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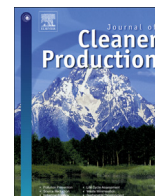


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Transparency of sustainability information in local governments: English-speaking and Nordic cross-country analysis



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ABSTRACT

This paper analyses the practices of disclosure of sustainability information by European local governments, with specific reference to the websites of major European cities, classed as Anglo-Saxon (English-speaking) or Nordic, according to the prevailing administrative culture. The empirical results obtained show that the local governments analysed are using their websites to disclose information regarding sustainability policies, a trend that is more pronounced in the Anglo-Saxon countries than in the Nordic ones. Our conclusions show that the respective traditions of these countries may influence their development of practices of transparency and accountability with respect to sustainability. We have identified some steps to improve the transparency about sustainability in local governments, and have designed a model sustainability report, identified the types of stakeholders and studied their information needs.

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1. Introduction

Since the 1990s, government agencies have endeavoured to innovate, advance and transform the delivery of public services by means of new information and communication technologies (ICTs) (Wimmer, 2002), and to acquire a better understanding of the demand for these services (Lenk, 2002). In this process of innovation, e-government is a major initiative which, through the internet, improves relations between citizens and public organisations, by promoting transparency in the provision of information (Hui and Hayllar, 2010), thus promoting confidence in public institutions.

Diverse authors (Bertot et al., 2012; Wattal et al., 2010; Hean et al., 2009; Bakardjieva, 2009) have concluded that e-government allows citizens to play a more active role in public affairs, through the increased transparency of public agencies towards taxpayers, voters and public service users, who wish to be informed about the activities of public bodies and their contributions to environmental, social and economic development.

This situation has given rise to what has been termed e-democracy, with enhanced bidirectional communication between

public managers and citizens; the latter thus participate in governmental decision-making, on the basis of their knowledge of the contribution made by government policies to environmental, social and economic development (Rodríguez et al., 2007; Shuler et al., 2010).

In this framework of producing government information for the benefit of the population concerned, the question of the sustainability of public policies is currently one of the most innovative aspects of the democratic relationship between governing bodies and the population, for three reasons. Firstly, in recent years international bodies such as the EU, the US Agency for International Development, the Center for Strategic & International Studies, the OECD, the UN and the World Bank have advised governments to adopt social responsibility practices, informing citizens about the sustainability of their actions in environmental, social and economic fields (EU, 2012, 2011; U.S. Agency for International Development, 2011; Center for Strategic and International Studies, 2010; World Bank Group, 2007; OECD, 2001, 2006). In particular, the Renewed EU Strategy for 2011–2014 (EU, 2011) stresses that governments should enhance the visibility of their social responsibility practices, making them known to the public at large. Similarly, the UN Economic and Social Council, in its new paradigm of open government, advocates e-government as a means of communicating the innovative practices being implemented, such as the sustainability of public policies (CSR Europe, 2010).

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Secondly, this interest among international organisations in government environmental and social sustainability is accompanied by increasing demands from stakeholders for public bodies to be aware of their social responsibility and to recognise the growing need for information about governmental sustainability (Coglianese, 2009; Wihlborg and Palm, 2008). In this respect, Crane et al. (2008) and Shepherd et al. (2010) concluded that public bodies are taking increasing interest in their sustainability commitments as a means of restoring citizens' confidence in public authorities.

Thirdly, very little previous research has been carried out regarding governmental sustainability (Dumay et al., 2010), although a few interesting papers have been published, such as those by Gray (2006), Guthrie and Farneti (2008), Marcuccio and Steccolini (2009), Farneti and Guthrie (2009), Mussari and Monfardini (2010), Guthrie et al. (2010), Navarro et al. (2010) and Williams et al. (2011). These studies, in general, conclude that sustainability is now a key concept in the modernisation of relations between governments and their citizens; however, the lack of practical experience in this field means that further research is required on how to promote information disclosure about governmental social responsibility, so that stakeholders may be better informed.

Consequently, the findings of academic publications and the statements made by international organisations underpin the interest and timeliness of investigating the practices of informative transparency about governmental sustainability. To do so, and following authors such as Akesson and Edvarsson (2008) and Navarro and Rodriguez (2011), the prevailing administrative and organizational culture in each country studied must be taken into consideration.

In this setting, the present paper aims to study the informative transparency on sustainability in European local governments, conducting a comparative analysis of the websites of Anglo-Saxon and Nordic governments to determine the influence of countries' administrative culture on practices of disclosure of sustainability information.

2. Disclosure of sustainability information by governments

In recent years, there has been greatly increased public awareness that economic growth must go hand in hand with development that is socially and environmentally sustainable (Gore, 2006; Stern, 2006). In response to this strengthening tide of opinion, the public sector is taking a more active role in promoting the practices of Corporate Social Responsibility (CSR) or sustainability.

Bebbington et al. (2008) reported that informing citizens about sustainability can provide public organisations with mechanisms enabling them to reflect on who they are and what they want to achieve, as a solid foundation for future actions. In this respect, Lamprinidi and Kubo (2008) associated the reasons why public bodies should provide information about sustainability with the ideals of accountability.

