

Theoretical modelling of the possibilities to elaborate resilience enhancement framework of seaport organizational ecosystem

Elena Valionienė, Erika Župerkienė

Klaipeda University (Lithuania)

elena.valioniene@ku.lt

INTRODUCTION

Introduction. A lot of researches on the port ecosystems are related with the port governance effectiveness and operational performance, and the newest research looking for effectively working port governance model through the enhancement of port resilience in volatility, uncertainty, complexity, and ambiguity (VUCA) conditions, but the researches are in the different segments of port business ecosystem. Research field segmentation leads the lack investigation of the functioning and resilience of the whole port ecosystem, consisted of private and public entities connected

As the previous research found out, the strong relationship exists between the effectively working port governance model and maritime transport attractiveness (figure 1), but this relationship works under general market conditions and in the long-term perspective. But this relationship is not so effective during the periods of high uncertainties, some short-term tools is required. So, the main idea is to investigate the resilience for disruption factors, including these which appear during VUCA conditions, in the terms of resilience enhancement possibilities through managerial interventions. And for the realisation of this idea the theoretical approach on the seaport organizational ecosystem's resilience is required where main hypothesis is related with the idea to find the relationship between ecosystem's resilience and maritime business excellence as the extended conception of maritime transport attractiveness.

The aim of research: to investigate the possibilities to elaborate resilience enhancement framework of port organizational ecosystem.

Objectives:

- to describe the conception of organizational resilience;
- to explain the conceptions of port organizational ecosystem as the entrepreneurial ecosystem;
- to justify resilience enhancement possibilities.

