

# **Social Performance in Public Services Delivery: Conceptual Roots & Results for the Portuguese Water Sector.**

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**Abstract:** The 80's economic downturn was the starting point for the introduction of New Public Management ideas for public services delivery worldwide. Those ideas, among others, focused on the better use of scarce resources while increasing the quality of services and still providing lower prices to the users. Those political and managerial aims would be possible through the introduction of tolls in public sector organizations that are already used in private firms (the managerial reform) and the entrance of private firms (through privatization) in the delivery of public services. Studies about public versus private and their relationship with performance were carried out; however, there is a lack of studies regarding the relationship between the sector providing the service and social performance, which became a crucial dimension in public services delivery. For that reason by using survey data from the Portuguese Water Sector Regulator, the following study explores the relationship between social performance and the sector providing water service. The empirical analysis demonstrates that public property, the management model (in this case bureaucracy and municipal corporations) and lower organizational costs for public property and public management models do present higher social performance (lower user prices and higher quality water levels, with exceptions) levels than private firms. Such results contradict again the New Public Management ideas; primarily that private sector participation presents higher (social) performance levels than public organizations. Policy implementations in Portugal are clear: cease private firms' entrance in public services delivery until lower organizational costs, higher quality services and lower user prices are secured. Also raises discussions about neo-bureaucracies as the ideal management model for public services provision.

**Key-words:** Social Performance, New Public Management, Multidimensional Performance Models, Predictors, Portuguese water industry results.

## **Introduction**

*To what extent does a sector providing a given service shape social performance?* This research question became a starting point of the study due to the economical changing conditions worldwide and the theoretical influences behind it. First, by *social performance we consider the quality and prices in the public services delivery*. About the economic conditions, the study showed a downturn in public sector organizations (PSO's) budgets due to the fiscal crises that begun in 2008 (Pollitt, 2012). With lower incomes, PSO's were pressured to deliver public services without spending more money

and at the same time the quality of the service should be improved without increasing tariffs for users (Ferro, Romero and Covelli, 2011).

Such political demands, pressured public managers to raise the performance of their organizations, since the common belief is that they need to run their business like private organizations do (Pollitt and Bouckaert, 2004). Private organizations main goal is to guarantee clients' satisfaction, which in turn will lead to raising profits (Drucker, 1964). Those returns will be possible due to the common belief that cost reductions are always possible (Cubbin, 2005) and that will allow for lower users prices while still guarantying the quality of the service.

Based on private organizations ideas, New Public Management (NPM) supporters' advocated private sector participation (PSP) and the reduction of public sector scope in the delivery of public services (Shaoul, Stafford and Stapleton, 2012). Thus NPM reforms focus on an institutional reform – making use of privatization both in the selling of public assets and through the establishment of concession contracts with private organizations (Hodge, 2000) – complemented with the managerial reform inside PSO's through the introduction of tools and models already tested in the private counterparts with the main aim of increasing public services performance (Pollitt, 1990). Performance became for these reasons “an obsession with governments around the world” (Forbes, Hill and Lynn Jr., 2006: 254) and can be defined in the public sphere “as the character and consequences of service provision by public agencies” (*idem*: 255).

Since then some studies were carried out and conclusions about the relationship between the sector providing the services – PSO's versus PSP – and performance are varied. One idea comes to mind that even if some studies have been publicized, there still exists a lack of empirical studies regarding the performance of PSO's (Boyne et. al., 2006). Furthermore major attention has been given in these studies to a comparison between PSO's and PSP regarding the economic dimension which includes the dimensions of efficiency, economies of scope and scale, among others (Ferro, Romero and Covelli, 2011). These dimensions are really important in public services delivery but “society is not interested in the shape of a cost function, but in the cost and quality of the products produced” (Pollitt and Steer, 2012: 22). Due to this concern, social issues in public services delivery are becoming even more important nowadays (Stern, 2012).

With this concern, after the approval of the new law in Portugal for the water industry which demands for an internalization of all organizational costs in tariffs, it is expected that user prices and the quality of the good and service might have changed since Silvestre (2012) research. Due to that and once again the water sector was selected due to its importance (*cf.* Pollitt, 2012), namely because it is an essential life good. Besides with a cross-sectional design and again making use of survey data for 2012 from the Portuguese Water Sector Regulator, it will allow us to understand if social performance has changed. The study also aims to statistically assess the results of PSO and PSP in public services delivery, as well as to contribute to the theoretical arguments that support recent public sector reform.

This paper is organized as follows: firstly, the literature concerning the description of the concept and historical roots under NPM regarding social performance concerns is

covered; then, the theoretical influences for social performance and social performance predictors and hypothesis is discussed. After that, details of research design and variables are discussed. Lastly, the research results and conclusions are presented.

### **Social Performance: historical roots under New Public Management**

As mentioned before, the NPM movement advocated an unprecedented structural and managerial change in the ways public services should be performed (Suleiman, 2003). With an echo heard around the world, the main idea can be summarized by Reagan's statement: "government is not a solution to our problem; government is the problem" (Birkland, 2011: 54). The market should then be privileged against governmental action, because markets make a better use of the scarce resources. Making use of scarce resources, lower users' prices and higher quality levels should be accomplished by a well-defined mechanism of competition among those organizations.

Decades later, and apparently, the conviction about running the state like some other business seems to reach and end in Hill & Hupe (2009) opinions. Nevertheless that same idea of what is *small is beautiful* (Peters & Waterman, 1982) and less expensive, is still popular (Birkland, 2011). And if added the need and conviction that PSO's budgets are getting smaller, PSP in public services delivery is still a political and managerial option. Among that option, concession contracts with private bodies remains a suitable choice because better outcomes to citizens are a priority (Shaoul, Stafford and Stapleton, 2012).

