

Supply chain risk governance: exploring citizens' role in crisis preparedness

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Abstract

Disruptions have marked the first years of 2020 to an extent that normalcy does not seem to exist anymore, but rather society is marked by a constant flow of dynamic changes where preparedness for crises is of paramount importance. As the COVID-19 pandemic and the Russian invasion of Ukraine in 2022 both showed, all sectors of society are affected by large-scale disruptions, and the participation of all societal actors is needed to mitigate and cope with their effects and ultimately resolve them. This paper presents a research plan for a study that aims to explore citizens' role in the security of supply and crisis preparedness. Citizens' participation is explored from the perspective of supply chain risk governance (Ahlqvist et al. 2020) which combines perspectives from supply chain risk management (SCRM) and risk management and societal safety (RMSS). First, a scoping literature review is conducted to explore existing research on the topic, and second, interviews are conducted with relevant actors to gather data. In terms of a theoretical contribution, the findings of this research could expand the existing supply chain management literature by illustrating the role of civil society in supply chain risk governance. On a practical level, bringing clarity on the roles of citizens in supply chain preparedness could contribute to societal preparedness, and ultimately, resilience.

Keywords: crisis preparedness, risk governance, supply chain risk management, societal resilience

1 Introduction

Disruptions have marked the first years of 2020 to an extent that normalcy does not seem to exist anymore but rather society is marked by a constant flow of changes where preparedness for crises is needed in all spheres of society. As the COVID-19 pandemic and the Russian invasion of Ukraine in 2022 both showed, all sectors of society are affected by large-scale disruptions, with cascading effects, and the participation of all societal actors is needed to mitigate and cope with their effects and ultimately resolve them.

In this context, this paper presents a research plan for a study that aims to explore citizens' role in the security of supply and crisis preparedness. In this research, citizens' participation is explored from the perspective of supply chain risk governance (Ahlqvist et al. 2020) which combines perspectives from supply chain risk management (SCRM) and risk management and societal safety (RMSS). In doing so, this research focuses on the aspect of the supply chain that has not received much attention yet, namely, citizens. Finland serves as the case country for this study, and citizens' participation is explored as part of the whole-of-society approach to crisis management. The whole-of-society approach to risk governance is a holistic approach to preparedness that is prevalent in the Nordic countries and entails that preparedness for crises is conducted in cooperation with all societal actors (Meriläinen & al. 2020). In Finland, the concept of comprehensive security is used. Accordingly, "vital functions of society are jointly safeguarded by the authorities, business operators, organisations and citizens" (Security Committee 2017, p. 5).

This research is conducted as part of the CORE¹ (sScience& human factOr for Resilient society, <https://www.euproject-core.eu/>) project that aims to foster a culture of improved preparedness, adaptability, and resilience to multiple risks across organisations and countries in the EU (CORE 2023). This study constitutes a

follow-up study for research where the aim was to map how the security of supply is organized within the disaster management and DRR frameworks of selected EU countries.

2 Theoretical background

The theoretical basis of this research is grounded in the intersection of supply chain risk management, and risk/crisis management and societal safety. In the face of turbulences and uncertainties that the global supply chains are facing, supply chain risk management (SCRM) is a research domain that explores strategies for how companies identify, analyse and manage risks involving their supply networks (Ahlqvist et al., 2020). With a focus remaining on the commercial sector, a move away from focal company-centeredness to a more holistic and inclusive approach is that of collaborative supply chain risk management (Friday et al., 2021).

In the sphere of society, risk management and societal safety (RMSS) cover societal risks and deal with a wider array of stakeholders yet often consider the state as the main actor (Ahlqvist et al., 2020). The risk management processes are divided into distinct phases, including e.g., mitigation, preparedness, response, and recovery (Meriläinen et al., 2020). With the complexity of society and related risks increasing, as in the case of critical infrastructures and vital societal functions, the need for solutions that are equally multifaceted and complex and can only be met by a multitude of actors has emerged (Ahlqvist et al., 2020). To answer that call, disaster risk governance is a concept that indicates the multitude of actors, not only the state nor private sector, involved in risk management (Meriläinen et al., 2020; Tierney, 2012). In general terms, governance refers to “an institutionalised decision-making process among many independent actors” which is “operationalised into more detailed and concrete governance mechanisms that may direct various actors’ behaviours” (Ahlqvist et al., 2020, 383).

To further add an inter-organisational dimension to risk management, and to combine insights from supply chain risk management (SCRM) and risk management and societal safety (RMSS) in an interdisciplinary and integrated approach, supply chain risk governance has been suggested as a term in the intersection of the two (Ahlqvist et al., 2020). It was proposed for systemic risks involving critical infrastructures, where cooperation across different sectors of society involves multiple actors, both private and public, and in the case of disruption, cascading effects may occur. As the present study focuses on the security of supply and crisis preparedness, which comprises preparedness for the whole society and all societal actors, this concept is considered a fruitful starting point. However, while the related framework is aimed at multi-actor networks, the focus is on public and commercial actors, and civil society actors, including citizens and households, are not addressed. Hence, one of the purposes of this research is to explore how this framework could be expanded to include citizens’ perspective.

3 Methodology

The empirical part of this study consists of three overlapping phases. First, a scoping literature review is conducted to explore existing research on the topic, and second, a case study on the Finnish security of supply system is conducted. The purpose of the scoping literature review is to ‘map rapidly the key concepts underpinning a research area and the main sources and types of evidence available and can be undertaken as stand-alone projects in their own right, especially where an area is complex or has not been reviewed comprehensively before’ (Mays et al., 2001, p. 194). In the context of the present study, the aim of the scoping review would be to map past studies involving citizens’ role/participation in the domains of 1) risk governance and 2) supply chain risk management. In particular, the purpose of reviewing the literature would be to plot governance mechanisms involving citizens’ participation in the literature. To meet these aims, the following research questions were formulated for the scoping study:

RQ1: How is citizens’ participation in crisis preparedness characterised/conceptualized in risk governance and SCRM literature?