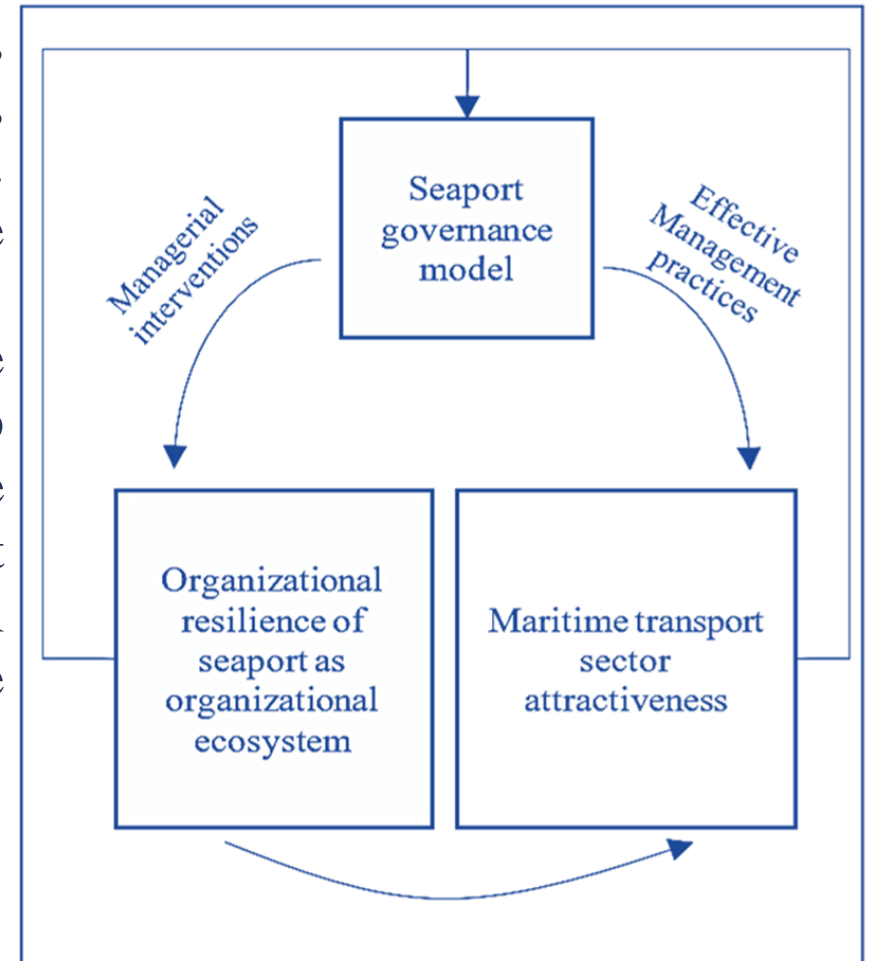
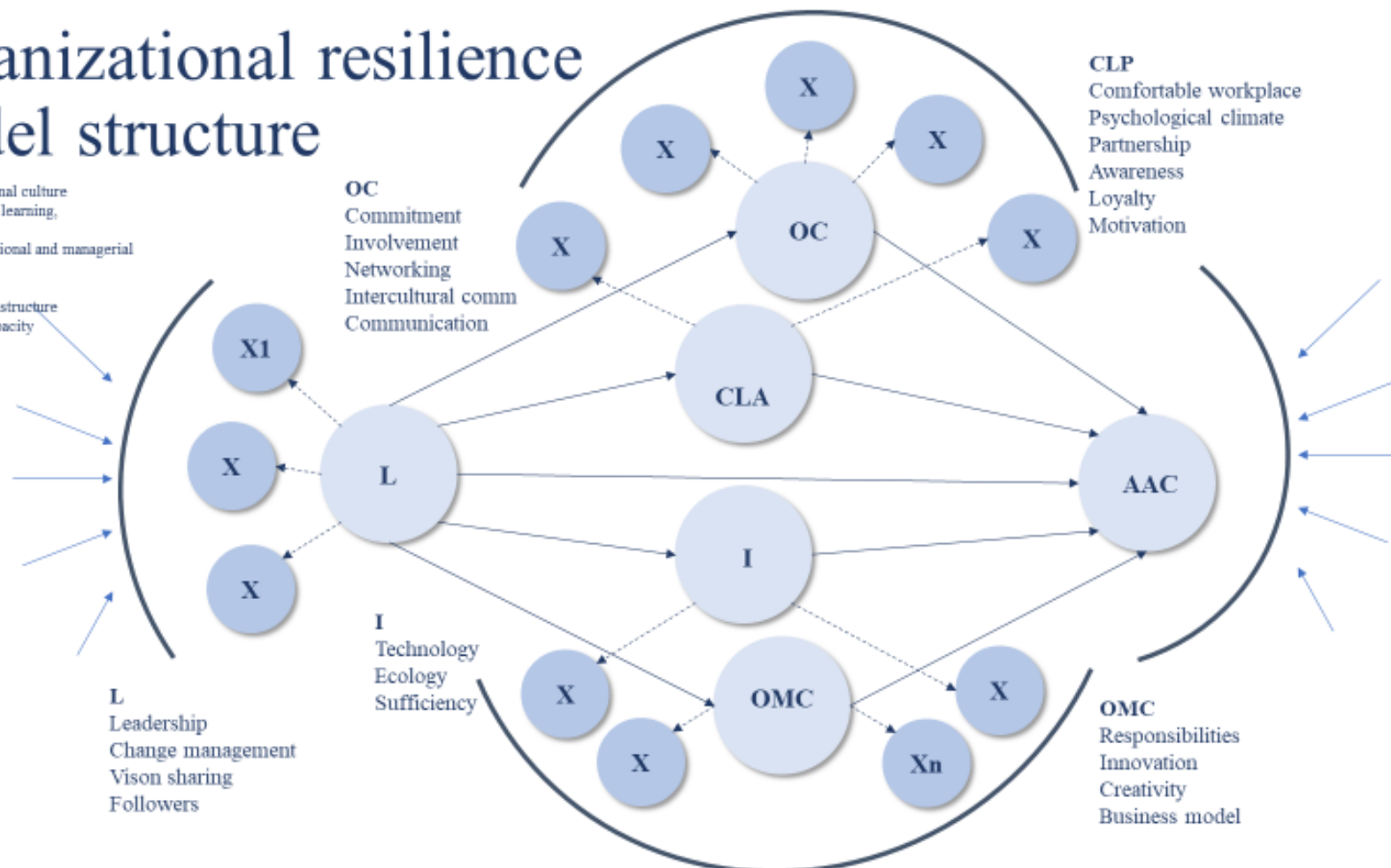


