Practitioner Commentary

Using Regulatory Sandboxes to Support Responsible Innovation in the Humanitarian Sector

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Abstract

The global regulatory community continues to explore new approaches to supervising innovation. Among these, so-called 'regulatory sandboxes' are proving to be particularly appealing to the financial sector as it seeks to promote technological and data-driven innovation. These 'playgrounds' for innovation are also spreading to other regulated sectors such as telecommunications, data protection, energy, and environmental protection, allowing participants to test new business models and technologies under the supervision of regulators while the applicable rules are temporarily relaxed. Regulators can provide targeted guidance to sandbox participants, including help with understanding how an innovation fits within the existing regulatory framework. As of July 2019, at least 50 sandboxes were either in operation or under consideration globally. Significantly, many of these are based in countries that host large numbers of displaced persons. This commentary explores the potential role for sandboxes in promoting responsible humanitarian innovation. Through a review of the literature, we discuss the stated benefits of the sandbox approach while also acknowledging notable risks and challenges to their sustained deployment. We then reflect on how the humanitarian sector might engage regulators and other stakeholders through sandboxes to develop and catalyze innovations that better serve those affected by humanitarian crises, including the displaced.

The global regulatory community continues to explore and experiment with new approaches to supervising innovation. Among these, so-called 'regulatory sandboxes' are proving to be particularly appealing to the financial sector as it seeks to promote technological and data-driven innovation, including the use of financial technology. These 'playgrounds' for innovation are also spreading to other regulated sectors such as telecommunications,[1] data protection,[2] energy,[3] and environmental protection,[4] allowing participants to test new business models and technologies under the supervision of regulators while the applicable rules are temporarily relaxed. Regulators can provide targeted guidance to sandbox participants, including help with understanding how an innovation fits within the existing regulatory framework. As of July 2019, at least 50 regulatory sandboxes were either in operation or under consideration globally.[5] Significantly, many of these are based in countries that host large numbers of displaced persons (e.g. asylum seekers and refugees[6]), such as Jordan, Kenya, Malaysia, Nigeria, Thailand, Uganda, and the United States of America. This commentary explores the potential role for regulatory sandboxes in promoting responsible humanitarian innovation. Through a review of the literature, we discuss the stated benefits of the sandbox approach to governing innovation while also acknowledging notable risks and challenges to their sustained deployment. We then reflect on how the humanitarian sector might engage regulators and other stakeholders through sandboxes to develop and catalyze innovations that better serve those affected by humanitarian crises, including the displaced.

Regulatory sandboxes are safe spaces in which organizations can test products or services with reduced risk of regulatory exposure. Regulators require sandbox applicants 'to incorporate appropriate safeguards to insulate the market from risks of their innovative business' (Zetzsche et al., 2017, p. 64). A sandbox may also be viewed as a 'framework within which innovators can test business ideas and products on a "live" market, under the relevant regulator's supervision' (Agarwal, 2018). The United Kingdom's Financial Conduct Authority is credited with popularizing the concept in 2015 to describe its program to encourage firms to test innovation in a real market environment. It has since spread fast, both internationally and increasingly across sectors. Building on Zetzsche et al. (2017), we can delineate a number of common characteristics of regulatory sandboxes operating globally:

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- *Objectives*: regulatory sandboxes are meant to advance financial innovation, markets, inclusion, competition, and/or economic growth.
- *Entry rules*: sandbox applicants must demonstrate; (1) a need for regulatory relief; (2) that they are adequately prepared to participate; (3) how their product/service will support the financial sector; and (4) that they are managing risks, including to market stability and transparency.
- *Scope*: in addition to limits on the duration of a sandbox trial, there may also be restrictions on which organizations can participate in a sandbox (i.e. limitations on which institutions are permitted to enter from within a sector). Limits may also be placed on the number of customers an innovation can be tested on, certain populations (e.g. a sandbox may prohibit the involvement of vulnerable populations), or the size of the experiment (e.g. deposit amounts).
- *Extent of regulatory relief:* depending on the regulator, different mandatory provisions might be suspended in a sandbox, though as Zetzsche et al. (2017, p. 76) note, 'most authorities refrain from stipulating an exhaustive list of requirements that may potentially be relaxed within the regulatory sandbox'.
- *Exit rules*: participants may be expelled from a sandbox for different reasons, including excessive risk taking or rule breaking, or failure to meet the stated objectives of the sandbox.

