counter-terrorism operations. Technology was crucially leveraged for advanced predictive capabilities, data analysis, and surveillance.

The attacks also highlighted the need to improve security efficiency at vulnerable targets, such as New York and New Jersey port facilities. Our fellow Jerry Hultin was responsible for running a war-like game in the area simulating possible attacks. Additionally, the New York City government developed a resource bank database to be used in the case of another attack, with compiled information on food and water supplies, emergency housing, etc.

How the GFC Proved us Wrong

The Global Financial Crisis started in 2008 and was primarily triggered by the bursting of the United States housing bubble, which led to a sharp decline in the value of mortgage-backed securities held by financial institutions.

To refrain from the crisis and slow its spread worldwide, the World Bank and the International Monetary Fund (IMF) stretched their lending capacity, lending more money to low and middle-income countries.

Renewed cooperation and a governance structure was also put in place. Additionally, the G20 renewed its focus on stabilizing financial markets and launching global economic stimulus. The group strengthened its governance framework through new commitments to ensure that fiscal, monetary, trade and structural policies could lead to growth again.

Although the system was able to deal with the crisis by injecting money into the economy, the GFC proved that societies are not well placed to deal with risks and are used to await a major overblow before taking action to prevent black swans. This further highlights the need to test human systems before crises hit.

Revamping Health Care Systems to Deal with COVID-19

The COVID-19 pandemic upended the health care sector and shaped how health care systems operate today. The pandemic put a spotlight on latent solutions and needs and prompted health care systems to improve communications, absorb technology faster, and relocate resources.

Possible Innovative Outcomes Catalyzed by Crises

- Accelerate the introduction of new technologies in different contexts.
- Reform structures across organizational departments, government agencies, sectors etc.
- Force improvements in communications and integration.
- Inform people about risks.
- Create opportunities to lift social, institutional, legal, and organizational constraints.

Organization can catalyze these outcomes in advance by:

- Becoming more vocal about risks and potential crises.
- Raising the awareness on the types of innovations that happen in times of crises.
- Strengthening systems by employing concrete tools such as (i) stress tests, (ii) red-flag operations and (iii) net assessment.

Among the lessons learned, it was clear that early recognition of the crisis is the key to an effective response. Any denial or delayed recognition by the government or the public can make the situation worse. The natural question that arises is: how can we improve systems for early recognition?

Secondly, multi-sector collaborations between government, community groups, nonprofit, private, and public organizations can play a critical role in response to the pandemic.

Thirdly, legislative, administrative, and institutional flexibility is the decisive factor in the pandemic response. For example, the rapid rollout of vaccines and distribution of Personal Protective Equipment (PPE) wouldn't be possible without such flexibility.

Finally, health care workers and the government should maintain open communication channels and enhance public awareness and self-discipline to contain the pandemic spread. These measures can help to build community resilience.

Overall lessons

The experiences of past crises have proven again to be a catalyst for positive change and innovation. As participants in our session highlighted, crises can propel the swift adoption of new technologies, dissolve barriers between sectors and departments, enhance communication and integration, and even provide opportunities to dismantle longstanding constraints, like those in legislation.

Organizations and governments must proactively embrace a strategic approach to harness these transformative effects. This includes advancing innovation outside the context of crisis and utilizing tools to assess risks whenever needed. By doing so, societies can better prepare themselves to thrive in adversity, driving innovation that not only overcomes challenges, but propels humanity toward a more resilient future.

The Global Federation of Competitiveness Councils

The GFCC is a global multi-stakeholder membership organization that has universities, corporations, government agencies and private sector industry organizations and councils as members. Combining its members and fellows, the GFCC has a footprint in more than 30 countries. Leaders and organizations in our network strive to advance innovation, productivity and prosperity in their nations, regions and cities.


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