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Online sustainability information in local governments in an austerity context: An empirical analysis in Italy and Spain

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# Online sustainability information in local governments in an austerity context

Empirical  
analysis in  
Italy and  
Spain

## An empirical analysis in Italy and Spain

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### Abstract

**Purpose** – The purpose of this paper is to analyse and compare how austerity has influenced online sustainability information in Italy and Spain.

**Design/methodology/approach** – The authors relate austerity policies to online information in order to ascertain whether austerity plays a role in the financial, organizational, social and environmental information disclosed on local government (LG) websites. The research has been conducted by analysing the websites of all Italian and Spanish LGs with more than 100,000 inhabitants.

**Findings** – The results show that institutional and legislative pressures, as well as austerity measures, have played a relevant role in the increased production of information by LGs, although not all information is fully provided.

**Originality/value** – The results may be of interest to managers and politicians as a stimulus to increase the flow of information. They may also be useful to policy makers, regulators and other stakeholders in order to foment environmental information.

**Keywords** Sustainability, Local government, Comparative research, Austerity, Italy and Spain, Online information

**Paper type** Research paper

### 1. Introduction

Governments are facing austerity with increasing cuts in their budgets at a time when their incomes are decreasing and there is an increase in the demand for public services (Alt and Lowry, 2010; Lowndes and Pratchett, 2012; Overmans and Noordegraaf, 2014). To inform citizens of the reasons behind these policies and to promote democratic participation may help governments to legitimize their policies (Piotrowski and Van Ryzin, 2007).

This research aims to analyse the dissemination of online information related to sustainability (including both financial and non-financial aspects) of Italian and Spanish local governments (SLGs) in an era of austerity. The study attempts to identify the degree to which governments carrying out austerity policies have adopted the appropriate communication strategies. Our main contribution is the study of the impact



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of austerity on online information and the comparative perspective of the determinants of local government (LG) transparency.

Italy and Spain have introduced austerity policies promoted by the European Union and the two countries have similar cultural and administrative traditions, which may drive the way people think and act (Hofstede, 2001). Both countries have recently passed transparency laws but while in Italy the law has been in force since February 2013, in Spain the law came into force in 2016; it was not compulsory when we carried out the study. This motivates our research effort to compare online information in a country with compulsory requirements (Italy) with another where this was voluntary (Spain).

The research is organized as follows. Section 2 presents an overview of the literature on austerity and online information used to design the hypotheses that are then tested in the study. Section 3 describes the Italian and Spanish contexts while Section 4 presents the research methodology. The empirical results are shown in Section 5. Section 6 is devoted to a discussion of the results and the main implications.

## 2. Transparency and online information in LG

Transparency has become a key factor in the reforms of public administrations around the world (Hood, 2006; Piotrowski and van Ryzin, 2007; Guillamón *et al.*, 2011; Meijer, 2013), as well as being a means of reacting to austerity (Lowndes and Pratchett, 2012). According to the literature, transparency can be defined from the principal-agent theory, considering it as “the ability to find out what is going on inside a public sector organization through avenues such as open meetings, access to records or the proactive posting of information on Web sites” (Piotrowski and Van Ryzin, 2007, p. 308) or from an institutional perspective as “the availability of information about an actor that allows other actors to monitor the workings or performance of the first actor” (Meijer, 2013, p. 430). In both cases, citizens should be considered not only as recipients of the activities of public entities but also as collaborative partners for building democratic and effective governance (O’Leary *et al.*, 2010). However, we must be aware that transparency does not always produce the benefits claimed for it and that it may provoke some negative effects.

In the literature, there is an ongoing debate on this question (transparency optimists vs transparency pessimists, Grimmelikhuijsen, 2011, p. 36; or proponents vs opponents, Meijer, 2009). Some empirical studies provide evidence that transparency does not always lead to an increase in citizen trust (Grimmelikhuijsen, 2009; Grimmelikhuijsen *et al.*, 2013). Curtin and Meijer (2006, p. 120) include some interesting arguments urging caution on the question of transparency: few citizens access the information provided and those that do are confronted with an information overload; the information could result in more negative stories in the press and undermine legitimacy; and transparency can be used as an excuse by policy makers to stick to strict procedures and avoid innovative solutions. Bearing in mind these possible limitations, our research does not intend to test the consequences of transparency, but rather to depict the extent to which information is released on the websites of Italian and SLGs in times of austerity.

### 2.1 Factors driving online information

The motivations of governments to disclose information have been argued in the literature from different theoretical approaches (Serrano-Cinca *et al.*, 2009; Cuadrado-Ballesteros *et al.*, 2014) that can be used as a motivation of our study.

