

Pollifroni, Massimo; Militaru, Gheorghe; Ioana, Adrian

Article

The New Key Drivers to Improve the Open Government Performances: Some Empirical Evidences from Italy

Journal of Accounting and Management Information Systems (JAMIS)

Provided in Cooperation with:

The Bucharest University of Economic Studies

Suggested Citation: Pollifroni, Massimo; Militaru, Gheorghe; Ioana, Adrian (2016) : The New Key Drivers to Improve the Open Government Performances: Some Empirical Evidences from Italy, Journal of Accounting and Management Information Systems (JAMIS), ISSN 2559-6004, Bucharest University of Economic Studies, Bucharest, Vol. 15, Iss. 1, pp. 72-89

This Version is available at:

<https://hdl.handle.net/10419/310614>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<http://creativecommons.org/licenses/by/4.0/>

The new key drivers to improve the Open Government performances: some empirical evidences from Italy

Massimo Pollifroni^{a,1}, Gheorghe Militaru^b and Adrian Ioana^b

^a *University of Turin, Italy*

^b *University Politehnica of Bucharest, Romania*

Abstract: Aim and scope of the paper is to demonstrate how an effective and efficient management applied to the Public Sector can improve the administrative transparency, an evidence – this last – now increasingly seen in the practices carried out by Public Administrations on their own websites. In adherence to the international literature on the issues addressed by the research, the work seeks to provide an empirical and theoretical answer to the following research question: is it possible to identify the presence of a potential correlation between efficiency and transparency, by a quantitative analysis applied to different Italian Public Sectors?¹. The actual contribution of the study is focused in emphasizing that the administrative efficiency – in a long-term perspective – can be considered not only a tool for the containment of public expenditure, but also a valuable means for improving administrative transparency. The empirical findings suggest the presence of a persistent heterogeneity of situations in which the most virtuous administrations in open government are those who for many years have pursued policies oriented to the administrative efficiency.

Keywords: IT Management, Business Economics, Technological Change: Choices and Consequences, Diffusion Processes.

JEL codes: M15, M21, O33.

¹ *Corresponding authors:* Department of Management, University of Turin; Corso Unione Sovietica 218 bis, Turin (Italy); tel. (+39) 011 6706027;
email address: massimo.pollifroni@unito.it

1. Introduction

The overall aim of the study is to identify a right approach applied to the Public Management that can jointly optimize both operational efficiency and administrative transparency. These concepts – efficiency and transparency – apparently far, but actually very closed, on which the research question tries to identify the presence of a potential correlation between them through the analysis of two Italian Public Sectors. About the two issues previously mentioned – efficiency and transparency – the Italian government has been involved for many years and the first accounting reform dates back to the 90s and concerned the corporatization of the Italian Public Health Sector by the Legislative Decrees no. 502/92 and no. 517/93.

The last accounting reform, however, was introduced by the Legislative Decree 23 June 2011, no. 118 – coordinated with the Legislative Decree 10 August 2014, no. 126 and Law 23 December 2014, no. 190 (Italian Stability Law concerning the fiscal year 2015) – and covered the accounting harmonization of the territorial authorities (e.g. regions, municipalities, local health authorities, etc.). The accounting harmonization concerns a complex and detailed process of reform of Public Accounting, established by art. no. 2 Law 31 December 2009 no. 196 and aims to making the financial statements of all Public Administrations consistent, comparable and easily combinable.

These results are obtainable through operations carried out in the same manner with equal accounting methods and criteria: the final objective is to meet the needs of information and transparency related to the coordination of public finance and its control, in compliance with EU rules and fiscal federalism, required by Law no. 42/2009².

The second recalled issue – the transparency – is strongly linked to that of the fight against corruption, on which the Italian government is involved in several fronts among which it is highlighted the creation of the National Anti-Corruption Authority (created in 2014 by Decree-Law no. 90/2014 converted into Law no. 114/2014). The Authority has expertise in the following areas: prevention of corruption in Public Administration and in the companies controlled by them; implementation of transparency in all aspects of management and supervision over the public contracts³.

The next paragraph (2) is dedicated to present the most significant literature review on the topics covered by the research: the international literature is particularly fruitful of essays on management control applied to the Public Sector, while the issues related to administrative transparency have been discussed only since the 2000s, often proposed in a logical non-contingent to the management control. The

present contribution, instead, wants to report the continuity between the two clusters (efficiency and transparency), overcoming, then, the obvious gap in existing literature.

The study uses a quantitative methodological approach through comparative analysis of two areas concerning the Italian Public Administration. The assessment is oriented to the scientific methodology of “multiple case study” (Bandara *et al.*, 2005; Dul *et al.*, 2007; Stake, 2013): a methodology very tight to the research objectives, explained in the previous pages. This adhesion derives from the fact that while the analysis of a single case study allows to investigate the dynamics of a single situation, in a “multiple cases study” the investigation is able to understand the similarities and differences between the different cases object of study.

The two cases analysed in this study are similar because they both belong to the Italian Public Sector, while differ in several aspects that will be illustrated in the following pages (such as the structural dimension, the activities provided, the evolution of the accounting model of reference, etc.). Those differences may alternatively: or explain the diversity of the research results, or be irrelevant in the case of equal results be it a complete acceptance (or a complete rejection) of the initial research hypothesis.

The paper presents the following structure that develops the topics provided in the introduction dedicated to present the objectives and the methodology used in the research. The next paragraph (2) follows the introduction and is dedicated to present the most significant literature on the topics covered by the research: the central part of the paper develops the presentation of the research path correlated with its results (3). The research results are discussed and analysed in the following paragraph (4) that anticipates the one dedicated to the conclusions (5).

2. The international literature review on the topics covered by the research

The topics covered by the research recall the concepts of the analysis of the New Public Management (in acronym NPM), in strong adherence to the latest revisions of this managerial theory (Barzelay, 2001; Gruening, 2001; Haque, 2001; Pollit *et al.*, 2004; Pollit *et al.*, 2007; Vigoda 2002).

