Chapter 2

REDUCING NORMATIVE AND INFORMATIVE ASYMMETRIES IN FISCAL MANAGEMENT FOR LOCAL ADMINISTRATIONS

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Abstract: Fiscal incomes are vital for Governments, both for central and local agencies, therefore on-line fiscal services will play a key role in the e-Government perspective. The creation of citizen-centered fiscal e-services, however, requires a new citizen –centered institutional and juridical context to be effective. The current Institution-centered scenario, based on the authoritative approach, is in fact unaware about the active citizens’ role in the e-Government perspective, as well as about the deep impact of the information and communication technologies in the citizen s’ everyday life. The paper describes how the extensive application of the regulative approach can be synergic to the extensive adoption of information technologies and user centered e-services to reduce these “normative-informative asymmetries”.

Key words: Institutional change, IT-driven modernization of public governance, user centered design

1. INTRODUCTION

In recent years the diffusion of communication networks and distributed applications allowed the development of new interaction paradigms in Public Administration, under the collective name of e-Government, meant also as a way to organize public governance for better serving citizens and enterprises on a comprehensive scale. As a consequence, the basic outline of an e-government vision has recently emerged and governments have taken promising steps to deploy e-government services both in USA and in Europe [1], even if much remains to be done if this vision is to be broadly realized,

to create innovative services within a coherent system of juridical and economical rules based on these new technologies and concepts.

Innovating the Public Administration, in fact, is not just the union of various tasks (innovating institutions, reengineering administrative processes and using innovative technologies) performed in isolation, because of the additional complexity coming from their coupling [1]. The crucial point is to foster the consciousness of the holistic approach to integrate and extend models, design methodologies and techniques to face the new e-government challenges. This paper is focused on the innovation in Local Public Administrations (LPAs in the following) of federal (or regionalist) countries, like Italy, Spain, Germany and Brazil, to give an integrated and trans-disciplinary answer to the following questions:

1. how to promote an effective e-government approach in LPAs, in the current context of “institutional uncertainty” about the role of the LPAs toward the citizen’s community?
2. in the current devolution panorama, which new options are imposed and which new tools are given to the LPAs to improve their relationship with citizens?

So the present paper aims at three main goals:

1. to analyse how and how much the normative autonomy of LPAs can improve the efficiency and the effectiveness of their administrative processes and services to citizens adopting suitable e-government approach;
2. to develop an institutional know-how oriented to the holistic innovation, able to actively involve the institutional stakeholders;
3. to demonstrate how to organize an effective e-Government solution based on the “regulatory approach” and on the “information” of citizens and Administrations.

We decided to orient our approach to the Local Administration because of their very poor performance in several key sector: in Italy the official evasion figure of estate tax is around 30% while the fiscal contentious between citizens and LPA has reached a critical level [5]. Moreover, small and medium LPAs are often overwhelmed by outdated and bureaucratic employees culturally unable to manage the complexity of the new institutional and technological scenario. We chose to develop an egovernment framework to achieve better performances in their core services (e.g. fiscal services, Municipal-knowledge based services, governance services etc.) rather than only to create new auto-referential services solely based on novel technologies.

The research experience proposed here comes from the collaboration among the University of Lecce, the Municipality of Taviano and a local private partner in the South-East of Italy, with the aim at supporting the LPA

to reduce the normative and informative asymmetries in local taxation. The research activity, synthetically described by “*e-government as new-government*”, has been positively evaluated by the Italian Ministry of Innovation and Technologies (Agreement Protocol signed in Lecce, on Dec. 23, 2002).

The paper is structured as follows. In Section 2, we present the juridical and technological context and the motivations at the root of our research. Section 3 discusses the reference framework we adopt and the main related tools. In Section 4 we present some results we achieved applying this framework in a Municipality. Section 5 concludes the paper and depicts some further research developments.

2. CONTEXT AND APPLICATIONS

2.1 The change in normative techniques

In the perspective of the institutional dimension of technology innovation, the unclear distinction, wide spread in the European legal tradition, between law and regulations creates uncertainty [6]. In fact, in the Law the decisional process takes place as authoritative form in the circle of command, with informal and uncontrollable behaviours. The result is a “mono-directional construction” aimed at reaching specific goals. On the other hand, the regulation is characterized by its practice, so it has conditional and “multidirectional” nature. It is based on the “what if” principle, with hypothetical not executive clarifications and it depends on the position of the single actor.

