

## What Really Matters Concerning Local Government Evaluation: Community Sustainability

PAULO CALDAS, BRIAN DOLLERY & RUI CRUNHA MARQUES

**ABSTRACT** How to evaluate local government or what really matters concerning local government evaluation and who cares about it are questions which are on the table currently across the world. This paper carry out a survey on the wide range of indicators and evaluation models of local government used worldwide and shows that they are based mainly on performance evaluation and financial sustainability ratios. We conclude that they address only part of the problem of strategic management, financing, and sustainable development issues of local government. In particular, the governance dimension is absent. Therefore, a broader vision is proposed that integrates our usual local government evaluation into the important issues of governance and sustainability. This article focus on “measuring what matters” in local government and presents the need of a new evaluation model, a Councils’ Sustainability Index, based on the integration of council’s financial performance with communities’ sustainability and governance dimensions. Thus, it might be an important contribution for the creation of a new paradigm on local government evaluation and councils’ strategic management. The Portuguese case is used to illustrate this purpose.

**KEYWORDS:** • local government • performance measurement • financial sustainability • governance • Portuguese local government • community sustainability

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## 1 Introduction

In different countries different local government systems are responsible for the provision of different constellations of local public services, ranging from a narrow 'services to property' orientation to a much broader 'services to people' alignment of functions (Dollery and Robotti, 2008). However, despite these differences, local authorities everywhere typically must fund service provision and comply with various legislative mandates. This has become much more difficult in the contemporary context of economic uncertainty, decentralization and increasing complexity (Devas and Delay, 2006). In this environment, which has been especially aggravated by the American and European financial crises, evaluation models have become more prominent as a tool of public policy (Lee, 2008).

A balanced and holistic appraisal of local government raises many questions: How should we evaluate local councils? Which indicators should be used? What dimensions of performance really matters in local government? Should governance be added to the more common performance assessment and financial appraisal in order to comprehensively evaluate local government? These are questions that require urgent answers (Dalehite, 2008).

In this paper we discuss as a research hypothesis that, in order to reach a more complete local government evaluation, the dimensions of 'community sustainability' and 'governance' should be integrated with the traditional ratios of financial performance and sustainability. We will argue that, as a null hypothesis, the more traditional ratios permit only a limited evaluation of local government, notwithstanding the heavy emphasis in the literature on local government on performance assessment and financial ratios evaluation. Moreover, we contend that a fresh approach is required, based on a new model which adds 'community sustainability' and 'governance' dimensions to existing efficiency indicators, to address the problems of strategic management, funding and sustainable development in local government (Scipioni *et al.*, 2008). A new integrated approach to evaluation embodying strategic management capacity and the sustainability policies of councils will enable them to increase the effectiveness of public service provision, as well as contribute to higher satisfaction on the part of local communities.

Against this background, this paper seeks to make a modest contribution to the literature not only by assessing current thinking on local government performance and sustainability, but also by presenting new approach to evaluate local government, a Councils' Sustainability Index, using Portuguese local government as a case study of the lack of integrated vision of local community and local council needs.

Besides this introduction the paper itself is divided into four main parts. Section two provides a synoptic assessment of a wide range of indicators and methods commonly used for local government evaluation, with an emphasis on the past few decades. Governance is presented as crucial for comprehensive benchmarking of local authorities. The World Bank methodology is discussed as well as a broad overview of approaches mainly developed in Australia, Europe and the United States. Section three presents and discuss our methodology creating a Councils' Sustainability Index model. This model is based upon multi-criteria decision analysis. This integrated approach is provided in view for tackling the thorny question emphasis of what really matters in conducting thorough holistic local government evaluation, including the importance of communities' sustainability. Section four invokes Portuguese local government as an illustrative case study, particularly local government evaluation models currently employed in Portugal, which facilitates a critical assessment of performance appraisal, financial sustainability analysis and governance evaluation, and the development of a new integrated model for local government evaluation, a Portuguese Councils' Sustainability Index. The challenge to "measure what matters" in this model, based on community sustainability is here highlighted. The paper ends with some brief concluding remarks in section five.

## **2 Local Government Evaluation**

### **2.1 Councils' Performance Analysis**

The measurement of local government performance is highly complex, mainly due to the existence of a multitude of different stakeholders with diversified goals, together with the difficulties involved in determining community satisfaction (Morais and Camanho, 2011). Performance assessment is nonetheless important, because it allows for an effective inter-council comparison in terms of value for money of the service provision on the one hand, and management performance in terms of happiness and community satisfaction on the other hand (Cruz and Marques, 2014a). Efficiency focuses attention on inputs and /outputs used and produced whereas effectiveness concentrates on community satisfaction with the council services. In this regard, Renne (1937) argued that "most discussion of governmental efficiency has been confined to expenditure comparisons and few serious attempts have been made to measure the amount and quality of services rendered by local officers". The need for a composite indicator which represents the overall performance of the local authority is presently hotly debated in contemporary local government (Morais and Camanho, 2011). The results of exercises of this kind could be published on a regular basis, encouraging improved municipal performance (Cruz and Marques, 2014a).

