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Social entrepreneurship in the context of disaster recovery: Organizing for public value creation

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ABSTRACT

Social entrepreneurship plays an important role in the recovery of areas struck by natural disasters. However, extant research has overlooked the importance of post-disaster social entrepreneurship and how these entrepreneurs organize to create public value. Using a grounded theory approach, we examine eight cases of post-disaster social enterprises that emerged after super-typhoon Haiyan struck the Philippines and explain how the social entrepreneurs develop opportunities and organize to create public value over time. We identify extreme and calculated effectuation as key principles in organizing and how they influence the organizations' ability to provide public services and their ability to survive.

KEYWORDS Disaster; social entrepreneurship; public value; effectuation; emergent response group

Introduction

Natural disasters often offer opportunities for grassroots citizens to take up the voids left by the state and non-profits (O'Donovan 2019; Saban 2015) in organizing speedy and sustainable post-disaster recovery. We call this 'post-disaster social entrepreneurship' (PDSE). PDSE plays an important role in redeveloping local economies and rebuilding local infrastructure that are lost amid natural disasters. Despite their important role in post-disaster areas, to-date, the advent of social enterprises attracted lesser attention in comparison to the efforts of pre-existing established institutions, such as the governments, humanitarian agencies, NGOs and corporations, the kind of actors who are known to work together for post-disaster relief and recovery efforts (Majchrzak, Jarvenpaa, and Hollingshead 2007).

PDSE is about ways of organizing and organizations in the post-disaster context that seek to create public benefits (Defourny and Nyssens 2017). PDSE, or social entrepreneurship more generally, is a phenomenon where citizens mobilize private (and sometimes public and corporate) resources to create public value (Moore 1995; Teasdale and Dey 2019). As a means to create public value, SE contains elements of publicness (Bozeman 2007), privateness (Bozeman and Moulton 2011) and non-profitness (Robichau, Fernandez, and Kraeger 2015) in varying degrees of combination and

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weight. As public managers embrace the co-production approach and the New Public Governance paradigm (Brandsen, Verschuere, and Steen 2018) to tackle intractable public problems, including natural disasters, this presents opportunities for SEs to play a bigger role as public problem solvers (and innovators). Not surprisingly, today, research on social entrepreneurship and SEs is growing rapidly in the public management and administration field (e.g., Calò et al. 2018; Powell, Gillett, and Doherty 2019; Teasdale and Dey 2019).

But why and how do post-disaster social entrepreneurs organize to create public value? Existing research on disaster management points to the role of emergent response groups (ERGs), defined as ad hoc, impromptu, and loose collective actions by individuals to fill the recovery void left by governmental and non-governmental actors (Drabek and McEntire 2003; Majchrzak, Jarvenpaa, and Hollingshead 2007; Stallings and Quarantelli 1985). However, extant research in this field does not account for the emergence of SEs, or PDSEs, which form like ERGs in the initial phase (spontaneous collective actions), but later develop into potentially sustainable organizations with social aims (Powell, Gillett, and Doherty 2019).

An important aspect of PDSE pertains to how their founders create opportunities for disaster recovery over time. The emergence of PDSEs is surprising because of the challenges posed by disaster aftermaths and the high level of uncertainty they have to face. Who would want to risk their lives by relocating to a disaster stricken areas, starting an enterprise in order to help the victims while most physical and economic infrastructure have disappeared? At the same time, how they cope with the change in conditions once the initial disaster shock has settled remains unknown. This raises the issue of why and how citizens ‘take the plunge’ as PDSEs and how they act and organize for public value.

Research on SE from the business literature has explored issues of opportunity creation (e.g., Corner and Ho 2010; Perrini, Vurro, and Costanzo 2010), however, this body of research does not pay special attention to the role of context, particularly *post-disaster*. Importantly, opportunity creation in post-disaster context is influenced by the logic employed by social entrepreneurs such as *effectuation* (Sarvasvathy 2001), which emerged in our fieldwork and became a core concept in our study, but in what way effectuation plays out and why and how in post-disaster context is unknown.

In this study, we asked: *Over time, how do post-disaster social entrepreneurs create opportunities in the context of disaster recovery for public benefits?* We report a four-year study of eight PDSEs through an inductive and grounded exploration in the context of post-Haiyan super typhoon – the most devastating tsunami that struck the Philippines in 2013. We developed a process model of PDSE and offer implications for theory, policy making and practice.

Literature review

Social enterprises and emergent response groups in post-disaster recovery

Disaster management scholars have identified the spontaneous formation of *emergent response groups* (ERGs) in post-disaster events in rapidly meeting the needs of disaster victims (e.g., Drabek and McEntire 2003; Majchrzak, Jarvenpaa, and Hollingshead 2007; Stallings and Quarantelli 1985). ERGs are collectives of individuals who use nonroutine resources and activities to apply to nonroutine domains and tasks, using

nonroutine organizational arrangements (Majchrzak, Jarvenpaa, and Hollingshead 2007). ERGs include religious, business, non-profit organizations, and private citizens. The literature suggests that ERGs have at least five characteristics (Drabek and McEntire 2003; Majchrzak, Jarvenpaa, and Hollingshead 2007; Stallings and Quarantelli 1985; Tierney, Lindell, and Perry 2001). First, they operate under time pressure. Second, they represent a diverse set of perspectives (e.g., military command, firefighting, activists, medical workers, etc.) and can have conflicting purposes. Third, members are unlikely to know each other and may never see each other again after completing their tasks. Fourth, they may be driven by compassion (Perry 1996, 1997) but also the interests of their own institutions. Fifth, they are emergent and fill a void that cannot be filled by command and control approaches to disaster response.

SEs are a relatively new type of ERG out of many types of ERG actors. SEs are private citizens who establish organizations to pursue public value using means that involve a combination of publicness, privateness and nonprofitness logics (Bozeman 2007; Bozeman and Moulton 2011; Robichau, Fernandez, and Kraeger 2015; Teasdale and Dey 2019). Publicness refers to the extent in which an organization pursues public interest (e.g., creating public goods) and is shaped by political forces (Jorgensen and Bozeman 2007). Privateness refers to the extent an organization has self-interest (e.g., pursuing profit, industriousness, thriftiness) and is influenced by market forces (Bozeman and Moulton 2011). Nonprofitness refers to the extent an organization has voluntary engagement and non-profit interest and is influenced by moral forces (Robichau, Fernandez, and Kraeger 2015).

What makes PDSEs theoretically interesting is their approach in combining commercial and humanitarian approaches (Battilana and Lee 2014; Powell, Gillett, and Doherty 2019) to assist victims in relief and recovery. PDSEs emerge because of the weak state capacity in dealing with disasters and the difficulties in coordinating voluntarily sector actors to respond to disasters (c.f. Dart 2004; Salamon 1987).

