

# Governing and Managing Public Service (A Case Study of Measuring Economic, Social and Environmental Implications of PDAM in the Malang City)

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*Abstract: Managing public water supply service delivery is a critical agenda. This research found that ineffective and inefficient governing systems of PDAM bring the economic, social and environmental implications. Particularly, the poor water users at the end of the water service delivery system get the more disadvantage consequences. Reforming governance and management of PDAM and implementing social and environmental friendly of performance measurement system is an alternative to increase the performance.*

*Keywords: Public Management, Public Service, Governance, Accountability, Water Supply Service Delivery*

A function of water as public good is often neglectful. If social and environmental goals of water are frequently ignored; their implications are unpleasant especially for the poor and the environment. It is mentioned in the Agenda 21 of UN that:

Water is needed in all aspects of life. The general objective is to make certain that adequate supplies of water of good quality are maintained for the entire population of this planet, while preserving the hydrological, biological and chemical functions of ecosystems, adapting human activities within the capacity limits of nature and combating vectors of water-related diseases. Innovative technologies, including the improvement of indigenous technologies, are needed to fully utilize limited water resources and to safeguard those resources against pollution.

Agenda 21 Chapter 18 Section 2 (2004)

So, developing an outcome performance measurement model for managing social equity and environmental justice concerns is essential to ensure the public goals' achievement. Particularly, in the situation of

measuring indicators for these goals are not completely available.

Performance measurement of an institution providing a service is of limited use in enhancing its accountability and building its capacity unless the people who are at the receiving end of the services are part of the process that makes the measures and ensures that the public interests are met. So this thesis makes the argument that performance measurement must include clients into the accountability structures from the outset. The approach links the policies of social and environmental justice and management strategies to achieve this.

This case study investigates the possibilities of reducing cost inefficiency, which is considered to be a crucial strategy. PDAMs can choose and develop various strategies such as fund injections and privatization in their current or future situation, but they still need to cut their cost inefficiency. Reducing that will in turn improve their financial capacity, especially its investment capacity, which can then be used to improve its water service performances including in water quality, quantity, continuity, and pressure; to subsidize the water price for the poor; or to finance human resource programs such as more training for

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retained employees and an early retirement program for retrenched ones.

A strategy of covering cost inefficiency through a tariff escalation is often ethically unfair, especially for the poor. A change in pricing policies can hurt poorer customers proportionally more than the richer. The negative impact on the poor, for whom there is no price subsidy, is substantial. Although the local government's extra dividend-revenue could be used to provide other government services for its poorer citizens which would not have been possible otherwise.

Customers and potential customers of PDAM who are not satisfied and have not been served can use alternative water such as well water. Uncontrollable groundwater consumption can drain the groundwater stock and endanger the water scarcity in the future. So, unsatisfying water supply services can carry social and environmental implications. This research investigates managements of water service delivery in fulfilling their public mission.

A water supply service can be seen as a public or private good, but this thesis makes the argument that water is vital for society especially public health and so to ensure accountability it is important that water governance includes citizens' participation for social and environmental justice. Public goods are generally defined as goods and services that are provided by 'means of public policy' (Lane, 1993, p. 21), or 'collective political choice' (Stretton & Orchard, 1994, p. 54) rather than by means of an individual market mechanism in which private goods are usually provided. In this case water supply in Malang City is provided by the Malang city PDAM as the local public enterprise.

The Malang City PDAM is categorized as a public utility among public enterprise categories with at least two characteristics: natural monopoly and political sensitivity (Hughes, 2003)<sup>1</sup>. Monopoly is theoretically counted as the preferred alternative for managing an infrastructure business like the water service that needs a huge investment. Fixing pipe connections to households and a big investment in the pipe network system do not support a competitive environment for a new entrant in the water industry. Additionally, water price and public health concerns in clean and safe water business are politically sensitive (Hughes, 2003, p. 97-8). These two

characteristics are often used as the reasons for governments maintaining their power in the arrangement of the water supply service.

Public enterprises can be broadly defined as 'state-owned production units which sell their output and are thus directly involved in the market process' (Turner & Hulme, 1997pp. 175-6).<sup>2</sup> There are two dimensions in the meaning of 'public enterprise': 'public' and 'enterprise' (ASOSAI, 1989). On its enterprise dimension a public enterprise has a commercial mission while on its public dimension, it must conduct public missions including better living standards and a balanced distribution of wealth for its society (ASOSAI, 1989, p. 3).