The historical roots of those ideas are found in Hood's classical 1991 analysis to the British public sector reform. He identified the use of *explicit standards and measures of performance* (Hood, 1991: 4) as a major concern. By that time, organizational performance was assumed to integrate the dimensions of economy, efficiency and effectiveness, the '3Es' model (Andrews, Boyne and Walker, 2006; Smith, 2006). However, a fourth 'E' is expected to be included as a dimension of performance: equity. Such element is central due to the social performance that PSO's are expected to fulfill, especially for those who cannot make the consumption of essential goods and services (Pollitt, 2012). The introduction of a fourth 'E' in public services delivery assessment has its roots in the quality & cultural management and performance movements which led to Multidimensional performance models (Talbot, 2011: 32).

### **The Multidimensional Performance Models and Social Performance**

The multidimensional performance models as it is known today, began in the mid-1990s after the organizational performance studies that draw heavily on the quantitative and planning techniques; and the excellence, quality and cultural movements that privileged the cultural variable in performance studies (Talbot, 2011). They are multidimensional because they applied for several dimensions of performance and they were used to improve public services delivery. In that sense, and according to Pollitt (2012), the NPM ideas support the introduction of private sector techniques in PSO's in order to improve their performance. In addition two adopted models were deeply considered in public sector performance evolution: Total Quality Management (TQM) and Balanced Scorecard (BSC) (Talbot, 2011).

TQM stands as a management philosophy (Bendell, Boulter and Kelly, 1994) that sets principles and believes to characterize it. TQM believes that 1) people are the most valuable resources in all organizations; and 2) through their daily contact with customers, these people are in a better position to improve organizational processes because they know what users needs are; thus 3) organizational processes should continuously be improved; and such 4) improvement should be accomplished through value change which in turn will lead to correct behaviours adoption; besides 5) there should be prevention as opposed to error detection; and 6) it should involve each organization element (Koehler and Pankowski, 1996). As it shows, TQM focuses on the whole productive process so there are no rejections, especially in terms of goods and services affecting consumers.

These guidelines influenced the European Foundation of Quality Management model (EFQM) that began in the 80's under the leadership of 14 private organizations (Silvestre, 2010). EFQM should then be applied to their counterparts in Europe. The main difference for TQM is that EFQM focuses on one crucial dimension: the *impact on society* – which is influenced by the European social, economic and political norms (Talbot, 2011). This understanding gave emphasis not only for the value-for-money, but to public value, where the economic dimension is important but the impact on society is even more crucial to improve services for citizens.

After the TQM and EFQM, BSC was adopted to improve public services delivery. The balanced scorecard was introduced by Kaplan & Norton in 1992 with the article *The Balanced Scorecard: Measures that Drive Performance*. The authors' main goal was to describe a management tool able to link communication and strategic implementation (Kaplan, 2010). They considered four dimensions that private organizations should count for in order to achieve a successful market strategy: financial; internal business process; learn and grow; and customers (Kaplan and Norton, 1992).

According to Kaplan & Norton (1992) the financial dimension regards the organization health, thus accurate performance indicators must be considered in order to understand any need that can be related with customers and internal business processes. Financial indicators must be considered attached with customer satisfaction and loyalty because organizational revenues are dependent on the firms selling. Customers are also important because they usually focus on utility and price and the way the product and/or service are presented to them. This means that firms must be aware of clients' feedback in order to continuously learn and grow in the ways they should perform. Finally, the internal business processes must be developed since efficiency is a primary goal in a competitive environment. Those firms that make better use of scarce resources will then be more competitive in their sells, because they know that their customers will choose regarding the price and utility. Nevertheless, a major criticism is formulated by Rondeel (2013), who still sees the costumer focus as only a small part of the total weight in the performance measurement. In 2010 however, Kaplan argues that since PSO's main aim is not to achieve financial successes, a substitute element must be considered: *social impact*. In that sense non-financial measures must be considered when BSC is to be applied to public services delivery. Another change is demanded: customers must be replaced by *citizens and beneficiaries* because they have rights and obligations, which arises with the taxes they pay.

Even though slightly different, these models made a contribution to the social performance studies in what is related with public services delivery. However there are some predictors that will theoretically make a difference in those results, namely: property, the adopted management model and organizational costs.

### **Social performance predictors and working hypotheses**

Theoretically, NPM advocates argue that the performance of public organizations is poorer than that of private ones (Pollitt, 1990). For example, Cubbin (2005) concludes high cost savings after the privatization in the England and Wales water industry. Furthermore, the quality of the good – water – and services levels were also improved since 1990. Ofwat (2005) also makes a comparison between England & Wales with Scotland, Australia, the Netherlands, the USA and a six cities group organization and concludes that PSP in the water service delivery present the same levels of quality service and charged rates. These results are aligned with the political arguments for PSP in public services delivery, that lower uses prices and higher quality levels will be achieved (decree-law n. 194 of 2009). Hence, it can be claimed:

*H<sub>1</sub>*: Private sector participation has a prevailing relationship with lower user prices.

*H<sub>2</sub>*: Private sector participation has a prevailing relationship with higher quality levels in public service delivery.

PSO's are different from the private ones in several ways, but one is particularly important: the laws under each one is operating. In this sense Talbot (2011: 129) argues that public organizations are known as such “not because they are publicly owned, obviously, but because they are created under public law.” To overcome such conditions, politicians decided to create municipal corporations in order to improve PSO's performance.

In Portugal this institutional arrangement was possible due to the political conviction that if they were managed in accordance with private law, not public, they would be able to more easily decide about the resources necessary to improve their performance (Tavares and Camões, 2007). According to Tavares and Camões (2007), quicker decisions will then lead to a better organizational management. Besides, these arrangements are described as single-purpose bodies which are financially, legally and in terms of assets independent from local structure. They are also dependent of users' fees and not the budget transfers from local government, thus their managerial responsibility is much higher. This is to say that municipal corporations have to balance their revenues (which are based on users' fees) with their organizational costs rather than being continuously subsidized by local governments. In a sum, municipal corporations emerged as a way of enhancing financial and economic performance, the assumption being that public sector organizations can be as efficient and productive as private firms (Leland and Smirnova, 2009) and the Romano and Guerrini (2011) survey results proves it.