In the Italian institutional history about the “administrative simplification”, from Law 241/1990 (regarding administrative proceedings) to Law “Bassanini” (law 59/1997, 127/1997, 50/1999), Local Public Administrations have tried to be modernized in regulations. However especially LPAs keep on acting in informal ways, through uncontrollable behaviours, inherited from consolidated traditions or from formal authoritative procedures, inspired to the mono-directional discipline, little sensitive to the information access and control. The “multi-purpose” nature of LPAs is the cause of the decisional uncertainty of LPA about e-government. E-government implies two risks for LPAs: the “auto-reference” of technology innovations, if operating in an unchanged institutional context, disciplined by authorities [7], and additional administrative decisional charges with the subsequent overlap of old behaviour with those determined

by the use of new techniques¹. In Italy, the “Analysis of Regulation Impact” (A.R.I.), introduced by Law 50/1999, answers to the first risk, and the “simplification risk”, introduced by Law 59/1997, answers to the latter.

2.2 The technological scenario in LPAs

The use of ICT can produce radical improvements in administrative procedures, if it is supported by the optimization of the procedural iter. The normative techniques of regulation and simplification pursue the goal of “*regulation in simplification*” [8], which means:

- eliminating useless procedural steps unnecessary to decision making;
- reducing functional interferences between procedures regulated by different norms, unifying them in a unique procedural flow with one regulation;
- rationalizing the communication processes among the figures involved in decisions and creating a unique and consistent interface with the citizen;
- promoting the widespread access to decisions and their effects.

The user centered approach in designing e-services and on-line applications is the corresponding facet in the software development community.

Actually, providing citizens with e-services is a hot research topic today, in particular researchers focus their attention on the implementation of a single point of access to public services and information, the development of integrated platforms, which will allow the public sector to provide citizens, businesses and other public authorities with information and public services structures. Examples of research and business applications and methods for integrating heterogeneous legacy information systems are extensively described in [3]. Nevertheless, the scenario is not homogeneous, and from an informal survey of the current context in the Southeast of Italy, we found:

- inconsistent and uncoordinated organizational growth with hundreds of processes overlapping in the years, with outdated organization solutions;
- incompatible ICT solutions and a correspondent inefficient usage of ICT
- lack of horizontal and vertical communication in the institutional structure.

Other considerations related to the local taxes’ management process contribute to better understand the poor quality of data owned by the Local Administration. In summary, our experience is that:

¹ An example is the “computer protocol” that coexists with the “paper protocol” and the plurality of offices that rule it

- Several sources may provide data to the system with different quality, according to the source (manual data input, data copied from system to system, etc.);
- Data is often duplicated either due to the poor definition of the business logic (or bad bureaucratic processes) or to technical reasons, or simply for convenience.
- The semantic relationships among information don't exist, making difficult to enforce the integrity constraints and to guarantee the value correctness.

3. **V.I.O.L.A.: THE VIRTUAL INCOME OFFICE FOR LOCAL ADMINISTRATION**

The holistic approach in e-government creates new processes and situations, as they are highly knowledge intensive and they rely on the strict interaction between people and IT. Moreover it is related to the Knowledge enhanced government. These points imply IT must reach the heart of the administrative work: taking decision. So the management of legal/administrative knowledge becomes a decisive driver in governance. At the same time, designing governmental applications and services touches two issues: coupling concepts and systems and making use of standards. So the methodology must combine Legal Drafting and engineering techniques, developing normative and technological tools in an integrated fashion to reduce the gap of the normative asymmetry, cause of the informative asymmetry.

Our research starts from the upsetting of *authoritative discipline* experimenting the impact of innovation as *decision regulation* in real LPA cases. As experiment a single mission has been chosen, derived from the Constitutional reform of the Constitutional Law n. 3/2001 which amended the whole Title V of the Constitution: this is a “constitutional innovation”, legitimating the related institutional, organizational and technological innovation. According to the new Title V of the Italian Constitution, Municipalities have normative autonomy in the organization of powers and functions and in the standardization of process adequacy in providing services. Moreover for the first time in Italian history Municipalities have taxation autonomy to finance their own functions and to “measure” the fiscal capacity of the territory. This incentive is particularly relevant for ICT.