First, the increasing interest in accountability and transparency by LG can be explained by the legitimacy theory (i.e. Dowling and Pfeffer, 1975; Roberts, 1992). From this perspective, LGs (like other corporations) have to act within the boundaries of what is considered socially acceptable and consistent with citizens' expectations. So, legitimization can be achieved if the entity operates in a way that is consistent with social values (Dowling and Pfeffer, 1975). Furthermore, decision makers may increase their legitimacy simply by carefully justifying their decisions after they have been taken behind closed doors (de Fine Licht *et al.*, 2011). In fact, people informed about decisions affecting their everyday lives are more willing to accept the process by which the decisions have been taken if they are given an insight into the reasoning behind the decisions. The application of the legitimacy theory in an era of austerity may lend support to the idea that the introduction of transparency can help governments to obtain legitimacy in spite of the adoption of measures that involve sacrifices from citizens, both in terms of higher taxes and fewer services or investments.

Other scholars have framed the determinants of transparency within the boundaries of the agency theory (Alt and Lassen, 2006; Gandía and Archidona, 2008): citizens act as the principal while managers and politicians are the agent. Online information may reduce uncertainty about the agent's behaviour, thereby making the principal more confident in delegating powers to the agent (Holmström, 1979). Cuadrado-Ballesteros *et al.* (2014) argue that online sustainability information is influenced by media pressure as most of the news published focuses on negative issues, so entities under closer scrutiny by the media are less inclined to disclose information.

However, the interest of politicians in disseminating information will depend on the level of interest shown by the citizens which, in turn, is reflected in their engagement and political participation. Moreover, from a principal-agent perspective, it is possible to relate fiscal revenues and fiscal pressure – which are the typical means of austerity policies – with the dissemination of information (Ferejohn, 1999).

Another strand of the literature has interpreted the increasing production of information from the perspective of the new institutional theory. This theory emphasizes the existence of isomorphism to explain changes, suggesting that governments will be pushed into different practices by isomorphism, trying to do what other similar governments do. With regard to sustainability reporting, Mussari and Monfardini (2010) consider the adoption and diffusion of tools such as social, environmental or gender reporting in the Italian public administrations as an isomorphic process triggered by normative processes, mimetic isomorphism and coercive mechanisms.

## 2.2 Development of hypothesis

Previous studies have shown that the information provided on LG websites has increased over time in response to a number of factors (Alt and Lassen, 2006; Caba *et al.*, 2008; Alt and Lowry, 2010; Albalade del Sol, 2013; García-Sánchez *et al.*, 2013). Scholars have generally promoted the idea of increasing transparency as a means of reducing the risk of corruption and of enhancing accountability, as well as a result of democratic participation (Yetano *et al.*, 2010). Under austerity policies, transparency through online information can be interpreted as a way of explaining political choices and the value for money of public services. Looking at cutback policies, we would expect that a reduction both in capital expenditure and in total expenditure would lead entities to release more information, both to justify the rationality of their choices and to gain legitimacy as well as to give a proper explanation of the way in which resources have been employed. In addition, we want to test whether there are differences between Italian and SLGs in the impact of austerity measures.

Thus, we can set the hypotheses as follows:

- H1. The entities with a higher decrease in capital expenditure disseminate more information.
- H2. The entities with a higher decrease in total expenditure disseminate more information.

In an era of austerity, transfers by central government and revenues tend to be reduced. Even if LGs can exercise stronger fiscal pressure, this cannot compensate for the reduction of transfer and other revenues. As a consequence, the total amount of revenues tends to be reduced year by year. In this situation, the rationality offered by the theoretical framework adopted suggests that entities should provide more detailed explanations about the use of financial resources as well as sustainability matters. Thus, keeping our comparative perspective, we set the following hypothesis:

- H3. The entities with a higher decrease in total revenues disseminate more information.

From a principal-agent perspective, it is possible to relate an increase in fiscal revenues – due to higher fiscal pressure per capita – with the dissemination of information: citizens want to know how their money has been spent. Ferejohn (1999) evidences a positive relation between taxes and the demand for transparency. Guillamón *et al.* (2011) demonstrate that in Spain municipalities collecting more taxes disclose more financial information. However, in the same context, Caba *et al.* (2008) found no significant influence. Thus, we intend to test the following hypothesis in a comparative perspective:

- H4. The entities with higher fiscal pressure disseminate more information.

Austerity policies aim to produce a reduction in government debt, both at central and local level (Lowndes and Pratchett, 2012). In line with legitimacy theory, LGs that act within what is considered legally and socially acceptable will be more interested in disseminating information. Similarly, agency theory states that in entities that behave responsibly the agents will be more interested in giving information to the principal to reduce uncertainty. In the literature, some scholars have found that financial and social information has been adopted as a tool to inform about the financial equilibrium and to access public funds (Marcuccio and Steccolini, 2005; Guillamón *et al.*, 2011).