If public organizations under a private and commercial legal framework are economically and financially viable, they can focus also on social performance. With a greater emphasis on social goals, municipal corporations are able to improve the quality

of their goods and services while maintaining low prices. This suggests the following hypotheses:

*H<sub>3</sub>*: Municipal corporations have a prevailing relationship with lower user prices.

*H<sub>4</sub>*: Municipal corporations have a prevailing relationship with higher quality levels in public service delivery.

Lastly, it should be noted that NPM ideas have pressured public managers to raise the performance of their organizations (Pollitt and Bouckaert, 2004). Therefore, performance measurement became an essential part for PSO's and the focus should be placed on activities rather than functions (Talbot, 2011). The activity-based costing became an essential part in such assessment and it is expected that organizational costs should be improved either for PSO's or under PSP in public services delivery.

In the water industry it is a common practice to establish a connection between local politicians and private or public organizations to user's prices and the quality of the service/good. For private firms, the only possible way to increase profits is through productive efficiency. If final user prices are defined in the concession contract agreement, there is no alternative to raise revenue except through the improvement of organizational costs. However, the return on the investment cannot be attained due to low water quality services (Tati, 2005). For public bodies the main argument is still the same, especially for municipal corporations. Since these are independent bodies, they must be able to survive through the correct balance between revenue and costs like private firms, which are exclusively dependent on users' fees (Tavares and Camões, 2010). Nevertheless, the quality of the good or service has to be maintained. And since this is dealing with an industry where fixed costs and investments are high (Wallsten and Kosec, 2008), the following hypotheses are suggested:

*H<sub>5</sub>*: Organizational Costs have a prevailing relationship with user prices.

*H<sub>6</sub>*: Organizational Costs have a prevailing relationship with the quality levels in public service delivery.

So far the study has described the introduction of performance measurement for public services improvement under NPM beliefs. In the beginning of the public sector institutional and organizational reforms, economic and financial dimensions were critical. Later, the social dimension became a crucial element for such purposes. Due to this the multidimensional performance models were adopted, namely the TQM, which led to EFQM, and BSC. These multidimensional models focus on the social dimension, namely the impacts on society through the costs and quality of the services delivered (Pollitt and Steer, 2012: 22). There are however predictors that might have a relationship with social performance: property, the adopted management model and organizational costs. For that reason the starting point of the study is: *to what extent does a sector providing a given service shape social performance?*

## Research Design and Methods

The previous section shows that social performance became a crucial element in public services delivery reforms. As the study argues, the concept includes *the quality and prices dimensions in the public services delivery*. It must not be forgotten that major attention is been given to performance measurement but considering economic and financial dimensions there is a lack of studies about social performance (Pollitt and Steer, 2012: 22). For that reason Silvestre (2012) included users' prices and the good and service quality has dimensions of social performance in a research conducted for the Portuguese water industry. The predictors in such research were *property* – public or private; the adopted *management model* – it included the bureaucracy itself, municipalized services, municipal corporations, private firms and multi-concession models, and the *organizational costs* of those organizations. The author concluded that lower users' prices have a stronger relationship with public organizations lower operational costs; and the higher service quality levels are associated with public property which contradicts NPM ideas for which private organizations performance is higher. This research was conducted considering data from the national regulator in the universe of the Portuguese water sector ( $n=308$ ) for 2009. He also mentioned that a new law (n. 194) was approved in 2009 and higher users prices were expected both to private as to public organizations. The law demanded for a internalization of all organizational costs and with that point of view social performance might have changed since public organizations might have to raise tariffs, which in turn can have an impact on service quality (higher number of complaints, for example).

### *Data and variables*

Keeping in mind the 2009 Silvestre (2012) survey, the study is also based in a *cross-sectional research design* (Blaikie, 2000), which means that the data collection was carried out in a single period (the 2012 period in this case). This year is the last known regulator's data regarding the variables included in the social performance analysis. Moreover, data was obtained from the Portuguese Water Sector Regulator Annual Report [(ERSAR) 2014]. This list contains information on 280 municipalities [and not the 308 municipalities considered in Silvestre (2012) research since there are no available data for Portuguese Islands: Azores and Madeira]. It should also be remembered that performance indicators are “indicators of performance rather than direct measures of absolute performance” (Talbot, 2011: 39).

The empirical analysis thus engages the use of six different dependent variables designed to measure social performance. Regarding user prices, ERSAR established the following figures for domestic use in each municipality for 2012: user prices (in €) for a 60 m<sup>3</sup> consumption level (to compare consumers' prices for low consumption levels and this variable will be codified as CP'60); user prices (in €) for a 120 m<sup>3</sup> consumption level (to compare consumers' prices for medium consumption levels and this variable will be codified as CP'120); and user prices (in €) for a 180 m<sup>3</sup> consumption level (to compare the consumers' prices for high consumption levels and this variable will be codified as CP'180).

For the second dimension of the social performance concept, quality indicators have been included. The first indicator is the number of complaints received in 2012, which measures the quality of the service. Again, a low number of complaints indicate a better

social performance in relation to the service quality. The second and third indicators result from the European Directive 2000/60/CE which establishes a framework for European Community action in the field of water policy, regarding operational performance quality and quality of the good. Once introduced, each operator is obliged to perform a minimum number of parametric tests (PaT) to the water they supply. The number of water samples is determined by some factors, namely the number of people supplied. To make it comparable, the Portuguese water regulator has established as desirable the goal of one hundred percent of samples each organization is obliged to process. The operators, which present a high percentage of completion, will have higher operational performance quality. In addition, each operator will still need to prove that the parametric tests for water meet the prerequisites for human consumption (PaV). This indicator measures the quality of the good, and one hundred percent of the tests indicate a desirable score for the quality of the water.