The NPM paradigm – theorized in the 80s (Aucoin, 1990; Dunleavy *et al.*, 1994; Hood, 1991; Hood, 1995; Osborne et al., 1992) – has introduced a huge change in the management applied to the Public Sector, emphasizing the “(...) *performance appraisal and efficiency; the disaggregation of public bureaucracies into agencies which deal with each other on a user-pay basis; the use of quasi-markets and*

contracting out to foster competition; cost-cutting; and a style of management which emphasizes, amongst other things, output targets, limited term contracts, monetary targets and incentives, and freedom to manage (...)" (Jones *et al.*, 2001: 25).

At the present moment, these NPM emphases cover the topics regarding the performance assessments applied to the Public Sectors and concern the new e-government applications (Torres *et al.*, 2005): following this new managerial approach, now it is possible to underline that a full implementation of Public Management Information System (in acronym PMIS) can lead to a progressive and systematic consolidation for introducing new ethical good practices oriented to NPM and in this perspective the PMIS can be seen as a subset of the MIS (Bozeman *et al.*, 1986; Caudle *et al.*, 1991). By this approach, PMIS can be seen both as an instrument for improving the public ethics (and/or the administrative transparency) (Argyriades, 2006; Frederickson *et al.*, 2013; Gortner, 1991; Van Wart, 1998; Kim *et al.*, 2009) and a process for reducing the government spending (Keen *et al.*, 1997; Tanzi *et al.*, 2000; Wildavsky, 1980).

These last effects – the public ethics improvement by a better administrative transparency – are called now, in the international literature, as e-governance processes (Kettl, 2000) and include others related aspects, such as those of e-participation, e-inclusion, e-accessibility (Ciborra, 2005; Oliver *et al.*, 2004; Saxena, 2005; Stiglitz, 2002) and e-disclosure (Georgescu *et al.*, 2008; Serrano-Cinca *et al.*, 2009). These processes will give more transparency to the Public Sector in a new Public environment scenario (Năstase *et al.*, 2009) that is the "Open Government" (McDermott, 2010; Lathrop *et al.*, 2010) defined as "(...) *the transparency of government actions, the accessibility of government services and information and the responsiveness of government to new ideas, demands and needs (...)*" (OECD, 2005).

The initial enthusiasm about the potential benefits of Open Government, however, must also deal with the potential criticisms of the new approach, as many contributions raised in the international literature in terms of political limits, critical issues, new ambiguity and false myths (Jaeger *et al.*, 2010; Janssen *et al.*, 2012; Yu *et al.*, 2012). Also the optimization of the Open Government processes requires the fulfilment of certain initial conditions, such as the bridging the "digital divide" (Helbig *et al.*, 2009; Nam, 2012; Warschauer, 2004).

In parallel several studies have contributed to show as a higher ethical level seems to facilitate the prevention of inefficiencies in the Public Sector (Afonso *et al.*, 2010; Maesschalck, 2004) and it is also clear that in a situation of economic weakness the PMIS implementations must be improved (Lee Rhodes *et al.*, 2012; Modell, 2009). The present academic debate about these evidences – and on the

underlying questions (e.g., what are the key drivers for a Public Management assessment?) – is open: these questions can be supported by qualitative indicators (such as customer satisfaction reports), or by quantitative key drivers (such as financial ratios), or by a mix of the two categories mentioned above (qualitative and quantitative key drivers) (Goh, 2012; Speklé *et al.*, 2014).

This research proposal has opted for the quantitative key drivers, because the use of qualitative indicators would not allow a comparison between heterogeneous Public sectors, such as those chosen in this study concerning the field of the Italian Experimental Zooprophyllactic Institutes (in acronym EZIs) and that relating to the Italian Fiscal Agencies (in acronym IFAs). The choice to adopt qualitative indicators should therefore preclude sector comparability: in this sense, it is noted, for example, to the difficulty of comparison between the customer satisfaction questionnaires relative to a hospital with those relating to a university. For these reasons, the present study has used quantitative key drivers for the efficiency assessment applied to the analysis of the potential correlation between efficiency (resulting from a set of financial ratios) and transparency through the Compass of Transparency (or CoT), a tool developed by the Italian Ministry for Public Administration and Simplification.

The methodological path applied to the present research proposal is explained in the following paragraph, while the explanation of the choice concerning the decision to give the character of variable (Y) for the evaluation of transparency, depending on the efficiency assessment (profile declined as a variable (X), is presented in the paragraph “discussion and analysis”, while the article ends with the final space dedicated to the research conclusions.

3. The research path and results

The research has been conducted through a comparative assessment of the two sectors of the Italian Public Administration: the sector of the Italian Experimental Zooprophyllactic Institutes (in acronym IEZIs) [Case (α)] and that relating to the Italian Fiscal Agencies (in acronym IFAs) [Case (β)].

The first context under study concerns the Italian Experimental Zooprophyllactic Institutes (IEZIs) and is composed by ten subjects. Born as charities, the Italian Experimental Zooprophyllatics Institutions (IEZIs) are declared – with Law no. 503 (June 23, 1970) – Health Agencies, with legal personality under public law and subject to the supervision of the Ministry of Health, which still coordinates the operation through the regions. Subsequently, as part of the restructuring of the State regionalised – Law no. 745 (December 23, 1975) has transferred to the regions of the skills inherent in the control of the Institutes. The Legislative Decree

no. 270 (June 30, 1993) has provided a further reorganization of these institutions and from August 7, 2012 came into force on June 28, 2012 Legislative Decree no. 106, which provides for the reorganization of entities supervised by the Ministry of Health, and that will be implemented soon with Regional Laws.