Consequently, we can expect that a reduction in the level of debt will lead to greater financial disclosure as a result of a successful application of austerity policies. Previous studies (Evans and Patton, 1987; Fisher *et al.*, 2005) have discussed the association between debt and the voluntary disclosure of public financial information. Albalade del Sol (2013) shows that the debt level has no effect on fiscal transparency. Similarly, Guillamón *et al.* (2011) find no statistical relationship between debt and transparency in Spanish municipalities. On the contrary, Alt *et al.* (2006), analysing a sample of OECD countries, report that when LGs debt increase, the transparency decreases.

Thus, always from a comparative point of view, our last hypothesis is as follows:

- H5. The entities with a higher decrease in the level of indebtedness disseminate more information.

To strengthen our analysis, several control variables representing the municipal context (transfer for capital expenditure per capita) and internal factors (citizen engagement and educational level) have been added to our model, following the extant literature.

In the context of austerity, the interest of politicians in disseminating information will also depend on the level of interest shown by citizens which, in turn, is reflected in their engagement and political participation. Previous studies demonstrate that there is a close interconnection between transparency and political participation (Piotrowski and Bertelli, 2010; Yetano *et al.* 2010).

Moreover, the educational level of the population has also been considered as a determinant of a demand for greater transparency (Alt and Lassen, 2006; Piotrowski and Van Ryzin, 2007). Taking into account the relation between education level and transparency, we expect that well-educated people are more likely to demand innovation and greater transparency from their LGs (Tolbert *et al.*, 2008).

Lastly, we include size as a control variable to verify to what extent there are differences between larger entities and medium-sized entities. Some prior research shows that municipalities with larger populations have a greater dissemination of information (Pina *et al.*, 2009; Albalade del Sol, 2013).

### 3. The legal framework in Italy and Spain

In Italy and Spain, public administrations have been driven to introduce significant cuts in budgets in the last few years because of the financial crisis (so called Spending review). This situation, coupled with the high level of corruption perceived by citizens in both countries (survey by TNS Opinion and Social for the European Commission, 2014), has meant that transparency has been a priority of governments. Table I shows the structure of Italian and SLG.

#### 3.1 Transparency and online information in Italy

Different kinds of forces drive Italian public administrations towards greater transparency and social reporting exploded around the middle of 2000s as a kind of Italian fashion (Marcuccio and Steccolini, 2005; Mussari and Monfardini, 2010). The most significant regulation is the Legislative Decree 150/2009, which has added an evaluation system of performance in all areas of the public administration to enhance transparency regarding services and worker performance. Moreover, since February 2013, open access through the LG websites to information about organization, performance and financial data as well as information on the management of each area of the public administration has become mandatory (decree 33). Moreover, each administration has had to create a special section on the LG website called “transparent administration” and to appoint an official responsible for transparency.

Social and environmental reporting, even if it is not mandatory, are generally prepared following three main guidelines (Secchi, 2006): those issued by the

	Italy	Spain
Provinces	110	52
<i>Municipalities</i>	8,092	8,116
With more than 100,000 inhabitants	46	59
100,000-50,000 inhabitants	95	86
50,000-20,001 inhabitants	366	254
20,000-5,001 inhabitants	1,883	915
With fewer than 5,000 inhabitants	5,702	6,802

**Sources:** Census by Italian National Institute of Statistics (2011) and Spanish Ministry for Public Administration (2012)

**Table I.**  
Dimension of Italian  
and Spanish local  
government

*Dipartimento della Funzione Pubblica* in 2006 (operating within the Ministry of the Interior), the standards proposed by the GBS (the Group for the Social Reporting) and the international standard prepared by Global Reporting Initiative (2011).

### 3.2 *Transparency and online information in Spain*

In Spain, the law 19/2013, on “Transparency, access to public information and good governance” requires the publication of institutional, organizational and planning information, juridical information and economic, budgetary and statistical information. The law gives regional and LGs a period of two years to adapt to the compulsory requirements. It makes no mention of how the information should be published, missing the opportunity to require the use of open data standards such as those of the World Wide Web Consortium. In the environmental area, the law 27/2006 aimed to facilitate the gradual diffusion of environmental information to the public, but not all public entities publish such information (García-Sánchez *et al.*, 2013).

Previous studies have mainly analysed the transparency of economic and financial information, showing that there are significant differences in transparency between SLGs (Gandía and Archidona, 2008). There are very few papers that deal with the publication of sustainability information in SLG, but all available studies conclude that local entities have limited experience of providing social and environmental information (Navarro *et al.*, 2010; García-Sánchez *et al.*, 2013).

## 4. Research methodology

In order to investigate what information is published by LGs, we have analysed the websites of all Italian and SLGs with more than 100,000 inhabitants, assuming that larger municipalities have greater economic and technological resources and that they are more responsible for large communities, so would publish more information than smaller ones (Serrano-Cinca *et al.*, 2009). The sample originally comprised 46 Italian and 59 SLGs, but we had to eliminate two Italian entities due to the lack of some financial data.

