Performance Measurement in Networked Public Administrations

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Abstract: In the framework of TERREGOV Project Socio-Economic Researches many attention was and will be even more paid to aspects related to the identification of key success factors for Interoperable Public Administrations. In this context, one of the main theme that will be investigated concerns the elaboration and the proposal of a *model of general validity able to assess the performance of European Networked Public Administrations.* Currently, the factors which have the greatest impacts on the PA performance have been identified and broken down in more measurable dimensions. Further development will concern the definition of a specific balance scorecard and the validation of this model on field.

1   Introduction

In the framework of TERREGOV Project Socio-Economic Researches many attention was and will be even more paid to aspects related to the identification of key success factors for Interoperable Public Administrations. In this context, one of the main theme that will be investigated concerns the elaboration and the proposal of a *model of general validity able to assess the performance of European Networked Public Administrations.*

Afterwards, the objective of this paper is to present preliminary results achieved through this exploration that will be carried on and deepened till the end of the Project.

Up to now, a first draft of a Model for the Measurement of Performance in Networked Public Administrations has been developed starting from the analysis of literature and from the Prospective Studies performed in the Countries involved in TERREGOV Demonstration Activities.

In the paper, the methodological approach followed will be presented and the main dimensions that have to be address for a correct and complete evaluation of the Performance described.

Further development will concern the definition of a specific balance scorecard (by June 2005) which can be used by Public Administrations and the validation of this model on field both in the Countries directly involved in the Project which are going towards the adoption of a Networked model and in Regions or Areas in which the Networked model is already in force (from January 2006).

2   The context

The era of hierarchical government bureaucracy, the predominant organizational model used to deliver public services and fulfil public policy goals for a century now, is coming to an end. Emerging in its place is a fundamentally different model —it's called Networked Public Administration — in which government executives redefine their core responsibilities from managing people and programs to coordinating resources for producing public value. Government agencies, bureaus, divisions, units, and offices are becoming less important as

direct service providers, and more important as levers of public value. This new model is characterized by the web of multi-organizational, multi-governmental, and multi-sectoral relationships that increasingly constitute modern governance [1].

The traditional, hierarchical model of government does not meet the demands of this complex and fast-changing age. Rigid bureaucratic systems – with their command and control procedures, narrow work restrictions, and siloed cultures and operational models – are particularly ill-suited for responding to problems that increasingly know no organizational boundaries.

The distinction between hierarchy and network refers to the structure and mode of coordination within or between organizations. A hierarchy is a pyramid of offices in which coordination is achieved through vertical chains-of-command, with higher-level offices directing the behaviour of offices below them. In contrast, network forms of organization operate horizontally as well as vertically and achieve coordination through mutual adjustment rather than through command [2].
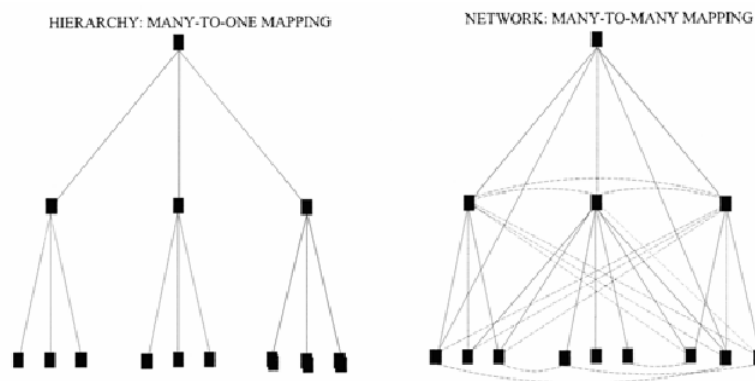

Fig. 1. Hierarchy and Network (Ansell C., 2000)

Therefore, the governmental system changes from a Government Model to a Governance System.

The Government Model, in fact, provides that some superordinate Bodies decide on the basis of specific powers characterised by a surplus of formalism and standardisation of rule and procedure, rigidly defined. On the contrary, the Governance Model is constituted by an organism which has the responsibility of governing the whole system and which decides on the basis that regulate the general development of the network in the respect of autonomies, independencies and flexibility of single behaviour [3]. Hence, the model of Networked Public Administration is characterised by:
-   the presence of different juridical subjects which exercise their functions;
-   the lack of institutional hierarchy relationships (like it is in the case of Local Bodies called to apply procedure defined by the National Government);
-   permanency of interdependencies relations;
-   coordination of decisions and behaviours oriented towards common or shared objectives.