Fig. 1 Relationship between port governance model and maritime transport sector attractiveness. Source: Valionienė, E. & Placiene, B. (2022). Resilience of Seaport Ecosystem: Theoretical Approach and Future Research. Transport Means, conference proceedings. 688-693.

Theoretical background

Organizational resilience model structure



Morales, S. N., Martinez, L. R., Hernandez Gomez, J. A. Lopez, R. R., & Torres-Arguelles, V. (2019). Predictors of organizational resilience by factorial analysis. *International journal of engineering business management*, 11. doi:10.1177/1847979019837046

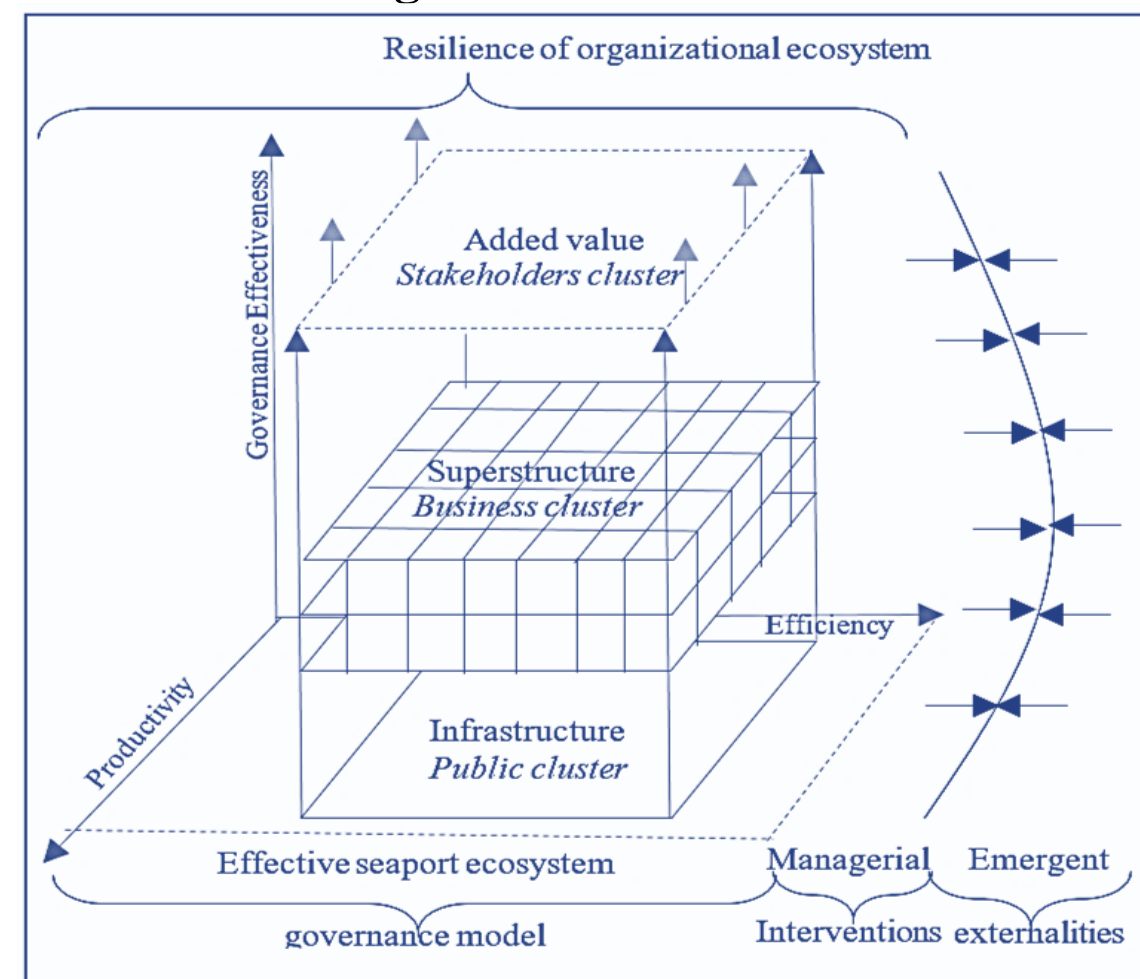
Port organizational ecosystem as the entrepreneurial ecosystem with its adaptive capacity