We have constructed an index of total disclosure using as a reference the Supplement for Public Agencies of the Global Reporting Initiative (2010) and following the same method already used in previous studies (Caba *et al.*, 2008; Gallego-Álvarez *et al.*, 2011). According with it, we have identified a list of 52 items that have been analysed in LG websites (see Table A1). In the case of Italy, some of these items are compulsory, while in Spain, with the exception of environmental item, all of them were voluntary at the moment of the study.

The information has been grouped into four areas: organizational profile, strategy and governance (A, 16 items), financial information (B, 21 items), social information (C, 11 items) and environmental information (D, four items).

To test our hypotheses, we have considered five different measures as proxies of austerity, as detailed in Table II. We have also included the expected sign of the variables, according to the definition of the hypothesis. We have also introduced some control variables to capture the influence of other financial factors representing the municipal context (transfers for capital expenditure per capita) and internal factors (citizen engagement and education level).

In order to test to what extent these variables behave differently in Italian and SLGs, we have included the interaction of all the variables in the table with the country.

**Table II.**  
Definition of  
independent  
variables

Variable	Definition	Hypothesis	Expected sign
$\Delta KE$ (relative variation in capital expenditure)	Capital exp. 2011–capital exp. 2008/capital exp. 2008	$H1$	–
$\Delta TE$ (relative variation in total expenditure)	Total exp. 2011–total exp. 2008/total exp. 2008	$H2$	–
$\Delta TR$ (relative variation in total revenues)	Total rev. 2011–total rev. 2008/total rev. 2008	$H3$	–
FP (fiscal pressure per inhabit.)	Fiscal revenues 2011/no. of inhabitants	$H4$	+
$\Delta FP$ (relative variation in fiscal pressure)	Fiscal pressure 2011–fiscal pressure 2008/fiscal pressure 2008	$H4$	+
$\Delta FS$ (relative variation in debt per capita)	Debt pc 2011–debt pc 2008/debt pc 2008	$H5$	–
TKE (transfers for capital expenditure per capita)	Transfers capital expenditure 2011/no. of inhabitants	Control variable	+
Cit_eng (citizens engagement)	% of participation to the last election	Control variable	+
Ed_lev (educational level)	Population with studies after 16 years/ population over 16	Control variable	+
Size	Ln (number of inhabitants)	Control variable	+

To analyse the effect of the independent variables on the total disclosure index, we have constructed a model of dependency, using multiple linear regression, as follows:

$$\begin{aligned}
 Y = & \alpha + \beta_1 \Delta KE + \beta_2 \Delta TE + \beta_3 \Delta TR + \beta_4 FP + \beta_5 \Delta FP \\
 & + \beta_6 \Delta FS + \beta_7 TKE + \beta_8 \text{Cit\_eng} + \beta_9 \text{Ed\_lev} + \beta_{10} \text{LN}(\text{Size}) \\
 & + \beta_{11} \Delta KE \times \text{Country} + \beta_{12} \Delta TE \times \text{Country} + \beta_{13} \Delta TR \times \text{Country} \\
 & + \beta_{14} FP \times \text{Country} + \beta_{15} \Delta FP \times \text{Country} + \beta_{16} \Delta FS \times \text{Country} \\
 & + \beta_{17} TKE \times \text{Country} + \beta_{18} \text{Cit\_eng} \times \text{Country} \\
 & + \beta_{19} \text{Ed\_lev} \times \text{Country} + \beta_{20} \text{LN}(\text{Size}) \times \text{Country} + \varepsilon
 \end{aligned}$$

In order to identify whether a stronger relation exists between any specific area of our disclosure index and the independent variables selected, the model has been repeated for each of the four areas. The model parameters in the study were estimated using SPSS software.

The regression has been estimated using the stepwise procedure. To check the robustness of the results, we tested whether the selected models fulfil the assumptions for linear regression. Cook's D statistics have been used to test influential points; the variance inflation factor of the variables introduced into the model allows us to check that there are no problems of multicollinearity; and the plots of the residuals and predicted values have been used to check the homoscedasticity of the errors.

## 5. Analysis of results

### 5.1 Online information in Spanish and Italian LGs

Table III summarizes the descriptive statistics for each group into which the information index has been clustered, as well as the total index for both countries. The analysis is based on the mean of the items disclosed for the two countries.