Recent research cast ERGs as compassion organizing and emergent ventures (Shepherd and Williams 2014; Williams and Shepherd 2016), wherein they examine how ‘compassion resources’ are mobilized, and how opportunities for alleviating suffering are developed. Yet, there is little published work from the perspective of social entrepreneurship (Chamlee-Wright and Storr 2008); specifically, how social entrepreneurs develop opportunities for the public benefits (Defourny and Nyssens 2017) despite the challenges of uncertainty and time compression (Olshansky, Hopkins, and Johnson 2012) in post-disaster context.

Effectuation as organizing principle in post-disaster social entrepreneurship

The effectuation theory (Jiang and Ruling 2019; Sarasvathy 2001) provides a preliminary answer to our research question. Effectuation theory states that under uncertainty, entrepreneurs enact raw ideas into opportunities through an iterative process. They may begin with a vague aspiration for the future, which they gradually enact by employing the resources they have at hand while relying on potential stakeholders to augment resources and co-create the opportunity. This happens in a recursive way until the opportunity is solidified (Jiang and Ruling 2019; Sarasvathy and Dew 2008). Therefore, opportunities are not pre-existing realities awaiting discovery (Alvarez, Barney, and Anderson 2013) but are enacted and created by social entrepreneurs through an iterative process (Sarasvathy and Dew 2008).

While the effectuation theory could explain SE under uncertainty, it has not been used to explain SE under *time compression*, which we define here as the acceleration of response processes to meet the urgent needs of disaster victims (Olshansky, Hopkins, and Johnson 2012). Effectuation theory does not tackle *temporal space* and how its *compression or decompression* can influence SE behaviour. In addition, the effectual process is a 'black box'; we do not know the heterogeneities of the process (Jiang and Ruling 2019) in the course of the entrepreneurial journey (McMullen and Dimov 2013).

Research methods

We employed longitudinal case studies and used grounded theory approach (Corbin and Strauss 1990; Gioia, Corley, and Hamilton 2013) to examine eight PDSEs that created public benefits for rural communities struck by a natural disaster. Grounded theory was appropriate because first, this study sought to examine a (relatively) new phenomenon called PDSE in which not much is known about it and little research has been published on it, and second, it fits well with our purpose to do theory development work. Each case was chosen because they provided unique insights into SEs creating public value and embracing some mixture of publicness (i.e., pursuit of public good), privateness (i.e., pursuit of profit, industriousness, thriftiness) and non-profitness (i.e., voluntary origin, citizen engagement, no or little economic optimization; religious/social/moral values) in their activities and operating models. We employed a replication logic (Yin 2003) in the case selection and analysis to ensure the findings are trustworthy. This involved identifying PDSE cases through news reports in early 2015 and interviewing them in a semi-structured way for multiple times until 2017, and conducting mini ethnography by visiting and staying with the PDSEs in their sites. The interviews ranged between 3 and 8 unique sessions with multiple individuals per case (see Table A1 of Appendix). The eight selected SEs (a) emerged after and in response to the Haiyan disaster; (b) operated in Haiyan-affected communities; (c) provided relief and recovery efforts to disaster victims thus creating public benefit, and (d) demonstrated a recognizable organization that was not merely ad hoc but persisted even years after the disaster.

Meetings were also held with local business leaders, provincial government officials, and international humanitarian aid workers to understand the process of recovery and the role of PDSEs in the recovery process. The multiple sources of data, namely, interviews, observation data, secondary data and social media data of the founders, enrich the study (Lincoln and Guba 1985). Figure A1 of the Appendix shows the longitudinal data collection process.

Table 1 identifies the eight case studies and their characteristics. The PDSEs' activities aim to create public benefit by either employing the victims of the disasters, providing alternative housing, creating capacity for victims to organize and sell their produce via cooperatives, and assisting them in the farming activities. We used pseudonyms to protect the identity of all SEs studied.

Research context

We chose the Philippines as the strategic research site for several reasons. The Philippines is one of the most disaster-prone countries in the world, ranked 3rd in natural disaster risk out of 171 countries (World Risk Report 2017). Our research was situated in the aftermath of the super-typhoon Haiyan in the central islands of

Table 1. Sample characteristics.

Social Enterprise	Social Enterprise Activity	Start of Operations	Location
Bag-O	Trains and employs women and men to produce emergency bags. Used second-hand materials. Sold online and to corporate partners.	April 2014	Tacloban, Leyte
Tikog Bags Bangon	Trains and employs rural women to make bags using native grass. Sold in upscale malls in the capital. Provides disaster-resilient housing and seagoing fishing boats. Diversified to grocery stores and cold storage facilities that employ cooperative members.	January 2014 December 2013	San Miguel, Leyte Tolosa, Leyte
Success-Co	Aggregates the produce of coconut farming communities and help farmers produce virgin coconut oil sold at a higher value. Offers financial services to rural farmers.	February 2015	Paranas, Samar
Golden Farms	Facilitates technology transfer among small-plot farmers to produce high-yield crops for sustainable household consumption and to meet market demand.	January 2014	Capoocan, Leyte
Hope Houses Crafted-by- Hand Jewellery	Builds easy-to-assemble, mobile, reusable and resilient temporary houses for families displaced by Haiyan Trains and employs large-family mothers into designing and crafting hand-made jewellery, sold online and in malls in the Visayan region.	December 2013 December 2013	Tacloban, Leyte Tacloban, Leyte
Dawn Tacloban	Organizes and trains local communities in Leyte to manufacture latrines and wash bowls to address the 'latrine gap' and sanitation problems. Trains farmers in intercrop farming to increase family income.	March 2014	Tacloban, Leyte

the Philippines that took place in November 2013 (Lagmay et al. 2015). The typhoon caused a tsunami-like wave that submerged communities in sea water. In the aftermath, the storm left more than 6,000 dead, 4.1 million displaced people, 1.1 million houses destroyed, and 16 million people affected (USAID 2014). We chose Leyte and Samar, the worst hit regions by the storm, as the main research sites. The confluence of high exposure to disasters and weak institutional capacity makes the Philippines a natural laboratory for our study. Coupled with this country-level condition is the province-level problem of underdevelopment in Leyte and Samar, both belonging to one of the poorest regions in the Philippines (PSA 2016).

Data analysis

We employed Gioia methodology (Gioia, Corley, and Hamilton 2013) for data analysis and presentation. This meant cycling back and forth between data and theory until new conceptual findings became apparent as the analysis moved forward from first-order codes to aggregate dimensions. We used RQDA, a qualitative data analysis software, to aid the data analysis. We started by generating first order codes by focusing on key phrases and sentences about the social entrepreneurs' response on how they developed or are developing the SEs. The coding was conducted by the authors and an independent coder, with whom we discussed and reconciled the emerging data and an SE scholar who played 'devil's advocate' in interpreting the data. We initially generated 734 pre first-level codes which were collapsed to 145 first-level codes. Subsequently, we aggregated the first-order codes to produce second level themes (Gioia, Corley, and Hamilton 2013) by also involving the same independent coder and the SE scholar.

