

## **MULTI-LEVEL ORCHESTRATION IN PUBLIC INNOVATION NETWORKS: EMPIRICAL INSIGHTS FROM BRAZIL'S CHIEF SCIENTIST PROGRAM**

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## **Introdução**

Academic research on public innovation has expanded, yet orchestration dynamics in public networks remain underexplored. This article analyzes the Chief Scientist Program in Ceará, Brazil, as a case of multi-level orchestration involving universities and government agencies. It examines how collaboration, sensemaking, and legitimation contribute to public value creation. A conceptual framework is proposed to support future analyses of innovation networks and guide policy design based on collaborative governance mechanisms.

## **Problema de Pesquisa e Objetivo**

Despite the growing interest in public sector innovation, little is known about how orchestration dynamics unfold in multistakeholder innovation networks and how actors legitimize public value creation. This study aims to analyze how orchestration and interaction among stakeholders in Ceará's Chief Scientist Program contribute to public innovation, focusing on sensemaking processes and collaborative mechanisms that support the emergence, coordination, and institutionalization of innovative actions.

## **Fundamentação Teórica**

This study builds on theories of public innovation networks, highlighting orchestration mechanisms such as knowledge mobility, innovation appropriability, and network stability (Dhanaraj & Parkhe, 2006). It integrates perspectives on collaborative governance (Sørensen & Torfing, 2011), absorptive capacity (Cohen & Levinthal, 1990), and sensemaking (Weick, 1995) to explain how stakeholders co-create value, interpret change, and align goals through shared practices in complex, multi-actor innovation environments.

## **Metodologia**

This research adopts a qualitative multiple case study approach (Eisenhardt, 1989; Yin, 2001) to analyze the orchestration dynamics of public innovation networks. Guided by an abductive logic, it combines semi-structured interviews, participant observation, and document analysis. Eight cases from Ceará's Chief Scientist Program were examined using intra- and inter-case analyses, cross-case pattern identification, and theoretical replication to build and validate a conceptual framework.

## **Análise dos Resultados**

The research demonstrates that public innovation networks are driven by coordinated interactions between state and non-state actors. It identifies five key foundations: challenges, management strategies, collaboration and networks, innovation management, and performance. These elements appeared consistently, though with varying intensity, across the eight cases. Orchestration enabled knowledge sharing, collaborative governance, and innovation legitimation. Variations in governance, resources, and network dynamics shaped outcomes and emphasized orchestration's adaptive role.

## **Conclusão**

This study proposes a new framework showing how orchestration influences the foundations of public innovation networks. It integrates collaboration, governance, and sensemaking to explain how state and non-state actors co-create public value. By highlighting the orchestrator's strategic role in knowledge mobilization, trust-building, and innovation legitimation, the study advances theory and practice. The framework offers practical tools for managers, enhances collaborative capacities, and promotes inclusive, transparent, and adaptive public innovation.

## **Contribuição / Impacto**

The main contributions lie in the development of a new framework that explains how orchestration shapes the foundations of public innovation networks. The study advances theory by integrating collaboration, governance, and sensemaking into a cohesive model. Practically, it provides tools for managers to improve coordination and innovation capacity. Socially, it promotes more inclusive, transparent, and adaptive public services, strengthening legitimacy and public value creation.

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