RSIS S. RAJARATNAM SCHOOL OF INTERNATIONAL STUDIES
Nanyang Technological University, Singapore

RSIS COMMENTARY

www.rsis.edu.sg No. 092 – 14 May 2020

Thriving on Uncertainty: The Rise of Antifragile Societies?

By Tan Ming Hui

SYNOPSIS

Pandemics and other uncertainties are here to stay. On top of withstanding continuous shocks to the system, can societies potentially learn to thrive in times of chaos?

COMMENTARY

THE ONGOING COVID-19 pandemic has caused serious economic and social disruptions globally, leading to serious loss of lives and lockdowns around the world. The International Monetary Fund (IMF) estimated a three per cent contraction of the global economy, a projection that its managing director Kristalina Georgieva later called "a more optimistic picture than reality produces".

In the wake of travel restrictions, quarantines, and other social distancing measures, the aviation and tourism industries are among the hardest hit. The pandemic has also exposed the vulnerability of countries' healthcare systems and social infrastructure. Governments including Singapore who had recent experiences with serious outbreaks such as SARS, H1N1, and MERS were despite some setbacks, relatively better prepared and have formulated responses very quickly, but many others were caught unprepared.

Long Haul: Expect Pandemic-like Crises

It should be clarified that COVID-19 is not a 'black swan'. Rather, a pandemic like COVID-19 is actually predictable. Pandemics are a known mass-killer that have been occurring throughout human history. The Plague of Justinian in the 6th Century killed 30-50 million people, up to half of the world's population, while the Black Death of the 14th Century may have killed 25 million people in Europe. The more recent 1918

'Spanish flu', killed an estimated 50 to 100 million people, around five per cent of world's population at the time.

Furthermore, there has been an increase in infectious disease outbreaks in recent decades and have been growing steadily over the past 30 years. In addition to the more well-known diseases such as Ebola, SARS, H1N1, MERS, and Zika, the World Health Organisation (WHO) tracked 1438 epidemic events in 172 countries between 2011 and 2018.

Organisations like the WHO and other prominent individuals, including Bill Gates, have also been warning against a next pandemic while highlighting the lack of preparedness globally.

Even after COVID-19, the world can expect more pandemics in the future. In fact, this century poses the greatest risk for pandemics than ever before, due to continuous world population growth and rapid urbanisation. High-density living in often unhygienic conditions, combined with increased global connectivity, travel, and trade facilitate the emergence of new diseases and easier human-to-human transmissions. Accessibility to rapid long-distance transportation also increase the speed of infections.

'Known Unknowns'

In addition, modern farming practices have resulted in large numbers and variety of animals densely packed together within close proximity to humans, and facilitating zoonotic animal-to-human transmissions. Outbreaks have also been linked to increases in deforestation and climate change.

Finally, we cannot discount the risk of diseases being engineered or recreated in laboratories, which could then be accidentally or deliberately leaked to the public. In recent weeks, Australia has called for an independent investigation into the origins of COVID-19.

Given the above, the current pandemic is actually a 'known unknown'–things that we know we do not know. We might not be able to predict the unique characteristics and impact of each newly discovered disease, but we know they are coming. There are also other high-risk 'known unknowns' that the world has to prepare for, including climate change as well as hybrid threats such as bioterrorism.

Robustness, and then Antifragility

In this disruptive age, societies should strive to be robust or even better, antifragile, a concept coined by Nassim Nicholas Taleb and explored in his 2012 book *Antifragile*. Our society is robust if we are resilient to shocks. For example, organisations should work on strengthening their business continuity plans, and pursue diversification, such as removing dependency on any single source of suppliers for vital components, to reduce negative impact from shocks.

Resilience can be further cultivated by developing foresight and horizon scanning capabilities across industries and beyond the public sector. While foresight tools such

as horizon scanning can help discover some ‘black swans’, the aim is not to gain prophetic ability, since it is impossible to uncover all unknowns.

Rather, foresight and horizon scanning should be a continuous exercise to prepare for potential disruptions, improve decision-making and planning, re-evaluate resources and capacity, and to spot weaknesses in the systems. Through such exercises, creativity and innovation are encouraged, and individuals can become empowered with the necessary skills to cope with future shocks.

We become antifragile when we benefit and evolve from volatility, disorder, and stressors. Rather than aiming for maximum efficiency, antifragile systems are generally decentralised, distributed, and ground up, with layers of redundancy (extra capacity and spare parts) to avoid a single point of failure.

This concept can potentially be applied to organisations and even to the society at large, encompassing an ecosystem of small and self-sustaining entities that encourage distribution of power, diversify knowledge gathering and decision making, emphasize optionality, and are tolerant of small mistakes and inefficiency in favour of preventing a larger collapse.

Thriving in Face of Shocks

In the long run, can societies work towards evolving and thriving in face of shocks? For instance, urban planning in the future might want to avoid cost-cutting measures and minimalist designs, and instead, favour infrastructure designed to withstand and adapt to environmental disasters.

One way is to explore the use of materials that gain strength under pressure. Another way is to ensure public spaces can perform more than one single function and can be immediately repurposed when necessary. There should also be collaborative inputs from a diverse source of knowledge providers, including crisis specialists, security experts, and logistic planners.

Education and training for the workforce should also be reformed. The modern employee should have basic global citizenship skills– having awareness of global emerging trends and sustainability issues, and a crisis readiness mindset. On top of basic workplace safety and hygiene, and technological competencies, training in other skillsets such as adaptability, creativity, and complex problem solving should be prioritised.

At the frontline, not only can the “antifragile” worker immediately identify weak signals and stop potential catastrophes, they might even innovate and seek benefits from the weaknesses.

Towards Thriving on Uncertainty

In fact, through flexible arrangements and teleworking mandated by the ongoing pandemic, organisations are already practising for antifragility. Long term teleworking and having flexible options can encourage decision-making distribution, bottom-up initiatives, and a culture of creative problem solving.

To motivate employees, performance review must be based on result-driven, and not hours-driven, output. Moreover, teleworking also potentially stimulate increasing productivity levels, reap environmental benefits, and alleviate burdens on public infrastructure and living spaces.

Overall, it is important for societies to learn to function with uncertainty as the norm, developing proactive risk management skills rather than reactively and passively pursuing risk avoidance.

We should also apply the lessons learned from this current COVID-19 crisis to help manage other potential threats such as climate change and bioterrorism. Going forward, it is the antifragile societies that will likely be better able to respond positively to shocks and become stronger in the process.

Tan Ming Hui is Associate Research Fellow in the Policy Studies Group at the S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University (NTU), Singapore.
