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EDITORIAL NOTE

Bridging humanitarian operations management and organisational theory

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The aim of the editorial note is to introduce the scope of this special issue (SI). We explain our editorial approach and provide a brief summary of eight articles included in the SI following multiple rounds of reviews. Finally, we outline future research questions which stemmed out of the discussions of this SI.

Keywords: humanitarian operations; organisational theory

1. Introduction

The humanitarian operations management (HOM) has gained strong footing as one of the specialised fields within operations management field (Kovács and Spens 2011; Dubey and Gunasekaran 2016; Dubey et al. 2016) amidst protracted complex crises, the escalation of conflict in several countries, climate change-induced vulnerability and a series of natural disasters (Sodhi 2016; Ivanov et al. 2017; OCHA Annual Report 2017; Altay et al. 2018). The HOM refers to those operations that are mandated to deal with disasters and human suffering through relief and are created through the coordination of supplies, information and finances, which are moved between donors, beneficiaries, suppliers, and humanitarian organisations in order to provide aid to beneficiaries (Mentzer et al. 2001; Martinez, Stapleton, and Wassenhove 2011). Hence, studying HOM is important since disasters have an impact on infrastructure, thereby creating disruptions in supply chains and affect firm profitability and performance (Altay and Ramirez 2010). Moreover, Sodhi (2016, 101) argues that 'the increasing number and impact of disasters over time has led to posit vicious cycles comprising disaster impact and any subset of deforestation, poverty, urbanisation, vulnerability and other factors'.

Research in HOM can be viewed in two ends of the spectrum (Chakravarty 2014). On the one hand, scholars look at logistics issues (Wassenhove 2006) such as vehicle routing (Salmeron and Apte 2010; Martinez, Stapleton, and Wassenhove 2011), whereas on the other hand the focus is on the 'softer' issues, including, for example, information diffusion, culture, responsibility, politics, and collaboration (Balcik et al. 2010; Dowty and Wallace 2010; Rodon, Serrano, and Gimenez 2012; Altay and Pal 2014; Maghsoudi and Pazirandeh 2016; Prasanna and Haavisto 2018).

Yet, there is an urgent need for understanding HOM (Altay and Ramirez 2010). Tabaklar, Halldorsson, and Kovács (2015) argued that the HOM field could be benefited by the use of theoretical concepts and frameworks from other disciplines that would explain both logistics and softer issues in HOM. Indeed, in the past scholars have suggested the use of theoretical concepts from other disciplines. Buffa (1980) and later Ketchen and Hult (2007) urged operations management (OM) researchers to go beyond traditional OM subject areas. Taylor and Taylor (2009) and more recently Moxham and Kauppi (2014) and Halldórsson, Hsuan, and Kotzab (2015) have endorsed researchers to use alternative theories and methods to explore new dimensions of the impact of SCM/OM. Applying, hence, organisational theories could enhance our understanding of HOM and make research more relevant (Tang 2016).

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2. Objectives of the special issue (SI)

Although the HOM discipline offers numerous assistances to the practitioners or the policy makers engaged in humanitarian operations, the extant HOM literature is still in the nascent stage in comparison to established operations and the supply chain management discipline. Our aim via this SI is to build a collection of high-quality theory grounded research, which furthers our understanding towards complex humanitarian operations involving multiple actors characterised by different nationality, culture, and values. Moreover, with this SI we wanted to invite articles in the context to humanitarian settings utilising organisational theory or integration of theories to explain complex humanitarian operations. Hence, the invitation was not limited to specific method or methods. We encouraged scholars to submit qualitative-based research, survey-based studies, mathematical modelling, and simulation-based studies. These methods offered solid contribution to theory and practice. Potential topics for this SI may include:

- Humanitarian logistics and supply chain management;
- Agility in humanitarian supply chains;
- Adaptability in humanitarian supply chains;
- Alignment in humanitarian supply chains;
- Coordination and collaboration in humanitarian supply chains;
- Resilience in humanitarian supply chains;
- Disaster relief operations;
- Role of humanitarian actors;
- Swift-Trust;
- Military–civil interface in humanitarian operations;
- Capacity building;
- Behavioural humanitarian operations;
- Relationship management in the context to humanitarian operations;
- Performance measures and metrics in humanitarian supply chains;
- Logistics in humanitarian operations;
- Information sharing and technology adoption in humanitarian operations;
- Total quality management in humanitarian supply chain and logistics;
- Costing in humanitarian logistics and supply chains

We received 57 submissions. The suitable manuscripts were transferred to each SI editor's account. We further evaluated the fit of each article based on our SI objectives. The manuscripts that did not meet our SI objectives were desk-rejected. Finally, we sent the remaining papers for review to at least three reviewers. Some of the papers were rejected in the first round, following reviewers' inputs. Next, we have invited reviewers for major revision based on inputs, which were in support of the publication. Following, multiple rounds of revision; finally, we accepted eight papers for this SI.