The third and final step involved abstracting to higher aggregate dimensions in iterative manner between emerging dimensions and the literature. The iteration between data and literature process took six times before we finalized the aggregate dimensions. We identified two episodes of events in the data. Each episode comprises six aggregate dimensions along which the two episodes differ, namely, *perception of uncertainty*, *perception of time*, *perception of opportunity*, *loss tolerance*, *stakeholder formation* and *resource access*. Figure 1 shows the data structure demonstrating the progression from first-level codes to the aggregate dimensions. We showed exemplary quotes in the Table A2 of the Appendix.

Findings

Our data revealed two episodes in the course of the founders' PDSE journey, which we label as *extreme effectuation* and *calculated effectuation episodes*. These episodes occur along a time continuum; the former proximate to the disaster event while the latter more remote. At the onset of the post-disaster period, the PDSE founders demonstrated an extreme effectual process, wherein perceiving an urgency to help – despite being uncertain as to how – they responded by plunging into action, seeking and being sought by potential collaborators and partners while leveraging on enhanced access to resources as a way to develop opportunities for PDSE. They did this with a sense of *expanded affordable loss*. However, farther away from the disaster event, the PDSE founders demonstrated a more calculated effectual process. We induced this from the observation that their opportunity orientation shifted to privateness logic (e.g.,

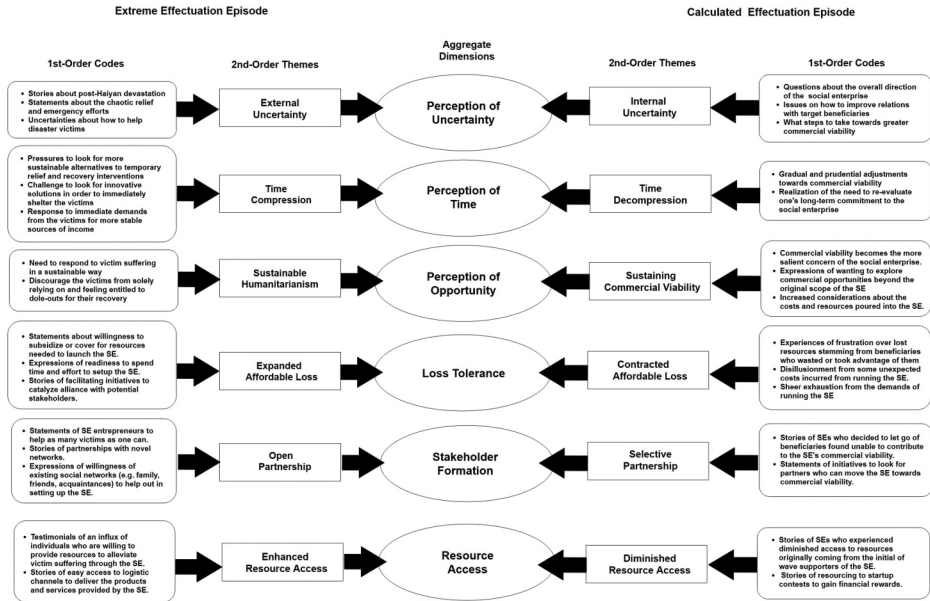


Figure 1. Data structure.

commercial viability, ‘what’s in it for me?’), as their perception of uncertainty veered towards internal issues and their sense of urgency waned while remaining focused on benefitting the public (publicness logic). As their actions became mitigated by *contracted affordable loss*, they became more selective in the partnerships they forged and their access to resources diminished. The gist of our findings is a process model of PDSE (see Figure 2).

Proximate to disaster event: extreme effectuation episode

This episode is characterized by the PDSE founders’ perception of (a) external uncertainty, (b) time compression, (c) opportunity to develop models of sustainable humanitarianism, (d) sense of expanded affordable loss, (e) open partnerships and (f) enhanced resource access.

External uncertainty

At the immediate post-Haiyan stage, PDSE founders witnessed the widespread human suffering in Leyte and Samar, two highly devastated provinces in the Philippines. Although all of these founders were from relatively unaffected communities – except for one who lived in Tacloban, Leyte when the storm wreaked havoc in the city – they had lived through the tragedy vicariously by watching reports from local and international news channels. Moved to respond, they participated in the relief efforts in a matter of days, like many Filipinos did at that time. For instance, the founders of Bag-O and Hope Houses organized contacts from the aviation sector to help reach and distribute relief goods to far flung communities (Interviews with Jonathan and Vincent, founders of the said PDSEs). Likewise, Anita of Tikog Bags sought the aid

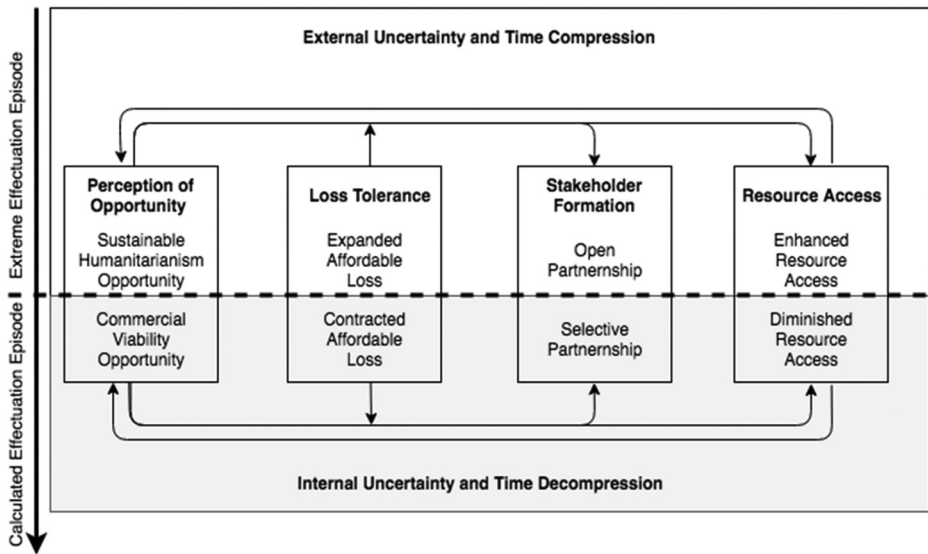


Figure 2. A process model of post-disaster social entrepreneurship.

of family and friends to collect food, clothing and medical supplies, which she personally distributed to outlying villages in Leyte (Interview with Anita).

In the process, they saw the uncertain and chaotic state of the relief efforts. As Anita shared, *‘Different people were doing different things ... Many wanted to help but they didn’t know how ... and they did not trust the government, so they wanted to send whatever help they could through private citizens like me’* (Interview with Anita of Tikog Bags). This was corroborated by Ernie of Dawn Tacloban, *‘[it was a] terrible disaster, the whole of Tacloban was wiped out. Many Filipinos were willing to send help but there was conflicting news, so we did not know exactly what could be done’* (Interview with Dawn Tacloban founder). In other words, the uncertainty perceived by the founders stemmed from what they perceived as a poorly managed post-disaster relief environment by the existing disaster recovery apparatus.

