

International Assistance Relationship to E-Government Development and Benchmarking

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Abstract

Purpose – The changes that happen as a result of international interventions in e-government initiatives present not only a number of challenges but also an interesting area of study. In this context, this paper analyzes the relationship between e-government and international assistance in a group of developing countries. International organisations could have multiple involvements as donors, implementers and evaluators of e-government. This leads to complex e-government mechanisms and situations, when international assistance is related to public administration reforms. The aim in this paper is also to critically analyze benchmarking as an evaluation tool in international e-government assistance.

Research approach and design – This is a comparative and longitudinal study of e-government development processes in Albania, Bosnia and Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, Montenegro and Serbia. In this context, the simple e-government strategy-implementation - evaluation cycle is used from a neoinstitutionalist perspective as a framework for the analysis. Quantitative data such as the e-government benchmarking index and the amount of international assistance are combined with qualitative information from reports and legal documents to analyze the relationship between international assistance and e-government development.

Findings – This study shows a positive relationship between international e-government assistance and e-government development reflected on benchmarking indexes in the event when the same donor (the United Nations in this case), is involved in both processes. The research also suggests that the effect of international assistance on e-government is generally positive in less developed countries. The discussion on benchmarking reveals some important issues related to the role of international organisations as both e-government assistance donors and performance evaluators.

Limitations – The study is focusing on international assistance from only one donor in only one area, that of e-government strategy making. A comparison of other factors and actors could contribute to analyze not only the correlation but also the effectiveness of international assistance on e-government. A comparative analysis of different e-government benchmarking methods and actors could be the subject of future studies related to international e-government assistance.

Original value – This is an original effort to identify the relationships that exist between international assistance and e-government development. Taking a neoinstitutionalist approach this study shares some theoretical insights on the evolution of internationally assisted e-government initiatives and benchmarking into institutions. A converging point between the two is the donor-benchmarker institutional duality. The critical analysis of e-government benchmarking is based more on the involvement of actors rather than on its methodology as in many other studies. Finally, this research points out the complexity of internationally assisted e-government reforms in developing countries and gives some suggestions for future studies in this field.

Keywords: e-government, international assistance, benchmarking, neoinstitutionalism, donor-benchmarker duality.

1. Internationally assisted e-government initiatives as institutions

Significant work is done recently in the context of companies to analyse how people interact with technology (Geels, Schot 2007, Orlikowski 2008, Harrison, Koppel & Bar-Lev 2007, Orlikowski 1992, Walsham, Waema 1994, Poel 2003). There is an ongoing debate whether action and structure need to be considered separately or together (Kallinikos 2004). The debates and fast developments in this field evidence a persisting problem with the theoretical framing of socio-technical dynamics as evidenced very early on (Archer 1982, Orlikowski, Robey 1991). Although many conceptual implications can be derived from these studies about the use of technology in the public sector, even in e-government studies the lack of theoretical frameworks remain a persistent problem (Heeks, Bailur 2007). Because of their complexity, the choice of research approaches and methods becomes of great importance at this point.

Starting with international assistance, e-government, and benchmarking, a theoretical framework or model should be able to describe the dynamics between the different types of organisations involved. The focus in this study is not only on the human-technology micro interactions, but more on the macro development of systems, policies, organisational changes and their environment. In early new institutionalist research it is noted that '*organisations are structured by phenomena in their environments*' as well as '*by technical and exchange interdependencies*' (Meyer, Rowan 1977) resorting to isomorphism or in other words 'becoming similar' explanation. This initial idea of organisational institutionalisation of technology was not new (Hawley 1950, Thompson 1967, Aiken, Hage 1968). However it was DiMaggio and Powell (1983) who tried to explain isomorphism in the new institutionalism by three types of forces: coercive based on pressures, normative based on rules and mimetic based on similarities. In this early context, the new institutionalism deals with the idea of rules that influence the way organisations are transformed and become similar to each-other, even when they develop in different ways (Meyer, Rowan 1977, DiMaggio, Powell 1983, March, Olsen 1989, North 1990, Zucker 1977, Scott 1995). The theory tries to explain how institutions evolve thus influencing organisations and society as a whole. More recent studies on technology and institutions (Orlikowski, Barley 2001, Baptista (John), Newell & Currie 2010, Colyvas 2007) and specifically on e-government institutionalisation (Fountain 2001, Madon et al. 2009) increasingly take a system approach, suggesting a balanced view of socio-technical or techno-social relationships. In this context, this paper follows the route suggested by Orlikowski and Barley (2001) for developing more powerful explanations of how technological systems and institutions evolve in an environment of political and human factors. Therefore, in this study, international e-government assistance is considered not only as an instrument, but also as an institutional actor.