The study will make use of three independent variables as predictors of social performance. The first independent variable is the property (Pro) of each operator. At the same time, the study is dealing with a dichotomous variable to measure property, 1) if the property is public, 2) if it is private.

The second variable is the management model (MgM) of each organization. The first model identified is the bureaucracy itself. Here, water delivery is the responsibility of the local structure. The second model is the municipalized services. These entities rely on their administrative and financial autonomy in order to improve financial and managerial performance. However, they lack legal personality which continues to be controlled by the local bureaucracy. In practical terms, they are still local bureaucracies, but with their own boards and structure. The third model identified is the municipal corporation. Here, administrative, financial and asset independence in relation to local political bodies does exist, yet executive boards are appointed by local government politicians. The main difference when compared with the municipalized services is that municipal corporations have their own legal personality and their actions are framed by commercial law. The fourth model corresponds to a private firm operating the facility through a municipal concession contract. Finally, we find the multi-concession model, where central government, and not local government, establishes a concession contract with a public enterprise.

The third and last independent variable is organizational costs (OC). Apart from the consumption levels, each operator faces fixed financial and operational costs. Those costs must be included in the tariffs, yet negotiation between local politicians and operators (whether public or private) must be undertaken. The negotiations will determine the costs to be included in the tariffs. Due to the lack of other operational and financial numbers, data organizational costs (measured in €) appears as a best proxy since *real unit cost of production* must be considered (Cubbin, 2005: 290). As the previous two independent variables are nominal, and in order to make them comparable, it has been coded as follows: 1) if they have a null cost; 2) if they have a low cost; 3) if it is a medium cost; and 4) if organizational cost is high. Table 1 presents the statistics for the variables described above.

[Table 1 about here]



## *Analytical tools*

Like Silvestre (2012), and to make it comparable, the Analysis of Variance (ANOVA) statistical tool has been applied which allows us to examine patterns matching logical association (*cf.* Yin, 2009) in order to describe and establish the regularities between concepts (*cf.* Blaikie, 2000). By applying ANOVA, the main differences between the dependent and independent variables in a single measurement can be tested (Grice and Iwasaki, 2007). If the main differences between variables can be tested, the results can distinguish the null hypothesis for the three independent variables, for user prices and for quality. Furthermore, the null hypothesis presupposes no differences amidst the distribution of variables. Thus, when the  $p$ -value is lower than the significance level ( $p < .05$ ), we reject the null hypothesis and accept the existence of differences. This means that if  $p < .05$  we can be sure about statistical main differences between groups.

Moreover, ANOVA allows know the strength of the relationship between variables ( $\eta^2$ ) to be known. Since the study's intention is to examine the relationship between the variables from a separate perspective rather than in an integrated one, using this particular tool is justifiable. Nonetheless, *linearity* was considered in the model in order to find out if the amount of change between means is constant through the whole series of variables ( $p < .05$ ). If this is the case the study can ascertain the statistical results.

To finish, the study will use correlation ( $p < .05$ ). Two explanations justify its use. First, it can prove the truthfulness of ANOVA results. Secondly, it will be used to understand the behaviour of each variable. Having said this, the next section of the report will showcase the results of the empirical analysis using APA Style (*cf.* American Psychological Association, 2010).

## **Results**

The first ANOVA focuses on the relationship between property, user prices and quality and ascertains that property has an effect on user prices at all levels of consumption. It is similar to Silvestre (2012) results [ $60\text{m}^3$  ( $p = .000$ ,  $\eta^2 = .178$ ),  $120\text{m}^3$  ( $p = .000$ ,  $\eta^2 = .146$ ),  $180\text{m}^3$  ( $p = .000$ ,  $\eta^2 = .121$ )], however the strength of the relationship in the survey is higher. This means that property is getting more importance as a predictor of user prices. Moreover the differences are still lower under public property ( $M = \text{€}57$ ,  $\text{€}102$ ,  $\text{€}157$  for  $60\text{m}^3$ ,  $120\text{m}^3$ ,  $180\text{m}^3$  consumption levels respectively) and higher under private property ( $M = \text{€}94$ ,  $\text{€}158$ ,  $\text{€}241$  for  $60\text{m}^3$ ,  $120\text{m}^3$ ,  $180\text{m}^3$  consumption levels, respectively). Between the survey and Silvestre (2012) results, an increase of around 30%, 23% and 15% for  $60\text{m}^3$ ,  $120\text{m}^3$ ,  $180\text{m}^3$  consumption levels, respectively, under public property is found. The same happens under private property – 20%, 23% and 20% for  $60\text{m}^3$ ,  $120\text{m}^3$ ,  $180\text{m}^3$  consumption levels, respectively. Thus concludes that for lower consumption levels, private property did not increased that much. Just for higher consumption levels, public property did not increase as much as private property. Due to these findings the first hypothesis is rejected, that social performance under private property is guaranteed.

Regarding the quality of the good and service ANOVA shows that there is no statistical significance for property and the percentage of parametric tests ( $p < .05$ ) – the same thing happen in 2009. The study has been able to prove however that property has an effect

on the number of complaints ( $p=.000$ ,  $\eta^2=.045$ ); and in the water quality ( $p=.070$ ,  $\eta^2=.026$ ) – see Table 2, even if it is a small difference. The differences between public property and the number of complaints are lower ( $M=12$ ) than the differences between private property and the same variable ( $M=54$ ). Comparing with Silvestre (2012) results concedes for an increase in the number of complaints under public property (around 100%) between 2009 and 2012, and an increase around 59% in the number of complaints under private property.

