

Lean e-integration for development: The case of the National Licensing Center in Albania

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ABSTRACT

E-government services have transformed public services for citizens and organizations. Yet, the challenge remains to integrate the increasing number of projects and systems not only according to budgetary or political agendas, but based on what end-users expect from the new services.

This study analyzes how lean management referring to increased value and reduction of waste could be applied to e-integration reforms for development. The findings are based on the new National Licensing Center in Albania, a developing country in South-East Europe. They suggest that integrated change takes time and there is significant resistance from old practices and structures, regardless of the information technology solutions. One-stop-shop agencies have the potential to enact lean management in practice by providing more standardized and efficient services for end-users. However, continuous improvements for integrated services require more attention than temporary projects for sustainable development.

Categories and Subject Descriptors

K.6.4 [System Management]: *Centralization/decentralization*

General Terms

Management

Keywords

Lean Management, E-Government, One-Stop-Shop, International Organizations, E-Licensing, Integration, Public Sector Reforms

1. INTRODUCTION

Thanks to improvements in information systems, support from international partners, and better use of local resources, many developing countries have made a lot of progress with their e-government services. Some conceptual studies propose stage models to represent this progress [23, 24]. Empirical studies on the other hand show that most of the countries, including developing ones, are moving towards the last e-government development stages of convergence [31, 35] and acceptance [19, 36]. It is at these final stages where cross-organizational integration problems emerge. There is little research and

theoretical conceptualization on how such challenges can be managed in a developing context. This study intends to contribute in this direction by critically combining lean management principles continuous improvement and waste reduction with the idea of one-stop-shop services, common in integrated e-government reforms. The theoretical discussion of these approaches will guide the analysis of empirical evidence from the new National Licensing Center for businesses in Albania, a developing country in South-East Europe.

The first research objective is connecting lean management principles to existing theoretical debates in information and communication technologies for development (ICTD) research. The second objective is analyzing through a case study project in what way lean management principles could guide one-stop-shop integrated reforms of e-government services in a developing country. The third and final objective is to critically discuss the importance of multi-actor collaboration in ICTD reforms for development. The following section will continue with the literature review, thus addressing the first objective.

2. ICTD PERSPECTIVES AND LEAN MANAGEMENT

Implementing new e-government services is often about major transformations [1, 40]. In developing countries these solutions are often 'imported' from developed ones, bearing a set of values that are not always consistent with the local context [11, 18]. In certain cases they are implemented quickly and consist of such radical changes [25] that generate resistance and conflict between local stakeholders [14]. The effect of such radical and fast changes could be also the duplication of old and new structures. As this study will show, this can be the case when new e-government one-stop-shops are implemented, regardless of their other benefits. This research positions lean management among other ICTD theoretical debates and applies it to analyze integrated e-government services for development.

So far the literature on ICTD has been overwhelmed by theoretical approaches from social sciences. The capability approach [29, 30] for example focuses on the human capital and how information technologies can empower its development [42, 43], reduce poverty [3], or create choices [20]. The theory is funded on principles from economics and builds on the idea of development as freedom from Amartya Sen [33]. Critical reviews of the capability approach [12, 16] identify its contribution to explain human development, but also recognize its limitations of paying little attention to agencies and organizations as sources of well-being.

The theoretical contribution of information systems' research on the other hand attributes a more central role to socio-technical interactions rather than to their socio-economic outcomes. Actor

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ICTD'13, December 7-10, 2013, Cape Town, South Africa.
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Network Theory [9, 21, 22] for example redefines the concept of the social by attributing the same importance to human and non-human actors. This goes beyond the traditional concept of ICTD stakeholders [5] in shaping networks and environments. Activity theory also tries to explain intermediated communications [32], suggesting that human activity is mediated by artifacts such as technology, but socially constituted within its environment [10]. However, the theoretical equality among actors is rarely the case in e-government policies for development where the end-users of services are receiving increasing attention.

