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New Trends in Humanitarian Assistance

Enticing the Private Sector: The Value Chain Approach

By Jose Montesclaros

Synopsis

Since the [Sulawesi](#) quake and tsunami, ASEAN member states have agreed to increase financial contributions to Humanitarian Assistance and Disaster Relief (HADR) operations. However, an alternative framing of HADR is needed to draw enterprises in bridging gaps.

Commentary

AT THE recent 6th ASEAN Ministerial Meeting on Disaster Management and Emergency Response (AMMDM) this month, ASEAN member states agreed to contribute US\$90,000 to disaster preparedness. Institutions like the World Bank recently committed more [funding](#) (US\$1 billion in loans). So ASEAN's contribution is small especially if compared to the [\\$900 billion](#) that Asia has lost to natural disasters in the past 20 years, a figure shared at the 2018 ASEAN Strategic Policy Dialogue on Disaster Management held earlier in Singapore.

Aggravating the situation, the need for funding is set to increase in future. As a fast urbanising region, Asia's populations in disaster-prone areas are becoming denser, implying more populations at risk and higher health care costs. Furthermore, with increasing frequency and severity of disasters, alongside climate change trends, more business activities could be disrupted, alongside higher costs for rehabilitating roads, ports, and other related infrastructure.

Investing in HumTech

The upside to these depressing trends is that, if HADR interventions can help

communities save lives and minimise economic damage, then governments, citizens, and affected economic sectors would benefit more from paying for them, if only to reduce future costs.

Corollary to this, technology applications that boost the efficiency and effectiveness of HADR interventions are becoming even more valuable. Such humanitarian technologies, or 'HumTech', were defined in the 2013 World Disasters [Report](#) as "the use and new applications of technology to support efforts at improving access to and quality of prevention, mitigation, preparedness, response, recovery and rebuilding efforts". As a result, there has been increasing enterprise involvement in provision of HumTech applications.

HumTech is still unknown to many entrepreneurs, however. To help enterprises better understand [HumTech](#), and identify ways of getting involved in this field, a 'value chain' (VC) of HADR operations, which HumTech supports, is outlined here.

Value Chain of Humanitarian Aid

The term VC is conventional to businesses, referring to the chain or sequence of activities involved in delivering the 'value' or benefit which a sector provides. In the case of HADR, 'value' refers to lives saved and economic damage minimised. HumTech applications are developed to increase the efficiency and effectiveness by which HADR delivers this value.

The private sector has been increasingly involved in providing HumTech applications to assist in the HADR VC across three broad components: 'pre-crisis', 'during crisis' and 'post-crisis'.

The first component, '*pre-crisis*', refers to forecasting of future disasters, and advanced preparations to minimise their impact. Computer-based forecasting tools today help estimate long-term climate and environmental changes, while early warning systems provide advanced information on natural phenomena such as storms, floods, earthquakes and tsunamis.

[Tenevia](#), a startup in France, developed digital surveillance cameras for floods, as an improvement over traditional water gauges. Another activity, relevant to areas prone to disruptions, is shock - or weather - proofing structures so that they are less susceptible to damage, as is done by the enterprise, [DisasterKleen](#).

Interventions During and After Crises

The next component, interventions '*during crisis*', relates to the physical delivery of relief goods (food, medicine, water-purification tools) to victims. Drones can help in the delivery of goods, while crisis mapping tools track landscape damage and identify potential areas where victims may be waiting in shelter.

Delaware-based [WeRobotics](#), for instance, rents out aerial drones and trains locals to operate them. Moreover, digital 'blockchain' technologies are used to track goods and inventories, and verify whether intended recipients have received them, thereby

improving the equity and efficiency of aid distribution, as elaborated in previous commentaries in this [series](#).

The third component, '*post-crisis*' rehabilitation and reconstruction, includes the deployment of shelters, reactivation of energy supply and communications networks, and efforts in rebuilding home and business structures. Swedish company IKEA, for instance, has leveraged on its iconic do-it-yourself furniture design.

In creating easily deployable and buildable [shelters](#) (known as 'flatpacks'), IKEA offers families added protection against wind and other natural forces, relative to standard tents, in the aftermath of disasters. Moreover, Nanyang Technological University's Project Enkindle has distributed solar energy [kits](#) to produce enough energy to charge some twenty mobile phones, light bulbs, and radios at the same time.

By tapping enterprises to support HumTech seamlessly across the VC components above, states can make the task of saving lives and minimising economic damage more efficient and effective.

Finance Companies as Strategic Partners

Moving forward, a platform is needed for prioritising technologies to support HADR operations; hence the VC. This platform can also be used by civil society and government bodies for self-assessment and benchmarking purposes. As example is whether they are comprehensively leveraging technology across the VC components, in comparison to other areas facing similar challenges and disaster vulnerabilities.

Gaps uncovered by such assessments can then provide enterprises with a means of prioritising interventions to support, and even identifying innovative ways of supporting them. For instance, robotics was mostly cited in relief provision, but can potentially be used in augmenting the rebuilding phase.

Furthermore, the VC can help identify other strategic sectors to partner with in supporting enterprise involvement in HumTech. For instance, it can be costly for an enterprise to gather information on risks and potential damage, which varies across geographical areas, over time. Yet, this information is critical in estimating the value of specific HumTech applications, and prioritising across geographical areas.

This same information is gathered on a regular basis by finance companies in pricing their loan and insurance offerings, thereby pointing to financial firms as strategic partners in upscaling HumTech development. Realising the funding gap, AMMDM chair Malaysian Deputy Prime Minister Wan Azizah Wan Ismail, has emphasised the need to go '[beyond lip service](#)' in engaging the private sector. The VC presents a concrete way of going about this.

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