To justify the implementation of sustainability-promoting practices, various theoretical bases may be used. Nevertheless, they are generally addressed in terms of Legitimacy Theory (Marcuccio and Steccolini, 2009) or of Stakeholder Theory (Deegan, 2002; Gray, 2006). Legitimacy Theory observes the actions taken by managers, usually through information disclosure, aimed at changing perceptions of government in order to increase the legitimacy of its actions and existence. In local governments, high levels of debt and deficit often result in financial crisis. In such a situation, to maintain or restore legitimacy, or in response to the demands and needs of stakeholders, governments could become more transparent about the sustainability of their actions, as suggested by Marcuccio and Steccolini (2009) on the basis of Legitimacy Theory and Stakeholders Theory.

In line with these principles, leading international organisations have issued statements on the need for governments to disclose their commitments to environmental, social and economic sustainability (Breibarth et al., 2009). The EU Council Resolutions of 29 November 2001 and 10 January 2003 observed the need to incorporate CSR principles into its own administration. Moreover, as part of its Lisbon Strategy, the EU committed itself to encouraging public sector organisations to develop an appropriate structure for the adoption of sustainable development strategies and patterns of behaviour (Mazzara et al., 2010).

In a subsequent initiative, the renewed EU Strategy for 2011–2014 (COM, 2011-681) affirmed the importance of the public administration demonstrating its social responsibility and aiming to incorporate environmental criteria into public procurement practices. Moreover, it highlighted the importance of publicising CSR practices through the disclosure of their commitments (EU, 2011). In parallel, the EU (2012), the US Agency for International Development (2011), the Center for Strategic and International Studies (2010), the World Bank Group (2007), and the OECD (2001, 2006) have advised governments to adopt sustainability practices in environmental, social and economic matters.

The burgeoning interest in sustainability reporting has led to the publication of international guidelines for the disclosure of sustainability commitments, aimed at facilitating the disclosure of information by public bodies on social, environmental, ethical and governance issues, useful to a broad range of stakeholders (Dumay et al., 2010; Martinov-Bennie and Hecimovic, 2010). The most important of these guidelines have been developed by the OECD (2006), the World Bank Group (2007), AccountAbility (2008a, 2008b), the UN Global Compact (2009), and particularly, the document published by the Global Reporting Initiative (GRI, 2006). For the specific use of government organisations, the GRI published a pilot guide (GRI, 2005), the Supplement for Public Agencies, which has been revised and updated (GRI, 2010). Various authors have concluded that the GRI currently enjoys greatest international acceptance regarding sustainability reporting by public agencies, and that its recommendations constitute a fundamental model for this type of publication (Canyelles, 2011; Tort, 2010; Benhart, 2009; Chen and Bouvain, 2009).

However, according to Dumay et al. (2010), to date little research attention has been paid to the question of CSR within public organisations; similarly, little has been published regarding the sustainability of public organisations, as has been documented by Frost (2007), Mussari and Monfardini (2010) and Navarro et al. (2010). One group of studies (Coglianese, 2009; Wihlborg and Palm, 2008) has highlighted the increasing demands by stakeholders for public bodies to exercise greater social responsibility, in view of the growing need for information on governmental sustainability. This has led authors such as Shepherd et al. (2010) to conclude that public agencies are increasingly interested in publicising their commitments in the field of sustainability, in response to insistent demands by stakeholders for more information in this respect.

In a second group of papers, authors such as Guthrie et al. (2010) argue that sustainability is a key element in managing contemporary public organisations, and that it should play a crucial role in public service provision. Others – including Guthrie and Farneti (2008), Farneti and Guthrie (2009), Mussari and Monfardini (2010) and Navarro et al. (2010) – have concluded that the scant number of empirical studies and practical governmental experiences in the field of sustainability means that further research is needed into how to promote greater information disclosure to stakeholders concerning governmental social responsibility.

With respect to the new role of ICTs in governments' communication with citizens, an important statement was made by the UN Economic and Social Council (UN, 2009). According to the new

paradigm of “open government”, viewed as a more accountable and transparent form of administration, we should progress from a situation in which citizens are clients and consumers of public services to one in which they become partners, capable of producing public services and of participating in policy making. In other words the goal is to attain a form of local public governance that is characterised by transparency, accessibility, responsiveness and accountability.

Public administrations need to adopt new technologies in order to identify and meet social demands (Welch et al., 2002). ICTs not only make governance more effective and efficient, but also mean that public management becomes more transparent, democratic, participative and responsive to social needs. Numerous public administrations make use of them in order to offer services and to achieve greater financial transparency, providing users with freer, easier and more appropriate access to information (Caba et al., 2008).

In the internet age, websites constitute a crucial means of improving relations between different organisations and those who interact with them (De Andrés et al., 2010). In this line, Muñoz-Cañavate and Hípola (2011) argued that the development of the internet has given governments an excellent platform for interaction with citizens, diversifying and expanding information flows and enhancing the relation between authorities and local populations.