Before the Constitutional reform the LPA situation (see [10]) in technological innovation consists of two main models: *insourcing* or *outsourcing* ICT services . In the first approach the use of technological tools has been subjected to unmodified informal behaviors and to

authoritative bureaucratic formalism. In the latter case externalisation made providers de-facto owners of data and knowledge, acquiring dominant position in IT innovation. In both cases LPAs lacked of any independent position in the entrance of new technologies and they have used (or have been used by) unidirectional approaches without carrying about the delivery and the economic exploitation of information access.

Nowadays Municipalities, to be autonomous, must “know themselves”, they must be conscious of their heritage of experiences, usual procedures and functionalities in delivering services, of their ability in understanding citizens needs, of checking their performance, just in order to change.

3.1 The Local Taxation

The single mission dimension chosen for the research is local taxation, because taxation is a decisional field where the use of innovative technology can be widely spread, but the resistance to change is strong. Moreover the new art. 119 of the Italian Constitution make the decisions of local taxation dependent on the Municipal area, which becomes a relevant informative factor both to make the decisions legal [11], and to define and calculate the “citizen’s fiscal capacity” (art. 119 line 3), as parameter of State subsidies for the equalized regulation.

So the information about the taxpayer and his relationship with the his territory becomes the *trait d’union* in the local fiscal discipline and in the management of Municipal data archive to allow State interventions. In conclusion, the Local Town Council should regulate its internal process, in order to create the data archive for itself and for the State.

3.2 The tools based on the framework

The considerations developed so far have led to the creation of an integrated group of legal and technological tools to enable an effective local taxation management. To integrate them and in order to teach institutions how to use them in LPAs’ everyday life, a related organizational structure is needed, a *Contact Center*, where the fiscal problem is faced through different disciplines, in homogeneous legal and informative “environment”, with the support of two complementary instruments called:

- TUnifET (*Testo Unificato delle Entrate Tributarie*, that is Unified Sheet of Fiscal Incomes)
- SIFET (Sistema Informativo della Fiscalità e dei Tributi, that is Informative System of Taxation and Tributes)

3.2.1 TunifET

TUnifET is a legal code to regulate fiscal proceedings, that are identified through activities, structures and information for managing relationships with taxpayers. So its “subject/object” is not the tribute as citizen’s unilateral duty, but it is the fiscal relationship between Administration and citizen, built through the acknowledgment of the right to be informed and of the data which administrative decisions are based on. The TUnifET normative structure is open, thanks to the use of adaptable clauses. Using the TunifET regulation the *Contact Center* works as the institutional place of the informative interaction between user and supplier in the fiscal relationship. The TunifET foundation lies in the above mentioned article 119 of Italian Constitution. The interaction between the taxpayer and the *Contact Center* enables to

- correct data held by Administration, to avoid mistakes;
- know the expectations and good faith of Taxpayer about fiscal questions concerning him, in pursuance of Law 212/2000;
- remove informative asymmetries between Administration and users, which can create useless burdens or wrong expectations.

In other words, also in the perspective of *Legal Drafting*, the *Contact Center* puts the self-correction approach of *FMEA (Failure Mode and Effect Analysis)* in action. As the criteria of good faith and legitimate expectation can’t be traced back to taxpayer within predefined control schemas, because such templates are founded on the interaction between human beings and events and events are often the consequence of activities or behaviors of Administration, the regulation must distinguish its objects from activities: the first are represented by fulfillments and regulated conditions according to the law, the latter by relationships that spontaneously take place within the “events” happened in the specific taxpayer’s case.

These relationships are not one-way disciplined by Administration, but they represent the occasion to personalize the appliance of the regulation on the basis of the specific case, enriching the experience and the institutional learning in building relations between administration and citizen.

