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Stakeholder Analysis of Municipal Solid Waste Companies- a First Step Towards Successful Corporate Social Responsibility

ABSTRACT

The rise of the world's population is causing a never-ending increase in Municipal Solid Waste (MSW) generation. This, along with the commitment to necessary protection for the environment, requires companies managing MSW to make effective decisions to maximise satisfaction among their stakeholders. This research aimed to identify the main stakeholders and the relevance of each one. Four focus groups discussions were set up for this identification, involving a total of 36 experts from different sector-related disciplines. In order to guarantee reliable results, rank-ordering of alternatives was applied obtaining a high Kendall coefficient of concordance equivalent to 0.83. Subsequently, these were applied to a pairwise comparison grid that gave a stakeholder's ranking: citizens, shareholders, workers, town council, special customers, NGOs, public administrations, media and suppliers. This information offers MSW management companies a perspective that helps to set priorities in their decision-making.

Key words: *municipal solid waste; stakeholders' identification; focus group; corporate social responsibility*

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INTRODUCTION

The continuous rise of the world's population and growth of consumption are currently causing a never-ending increase in municipal solid waste generation. The most worrying aspect of this situation is that global studies such as the one presented by the World Bank in 2012 (*Hoornweg & Bhada-Tata 2012*) underscore the problem, estimating that more than 6 billion tonnes of MSW will be produced each day in 2025 (**Table 1**).

This situation, along with necessary sustainability and environmental protection commitments, requires appropriate management of municipal solid waste (henceforth MSW) that has become a significant challenge for administrations all over the world (*Dastur 1992; Poulsen et al. 1995; Segerson and Miceli 1998; Ancog et al. 2012; Abba et al. 2013; Jayasinghe-Mudalige and Udugama 2014*). In fact, over the last few years, an effort has been made to reduce the volume of waste by means of classification, recycling and composting (*Marth et al 1997*). As a result, 46% of MSW generated in the EU-27 in 2008 was recycled (*Schör, H 2011*). This achievement is due to the increase in business volume and the strength of work performed in MSW-related industries. The situation in Europe is a good example, where the study carried out by Ecorys and IDEA in 2009 reveals that this industry's contribution to employment affects almost two million workers: 1,466,673 related to waste management and 512,337 to recycling (*Ecorys and IDEA 2009*).

It is clear that activities of waste generation and waste treatment produce a negative impact on society that can pollute water, soil and air; it contributes to climate change and affects ecosystems and consequently human health (*Asante–Duah & Sam 1995; Zurbrügg et al. 2012; Achillas et al. 2013*). Likewise the social, economic and environmental impact of these activities will be affected by the perceptions of differents stakeholder groups and its interaction with them and their environment (*Wilson 2007; Monteiro and Guzman 2010; Hassan and Ibrahim 2012; Zurbrügg et al. 2012; Allesch and Brunner 2014*).

However, when waste is managed appropriately, it can be turned into resources that help save raw materials, conserve natural resources and the climate, whilst respecting worker's health and safety and labour rights (*Chiueh and Yu 2016*). At the same time it contributes to economic growth and creates wealth when viewed in terms of cost-benefit analysis and sustainable development.

In this context, solid waste collection and treatment companies are tightly bound to society's ever-increasing corporate social responsibility requirements, recognising

Table 1. Waste Generation Projections for 2025 by Region (*Hoornweg and Bhada-Tata 2012*).

