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Legitimacy Tensions of Mobile Network Operator Data Sharing for Official Statistics: Lessons learned from the Netherlands and Finland

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Problem statement

- National Statistical Offices (NSOs) are increasingly interested in using privately held data (e.g., scanner data, satellite data, financial transaction data) for their statistical production.
- This interest aims to, e.g., (1) enhance the timeliness and granularity of official statistics, or (2) explore new statistical opportunities (Kitchin, 2015).
- Partnerships with **Mobile Network Operators (MNOs)** have become a key model for *Business-to-Government Data Sharing for Statistics* (B2G4S) (Vespe et al., 2021; Eurostat, 2022), as it offers opportunities such as producing new and timely statistics (e.g., tourism flows, population measurements).
- However, these MNO data sharing practices raise challenges and concerns regarding, e.g., (1) privacy, (2) legal compliance, and (3) public trust (Rahmandian et al., 2023).

Since these data sharing practices do not take place in isolation, various audiences involved legitimize these partnerships based on their own assessment, and these assessments may conflict. As such, **this research will address the various legitimacy tensions** by unpacking the legitimacy assessments of various audiences involved, how these assessments unfold over time, how they are managed, and how they shape the dynamics of partnerships.

Research question:

What legitimacy tensions arise in MNO data sharing partnerships for statistics, and how can they be managed?

Methodological approach

- **Case studies** of two NSOs in the EU engaging with MNOs in data sharing partnerships, one in the Netherlands (CBS) and one in Finland (Tilastokeskus)
- **Data collection**: semi-structured interviews, document analysis, and participant observation in project activities *(NSOs, businesses, governmental institutions, and media)*

Conceptual Framework

Audience ***(whom to convince)***

	Internal level NSO (Rueede & Kreutzer, 2015)	**Partnership level**	**External level** (Rueede & Kreutzer, 2015)
Object of legitimation ***(About what to convince)*** - **Input** - **Output** (Rache et al., 2021)	e.g., using 'new' data sources for statistical production	e.g., how to compensate for the data sharing practices	e.g., potential violation of privacy regulations
Criteria of assessment - **Regulatory** - **Pragmatic** - **Moral** - **Cultural-cognitive,** (Deephouse et al., 2017)	e.g., regulatory, pragmatic, moral, cultural-cognitive	e.g., regulatory, cultural-cognitive, pragmatic	e.g., regulatory, moral
Legitimacy tensions ***(threats)***	e.g., conflict in assessments of using new data sources for statistical production	e.g., conflict in assessments of compensation in voluntary data sharing	e.g., conflict in differing interpretations of GDPR
Legitimation strategies ***(how tensions were addressed)*** (Rueede & Kreutzer, 2015)	e.g., ensure broader acceptance within the organization	e.g., ensure data for public good (e.g., COVID-19)	e.g., ensure legal compliance, avoid reputational damage

Preliminary results

The preliminary results indicate that the objects of legitimation vary across both use cases and evolve over time. These shifts are often triggered by internal, external, and temporal factors (e.g., big data hype, the implementation of the GDPR, or public criticism regarding the monetization of data).

Furthermore, the Dutch case shows that the assessment of these objects of legitimation differs substantially between internal and external audiences. As a result, legitimacy tensions can manifest differently within and across these audiences, as can the strategies employed to manage such tensions (i.e., legitimation work).

Finally, the Finnish case suggests that transparent, inclusive, and deliberative processes (i.e., input legitimacy) in establishing partnerships contribute positively to the effectiveness and acceptance of B2G4S data sharing practices.

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Do you have any questions?

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What's next: *To pay or not to pay for telecom data for official statistics?*

Although voluntary data sharing is often preferred without financial compensation, NSOs frequently pay for access to MNO data, including infrastructure, expertise, and services. How can we understand these forms of compensation, and why does this matter?

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