Time compression

Amid the uncertainty, the PDSE founders felt the urgency to help and made do with what is at hand to create initial opportunities. For example, Vincent explained the creation of mobile foldable temporary houses – the genesis of Hope Houses – in terms of the speed with which he felt he had to come up with a response to the urgent shelter need:

I built [Hope Houses] as a response to the lack of shelter and the slow speed of response to house the millions left homeless by typhoon Haiyan ... Really [my motivation was] was out of desperation ... [I wanted to] house as many people as fast as possible. ... At around 3 am, I got out of my bed, I took a knife from my kitchen, went to the other room, I started cutting up a [carboard] box, getting a tape to actually create this folding house concept. I actually put this thing together and said, “Oh, this could work.” (Interviews with Hope Houses founder)

Similarly, Anita of Tikog Bags underscored the urgency to come up with sustainable recovery interventions, but hers was in anticipation of the looming pull-out of relief efforts from international humanitarian organizations. *I knew relief was going to be*

withdrawn soon, which means there will be a problem of how victims will feed themselves after that ... And so there were talks of how to come up with livelihood programs fast' (Interview with Anita of Tikog Bags). Acting on the basis of this anticipation, she managed to organize a work-integration PDSE that trained and employed farming women from rural villages to do bag weaving just two months after the storm (January 2014). Indeed, the other PDSEs were set up speedily within five months after the typhoon (except for the one that was set up in 2015, the Success-Co), prior to which the founders had no plans of doing so nor had any desires to be in Leyte or Samar.

Sustainable humanitarian opportunity

How did the founders end up with PDSEs under uncertainty and time compression? Our data revealed that the founders began to consider inchoate opportunities to help disaster victims in a sustainable way – or we label as sustainable humanitarianism opportunity. The SE founders were driven by a public service motive (Perry 1997) to help disaster victims (hence, humanitarianism) through self-sustaining means (i.e. commercial activities).

Consistent with Sarasvathy (2001), these post-disaster effectuators in question did not begin with concrete goals, instead they formed vague aspirations towards unverified opportunities for viable long-term recovery interventions. For example, one PDSE founder aspired for opportunities *'to help but not in the form of giving away money. We wanted to generate jobs, although initially we did not know in what particular way. What was clear to us was that we need to give back dignity to the victims through work, not dole outs ... and that the initiative would be self-sustaining'* (Interview with Nathan of Bangon). Similarly, Ernie of Dawn Tacloban observed that *'international organizations came in droves after [Haiyan] ... [For example, one] disbursed 500 tricycles¹ in one month, they all just gave them away. But this made people lazy. Government also gave dole outs which supported alcoholism and gambling. [Disaster victims] were just wasting the give-aways. I knew this was not the way to go. I wanted something that gave them work. The charity model does not work, it has to be social and entrepreneurial'* (Interview with Ernie of Dawn Tacloban). As can be gleaned from these quotes, while they knew they did not want to give dole outs, they were not initially clear about what forms of long-term recovery interventions could be created – other than knowing they had to benefit disaster victims while being sustainable. That was concretized in the partnership process.

Open partnerships

Effectuation theory (Sarasvathy 2001) argued that as a consequence of sharing resources (material and nonmaterial), individuals or groups can participate as partners or collaborators to influence the direction of the opportunity creation. However, what the theory does not discuss is how open or selective the partnership process can be in certain contexts. What we observed in the extreme effectuation episode is the openness with which PDSE founders leveraged on existing and novel networks, and in turn how they concretized the opportunity. This can be illustrated by how Bag-O got off the ground through open partnership:

"So I put the two [ideas] together: give [Tacloban] children bags manufactured by disaster victim themselves [create jobs]. Then it all happened very fast ... [For example,] someone from Europe got in contact with me and sent me loads of pre-loved jeans, which we upcycled into bags.

Celebrities were willing to model for free . . . friends and their friends were willing to buy. The [SE] had a story that people were willing to support very easily.” (Interview with Jonathan of Bag-O)

Another example is from Donita of Crafted-by-Hand Jewellery, who shared how she met her first foreign investor:

“I met Jim [the investor] through Marie [both Americans] in Facebook. She knew Jim was looking for ways to help [Haiyan victims] but did not know anyone. So she introduced us to each other. Eventually, Jim came to the Philippines . . . we met and I showed him the site. I explained to him my idea. From there, he decided to support me [by] invest[ing] in the [SE] idea. He also became a mentor – he knows a lot because he has a lot of experience in managing companies . . . ” (Interview with Donita of Crafted-by-Hand Jewellery)

What can be inferred from these quotes is the ease and speed in forging partnerships with existing and novel networks at the immediate post-disaster stage – a phenomenon we label as open partnership. Furthermore, the quotes demonstrate how open partners can influence the concretization of the PDSE opportunity. This was particularly prominent in the case of Donita, whose investor from the United States became a mentor and subsequently helped her solidify the SE opportunity. Other SE founders shared similar patterns. For instance, Anita of Tikog Bags was led to bag weaving through a Haiyan survivor who shared her knowledge on weaving grass (interview data). Nathan of Bangon developed the idea of resilient house rebuilding when an architect suggested how to build typhoon-ready and cost-effective houses (interview data). Gerry of Golden Farms was approached by a former Land Bank of the Philippines executive to partner in the development and introduction of typhoon-resilient farming strategies for the benefit of rural families affected by Haiyan (interview data). What could be underscored in these events is the role open partnership played in supporting the SE opportunity development towards sustainable humanitarianism – something that can be further appreciated or juxtaposed with the next episode when partnerships became more selective.

Enhanced resource access

By initiating collaborations and partnerships with existing and novel networks, PDSE founders were able to enhance their resource access at the immediate post-disaster period. Indeed, this was already evident in the statements raised above – Jonathan benefitted from the free marketing offered by national celebrities, while Donita gained an investor by happenstance through her Facebook network. Consequently, enhanced resource access allowed them to swiftly launch their SE projects. This was equally true for the other SE founders:

“The first year was really all about riding that wave of generosity and openness from various people. We had friends who helped promote our products and we got help from museum foundations to showcase our woven bags. [For example,] one popular artisan fair called Maarte invited us to join and sell our products in their fair. That helped get the word out and our cause to help Haiyan victims.” (Interview with Anita of Tikog Bags)

Likewise, Nathan, whose PDSE involved rebuilding houses, enhanced his resources through access to free labour from volunteers:

“We had volunteers from Australia, Hong Kong, and yuppies from Manila to rebuild houses in Tolosa, [a municipality in Leyte]. We directed their desire to help through volunteer work by aiding our enterprise in rebuilding houses. We benefitted from free and willing laborers.” (Interview with Nathan of Bangon)

Consequently, with open partnership and enhanced resource access, practically all of the PDSEs in question managed to develop and execute their sustainable humanitarianism opportunities within five months after Haiyan's land fall on 8th November 2013². As outlined in Table 1, Bangon, Hope Houses, Crafted-by-Hand Jewellery started their operations by December 2013, Tikog Bags by January 2014, Dawn Tacloban by March 2014, and Bag-O by April 2014. As explained by Gerry of Golden Farms, *'there was a lot of enthusiasm by everyone'* in the immediate post-disaster stage, which *'allowed us to put [resources] together very fast'* (Interview data).