Ten subjects compose this Italian Public Sector and two cases are not analysed in the research for unavailability of their financial statements: these are the cases of Sardinia and Abruzzo – Molise. The study, therefore, analyzed the following cases: 1-Experimental Zooprophyllactic Institute of Piedmont, Liguria and Valle d'Aosta; 2-Experimental Zooprophyllactic Institute of Venice(s); 3-Experimental Zooprophyllactic Institute of Lombardy and Emilia; 4-Experimental Zooprophyllactic Institute of Umbria and Marche; 5-Experimental Zooprophyllactic Institute of Lazio and Tuscany; 6-Experimental Zooprophyllactic Institute of Southern; 7-Experimental Zooprophyllactic Institute of Puglia and Basilicata; 8-Experimental Zooprophyllactic Institute of Sicily. For the evaluation – applied to the Italian Experimental Zooprophyllatics Institutions (IEZIs) – the research has analyzed the last three annual reports, concerning the following fiscal years: 2010, 2011 and 2012. The documents analyzed are available at the Ministry of Health website and the publication of the documents is mandatory for those entities⁴.

The second context under study concerns the three Italian Fiscal Agencies (IFAs): 1-the Revenue Agency; 2-the Customs Agency; 3-the Public Land Agency. This Italian Public Sector, operating since January 1st, 2001, is composed now by three Italian Fiscal Agencies (IFAs) emerging from the Revenue Authorities' reorganization, which was carried out pursuant to Legislative Decree no. 300/1999. For the evaluation – applied to the Italian Fiscal Agencies (IFAs) (a statistical universe composed by three subjects) – the research has analyzed the last three annual reports, concerning the following fiscal years: 2011, 2012 and 2013. The documents analyzed are available at the Ministry of Economy and Finance website and the publication of the documents is mandatory for those entities⁵. The research data collected refers to the date of November 30th, 2014 and is carried out through the analysis of the two entire universes of reference of the statistical population under study: as a result, the profile of the research did not require further elaboration concerning the statistical inference.

A) The assessment measured by a selection of certain balance sheet ratios [variable (X)].

The financial ratios applied to the annual reports were constructed in order to obtain in any case values included between 0 and 100 (0 as value was also attribute in the cases of negative performances). The indexes used in the research are: $E(a) = \text{Equity Ratio} = [\text{Equity} / (\text{Equity} + \text{Liability})] \%$; $E(b) = \text{Gearing Ratio} = [1 - (\text{Endowment Funds} / \text{Equity})] \%$; $E(c) = \text{Tangible Equity Ratio} = [1 - (\text{Intangible Assets} / \text{Equity})] \%$; $E(d) = \text{ROE (Return on Equity) Ratio} = (\text{Net$

Income / Equity) %; E(e) = Personnel Costs on the Total Costs Ratio = $[1 - (\text{Personnel Costs} / \text{Total Costs})]$ %; E(f) = Personnel Costs on the Value of Production Ratio = $[1 - (\text{Personnel Costs} / \text{Production Value})]$ %. The final evaluations of the variable (x_i) are the average ratio-values concerning only the common fiscal years at disposal for the two cases analyzed: years 2011 and 2012.

Table 1 shows – for the two Italian Public Sectors under study – the values of the financial ratios exposed following the same list [E(a) (...) E(f)] previously used. The overall assessment of the variable (x_i) has been expressed as the simple arithmetic average of the six ratios previously measured in 100/100 and may be expressed in the following formula (1):

$$x_i = \sum (x_{E(a)} : x_{E(f)})_i / 6. \quad (1)$$

Table 1. The assessment concerning the variable (X)

	E(a)	E(b)	E(c)	E(d)	E(e)	E(f)	x_i
Italian Experimental Zooprophyllactic Institutes (EZIs) [Case (α)]							
1-E.Z.I. of Piedmont (...)	65.17	10.53	100.00	3.68	36.60	41.26	42.87
2-E.Z.I. of Venice	72.43	57.50	99.00	4.01	49.09	53.36	55.90
3-E.Z.I. of Lombardy	82.30	94.39	100.00	10.00	48.85	58.72	65.71
(...)							
4-E.Z.I. of Umbria (...)	80.51	33.28	99.00	10.09	44.77	48.62	52.71
5-E.Z.I. of Lazio (...)	60.11	94.71	99.00	1.97	50.72	53.58	60.01
6-E.Z.I. of Southern	52.28	67.14	99.25	0.01	49.42	52.92	53.50
7-E.Z.I. of Puglia (...)	74.77	97.21	100.00	1.84	60.34	63.13	66.21
8-E.Z.I. of Sicily	73.86	78.75	100.00	6.71	39.44	49.60	58.06
Average	70.18	66.69	99.53	4.79	47.40	52.65	56.87
Median	73.15	72.94	99.62	3.85	48.97	53.14	56.98
Modal	#N/A	#N/A	100.00	#N/A	#N/A	#N/A	#N/A
Std. Deviation	10.28	31.59	0.51	3.78	7.31	6.58	7.58
Minimum	52.28	10.53	99.00	0.01	36.60	41.26	42.87
Maximum	82.30	97.21	100.00	10.09	60.34	63.13	66.21
Italian Fiscal Agencies (IFAs) [Case (β)]							
1-Revenue Agency	6.17	76.45	0.00	0.00	45.75	47.55	29.32
2-Customs Agency	0.00	0.00	0.00	0.00	33.52	35.86	11.56
3-Public Land Agency	37.75	81.05	99.16	0.83	86.72	86.92	65.40
Average	14.64	52.50	33.05	0.28	55.33	56.78	35.43
Median	6.17	76.45	0.00	0.00	45.75	47.55	29.32
Modal	#N/A	#N/A	0.00	0.00	#N/A	#N/A	#N/A
Std. Deviation	20.25	45.52	57.25	0.48	27.86	26.75	27.44
Minimum	0.00	0.00	0.00	0.00	33.52	35.86	11.56
Maximum	37.75	81.05	99.16	0.83	86.72	86.92	65.40

B) The assessment of the administrative transparency [variable (Y)].