On the other hand, the diverse administrative cultures that characterise countries in their implementation of governmental policies and reforms could play an important role in the level and type of sustainability information reported by local governments; administrative traditions influence the role played by the State, its relationship with citizens and the emphasis placed on transparency and accountability within New Public Management (NPM) systems (Kickert, 1997; Pollitt and Summa, 1997).

However, and as mentioned above, as yet few studies have been devoted to the question of governmental sustainability (social, environmental and economic) (Dumay et al., 2010), with more attention being focused on analysing the role of government websites as instruments of financial disclosure (Rodríguez et al., 2007; Caba et al., 2008; Cárcaba and García, 2010; Gallego et al., 2010), thus overlooking the importance of sustainability information disclosure and, in particular, the influence of the administrative tradition of the country in the role of governmental sustainability information.

3. Research methodology

3.1. Sample selection

Among the different levels of public administration, local government is well placed to be aware of citizens' information needs, due to its proximity (Watt, 2004). Moreover, there are other reasons for studying sustainability with respect to local governments. Firstly, the large budgets managed at the local level in developed Western countries, together with the wide variety of services provided (Saiz, 2011). Secondly, in the present context of global economic crisis, and of accumulated deficit and debt in large municipalities (Muñoz-Cañavate and Hípola, 2011), it is necessary to analyse the capacity of governments to continue providing services, in a future in which sustainability (environmental, social and economic), a key element of Corporate Social Responsibility (CSR), will play a crucial role.

In the present study, the large number of local authorities in Europe and the disparity in their population sizes forced us to apply certain criteria in selecting the sample for analysis. Following the approach taken in previous empirical work (Bastida and Benito, 2007; Zafra Gómez et al., 2009; Pina et al., 2009), we decided to select only the municipalities with a large population, for the following reasons: a) in these municipalities, stakeholder groups are more numerous and diverse; b) the resources available are

greater than in smaller municipalities, and so the opportunities for compiling suitable information for sustainability reporting are correspondingly greater; c) the professional training of officials is usually more complete than that of those in smaller municipalities, which could facilitate innovation concerning CSR issues; d) the range of public services provided is very homogeneous, in accordance with the legal obligations on these municipalities.

Likewise, during last years the administrative reforms has been implemented in similar ways in countries that share cultural values (Kickert, 1997; Pollitt and Summa, 1997), and in Western countries, five main styles of public administration can be distinguished: Anglo-Saxon, Nordic, South European, Germanic and Central/East European.

In view of this context, we designed a study to compare the results obtained by the European countries in the first of the above groups (UK and Ireland) with those obtained by the second group of countries (Denmark, Finland, Sweden, Norway and the Netherlands). In accordance with the criteria adopted in previous studies, the Netherlands is included in the ‘Nordic’ category because of the many similarities between its administrative system models and those found in Scandinavia (Torres, 2006).

These countries were analysed because, according to CSR Europe (2010), they make a special effort to promote corporate social responsibility, in which sustainability is a fundamental concept, and to incorporate diverse aspects of sustainability in their regulations. Furthermore, they represent a partnership model in the design of public policies for social responsibility (Lozano et al., 2005), and have been influenced by both southern European and Anglo-American styles of public administration (Navarro and Rodríguez, 2011; Kickert, 2007). This, together with their pragmatic outlook on public administration reforms and the active role played by stakeholders in the promotion of public policies, makes it very interesting to study the sustainability of government policies in these countries. Furthermore, one of our initial hypotheses is that certain differentiating characteristics in the two models of public governance (Arellano and Castillo, 2004) could determine the practices adopted regarding information disclosure on local government sustainability (Fisher et al., 2005).

Therefore, the final sample examined in this empirical study consisted of 33 local governments from seven countries, divided into two groups: 1) the two Anglo-Saxon countries; 2) the five Nordic countries.

3.2. Methods

This paper focuses on analysing the information posted on the websites of the above-mentioned 33 local governments, following the methodology established in earlier studies in this area (Frost, 2007; Caba et al., 2008; Pina et al., 2009; Bertot et al., 2012; among others), acknowledging the excellent opportunities offered by the internet to foster communication and engagement with stakeholders.

To compile and measure the information disclosed concerning sustainability issues, we used a questionnaire focused on the areas of interest regarding public sector reporting (see Appendix). The questionnaire consisted of 75 items, divided into four main blocks; in addition, an initial item was included to determine whether the local government published a sustainability report (or similar) on its website. The 75 items in the questionnaire and its division into four blocks were decided upon after taking into account the suggestions of the Global Reporting Initiative (GRI), third edition (G3) (2006), the Public Agency Sector Supplement (2005) and the latest revision of the same supplement (GRI, 2010).

Our questionnaire was based on the GRI model because, as noted by Canyelles (2011) and Dumay et al. (2010), this guide is currently the most widely used and is internationally recognised as valid for the publication of information on public-sector

sustainability. According to authors such as Bernhar (2009), Chen and Bouvain (2009) and Crognale (2009), the GRI model has had the greatest impact to date, and it is regarded internationally as a standard information guide to the sustainability of public bodies. Dumay et al. (2010) and Tort (2010) state that in recent years there has been a considerable increase in the number of public agencies that use the GRI model.