Performance Indicators (PIs) generally draw upon two models of organizational performance which are related, but not entirely consistent (Midwinter, 1994). Both

contain a sequence of steps in a 'service production' process. The first is described as the 'economy– efficiency–effectiveness' (3Es) model and the second the 'inputs–outputs– outcomes' (IOO) model. Although recent years have witnessed a proliferation of performance frameworks, these largely re-package the basic elements of the 3Es and IOO models (see Talbot, 1999 for a review of this literature and also Miller and Blair, 2009).

Hood (2007) has noted recent trends in quantitative performance measurement and management of public services. He also emphasized the positive role of composite rankings, such as qualitative differences, in the contemporary public sector.

The major advances in efficiency measurement have been largely methodological, concerned mostly with general parametric and non-parametric methodologies to compute the efficiencies of an organization. These methods are also better than performance indicators since they can include several inputs and outputs.

Among the non-parametric techniques, data envelopment analysis (DEA) and free-disposal hull (FDH) are used most commonly. These techniques let the data speak by themselves and estimate the relationships between inputs and outputs with minimal assumptions (Emrouznejad and Witte, 2010). Parametric approaches include corrected ordinary least squares (COLS) and stochastic frontier analysis (SFA) that can adopt different cost or production functions, using for example Cobb-Douglas or translog specifications (see, for instance, Fried *et al.*, 2008). Other less common methods (parametric or non-parametric) include Malmquist productivity indexes (MPI) and total factor productivity (TFP). However, different approaches based on multiple-criteria decision analysis (MCDA), such as the analytic hierarchy process (AHP) and other additive aggregation models, still present weighting problems (Liu *et al.*, 2013) are also viable alternatives (Molinos Senante *et al.*, 2015).

Global performance assessment of local governments has been undertaken worldwide (see, for example, Cruz and Marques, 2014c). The model specifications and the set of inputs and outputs selected by different scholars are dependent on the differentiated functions of local government systems in different countries and other specific and local conditions.

Effectiveness measures, also called outcome measures, represent the quality of council performance and/or indicate the extent to which the local governments' objectives are met (Ammons, 2012). Worthington and Dollery (2000) carried out also a detailed review of efficiency measurement in local government. They noted that efficiency analysis does not explicitly acknowledge the significance of the operational environment and thus should be treated with "caution" and that in the "complex politicized milieu of local government" effectiveness may be as important as economic efficiency. Worthington and Dollery (2002) also

highlighted the importance of the incorporation of contextual information into local public sector efficiency analyses. If efficiency measures are to be meaningful, all inputs and outputs must be considered. This includes the non-discretionary environmental or contextual factors that are hypothesized to exert an influence on the production correspondence relating inputs to outputs.

The literature on efficiency measurement recognizes the need to take into account the effects of external factors on efficiency. For example, Cruz and Marques (2014b) proposed a new taxonomy for the wider environment (or context) of local government empirical efficiency analysis, based on five categories representing types of non-discretionary variables to facilitate and structure empirical results interpretation:

- “Natural conditions” – factors imposed by nature (such as climate, topography, geology, biodiversity, resources) and constraints (like limited spatial area in small islands);
- “Customer related aspects” – embracing the behavior and capacity of end-users, population or main stakeholders (social, cultural, demographic or economic factors);
- “Institutional framework” – capacity and behavior of the institutions that interact with organizations (legal and regulatory, political and economic issues);
- “Legacy conditions” – inherited aspects (spatial, technical or infrastructural and economic type);
- “Market conditions” – market behavior of organizations (competition, suppliers etc.).

Since inputs and outputs and therefore efficiency are contingent upon the functions of local government, the determinants of performance will also be dependent of the local conditions (such as institutions, structure, rules, culture, etc.).

## 2.2 Financial Sustainability Analysis

Financial sustainability in local government is a thorny question in terms of conceptual and measurement difficulties, especially the development and implementation of satisfactory financial performance indicators. For example, there is no agreed definition of “financial sustainability” in the scholarly literature. Moreover, there is not even “consensus about the terminology surrounding fiscal health” (Honadle *et al.*, 2004). Indeed, a wide range of terms exist, including “fiscal health” (Berry, 1994), “financial condition” (Lin and Raman, 1998), “fiscal stress” (Pagano and Moore, 1985) and “fiscal capacity” (Johnson and Roswick, 1991).

Much the same is evident on real-world public policymaking. For example, in Australian local government policymakers have often defined financial

sustainability to mean that “a council’s finances are sustainable in the long term only if its financial capacity is sufficient – for the foreseeable future – to allow a Council to fund the spending that is necessary to meet both its existing statutory obligations and any associated spending pressures and financial shocks without having to introduce substantial or disruptive revenue (and expenditure) adjustments infrastructural assets means non-financial assets excluding any holding of land” (Allan Report, 2006).

In the Australian milieu, an alternative definition of financial sustainability was offered by Walker and Jones (2006): “Financial Sustainability can therefore be defined as the capacity of councils to continue the current level of service provision to their residents in the future”. This definition accords with Aulich (2005) and Dollery (2010): “Should the financial circumstances of a council be judged exclusively on financial magnitudes, such as operating expenditure, operating revenue, indebtedness and the like, or should the yardstick be standards of service provision, operational efficiency and community expectations? Similarly, inherent tensions between local government efficiency further complicate matters.”

