MIR

Chair Management of Network Industries Research Project

Innovative Governance of Large Urban Systems (IGLUS)
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**Background**

More than 50% of the world’s population is now living in urban areas, consuming about 75% of natural resources and producing 80% of global GDP.

Cities are also perceived as one of the major actors for solving global challenges such as Green House Gas emissions. However, there is still little focus on effective governance of urban infrastructures to achieve such goals.

Currently, urban governance is addressed by both academics and practitioners; however, there is generally a lack of multidisciplinary perspective on Urban Systems which combine social, technological, economic and political characteristics.

The research on Innovative Governance of Large Urban Systems (IGLUS) at the Chair MIR is aimed at providing both the academic community and practitioners with a comprehensive, multidisciplinary understanding of the relationship between governance of Large Urban Systems and city performance.

To that effect, this PhD project aims at developing innovative strategies to train urban practitioners about the complex relationship between governance of urban infrastructures and performance of cities.

**Objectives & Research question**

The main objectives of this PhD project are:

- To improve the quality of IGLUS Executive Master by conducting an Action Research inquiry on the first edition of the program.
- To develop a roadmap for the design and implementation of professional training programs which are aimed at training practitioners about the management and the governance of complex socio-technical systems.

The main research questions driving this PhD are:

- What are the main challenges to train urban practitioners about complex-multidisciplinary concepts?
- How can professional training programs effectively deal with these challenges and overcome them in practice?

**Methodology and expected results**

In this project, an Action Research methodology is being used. The research design includes four cycles of reflexive inquiry (plan, action and critical reflection).

The results of this research will help the target audience to better understand the challenges of training urban practitioners about the multidisciplinary nature of governance of urban infrastructure systems and its complex relationship with Efficiency, Resilience and Sustainability of cities.

**Target audience**

The target audience of the IGLUS project in general, and this PhD project in particular, is:

1. City officials
2. International organizations concerned with the performance of cities
3. National governments

4. Infrastructure providing companies
5. NGOs and other citizen-focused groups concerned with the city as their place of living
6. Professionals and practitioners
7. Academics

**Client:** EPFL

**Applied methods:** Action Research

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The Relations of State-Owned Enterprises with the State
The Relations of State-Owned Enterprises with the State

Context
State-Owned Enterprises (SOEs) are – to some extent – governed by the State. The State does not only own them, it also regulates their markets, introduces public legislation, and is a customer of SOEs. Generally, the boards and the management of SOEs are selected by the government. Critical voices argue that the influence of the State is too intrusive and that SOEs do not have enough managerial freedom. Obviously, the State is of major importance for its enterprises. Consequently, managers of SOEs have to deal with the State in its various roles. The scientific literature does still not address SOE-State relations from the perspective of the SOEs. In my PhD, I therefore aim at answering the following research question:

How do SOEs manage their multiple relations to the State?

Objectives
The result of my research will be a conceptual framework that displays the multiple relations of a SOE with the State. The relations will not only be described, but also characterized in detail. Questions such as “how strong is a certain relation?”; how important is it for the strategic orientation of the SOE?”; and “are the formal relations the most important ones?” will guide the analysis.

The practical contribution of my research will be a systematic description and an in-depth analysis of the relations of existing Swiss SOEs with the State.

Methodology
A qualitative and mostly descriptive approach is chosen. Starting from the existing literature, the structure of the case studies will be elaborated. This structure will be taken as a basis for the empirical investigation which consists of three steps: In the first step, a case will be studied exploratively and extensively resulting in an initial framework of the relations of the SOE with the State. Then, additional case studies will be conducted in order to enrich the framework with complementary empirical evidence. The third step will include expert knowledge. Experts will be interviewed about the generalizability of the framework.

User group
The envisaged framework of the relations of SOEs with the State will, before all, make a contribution to the scientific literature by filling an existing gap. From a practical point of view, this research will be particularly useful for managers of SOEs, who will be offered a clear mapping of the possible relations they may have with the State.

Figure 1. Research Design

Unit of Analysis
The unit of analysis are Swiss SOEs and their relations with the State. The first case to be studied is Swiss Post, which – in terms of employees – is the biggest SOE in Switzerland. The case is very rich because the different divisions have differing relations with the State. Additional cases in Switzerland will be chosen after the first one is completed. This approach will permit a stepwise improvement of the conceptual framework.

Client: Swiss Post / EPFL
Applied methods: Case study methods & expert interviews
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Digital business models for the postal mail industry
Digital business models for the postal mail industry

Context
Many of the historical postal operators are currently facing major challenges to their core letter business. They are experiencing substantial letter volume declines, along with serious competition from digital substitutes, such as electronic mail. Some operators, as a reaction to this, have started to diversify into digital mail services, such as hybrid mail, secure mail, etc. Many of these postal operators seem to be uncertain about the possible business opportunities in digital mail. This research looks into new business models as a solution to address business opportunities in digital mail. Current research pays little attention to business models for digital mail services for postal operators. In addition, there is scarce research that looks into integrating digital mail services with the traditional letter services. Hence, the fundamental research question that will be addressed in this research is “What are the different business models in digital mail services and what will be the determinants of their performance?”

Objectives
The research aims to fill an important research gap in business model development for postal operators in digital mail services. The goal of the research is to identify business models that are rigorously tested against theoretical approaches and practical experiences and are specific to historical postal operators. The research aims at answering the following questions:
1. What are the different types of business models for digital mail services?
2. What are the key factors for business model design in digital mail services?
3. What are the performance effects of the different types of business models in digital mail services?

Methodology
Qualitative case studies are the main approach used in this research. The research will start out with an in-depth analysis of two historical postal operators. This, along with a literature review, constitutes the preliminary stage for building a framework for digital mail services. The framework will include the components of the business model as well as its determinants and performance effects. The primary source of data stems from interviews and internal documents. The secondary source of data stems from the annual reports, books and articles about the relevant postal operators. Subsequent case studies will cover other postal operators and will later form the testing phase of the framework.

Unit of Analysis
The unit of analysis is the digital mail services unit within a historical postal operator. This includes its organization structure, its investments, its resources as well as the related activities.

User group
The thesis makes an important theoretical contribution about the determinants and the performance effects of new business models in digital mail services. The classification of business models in digital mail services will as well provide useful insight for practitioners in the postal industry. It will assist practitioners to create new business models or to re-evaluate existing business models in digital mail services.

Client: Swiss Post/ EPFL

Applied methods: Theory building and comparative case study methods

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