Regions	Current Available Data				Projections for 2025			
	Number of Countries Included	Urban Population (millions)	Municipal MSW Generation		Projected Population		Urban MSW Generation	
			Per Capita (kg capita^{-1} day^{-1})	Total (t day^{-1})	Total (millions)	Urban (millions)	Per Capita (kg capita^{-1} day^{-1})	Total (t day^{-1})
Africa	42	261	0.65	169,120	1,153	518	0.85	441,840
East Asia and Pacific	17	777	0.95	738,959	2,124	1.23	1.52	1,865,380
Europe and Central Asia	19	227	1.12	254,389	339	240	1.48	354,811
Latin America and Carribean	33	400	1.09	437,545	682	466	1.56	728,392
Middle East and North Africa	16	162	1.07	173,545	379	257	1.43	369,320
OECD	27	729	2.15	1,566,286	1,032	842	2.07	1,742,417
South Asia	7	426	0.45	192,411	1,939	734	0.77	567,545
TOTAL	161	2,982	1.19	3,532,255	7,648	4.287	1.42	6,089,705

that successful waste management strategies in developed countries depend on knowledge and participation from the affected stakeholders (*Karagiannidis et al. 2005; Pires et al. 2011; Alamgir et al. 2012; Guerrero et al. 2013*). Regarding to this, some studies show that management considering stakeholders has positive effects on the environment (*Dowie et al. 1998; Kulkarni 2000; Sharratt and Choong 2002; Buysse and Verbeke 2003; Argandoña 2004; Delmas and Toffel 2004*). There are positive effects reducing disposal costs, getting lower levels of pollution and obtaining additional valuable information than let to improve sustainability (*Heidrich et al. 2009*).

At the same time, stakeholders are increasingly demanding that their needs and expectations should be met. From this new outlook, targets are set and strategies are designed with the idea of improving long term profitability but companies are required to balance out satisfaction for as many stakeholders as they can identify (*Cochran 2007*), even beyond what is required by the legislation in force (*Porter 2002; Duhé 2009*). But stakeholder identification, classification and analysis are recognised as a complex process where different methodologies have been applied. This situation is justified by the varying technical, economic and social circumstances in each case's particular features, making it impossible to apply a standard method and leading to differences when identifying stakeholders that add value to the specific situation (*Donaldson and Preston1995; Mitchell et al. 1997; Berger et al. 1999; Berman et al. 1999; Hemmati 2002; Jensen 2002; Buysse and Verbeke 2003; Delmas and Toffel 2004; Clement 2005; Soltani et al. 2015*). However, taking into account that the decisions made within a company might please some stakeholders more than others, it was necessary to quantify the importance of the different stakeholders.

Thus, were raised three research questions. First, which are the main stakeholders in MSW companies in Andalucia? Second, which stakeholders are the most important? Third, how much more important is a stakeholder compared to the others?

Answering these three questions will doubtlessly increase any company's capability to satisfy the needs of its different stakeholders in a controlled way and in turn, it will improve chances of success for corporate social responsibility management (*Clarkson 1995; Freeman and Velamuri 2008; Hassan and Ibrahim 2012; Allesch and Brunner 2014; Soltani et al. 2015)*.

This situation led to this dual-aim research: firstly, identify the main stakeholders in the two largest MSW management companies in Andalusia (Spain); secondly, assess the relevance of each of the stakeholders identified.

Literature review about stakeholder analysis in MSW companies

According to *Rosso et al.* (*2014*), the theory of stakeholder analysis was born in the sixty decade. This theory emerged as a tool for improving and supporting management processes in different kinds of business. The enterprises needed an approach for understanding their process and systems through the identification and assessment of main actors involved.

Mitchell et al. (*1997*) recognise many definitions of the term of 'stakeholders', but declare that all these definitions share their roots from *Freeman* (*1984*) who

defined this term as: ''Any group or individual who can affect or is affected by the achievement of the firm's objective". This focus was later extended by incorporating the actions, decisions, policies, practices, or goals of the organization (*Carroll and Buchholtz 2000*).

Regarding to stakeholder analysis, the scientific literature offers many studies related to topic such as sustainable development (*Macnaghten and Jacobs,1997; Myllyla and Kuvaja 2005*), business management (*Freeman 1984; Jansson 2005*), global environmental change (*Kasemir et al. 2000; Kasperson 2006; Welp et al. 2006*) and waste management (*Greenberg et al. 2002; Mbuligwe 2004; Srivastava et al. 2005*).