Moreover, we also took into consideration the recommendations made by bodies such as the Audit Commission (2007), the Chartered Institute of Public Finance and Accountancy (CIPFA, 2007), OECD (2006) and the Spanish Association of Accounting and Business Administration (AECA, 2004).

Consequently, in the questionnaire the blocks are differentiated, in part, on the basis of the “triple bottom line” structure. According to the above international organisations and authors such as Aguado et al. (2009) and García-Sánchez et al. (2013), the concept of sustainable development implicitly incorporates a three-dimensional outlook, incorporating the economic, social and environmental vectors that constitute the four blocks of our questionnaire: Block 1, general information on sustainability (28 items); Block 2, economic information (24 items); Block 3, social information (10 items); Block 4, environmental information (13 items).

The measurement system used was that of content analysis, which is considered to be objective and transparent, and is widely used for studying the information issued by public entities (Ettredge et al., 2001; Bonson et al., 2012). Under this approach, each item is awarded a value of 1 if the information is disclosed and 0 otherwise, thus producing a numerical indicator of the amount of information issued in each website. We analyse disclosure occurrence to avoid subjectivity (Corina and Ross, 2011). In consequence, we can measure in an objective and transparent way the degree of compliance with each of the questionnaire items. This scoring system has been applied in numerous previous studies of a similar nature, such as Condit and Fagan (2001), Bastida and Benito (2007), Rodriguez et al. (2007), Caba et al. (2008) and Gallego-Álvarez et al. (2011). In this system, the total score for each block and/or local government is obtained as the arithmetic sum of the values obtained for each item. In addition, for each of the items we calculated the cumulative percentage of information disclosed in both groups of countries, using the following ratio: the numerator is the sum of the scores obtained by the local governments in each group and the denominator is the total maximum score, i.e., 75 for each local government.

This methodology enabled us to apply a two-level analysis. Firstly, a descriptive one examining the degree of information disclosure on sustainability in general, by type of information, city and country. Secondly, cluster analyses were performed and a test of the difference of the means was applied, to identify possible similarities and/or differences between the groups and cities in the sample, regarding the level and nature of the sustainability information disclosed in their websites.

4. Results of the empirical study

4.1. Descriptive analysis

The Appendix shows the cumulative results for the two groups of countries, Anglo-Saxon (Group 1) and Nordic (Group 2), together with the percentages of total possible disclosure, for each item.

In general, the local governments in our sample do not publish a sustainability report based on a recognised standard such as the GRI model. However, Belfast, Edinburgh and Liverpool (in Group 1) do publish, on their respective websites, a sustainable development plan whose content corresponds to the triple bottom line of social, economic and environmental issues. Among the Nordic countries, Trondheim, Helsinki, Turku and Amsterdam publish sustainability

reports, although of these four, only that prepared by Amsterdam is registered in the GRI list of reports.

In none of the countries is it obligatory for public bodies to prepare and publish sustainability reports or to disclosure information about sustainability. However, as stated in the 2010 GRI Guidelines on sustainability reporting in the European Union, the United Kingdom is ranked first in the number of sustainability reports published by companies, and Ireland is in fifteenth place. The Netherlands ranks sixth, Sweden is seventh, Finland eighth, Norway tenth and Denmark twelfth. For some time, the governments of these countries have been developing major strategy initiatives to promote sustainability in the private sector. Our data analysis shows that the government websites analysed act as instruments for the transfer of sustainability practices, by providing the means for communicating information about social responsibility. However, we also found that these sites have considerable potential to improve their contribution to innovation regarding the disclosure of sustainability information, as 47% more information could be included, according to the GRI proposal.

The data shown in Table 1 reveal differences in the degree of information disclosure: firstly, Anglo-Saxon local governments disclose more information on their websites than do their Nordic counterparts. Thus, there seems to be a clear difference in behaviour between the two groups regarding the degree of sustainability information provided to stakeholders on municipal websites.

In the Anglo-Saxon municipalities, the block concerning social information provides most information, while the Nordic municipalities provide more information of a general nature. Least information is supplied in Block 4 (environmental information) in the Anglo-Saxon municipalities, and in Block 2 (economic information) in the Nordic countries. Block 4 is the area in which differences between the two groups are least pronounced; this convergence could be explained by the pressure exerted on these countries by international conferences on climate change, especially those promoted by the UN Conference on Environment and Development.

The standard deviation values shown in Table 2 reflect the disparate results regarding the degree of disclosure, by blocks and by cities. With respect to the percentage of information disclosed, Block 4 (environmental information) shows greatest dispersion among the cities, while Block 1 (general information) is the most homogeneous.

Table 2 shows the total index value, obtained by following the methodology described in other papers of a similar nature (Navarro et al., 2010; Caba et al., 2008; Rodriguez et al., 2007), with each block being equally weighted (25%). Determining the most appropriate weights for each item and block is not among the specific aims of this study, and we decided to assign an equal weight to each block following the criteria described by Dutta and Lawson (2009), who argued that the allocation of weights to the three dimensions – economic, social and environmental – should be balanced.

Table 1
Information disclosure, by blocks (data expressed as percentages).