**Table III.**  
Descriptive statistics  
of dependent  
variables

Country	Mean (%)	Mean	SD	SE mean
<i>Organizational profile, strategy and governance information</i>				
Italy	61.63	9.86	3.515	0.530
Spain	44.94	7.19	3.324	0.433
<i>Financial information</i>				
Italy	44.48	9.34	2.803	0.423
Spain	44.57	9.36	5.668	0.738
<i>Social information</i>				
Italy	45.64	5.02	1.592	0.240
Spain	43.18	4.75	2.862	0.373
<i>Environmental information</i>				
Italy	30.00	1.20	0.851	0.128
Spain	53.50	2.14	1.468	0.191
<i>Total information</i>				
Italy	48.90	25.43	6.953	1.048
Spain	45.04	23.42	11.227	1.462

As can be seen, the level of information is low in most of the areas: in Italy the mean is over 50 per cent of the items only for organization profile, strategy and governance information (61.63 per cent); while in Spain the percentage is over 50 per cent of the items only for environmental information (53.50 per cent). If we consider only the compulsory items, in the case of Italy, the mean is 78.90 per cent, which implies that some of the required information is not disclosed. In the case of Spain, only environmental indicators can be considered compulsory and the percentage of this item is 72.80 per cent.

In particular, concerning the first area Italian and Spanish entities disclose mainly information about the operational structure of the organization, the governance structure and the political managers, whereas disclosure of information about challenges and targets for the entity is still low in both countries even though it is compulsory for Italian LGs (see Table A1).

In financial information, around 44.41 per cent (44.48 per cent in Italy and 44.57 per cent in Spain) of the items are disclosed in both countries in spite of the fact that many items are compulsory in Italy (in this country the mean for financial compulsory items is 65.73 per cent). Nearly all entities disclose the initial approved budget, while the percentage of entities that publish the execution of the budget is only 45.45 per cent in Italy and 64.41 per cent in Spain (details in the Table A1). The balance sheet and operative statement are also disclosed by a high percentage of entities, especially in the case of Italy. This area contains a higher percentage of the total items analysed (21 out of 52) and the results show that it represents a relevant percentage in the total disclosure of LG. This result confirms the relevance of financial information in the transparency of LGs (Navarro *et al*, 2010; García-Sánchez *et al*, 2013), as it is one of the most important components of public accountability.

Analysing the dissemination of social information, it can be seen that LGs on average disclose about five items (45.64 per cent in ILGs and 43.18 per cent in SLGs). The mean value for disclosure of social information is slightly higher for Italy than for Spain.

Lastly, examining the dissemination of environmental information, results show a wider disclosure in Spain, since it can be observed that ILGs on average disclose about

one item (30.00 per cent) while SLGs disclose about two (53.50 per cent). The compulsory requirement to disclose environmental information in this case can justify the differences.

In order to compare the situation in the two countries, Levene's test and the *t*-test have been applied (Table AII). Differences are statistically significant for organizational profile, governance and strategy and environmental information. In the first, Italian LGs show greater transparency than the Spanish and the difference could be explained by different institutional pressures, including the compulsory requirement of some items

However, as a result of legislative pressure (Legislative Decrees 150/2009 and 33/2013) high attention has been paid in Italy to the organizational profile (9.86) (Table III), with the dissemination of information about missions or values and codes of conduct as well as service procurement procedures and the number of employees. There are also differences in environmental information, as Spanish entities pay more attention to this kind of data.

The *t*-tests show that the difference between means is not statistically significant for either the financial information items or for those relating to social information. On average, Italian and SLGs have a similar level of disclosure in financial information. This can be interpreted as a result of a coercive isomorphism (Di Maggio and Powell, 1983) because in both countries the legislative pressure for transparency is focused mainly on economic information. Furthermore, in Italy the law (Legislative Decree 33/2013) that makes disclosure of the aforementioned information mandatory is very recent and there are no penalties for LGs that do not disseminate this information.

Table IV shows the Pearson correlations (parametric) between the different groups, with the *p*-values in brackets. In both countries, there is a moderate correlation between the four groups, slightly higher in Spain. ILG presents a moderate correlation (0.533) between social information and organizational profile, strategy and governance information while for SLG financial information shows a higher correlation with social information (0.656) and environmental information (0.684) while the latter two groups are positively correlated with each other (0.677).

In Italy, this relation can be explained by the fact that laws related to the diffusion of financial information have also invited entities to disclose social information as well as information concerning the organization and management of each public administration.

	Organizational profile, strategy and governance	Financial information	Social information
<i>Italy</i>			
Organizational profile, strategy and governance information			
Financial information	0.505(0.000)		
Social information	0.533(0.000)	0.358(0.017)	
Environmental information	0.507(0.000)	0.340(0.024)	0.408(0.006)
<i>Spain</i>			
Organizational profile, strategy and governance information			
Financial information	0.533(0.000)		
Social information	0.509(0.000)	0.656(0.000)	
Environmental information	0.451(0.000)	0.684(0.000)	0.677(0.000)

**Table IV.**  
Correlation between  
the areas

The production of a separate sustainability report is voluntary and the widespread availability of these reports could also be read as a result of institutional pressure coming from the European Commission which has issued a variety of communications to encourage LGs to adopt sustainability strategies and to voluntarily report on these activities (Farneti *et al.*, 2010).