Expanded affordable loss

Why did the PDSE founders plunge into action despite the uncertainty and time pressure? According to Dew et al. (2009), an effectuator who is unable to predict maximum returns, focuses instead on estimating the resources that he or she could affordably lose – hence the term 'affordable loss' – in the event the exploited opportunity proves unsuccessful. In turn, the estimated affordable loss determines whether an entrepreneurial plunge is undertaken or not, or why a certain entrepreneurial action is chosen vis-à-vis another. What effectuation theory does not explore, however, is the expanding or contracting tolerance for loss depending on the context and the change in that context.

Indeed, the interview data reveal that PDSE founders' willingness to sacrifice for others was 'expanded' in the proximate period following the Haiyan disaster. For instance, Nathan of Bangon explained his decision to plunge into action in the following way: *'I am not a hero. If [you] had seen what I saw, [you would] also be moved to do something. I just had to do something. I did not think about the sacrifices it would entail ...'* (Interview Data). In a similar manner, Anita of Tikog Bags decided to help because *'I felt blessed to be alive. A worker of our family living in [Leyte] died ... A wall collapsed on him. [His death] really affected my family. [Consequently,] we wanted to help ... we were not thinking of anything in return or the cost of helping'* (Interview Data). To set up the SE, Donita of Crafted-by-Jewellery *'used my personal savings to set up [the PDSE]. It was partly therapy for me, but more importantly to do something for others'* (Interview Data).

Evident in these statements was a sense of compassion (Perry 1996, 1997) for the disaster victims. Whereas Sarasvathy's concept of affordable loss is premised solely on a self-estimate of loss tolerance, expanded affordable loss encompasses the desire to alleviate the suffering of others, entails the willingness to sacrifice for others, and concomitantly the readiness to incur more personal losses. Nonetheless, over time the extreme effectuation episode gave way to a more calculated effectual process, which we will explain next.

Further away from disaster event: calculated effectuation episode

In contrast to the previous period, the calculated effectuation episode is characterized by the PDSE founders' perceptions of (a) internal uncertainty, (b) time decompression, (c) opportunities oriented towards commercial viability, (d) contracted affordable loss, (e) selective partnership and (f) diminished resource access.

Internal uncertainty

Farther away from the Haiyan disaster event, there was a perception that the situation in Leyte and Samar had 'normalized' by 2015 and that disaster victims '[have]

somehow recovered from the tragedy of [Haiyan]. [Also] many organizations stopped their relief efforts by then' (Interview with Donita of Crafted-by-Hand Jewellery). By this time, many of the SEs have been in operation for a year.

The interviews reveal that founders' perception of uncertainty shifted from external to internal organizational concerns. Questions about the SEs commercial viability and issues on how to improve relations with some beneficiaries now became the salient uncertainties. For instance, Jonathan, founder of a work-integration bag manufacturing enterprise, began to see a drop in purchases, leading him to think of ways to set up a sales team:

"I'm working out a way to set up a sales team outside of Tacloban. It's the sales component that's very weak. That's my fault, I'm not a sales-oriented person. But I'm not sure how to go about it yet." (Interview with Jonathan of Bag-O)

Whereas in the previous period the PDSEs earned support based on their social mission (help Haiyan survivors recover), under the calculated effectuation episode, the PDSEs felt they could no longer leverage on the Haiyan narrative. As Jonathan put it, '*people don't buy stories anymore*' (Interview Data). Echoing the same observation, Anita of Tikog Bags said that '[Haiyan] stories have less resonance now, which is why you no longer see Haiyan [victims mentioned] in our [social media] postings' (Interview Data). This change in public perception impacted their sales, which in turn, created uncertainties about their sustainability.

Another source of internal uncertainty is the relations with the beneficiaries. For example, once keen to participate in the SE, the beneficiaries of Golden Farms over time began manifesting reluctance to continue committing to the enterprise, leading its founder to think:

We have to evolve [in terms of] how we manage the farmers [and understand] what they want. . . . [That's why] there's no point in accepting more members because we haven't really fixed things internally. We have to have successes first before we can include more farmers." (Interview with Gerry of Golden Farms).

The internal uncertainties made the PDSEs inward looking in that they became more focused on fixing organizational operations (e.g. enhancing the sales team for commercial viability or improving relations with beneficiaries to secure continued commitment). In contrast, the PDSE founders were focused on the uncertainties related to the post-disaster environment under the extreme effectuation episode.

Time decompression

The sense of urgency to help disaster victims receded as a consequence of the perception that the situation has normalized in Leyte and Samar. More than one year after the storm, the Haiyan story ceased to be front-page material (although the rebuilding efforts were still underway) and the rhythm of life seemed to take a business-as-usual pace. This meant that the PDSE founders no longer felt the pressure to accelerate entrepreneurial processes characteristic of the previous period.

The story of Success-Co is a case in point. Allan, founder of the PDSE devoted to helping coconut farmers in Samar, tells a contrasting narrative to the extreme effectuation episode. He arrived in the Philippines from the United States 11 months after the typhoon and began launching his SE by February 2015. Unlike the other founders, he had time to conduct research, carefully studying the value chain linkages of the Samar coconut industry to pinpoint the inefficiencies within the system. From there, he

identified commercially viable-solutions that could address the inefficiencies. In the process, he also observed that the farmers' lack of access to proper credit facilities and financial literacy were key reasons for their poverty cycle (Interview Data).

In the case of the other PDSEs, the deceleration of time meant having the temporal space to carefully adjust towards commercial viability and re-evaluate their long-term commitment to the PDSE. As Donita of Crafted-by-Hand Jewellery shared: *'I now can think of minimizing waste in our production system . . . [So I can] cut down costs. Not all of the weavers are skilled enough. That's how I can be more profitable'* (Interview Data). Realizing the long and arduous process involved in sustaining the enterprise, another SE founder contemplated closing shop: *'We thought about closing Tikog Bags, maybe until our inventory lasts. It's really hard, so we have to think hard'* (Interview Data).