Blocks	Anglo-Saxon % of total items in each block	Nordic % of total items in each block	Average % of total items in each block
Block 1: general information	63.4	49.8	56.6
Block 2: economic information	68.1	32.9	50.5
Block 3: social information	70.0	41.9	56.0
Block 4: environmental information	50.0	44.3	47.2
Total questionnaire	63.4	42.4	52.9

Table 2
Information disclosure, by cities (data expressed as percentages).

Country	Municipality	Block 1 general information %	Block 2 economic information %	Block 3 social information %	Block 4 environmental information %	Total index
Denmark	Copenhagen	50.00	37.50	50.00	46.15	0.459
	Odense	60.70	37.50	50.00	30.76	0.448
Finland	Aalborg	53.60	33.30	30.00	46.15	0.407
	Helsinki	50.00	62.50	60.00	69.23	0.604
Sweden	Espoo	53.60	12.50	30.00	53.84	0.375
	Turku	60.70	37.50	50.00	61.53	0.525
	Tampere	57.10	37.50	50.00	61.53	0.516
	Oulu	39.30	29.16	30.00	15.38	0.284
	Stockholm	53.60	41.66	50.00	76.92	0.555
The Netherlands	Malmö	50.00	33.33	10.00	38.46	0.329
	Gothenburg	32.10	41.66	30.00	23.07	0.317
	Uppsala	46.40	41.66	40.00	7.69	0.339
	The Hague	50.00	4.17	50.00	23.07	0.318
Norway	Utrecht	42.90	12.50	20.00	0.00	0.188
	Eindhoven	25.00	0.00	20.00	0.00	0.113
	Amsterdam	39.30	29.16	30.00	61.53	0.400
	Rotterdam	35.70	16.66	30.00	30.76	0.283
United Kingdom	Bergen	42.90	37.50	50.00	61.53	0.480
	Oslo	50.00	41.66	90.00	76.92	0.646
	Trondheim	85.70	54.16	60.00	100.00	0.749
Ireland	Stavanger	67.90	50.00	50.00	46.20	0.536
	Birmingham	42.86	58.33	50.00	38.46	0.474
	Leeds	50.00	70.83	90.00	38.46	0.623
	Manchester	39.29	54.17	60.00	23.08	0.441
	Liverpool	75.00	70.83	70.00	53.85	0.674
	London	78.57	62.50	80.00	46.15	0.668
	Glasgow	82.14	83.33	70.00	38.46	0.685
	Bristol	71.43	87.50	80.00	46.15	0.713
	Edinburgh	64.29	70.83	90.00	61.54	0.717
	Sheffield	67.86	75.00	60.00	53.85	0.642
Ireland	Cardiff	67.86	50.00	50.00	46.15	0.535
	Dublin	46.43	66.67	50.00	100.00	0.658
	Belfast	75.00	66.67	90.00	53.85	0.714
	Std. deviation	15.16	22.23	21.76	24.13	0.170

Therefore, the total index is obtained as a weighted average of the four blocks of the questionnaire, with an individual weighting factor of 25% being applied to each block.

Finally, Table 3 shows the ranking of countries according to their overall disclosure index. The scores obtained for the different information blocks lead us to draw similar conclusions to those for the city-by-city comparison; thus, the results are most homogeneous in Block 1 and least so in Block 4, as shown by the respective standard deviations.

This analysis was extended by examining the position of these countries in the Human Development Index (HDI) (United Nations Development Programme, 2013) and in the Governance Index (GI) (Forum for a New World Governance, 2011), and supplementing this information with the deficit and debt levels of each country (published by Eurostat). As can be seen, the results of the application of the Spearman correlation coefficient reveal no statistical evidence of a relationship between the publication of information on sustainability and the variables analysed (HDI, GI, debt and deficit).

4.2. Statistical analysis

The objective of cluster analysis is to assign observations to groups (clusters) so that observations within each group are similar to one another with respect to variables or attributes of interest, while the groups are well differentiated (Tryfos, 1998; Hair et al., 2010). This methodology was applied to group the cities with respect to transparency on sustainability information. Cluster analysis has been applied in numerous studies of this nature, such as Pardo Merino and Ruiz Diaz (2005) and Royo (2008). We grouped the local governments in terms of the similarities and characteristics of the information provided. This analysis was used

as an exploratory approach, and no specific number of groups was established beforehand. If the analysis shows that the municipalities are in fact grouped by country of origin, one might conclude that the cultural and socio-economic characteristics of each country affect both the disclosure of information by local governments and the contents of this information.

Consequently, it could be argued that local governments within a given country follow similar patterns of information provision. The goal of cluster analysis is to identify common patterns of behaviour, and to do so in this particular case, we used each city's scores for each of the four blocks analysed (see Table 2). Analysis of the variance showed that there were differences among the groups in the four blocks of information addressed in the questionnaire.

The centres of the clusters (Table 4) enable us to draw conclusions about the characteristics of each cluster and about the differences between them.

The fact that three distinct groups were obtained indicates that not only are there differences between Anglo-Saxon and Nordic countries (which would have produced two groups), but also that there are differences among the municipalities within a single country regarding the disclosure of sustainability information, hence the three groups, as explained below.