The behaviour of Italian and SLGs can be considered in the light of the legitimacy theory (Dowling and Pfeffer, 1975) because LGs disclose social and environmental information in order to demonstrate to citizens that their activities are consistent with citizens' expectations (Dowling and Pfeffer, 1975). In Spain, entities that want to be transparent include the three types of information, confirming previous research results (García-Sánchez *et al.*, 2013).

### 5.2 Drivers for online information in an austerity context

Table V shows results of the regression analysis for each area as well as for the total disclosure. Considering that we have ten independent variables and that our aim is to select those that have greater explanatory power over the dependent variable, the stepwise model regression has been used to select the predictive variables with an automatic procedure.

As can be seen, for the overall level of information, there are three significant variables: variation in total revenues, relative variation in fiscal pressure and transfers for capital expenditure  $\times$  country. The first variable indicates that entities that have suffered a higher reduction in their revenues and, thus, face greater austerity, give more information. The second one indicates that the entities that have had a greater

	Overall					
	Standardized coefficient	<i>t</i>	Sig.			
Relative variation in total revenue	-0.333	-03.664	0.000			
Relative variation in fiscal pressure	0.211	2.154	0.034			
Transfers for capital expenditure $\times$ country	0.363	3.676	0.000			
$R^2$	0.178					
<i>F</i> -model	8.295		0.000			
	Organizational			Financial		
	Standard coefficient	<i>t</i>	Sig.	Standard coefficient	<i>t</i>	Sig.
Relative variation in total revenues	-0.371	-4.273	0.000	-0.215	-2.269	0.025
Fiscal pressure per capita	0.195	2.261	0.026	0.154	1.619	0.109
Transfers for capital expenditure	0.310	3.600	0.001	0.062	0.622	0.535
Transfers capital expenditure $\times$ country	0.012	0.131	0.896	0.310	3.272	0.001
$R^2$	0.267			0.108		
<i>F</i> -model	13.281		0.000	7.135		0.001
	Social			Environmental		
	Standard coefficient	<i>t</i>	Sig.	Standard coefficient	<i>t</i>	Sig.
Relative variation in capital expenditure	-0.299	-3.143	0.002	-0.027	-0.283	0.778
Transfers capital expenditure $\times$ country	0.256	2.684	0.009	0.164	1.643	0.104
Size $\times$ country	-0.047	-0.442	0.660	0.381	4.120	0.000
$R^2$	0.111			0.137		
<i>F</i> -model	7.316		0.001	16.972		0.000

**Table V.**

Austerity and sustainability information by Italian and Spanish LGs

increase in fiscal pressure give less information. The effect of the variables is similar in the two countries: with the same level of variation in revenues or in fiscal pressure, an Italian and a Spanish entity give similar levels of disclosure. The third variable shows that entities with a higher level of transfers for capital expenditure have introduced more information onto their websites. Moreover, this variable has a different effect in each country, higher in Spain than in Italy.

Focusing on organizational profile, strategy and governance, three independent variables are statistically significant: variation in total revenues, transfers for capital expenditure received and the fiscal pressure per capita. The interpretation of the first will be directly related to austerity, as those entities that suffer a greater reduction in their revenues give more information. The transfers for capital expenditure positively influence the level of transparency: in this regard, it should be noted that this is often the consequence of the requirements that other entities can impose when they finance capital expenditure. Similarly, higher fiscal pressure positively affects disclosure. This can be interpreted using the agency theory, as those entities that raise more money directly from citizens through taxes are more interested in giving general information to reduce conflicts.

However, with respect to financial information, there are only two variables which significantly affect transparency in the model. The entities with a higher level of transfers for capital expenditure and lower variation in total revenues have introduced more information in their websites. This can be explained by the fact that entities with a high level of transfers for capital expenditure obtained by successfully competing for national or European subsidies for specific projects have to explain how such resources have been employed. Moreover, the variable affects each country differently, higher in Spain than in Italy.

Regarding information in the social area, there are two significant variables in the model: transfers for capital expenditure  $\times$  country and the relative variation in capital expenditure. The first variable has a positive sign, showing that a higher level of transfers for capital expenditure is linked to a higher level of social transparency. The effect is also different in each country, being higher in Spain than in Italy. The second variable, with a negative sign, shows that entities that have reduced their investments are more interested in offering information.

Finally, our results show that environmental reporting is not influenced by austerity measures.

Therefore, the municipality's budgetary capacity is not a major determinant for greater environmental transparency (García-Sánchez *et al.*, 2013). The only significant variable is the size of the LGs  $\times$  country. Largest municipalities have more tools and can have more possibilities for environmental disclosure. The effect is different in each country, higher in Spain than in Italy.

Of the five variables chosen to analyse the influence of austerity measures on transparency, the relative variation of capital expenditure (as a proxy of austerity) is the only significant one with respect to social information, so our first hypothesis can be partially accepted.