Measuring financial performance involves numerous difficulties. For example, a broad range of financial indicators is used worldwide and no single model overcomes all problems.

In the United States, the American Advisory Commission in Intergovernmental Relations (ACIR, 1973) devised six “early warning signs” in the form of financial indicators, thereby initiating a literature on key performance indicators (KPI) in American local government, which culminated in the construction of comparative indicators, typically in terms of financial ratios (Brown, 1996). Network of Associations of Local Authorities of South-East Europe (NALAS, 2011) appointed, in this matter, seven indicators respectively, revenues, surplus generation and debt servicing ability, cash flow adequacy, capital structure, liquidity and financial flexibility. French and International Standards Regulatory Institutions also identified eleven key financial indicators. In the UK, since 2011, a Local Government Commission publishes an annual report covering the following thematic areas: key indicators of financial performance, strategic financial planning, financial governance and control. The National Audit Office (NAO), in 2013, published an important report concerning financial sustainability in the UK local authorities, presenting important conclusions about funding local authorities services, local authorities budget management and maintaining financial sustainability.

On the other hand, Drew and Dollery (2013) in Australia, based on Treasury Corporation classification on its study financial sustainability of the New South Wales local government sector, used ten financial sustainability ratios according

to four categories: Financial flexibility (operating ratio and own source operating revenue ratio), liquidity (cash expense and unrestricted current ratios), debt servicing (debt service cover and interest cover ratios), and asset renewal and capital works (infrastructure backlog, asset maintenance, asset renewal and capital expenditure ratios). These authors allocated a weighting of 35% to financial flexibility, 20% to liquidity, 10% to debt servicing and 35% to asset renewal and capital works. Problems of benchmark, redundancy, logic and lack of qualitative and quantitative data were found in this research. These Treasury Corporation financial sustainability ratios benchmark problems (concerning arbitrary assignments) are also made plain comparing this method with the study of PricewaterhouseCoopers (PWC), used in its national (Australia) financial sustainability study of local government (2006); this method used also capital expenditure, operating and interest cover ratios.

Improved financial sustainability assessment needs to augment accounting measures that reveals local community opinion. Financial key performance indicators' (KPI's), ratios and indexes are only broadly indicatives of the financial situation of individual councils given data inconsistencies and the fact that diversity between councils really exists (the needs of residents and the problems faced by different categories of councils) inhibits the use of a "one-size-fits-all" method of assessing local government financial sustainability. Dollery *et al.* (2011), dealing with local government sustainability in a broader perspective in terms of a local authority ability to function effectively over the long term, defined and characterized the chief elements of a "community sustainability": local democracy, local social capital and local capacity. These three main components of holistic sustainability represent a broader perspective moving beyond the confines of finance as sustainability measure.

Performance measures and financial sustainability analysis have some value concerning local government evaluation but information they provide may be limited for citizens, namely in terms of voice, accountability and effectiveness of local government as well as happiness, as we will see next.

### 2.3 Understanding the importance of Governance

For a more complete local government evaluation, contributes the Triple Bottom Line (TBL) outset (Elkington, 1997), considering that social, environmental and economic perspectives of sustainability are necessary for a more comprehensive understanding of public performance. However, these results are not enough. In our view, they should be complemented with good governance, as a crucial element to benchmark local governments. Governance added to performance and financial sustainability provide us with a broader perspective of local government evaluation. Governance relates to the behavior of institutions, the governing processes and the relations between the state and the citizens and other



stakeholders. Good governance demands high levels of public participation in policymaking, transparency, accountability and respect for the rule of law (Callahan, 2007). "Governance" does matter (Kaufmann *et al.*, 2010) and represents public interest protection.

There is no *consensus* on a governance definition but it is widely acknowledged that governance relates to the participation and engagement of the stakeholders and community, accountability and transparency of decisions.

Local governments no longer hold the exclusive power to conceptualize and implement public policy and outcomes – responsibilities are shared by a complex network of stakeholders.

As a World Bank study states "governance consists of the traditions and institutions by which authority in a country is exercised. This includes the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the state for the institutions that govern economic and social interactions among them." (Kaufmann *et al.*, 2010).

The first consistent efforts to measure various aspects of Governance emerged in the 90's. The Worldwide governance indicators (WGI's) were developed by the World Bank and they are still widely used and discussed. WGI's methodology aggregates several perception-based data sources into six broad dimensions of governance: Voice and accountability; political stability; government effectiveness; regulatory quality; rule of law and control of corruption.

Several methodologies and indicators measured certain aspects of good governance at local level, focused on quality of life (Mercer's quality of live worldwide city rankings) and environmental issues (Siemen's European green city index). Urban governance index (UGI) was also developed by the United Nations Human Settlements Programme (UN-HABITAT).