The assessment concerning the administrative transparency (Y) was achieved through the instrument of the Compass of Transparency (or CoT), a tool developed by the Italian Ministry for Public Administration and Simplification. In the United Nations' e-Government Survey the Compass Transparency (or CoT) is described as follows: "(...) The demand for transparency in public administration has been growing exponentially in Italy. Under new laws introduced since 2009, the website of every public administration is now the main vehicle of transparency:

"(...) The 'Compass of Transparency' (La Bussola della Trasparenza), launched in 2012, is an online portal that gives the citizens the possibility to automatically analyze and monitor, in real time, the implementation of all the data and information requirements imposed by Italian law on the websites of public administrations. The core of the system is an engine that, through many software sensors and mathematic algorithms, automatically analyzes the websites in real-time or periodically. (...)" (UN, 2014: 35).

The evaluation concerning the administrative transparency available on the website expressed on a scale from 0 to 72 (72/72), was then converted into a final scale from 0 to 100 (100/100). The initial score expressed on a scale from 0 to 72 (72/72), is constituted by a basket of the following indicators: T(a) = Indicators of reorganization and transparency (67/72); T(b) = Indicators of independent evaluation bodies' certification (1/72) and T(c) = Other Indicators (4/72).

The values of the ratios are shown in Table 2 and are exposed following the same list [T(a), T(b), T(c)] previously used. The first three columns – [T(a1), T(b1), T(c1)] – report the original values, while in the second three columns – [T(a2), T(b2), T(c2)] – the values are expressed in scale 100/100. The last column shows the final evaluations of the variable (y_i) as average of the previous ratio-values. The overall assessment of the variable (y_i) has been expressed as simple arithmetic average of the three indicators previously measured in 100/100, where the final score of the variable (y_i) concerning the single subject (i) may be expressed in the following formula (2):

$$y_i = \sum (y_{T(a2)} : y_{T(c2)})_i / 3. \quad (2)$$

The final step concerns the calculation of the correlation indexes applied to the two cases under study and the results are: $\rho_{x,y} = (-) 0,2894$, for the Italian Experimental Zooprophyllactic Institutes (IEZIs) and $\rho_{x,y} = (+) 1,00$, concerning the Italian Fiscal Agencies (IFAs). Finally, the Figures 1 and 2 present the Radar Chart representative of the results obtained by the research applied to Cases (α) and (β): the research results are discussed in the following pages.

Table 2. The assessment concerning the variable (Y)

	T(a1)	T(b1)	T(c1)	T(a2)	T(b2)	T(c2)	y_i
<u>Italian Experimental Zoophylactic Institutes (EZIs) [Case (α)]</u>							
1-E.Z.I. of Piedmont (...)	67	1	4	100.00	100.00	100.00	100.00
2-E.Z.I. of Venice	60	1	2	89.55	100.00	50.00	79.85
3-E.Z.I. of Lombardy (...)	67	1	4	100.00	100.00	100.00	100.00
4-E.Z.I. of Umbria (...)	67	1	4	100.00	100.00	100.00	100.00
5-E.Z.I. of Lazio (...)	57	1	0	85.07	100.00	0.00	61.69
6-E.Z.I. of Southern	0	0	0	0.00	0.00	0.00	0.00
7-E.Z.I. of Puglia (...)	0	0	2	0.00	0.00	50.00	16.67
8-E.Z.I. of Sicily	57	0	3	85.07	0.00	75.00	53.36
Average	46.88	0.63	2.38	69.96	62.50	59.38	63.95
Median	58.50	1.00	2.50	87.31	100.00	62.50	70.77
Modal	67.00	1.00	4.00	100.00	100.00	100.00	100.00
Std. Deviation	29.24	0.52	1.69	43.65	51.75	42.13	38.90
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum	67.00	1.00	4.00	100.00	100.00	100.00	100.00
<u>Italian Fiscal Agencies (IFAs) [Case (β)]</u>							
1-Revenue Agency	67	1	0	100.00	100.00	0.00	66.67
2-Customs Agency	37	1	0	55.22	100.00	0.00	51.74
3-Public Land Agency	61	1	4	91.04	100.00	100.00	97.01
Average	55.00	1.00	1.33	82.09	100.00	33.33	71.81
Median	61.00	1.00	0.00	91.04	100.00	0.00	66.67
Modal	#N/A	1.00	0.00	#N/A	100.00	0.00	#N/A
Std. Deviation	15.87	0.00	2.31	23.69	0.00	57.74	23.07
Minimum	37.00	1.00	0.00	55.22	100.00	0.00	51.74
Maximum	67.00	1.00	4.00	100.00	100.00	100.00	97.01

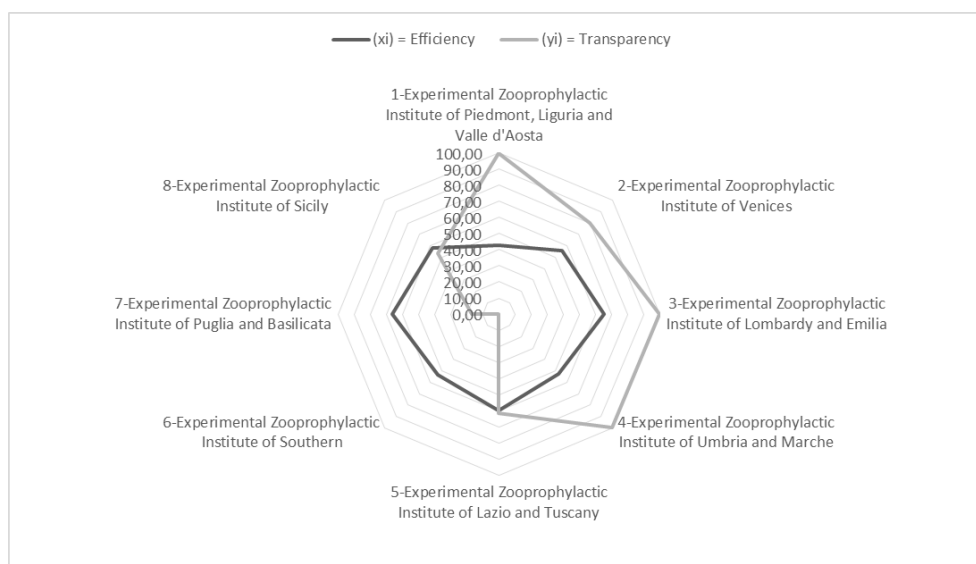


Figure 1. The Radar Chart regarding the sector of the Italian Experimental Zooprophyllactic Institutes [Case (α)]