However, as a starting point it is advisable to consider that among the multiple research projects related to identifying stakeholders, were found studies on different activities. On one hand, for general business activities a large consensus has been achieved for the following as stakeholders: employees, suppliers and contractors, government, creditors, insurers and shareholders, consumers, trade unions, local communities, competitors, media and NGOs (*Freeman 1984; Clarkson 1995; Donaldson and Preston 1995; Lynch 2000; Carroll and Buchholtz 2000; Waddock et al. 2002; Harrison 2003; Grayson and Hodges 2004; Delmas and Toffel 2004; Jansson 2005; Clement, 2005*).

On the other hand, for environmental or waste management industry multiple studies have identified the same or similar stakeholders (*Berry and Rondinelli 1998; Reinhardt, 1999; Sroufe et al. 2000; Dahlgaard and Dahlgaard 2002; Driscoll and Starik 2004; Sharratt and Choong 2002; Madu et al. 2002; Kautto and Melanen 2004; Banerjee et al. 2003; Buysse and Verbeke 2003; Argandoña 2004*).

Accordingly, *Heidrich et al.* (*2009*) determinates that the main base identification of stakeholders for waste management systems could be: employees, suppliers and contractors, government (International, National or Local authorities), competitors, creditors/shareholders/insurers, consumers, trade unions/associations/professional institutions, local communities, media and NGOs.

Nevertheless, it is recognised that uncertainty can exist regarding any business activity and its potential effect on or by stakeholders (*Mitchell et al. 1997; Hemmati 2002; Jensen 2002; Harrison 2003; Kasperson 2006*). Moreover, *Crane and Ruebottom* (*2011*) in the research "Stakeholder theory and social identity: Rethinking stakeholder identification" reveal that the actual identification of stakeholder groups has remained vague and superficial, limiting the theory's use (*Dunfee 2008; Dunham et al 2006; Orts and Strudler 2009*) and running the risk that ''stakeholder'' will become a meaningless term (*Freeman et al. 2010*). Despite more than two decades of refinement and integration of stakeholder thinking into multiple disciplines, stakeholders are predominantly defined solely by their generic economic function- to consume, invest, supply, and so on. Yet claims may come from a broad range of demographic, cultural, political, and societal affiliations that, for a variety of reasons, are not easily reconciled within the typical firm-generated economically oriented stakeholder role, such as investors, customers, employees, etc. Such categories ignore the social glue, the bonds of group cohesion, identity, and difference that typically form the basis for claim making in relation to the firm.

This situation requires particular efforts in order to identify and assess rightly the different stakeholders groups in each singular case. Then, the composition of these stakeholder groups varies according both the problem in question and its solution. (*Contreras et al. 2008*). Once the stakeholders have been identified, they have mainly been assessed and classified in basic terms following the "affect criterion" that defines whether stakeholders can be affected by or may affect a business activity (*Freeman 1984*).

Particularly, Municipal Solid Waste Management is a complex process including waste collection routes, transfer station locations, treatment strategy, treatment plant location, and energy recovery (*Dewi et al. 2010*). This complexity is linked to the stakeholders analysis and in the literature review were found multiple study cases where the most common methods for stakeholders analysis suggested were applied using interviews, surveys or focus groups were applied (*Reed et al. 2009*). Most of these studies take as basis a preliminary list which is completed adding or grouping stakeholders through the participation of experts or/and stakeholders themselves (*Hemmati 2002; Alameddine et al. 2011*). Predominantly interviews and surveys were used (*Haastrup et al. 1998; Hung et al. 2007; Khan and Faisal 2008; Heidrich et al. 2009; Scott et al. 2013; Sovacool,2010; Suskevics et al. 2013; Caniato et al. 2014; Sukholthaman et al. 2017*), but also methodologies based on Delphi or focus group (*Hess and King 2002; Oliver 2002; Buenrostro Delgado et al. 2008; Contreras et al. 2008; Garfi et al. 2009; Tseng 2009; Geneletti 2010; Rosso et al. 2014; Hatzichristosand Giaoutzi 2006*). The results about identification and assessment of stakeholder groups in the studies cited above were summarized (**Table 2**).