Commercial viability opportunity

Following the last statement above, the other SEs were similarly concerned with the commercial viability of their enterprises. Commercial viability became the salient opportunity orientation. Happy Houses and Crafted-by-Hand Jewellery were seeking new markets outside the Philippines where they can deploy their products. Tikog Bags and Bag-O were contemplating of relocating part of their manufacturing operations to Manila to reduce logistical costs. Success-Co was considering the possibility of having an end-to-end coconut production process as a way to have a fully-integrated market. Bangon was looking carefully in diversifying its commercial ventures to include industrial cold-storage facilities and a chain of mini-grocery shops. Golden Farms and Dawn Tacloban, meanwhile, were thinking of introducing higher-yield seeds and multi-cropping techniques for faster and abundant harvests.

These reflect a change in the salience of the two logics – humanitarian and commercial – wherein the former gave way to the latter in terms of priority in task although the passion to serve the public remains. Nathan of Bangon illustrated this shift by arguing that *'a social enterprise has to be first viable as a business so that [it] can continue to help'* (Interview Data). While true, this thinking marks a movement away from the time when the founders created interventions for the sake of victims as their primary task. In the calculated effectual stage, the tasks were reversed, giving the commercial opportunities a salient place as a means to create public value.

Selective partnership

With commercial viability as their priority, the PDSE founders became more selective in the partnerships they forged. This was evident in that the PDSE founders targeted potential partners who could enhance their commercial viability.

Happy Houses sought to partner with a Japanese firm who could accelerate and lower the cost of manufacturing the foldable mobile houses. Bag-O moved away from retail and instead linked with corporate partners to ensure constant demand. Golden Farms sought wholesale buyers for their farm products to benefit from economies of scale. Bangon forged a deal with an investor to co-create industrial cold storage facilities around Leyte. Tikog Bags outsourced part of its manufacturing to a partner company in Manila. Dawn Tacloban partnered with a microfinance firm to shore up its credit. Crafted-by-Hand Jewellery signed a deal with a start-up online company to serve as its distribution channel. Success-Co joined start-up competitions to gain access to investor credit and meet social impact investors. (Interview Data)

In addition, we observed selective partnership from the decision of PDSE founders to exclude unproductive beneficiaries, which is an interesting contrast to the previous period when they sought to embrace disaster victims into the PDSE without much regard for suitability:

“[We want] same-minded beneficiaries who understand what we want to do. We want to help them but they also have to exert effort and be productive . . . Otherwise, they are not good for [the enterprise]. (Interview with Nathan of Bangon)”

“[We are] trying to slash down [on the beneficiaries] as there are those who are not active. We don’t care if we [end up with] a handful, as long as we stick to our core group. (Interview with Gerry of Golden Farms)”

Diminished resource access

Concomitant to the process of selective partnership is the diminished access to resources. Whereas in the previous episode the PDSE founders benefitted from ‘help’ resources and the spirit of volunteerism of various people, under the calculated effectual period they began to experience a drying up of these resource channels. Nathan of Bangon, for instance, shared that he “no longer receives as many inquiries about volunteering. Before, we got groups to help us rebuild houses monthly. Now no more . . . may be this year (2016), we only have one volunteer group (Interview Data).”

Furthermore, with diminished resource access, some PDSE founders joined start-up competitions in the hope they can augment their financial capital; some were more successful than others. Anthony of Success-Co managed to secure funding from local and international start-up funding competitions, but also expressed this was motivated by a lack of other resources: ‘I was hoping for business incentives from government but that’s not looking good at the moment. So we joined competitions . . . that’s looking good’. On the other hand, Jonathan of Bag-O was not equally successful: ‘The problem with these competitions is that they can push you towards a direction you don’t like. We need them but I don’t agree how impact investing [as organized by banks] works’ (Interview Data).

Contracted affordable loss

Alongside the perception of a normalized state of affairs in Samar and Leyte is the contracted tolerance for loss among the PDSE founders, that is, their diminished willingness to sacrifice for SE development, and by extension their readiness to incur potential losses. In the previous period, they were ready to plunge into action less mindful of the cost; now, they made decisions that are more measured and prudent and, in some instances, they are even open to the idea of an exit plan.

Vincent of Hope Houses put it quite succinctly when he said, ‘We have to respect the market. The market tells you what it wants. So [in a] sense, we had to more prudent when we were asked to keep building’ (Interview Data). This signals a different approach from the previous episode. Back then, his statements emphasized more the need to care and take action for the sake of the disaster victims: ‘If you don’t care and if you don’t have that will, then why would you even look for [solutions] . . . Somebody has to really care’ (Interview Data). Similarly, Tikog Bags founder reflected a shift in her tolerance for potential loss:

“[Back then], we simply wanted to help as many communities [that’s why] we developed weaving houses in different locations, which was not the most sound way [of doing things] logistically. [But

now,] we have to think of costs. We're not very sure about how long we can sustain this"
(Interview with Anita).

Evident in these statements is the transition from expanded to contracted affordable loss, alongside diminished resources and concerns about commercial viability. Overall, the findings suggest that proximate to the disaster event, the PDSEs are likely to embrace stronger publicness and nonprofitness logics than privateness (i.e., they were willing to lose plenty of resources to help and serve the victims and were not worried about their social impact metrics or issues of economic efficiency). However, as the PDSEs moved further away from the disaster event, they embraced a stronger privateness logic while the publicness and nonprofitness logics remain though weaker (e.g., continuing to serve their victims and help them be independent but be selective in choosing partners and opportunities, pay more attention to economic efficiency issues).

Discussion and conclusion

This article makes new contribution to research on social entrepreneurship (SE) in the public management domain by first articulating SE as a way to create public value and situating post-disaster as an important but overlooked context of study in SE. From here we conceptualized post-disaster SE (or PDSE) as ways of organizing and organizations that embrace a mixture of publicness, privateness and non-profitness to create public value. In this way, we extend the discourse of SE beyond the conventional theorizing of SE as a hybrid business that aims to create commercial and social goals (Battilana and Lee 2014; Powell, Gillett, and Doherty 2019) and bring in public value (Moore 1995) as a central theory of SE.

Specifically, this study identified effectuation as a key concept in understanding and explaining SE in post-disaster context and how it is practised differently across time. That is, due to time compression in the aftermath of natural disasters, social entrepreneurs expanded the loss they were willing to tolerate and partnered with almost anyone who can bring in resources and ideas in creating PDSEs (or extreme effectuation). But further way from the disaster aftermath, issues of financial sustainability drove the SEs to narrow the loss they were willing to accept, partnered selectively, and dealt with diminished resources in the organizations and public sympathy. These findings – on the shift from extreme to calculated effectuation as guiding principles of social entrepreneurial action – extend and enrich prior research on the role of entrepreneurial brokers in the disaster recovery (Saban 2015) and what makes SEs sustainable over time (Powell, Gillett, and Doherty 2019). We also extend the government and voluntary sector failure theory (Dart 2004; Salamon 1987; O'Donovan 2019) in the context of post disaster by proposing the idea that PDSE is a possible mechanism to provide public services when the state and non-profit sectors are weak, paralysed or lack the legitimacy to act in times of disaster.