The third hypothesis can be accepted: focusing on the results of the overall disclosure and organization disclosure, entities facing a reduction in their revenues are more likely to give more information to justify their policies and, especially, to explain how this can affect organizational aspects.

Fiscal pressure also influences the level of disclosure of LGs in the area of organizational information. Entities with higher fiscal pressure give more information

to citizens, which leads us to accept – although partially – our fourth hypothesis. This confirms the results obtained previously by Ferejohn (1999) which indicated a positive correlation between the amount of taxes and the transparency level of public entities.

However, the relative variations in total expenditure and in the debt have not been significant in the model and consequently our second and fifth hypotheses should be rejected.

However, the results show that the variation in debt per capita has no influence on the dissemination of information by Italian and SLGs. In the literature there is a debate on this issue. Some previous research results (Alt and Lassen, 2006; Albalade del Sol, 2013) have indicated that the level of debt is not significant while others (Evans and Patton, 1987; Fisher *et al.*, 2005) have revealed a positive relation between debt and the disclosure of public financial information. Finally, our results show that transparency is related neither to political participation, thus diverging from previous studies (Piotrowski and Bertelli, 2010), nor to the educational level. The latter is line with the results of Caba *et al.* (2008) for Spain.

## 6. Conclusions

LGs are facing austerity and cutbacks in their budgets, which has motivated a public debate about whether these policies are appropriate or not. Informing citizens of the reasons behind these policies and promoting democratic participation may help governments to legitimize their policies. However, there is no information available about how austerity can influence transparency in practice.

Italy and Spain have both introduced austerity policies driven by the European Union and both have recently passed transparency laws as a tool for fighting corruption, requiring public administrations to inform citizens about their activities. Nevertheless, although this law has been in force in Italy since 2013, the Spanish equivalent was not in force when we carried out the study. Furthermore, both countries have similar cultural and administrative traditions, but some country-specific factors could create some differences (Marcuccio and Steccolini, 2009; Grimmelikhuijsen *et al.*, 2013) in how austerity measures influence the dissemination of information. Thus, comparing the results obtained could allow a better understanding of the influence of the context on transparency.

An analysis of the websites of all Italian and SLGs with more than 100,000 inhabitants has highlighted that the objectives of transparency have only partially been met, and that differences arise between different information areas even considering the compulsory requirement of some of the items in Italy. The area with the highest level of disclosure is that of organizational profile, strategy and governance. On the other hand, *financial* information has average values which reveal that governments disclose under 50 per cent of the items analysed both in Italy and Spain. Disclosure of social and environmental information is also low in both countries, especially when this is voluntary. In sum, in spite of the political promotion of transparency as a principal objective of the parties in power and their continual emphasis in social networks and the media, in practice there is still room for improvement.

In Italy laws requiring greater disclosure of information have progressively been introduced in the last few years, including a comprehensive Transparency Law, while in Spain the disclosure of this information became mandatory in 2016, possibly producing further changes in entities that, at present, do not even publish their budgets. Nevertheless, the differences between the two countries are limited, apparently supporting the idea that mimetic is even stronger than coercive isomorphism.

Our results show that austerity measures – in particular as far as they affect the relative variation in total revenues, in capital expenditure and capital expenditure per capita – have influenced the disclosure of information. These results can be interpreted through the lens of the legitimacy theory: entities facing greater austerity are more interested in informing citizens in order to gain their trust and obtain legitimization. Moreover, from the agency theory perspective, politicians and managers, as agents, give more information to citizens (principals) in a context of austerity in an attempt to reduce uncertainty and consequently gain consensus. It is, however, difficult to assess whether or not greater transparency has really increased legitimacy and to evaluate the persuasive effects of transparency.

The study does have a further limitation due to the fact that many other variables that potentially affect disclosure could be considered, and these would probably enhance the explanatory power of the models. In any case, our objective was not to explain the level of transparency, but rather to show to what extent transparency of financial and non-financial information is widespread in Italian and SLGs and to what degree austerity measures have affected the dissemination of information. Given that our results show that those entities facing higher austerity provide more information, a twofold contribution can be derived from this research: to have shed light on the relation between austerity and transparency and to have offered useful insights for LG managers and politicians as a stimulus for increasing the amount of information released and for creating stronger citizen awareness of the information released (with forums, press releases and other media) as well as for policy makers and regulators to support the enhancement of such information. In future research, it would be of interest to test whether those entities with higher transparency have in fact achieved more legitimacy or not and to examine the effects that transparency can have in practice. A further development of this research could be a comparison between countries belonging to different administrative systems, to verify whether stronger differences in transparency arise. This is a field that deserves more empirical analysis.

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(The Appendix follows overleaf.)