Table 2. Identification and assessment of stakeholder groups in different studies.

Papers (authors, year) **Country** **Topic**	**Stakeholders Groups Identified/Consulted**	**Methodology** **Assessments** **Results**
Haastrup et al. 1998 Sicily (Italy) Urban waste Management	1. Ministry of Environment 2. Regional Government 3. Local Governmnet 5. Agricultural associations 6. Munic. Serv. Contr. 7. NGOs 8. Tourism associations 10. Lobby	Interview Quantitative Model NAIADE
Hung et al. 2007 Taiwan Municipal solid waste management	1. Government 2. Experts 3. NGOs 4. Business	Intervew Qualitative Table
Khan and Faisal 2008 India Municipal solid waste disposal options	1. Officials of the municipality 2. Councilors 3. Members of the local assembly 4. NGOs 5. Experts/academics	Experts - -
Contreras et al. 2008 Boston Municipal solid waste management plans	1. Government agency 2. NGOs 3. Residents	Experts Quantitative Table
Garfi et al. 2009 Sahara Waste management in Saharaw i refugee camps	1. Seven women, one for each diara 2. Two Saharw i politicians 3. Seven workers in waste management 4. One project coordinator 5. Four experts	Experts - -
Heidrich et al. 2009 United Kingdom Industrial waste management systems	1. Employees 2. Suppliers and contractors 3. Government (International, national or local authorities) 4. Competitors 5. Creditors/shareholders/insurers 6. Consumers 7. Trade unios/associations/professionals institutions 8. Local communities 9. Media 10. NGOs	Interviews Quantitative Table
Geneletti 2010 Italy Select and rank inert ladfill sites	1. Government 2. Landfill management companies 3. Landfill users 4. Environmental experts 5. Environmental associations 6. Municipal administration	Experts - -
Sovacol 2010 Singapore Trans-ASEAN Pipeline Network	1. Government 2. Energy companies 3. Development bank 4. Regional institution	Interviews Qualitative Table (convergencia/ divergencia)
Scott et al. 2013 United Kingdom Bioenergy industry	1. Financial groups and project partners/investors 2,Environmental groups 3. Developers/operators 4. National government and policymakers 5. Local government 6. Community/public	Interviews Quantitative Table

Table 2. Identification and assessment of stakeholder groups in different studies (cont.).

Papers (authors, year) Country Topic	Stakeholders Groups Identified/Consulted	Methodology Assessments Results
Suskevics et al. 2013 Estonia National ecological network governance	1. Governmental 2. Public: scientists (ecologists), universities, research centers/NGOs 3. Private: private forest owners/hunters/farmers/nature tourism/energy companies/etc.	Interviewss Quantitative Table
Canaito et al. 2014 Bangkok Infecious Waste Management	1. Governmental authority 2. Private enterprise 3. Academia 4. Civil societ 5. Other	Interviees Quantitative Matrix (power/interest)
Rosso et al. 2014 Italy Hydropower projects	1. Mountain municipalities 2. Redmont region 3. Natural park 4. Environmental authority 5. Province of Vercelli 6. Sesia energy 7. Valsesia mountain community 8. Mount Rosa Valleys Association 9. Tourist operators 10. Environmental associations 11. Skiing facilities companies 12. Integrated water services company 13. Water sport associations 14. Fishing associations 15-42 Municipalities of the area	Expert Qualitative Matrix (power/interest)
Sukholtharman et al. 2017 Bangkok Waste management system	1. Waste generators 2. Scavenger/waste pickers 3. Waste collections/transportation staff 4. Environmentalists/BMA officers 5, Academics scholars 6. NGOs	Interviews Qualitative Matrix (TOWS)

MATERIAL AND METHODS

The research project was developed on analysing circumstances associated with the two largest MSW management companies in Andalusia (Spain). The main MSW-related data for Spain and Andalusia was presented in order to describe the scope in this research project (**Table 3**).