Like a long term business contract and its outcomes can lead to the development of institutions between companies doing business together, so are considered internationally assisted e-government initiatives for donors and governments in this study. By default assistance is given and received based on certain needs (Burnside, Dollar 2000, Alesina, Dollar 2000, Collier, Dollar 2002), aiming at some positive results for both the donor and recipient (Crawford 2001). In this context it is argued that '*there is no intrinsic difference between behavioural regularities and institutions*' (Diermeier, Krehbiel 2003). When international assistance as well as its benchmarking is routinised, standardised and formalised by international organisations and recipients, they become institutions that influence all parties involved.

International assistance on e-government is not sufficiently covered by the literature and this paper contributes to filling this gap. The evidence in the following part highlights some similarities in the development of national e-government and ICT (Information and Communication Technology) strategies from international assistance in different countries. Even more interesting is the e-government evaluation and its relationship to international assistance from a single benchmarking report's perspective. Analysing and some comparative evidence and a providing critical analysis, this study tries to share some light on the complexity of this field of study.

2. Methodology and findings from a neoinstitutionalist perspective

Following the previous part on the theoretical conceptualisation of internationally assisted e-government initiatives as institutions and looking at the policy development framework (Stone, Maxwell & Keating 2001), it is possible to assume that their development happens in stages. The Strategy-Implementation-Evaluation e-government cycle can be used to “qualify” and lead the analysis of quantified e-government development given by benchmarking.

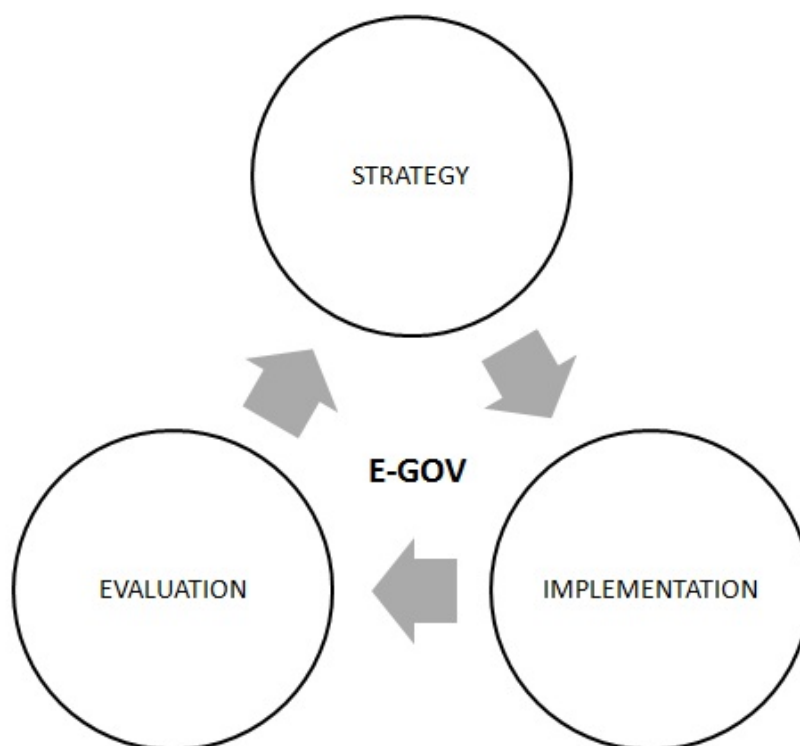


Figure 1: Strategy - Implementation - Evaluation Cycle

In the case of international assistance on national e-government and ICT strategies, it is assumed that some international ideas, experiences and practices including benchmarking itself are combined with national policies and characteristics. The connected ‘institutional’ mechanisms of assistance and benchmarking are related to both the donor and the recipient country. This study attempts to give a simple quantified view and a critical analysis of this institutionalising relationship. Rather than simply defining a relationship between international assistance and e-government, the use of the strategy-implementation-evaluation cycle in this study suggests a shift of focus towards these three different stages of institutional expansion.