This study also enriches and contributes to the literature on emergent response groups (ERGs) in post-disaster environments (Drabek and McEntire 2003; Majchrzak, Jarvenpaa, and Hollingshead 2007; Stallings and Quarantelli 1985). Our study went beyond the focus of the structure of ERGs (e.g., ad hoc, loose and novel) or their position against the command and control system of governments (see Drabek and McEntire 2003) but extend the conversation by identifying PDSE as a new actor of ERG in post disaster environments and understanding what the founders of PDSEs were facing and the decisions they made to launch and grow their SEs – as summarized in the extreme effectuation and calculation effectuation processes.

This study also has implications on post-disaster ‘Build Back Better’ policy goals especially in the context of less developed countries, which in general means rebuilding communities at a level surpassing their pre-disaster state in order to achieve resiliency against future natural hazards (Kennedy, Ashmore, and Babister 2008; Mannakkara and Wilkinson 2013). This requires better physical infrastructure, a more inclusive economic system and a participative post-disaster management system. PDSEs can contribute in all of these policy work. As our case studies show, they can (potentially) rebuild houses, generate livelihood, and correct inequitable economic systems. The extreme effectual process also demonstrates that social entrepreneurs can be agile in responding to post-disaster relief and recovery needs. Yet, they enjoy no clear legal recognition in the Philippines (Darko and Quijano 2015) in order to promote their establishment. Thus, this can be one area for policy consideration.

Limitations and future research

Our study comes with some limitations. First, the small number of cases in this study limits the generalizability of the findings. More research is needed involving larger number of observations and multiple countries to examine how PDSEs create public value and the issues they face. Second, there is increasing critical studies in the SE field that question the behaviour of some SEs and imply that SEs may not always create value that the public values. Examples include SEs that only pay marginalized groups at or near minimum wage (e.g., Bidet et al. 2018), or use the SE label for profit motives and somehow mislead the public (e.g., Chandra 2019) or drift away from their original purpose and become for-profit ventures (Ebrahim, Battilana, and Mair 2014). This calls for more research on the normative perspective of public value in SEs and what stakeholders of the SE industry can do to mitigate this problem. Third, we did not study the performance PDSEs. It is logical to expect that some PDSEs will succeed while others fail when operating in post-disaster environments. Future research can compare PDSEs that operate sustainably or not or to what extent they can influence government policy.

Fourth, the perspectives of target beneficiaries are not explored in this study. While social entrepreneurs have a strong influence in the development of their organizations, this cannot supplant how beneficiaries might think about the impact of social enterprises. The focus on founders (Nicholls 2010) must not be to the neglect of target beneficiaries. Thus, a more in-depth analysis on beneficiaries as a way to understand the effects of SEs must be undertaken.

Experimental social sciences are also promising to drive forward the scholarship in this area. For example, researchers can use laboratory experiment to tease out factors that influence why and how citizens are willing to sympathize and provide resources to and purchase from which social entrepreneurs in a post-disaster context. Field experiment can be used to examine how the presence or absence of the state and non-profit organizations can influence the desire of grassroots citizens to establish SEs and the factors that influence them to exit or continue the social enterprises when the situation normalize.

Last but not least, we still know very little is the extent of the mixture of publicness, privateness and nonprofitness logics (Bozeman 2007; Bozeman and Moulton 2011; Robichau, Fernandez, and Kraeger 2015) that is ideal or optimal to ensure the sustainability of social enterprises (Powell, Gillett, and Doherty 2019). How a social enterprise embraces different combinations and portions of these logics is a fertile area for future research.

Notes

1. Tricycles are motorbikes with a sidecar, a popular means of public transportation used like taxis in the Philippines.
2. As mentioned earlier, only one SE – Success-Co – emerged after more than one year post-Haiyan. Interview data reveal that the founders effectual process matches the calculated effectuation episode.

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Appendix

Table A1. Data sources..

Social Enterprise	Primary Source	Secondary Sources		
		Publicly Available Documents	Internal Documents	Observation Data
Bag-O	5 interviews with founder	6 online videos 12 news articles 2014–2017 website and social media posts (e.g. Facebook and Instagram)	1 internal presentation	3 site visits
Tikog Bags	8 interviews with founder and 1 interview with co-founder	4 online videos 4 news articles 2014–2017 website and social media posts (e.g. Facebook and Instagram)	1 internal presentation	3 site visits
Bangon*	7 interviews with founder and 7 interviews with co-founder	4 online video 4 news articles 2013–2017 website and social media posts (e.g. Facebook and Instagram)	3 internal presentations 6 internal exchanges (emails)	5 site visits 2 internal meetings
Success-Co	5 interviews with founder	2 online videos 5 news articles 2016–2017 website and social media posts (e.g. Facebook and Instagram)	2 internal presentations 7 internal exchanges (emails)	1 site visit
Golden Farms	2 interviews with founder	2 online videos 4 news articles 2014–2017 website and social media posts (e.g. Facebook and Instagram)	1 internal presentation	1 site visit 1 internal meeting
Hope Houses	3 interviews with founder	6 online videos 10 news articles 2014–2017 social media posts (e.g. Facebook and Instagram)	1 internal presentation	2 site visits
Crafted- by- Hand Jewellery	7 interviews with founder	7 online videos 4 news articles 2013–2017 website and social media posts (e.g. Facebook and Instagram)	1 internal presentation	2 site visits 1 internal meeting
Dawn Tacloban	4 interviews with founder	1 online video 9 news articles 2014–2017 website and social media posts (e.g. Facebook and Instagram)	1 internal presentation	1 site visit

*Used in to illustrate how the 3 data sources were used to plot the development of each SE over time.

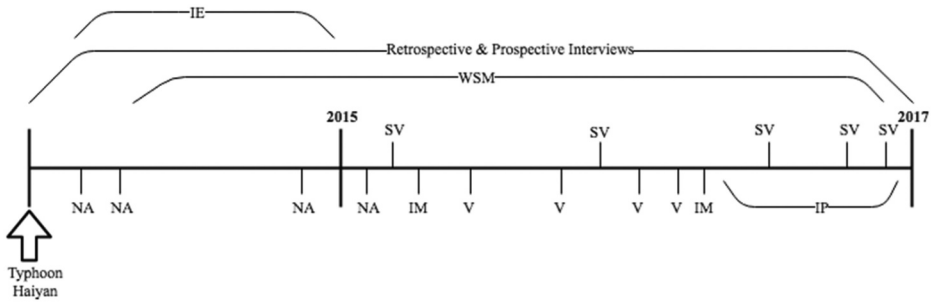


Figure A1. Plotting the Longitudinal Data Collection Process. IE: Internal Exchanges (emails); NA: News Articles; SV: Site Visits; IM: Internal Meetings; WSM: Website and Social Media Posts; IP: Internal Presentations.