The subsequent effects can be summarized as follows:

1. self regulation of the fiscal relation on the field of information reciprocity between the Administration and the taxpayer inside a unique regulative process schema
2. elimination of useless, ineffective activities in taxpayers requirements from the normative discipline (*regulation in simplification*)
3. tuning of the process with respect of actual users’ behaviors

4. knowledge of Administration's clients, represented by local taxpayers

So, it is possible to estimate the attitude of people to pay taxes, not exclusively through juridical factors, which is particularly important in the panorama of the new Constitutional autonomy. In fact the criterion of "fiscal capacity per inhabitant", recalled by Italian Constitution, requires the knowledge of the taxpayer on the basis of his incomes and personal situations, activities and events. In other words, the tuning of TunifET has "diagnostic" aims instead of regulatory, because it promotes the attitude to pay of taxpayer according to reasonable criterions by mutual consent of information and data sharing.

3.2.2 SIFET

SIFET assures the homogeneity of the informative settings. In order to know itself and its territory and to build the tools to measure its performance, the Municipality must be conscious of information and knowledge heritage owned inside, eventually completing and complementing it with external sources. The goal is to expose information owned inside, asking citizens and enterprises to complete it. New technologies (Internet, mobile, etc.) are very effective for this task, because they support the development of real-time/near-time services. To enable this instant access/instant response to take place, a blending of Ubiquitous Web applications with data from legacy archives is needed, requiring design methodologies borrowed from both database and hypermedia communities. With reference to local taxation, the ICT goal has been the design and the implementation of the *Virtual Office of Incomes*, a virtual center of real time aggregation of Municipal incomes, to give it the chance to know its actual entrances, to plan the budget on "certified" data and to start creating the Municipal database (an integrated virtual archive storing all information belonging to the Municipality, its citizens, its estates). The system for managing and facilitating the heterogeneous data transformation and integration is based on techniques of database integration design, while the design of the Web application for the management of ICI – citizen side - is based on the UWA framework (borrowed from the hypermedia communities) [2]. Different design methodologies are used according to the application views: the new services, based on UWA conceptual framework, are designed in a user centered perspective, whilst we adopted suitable models and technologies to face database integration and process design issues. The architecture to clean and integrate information sources (fiscal data, demographic data, cadastral data, phonebooks, etc.) is designed around the idea of pushing data through a pipeline of pre-defined processing blocks.

The interconnection path among blocks represents the steps to solve the specific problem of cleansing Italian fiscal data. The integration strategy is based on a logical integration of sources, keeping physically distinct the databases. The user centred design methodology, generally recognized as very effective in improving the usability of application, aims at reducing the informative gap necessary to approach the tools. Data integration is constantly monitored by the Contact Center according to users'/citizens' requests in the TunifET regulatory design. Beside, through the contact center the digital gap is reduced, because users/citizens are initiated to use multichannel communication techniques with the Administration, in order to make the informative certainty easier, which is necessary condition to reach the income certainty.

4. VALIDATING THE APPROACH: THE TAVIANO PROJECT

The town of Taviano (about 12.600 citizens) has 11.500 buildings and 17.500 lands. The results of our approach impact both the Municipality's management and citizen services. Since summer 2001 the main aims of the present Administration have been the citizen right's protection, fiscal equity, autonomies development, financial resources' review, reform of the Municipal autonomy's resources.

To meet these goals the Municipality has singled out technology and juridical innovation as an opportunity of autonomy exploitation and citizen relationship development. The first step was to design and support an effective tax management process (the *Virtual Office of Incomes*), in order to give the Municipality the chance to know its actual incomes and to plan the budget on "certified" data. We used the tools described in the previous section and at the end of 2002, the results achieved have been the following:

- the reduction of financial advance in 500 K€
- savings in financial charges in 30 K€ (from 70 K€ in 2001 to 40 K€ in 2002)
- higher entrances of 100 K€ (10% better than in 2001), without any increase of taxes' rates
- savings of 35 K€ by direct management of taxes.

From a technical perspective, to support efficient and effective services to users (both outside and inside the Municipality), the first issues we run into have been the evolutionary maintenance of legacy systems towards the new services. System assessment showed the unfeasibility of integrating the new services within the old systems and required deep data quality assessment evaluation and the development of a systematic approach to

clean and integrate information, since data necessary to set up the Virtual Office of Incomes had to be extracted from paper and unreliable flows coming from internal legacy applications or other institutions. Several sources have been cleaned and integrated to understand and assess the fiscal position of each citizen and his own estates.