3. Brief summaries of the accepted papers

In this section we summarise eight accepted articles and note future research gaps that may motivate future studies to expand the current debate.

3.1. Civil–military pooling of health care resources in Haiti: a theory of complementary perspectives

In this article Naor et al. (2017) argue that post Haiti earthquake in 2010, the global need for rapid deployment of disaster-related relief activities is on the rise. They posit interesting research propositions based on theory of complementary, on coordination among civil–military actors, and use multiple-case studies approach to investigate the opportunities and barriers for relief organisations to pool complementary resources from various countries. This study aims to answer following research questions (RQs):

- What challenges are faced in improving or establishing coordination among civil and military actors involved in pooling disaster-related materials (i.e. healthcare items)?
- What steps are being taken to facilitate effective deployment of disaster relief items?

The study offers interesting contribution to civil–military coordination in disaster relief operations. However, in future studies the role of institutional pressures and organisational culture can be used together to explain *why* and *how* civil–military coordination work in humanitarian relief activities.

3.2. Involvement in the emergency supply chain for disaster management: a cognitive dissonance perspective

In this article Dwivedi et al. (2017) have identified how lack of communication among humanitarian actors who are engaged in disaster relief operations hindered effective and efficient coordination among humanitarian actors. In this study, authors proposed a theoretical model to explain the negative attitudes towards disaster relief efforts and grounded their theoretical framework in cognitive dissonance theory. The authors tested their hypotheses based on 281 usable responses gathered from Bangladesh based non-governmental organisations (NGOs) using the common variance based structural equation modelling (CBSEM) tool. The findings of the study contributed to cognitive dissonance theory and its application to explain the behavioural intention among the actors involved in disaster relief operations. The paper also suggested that further research should be directed towards examining how communication among humanitarian actors can further explain swift-trust and cooperation among actors involved in humanitarian operations.

3.3. Action-research-based optimisation model for health care behaviour change in rural India

In this study Prasad et al. (2017) have used multi-methods approach to explain health care interventions in rural India. Firstly, they used action-based research to conceptualise the role of self-help groups, disease profiles, and appropriate interventions in health care behaviour change and improvement. Next, they used the non-linear integer-programming-based simulation method to estimate how health care resources need to be distributed over time based on disease type and specific groups. The action study helped to formulate specific research questions (RQs) and distributional forms needed for the optimisation analysis, while the non-linear integer-programming simulation provides specific recommendations on *where* and *when* to distribute resources. Overall, the study provided an important bridge between the operations research, health care in developing nations, organisational theory, and humanitarian operations bodies of knowledge.

3.4. The social preferences of local citizens and spontaneous volunteerism during disaster relief operations

In this study Gunessee et al. (2017) argue that the role of the spontaneous volunteerism by local citizens in post-disaster relief operations has attracted limited attention from humanitarian scholars. Using archival and unstructured data retrieved from Twitter feeds generated by local citizens during the floods that hit Chennai, India, in 2015, the authors built a theoretical model to explore how social preferences motivate citizens to help during post-disaster situations beyond their own self-regarding interests. By synthesising the literature on social preferences drawn from the field of behavioural economics and social psychology with the discourse surrounding behavioural operations management and humanitarian operations management, this paper highlighted the importance of individual-level action during disaster relief operations and the enabling the role of social media as a coordination mechanism for such efforts.

3.5. Analysing the interaction of factors for the resilient humanitarian supply chain

In this study Singh et al. (2018) argued that building a resilient humanitarian chain is of critical importance. In an effort to develop a resilient humanitarian supply chain model, the authors have used interpretive logic i.e. interpretive structural modelling in an extensive review of extant literature drawn from referred publications. Next, based on the DELPHI technique the authors have established the binary relationships among 12 identified factors related to the resilient humanitarian supply chain and have classified these 12 factors into four distinct categories based on driving power and dependence using the MICMAC analysis. The model depicts a relationship among these 12 constructs, which so far has not been discussed by the extant literature. The model can be empirically tested in the future using variance-based structural modelling (PLS SEM) or the agent-based simulation (ABS) technique.