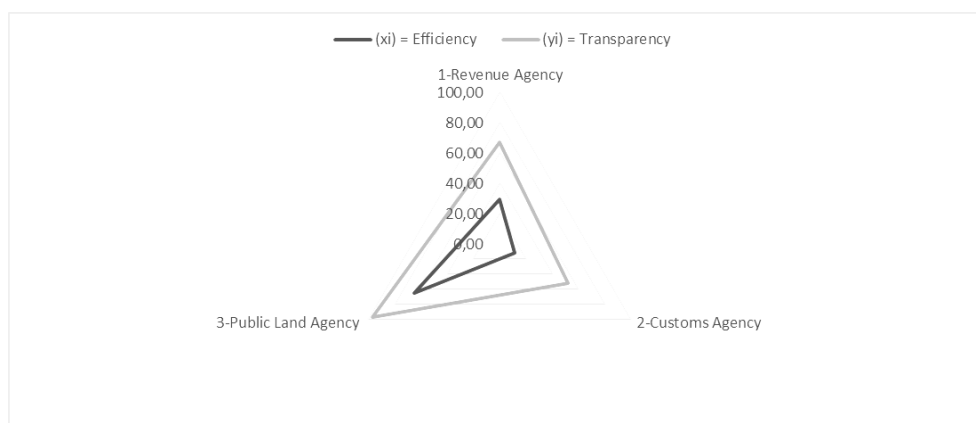


Figure 2. The Radar Chart regarding the sector of the Italian Fiscal Agencies (in acronym IFAs) [Case (β)]

4. Discussion and analysis

This paragraph is dedicated to the discussion and to the analysis of the research results. The numerical processing presented in the previous pages has provided the

following results, in terms of correlation indexes ($\rho_{x,y}$): $\rho_{x,y} = (-) 0,2894$, for the Italian Experimental Zooprophyllactic Institutes (IEZIs) and $\rho_{x,y} = (+) 1,00$, concerning the Italian Fiscal Agencies (IFAs). These results show us as that our thesis is valid, but not in all cases: the thesis is valid in the case concerning the Italian Fiscal Agencies (IFAs) [$\rho_{x,y} = (+) 1,00$], but it is refused in the Public Sector regarding the Italian Experimental Zooprophyllactic Institutes (IEZIs) [$\rho_{x,y} = (-) 0,2894$].

So if the initial thesis is to search the potential correlation between the assessment resulting from the balance sheet ratios [variable (X)] and the evaluation of the websites' transparency [variable (Y)], the research results require us to reflect on the possible determinants of such a wide difference of values. The main reasons for this difference are probably attributable both to the different kinds of organization present in the two cases and to the different profile of the services provided.

In the Italian Fiscal Agencies, the management of information systems usually takes place at the central level: this implies a uniformity of service provided. Moreover, almost all agency services are delivered by electronic means, while only the case of tax dispute takes place with access into the local structures: these empirical findings are common in all the models of e-government models. Different is the case of the Italian Experimental Zooprophyllactic Institutes (IEZIs) that – with 10 headquarters and 90 local diagnostic sections – is an important operational tool available for the National Health Service (NHS) to ensure the epidemiological monitoring, experimental research, staff training, support laboratory and diagnostics for the official control of foodstuffs. For the Italian Experimental Zooprophyllactic Institutes (IEZIs), with reference to their activities and to their recipients of the services provided, it is evident a less use of the website as a tool for service delivery. What has been stated previously helps to explain the lower average rating of transparency [variable (Y)] for the Italian Experimental Zooprophyllactic Institutes (IEZIs, $\mu_y=63,95$) in comparison with the field of Italian Fiscal Agencies (IFAs, $\mu_y=71,81$). The empirical data also highlights for the Italian Experimental Zooprophyllactic Institutes (IEZIs) a heterogeneity in the two variables analyzed (see Figure 1.). In fact, in the eight cases analyzed it emphasizes the following: 4 cases have a transparency value higher than that of efficiency (1-EZI of Piedmont, Liguria and Valle d'Aosta, 2-EZI of Venice(s), 3-EZI of Lombardy and Emilia, 4-EZI of Umbria and Marche); 2 cases showed similar values (5-EZI of Lazio and Tuscany, 8-EZI of Sicily) and 2 cases showed a value of efficiency better than that of transparency (6-EZI of Southern, 7-EZI of Puglia and Basilicata).

In the second case analyzed – concerning the Italian Fiscal Agencies (IFAs) – the absolute value of the correlation index is $\rho_{x,y} = (+) 1,00$, and indicates the presence of maximum correlation between the two phenomenon observed {efficiency assessment resulting from the balance sheet ratios [variable (X)] and

transparency [variable (Y)]}. The empirical data also highlights for the Italian Fiscal Agencies (IFAs) a homogeneity in the two assessment presented (see Figure 2.). In fact, in all the cases studied the transparency value is higher than that of efficiency and this homogeneity of values is the main cause of perfect correlation between the two variables analyzed. The research shows an interesting result by the comparison of the values of the efficiency between the two sectors: it surprises a higher average rating of efficiency [variable (X)] for the Italian Experimental Zooprophyllactic Institutes (IEZIs, $\mu_x=56,87$) in comparison with the field of Italian Fiscal Agencies (IFAs, $\mu_x=35,43$).