User-centric approaches have also made an important contribution to ICTD studies. The Technology Acceptance Model [13, 37], for example, and its newer unified framework [38], suggest that perceived usefulness and perceived ease of use of technologies influence their adaptation. Yet, treating citizens and businesses as users of e-government services gives only a limited perspective. They are at the same time developers and providers of such services, but also assessors through public representation mechanisms.

Lean management generally refers to continuous improvements to maximize value by minimizing waste [8]. The concept has been initially applied in manufacturing [15, 34], but is also related to agile supply chains [6] or quality methodologies such as Six Sigma [4, 17]. In the public sector, lean management could result in less processing time, increased service performance, improved flow and quality; integrated work; improved use joint resources; and even increased staff satisfaction, but requires a continuous improvement culture [28]. This justifies its use in this study, but also suggests looking at a number of organizational challenges and structural challenges that need to be faced.

E-government one-stop-shop strategies have similar goals to lean management, but inter-organizational relations demand special attention in this regard [27]. What lean management and one-stop-shop strategies propose is even more important in developing countries where the levels of corruption are higher [26]. E-government reforms are often proposed as quick solutions that could standardize procedures through information systems and reduce human interactions that lead to corruption. This research intends to contribute in this direction by using lean management principles to analyze a one-stop-shop case study.

3. THE CASE STUDY METHODOLOGY

This is a qualitative case study analysis [41] of an e-government project in Albania: the one-stop-shop National Licensing Center (NLC) for businesses. The discussion takes an interpretivist perspective [39]. This approach has found useful applications in e-government research [2, 11]. In this study the interpretivist paradigm is justified by the exploratory nature and complexity of the case study involving multiple actors and complex transformations in a generally unexplored area.

The research was conducted between 2010 and 2012, a period covering the end of the project implementation for the creation of Centre and its post-project life. Its findings are primarily based on interviews with representatives from the NLC and other government agencies, international organizations, and IT companies that developed the system. A number of documents such as the law for the creation of NLC, donor's reports, operational manuals and some news articles have been reviewed prior, during and after the interviews. Finally, a few observations took place in the front-offices of NLC.

The triangulation of different methods was intended to improve the research conclusions [7] by contrasting different sources. The analysis of the findings in this context is done by identifying and discussing how lean management principles are applied in practice. This addresses the second and third research objectives on the implementation of one-stop-shop reforms, and the nature of multi-actor collaboration in ICTD reforms for development.

4. FINDINGS AND ANALYSIS OF LEAN E-INTEGRATION FOR DEVELOPMENT

In Albania different business activities such as opening a pharmacy or a private school, mining, or building a power plant require special licenses or permits. Before these were issued by different ministries such as those of health, education and science, economy, trade and energy as presented in the following figure.

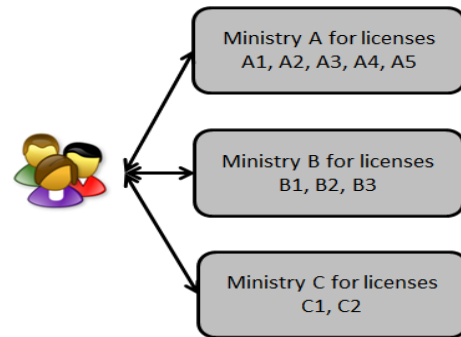


Figure 1: Situation with business licenses before the NLC

The licensing process for each business activity was not standardized. The duplication of many front-offices and the bureaucratic procedures in a highly-informal and transition economy on the other hand resulted on high levels of corruption. To address this problem the U.S. government offered its assistance to the government of Albania. The objective was to reduce corruption and increase efficiency by standardizing licensing procedures through integrated information systems and newly created one-stop-shop agencies such as the NLC as presented in the following figure.