Regarding the percentage of parametric tests for human consumption, the differences between private property and the quality of water are higher ( $M=99.1\%$ ) than the differences between public property and the quality of water ( $M=98.5\%$ ). Comparing with the 2009 results eyewitnessed a decrease of the water quality under public property ( $M=97.8\%$ ) while the quality for private firms is still the same ( $M=99.2\%$ ). Finally there is a relationship between user prices and quality – see Table 5. This table shows that there is a positive correlation between quality and user prices for all consumption levels ( $r=.245^{**}$ ,  $.261^{**}$ ,  $.233^{**}$  for low, medium and high consumption levels, respectively). After stating this, the study rejected the second working hypothesis, because private firms prove the existence of a stronger relationship in relation to water quality. But, the same does not apply to the quality of the service.

[Table 2 about here]

In Table 3, the management model was introduced as an independent variable. ANOVA indicates that the management model has an impact on user prices at all levels of consumption [ $60\text{m}^3$  ( $p=.000$ ,  $\eta^2=.367$ ),  $120\text{m}^3$  ( $p=.000$ ,  $\eta^2=.378$ ),  $60\text{m}^3$  ( $p=.000$ ,  $\eta^2=.317$ )]. Two conclusions can be state with these results. The first is due the management model that presents a higher strength than property as a predictor. The second conclusion is due to a comparison with Silvestre (2012) results: they are similar but the management model has a higher strength in the results which means that it is getting more important. Besides the differences between municipal corporations and user prices ( $M=€75$ ,  $€124$ ,  $€178$  for the three consumption levels, respectively) are lower than the differences between private firms and user prices ( $M=€92$ ,  $€155$ ,  $€237$  for the three consumption levels, respectively). However, in a comparison with the differences between bureaucracy and user prices ( $M=€50$ ,  $€92$ ,  $€147$  for the three consumption levels, respectively), municipal corporations lose.

In a comparison with Silvestre (2012) results we conclude that user prices raised between 2009 and 2012 around 39%, 27% and 17% for  $60\text{m}^3$ ,  $120\text{m}^3$ ,  $180\text{m}^3$  consumption levels, respectively, under municipal corporations; 21%, 21% and 17% for  $60\text{m}^3$ ,  $120\text{m}^3$ ,  $180\text{m}^3$  consumption levels, respectively, under private firms; and 25%, 21% and 17% for  $60\text{m}^3$ ,  $120\text{m}^3$ ,  $180\text{m}^3$  consumption levels, respectively, under private firms for  $60\text{m}^3$ ,  $120\text{m}^3$ ,  $180\text{m}^3$  consumption levels, respectively, under bureaucracies. Rises in user prices are not unexpected; however, for the lowest consumption level it is noted that municipal corporations do present a higher percentage level. All in all, Silvestre (2012) expected that those user prices would be higher in the next years due to the costs internalization and that can be confirmed. This way the study rejects the hypothesis number three, even though municipal corporations have a better social

performance when compared with the private firms. However, bureaucracies present higher social performance levels.

[Table 3 about here]

About the quality dimension, the number of complaints has proved to be related with the management model ( $p=.000$ ,  $\eta^2=.124$ ) but the strength is lower today in comparison with the 2009 results. The difference to Silvestre (2012) is due to the statistical relevance of the relationship between the management model and PaV, which now proved to be statistically related ( $p=.000$ ,  $\eta^2=.097$ ). PaT failed once again due to a lack of statistical differences and linearity ( $p<.05$ ). The differences between municipal corporations and the number of complaints ( $M=25$ , a 47% difference comparing to 2009) are lower than the differences in private firms for the same dependent variable ( $M=53$ , a 51% difference comparing to 2009). The results are not surprising, as private firms face a higher number of complaints due to tariff increases ( $r=.142^{**}$ ,  $.163^{**}$ ,  $.127^{**}$  but the relationship is getting smaller) – see Table 5. Additionally, the differences between a bureaucracy and the number of complaints are fewer ( $M=2$ , a 100% difference comparing to 2009 but with a really low score). In what is related to PaV, municipal corporations score a  $M=99.3\%$  mean, against  $M=99\%$  for private firms,  $M=98.3\%$  for bureaucracies and  $M=99.4\%$  for municipalized services, the reason why the study rejects the hypothesis number four.

Lastly, the organizational costs are introduced as an independent variable in the ANOVA analysis. The results still indicate strong effects of organizational costs on user prices at all consumption levels. For the  $60\text{m}^3$  consumption level, the relationships have the strongest weight, ( $p=.000$ ,  $\eta^2=.614$ ). By the time the consumptions levels start to increase, the weight of the relationship decreases, as suggested by the results ( $120\text{m}^3$  consumption level,  $p=.000$ ,  $\eta^2=.479$ ; and  $180\text{m}^3$  consumption level,  $p=.000$ ,  $\eta^2=.300$ ). Based on these results, the study does not reject the fifth hypothesis since organizational costs do have a positive relationship with user prices.

[Table 4 about here]

The differences between public property ( $M=€28.60$ , a 43% increase between 2009 and 2012) and private property ( $M=€54.94$ , a 27% increase between 2009 and 2012) in organizational costs are extremely high. And the same happens in the management model, i.e. private firms ( $M=€53.60$  a 26% increase between 2009 and 2012) have higher organizational costs than a bureaucracy ( $M=€22.23.13$ , a 38% increase between 2009 and 2012) or municipal organizations ( $M=€46.50$ , a 42% increase between 2009 and 2012).

About the quality dimension, the percentage of parametric tests shows no relationship with organizational costs ( $p=.812$ ) and the same happens with the number of complaints ( $p=.509$ ) – and the last one is new in a comparison with the 2009 results. Nevertheless the quality of the water ( $p=.003$ ,  $\eta^2=.003$ ) is affected by the organizational costs. Yet, the relationship strength between the variables is much lower than that for the

management model or property, which is why the study rejects the sixth hypothesis. If Table 5 is analyzed, it can be concluded that organizational costs are highly correlated with user prices for all consumption levels ( $r=.766^{**}$ ,  $r=.675^{**}$ ,  $r=.523^{**}$ , for  $60\text{m}^3$ ,  $120\text{m}^3$ ,  $180\text{m}^3$  consumption levels, respectively).