- reflects features of a system that enable it to “modify or change its characteristics or behaviour so as to cope better with existing or emerging external stresses” (Adger et al., 2004, p. 34).
- relates to the institutions, structures, capabilities, and networks that allow a system to learn and store knowledge and experience to enhance its functional resilience to hazards (Smit & Wandel, 2006).
- is commonly assessed qualitatively by analysing institutional barriers impeding systems' ability to learn and adapt (Moser et al., 2010; 2019)
- The strength is function of factors such as the quality and availability of scientific data available for resilience initiatives (Hayes et al., 2018), the stock of social capital, risk transferring mechanisms, and the ability of decision makers to manage and process important information (Smit & Wandel, 2006).
- suggest to looking for flexible leadership which leads the business excellence (Adger, 2003).

Port organizational ecosystem's resilience is defined as the ability of port ecosystem's components

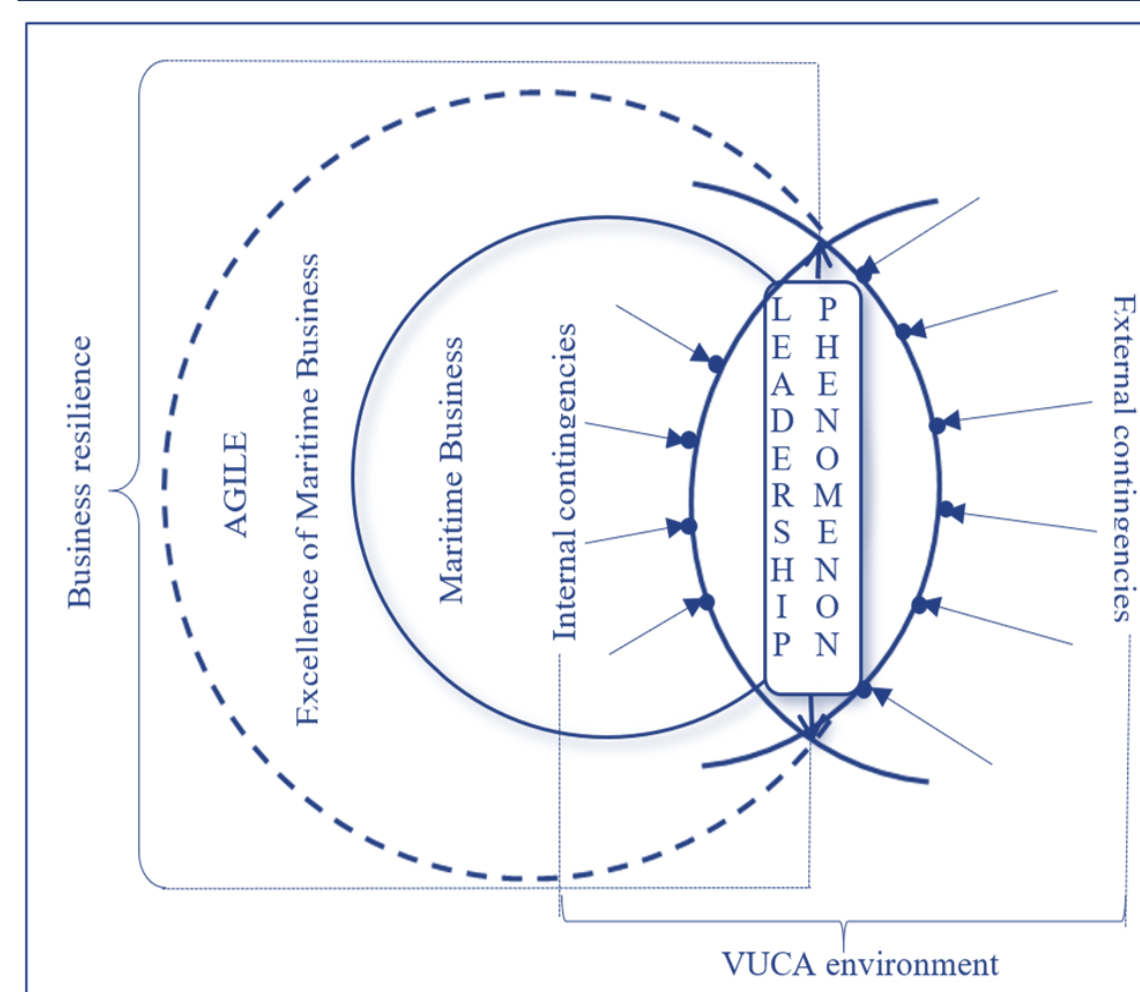
- to **withstand** and **adapt** to changing conditions, and **recover** positively from shocks and stresses by keeping operational performance.
- to **handle** a disruption without significant impact on the ability to serve the supply chain mission