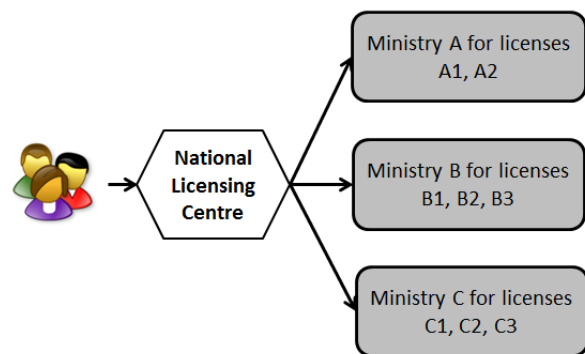


Figure 2: The one-stop-shop vision for the NLC

The reform took a lean management approach to reduce waste by first reorganizing, regrouping and whenever possible reducing the number of licenses. Secondly, thanks to the information system introduced, strict time deadlines were applied for a response to clients' requests for licenses. If these deadlines were missed, the business clients would receive the license by default and the employees delaying its processing either in NLC or in the

respective ministries would have to face consequences. Finally, some licenses that were easy to processes in terms of paperwork and scale were dealt with directly at NLC once the process for doing this was agreed with the respective ministry and standardized. However, other licenses such as those for mining were still issues by the respective Ministry of Economy, Trade and Energy. NLC simply forwarded the application documents and the clients had to follow up with both agencies. The situation improved as businesses were dealt with faster and more efficiently. However, waste could be identified in certain areas as presented in the following figure.

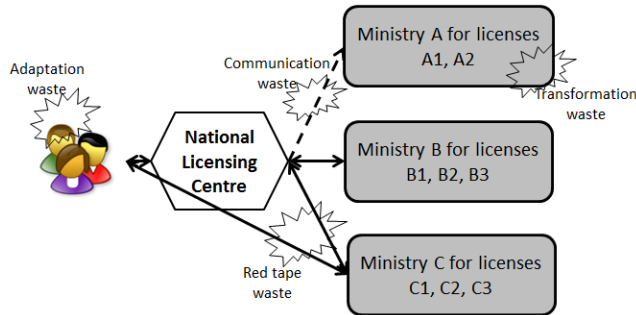


Figure 3: The reality of e-integration challenges for the NLC

This research identified four waste areas where the one-stop-shop reform failed to deliver its full benefits in the short run. The first is adaptation waste for the end-users. The reform consisted of radical changes and it was introduced so quickly that some resistance to change was evident. The persistence of old informal methods of dealing with public services was one of the major causes for this. On the ministerial side, the reorganization of the whole licensing system resulted on transformation waste. Regardless of the introduction of NLC, the departments and people working with the licenses in ministries often stayed the same, resulting in wasteful use of duplicated resources. The conflict between NLC and the people working for the ministries who felt their jobs were threatened by the new agency resulted on communication waste and processing problems. Finally, because NLC did not fully replace the ministerial units for certain licenses like mining or power plants, the duplication of procedures and agencies resulted on more red tape and even corruption than before on this level. Regardless of these challenges, the one-stop-shop e-licensing reform in Albania is successful as NLC continues to improve its services and institutionalize its position.

5. CONCLUSIONS

Organizations as social arrangements and providers of goods and services are often mentioned in ICTD research, but theoretical approaches from management sciences are rarely brought into these discussions. To contribute in this direction this study proposes lean management to analyze how continuous improvements and waste reduction could be applied on e-government integration for development.

Lean management suggests focusing on value increase at every level of the service delivery chain by minimizing waste. Generalizing from this study, one-stop-shop reforms provide some important benefits by centralizing and standardizing procedures through information systems and more formal interactions between human actors and technology. However, the real challenge of e-government reforms in developing countries is changing the socially-embedded practices and gaining inter-

organizational recognition. The evidence from the one-stop-shop National Licensing Center in Albania shows that information technologies in the public sector can help to reduce waste and informality through standardization, centralization, and simplification of procedures. However, lean management is not a temporary endeavor as a project. Instead, it requires the full and continuous commitment of all the actors.

A new e-government system might be imported as a success story, but it has to be adjusted to the developing country. Focusing on a single case to reach such conclusions though is one of the limitations of this study in terms of generalizability.

6. ACKNOWLEDGMENTS

Special thanks to the staff of the National Licensing Center in Albania, but also to the other representatives of international donor organizations, government agencies and businesses that agreed to participate in this research.

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