[Table 5 about here]

## Conclusions and future research

Social Performance became an important dimension when dealing with public services delivery assessment. That happen due to the economic downturn that begun in 2008. Governments had to face a fiscal crisis that would have structural and managerial implications in the ways public services were being managed (Pollitt, 2012). One of the first implications had to do with the public services budgets being cut. With lower financial incomes, PSO's were demanded to make a better use of scarce resources. Even with lower budgets the quality of the services should be kept. More troubling, several families lost their purchase power which increased the demand for those same public services without increasing user prices (Ferro, Romero and Covelli, 2011).

Besides the economic and financial demand, the theoretical influences had a huge impact in the ways public services should be performed – which is commonly referred to as the New Public Management movement. NPM supporter advocated private sector participation (PSP) and the reduction of public sector scope in the delivery of public services, because the public counterparts are inefficient and ineffective (Suleiman, 2003). In theory, every service that is performed by the bureaucratic apparatus is more expensive and present lower quality levels in a comparison with private organizations (Silvestre, 2010).

Since the NPM ideas introduction in public services reform, one dimension became crucial: performance (Hood, 1991: 4), which includes the “3Es” model: economy, efficiency and effectiveness, (Andrews, Boyne and Walker, 2006; Smith, 2006). After that private sector participation in public services delivery became even more pronounced and several industries were privatized with the selling of public assets or through concession contracts. Some studies were carried out and conclusions are diverse: in some cases private sector participation increased performance and in some others did not (Hodge, 2000).

One major criticism was made: public administration is deeply involved with user prices and the quality of the services (Pollitt and Bouckaert, 2004). Since then, social performance should become more dimensional to be included in public services delivery assessment (Stern, 2012). Such dimension was considered in the adopted multidimensional models that were applied in public services delivery, namely EFQM and BSC. The first model incorporated the “impact on society” (Silvestre, 2010) and the second one included the “social impact dimension” (Kaplan, 2010).

Even considering this social dimension, NPM advocates argue that private firms do present lower user prices because they make a better use of scarce resources while keeping the same good and level of service quality (*cf.* Pollit and Bouckaert, 2004).

Nevertheless, it still exists a lack of empirical studies regarding the performance of PSO's (Boyne et. al., 2006). This is the reason why this study aimed to describe a particular social phenomenon, i.e., to know if a sector providing a given service shapes social performance. In the literature, the predictors were found to be the *property*, the *management model* and *organizational costs* as variables that could influence social performance. Silvestre (2012) tried before this study and he hypothesized that user prices would be higher after the entrance of a new law in 2009 for the Portuguese water industry. the study attempts to consider Silvestre's (2010) study however still considering the new law entrance which demands for the internalization of all costs in user prices while keeping the same quality levels of the services and good.

The study's findings are in the same line with Silvestre (2012) results, i.e., property has a positive relationship with social performance. In such case, public property do present lower user prices while scoring lower complaints and higher water quality. For the Portuguese water industry "the sanctity of the private property" (Birkland, 2001: 59) was not proved. The second predictor of social performance, the management model, also confirms the 2009 results. In such way, municipal corporations had a better score than private organizations. However, bureaucracies still presents lower user prices and complaints, but they fail for the water quality. Finally, organizational costs are higher for private firms and much lower for bureaucracies and municipal corporations. It is noticed however that the increase percentage is much higher for public organizations in public management models as for private firms. Once again it can be questioned whether post-bureaucratic organizations perform worse than traditional bureaucracies (Pollitt, 2009). From that point of view is it possible to talk about neo-bureaucracies?

Once again some reflection must be undertaken and even if absolute answer are not possible (Talbot, 2011). The introduction of the decree-law n. 194 in 2009 aimed to internalize the organizational costs in the Portuguese water sector organizations user prices. The political aim was supported by the belief in lower user prices while keeping, or even increasing, the quality levels both in the service and good. In fact users prices grew but still PSO's do present a better social performance level than private firms. Due to that, the law failed its purpose, because from a managerial perspective PSP in the Portuguese water delivery was not improved.

It is suspicious that it is not a matter of the management model but instead it is a political decision that is behind these results. It should not be forgotten that whatever the adopted model might be, politicians are still accountable for the services provision (Mulgan, 2006). If kept in mind that "the primary goal of the typical congressman is reelection" (Birkland, 2011: 101) they will not allow an increase in user prices and a lower quality level because the reelection would be compromised. Hood (1991) pointed to a clear cut between politics and managerial decision under the NPM movement, where it is realized that the bureaucracies and municipal corporations (where the CEO's are appointed by Local politicians) are still the preferred management model in such national industry. This law thus might not achieve the central governmental managerial intentions because local politicians will not allow it.

About the theoretical arguments for PSP in public services delivery, Hill & Hupe (2009) opinions might have some meaning because the conviction about running the state like some other businesses seems to reach an end. That is a fact because the changing of the ownership without increasing competition between operators does not seem to be a

managerial option (Stiglitz, 1999). However that competition is possible through the development of “water trade via inter-company connection and upstream competition essentially amounts to a ‘cap-and-trade’ programme for water” (Stern, 2012: 14). For Stern (2012) the study focuses less on the regulatory activity and more in upstream competition. Such effort will inevitably lead to higher costs savings, lower user prices and higher quality levels thus improving social performance.

Even confirming in 2012 the 2009 results for the Portuguese water industry, there are still many questions that arise in this subject. There still needs to be continuous monitoring of the evolution of this social phenomenon, in order to know what will happen in the next few years both in terms of user prices and for the quality levels. It also would be helpful to replicate these studies in other legal frameworks, such as Brazil for example, in order to compare results.