In fact, "governance" dimension should always comprises two processes: Voice, accountability and political stability on one hand and, on the other hand, effectiveness of local government on the formulation and implementation of the policies. According to that, "good governance" should mean a governance level that meets and fulfills all appropriate criteria above a certain target. Conversely, "bad governance" means governance levels below a certain threshold (Kaufmann *et al.*, 2010).

Therefore, we defend that governance added to performance and financial sustainability assessment would be the solid basis of the creation of a new local government evaluation model, a councils' sustainability index.



### 3 A methodology towards local government holistic sustainability

#### 3.1 Understanding the importance of ‘Holistic’ Sustainability

To date, the main focus in the literature has been on financial and management indicators to measure local government performance and evaluation. These indicators allow us to make comparisons of a council’s short-term results easily but tell us very little about the satisfaction, happiness and well-being of communities. Therefore, they do not show the “big or major picture”. New instruments, such as governance and sustainable development indicators have attracted interest only recently in the area of local government performance (Johnsen, 2005). There is not yet an integrated approach of these indicators. Indeed, seldom is a set of indicators or a sustainability index on local authorities found in a given region or between regions (Andrews *et al.*, 2011).

Analyzing community well-being, citizens’ participation/initiative and the broader sustainability of a council provide a broader vision of the development and welfare of each council (Cruz and Marques, 2014c). So far, maybe because of data availability and easiest conceptualization and measurement, financial indicators have been preferred to sustainable development indicators. It does not exist an integrated model containing all the significant information needed to evaluate local government performance with both visions of the same problem (Jacobs & Goddard, 2007).

In this paper, sustainable development forms a capstone of the approach we advocate for local government. In this regard, Bartelmus (2010) presented the foundations of sustainable development contending that after repeated failure of the International Development Strategies of the United Nations, a search for an alternative development concept was needed. The World Conservation Strategy (IUCN *et al.*, 1980) was the first to call for ‘sustainable development’ by means of conserving living resources. The United Nations later established the World Commission on Environment and Development (1987) to investigate the causes and remedies of development failures. The World Commission on Environment and Development (Bruntland Commission, 1987) defined “sustainable development” as a process which meets the needs of the present without compromising the ability of future generations to meet their own needs”, thereby joining environmental objectives and economic growth objectives.

Bartelmus’ (2010) main contribution was to bring the abstract notions of sustainable development and welfare down to the reality of quantifiable analysis and policy, concluding that only monetary valuation provides an adequate measuring rod for comparing environmental services with economic activity. Baumgärtner and Quaas (2010) definition of ‘sustainability economics’ is also relevant, especially since it is based on a clear distinction between the different

normative goals involved, in particular efficiency and justice. This general definition of sustainability forms the basis for our local government evaluation approach. Thus, in contrast to the narrow financial viability, “community sustainability” would embrace wider economic, political and sociological attributes. In its broader connotation, “holistic sustainability is the ability of a local authority to function effectively over the long term” (Dollery *et al.*, 2013).

In Europe, several conceptual frameworks or methods to develop local sustainability indicators have been carried out (for an overview of research projects on this theme, see Pires and Moreno *et al.*, 2014).

In Table 1 some different approaches to holistic sustainability definition are presented.

Key financial performance indicators, ratios and indexes are only broadly indicative of the real situation of individual councils. Local government sustainability should be assessed in a broader perspective, in terms of a council’s ability to perform effectively over the long term and satisfaction of community interests.

Local government sustainability is indeed much broader than simple financial sustainability. Communities or ‘holistic’ sustainability really matters concerning local government evaluation (Ammons, 2012).

Councils currently compete for practical and tangible issues, such as financial resources and new investments. Financial and investment decisions, transparency, corruption control and public participation and satisfaction gained an objective pathway and a trustful local government assessment tool.

**Table 1:** Different Holistic Sustainability Definitions

Author	Date	Concepts and Definitions
Kersting and Vetter	2003	Economic and political attributes must be considered
Aulich	2005	Local government dual role (democratic organization and service provider); the importance of efficient service provision together with effective local democracy
Dollery, Garcea and Lesage	2008	Five main pillars of local government sustainability: demographic factors, council revenue, council expenditure, council financial management and council governance

Dollery, Crase and Grant	2011	The importance of local democracy (good governance), local social capital (citizens “sense of community” and “sense of place”) and local government capacity (well-functioning elected leadership and administrative and technical expertise)
Bell and Morse	2013	Measuring sustainability at local and regional levels. New ways of thinking about sustainability indicators.
Warburton	2013	Community participation and sustainable development. The connections between environmental action and community-based activities.
Wates	2014	New methods of community planning. How communities become, safer, stronger, wealthier and more sustainable

Therefore, a fresh approach, conceptualizing and implementing a Councils’ Sustainability Index (CSI), is required to address the problems of strategic management as well as of funding and sustainable development in local government.

### 3.2 How to conceptualize and measure the Councils’ Sustainability Index (CSI)

The importance of CSI is unavoidable to ensure an effective and comprehensive local government evaluation. The CSI will integrate the two fundamental dimensions of local government evaluation: financial sustainability and holistic/community sustainability.