In Clusters 1 and 3, the degree of disclosure is more homogeneous among the four information blocks, and these are the web sites where most information is presented; Cluster 1 contains mainly Nordic cities, and Cluster 3, mainly Anglo-Saxon ones. In general, information disclosure on these websites is greater in Cluster 3, with the exception of Block 4, containing environmental information. Cluster 2 represents the municipalities that provide least information on their websites, and what there is mainly concerns the general aspects of the questionnaire.

Table 3
Information disclosure, by countries.

Country	Block 1 general information %	Block 2 economic information %	Block 3 social information %	Block 4 environmental information %	Total index	HDI	GI	Deficit % GDP	Debt % GDP
Ireland	60.71	66.67	70.00	76.92	0.62	0.916	1.45	−13.40	106.40
Norway	61.61	45.83	62.50	71.15	0.55	0.955	1.70	13.60	29.00
United Kingdom	63.33	68.33	70.00	44.62	0.55	0.875	1.34	−7.80	85.50
Finland	52.14	35.83	44.00	52.31	0.47	0.892	1.85	−0.80	49.00
Denmark	54.78	36.11	43.33	41.02	0.44	0.901	1.86	−1.80	46.40
Sweden	45.54	39.58	32.50	36.54	0.40	0.916	1.80	0.20	38.40
Netherlands	38.57	12.50	30.00	23.08	0.30	0.921	1.71	−4.50	65.50
Std. deviation	9.16	19.36	17.04	19.11	0.11	0.916	1.45	−13.40	106.40

In terms of the countries and the prevailing management model, Clusters 1 and 2 are constituted of municipalities from Nordic countries, with the exception of Dublin (Ireland) in Cluster 1. Cluster 3 is constituted of municipalities from the Anglo-Saxon countries, with the exception of Stavanger (Norway). Thus, the municipalities from any given country belong to the same cluster, except Dublin and Stavanger, and except that those from Finland and Sweden are divided between Clusters 1 and 2.

On the other hand, these results were checked using the differences of the mean test for independent samples, which confirmed that there are significant differences between groups in the general, economic and social information blocks. The mean difference is not statistically significant in the environmental information block (see Table 5).

These analyses corroborate the existence of differences between the two analysed groups. In addition, the cluster analysis shows that there are differences between municipalities within a country, as they are not always grouped within the same cluster; thus, the cities of the Nordic countries are distributed between Clusters 1 and 2, and there are important differences in the degree of sustainability information disclosure between the two clusters.

5. Discussion

According to the recommendations of many international organizations and the findings of previous studies (Burrill and Welch, 1997; Marcuccio and Steccolini, 2005; Ball, 2005; Guthrie and Farneti, 2008), the question of information transparency regarding sustainability is a research topic of great current interest. Public authorities react to environmental pressures by disclosing information on sustainability, and this reaction can act as a catalyst to bring about a change in public institutions (Ball, 2005).

Our empirical study shows that the local governments analysed are reasonably transparent regarding sustainability issues, and that they use their websites to publicise commitments in terms of social, environmental and economic sustainability. The results obtained are similar to those reported by Williams et al. (2011) for a sample of local governments in Australia.

In addition, we statistically tested the relationship between our results and certain indicators of the degree of development (HDI and GI) and with variables on the level of deficit and debt in the countries analysed. This comparative analysis shows that there is no

statistically significant relationship between the level of transparency on sustainability and these variables, and therefore it may be concluded that a high level of development (human and governance) within a country does not appear to favour policies of greater disclosure of local government information. Furthermore, the results of this comparative analysis also show that neither the debt nor the deficit of government is associated with local government transparency on sustainability. Consequently, we conclude, taking into account Legitimacy Theory and Stakeholder Theory, that the evolution of these variables does not incline local politicians to seek a more transparent behaviour with respect to sustainability.

With the few exceptions mentioned above, local government websites are not used to disclose sustainability reports as formally-presented documents specifically dedicated to sustainability. This circumstance could be explained by the absence, in the countries in question, of legal regulations obliging local governments to produce and distribute this type of documents.

In the two groups of countries, Anglo-Saxon and Nordic, the contents of the websites analysed remain open to improvement in the area of sustainability reporting; this is especially so with respect to the Nordic local governments. While the websites of the Anglo-Saxon local governments publish around two thirds of the GRI target level of sustainability reporting, those of the Nordic local governments meet less than half of the GRI recommendations.

Notably, the area of environmental sustainability information is the only one in which there are no statistically significant differences between the two groups of local governments. A similar degree of effort is made in both groups of countries regarding the disclosure of environmental information, possibly as a result of the demands made in this respect at various international conferences on climate change.

In general, the environmental information disclosed by local governments on their websites does not correspond to the aspects proposed in the GRI guidelines, which is why the scores obtained are lower than for the other sections of the questionnaire. We observed the presence of very diverse information, unrelated to the questionnaire items, a finding that was corroborated by the dispersion of city-by-city information for Block 4 (Table 2).

Therefore, according to the GRI guidelines, local governments in the countries analysed should strengthen their commitment to greater transparency on sustainability in general, and on environmental issues in particular.