Some view regulatory sandboxes as a form of principles-based regulation by which regulators afford participants flexibility and discretion in meeting policy goals and adapting their innovations in response to the regulatory framework (Allen, 2019; Fenwick et al., 2017). Others characterize sandboxes as a form of 'structured experimentalism' (Zetzsche et al., 2017, p. 64).

A number of authors focus on the merits of regulatory sandboxes *vis-à-vis* specific technology applications. Focusing in particular on the Chinese market, Guo and Liang (2016) propose the establishment of a regulatory sandbox for blockchain applications. Ringe and Ruof (2018) analyze the regulatory framework in the European Union governing so-called robo-advisors (the automated provision of financial advice without human intervention), and recommend the use of a "guided sandbox" to promote mutual learning by both firms and regulators, thus reducing regulatory uncertainty for participants. Ng and Griffin (2018) assert that the regulatory sandbox construct could be extended to test the viability of national cryptocurrencies (issued by a central bank), arguing that such a 'crypto-sandbox' would permit stakeholders to observe operational, technical, security, scale, performance, and governance issues with a national cryptocurrency, while providing a view into uptake, benefits, and other opportunities. Likewise, we propose that humanitarian actors should engage regulators from the financial and telecommunications sectors, and potentially other areas, to explore modalities for using regulatory sandboxes to address common regulatory challenges in humanitarian operations, particularly those impacting refugees and other displaced persons.

It may be premature to draw strong conclusions about the effects of regulatory sandboxes. Even the Financial Conduct Authority (2017, p. 10) acknowledges this point in its *Lessons Learned Report*: 'It is too early to draw robust conclusions on the sandbox's overall impact on competition given its relatively small scale to date and the time we expect changes to embed in the market'. Likewise, Agarwal (2018) duly notes that 'given that the concept of regulatory sandboxes is still nascent, comprehensive data is not available yet on their effectiveness and economic impact'. Still, the expected benefits associated with the adoption of regulatory sandboxes include:

- More open and active dialogue between regulators and stakeholders.
- Better regulatory assessment of innovation and its risks.
- A data-driven approach to regulation that facilitates innovation, competition, and inclusion.[7]
- In countries with a fragmented regulatory framework, for example with respect to the oversight of mobile money or other innovations that may implicate multiple regulatory frameworks, a sandbox may help to preempt enforcement actions by different regulators (cf. Allen, 2019).
- For investors, the fact that a firm is participating in a sandbox may provide some certainty and assurance about the associated regulatory risks of the innovation they are considering.

There are, of course, potential risks to the use of regulatory sandboxes which must also be understood and managed (Jenik and Lauer, 2017; Zetzsche et al., 2017):

- Risks to consumers and the broader financial system could materialize due to the fact that sandbox activity is not fully regulated.
- A lack of standards for sandboxes may prove challenging for the cross-border provision of services, though the recent development of a 'global' sandbox may help to address this problem.[8]
- Not every sandbox discloses the extent of the rules and regulations that may be relaxed, which could result in a lack of transparency, legal uncertainty, and other unintended consequences.
- Some countries may lack the regulatory capacity to effectively operate a sandbox, namely resources, staff, expertise, and tools.
- Challenges may also arise in trying to balance different regulatory objectives, such as financial inclusion, stability, integrity, consumer protection, and competition.