In detail, for six ratios used in the model, 4 cases showed a better average performance for the Experimental Zooprophyllactic Institutes {the ratios interested are: E(a) Equity Ratio = $[\text{Equity} / (\text{Equity} + \text{Liability})] \%$; E(b) Gearing Ratio = $[1 - (\text{Endowment Funds} / \text{Equity})] \%$; E(c) Tangible Equity Ratio = $[1 - (\text{Intangible Assets} / \text{Equity})] \%$ and E(d) ROE (Return on Equity) Ratio = $(\text{Net Income} / \text{Equity}) \%$ }, while only 2 cases reported a better average performance for the Fiscal Agencies {in this case the ratios interested are: E(e) Personnel Costs on the Total Costs Ratio = $[1 - (\text{Personnel Costs} / \text{Total Costs})] \%$ and E(f) Personnel Costs on the Value of Production Ratio = $[1 - (\text{Personnel Costs} / \text{Production Value})] \%$ }.

At this point it is only right to dedicate a few words to introduce to the aim of the basket of efficiency ratios: these indexes were selected and constructed in order to obtain in any case values included between 0 and 100 (0 as value was also attribute in the cases of negative values). The ratios selected by the research have tried to express a framework of “full equilibrium” deduced from the annual financial statements analysis: an equilibrium concerning the cash flow statement, the income statement and the balance sheet, or – in other words – it was then used a broad concept of efficiency, not only economic, but due to all areas of the annual financial statement made by Public Administrations. Following this approach it becomes possible, then, to explain the meaning of the indices used: the first two ratios concern the financial assessment area [E(a)=Equity Ratio and E(b)=Gearing Ratio]; the third and fourth indices want to provide an assessment oriented to an Asset Liability Management adapted to a reading of the budget of the entities belonging to the Public Sector [E(c)=Tangible Equity Ratio and E(d)=ROE]; the last two indicators regard an evaluation oriented to the economic efficiency, with particular reference to the labor cost dynamics that are a critical variable in the Italian Public Sector Management [E(e)=Personnel Costs on the Total Costs Ratio and E(f)=Personnel Costs on the Value of Production Ratio].

The approach followed tends to highlight the new key drivers to improve the Public Management Performances: basically, these processes represent a right way to introduce efficiency and effectiveness (by e-government processes) in the Public Sector, and on the other hand, these drivers can have a useful effect on the administrative transparency (by the e-governances processes). On these topics is

dedicated the surveys published by the United Nations, a biennial report in which is presented the “United Nations E-Government Development Index” (EGDI) defined as:

“(...) a composite indicator measuring the willingness and capacity of national administrations to use information and communication technology to deliver public services (...)” (UN, 2012: p. 119).

Comparing the last three editions of the EGDI index (available inside the surveys published in 2010, 2012 and 2014) (UN, 2010; 2012 and 2014) Italy improves its situation going from position 38th (year 2010, with EGDI=0,5800) to 32nd (year 2012, with EGDI=0,7190) and on 2014 Italy jumps to 23rd place in this international ranking and the reason for the promotion concerns precisely the Compass of Transparency (or CoT), the tool used in this research as variable (Y): this result rewards the efforts of the Italian Government on the issues addressed in the research.

5. Conclusions

In Italy on the side of administrative efficiency [variable (X)] a strong improvement will be provided by the Accounting Harmonization of Local Authorities, that is the process of reform of Public Accounting directed to making public budgets consistent, comparable and aggregated in order to: allow the control of national budgets (protection of national public finance); checking compliance of public accounts (to the conditions of art. 104 Treaty establishing the EU); promote the implementation of fiscal federalism. The harmonization of accounting systems and the financial statements of government is the indispensable cornerstone of the Reform of Public Accounting (Law no. 196/2009) and the Federal Reform (Law no. 42/2009): for the Local Authorities (Regions, Municipalities, Health Local Institutions, etc.) the reform has been implemented by Legislative Decree no. 118 (June 23, 2011).

With reference to the second variable analyzed – the administrative transparency [variable (Y)] – it is noted that over the last few years the Italian Government has devoted many resources to the improvement of administrative transparency: in June 2008 was initiated the activity called “Operation Transparency”, by publishing all the data concerning Public Managers at the Ministry of Public Administration and Innovation: after this date the requirement was extended to all Italian Public Administrations. In this new process-oriented transparency, each Public Administration is required to communicate and publish online the following data information: assignments entrusted to consultants and contractors; commissions paid to civil servants; consortia and companies in total or partial

public participation; detachments, and permits unions, as well as expectations and permits for elective public office; names of executives (curriculum vitae, wages and addresses institutional) and absence rates and staff attendance, aggregates for each executive office [art. 21, Law no. 69 (June 18, 2009)]. It should be noted that the approval of Decree no. 33 (March 14, 2013) – in the broader regulatory framework of the “Total transparency” – has further extended the publication requirements to all data, documents and information pertaining to the activities carried out during the exercise of Public Functions, providing for the publication of each site’s institutional Section “Transparent Administration” (it should be noted, also, that these days are being discussed in Parliament new anti-corruption standards).

Aim and scope of the paper has been to demonstrate how a correct and efficient management applied to the Public Institution can improve the administrative transparency: the research question has tried to identify the presence of a potential correlation between efficiency and transparency, through the analysis of some Italian Public Sectors, areas extremely heterogeneous between them. For demonstrating this heterogeneity of the Italian Public Sectors this article has selected two extreme cases (for the final results of the research): the research thesis is valid in the case concerning the Italian Fiscal Agencies (IFAs) [$\rho_{x,y} = (+) 1,00$], but it is refused in the Public Sector regarding the Italian Experimental Zooprophyllactic Institutes (IEZIs) [$\rho_{x,y} = (-) 0,2894$].