Table 4
Centres of the final clusters.

	Cluster 1	Cluster 2	Cluster 3
	Helsinki, Tampere, Turku, Bergen, Oslo, Trondheim, Stockholm, Dublin	Aalborg, Odense, Copenhagen, Espoo, Oulu, Eindhoven, The Hague, Rotterdam, Utrecht, Amsterdam, Uppsala, Gothenburg, Malmö	Belfast, Manchester, Birmingham, Bristol, Cardiff, Edinburgh, Glasgow, Leeds, Liverpool, London, Sheffield, Stavanger
Block 1: general information	0.140	0.111	0.163
Block 2: economic information	0.119	0.063	0.167
Block 3: social information	0.144	0.081	0.175
Block 4: environmental information	0.190	0.072	0.114

Table 5
Test of differences of the mean: Anglo-Saxon vs. Nordic municipalities.

		Levene's test for equality of the variances		T test for equality of the means		
		F	Sig.	T	gl	Sig. (bilateral)
B1: general information	Assuming equal variances	1.257	0.271	2.732	31	0.010
	Not assuming equal variances			2.635	20.636	0.016
B2: economic information	Assuming equal variances	1.288	0.265	6.757	31	0.000
	Not assuming equal variances			7.464	29.691	0.000
B3: social information	Assuming equal variances	0.064	0.802	4.526	31	0.000
	Not assuming equal variances			4.665	25.180	0.000
B4: environmental information	Assuming equal variances	3.390	0.075	0.644	31	0.524
	Not assuming equal variances			0.711	29.650	0.482

Moreover, our statistical analysis shows that there are clear differences among the local governments analysed regarding the disclosure of sustainability information, depending on whether the country belongs to one or other administrative tradition. Thus, the information provided is more abundant and more homogeneous in the Anglo-Saxon than in the Nordic countries. Furthermore, Anglo-Saxon local government websites allow greater interaction between government and citizens, as information may be required of the government under the Freedom of Information Act.

It therefore appears that a country's administrative culture may be a significant factor in local governments' commitment to information transparency on sustainability. Thus, the model of public administration applicable might determine the practices of sustainability reporting employed by local governments. More specifically, it appears that the emphasis on accountability, which is very strong in the Anglo-Saxon culture, favours greater disclosure on sustainability.

For both groups of countries, the above results enable us to identify two clear opportunities to improve information transparency on sustainability in local governance.

First, the published information in this respect is very diverse and irregularly distributed throughout many different sections of the websites, which impedes accessibility. Second, despite increased demands from stakeholders, the websites do not include lists of the stakeholders taken into consideration nor information on how the sustainability information was selected and prepared. Neither is it clarified whether the needs of stakeholders have been considered in order to determine whether the sustainability information provided is of real interest. Accordingly, it is not known whether the information posted on the website was prepared with a view to the stakeholders' priorities or, conversely, was selected purely on the basis of the preferences and interests of political forces in local government.

6. Conclusions

Local governments in Anglo-Saxon and Nordic countries are reasonably strongly committed to providing transparent

information on sustainability, using their websites as communication tool with stakeholders. The absence of legal obligations to publish such information is not impeding progress in terms of individual initiatives by local government sections.

The respective features of public administration traditions in these two groups of countries may influence the development of transparency and accountability practices with respect to sustainability. In this context, Anglo-Saxon local governments make greater use of the internet as an instrument of information transparency regarding sustainability.

Our empirical results show that the level of development of a country and/or its quality of governance do not necessarily imply more transparent behaviour by local governments with respect to sustainability. In parallel, the level of government debt and deficit, although these variables are associated with financial sustainability, do not appear to be factors that influence the greater or lesser engagement of local governments to transparency on sustainability questions.

The results of this empirical study, and especially the weaknesses identified, support our conclusion that there is room for improvement in the disclosure of sustainability information by local governments. Specifically, steps should be taken to: a) design a model sustainability report, one that is comprehensive, contained within a single, formally presented document, and which includes links enabling rapid access to governmental areas and departments; b) identify the fundamental items about which information should be published, taking into account international concerns regarding environmental issues; c) clearly identify the types of stakeholders (internal and external) addressed by the website; d) study the information needs of these stakeholders in order to define sustainability commitments in terms of priorities.

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Appendix

Analysis of the information disclosed by all the local governments analysed

Information analysed	Group 1 Anglo-Saxon	Group 2 Nordic
Block 1: general information about sustainability		
1 Strategy and analysis		
1. Is a statement made by the Head of Government on the importance of sustainability for the LG and its strategy?	67%	33%
2. Does this statement set out priorities, strategies and key factors for the short-medium term?	67%	24%
3. Does this statement address long-term trends relevant to priorities concerning sustainability?	67%	19%
4. Does this statement include events, achievements and failures during the period in question?	50%	10%

(continued on next page)

(continued)