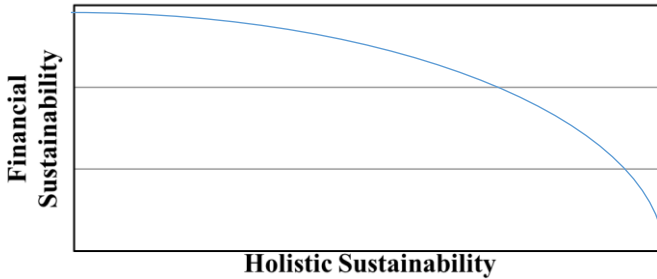
Concerning the key financial indicators, financial flexibility, liquidity and debt servicing should be considered. However, holistic or community sustainability evaluation encompass governance matters (civic engagement, transparency, political stability, government effectiveness, rule of law and prevention of corruption) together with key economic and social development indicators.

The creation of the CSI integrating financial sustainability and holistic sustainability indicators (see Figure 1), will be very important in the local government context because decision makers could use the scores obtained to develop a sense of common purpose and to know where they need to act and correct measures, in order to improve in global terms their financial performance and/or community sustainability, guaranteeing, simultaneously, a greater

participation and involvement of the population in the community matters and, consequently, the growing of population satisfaction and happiness.

Figure 1 shows CSI aggregation model, with the integration of financial sustainability and holistic sustainability dimensions.

**Figure 1:** CSI aggregation model



Local government decisions, most of the time, aims to increase both financial sustainability and holistic sustainability. Better financial performance and community sustainability leads to progress, high levels of citizens' satisfaction and sustainable development.

However, it is conceivable that, at same point, there is a trade-off between financial and holistic sustainability. For example, obtaining high quality levels on educational or social services and/or higher infrastructural investments usually represents lower standards of debt management and other financial dimensions.

In order to obtain a composite and global CSI these dimensions should be aggregated. This aggregation has advantages since ranking councils allows comparisons between them. On the other hand, considering several dimensions and a significant number of indicators could be very difficult given results inconsistency and the complexity of different methodological options of aggregation.

We can, at this stage, conceptualize the CSI basic equation as follows:

$$CSI(C_i) = \sum_{n=1}^n K_n \times CSI_n(C_i) \quad \text{with} \quad CSI_n(\text{good}_n) = 100; CSI_n(\text{neutral}_n) = 0$$

Where  $CSI(C_i)$  is the overall government level of council I,  $CSI_n(C_i)$  is the score of the council in the criterion n; good n and neutral n are the reference levels of

performance on criterion  $n$  (corresponding to what is considered as a good practice and satisfactory or acceptable in terms of councils' government, respectively) and  $K_n$  is the weighting coefficient of criterion  $n$ , such that  $\sum K_n = 1$  and  $K_n > 0$ . The selection of criteria and the way in which the scores are obtained and the weighting coefficients for each criterion is explained in the next chapter.

A good government is ultimately an objective of the whole society, it is crucial to identify the appropriate decision-maker/problem owner with legitimacy and capacity to decide what is the meaning, dimensions, criteria and metrics of government. Each dimension has its own criteria, that themselves have their own metrics associated, thus allowing the CSI measuring.

Nevertheless, some constraints have to be respected, for instance, criteria must be non-redundant and preferentially independent (Keeney, 1992) and the data should be up-to-date and retrievable for all councils. Criteria must have theoretical grounding (Andrews et al., 2010). If good council's sustainability is interpreted as how the local government-general society interactions should occur, then sustainability assessments must rely on a set of criteria that are unavoidably normative.

Concerning government evaluation and measurement, it is noteworthy the efforts and the results achieved by Cruz and Marques (2014b) multi-criteria model for local governance assessment (MCDA). These authors conceived a constructive approach requiring the active participation of the decision-maker, considering a decision-making group (DMG) composed of stakeholder representatives, involved in local government.

The CSI could help to align the objectives of local politicians with the objectives of citizens and society at large. The disclosure of results such as councils' government profiles might help stakeholders to make sense of and use information that is otherwise dispersed or inaccessible.

### 3.3 Multi-criteria Decision Analysis Methodology

Multi-criteria decision analysis (MCDA) can use a simple additive evaluation model aggregating several indicators or measures (Marques *et al.*, 2015).

It is clear the usefulness of multi-criteria decision analysis (MCDA) model for local government evaluation, specifically based on the crucial integration of financial and holistic sustainability dimensions (and respective criteria), as proposed by CSI.

In fact, the importance of this methodology for the conceptualization of the new CSI is quite significant, because, in a structured way, several dimensions of local

government are aggregated, accomplishing the complexity of councils management, stakeholders and community own and differentiated objectives. Considering and integrating the different stakeholders interests will contribute to an accurate evaluation of councils' needs and performance as well as to permanent guidelines for better local government decisions.

Several advantages result from the application of MCDA model:

- The stakeholders are actively involved in the design of the model;
- It is determined how local governments are behaving in each criterion of CSI, allowing action and control over each criterion and dimension;
- It is obtained a councils' sustainability "overall score", the CSI allowing comparisons between them.