Table A2. Exemplary quotes for the first and second level codes.

Aggregate Dimension	2 nd Order Themes and their First-Order Codes
Perception of Uncertainty	<p>External Uncertainty</p> <p><i>'There was a lot of confusion ... Relief efforts were not coordinated ... there were many rumours about where the relief will be sent. The situation was very uncertain ...'</i> (Interview with Donita, founder of Crafted-by-Hand Jewellery)</p> <p><i>'To establish a self-sufficient, fully-compliant, fully-registered company in a disaster zone – that is one of the hardest things! [It is] extremely difficult because things are in disarray. The local government was not even fully functioning. I started losing hair as a consequence.'</i> (Interview with Jonathan, founder of Bag-O).</p>
	<p>Internal Uncertainty</p> <p><i>'There was a lot of uncertainty ... I started thinking about ... what if [I] establish kind of a network of these local processing centres where [I] buy coconuts directly from local farmers, processing them using labour intensive technology into the dried coconut flakes and then selling the dried flakes on to these large scale virgin coconut oil manufactures at a cheaper price than they can produce it themselves. And then they'll do the final stage of the production because they will have the competitive advantages when it comes to those final stages ... And then I started playing around with different [ideas] of maybe instead of just producing the white copra, domesticated coconuts, I can maybe do that and do these satellite locations and maybe bring it to one location where I myself produce oil. Or do we want to sell it to these large scale factories? – that's the thing I was kind of thinking for a while, and there are a lot of variations of ideas that came to it.'</i> (interview with Anthony, founder of Success-Co)</p> <p><i>'It's fluid. There's no really set direction at the moment. So it's like a hit and miss.'</i> (Interview with Nathan, founder of Bangon)</p>
Perception of Time	<p>Time Compression</p> <p><i>'I organized volunteers in the aviation space to do chopper relief. [We went] to those that were zero-serviced and neglected by [various] agencies, and we delivered food to those who did not have for days. I talked to the survivors, and they said 'what we need are jobs, we need livelihood ... we are very appreciative of the relief goods but if you give us jobs that will give us the capacity to earn for ourselves, then we will be able to feed ourselves and build our own homes. Immediately after that, the social enterprise started.'</i> (Video interview with JS, founder of Bag-O).</p> <p><i>'We started to rebuild houses and offer fishing boats by December 2013. It was fast. Everyone was enthusiastic.'</i> (Interview with Nathan, founder of Bangon)</p>
	<p>Time Decompression (continuation)</p> <p><i>'The truth is things are slow. I've been living in Tolosa for 2 months straight now and we have been doing this for two years or so. It's challenging because you don't see the fruits of your labour.'</i> (Interview with Jake, co-founder of Bangon)</p>
	<p><i>'Well ... people are back to their usual ways. The beneficiaries have gone back to gambling. Life as usual for them. There is no sense of emergency or this thing of wanting to help as soon as possible ... nothing like that.'</i> (Interview with Ernie, founder of Dawn Tacloban)</p>

(Continued)

Table A2. (Continued).

Aggregate Dimension	2 nd Order Themes and their First-Order Codes
Perception of Opportunity	<p>Opportunity towards sustainable humanitarianism <i>'We wanted to help ... and take advantage of the demand for tikog while it was there ... We also like the idea that more communities would benefit from a single product, we decided to push through with it. It's not the most logistically sound way of assembling anything. Of assembling a product.'</i> (Interview with Anita, founder of Tikog Bags)</p> <p><i>'From what I see is that dole-out giving is not sustainable, as they say "easy come, easy go". Of course if you give it to them so easily, it will also disappear so easily, but if it's something they earned, they will value it.'</i> (Interview with Donita, founder of Crafted by Hand Jewellery)</p> <p>Opportunity towards Commercial Viability <i>'We have to think long term. To do that, we need to think of ways to be viable. So now we are thinking of setting up cold storage facilities ... '</i> (Interview with Nathan, founder of Bangon)</p> <p><i>'With the new president, I am not sure I would like to work with government. Not a good time to deal with them. For now, I am thinking of commercializing our mobile foldable houses. Of course, the [Haiyan] victims still need help, and I would like to help. But government ... '</i> (Interview with Vincent, founder of Happy Houses)</p>
Loss Tolerance	<p>Expanded Affordable Loss <i>'It's more important for me, and for my friends, to make sure that more communities are served or are benefitted. We know that this process is costly, but we can't just leave them alone.'</i> (Interview with Anita, founder of Tikog Bags)</p> <p><i>'I used the resources I only had.'</i> (Interview with Danika, founder of Crafted by Hand)</p> <p>Contracted Affordable Loss <i>'In any business, you have to respect the market. The market tells you what it wants; so in one sense, we had to be more prudent when we were asked to keep building.'</i> (Interview with Vincent, founder of Happy Houses)</p> <p><i>'The adviser said we should look for a supplier that is cheaper. So we did that. We had to buy more to make it cheaper, like 30 rolls of wire per colour. These things were not considered before ... '</i> (Interview with DM, founder of Crafted by Hand)</p>
Stakeholder Partnerships	<p>Open Partnership <i>'The story of [Haiyan] resonated with a lot of people. This is why many wanted to help. I was by so many friends and colleagues what can they do to help the victims through Bangon.'</i> (Interview with Nathan, founder of Bangon)</p> <p><i>'I talked to people from this design company. Immediately they wanted to help. It was not difficult at all.'</i> (Interview with Vincent, founder of Happy Houses)</p> <p>Selective Partnership <i>'It was a challenge for us to look for same-minded beneficiaries who will understand what we wanted to do ... '</i> (Interview with Nathan, founder of Bangon)</p> <p><i>'We work with the Barangay Captain. The captain is really key. I say we have to establish connection with the captain first to convince him to agree to the project. Otherwise, we will not get involved.'</i> (Interview with Ernie, founder of Dawn Tacloban)</p>
Resource Access	<p>Enhanced Resource Access <i>'Our first year was really all about riding that livelihood response and we were very lucky the people we spoke with, the people we told our story or shared our story with were very receptive.'</i> (Interview with Anita, Founder of Tikog Bags)</p> <p><i>'Where you here when it happened? Everyone wanted to help, right? People were willing to share, any kind of help. Businesses, Filipinos living abroad, family members ... everyone! It was a time of sharing. Of course that gave us momentum to gather resources.'</i> (Interview with Jake, co-founder of Bangon)</p> <p>Diminished Resource Access <i>'We have finite resources. I'm talking to director ... he is trying to see if we can sustain this through a bank loan.'</i> (Interview with Gerry, founder of Golden Farms)</p> <p><i>'Times are different. It's difficult now. I talked coffee shops and books stores if they can showcase our products ... they all declined.'</i> (Interview with Donita, founder of Crafted-by-Hand Jewellery)</p>