RQ2: What governance mechanisms are relevant for citizens’ participation?

In the second stage, a case study involving the security of supply system of Finland is conducted. The findings of the scoping review are examined in light of the Finnish security of supply system. In particular, the implementation of citizens’ participation in the Finnish security of supply system is studied. Moreover, the

governance mechanisms in place are mapped and explored. Interviews will be conducted with organisations that are involved in crisis preparedness and relevant to citizens' participation. In particular, the Security Strategy for Society, which describes the comprehensive security model of Finland, is analysed and parties involved in its implementation concerning civil society participation are interviewed. Moreover, the security of supply system and the related organization is explored from the same perspective, and organisations involved in coordinating and cooperating around citizens' preparedness, are interviewed. In the sphere of preparedness training, organisations and training programs are explored and participants interviewed. For these aims, the following research questions were formed:

RQ3: How is citizens' participation in crisis preparedness actualized/implemented in the Finnish security of supply system?

RQ4: What governance mechanisms are in place for the involvement of citizens in the Finnish security of supply system?

Finally, the findings in the first two parts of the research are brought together and synthesized. In an attempt to advance theory building, combining literature and the findings from the empirical part, an answer is sought to the following research question:

RQ5: How can citizens' participation be conceptualised for supply chain risk governance?

This research follows an interpretive approach (e.g. Derby et al., 2019). Multiple methods and data sources are used to create a holistic understanding of the studied topic (Denzin & Lincoln, 2008). A socially constructed view of reality is assumed, acknowledging the interrelation between the researcher and the studied topic (Berger & Luckmann, 1966). Finland is selected as the case study country as in the Finnish crisis management system citizens are considered important security actors along with governmental, business, and civil society organisations (Security Committee, 2017). Hence, the experiences and perceptions of these actors serve as important insights in co-creating knowledge that can serve as a benchmark and benefit practitioners in other countries. Data collection and analysis can best be illustrated in the form of a cycle where one complements another in an iterative manner (Derby et al., 2019).

4 Expected findings

The findings of this research could contribute to the existing supply chain management literature by illustrating the role of civil society in supply chain risk governance, a previously unexplored topic. At the same time, the sphere of risk management and societal safety may also benefit from a more inclusive approach that covers a wider range of societal actors. Hence, it continues on the line of interdisciplinary efforts of Ahlqvist et al. (2020) in an integrated and holistic approach reflecting a systemic paradigm in solving pressing societal issues involving disruptions and crises.

On a practical level, bringing clarity on the roles of citizens in supply chain preparedness could contribute to societal preparedness, and ultimately, resilience, in several ways. The participation of citizens can, for example, help buy time for the governments to initiate their response activities in the case of a natural catastrophe. Moreover, citizens' home preparedness can alleviate indirect harmful effects of crises, such as hoarding, as happened during COVID-19 when people stormed shops to buy pasta and toilet paper in fear that it would end. A home stock would also prevent an ill person from going needlessly to a shop to spread viruses or going to the hospital if he knows how he can help himself/herself at home. A prepared citizen is also a prepared employee with fewer worries, able to perform his duties as an employee if he knows his family is well and safe in the case of a crisis. Hence, when citizens know how to act in case of a disruption, and are prepared both materially and immaterially, they can contribute to the continuity of vital societal functions. Moreover, clarifying the roles of citizens as security actors beyond home preparedness can also improve future communication about crisis preparedness to citizens in the form of different preparedness materials and via different communication channels.

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References

Ahlqvist, V., Norrman, A. and Jahre, M. (2020), "Supply Chain Risk Governance: Towards a Conceptual Multi-Level Framework". *Operations and Supply Chain Management: An International Journal*, Vol. No. 4, pp. 382–395.

Berger, P. and Luckmann, T. (1966), *The Social Construction of Reality. A Treatise in the Sociology of Knowledge*. London: Penguin books.

CORE (2023), Online: <https://www.euproject-core.eu/> (Accessed: 14.9.2023)

Denzin, N. K. and Lincoln, Y. S. (2008), "Introduction: The discipline and practice of qualitative research". In N. K. Denzin & Y. S. Lincoln (Eds) *Strategies of qualitative inquiry* (3rd ed.). Thousand Oaks, CA: SAGE, pp. 1–32.

Darby, J.L., Fugate, B.S. and Murray, J.B. (2019), "Interpretive research: A complementary approach to seeking knowledge in supply chain management", *The International Journal of Logistics Management*, Vol. 30 No. 2, pp. 395–413. <https://doi.org/10.1108/IJLM-07-2018-0187>Meriläinen & al. 2020

Friday, D., Savage, D.A., Melnyk, S.A., Harrison, N., Ryan, S. & Wechtler, H. (2021), "A collaborative approach to maintaining optimal inventory and mitigating stockout risks during a pandemic: capabilities for enabling health-care supply chain resilience", *Journal of Humanitarian Logistics and Supply Chain Management*, Vol. 11 No 2, pp. 248–271. <https://doi.org/10.1108/JHLSCM-07-2020-0061>

Mays, N., Roberts, E., and Popay, J. (2001), "Synthesising research evidence", In Fulop, N., Allen, P., Clarke, A., and Black, N. (Eds), *Studying the Organisation and Delivery of Health Services: Research Methods*. Routledge, London.

Security Committee (2017), *The Security Strategy for Society*. Government Resolution / 2.11.2017. Available online: <https://turvallisuskomitea.fi/en/security-strategy-for-society/> (Accessed 30.10.2022)