This study starts with an empirical analysis of data and benchmarking to then dynamically move towards an interpretivist perspective, often used in information systems research (Walsham 1995, 2006). This approach tries to capture some of the institutional dynamics of international e-government assistance based on the strategy-implementation-evaluation cycle. International assistance on e-government and ICT strategies is often an evolving process of change. Designing strategies is only the first step towards fully functional and sustainable e-government solutions in the following six Western Balkan countries considered in this study:

AL - Albania

BH - Bosnia and Herzegovina

CR - Croatia

MN - Montenegro

MC - Former Yugoslav Republic of Macedonia

SR - Serbia

Most of the countries are considered as developing transition economies (UNCTAD 2010). The purpose of the international public sector involvement in these countries is to develop democratic governance systems (UNDP Europe and CIS 2010). In order to understand the role international assistance on e-government and ICT national strategies, implementation and evaluation, first it is necessary to compare the six countries based on the Global UN e-Government Survey benchmarking index (UNPAN 2003-2010). The survey is a consistent benchmarking database on e-government, allowing comparisons for the period 2003-2010, based on three main index components: Web Measurement, Telecommunications and Human Capital with 1/3 weight each. United Nations' organisations are the source of both international assistance (UNDP) and benchmarking (UNPAN). In this study this situation is assumed to increase the credibility of findings and analysis by means of data consistency and triangulation of information focus on a single international organisation to have a sound basis for comparison. The results for the six western Balkan countries based on the United Nations e-Government Development Knowledge Base (UNPAN 2003-2010) are given in the following table:

Table 1: E-Government Index 2003-2010 for Six Western Balkan Countries

Country	2003	2004	2005	2008	2010	Change 2004 -2010	Change 2004 – 2010 in %
AL	0.3110	0.3400	0.3732	0.4670	0.4519	0.1119	0.3291
BH	0.3090	0.3790	0.4019	0.4509	0.4698	0.0908	0.2396
CR	0.5310	0.5227	0.5480	0.5650	0.5858	0.0631	0.1207
MC	0.3620	0.3699	0.4633	0.4866	0.5261	0.1562	0.4223
MN	N/A	0.4282	0.4282	0.4282	0.5101	0.0819	0.1913
SR	0.3710	0.3871	0.1960	0.4828	0.4585	0.0714	0.1844
Source: UNPAN							

The information summarised in this table shows that the countries with the lowest level of e-government index in 2003, BH, AL and to a certain extent MC experienced the highest increase until 2010, with MC and then AL being first with 42% and 33% increase respectively. Countries like CR that started at a high level of e-government index in 2003 experienced a low increase until 2010 of only 12%. The object of this study however is to analyze how international assistance on ICT and e-Government strategies is related to the e-government index change for the period from 2004 when most of this assistance was given to 2010. The amounts of international assistance given for this purpose, summarised in the table below, were adjusted according to the population in each country. A standard unit for the comparison of all countries in this case is '*USD assistance / capita*' in total for the period:

Table 2: International Assistance on National E-Government and ICT Strategies

Country	Donor	Period	Amount	Population in 2004	USD assistance / capita
AL	UNDP AL	From 2003	\$217,654	3,100,000	0.0702
BH	UNDP BH	From 2004	\$250,000	3,780,000	0.0661
MC	UNDP MK	From 2005	\$138,928	2,030,000	0.0684
SR	UNDP SR	From 2005	\$10,000	7,460,000	0.0013

Source: UNDP, World Bank

The population figures in 2004 (World Bank 2010) were used because this is the year in which most of this assistance for the development of strategies was given/received. Croatia and Montenegro are not included in the table because they didn't receive any international assistance from UNDP or any other donor for their e-government and ICT national strategies. Their USD assistance / capita index is obviously 0. It is clear from the table that the countries with the lowest level of e-government index in 2003-2005 received most of the support, Albania being in the first place with 0.0702 USD assistance / capita. The chart represents the relationship between the international assistance for the development of national ICT strategies and the UN e-government index change in 2004-2010:

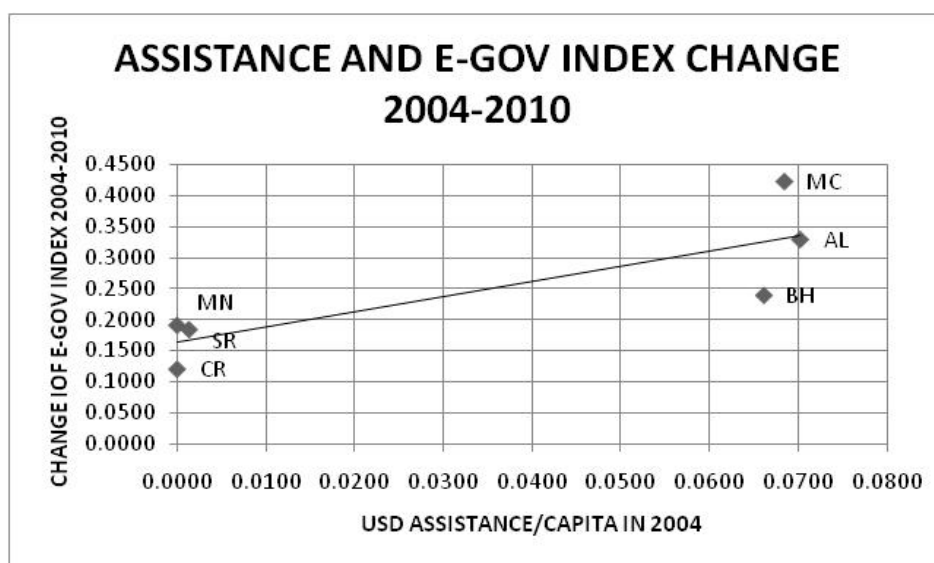


Figure 2: International Assistance and E-Government Index Change

Looking at the chart, it is clear that the improvement in the ICT sectors and e-government for the period 2004-2010 has been bigger for the three countries, AL, BH and MC that received the highest international assistance per capita for their national strategies. According to the data and the trend-line in this chart, there is a positive relationship between international assistance per capita given in 2004 and change in percentage on e-government index until 2010. Reports on respective countries reveal that assistance on ICT and e-Government strategies in these three countries was supported by other projects as well (UNDP). This shows a pattern in the donors' behaviour to support and follow-up previous projects, especially those focused on strategies, with other ones to help their implementation. *It is during this process of continuous support, long-term joint interest and isomorphic sustainable development where internationally assisted e-government initiatives are transformed from instruments into institutions.*

Although a positive change might be a very good indicator for the donor to show the effectiveness of its assistance, the receiving country is interested on the final result of that assistance compared to other countries. This is related to the implementation stage in the institutional evolution of internationally assisted e-government initiatives. In this context, comparing the e-government indexes for 2010 for the six countries in the Western Balkans, we get a different picture, as shown in the following chart:

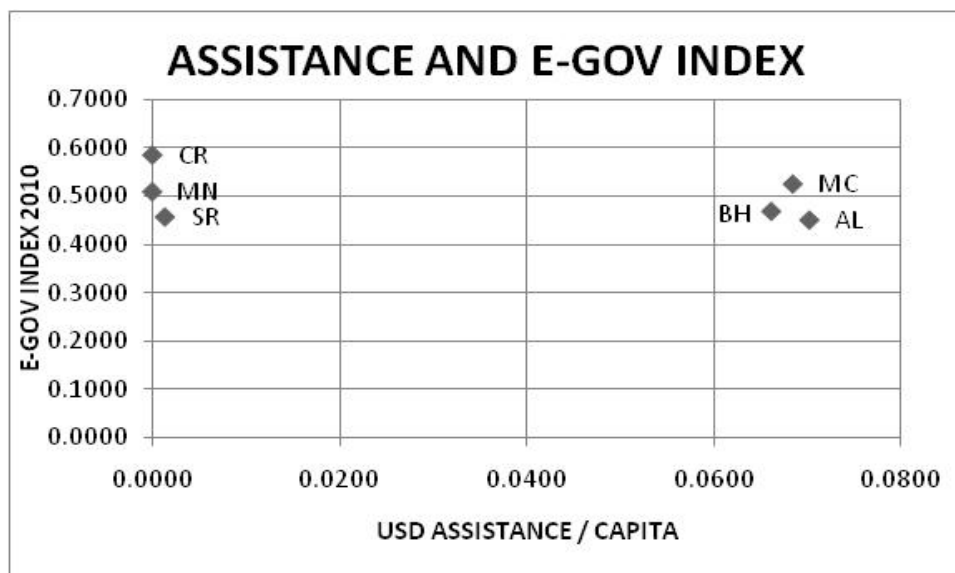


Figure 3: International Assistance in 2004 and the E-Government Index in 2010

In this chart the fixed 2010 e-government index values are considered and not the change as in the previous one. The results presented here are to some extent controversial to the previous one. It is clear that the countries that received very little (SR) or no international assistance at all (CR and MN) to develop and implement e-government and ICT strategies, are in similar or higher position (CR) than those that received most of it (AL, BH and MC). The e-government index development between 2004-2010 for each of the countries in the following chart gives a better picture of this situation.