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	Italy		Spain	
<i>(1) Organization profile, strategy and governance information</i>				
Strategy of the council	59.09%	C	61.02%	V*
Strategies about sustainability	47.73%	V	57.63%	V
Main challenges for the next year	36.36%	C	49.15%	V*
Main challenges for the next 3-5 years	31.82%	C	28.81%	V*
Politicians responsible	97.73%	C	96.61%	V*
Operational structure of the organization	97.73%	C	93.22%	V*
Number of employees	95.45%	C	20.34%	V
Environmental responsibility, or Sustainability department	90.91%	V	72.88%	V
Governance structure of the organization	100.00%	C	91.53%	V*
Ethical or good governance code	59.09%	C	22.03%	V
Statements of mission or values, codes of conduct, and principles	68.18%	V	22.03%	V*
Services procurement procedures	81.82%	C	23.73%	V*
Externally developed economic, environmental, and social principles to which the organization subscribes	36.36%	V	40.68%	V
Memberships of associations	34.09%	V	30.51%	V
List of stakeholder groups engaged by the organization	22.73%	V	5.08%	V
Approaches to stakeholder engagement	27.27%	V	3.39%	V
<i>(2) Financial information</i>				
Initial approved budget	97.73%	C	91.53%	V*
Modifications of the budget	6.82%	V	67.80%	V*
Explanation of modifications of the budget	11.36%	V	55.93%	V
Execution of the budget	45.45%	C	64.41%	V*
Budget of decentralized entities	9.09%	V	45.76%	V
Detailed budget reporting	22.73%	V	55.93%	V*
Consolidated budget	0.00%	V	57.63%	V*
Consolidated reporting	6.82%	V	3.39%	V
Consolidated performance reporting	4.55%	V	1.69%	V
Single report including all financial information	18.18%	V	33.90%	V
Balance sheet	93.18%	C	62.71%	V*
Performance statement	81.82%	C	62.71%	V*
Performance indicators	77.27%	C	5.08%	V*
Audit statement	27.27%	C	33.90%	V*
Service charters	97.73%	C	40.68%	V
Financial statements of controlled entities	50.00%	C	13.56%	V
Gross expenditure broken down by financial classification	70.45%	C	66.10%	V*
Current expenses by financial classification	56.82%	C	64.41%	V*
Capital expenditure by financial classification	56.82%	C	42.37%	V*
Economic criteria that apply to expenditure and financial commitments	4.54%	C	0.72%	V*
Reference to open data	95.45%	C	66.10%	V
<i>(3) Social information</i>				
Labour practices	25.00%	V	40.68%	V
Human rights (non-discrimination)	13.64%	V	57.63%	V*
Society (impact on the community, corruption)	6.82%	V	27.12%	V
Product responsibility (customer health and safety)	4.55%	V	38.98%	V
Dialog boxes for sending suggestions to political representatives	68.18%	V	74.58%	V

**Table AI.**  
Items included in the  
transparency index

(continued)

	Italy		Spain	
Establishing contact with political representatives via e-mail	95.45%	C	33.90%	V
Videos or reproduction online of board sessions	61.36%	V	18.64%	V
Discussion forums and chats to discuss specific issues	50.00%	V	47.46%	V
Social criteria that apply to expenditures and financial commitments	4.55%	V	37.29%	V
Salary of politicians responsible	100.00%	C	25.42%	V*
Department and procedures for citizen participation	72.73%	V	72.88%	V
<i>(4) Environmental information</i>				
Environmental indicators	20.45%	V	72.88%	C
Local agenda 21	81.82%	V	61.02%	V
Procurement policy relating to sustainable development	13.64%	V	42.37%	V
Environmental criteria that apply to expenditure and financial commitments	4.55%	V	37.29%	V

**Notes:** C, compulsory; V, voluntary; V\*, voluntary at the moment of the study but compulsory since 2016

Table AI.

## Appendix 2

	Levene's test for equality of variances		<i>t</i> -test for equality of means					95% confidence interval of the difference	
	<i>F</i>	Sig.	<i>t</i>	gl	Sig. (2-tailed)	Difference of means	SE mean	Lower	Upper
<i>Organizational profile, strategy and governance information</i>									
Equal variances assumed	0.095	0.758	3.945	101	0.000	2.677	0.679	1.331	4.023
<i>Financial information</i>									
Equal variances not assumed			-0.018	89.322	0.986	-0.015	0.850	-1.705	1.675
<i>Social information</i>									
Equal variances not assumed			0.625	94.227	0.534	0.277	0.443	-0.603	1.157
<i>Environmental information</i>									
Equal variances not assumed			-4.045	95.830	0.000	-0.931	0.230	-1.388	-0.474
<i>Total information</i>									
Equal variances not assumed			1.116	98.027	0.267	2.008	1.799	-1.561	5.577

**Table AII.**  
Independent sample  
*t*-test of dependent  
variables

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