Main findings



Valionienė, E. & Placiene, B. (2022). Resilience of Seaport Ecosystem: Theoretical Approach and Future Research. Transport Means, conference proceedings. 688-693; Mickiene, R.; Valionienė, E. 2017. Evaluation of the interaction between the state seaport governance model and port performance indicators, *Forum Scientia Oeconomia* 5(3): 27-43

$$\text{Organizational resilience} = F(\text{people, context, processes, environment})$$



Valionienė, E. & Kalvaitienė, G. (2023). Theoretical modelling of the maritime business' resilience enhancement possibilities in a volatile, uncertain, complex and ambiguous environment. Accepted for publishing in „Business & Management“ international conference proceeding. Accepted for publishing [2023-04-10]

Aim of this function increase in the adaptive capacity through the leadership phenomenon

Purpose of adaptive a capacity – increasing in resilience

High resilience leads enhancement in business excellence as the extending value of attractiveness

MAIN RESULTS AND CONCLUSIONS

- Description of the conception of organizational resilience found out that exist a big amount the different descriptions, but the connecting terms in all of the are related with the improving ability, capacity, properties, resistance of organization with the shortest duration in reacting to the accidents, incidents, shocks, stress, emergencies, uncertainties contingencies, VUCA elements. The organizational resilience is the function of four elements which could be described through the phenomenon of leadership in the model or organizational resilience's structure: the adaptive capacity could be developed through the effectively working leadership model influencing the structural components as organizational culture, individual resilience, organizational and managerial capacities, critical infrastructure components.
- Explanation of entrepreneurial ecosystem's conception created possibilities to justify that the port organizational ecosystem is functioning as the entrepreneurial ecosystem and the resilience could be enhanced by increasing the adaptive capacity, which could be increased by adopting the leadership phenomenon.
- Justification of resilience enhancement possibilities established the hypothetical relationship between the leadership phenomenon and the organizational resilience of port organizational ecosystem and as result of this relationship business resilience were identified as the extended value of maritime attractiveness' conception.