Why might humanitarians be interested in exploring regulatory sandboxes as they develop and scale innovations? For one, there is often considerable uncertainty about the laws and regulations that govern the use of data and technology in humanitarian interventions, including for example concerns about the protection of beneficiaries' data or the

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appropriate use of radio spectrum. These rules become unexpected barriers to the timely provision of humanitarian aid and risks to the sector. Through a sandbox, humanitarian organizations can work with authorities to better understand how their innovation fits within a host country's regulatory framework before it is too late.

Second, the use of regulatory sandboxes might also help humanitarian actors address concerns about the regulatory void that potentially emerges when international organizations (IOs) with legal immunities and privileges under international law partner with local non-governmental organizations (NGOs) or service providers that are subject to local laws and regulations. The use of a sandbox could help to strengthen baseline protections in data partnerships between IOs and others by helping to clarify roles and responsibilities with respect to data processing and security. While many IOs have data protection policies that would apply, even if not legally binding, these could become more tangible when explored contextually through a sandbox with local actors to whom the law does apply.

Specifically, how might the humanitarian sector leverage regulatory sandboxes to promote responsible and ethical innovation? One can imagine various scenarios where there is a desire to improve access to mobile connectivity during a humanitarian crisis or to promote financial inclusion in a protracted displacement context, for example through microlending or alternative forms of credit scoring.

Recent research by the UN Refugee Agency (UNHCR)[9] has identified a concrete opportunity for humanitarian actors, their partners, and service providers to engage regulators through a sandbox-like construct to improve the livelihoods of displaced populations. Today, asylum seekers and refugees face persistent legal and regulatory barriers to proving their identity in advance of being able to access a subscriber identity module (SIM) card for mobile connectivity, open a bank account or use a mobile money wallet. While the identification challenges for these groups are multifold and complex, in general displaced persons lack government-recognized proof of identity and other documentary evidence required by mobile operators and financial institutions to legally access these services. Identification often proves to be a barrier even if a person is registered with UNHCR and has been issued an identity credential by the agency.

In this very common case, a regulatory sandbox could be erected to facilitate innovative approaches to meeting 'know your customer' (KYC) requirements for displaced populations in partnership with humanitarian agencies like UNHCR and private sector stakeholders. Experiments could include demonstrating to regulators the robustness of humanitarian organizations' registration processes and provisioning of identity credentials in meeting local KYC requirements. Another prospect is to test new forms of electronic KYC (e-KYC) within a sandbox based on, for example, UNHCR's registration data. In the spirit of mutual learning, the sandbox would also provide an opportunity for humanitarian organizations to address regulators' concerns about unforeseen regulatory risks. Lessons learned from a sandbox in one host country could be shared with humanitarian agencies and regulators in other countries to reduce persistent legal and regulatory barriers to accessing mobile connectivity and digital financial services.

This is just one emergent area demonstrating how the humanitarian sector might harness sandboxes to improve the lives of populations of concern. There are no doubt many innovative ways of working with regulators to address real challenges faced by refugees and other displaced groups, as well as others affected by humanitarian crisis. It is our hope and belief that the humanitarian sector can think creatively about how best to leverage the international regulatory community's intense interest in sandboxes and other experimental modes of governance to bring real benefits to the people under its protection in a responsible, safe, and secure fashion.

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Notes

1. https://www.lexology.com/library/detail.aspx?g=75efca5b-069a-41e6-9aed-0ba2264a2bf3
2. https://ico.org.uk/about-the-ico/news-and-events/blog-ico-regulatory-sandbox/
3. https://www.ema.gov.sg/sandbox.aspx
4. https://www.nea.gov.sg/industry-transformation-map/regulatory-sandbox
5. https://dfsobservatory.com/content/regulatory-sandboxes
6. https://www.unhcr.org/ph/persons-concern-unhcr
7. Though it is worth noting recent research that suggests that 'most sandbox-tested innovations do not target excluded and underserved customers' (Jenik et al., 2019).
8. https://www.ft.com/content/ae6a1186-9a2f-11e8-9702-5946bae86e6d
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