Information analysed	Group 1 Anglo-Saxon	Group 2 Nordic
5. Does this statement include goals-oriented performance perspectives?	67%	5%
6. Does this statement include challenges and targets for the coming year and the forthcoming 3–5 years?	58%	14%
2. Organization profile		
7. Does the LG own trademarks?	33%	86%
8. Are different areas clearly defined?	100%	95%
9. Do LG officials have area-defined responsibilities?	100%	95%
10. Is the situation of the regional seat of government stated?	92%	81%
11. Is a statement made of the number of countries in which significant activities are carried out?	8%	57%
12. Is the number of employees stated?	33%	76%
13. Have significant changes taken place in the LG structure or size?	17%	19%
14. Has the LG been awarded prizes or other recognition during the period in question?	42%	19%
3. Information parameters		
15. Is a statement made of the period corresponding to the information supplied?	100%	76%
16. Is the date of publication of this information stated?	100%	71%
17. Is the presentation frequency of this information stated?	100%	95%
18. Is there a liaison person for questions concerning the information supplied?	100%	86%
19. Does the information supplied include dates of specific interest for suppliers & users?	100%	90%
20. Is priority assigned to the aspects addressed in the information supplied?	83%	57%
4. Government, undertakings and stakeholder participation		
21. Is there a given person or government body responsible for defining organization strategy?	100%	81%
22. Does the chief official hold any other public or private post?	33%	5%
23. Do there exist works' committees or workers' representatives?	8%	52%
24. Are the stakeholders included in the information supplied?	75%	90%
25. Does the information presented include the Government's programme?	58%	24%
26. Is a statement made of the Government's programme commitments that have been fulfilled?	58%	10%
27. Does the governing party have an absolute majority?	33%	24%
28. Are stakeholder selection and identification criteria included in the information supplied?	25%	0%
Block 2: economic information about sustainability		
5. Economic indicators		
29. Is an expenditure forecast/beneficiary population published?	33%	14%
30. Is a revenue forecast/beneficiary population published?	33%	14%
31. Are revenues transferred from other public administrations/total revenues published?	83%	38%
32. Is the level of fiscal pressure published?	75%	52%
33. Is gross expenditure, detailed by type of payment, published?	67%	76%
34. Is gross expenditure, detailed by financial classification, published?	100%	57%
35. Is capital expenditure, detailed by financial classification, published?	100%	33%
36. Is the cost of service provision published?	75%	48%
37. Is the mean payment period stated?	67%	0%
38. Is a statement made of current calls for tenders for the supply of goods or services?	75%	5%
39. Is the profile of contracting companies published?	58%	29%
40. Is a statement made of future calls for tenders?	67%	0%
41. Is the policy on internal promotion published?	17%	5%
42. Are staff training facilities published?	33%	10%
43. Is the Government's capacity for legal indebtedness made public?	17%	52%
44. Is a statement made of future financial risk?	83%	0%
45. Is a statement made of public assets and insured goods?	17%	0%
46. Is an audit report published?	100%	52%
47. Are data given on subsidies received?	83%	38%
48. Are the annual accounts published?	100%	67%
49. Is a report published on the accounts policy implemented?	92%	67%
50. Is a report published on the expenditure forecast?	100%	33%
51. Does the latter include medium-term perspectives?	83%	29%
52. Are the following key economic assumptions and forecast made public: GDP growth, employment, unemployment, inflation and rates of interest?	75%	71%
Block 3: social information about sustainability		
6. Social indicators		
53. Is the offer of services made public?	100%	90%
54. Is a statement made on expenditure incurred in the area of social issues?	75%	52%
55. Is a subsidies announcement made for business activities?	100%	71%
56. Is a statement made on pensions obligations to employees?	67%	62%
57. Are grants offers to neighbourhood associations made public?	83%	19%
58. Are offers of public employment made public?	92%	52%
59. Are grants offers to NGOs made public?	75%	14%
60. Are indicators of effectiveness and efficiency published?	67%	52%
61. Is information given on initial wage (when staff are hired)/local minimum wage?	42%	5%
62. Is information given on expenditure on local suppliers/total expenditure?	0%	0%
Block 4: environmental information about sustainability		
7. Environmental indicators		
63. Is information published on the initiatives taken to alleviate the environmental impact of products and services?	100%	76%
64. Is the degree of reduction of the above impact stated?	67%	62%
65. Is a statement made of the direct consumption of energy obtained from primary sources?	33%	29%
66. Is a statement made of the consumption of intermediate energy?	25%	24%
67. Is a statement made of the actions taken to increase savings via conservation or increased efficiency?	92%	71%

(continued)

Information analysed	Group 1 Anglo-Saxon	Group 2 Nordic
68. Is information published on initiatives taken to promote products and services that are energy efficient or based on the use of renewable energies?	100%	71%
69. Is information published on reductions in energy consumption as a result of the above initiatives?	33%	33%
70. Is information published on the initiatives taken to reduce indirect energy consumption?	75%	52%
71. Is information published on reductions achieved by the above initiatives?	17%	19%
72. Is information published on the different sources of water supply employed, and the volume obtained from each source?	8%	38%
73. Is information published on the percentage and total volume of water that is recycled and reused in the community?	17%	19%
74. Is information published on the disposal of waste water by the community?	25%	29%
75. Is information published on the total and type of expenditure on environmental investment?	58%	52%

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