A constructive approach requiring the active participation of the decision maker is used, with the identification of the appropriate decision-maker. A decision-making-group (DMG) should be created composed of representatives from the complex network of stakeholders involved in local government. This group is dependent on the institutional framework of each country/region but DMG might include the ministry of local government, national audit body, national association of councils, citizens' associations, experts and academics, regulators, and other relevant Institutions.

Once the DMG has been identified, the assessment model is structured through iterative and consultative interaction between specialists and key stakeholders. The interactions usually consist of 'decision meetings conferences' (Phillips, 2007).

The DMG will determine what should be measured and which dimensions and criteria to use. The DMG will also select the indicators and approve the way it will be measured. The value functions transform performance in scores for each criterium (higher scores represent better outcomes).

The weighting coefficients are obtained through an iterative process with the DMG. There are several methods to calculate the weights (Pinto and Marques, 2016). It is possible to obtain these parameters through qualitative judgments elicited by the DMG. For instance, with the MACBETH approach, stakeholders are asked to state their preferences when comparing two criteria at a time. These steps are repeated for each of the dimensions of the CSI, allowing to compute the (intra) weights of the criteria in each dimension of Councils' sustainability. To obtain the overall CSI score, the (inter or global) weights of CSI must be calculated. To achieve this, the DMG will compare one criterion from each dimension in a new matrix of judgments. With this final set of judgments we are able to normalize all weights through linear transformations. The advantage of this step by step dimension procedure is that it is possible to assess the sustainability

practices not only against each criterion individually, but also on each dimension and in overall terms (Marques *et al.*, 2015).

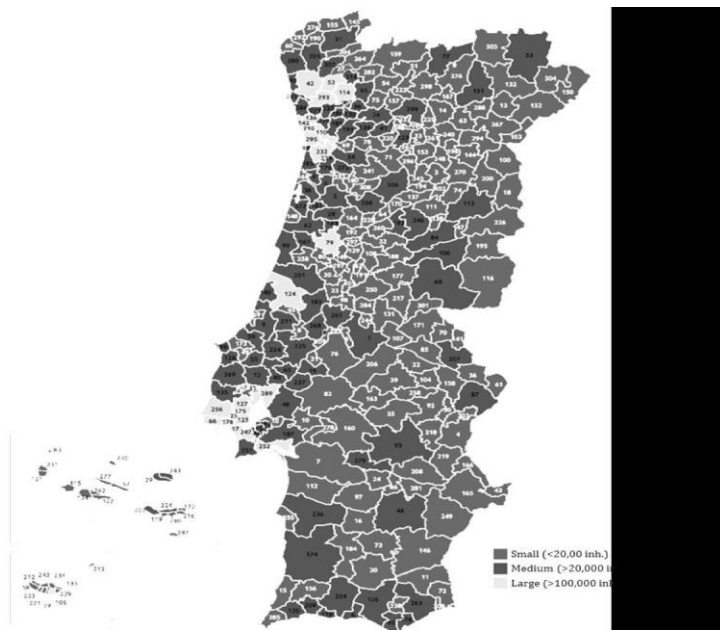
#### 4 Empirical evidence on portuguese local government evaluation

##### 4.1 Portuguese Local Government

According to the Portuguese Constitution, local administration is composed of administrative regions, councils and civil parishes. Administrative regions have not been established yet and the local authorities responsible for delivering local public services to residents are local councils. By contrast, parish competences are limited and linked to a councils' action in order to satisfy local population needs.

Figure 2 shows Portuguese Councils by dimension distinguishing small, medium and large councils. As we can see, the majority of Portuguese Councils are small and medium and we assume that size could be a decisive factor to the capacity of each one to achieve good and sustainable results (Documento Verde da Reforma da Administração Local, 2011a).

**Figure 2:** Portuguese councils' dimension



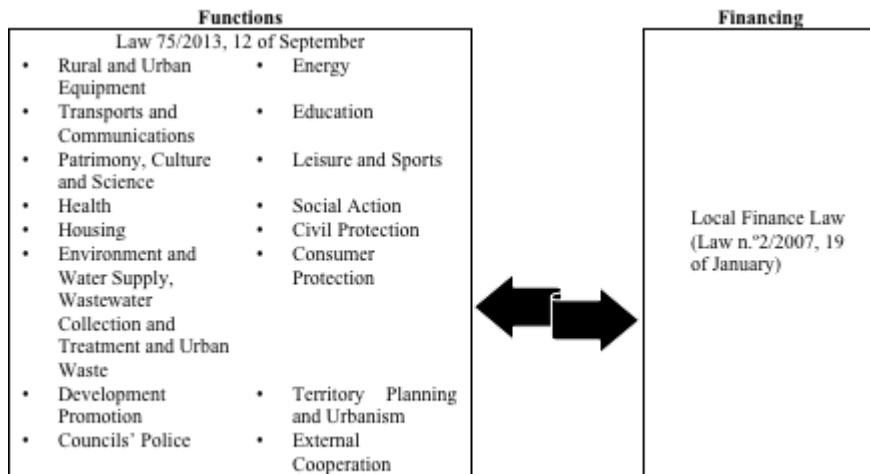
There are 308 councils in Portugal; 30 of these are in the Madeira and Azores autonomous regions and archipelagos. Local government autonomy is



constitutionally established as a principle, spelling out management responsibilities. Councils are allowed to cooperate with each other through most differentiated institutional arrangements and are free to choose governance structures (direct or indirect, public or private, mixed) for local public services production and provision.