The research results show us that the initial thesis is valid, but not in all cases. It is valid only in those cases where there is a mature management control model, consolidated and applied for several years: in this study, this situation concerns the Italian Fiscal Agencies (IFAs). The initial research thesis is rejected in the cases where the management control is not yet internalized: this situation in the present work coincides with the Italian Experimental Zooprophyllactic Institutes (IEZIs).

This is the second edition of the research (Militaru *et al.*, 2015; Pollifroni, 2015; Pollifroni *et al.*, 2015), a large study that has analyzed – in the last year – the following Italian Public Sectors: 1-Autonomous Institutions of Public Housing; 2-Institutions Producing Economic Services; 3-Institutions Regulating Economic Activity; 4-Lyric-Symphonic Foundations; 5-Port Authorities; 6-Research Institutes; 7-Sports Federations; 8-Fiscal Agencies and 9-Zooprophyllactic Experimental Institutions.

The results of the latest version of the research will be presented in two alternative versions: or as study applied to a single Italian Public Sector, or as comparative analysis of two (or more) Italian Public Sectors. The final hope is that the contents of the present research can be developed in other directions, such as the application to other areas of the Italian Public Administration and the implementation of a

comparison with others European Public Sectors, through a common use of research methodology tools.

As evidenced by this study it has relevance both in academia, both for the simple citizen. Administrative transparency can be, therefore, treated as a guarantee of respect for the citizens' money: a great tool for the fight against corruption, valid in Italy as well as in many other countries.

References

- Afonso, A., Schuknecht, L. & Tanzi, V. (2010) "Public sector efficiency: evidence for new EU member states and emerging markets", *Applied Economics*, vol. 42, no. 17: 2147-2164
- Argyriades, D. (2006) "Good governance, professionalism, ethics and responsibility", *International Review of Administrative Sciences*, vol. 72, no. 2: 155-170
- Aucoin, P. (1990) "Administrative reform in public management: paradigms, principles, paradoxes and pendulums", *Governance*, vol. 3, no. 2: 115-137
- Bandara, W., Gable, G.G. & Rosemann, M. (2005) "Factors and measures of business process modelling: model building through a multiple case study", *European Journal of Information Systems*, vol. 14, no. 4: 347-360
- Barzelay, M. (2001) *The New Public Management. Improving research and policy dialogue*, Berkeley: University of California Press
- Bozeman, B. & Bretschneider, S. (1986) "Public management information systems: theory and prescription", *Public Administration Review*, vol. 46, Special Issue: 475-487
- Caudle, S.L., Gorr, W.L. & Newcomer, K.E. (1991) "Key information systems management issues for the public sector", *MIS Quarterly*, vol. 15, no. 2: 171-188
- Ciborra, C. (2005) "Interpreting e-government and development: Efficiency, transparency or governance at a distance?", *Information Technology & People*, vol. 18, no. 3: 260-279
- Dul, J. & Hak, T. (2007) *Case study methodology in business research*, London: Routledge.
- Dunleavy, P. & Hood, C. (1994) "From old public administration to new public management", *Public Money & Management*, vol. 14, no. 3: 9-16
- Frederickson, H.G. & Ghore, R.K. (Eds.) (2013) *Ethics in public management*, New York (USA): ME Sharpe
- Georgescu, I. & Georgescu, M. (2008) "The quality of information for connected governance", *Accounting and Management Information Systems*, vol. Supplement/2008: 672-683

- Goh, S.C. (2012) "Making performance measurement systems more effective in public sector organizations", *Measuring Business Excellence*, vol. 16, no. 1: 31-42
- Gortner, H.F. (1991) *Ethics for public managers*, New York: Greenwood Press
- Gruening, G. (2001) "Origin and theoretical basis of New Public Management", *International Public Management Journal*, vol. 4, no. 1: 1-25
- Haque, A. (2001) "GIS Public service, and the issue of democratic governance", *Public Administration Review*, vol. 61, no. 3: 259-265
- Helbig, N., Gil-García, J.R. & Ferro, E. (2009) "Understanding the complexity of electronic government: Implications from the digital divide literature", *Government Information Quarterly*, vol. 26, no. 1: 89-97
- Hood, C. (1991) "A public management for all seasons", *Public Administration*, vol. 69, no. 1: 3-19
- Hood, C. (1995) "The New Public Management in the 1980s: variations on a theme", *Accounting, Organization & Society*, vol. 20, no. 2/3: 93-109
- Jaeger, P.T. & Bertot, J.C. (2010) "Transparency and technological change: Ensuring equal and sustained public access to government information", *Government Information Quarterly*, vol. 27, no. 4: 371-376
- Janssen, M., Charalabidis, Y. & Zuiderwijk, A. (2012) "Benefits, adoption barriers and myths of open data and open government", *Information Systems Management*, vol. 29, no. 4: 258-268
- Jones, L.R., Thompson, F., & Zumeta, W. (2001) "Public Management for the new millennium: developing relevant and integrated professional curricula", *International Public Management Review*, vol. 2, no. 2: 19-38
- Keen, M. & Marchand, M. (1997) "Fiscal competition and the pattern of public spending", *Journal of Public Economics*, vol. 66, no. 1: 33-53
- Kettl, D. (2000) *The global public management revolution: A report on the transformation of governance*, Washington, D.C.: Brookings
- Kim, S., Kim, H.J., & Lee, H. (2009) "An institutional analysis of an e-government system for anti-corruption: The case of OPEN", *Government Information Quarterly*, vol. 26, no. 1: 42-50
- Lathrop, D., & Ruma, L. (2010) *Open government: Collaboration, transparency, and participation in practice*, Sebastopol, CA: O'Reilly Media, Inc.
- Lee Rhodes, M., Biondi, L., Gomes, R., Melo, A. I., Ohemeng, F., Perez-Lopez, G., (...) & Sutiyono, W. (2012) "Current state of public sector performance management in seven selected countries", *International Journal of Productivity and Performance Management*, vol. 61, no. 3: 235-271
- Maesschalck, J. (2004) "The impact of new public management reforms on public servants ethics: Toward a theory", *Public Administration*, vol. 82, no. 2: 465-489
- McDermott, P. (2010) "Building open government", *Government Information Quarterly*, vol. 27, no. 4: 401-413