Consequently, we have the transition from a model made of powers and formal functions attributed to a single body to a model in which powers and functions are attributed to autonomous Bodies and in which the relations are of inter-institutional kind and the hierarchy is weak. All this implies the passage from a coordination and integration logic, based on rules imposition and top-down systems to a coordination and integration system in which the

capability of creating consensus, sharing and interest convergence of proposed solution becomes critical and essential.

The drivers towards the adoption of this kind of model have been:

The greater devolution of activities and responsibilities from Central Bodies to Local ones which assume a fundamental role in the services provision processes;

More and more complex services characterised by complex workflows, which imply interaction and collaboration among different subjects;

The growth of outsourcing: Governments' reliance on outsourcing to private sector and non-profit organizations as an alternative to using government employees to deliver services and fulfil policy goals has been increasing in terms of size, scope, and frequency;

The availability of innovative ICT tools enabling the speed up of services delivery processes and the building of a real different and more in-depth relationship between PA and Citizens.

As a consequence, the Public Sector is moving towards joined-up government service delivery, in order to provide more integrated service to citizens by dismantling the stove-pipes that are so emblematic of traditional government and finding ways for agencies to better share information and coordinate their efforts.

The advantages of this model can be summarised in the following points [1]:

- *Flexibility*: Networks tend to be more flexible and nimble than hierarchies. A neighbourhood centre, for example, can more easily direct a struggling young mother into a personalized mix of shelter, counselling, or training facilities through a public/private network than through direct government service delivery because it can leverage the skills of a range of providers.
- *Innovation*: Networks typically provide more innovative solutions problems than traditional, rule-bound governments thanks to the sharing of knowledge and expertise.
- *Specialization***:** Network approaches allow a government to concentrate on its core mission by leveraging the expertise of "best of breed" providers.
- *Speed***:** The decentralized, fluid form of a network and the autonomy of each member allows for decision making at the local level. This, along with the ability to rapidly access information at critical times, improves the speed and efficiency of decision making.

Despite the several positive aspects, this model is not free from facing problems, among which:

- *the differences among Bodies* which are a root for economic and social values but also source of conflicts;
- *the management of distributed and shared common resources* among Bodies and their access control;
- to avoid that Bodies belonging to the same Network pursue *individual objectives instead of global goals;*
- the *activation of* comparing, monitoring and decision making *systems* in different contexts;
- the *juridical aspects* which can be different even from a Local Body to another.

Therefore, an effective performance measurement system is essential. Without reliable performance information, it's impossible to know whether network participants are fulfilling their roles and obligations. Advances in technology make collecting performance data easier and less time-consuming than before, giving governments a clearer picture of how well the overall network – and the individual entities within it – is performing at any one time.

3   The methodology

As written above, performance measurement is a concept that has taken on renewed importance in the field of public administration.

In part this renewed interest can be attributed to resolutions by various professional organizations urging governments to institute systems for goal-setting and performance measurement. The added emphasis can also be attributed to quality of life issues that are of growing concern to communities around the world. Movements toward greater environmental quality, sustainable development, and healthy communities are evidence of a push for an improved quality of life. Performance measurement is an important tool in identifying and measuring quality of life indicators; especially when citizens are involved in developing and reporting these measures [4].

During the development of TERREGOV Project, a Specific Assessment System has been proposed in order to evaluate the performances of the Applications developed in each Pilot testing site [5].

This kind of Evaluation System, supported by a particular set of indicators, is mainly aimed at evaluating the results achieved thanks to the introduction of TERREGOV Solutions in specific contexts and ambits. As a consequence, this methodology, although being of concrete value and interest in the framework of the project, can't be considered of general validity since it's very linked both to the activities carried out during the Project advancement and to the peculiarities of regional contexts addressed.

On the contrary the methodology here presented wants to have a general validity for any Public Administration environments.

The success of government leaders will be measured by the true advantages they create for their constituents — citizens, communities and industries together. Such advantages demand greater efficiency and performance, enhanced accountability and public trust and a true focus on delivering better service and results.

The *Performance Evaluation model for Networked Public Administrations* is developed on a tree-structure. The root of the tree is represented by the overall performance level of Networked Public Administrations. Since that this aspect is not easily measurable, it becomes necessary to go down with further breaking-downs which bring to the definition of "leaf variables" qualitatively and quantitatively measurable.