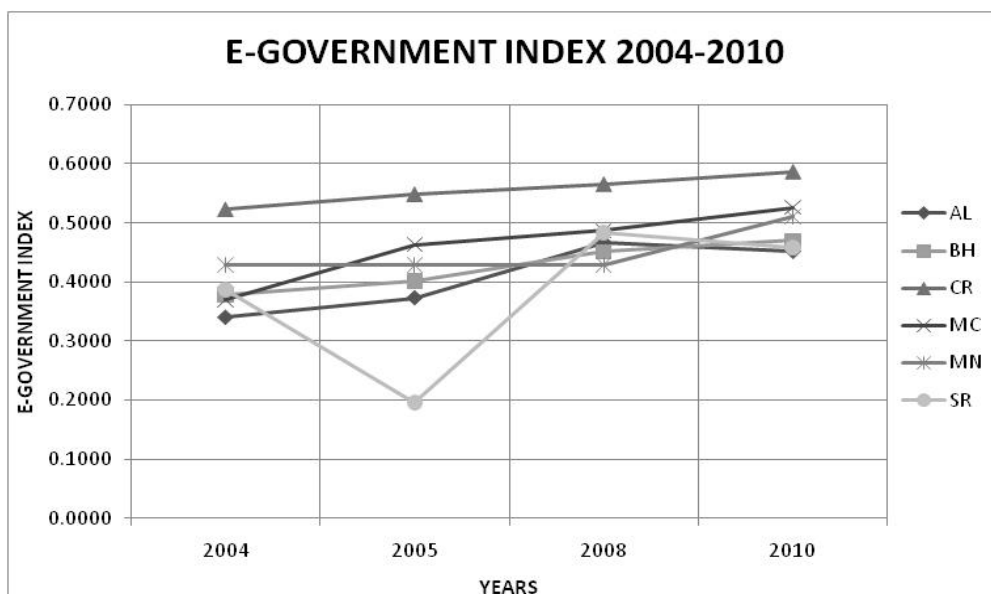


Figure 4: Comparison of Countries Based on the E-Government Index Level 2004 - 2010

By simply looking at this chart it is evident that all countries that received international assistance to develop their national e-government and ICT strategies around 2004 experienced a quicker growth in their e-government index around 2005, but after that, their incremental increase was smaller compared to the countries that didn't receive any assistance. It is easy to notice on the other hand that CR or MN have a steady or increasing marginal change in their e-government indexes up to 2010, although they didn't receive any assistance for their strategies. These results suggest that in the context of ICT and e-government, development is easier with a higher involvement of the recipient countries. However, it can be noticed that almost all countries (maybe except Serbia due to political instability and issues with Kosovo in the meantime) present a very similar increasing trend, regardless of receiving international assistance on e-government and ICT strategies or not. This could suggest that international assistance has a weak influence in this sector. Furthermore the institution of international partnership between the donor and the recipient of e-government assistance is not strongly related to the amount and scope of this assistance.

The critical approach of the quantitative data analysed here could suggest that benchmarking as the evaluation stage of e-government could be a self assessment tool for the evaluating organisation itself if involved in the two previous stages of strategy and implementation. In this process when benchmarking becomes a trend, creates continuity and introduces some isomorphic characteristics, it turns from an evaluation instrument into an institution. The advance of this institution influences both the donor and the recipient, potentially leading to the consequent stage of strategic reformulation.

3. A critical analysis of e-government assistance and benchmarking

An important element at this point is to understand the "Why?" of the situation shown by the data. According to a constructivist approach of institutionalisation, the strategy-implementation-evaluation cycle is assumed to be a normal process intended to benefit both the donor and the receiving party suggesting '*institutionalisation as the normalisation of policy paradigms*' (Hay 2006). E-Government benchmarking as a developing institution has become an increasing trend from the late 90s, sometime considered also as '*a booming business*' (Bannister 2007). However, as Bannister (2007) points out, due to its problems with standardisation, purpose and the distortion effects, '*benchmarks are not a reliable tool for measuring real e-government progress*'. Contributing to this discussion and following the previous session with the data, there are some important issues that should be considered carefully before deriving any conclusion in this study.