- Militaru, G., Pollifroni, M. & Ioana, A. (2015) "Performance measurement applied to the Public Administrations: The [(T) & (E)] Model", *International Conference of Management and Industrial Engineering ICMIE*, vol. 7: 541-557
- Modell, S. (2009) "Institutional research on performance measurement and management in the public sector accounting literature: a review and assessment", *Financial Accountability & Management*, vol. 25, no. 3: 277-303
- Nam, T. (2012) "Citizens' attitudes toward open government and government 2.0", *International review of administrative sciences*, vol. 78, no. 2: 346-368
- Năstase, P., Ștefan, D. & Ștefan, V. (2009) "The new dimensions of the virtual public environment", *Accounting and Management Information Systems*, vol. 8, no. 3: 408-444
- OECD (Organisation for Economic Co-operation and Development) (2005) *Modernising Government: The way forward*, Paris: OECD Publishing
- Oliver, E.L. & Sanders, L. (Eds.) (2004) *E-government reconsidered: renewal of governance for the knowledge age* (vol. 3), Regina, CA: University of Regina Press
- Osborne, D. & Gaebler, T. (1992) *Reinventing government*, Reading, MA.: Addison-Wesley
- Pollifroni, M. (2015) "E-Government towards transparency: a comparative analysis applied to the Italian Public Sector", *Accounting and Management Information Systems*, vol. 14, no. 1: 217-233
- Pollifroni, M., Militaru, G. & Ioana, A. (2015) "Efficiency towards transparency: The case study of the Italian Lyric-Symphonic Foundations", *Procedia Economics and Finance Journal*, vol. 27: 4-13
- Pollitt, C., Van Thiel, S. & Homburg, V. (Eds.) (2007) *New Public Management in Europe. Adaptation and alternative*, New York: Palgrave Macmillan
- Pollitt, C. & Bouckaert, G. (Eds.) (2004) *Public Management Reform. A Comparative Analysis*, second edition, Oxford: Oxford University Press
- Saxena, K.B.C. (2005) "Towards excellence in e-governance", *International Journal of Public Sector Management*, vol. 18, no. 6: 498-513
- Serrano-Cinca, C., Rueda-Tomás, M. & Portillo-Tarragona, P. (2009) "Factors influencing e-disclosure in local public administrations", *Environment and Planning C: Government and Policy*, vol. 27, no. 2: 355-378
- Speklé, R.F., & Verbeeten, F.H. (2014) "The use of performance measurement systems in the public sector: effects on performance", *Management Accounting Research*, vol. 25, no. 2: 131-146
- Stake, R.E. (2013) *Multiple case study analysis*, New York (USA): Guilford Press
- Stiglitz, J.E. (2002) "Participation and development: perspectives from the comprehensive development paradigm", *Review of Development Economics*, vol. 6, no. 2: 163-182
- Tanzi, V. & Schuknecht, L. (2000) *Public spending in the 20th century: A global perspective*, Cambridge: Cambridge University Press

- Torres, L., Pina, V. & Royo, S. (2005) "E-government and the transformation of public administrations in EU countries: Beyond NPM or just a second wave of reforms?", *Online Information Review*, vol. 29, no. 5: 531-553
- UN (United Nations) (2010) *E-Government Survey 2010. Leveraging e-government at a time of financial and economic crisis*, New York: United Nations, available on-line at <http://unpan3.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2010> [10 March 2015]
- UN (United Nations) (2012) *E-Government Survey 2012. E-Government for the People*, New York: United Nations, available on-line at <http://unpan3.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2012> [10 March 2015]
- UN (United Nations) (2014) *E-Government for the future we want*, New York: United Nations, available on-line at <http://unpan3.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2014> [10 March 2015]
- Van Wart, M. (1998) *Changing public sector values*, New York: Taylor & Francis
- Vigoda, E. (2002) "Administrative agents of democracy? A structural equation modeling of the relationship between public sector performance and citizenship involvement", *Journal of Public Administration Research and Theory*, vol. 12, no. 2: 241-272
- Warschauer, M. (2004) *Technology and social inclusion: Rethinking the digital divide*, Cambridge MA: MIT press
- Wildavsky, A.B. (1980) *How to Limit Government Spending: Or, How a Constitutional Amendment Tying Public Spending to Economic Growth Will Decrease Taxes and Lessen Inflation*, Berkeley: University of California Press
- Yu, H., & Robinson, D.G. (2012) "The new ambiguity of 'open government'", *UCLA Legal Review Disclosure*, no. 59: 178-208

¹ The list of institutional units belonging to the Italian Public Sector is prepared annually by the National Institute of Statistics (pursuant to art. 1, paragraph 3 of Law 31 December 2009, no. 196 and subsequent amendments). For more information visit <http://www.istat.it/it/archivio/6729>

² For more information about this reform visit <http://www.rgs.mef.gov.it/ENGLISH-VE/>

³ More information about the National Anti-Corruption Authority is available at <http://www.anticorruzione.it/portal/public/classic/Autorita>

⁴ This source is an open free public database available at:
http://www.salute.gov.it/portale/temi/p2_6.jsp?lingua=italiano&id=760&area=sicurezzaAlimentare&menu=vuoto

⁵ This source is an open free public database available at:
<http://www.mef.gov.it/ministero/agenzie-fiscali.html>