In a Network several Organizations, independent and autonomous, would have to behave like a *Unique Body.* In this context, the problem of accountability is one of the most difficult challenges of networked government. With authority and responsibility parcelled out throughout the network, whom do you blame when something goes wrong? How do you achieve results when you have limited control? Ensuring accountability in a networked arrangement is a matter of getting the following four things right: incentives, measurement, trust, and risk. With a good network partner and government manager, the goals and outcomes will stay sharply in focus, but the inputs and processes will change as required.

So, if from one side it's necessary to evaluate the process/service performances as it is provided by a single Organization, on the other also the performance of the Network have to be assessed in order to understand if the weaknesses lie in the Bodies constituting the Network or in the Network itself – that is to say in the way relationships and interactions among Bodies are managed.

Along with these, other aspects that can't be neglected are the ones related to the impact that the creation of a Network has on IT infrastructure and on Human Resources and, vice versa, the impact that Technology and People have on the Networked PA.

From our researches it emerges that the factors that have the greatest impact on the overall performances of a Network of Public Administrations are the following:

- *Process and Activity Efficiency;*
- *Service Effectiveness;*
- *Relationship Management among different Organizations;*

- *Information Technology;*
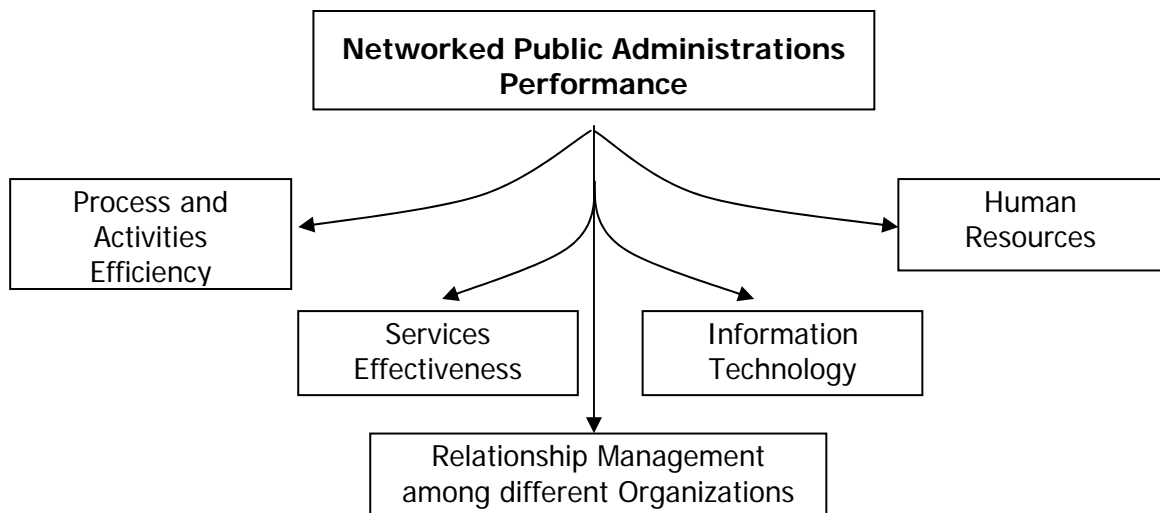- *Human Resources*.

Fig. 2 . The tree-structure of the Performance Measurement model in Networked Public Administrations

4 The Dimensions

The factors listed in the previous paragraph can be further detailed in specific dimensions which will then bring to the definition of a set of suitable indexes: the Balance Scorecard, the core of future development of this model.

4.1 Process and Activities Efficiency

This area concerns the actual organisation and enactment of processes and activities needed to deliver the service by using the lowest amount of resources. Efficiency Indicators measure *time* and *money* spent in various process' steps. Specifically, they measure how much time certain processes required at each phase of implementation and how much money was spent at each phase. Comparing Efficiency Indicators measured at different moments allows the monitoring of changes in efficiency. Sub-aspects are :
- *Cost and Time related measures* such as "Productivity", "Throughput", "Production Costs" or "Variances" that respectively measure the amount of work accomplished per unit of time or resource, the time required to produce the service, direct and indirect costs associated to the production of the service, and error rates and variability in the processes,
- *Security and Privacy* are also 2 essential elements to be addressed through the processes,
- *Flexibility* is the capability for the processes to evolve in order to take into account new requirements.