The starting point: Comparing countries with each other requires having a standard or common starting point. While the international assistance was adjusted according to the population in each country, the e-government index was not modified. For different reasons, countries like Croatia for example had a starting point far above all other region countries compared here. Assuming that Croatia is not developing fast enough now compared to the other countries is not entirely correct, since we don't know what will be the development of the other countries when they reach the starting level of Croatia in 2004.

The marginal change: The simple difference between the e-government index in 2010 and the one in 2004 shows that the change is marginal, meaning that the more developed a country is, the smaller its incremental development (AL, BH, MC in Figure 6). Already developed countries that have reached a high development level do not experience the same growth compared to more developing countries. Because of this reason, it could be not entirely correct to assume that the least developed countries considered here in terms of ICT and e-government development are doing better than more developed countries when receiving international assistance.

Donor-benchmarker duality: The scope of this study was not only to compare some countries, but also to analyse the role of that one actor, the United Nations, that is directly involved in the strategy, implementation and evaluation/benchmarking stages. Careful consideration is needed when the same organisation that is evaluating e-government is also supporting it for some countries through

international assistance while leaving other countries to use their own resources. This situation could have an important role on the strategic implications and planning of national policies. Normally a country would be inclined to accept international assistance on strategic sectors such as ICT and e-government from such organisations. In the context of this study, it was not possible to find any case of such international assistance from donors being refused. The reason could be simply the fact that the donor has a strong international position also as the evaluator. Who would know better what is needed to rate higher in the next evaluation if not the evaluator itself? In the worst case a government might have to pay for this assistance. Again, the same private companies such as Capgemini or Ernst and Young that prepare the benchmarking (Bannister 2007) could be among the first to contact for premium expertise. It is necessary to highlight however that the interest and motives of UN and other international organisations giving assistance are different from those of the companies that benefit directly from the benchmarking-consultancy combination.

Regardless of the criticism on international e-government assistance and its evaluation, this study has shown that improvements are being made. International donors are realizing the importance of evaluation and assessment on assistance, especially on democracy and government assistance (Crawford, Kearton 2002), however they need to be careful on their involvement. As a final remark, regardless of its challenges, international assistance given for the development and implementation of e-government and ICT strategies could be considered more as a success rather than as a failure.

4. Limitations

The use of neoinstitutionalism as a theoretical approach to explain some of the main issues in this study is only an exploratory one based on an attempt to combine quantitative and qualitative data analysis. A more detailed analysis could contribute to neoinstitutionalism focusing more on the issues of power, without excluding here the potential of other theoretical and methodological approaches such as the Actor Network Theory to provide a different explanation of international e-government assistance networks and dynamics.

This study is limited to a few countries and one donor, analyzing only the e-government and ICT strategy assistance. Other international donors and organisations might show different characteristics in the strategy – implementation – evaluation cycle, especially in the absence of the donor-benchmarking duality. The donors' interaction with each other, especially when they share common objectives and goals is something that deserves some more attention in future research.

5. Conclusions

This study suggests that international assistance on ICT and e-government strategy development could have a limited but positive impact on overall e-government levels based on their positive relationship identified here. This could be especially true in less developed countries, similar to the ones studied in this research. At the same time, the research identifies some important problems that need to be addressed carefully before deriving any results on international e-government assistance efficiency such as the starting inequalities between countries compared and the involvement of organisations and donors in different stages of the strategy – implementation – evaluation cycle. In this study, using both quantitative and qualitative data, critically analysing benchmarking and trying to explain phenomena through a theoretical framework was indeed challenging. However, this might be the only way to analyse complex situations of international assistance throughout the strategy, implementation and evaluation stages especially in fast developing sectors such as ICT and e-government.

Long term development remains one of the biggest challenges, both for the international assistance donors and the recipient countries in all stages of ICT and e-government development from strategy to evaluation. It is generally implied that countries receiving international assistance have, at a certain

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point to develop their own capabilities. The ICT and e-government national strategies are only the first step towards long lasting reforms.

From a neoinstitutionalist perspective, internationally assisted e-government initiatives in one hand and benchmarking on the other can be transformed from instruments into institutions. For this to occur, a process of trend creation, continuous support, long-term joint interests and isomorphic changes is needed. The donor-benchmarker duality critically analyzed in this study suggests that these two institutions are inter-related and could develop jointly. A major role in this case is played by international organizations with multifaceted involvement in the strategy-implementation-evaluation cycle of institutional development.

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