## References

- American Psychological Association (2010) *Publication Manual of the American Psychological Association, 6<sup>th</sup> Edition*, Washington DC, American Psychological Association.
- Andrews, Rhys, Boyne, George A. and Walker, Richard M. (2006) ‘Subjective and objective measures of organizational performance: An empirical exploration’ In Boyne, George A., et al. (Eds), *Public Service Performance – Perspectives on Measurement and Management*, 14-34 Cambridge, Cambridge University Press.
- Bendell, Tony, Boulter Louise and Kelly, John (1994) *Implementing Quality in the Public Sector*. London: Pitman Publishing.
- Birkland, Thomas (2011) *An Introduction to the Policy Process – Theories, Concepts, and Models of Public Policy Making, 3<sup>rd</sup> Edition*, London, M.E.Sharp.
- Blaikie, Norman (2000) *Designing Social Research, The Logic of Anticipation*, Cambridge, Polity.
- Boyne, George A., et al (2006) “Introduction” in Boyne, George A., et al. (Eds), *Public Service Performance – Perspectives on Measurement and Management*, 1-13 Cambridge, Cambridge University Press.
- Cubbin, John (2005) ‘Efficiency in the water industry.’ *Utilities Policy* (13): 289-293.
- Ferro, Gustavo, Romero, Carlos A. and Covelli, María Paula (2011) Regulation and Performance: A production frontier estimate for the Latin American water and sanitation sector’. *Utilities Policy* (19): 211-217.
- Forbes, Melissa, Hill, Carolyn and Lynn JR, Laurence (2006) “Public Management and government performance: an international review” In BOYNE, George et al. (Eds), *Public Service Performance – Perspectives on Measurement and Management*, 254-274, Cambridge, Cambridge University Press.
- Grice, James W. and Michiko Iwasaki (2007) ‘A Truly Multivariate Approach to MANOVA.’ *Applied Multivariate Research* 12(3): 199-226.
- Hill, Michael and Hupe, Peter (2009) *Implementing Public Policy – An Introduction to the Study of Operational Governance, 2<sup>nd</sup> Edition*, London, Sage.
- Hodge, Graeme (2000) *Privatisation – An International Review of Performance*, Colorado, Westview Press.
- Hood, Christopher (1991) ‘A New Public Management for All Seasons?’ *Public Administration* 69(1): 3–19.

- Kaplan, Robert S. and Norton, David P. (1992) 'The Balanced Scorecard: Measures that Drive Performance' *Harvard Business Review* 70(1):71-79.
- Kaplan, Robert S. (2010) 'Conceptual Foundations of the Balanced Scorecard', *Working Paper*, Harvard Business School, Harvard University.
- Koehler, Jerry, and Pankowski, Joseph (1996) *Quality Government: Designing, Developing, and Implementing TQM*, Florida, St. Lucie Press
- Leland, Suzanne and Smirnova, Olga (2009) 'Reassessing Privatisation Strategies 25 Years Later: Revisiting Perry and Babitsky's Comparative performance Study of Urban Bus Transit Services.' *Public Administration Review* 69(5): 855-867.
- European Environment Agency (2001) *Sustainable water use in Europe – Part 2: Demand management*, Copenhagen, European Environment Agency.
- Mulgan, Richard (2006) 'Government accountability for outsourced services', *Australian Journal of Public Administration* 65 (2), 48-58.
- OFWAT (2005) *International comparison of water and sewage service – 2005 report*, London, OFWAT.
- Peters, Tom and Waterman Jr., Robert H (1982) *In search of excellence - Lessons from America's Best-Run Companies*, New York, Harper & Row.
- Pollitt, Christopher (2012) *New Perspectives on Public Services – Place and Technology*, Oxford, Oxford University Press.
- Pollitt, Christopher (2009) 'Bureaucracies Remember, Post-Bureaucrat Organizations Forget?' *Public Administration* 87(2): 198-218.
- Pollitt, Christopher (1990) *Managerialism and the Public Services: The Anglo-American Experience*, Oxford, Basil Blackwell.
- Pollitt, Christopher and Bouckaert, Geert (2004) *Public Management Reform: A Comparative Analysis, 2<sup>nd</sup> Edition*, Oxford, Oxford University Press.
- Pollitt, Michael G. and Steer, Steven J. (2012) Economies of scale and scope in network industries: Lessons for the UK water as sewerage sectors'. *Utilities Policy* (21): 17-31
- Romano, Giulia and Guerrini, Andrea (2011) 'Measuring and comparing the efficiency of water utility companies: A data envelopment analysis approach.' *Utilities Policy*: 1-8.
- Rondeel, Nick (2013) *Improved Service Performance? The development on an enabling Performance Measurement System for the IT department of a Water Authority to measure and improve customer satisfaction – Master Thesis*, The Netherlands, University of Twente.
- Shaoul, Jean, Stafford, Anne and Stapleton, Pamela (2012) 'Accountability and corporate governance of public private partnerships' *Critical perspectives on Accounting* (23): 213-229.
- Silvestre, Hugo Consciência (2010) *Gestão Pública – Modelos de Prestação no Serviço Público [Public Management – Public Services Delivery Models]*. Lisboa: Escolar Editora.
- Silvestre, Hugo Consciência (2012) 'Public-private partnership and corporate public sector organizations: Alternative ways to increase social performance in the Portuguese water sector?' *Utilities Policy* (22): 41-49.
- Smith, Julia L. (2008) 'A critical appreciation of the "bottom-up" approach to sustainable water management: embracing complexity rather than desirability. *Local Environment: The International Journal of Justice and Sustainability* 13(4): 353-366.
- Smith, Peter C. (2006) 'Quantitative Approaches towards assessing organizational performance' In Boyne, George A., et. al. (Eds), *Public Service Performance –*