The analysis to identify and assess the importance of the main stakeholders in MSW management companies in Andalusia was based on focus groups (*Krueger 2009*). To do this, four focus groups discussion were set up and, in order to avoid a possible perspective bias for participants in these focus groups (*Krueger 2009*), each group was uniformly made up of 9 experts with different profiles who had knowledge of the sector in question:

- Worker representatives
- Executives/Managers for MSW management companies
- MSW management company suppliers
- Representatives from Associations
- Representatives from companies working with MSW management companies
- Representatives from companies from the MSW management sector
- Experts in corporate social responsibility
- Representatives from Neighbourhood Associations
- Representatives from Public Administration (town council)

Firstly, the four focus groups worked independently in order to reach a consensus concerning preliminary identification of the main stakeholders for the companies involved in the research. To do this, each group were given

Table 3. MSW collected in Spain and Andalusia in 2011 (*INE 2013*).

	SPAIN	ANDALUCIA	
Area (Km^2)	505,968	87,597	17,31%
Population	47,265,321	8,449,985	17,88%
MSW per capita (Kg)	493	541	+ 9,74%
MSW collected (Tn x 1000):			
TOTAL	23,282	4,572.7	19,64%
Glass	733.7	74.8	10,19%
Paper	1,266.4	118.2	9,33%
Plastic	654	136.1	20,81%

Table 4. Main stakeholders for general business activity (*Heidrich et al 2009*).

Nº	Stakeholder
1	Employees
2	Trade unions
3	Suppliers and contractors
4	Government
5	Insurers and shareholders
6	Consumers
7	Local communities
8	Media
9	NGOs
10	Competitors
11	Creditors

a list of the main stakeholders identified in the scientific literature (*Heidrich et al. 2009; Beizavi y Soleimanpour 2009*) (**Table 4**) and the groups were asked to add and/or remove stakeholders if necessary. Later, the preliminary identifications from each focus group were pooled and reanalysed in each focus group until an overall consensus was reached on identifying the main stakeholders for MSW management companies participating in the research.

Secondly, to put each of the previously identified stakeholders for MSW management companies in order of importance, these same focus groups applied the methodology based on Rank-Ordering of Alternatives (henceforth RANK), a technique to order elements based on their relative degree of importance. According to *Carmona et al.* (*2001*), Rank-Ordering of Alternatives allows a group of "m" experts to order a set of "n" alternatives for a previously defined proposal, controlling the level of agreement between the individual contributions. In other words, the expert "i" individually orders the alternatives (awarding the value "n" to the alternative that contributes the most to the proposal, and a "1" to whichever contributes the least), so that alternative "j" will have a value of fij. All the experts' contributionsare transferred to a matrix to add information and then, in order to ensure the reliability of the consensus on this ordering, it is verified at both group and overall level that the Kendall coefficient of concordance is higher than or equal to 0.6 (*Siegel and Castellan 1998*).

Thirdly, to assess each stakeholder's importance compared to the others within the previous ordering, the methodology was applied based on the Pairwise Comparison Matrix (henceforth PCM) obtaining a ranking showing the relative importance of each stakeholder (González and Onieva, 2008). To do this, each focus group analysed the previous ordering by comparing each of the consecutive stakeholders within this ordering 2 by 2, starting with the least important. The relative importance was assessed using the following values:

0= equally important
1= A little more important
2= Reasonably more important
3= Much more important