Network services (drinking water, wastewater, urban waste and urban transportation) as well as some types of social infrastructure (sports, culture, leisure and basic school facilities) are council's responsibilities (Livro Branco do Sector Empresarial Local, 2011). Decentralization process is ongoing (civil protection and health Services), although central state transfers had not grown at the same rate as the council's expenses. Portuguese councils' expenditures represent about 15% of total public expenditures (below OECD countries average rate – nearly 23% (OECD Statistics, 2012). Figure 3 shows the councils responsibilities and competences (functions) with financing.

**Figure 3:** Councils responsibilities and competences (functions) with financing



The costs incurred with the delivery of local public services represent a significant share of the municipalities' cost structure. Although there has been a slow increase of the weight of Portuguese local governments in terms of public finances, the tendency is to intensify the transference of responsibilities. The problem is that the transference of competences has not been always followed by the transference of funds to local governments at the same rate (either by increasing the direct transfers from the central state or by increasing the fiscal capacity of the municipalities). Overall, the importance of the financial transfers to the revenue structure of municipalities is high (around 60% of the total municipal revenue in 2013).

Table 2 makes a comparison between Portugal and OECD countries in terms of revenues and expenditures, by level of government.

**Table 2:** Revenues and expenditures - Portugal and OECD by level of government

	Revenues		Expenditures	
	Central Government	Local Government	Central Government	Local Government
Portugal	67%	11%	60%	15%
OECD	58%	7%	46%	8%

Source: OECD Statistics, 2009-2012

Portuguese councils are responsible for almost 30% of global investments and nearly 15% of total public employment (Portuguese National Association of Councils, 2013). Portuguese councils are completely integrated in European funds investment frameworks, since 1986 and it is fully recognized their role in the country modernization.

It is relevant that the creditworthiness of politicians and local government managers is very low (it is a global problem; not only a Portuguese situation). Problems of bankruptcy, corruption and lack of transparency are widespread, contributing to low levels of public participation and, ultimately, to less quality of life (Cruz *et al.*, 2016).

Thus, it is very important that local government evaluation models exist to assess councils' performance and sustainability.

In Portugal, laws and regulations concerning local government evaluation are formally established. Economic and financial ratios are commonly used as "good-behavior" indicators. Rankings of councils in Portugal were also developed by recognized technical organizations and universities measuring efficiency of Portuguese councils in the use of financial resources and, on the other hand, evaluating quality of life in Portugal or local transparency (Cruz *et al.*, 2016).

To measure efficiency we need to compare the ranking results achieved with councils' service and investment performance, which is clearly a limitation of these studies and a further step of action. The quality of life ranking (University of

Beira Interior) provides us with a broader vision of Portuguese councils management, allows easy comparisons between councils' social and economic development and also geographic considerations (we have to take into account specially coastaline and metropolitan influences). Data availability for some other important and relevant indicators and weighting criteria options remain the major constraint of local government evaluation.

The above mentioned performance measurement and 'governance' indicators and rankings, regarding the 308 Portuguese councils, really means a step further in local government evaluation. However, these indicators, sometimes deemed global metrics, carry out an important, although partial, analysis and remain very limited when considering a needed overall measurement and benchmarking model that should evaluate Portuguese local government in a more comprehensive way, with a broader vision. The existence of a permanent and comprehensive evaluation of local government, based on a thorough analysis integrating financial and non-financial information, resulting from the new CSI, could optimize local government evaluation and, therefore, the creditworthiness of a Council's management.

In Portugal, the conceptualization of a CSI is indeed a major breakthrough and a needed strategic management instrument for policy making purposes and also communities' appraisal.

Local government evaluation accrues its importance, based on this new global CSI that comprises several dimensions and criteria of councils' management, because of the integration of these unavoidable financial and non-financial issues in a measurable manner.

#### **4.2 The Portuguese Councils' Sustainability Index**

A new approach, conceptualizing and implementing the CSI, is proposed to address the problems of strategic management, funding and sustainable development in the Portuguese local government.

To operationalize the concept of the CSI, we assume, at this research stage, an integration of financial sustainability issues (KPI's) with some specific sustainability dimensions.

The Portuguese CSI follows the basic equation presented in the last chapter. The selection of criteria and the way in which it scores and the weighting coefficients are obtained for each criterion was already explained, with the use of MCDA methodology and the following steps (figure 4).