4.2 Service Effectiveness

This area concerns how well a service is serving its customers and the adequacy of the output produced to the needs of the final users. Effectiveness Indicators measure the quality and value of service provided. Sub-aspects are:
Customer Satisfaction measures the capacity of a Public Administration to effectively satisfy all customers (citizen, enterprises);

Service Coverage & Quality measure the adequacy of the services to the customer needs, and timeliness/responsiveness to customer requests;

Service Accessibility measures the availability of services to customers (this element, also referred to as eInclusion, has been defined in the political agenda as critical);

Service Transparency measures the clearness and completeness of the information related to Public Administration processes (as Accessibility, Transparency has been listed high in the European political agenda).

4.3 Relationship Management among Different Organisations

This area concerns how the relationships among Organisations belonging to the Network are managed and monitored. The main aspects to be taken into consideration are the following:

- *Information and Knowledge Sharing*: whether it's deciding to remove an abused child from his or her home or preventing a terrorist attack on an overseas embassy, we still rely on human intelligence and human interaction to make most important decisions; thus, it is important to find better ways to connect minds. It becomes then necessary to create "collaborative knowledge networks" (CKNs) [1] – virtual communities that utilize technologies to allow people throughout the network to share information and knowledge across geographic and organizational boundaries.
- *Building Trust:* Accountability can't just consist of a series of contract clauses. Successful networks are partnerships that rely, at least partly, on trust. Without trust, participants will be unwilling to share knowledge, and coordination will be more difficult. Trust can help reduce transaction costs. Trust reduces these costs by both encouraging a more open exchange of information and reducing the need to rely on costly legalistic approaches for solving relationship issues.
- *Organisational interoperability* is the need for multiple agencies to interact and collaborate for delivering the service,

4.4 Information Technology

Technology is the glue that can hold networked government together, allowing network partners to share knowledge, business processes, decision making, client information, workflow, and other data. In particular, eGovernment technologies are essential to the reform of government services and processes. The factors to take into account at this level merely relate to :

- *Cost/benefit* associated to the improvement of service performance thanks to the direct use of technology for supporting the processes and activities;
- *Reliability* of the systems set up to support the service;
- *Technology interoperability* that enables rapid integration of technological systems in complex and evolving processes

4.5 Human Resources

People who hold stakes in the transformation of the Networked Public Administration are politicians, PA managers, civil servants and last but not least customers (citizens, businesses, civil society). Key factors to take into account are thus :

Commitment reflects the actual support of PA top management (political and administrative) to the PA transformation;

Cultural Resistance: often, the introduction of changes in the Public Administration is source of discontent and provokes contrasting reactions by Civil Servants;

Customer participation: Ensuring customers are actually involved in the governance of the services significantly strengthens the legitimacy of the Network;

Incentives: An interesting analysis of motivation and of incentive systems in the public sector has been presented for the European Ministerial eGovernment Conference in Como [11] and can serve as a starting point for defining indicators.

5 Conclusion

The aim of this research is to detect which are the main Key Factors impacting on the performance of Networked Public Administration. The study started from the analysis of existing literature and from the investigation conducted in the framework of TERREGOV Project Socio-Economic Research.

The model proposed by the authors is based on a tree-structure that allow the succeeding decomposition of targeted factors in more measurable dimensions.

The following table summarises the tree-structure and reports the components addressed in this model:

	Factors	*Dimensions*
PERFORMANCE OF NETWORKED PUBLIC ADMINISTRATIONS	Process and Activities Efficiency	Cost and Time
		Security and Privacy
		Flexibility
	Service Effectiveness	Customer Satisfaction
		Coverage and Quality
		Accessibility
		Transparency
	Relationship Management among Different Organisation	Information & Knowledge Sharing
		Building Trust
		Organisational Interoperability
	Information Technology	Costs/Benefits
		Reliability
		Technological Interoperability
	Human Resources	Commitment
		Cultural Resistance
		Customer Participation
		Incentives

Fig. 3. The Performance Evaluation Model for Networked Public Administrations

Future developments will concern the discovery of a proper Balance Scorecard which will serve as guidelines for the monitoring of the Performances of Networked Public Administrations. Afterwards, the model will be tested on field and results obtained will be used to refine the whole approach and its specific aspects.

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