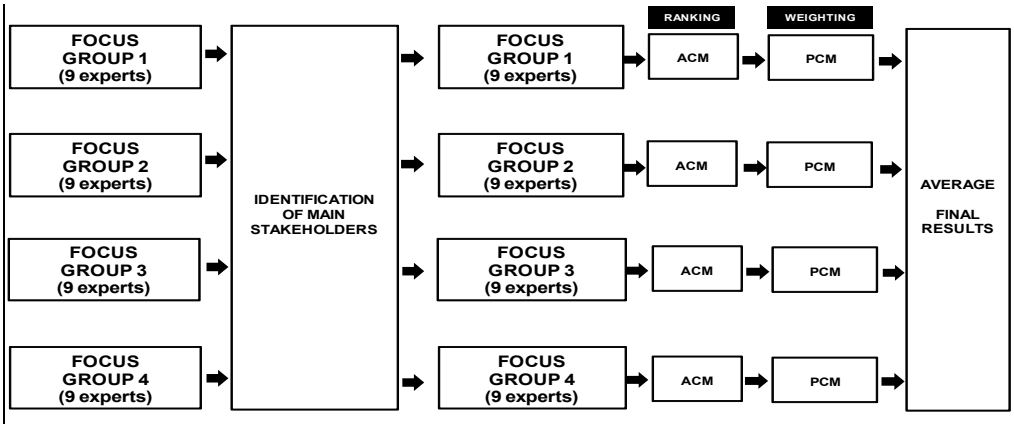

Figure 1. Process followed to identify and score the main stakeholders.

In each focus group, this score for each stakeholder in the pairwise comparison matrix offers the weight of each stakeholder based on their relative importance as a percentage (**Figure 1**).

RESULTS AND DISCUSSION

The results of stakeholder analysis in this research reveal a total of nine stakeholders groups identified (**Table 5**). Comparing this results with studies described in the literature review (**Table 2**) is probed that the number and type of stakeholder groups identified are different depending on technical, economic and social circumstances in each case's particular features (*Soltani et al. 2015*). As example, it is noticeable that were found cases where stakeholder analysis consider only 3 stakeholders groups (*Contreras et al. 2008*) and other cases with 42 stakeholders groups (*Rosso et al. 2014*).

Most of studies related to stakeholder analysis begin with a preliminary list based on literature review and after this list is adapted bearing in mind that the importance of consider more or less stakeholders is justified in the fact of add value to a specific situation (*Hemmati 2002; Clement 2005; Alameddine et al. 2011*).

In our study case, as anticipated in the work addressed by *Heidrich et al.* (*2009*), there are no major differences when compared with stakeholders in other business activities (**Table 5**). However, some discrepancies are showed. For example, there is an absence of competitors and creditors as stakeholders in the type of companies analysed, which is surprising since these two groups would arouse significant interest in any other business field (*Freeman 1984; Hill and Jones 1992; Donalson and Preston 1995; Freeman 2010*). This situation could be justified by the fact that many of the MSW management companies in Spain are public or depend on local authorities and therefore they do not have real competition and do not depend on external loans. However, in other circumstances other specific stakeholders could be presented such as entrepreneurs, industry or environmental organizations identified in other studies (*Soltani et al. 2015*).

These results draw attention to how in some cases were identify some groups together, such as "employees" and "trade unions" that do have common interests but the force that each might exert independently could be very different (*Ackers and Payne 1998; Heidrich et al. 2009*). And in other cases it divides groups into smaller units, such as the case of "consumers" where two independent groups are identified: one centred on "citizens-neighbourhood communities", highly present in the analysis of public services (*Bingham et al. 2005*) and the other focussed on "customers with special needs" (*Dahlgaard and Dahlgaard 2002*). This perspective makes sense when considering that members of the "citizens-neighbourhood communities" group have common needs and their greatest interest lies in the high volume of individuals affected, whereas for the "customers with special needs" group, despite having different needs with regard to the quantity of waste generated or the singular properties of the actual waste generated, their major interest lies in

Table 5. Comparison between the main stakeholders in business activities in general and the main stakeholders identified in MSW companies in Andalusia (Spain).