- Perspectives on Measurement and Management*, 75-91 Cambridge, Cambridge University Press.
- Stiglitz, Joseph (1999) ‘Quis Custodite Ipsos Custodes?’ *Challenge* 42(6): 26-67.
- Stern, Jon (2012) ‘developing upstream competition in the England and Wales water supply industry: A new Approach’. *Utilities Policy* (21): 1-16.
- Suleiman, Ezra (2003) *Dismantling Democratic States*. New Jersey: Princeton University Press.
- Talbot, Colin (2011) *Theories of Performance – organizational and service improvement in the public domain*, Oxford, Oxford University Press.
- Tavares, António and Camões, Pedro (2007) ‘Local Service Delivery Choices in Portugal: A Political Transaction Costs Framework.’ *Local Government Studies* 33(4): 535-53.
- Tavares, António, and Camões, Pedro (2010) ‘New Forms of Local Governance Service.’ *Public Management Review* 12(4): 587-608.
- Tati, Gabriel (2005) ‘Public-private partnership (PPP) and water-supply provision in urban Africa: The experience of Congo-Brazzaville.’ *Development in Practice* 15(3): 316-324.
- The Water and Waste Services Regulation Authority (ERSAR) (2014) *Report*, Lisbon, The Audit Department of Exchequer.
- The Water and Waste Services Regulation Authority (ERSAR) (2014) *Annual Report on Water and Waste Services in Portugal – Executive Summary*, Lisbon, The Audit Department of Exchequer.
- Wallsten, Scott and Kosec, Katrina (2008) ‘The Effects of Ownership and Benchmark Competition: An empirical analysis on US Water System.’ *International Journal of Industrial Organizations* 26: 186-205.
- Yin, Robert (2009) *Case Study Research, Design and Methods*, 4<sup>th</sup> Edition, London, Sage.

## Tables

Table 1 – Summary of Descriptive statistics

Variable	Observations	Minimum	Maximum	Mean	Std. Dev.
CP'60	281	9.00	192.96	61.1272	26.54027
CP'120	281	18.00	244.56	108.1138	37.72568
CP'180	281	33.60	324.00	166.6208	54.34697
Comp	281	.0	757	63.477	63.477
PaT	280	88.29	100.00	99.8986	.89705
PaV	280	90.95	100.00	98.6019	1.53473
Pro	281	1	2	1.11	.314
MgM	281	1	5	2.38	.934
OC	281	.0	3	1.00	.496



Table 2 - Results of the Analysis of Variance ANOVA using SPSS to analyze changes in social performance by property (to test H1; H2)

Source	SS	df	MS	F	P	Eta <sup>2</sup>
CP'60* Pro	38436.761	1	38436.761	67.534	.000*	.195
Error	158791.346	279	569.145			
Total	197228.108	280				
CP'120* Pro	87474.901	1	87474.901	78.467	.000*	.220
Error	311028.613	279	1114.798			
Total	398503.514	280				
CP'180* Pro	194284.007	1	194284.007	85.670	.000*	.235
Error	632722.056	279	2267.821			
Total	827006.063	280				
Comp* Pro	50256.689	1	50256.689	13.007	.000*	.045
Error	1077966.592	279	3863.680			
Total	1128223.281	280				
PaT* Pro	.359	1	.359	.445	.505	.002
Error	224.154	278	.806			
Total	224.512	279				
PaV* Pro	7.734	1	7.734	3.311	.070*	.012
Error	649.423	278	2.336			
Total	657.156	279				

\* p< .05

Table 3 - Results of the Analysis of Variance ANOVA using SPSS to analyze changes in social performance by Management Model (to test H3; H4)

Source	SS	df	MS	F	P	Eta <sup>2</sup>
CP'60* MgM	72453.090	4	18113.273	40.066	.000*	.367
Error	124775.018	276	452.083			
Total	197228.108	280				
CP'120* MgM	150561.161	4	37640.290	41.900	.000*	.378
Error	247942.353	276	898.342			
Total	398503.514	280				
CP'180* MgM	262075.062	4	65518.766	32.010	.000*	.317
Error	564931.001	276	2046.851			
Total	827006.063	280				
Comp* MgM	139738.401	4	34934.600	9.754	.000*	.124
Error	988484.880	276	3581.467			
Total	1128223.281	280				
PaT* MgM	1.069	4	.267	.329	.858	.005
Error	223.443	275	.813			
Total	224.512	279				
PaV* MgM	63.886	4	15.972	7.403	.000*	.097
Error	593.270	275	2.157			
Total	657.156	279				

\* p< .05

Table 4 - Results of the Analysis of Variance ANOVA using SPSS to analyze changes in social performance by Organizational Costs ( to test H5; H6)

Source	SS	df	MS	F	P	Eta <sup>2</sup>
CP'60*OC	121096.772	3	40365.591	146.868	.000*	.614
Error	76131.335	277	274.842			
Total	197228.108	280				
CP'120*OC	190896.948	3	63632.316	84.902	.000*	.479
Error	207606.566	277	749.482			
Total	398503.514	280				
CP'180*OC	248261.301	3	82753.767	39.608	.000*	.300
Error	578744.762	277	2089.331			
Total	827006.063	280				
Comp*OC	9381.485	3	3127.162	.774	.509	.008
Error	1118841.796	277	4039.140			
Total	1128223.281	280				
PaT*OC	.776	3	.259	.319	.812	.003
Error	223.736	276	.811			
Total	224.512	279				
PaV*OC	31.882	3	10.627	4.691	.003*	.049
Error	625.275	276	2.265			
Total	657.156	279				

\* p< .05

Table 5 – Correlations

	Pro	MgM	OC	CP'60	CP'120	CP'180	Comp	PaT	PaV
Pro	1								
MgM	.612**	1							
OC	.341**	.398**	1						
CP'60	.441**	.422**	.766**	1					
CP'120	.469**	.377**	.675**	.950**	1				
CP'180	.485**	.322**	.523**	.806**	.917**	1			
Comp	.211**	.102*	.067	.142**	.163**	.127*	1		
PaT	.040	.008	.004	.021	.035	.055	.023	1	
PaV	.108*	.129*	.160**	.245**	.261**	.233**	.173**	.033	1

\*\* . Correlation is significant at the 0.01 level (1-tailed)

\* . Correlation is significant at the 0.05 level (1-tailed)