Due to the nature of local taxes, the integration step has been two folded:

- given a year information flows coming from different sources have been integrated to get the picture of the citizen's ownerships and payments (vertical integration)
- given a tax, several years of the same flow have been integrated to assess the citizen tax position

Proper cleaning methods [see 4], customized on the Italian case, have simplified the clerical review, reducing the need of manual inspection and the related costs by 70%. From the Administration point of view, this tool is very powerful to discover fiscal evaders and misalignments among data owned by the Public Administration about the citizen and his estates, highlighting history and discrepancies in data.

The left side hand of Fig.1 shows a sample of the user interface of the demonstrator supporting clerks in matching different information flows for the discovery of tax evaders: given a year and a street, all the estates are displayed. Selecting one, integrated data about the estate and its owners, from the Land registry's office, from the ICI statement, from the National Electrical Agency, are displayed. The same set of information is the basis to build innovative online services to citizens. The user centered design for Ubiquitous Web applications had highlighted the taxpayer's requirement for a synthetic and clear view of his position. The right hand side of Fig 1 reproduces a screen shot of ICI online Web application enabling citizens to manage ICI tax. Once logged in, the taxpayer can display its ownership in the Municipal territory, and securely communicate a variation of his position.

We used these prototypes to test the whole framework and to evaluate the feasibility of the technical choices (the network, security, development environment, programming languages).

From the normative side, the regulative environment offered by TunifET has allowed the construction of a relationship between users and Administration not founded on duties and prohibitions but on actions of "incentive regulation" and legitimization of taxpayers' position, according to the information they provide in order to correct Municipality's internal data and to tune its internal processes.

Figure 1: Some interfaces of ICI online services from the clerk's perspective and from citizen's perspective

In the Municipality of Taviano two important figures to measure the application of V.I.O.L.A. are the *fiscal trial* for the introduction and the usage of the tools (TunifET e SIFET) in the “Contact Center”, which is zero, and the increasing diffusion of A.D.R. (Alternative Dispute Resolutions) methods in the Administration. In particular the use of “*istanze di autotutela*” (autoprotection instances), submitted by taxpayers, has been largely improved, most of all to request the data correction to Municipality.

Briefly, in Taviano the usage of self correction presents these figures: in the fiscal period of 2001, 1120 “istanze di autotutela” were submitted to correct data out of 1370 and only 120 out of 1120 had soundness. In 2002, this rate is even more significant, because 330 instances have been presented out of 866 tax assessments done. Among these nobody protested against the legitimacy of regulatory processes in the taxation relationship with payers. In both 2001 and 2002 no litigation against the Municipality was undertaken related to the regularity of its decisional processes on local taxation. Up to April 2nd, 2003 the results show 563 fiscal controls, without any fiscal litigations or “istanze di autotutela”.

5. CONCLUSIONS AND FURTHER WORKS

In the interdisciplinary experience of Taviano project, V.I.O.L.A. has promoted the institutional, normative and organizational learning process. In this e-government experience Taviano has not been “buyer of innovation”, but “author and actor of institutional innovation” in the normative and informative scenario of technology usage. So, instead of bearing the increase of knowledge, learning, discipline and adaptation costs, the Municipality of

Taviano finds out the relativity of the e-government impact in an ongoing transforming context, like the Constitutional Italian one, and, in the specific sample of local taxation, it combines innovation and the reconstruction of trust in the relationship with citizens, on the ground of information circulation and availability. The results concern

- The definition of clear lexicon and semantic in the regulations with taxpayer's relationship
- Positive financial benefits without additional costs
- The elimination of unwanted effects, like fiscal trial

The main advantages perceived by Taviano's Major have been:

- learning by doing for employees involved in the project, and knowledge transfer from the project team to the rest of employees;
- better aptitude to innovation;
- savings and reorganization of local taxation.

We are planning to extend the empirical validation of the model and the tools in order to tune and customize them to different contexts and sizes. Moreover this experience of holistic model can be extended from the local taxation to other functions in the LPA, having already verified the citizens' goodwill to pay according to indicators of regulation and reorganization of informative processes.

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