Main stakeholders for general business activity *(Heidrich et al. 2009)*		**Main stakeholders in RSU companies in Andalucía (Spain)**	
Nº	**Stakeholder**	**Stakeholder**	**Nº**
1	Employees	Employees and trade unions	1
2	Trade unions		2
3	Suppliers and contractors	Suppliers and contractors	3
4	Government	Government	4
5	Insurers and shareholders	Shareholders	5
6	Consumers	Customers with special needs (due to quantity, type of waste, legal requirements.) Citizens and resident's associations	6
7	Local communities	City halls	7
8	Media	Media	8
9	NGOs	Associations (Businesses, NGOs,)	9
10	Competitors		
11	Creditors		

being able to cover their own special needs appropriately.

When ordering identified stakeholders according to their importance, the Rank-Ordering of Alternatives methodology offers us the results for each of the focus groups participating in the research (**Table 6**). These results order the importance of each stakeholder where one indicates the least important and nine the most. In addition, the results for the Kendall coefficient of concordance calculated on the scores for the nine participants in each focus group, checking the reliability of the consensus among participants in all cases (*Field 2005*) (**Table 4**).

In turn, applying the Rank-Ordering of Alternatives on the previous results gives the final ordering result according to each stakeholder's importance. A high degree of consensus is seen between the results offered by the different focus groups as this obtains a Kendall coefficient of concordance equivalent to 0.83 (**Table 7**).

Table 6. Order of stakeholders according to their importance in focus group.

Stakeholders	FG1	FG2	FG3	FG4
Associations (business, NGOs, etc.)	4	4	6	6
Citizens	9	9	9	7
City halls	8	7	8	8
Companies with special needs (business, schools, hospitals, airports, etc.)	2	5	3	4
Media	3	2	2	3
Public administration	5	3	1	1
Shareholders/owners	6	6	7	5
Suppliers	1	1	4	2
Workers and Unions	7	8	5	9
Kendall's concordance coefficient	0.69	0.64	0.72	0.60

Table 7. Final stakeholders ranking.

Final Stakeholders Ranking	
Citizens	9
City halls	8
Workers and unions	7
Shareholders/owners	6
Associations (business, NGOs, etc.)	5
Companies with special needs (business, schools, hospitals, airports, etc.)	4
Media	3
Public administration	2
Suppliers	1
Kendall's concordance coefficient	0.83

Most scientific literature make stakeholders assessment in qualitative terms (*Hung et al. 2007; Khan and Faisal 2008; Garfì et al. 2009; Sovacool 2010; Caniato et al. 2014; Rosso et al. 2014; Sukholthaman et al., 2017*) and other studies make quantitave assessments considering differents stakeholders groups in municipal solid waste companies (*Haastrup et al. 1998; Ancog et al. 2012; Scott et al. 2013; Soltani et al. 2015*). Unfortunately, there is no data available to strictly compare these results like a ranking with other studies. However, we do find some similarities with results obtained in the study carried out by *Heidrich et al.* (*2009*), which confirms the importance of employees, local authority (city hall), customers and local communities above all stakeholders. On the other hand, were found other studies (*Soltani et al. 2015*) that reveal the importance of "experts" as new stakeholders identified for decision-making in the context of Municipal Solid Waste Management.

From these results, it should be highlighted that among the different focus groups, the highest level of consensus was reached for the two most important stakeholders: citizens and town councils. This high consensus could be explained by considering that citizens correspond, on the whole, to the "best customer" for this type of company (*Dahlgaard and Dahlgaard 2002*) and, on the other hand, due to the fact that most of the companies in the study provide a public service, the town council is "the boss" at the end of the day (*Jansson 2005*).

Regarding the importance score relating to each of the stakeholders within the previous rankings, each focus group applied the methodology based on the Pairwise Comparison Matrix obtaining the results (**Table 8**). This kind of information is considered very important in many studies (*Neville and Menguc 2006*) in order to improve the overall management in any business. However, it becomes clear that the greater or lesser importance of each stakeholder may be different depending on business activity (*Henriques and Sadorsky 1999*) or simply depending on region (*Ancog 2012*).

In this case the average value of the scores from all the focus groups gives us the overall relative importance weighting for each of the stakeholders considered in this research (**Figure 2**). From this final result, it should be highlighted that over 60% of the relative importance of the stakeholders is concentrated in four groups: citizens, town councils, workers/trade unions and shareholders/owners.