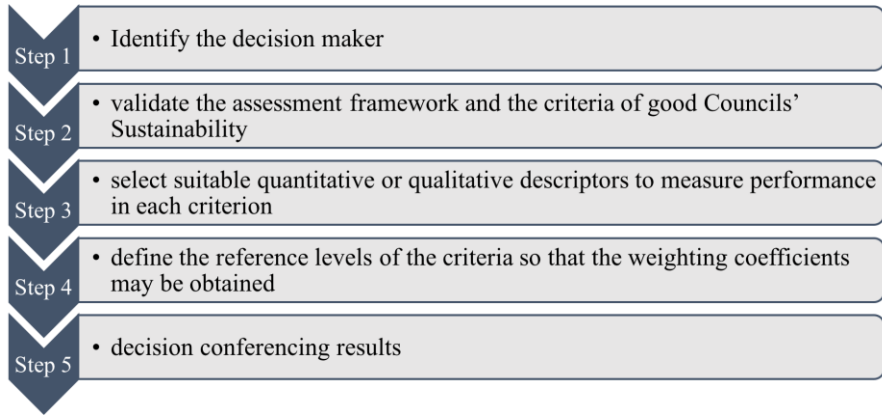
**Figure 4:** MCDA methodology steps

Table 3 presents a preliminary proposal for dimensions and criteria of the Portuguese CSI.

Performance and financial sustainability will be analyzed through 4 dimensions: Financial flexibility, liquidity, debt servicing and asset renewal and capital works. Holistic sustainability should be analyzed through the following governance and economic and social development dimensions: voice and accountability, political stability, government effectiveness and economic and social development.

We believe that these dimensions, with the respective criteria, should demonstrate, individually and on a global basis, the councils' performance and sustainability, contributing to an adequate local government evaluation (Andrews et al, 2010).

**Table 3:** Councils' key performance and sustainability ratios

STRATEGIC ISSUES	DIMENSIONS	CRITERIA	COUNCIL 1	COUNCIL 2	COUNCIL ...
Performance and Financial Sustainability (50%)	Financial Flexibility (25%)	Operating ratio			
		Own source operating revenue ratio			
	Liquidity (25%)	Cash expense			
		Unrestricted current ratio			
	Debt Servicing (25%)	Debt service cover			

	Asset Renewal and Capital works (25%)	Interest cover ratio			
		Infrastructure backlog			
		Asset maintenance			
		Asset renewal			
		Capital expenditure ratio			
Holistic Sustainability (50%)	Voice and Accountability (25%)	Civic engagement			
		Transparency			
	Political Stability (25%)	Political legitimacy			
		Continuity of policies			
	Government effectiveness (25%)	Quality of economic services			
		Credibility of policies			
	Economic and Social Development (25%)	Quality of social services			
		Educational infrastructures			
		Index of social development			
		Growth of entrepreneurship/ Business development			

Although other conceptual framework could be implemented, these dimensions of government are already known and used by practitioners and academics. In any case, the purpose is to provide a starting point to the discussions carried out by the DMG, using the MCDA methodology.

Portuguese councils' assessments by CSI should be validated by local governments, transparent and draw an open data. These might lead to controversy and rejection by local decision- makers. Presenting results using outcome ranges for each dimension of performance and sustainability and for the overall score could reduce these risks.

Notwithstanding, we believe that Portuguese local government evaluation, based on CSI, gained a new pathway, helping the decision makers and the community to create better conditions to the desired sustainable development.

## 5 Concluding remarks

While researchers discuss the strengths and weaknesses of different assessment frameworks at the local level, they are being implemented and providing valuable information that is used by policy makers and overall community. This paper discussed how to evaluate local government and which indicators to use and how could they be correctly weighted?

We reached the conclusion that the wide range of indicators and methods currently used for local government evaluation address just part of the problem of strategic management, financing and sustainable development issues.

A first assumption of this research is that evaluation models of local government that concentrate their analysis on performance measurement and financial/economic indicators are clearly limited to assess overall dynamics of local government. This paper presented the crucial role of councils' performance and financial sustainability assessment, however we reached the conclusion that is necessary to couple these important dimensions of local government evaluation, using quantitative and qualitative set of selected indicators, with governance and community sustainability issues. Economic and political attributes must also be considered (Kersting and Vetter, 2003).

Therefore, a new assumption is made. We must integrate, in local government evaluation, performance measurement and financial sustainability assessment with governance dimension, and even broader, community sustainability issues, each one of the strategic axis containing the appropriate indicators, duly characterized and weighted (Morais and Camanho, 2011).

This new Local Government evaluation model, the CSI, based on the MCDA methodology, which is proposed to be implemented in Portugal and maybe in other countries around the world, is very important to address the problem of strategic management, financing and sustainable development issues in local government.

Some limitations and elements to further investigation are stressed. This paper analyzed performance measurement, financial sustainability, governance and sustainable development issues, because these are essential and unavoidable issues assessing local government evaluation. Other development conditions and variables should be assessed in this significant matter. Specific cases and analysis applied, distinctly, in different countries, can also be relevant. Why are councils' performance measurement and financial sustainability and community sustainability issues integration crucial and do they really matter? Could dimensions and indicators be used without discrimination from the U.S.A. to Europe or Australia and even in different regions? Which specific indicators

should be used? How to weight adequately the selected indicators? Finally, benchmarking or other descriptive assessments can always be developed concerning this outstanding and relevant matter.

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