3.6. Process improvement in humanitarian operations: an organisational theory perspective

Humanitarian organisations use various process management tools, including codes of conduct and standards. Specially, NGOs are more attracted to these standards. In this study Larson and Foropon (2018) argue based on contingency theory that decision-making at the organisational level is contingent to internal and external situational factors, e.g. organisational size, operational scope, and environmental uncertainty. Via this study, the authors have attempted to further our understanding of process improvement techniques, with a focus on standards, in use by humanitarian NGOs. To achieve the research objectives, the authors have used content analysis: a sample of humanitarian NGO annual reports and web pages were examined to describe the NGOs and determine their approaches to process improvement. Based on data collected from a mix of NGOs based on their location (France or Canada), organisational size and scope of operations (development aid, disaster relief, etc.), this study suggests that contingency theory is useful in linking contingency factors to process improvement

approaches. The NGO size, operational scope, and organisational culture factors are linked to use of standards. This is one of the few studies in context to humanitarian settings, which have used contingency theory to explain the process improvement approaches to improve the disaster relief operations. The study offers useful guidance to various humanitarian actors engaged in disaster relief operations.

3.7. Cross-sector humanitarian-business partnerships in managing humanitarian logistics: an empirical verification

In this study Nurmala, de Vries, and de Leeuw (2018) argue that cross-sector humanitarian–business partnerships play an important role in the success of disaster relief operations. Yet, the extant literature has not paid significant attention on the role of cross-sector humanitarian-business partnerships. In this study, a typological framework for humanitarian–business partnerships in managing humanitarian logistics using content analysis has been developed. The findings suggested that the degree of partnerships between the business sector and the humanitarian sector in managing humanitarian logistics is still limited and these partnerships are not widely acknowledged. Furthermore, the financial contributions constitute the most common type of resource delivered by the business sector when it comes to partnerships with the humanitarian sector focused on managing humanitarian logistics. It is further observed that the majority of partnerships are dyadic in nature, often managed by a single humanitarian organisation and a single business corporation. These partnerships target support for natural disaster emergency relief operations and mainly focus on disaster response.

3.8. Pre-positioning inventory and service outsourcing of relief material supply chain

In this study, Yao et al. (2018) argue that service outsourcing plays an important role in disaster relief operations by examining the optimal pre-disaster order quantity of a certain relief commodity, based on a two-stage coordinated approach. The findings suggest that the delay cost, shortage penalty cost, risk of supply shortage, salvage value, expected perishable rate, unit inventory cost, and reactive price have a significant impact on the optimal amount of the propositioned inventory. Moreover, the outsourcing strategies differ by types of relief commodities. For perishable supplies, proactive or reactive outsourcing would improve the benefits of buyer and supplier simultaneously. As for imperishable supplies, it is better to combine proactive insourcing approach and reactive outsourcing strategy. In view of some supplies whose monitoring cost is high, the insourcing approach is much better than the outsourcing approach.

4. Future research Directions

Based on eight articles, we have observed that the contributing authors to our SI have used resource dependence theory, contingency theory, and behavioural theory to explain coordination, behavioural intentions among disaster relief teams, and the spontaneous volunteerism and cross-sector humanitarian-business partnerships. Further, this SI has also provided interesting insights for building resilient humanitarian supply chain and developing inventory strategies for disaster relief materials. These contributions had led to further theoretical debates surrounding humanitarian operations using organisational theories. Yet, some research questions remain unaddressed:

RQ1: How can effective communication help to build swift-trust among actors engaged in humanitarian operations?

RQ2: How can ICTs be used to enhance civil–military coordination? How can stakeholder's resource based view explain the role of civil and military in disaster relief operations?

RQ3: How can the integration of institutional theory and resource dependence theory help to explain civil–military coordination?

RQ4: How can organisational information processing theory help to explain the role of innovative technologies used in disaster relief operations?

RQ5: How can interpretive methods such as Interpretive Structural Modelling or Total Interpretive Structural Modelling be used to build theory on HOM?

RQ6: How complimentary are supply chain agility and supply chain resilience to each other in the context of humanitarian supply chains?

We believe these research questions may further help to bridge the gap between humanitarian operations management and organisational theory.

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