Table 8. Scoring the relative importance of stakeholders in each focus group.

Stakeholders	FG1 (%)	FG2 (%)	FG3 (%)	FG4 (%)
Citizens	18.27	19.23	17.36	14.99
City halls	16.34	14.10	14.88	17.50
Shareholders/owners	14.43	11.54	11.57	17.50
Workers and Unions	13.47	16.66	14.88	10.00
Associations (business, NGOs, etc.)	10.58	10.26	12.40	12.50
Companies with special needs (business, schools, hospitals, airports, etc.)	5.67	10.26	9.09	10.00
Media	8.65	6.41	5.79	7.50
Public administration	11.54	8.98	2.48	2.50
Suppliers	0.96	2.56	11.57	7.50
TOTAL	100%	100%	100%	100%

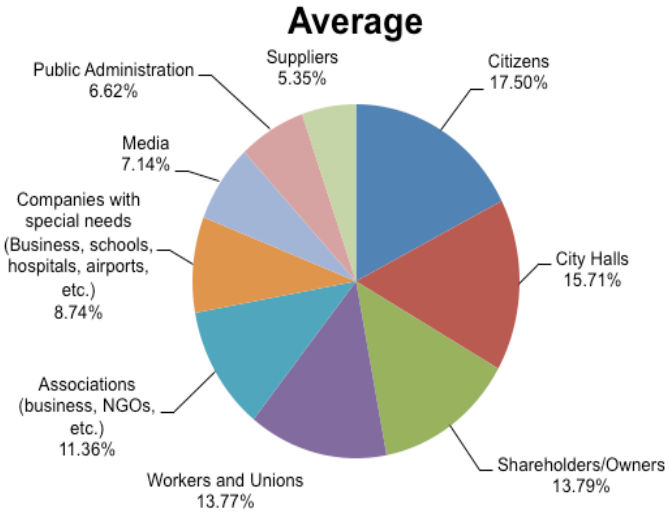

Figure 2. Average scoring for the relative importance of stakeholders.

In relation to the results obtained, it has been demonstrated that the circumstances and particular features of this sector in question condition the identification and score of their stakeholders and therefore it should be recommended to run an individualised analysis in each case (*Donaldson and Preston 1995; Mitchell et al. 1997; Berman et al. 1999; Delmas and Toffel 2004; Hemmati 2002; Jensen 2002; Buysse and Verbeke 2003; Clement 2005; Ancog et al. 2012; Soltani et al. 2015*).

In any event, there can be no doubt that in the current business circumstances, a better understanding of stakeholders by identifying and scoring them constitutes an important step towards achieving success in managing corporate social responsibility that nowadays has become an opportunity for change with very positive results (*Berger et al. 1999; Nakamura et al. 2001; Grayson and Hodges 2004; Cucek et al. 2012; Hassan and Ibrahim 2012; Guerrero et al. 2013*).

CONCLUSIONS

Stakeholder identification has been studied in depth for several decades and has achieved such a high level of consensus that it can be applied to any field of business. This consensus has also been demonstrated in this research but the specific features of each case in question, where the technical, economic and social questions can be different, require more in-depth study to understand the nuances that can make a difference in how these stakeholders are perceived.

Beyond mere identification, the quantification of the different stakeholders' importance provides a new point of view that can help to establish decision-making priorities for companies involved in MSW management. Although to come full circle there are still unanswered questions relating to the decisions to be made: What are the decisions? Who do they affect? How do they affect them? How much do they affect them?.

This first step therefore becomes the basis needed to quantify the different stakeholders' influence in companies in the sector in question, as the decisions made might satisfy some groups over others. And this skill is essential when implanting a system that can obtain success in corporate social responsibility management that is so necessary in general and in particular in these types of companies.

The next step would be to identify, analyse and assess factors that can predict the influence of different variables related to activities developed by MSW companies in the main identified stakeholders.

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