These policy goals and missions can be considered as a representation of 'desired policy outcome' (Osborne & Plastrik, 2000, p. 252) or 'desired outcome' (Osborne & Gaebler, 1992, p. 351; SCRGSP, 2004, p. 1.12)<sup>3</sup> of Indonesian society. An organization's goal effectiveness is usually related to its success in achieving desired outcomes of the organization's goals through a systemic management interaction across organizational aspects at the input, process, output, and outcome/impact stages. The desired outcome of policy implementation is sometimes far from the goal expectation. Public servants at operational levels, named 'street-level bureaucrats' by Lipsky, merely interpret the public policies and regulations made by top executive and legislative institutions (Lipsky, 1980, p. 3). In some cases, governmental agencies and their counterparts at various hierarchical levels sometimes do not conduct the public missions. Policy implementation is often out of the policy corridor, and its consequence may even be against the policy goals and missions. So, a governance problem in this context become a critical agenda.

The definition of governance used in the study of this case is that given by Kooiman (2003) to the concept of social and political governance considered as "arrangements in which public as well as private actors aim at solving societal problems or create societal opportunities, and aim at the care for the societal institutions within which these governing activities take place" (Kooiman, 2003, p. 139). The most important part of governance in this study is accountability. Accountability is a noticeable problem in public enterprises (Hughes, 2003, p. 95). A willingness to



present a transparent report from the enterprise to the government and from the government to the society is a supportive environment for better accountability. Transparency is totally needed for accountability. However, there is no warranty that every actor carries good political willingness. Corrupt practices can make corrupt actors try to hide performance information away from transparency and publicity. For example, various motivations among political and business actors related to water provision can be challenge in developing a good governance system. A concern for any government in governing by networks are how to make their private partners effective in administering the services and goods, and to hold them accountable for this (Goldsmith & Eggers, 2004, p. 41).

For that accountability, managing performance through performance measurement system is essential. This study identifies several aspects of service performance problems of this particular water supply including cost inefficiency, pricing policy, water quantity, quality, pressure and continuity in their relations with ineffectiveness of achieving public good goals. So, this study evaluates effectiveness in terms of ineffectiveness of social and environmental goal, with these ineffectivenesses characterized as undesired outcomes. The study also identifies several indicators that are useful for evaluating these undesired outcomes and indicating whether or not the water supply enterprise is moving in the direction of social and environmental goal achievements.<sup>4</sup>

The current mode of measuring organization is by performance measurement that is oriented to results or outcomes. Murphy (1998, p. 23) describes what the citizens want (public interest) from public administration is that "it is honest, it is fair, it is responsive to them and inclusive of them, it is efficient and gives value for money, it is effective in that it produces results or outcomes which increase the welfare of the community as a whole, economically, socially and environmentally". This public interest is the result expected by citizens. Even though it is easier to say than to make it work in practice, it gives a direction for public managers to keep on the track of a result or outcome orientation. A result or outcome performance measurement is therefore an appropriate means to evaluate the achievement of public goals

such the kind of public interest as described by Murphy.

However, looking only to measurements of outcome without taking care of the expenses of output is also risky. Activities in gaining goals can be costly, and these efforts may not be worthy at all when compared with their total cost. Hence, outcome performance measurement is commonly developed within a context of 'cost effectiveness' (Epstein, 1984, p. 2; Hatry, 1999, p. 3). It is crucial both to measure performance in term of outcomes and at the same time to keep efficiency within a corridor of organizational goal achievement including cost effectiveness. SCRGSP mentions that the focus of performance measurement has been shifted "from resources (or inputs) to the use of resources to deliver desired outcomes of government services" (SCRGSP, 2004, p. 1.4). Governments must be accountable to parliaments and the public on what they spend and what results they produce (Poister & Streib, 1999, p. 326).

## METHOD

Gathering information and perceiving views from the three governance sectors can unfold particular phenomena being investigated. A complementary combined method is selected for this kind of a research evaluation for investigating outcomes of water supply performance problems. Three research methods; case study, survey and focus group discussion are employed for collecting qualitative and quantitative data from the three governance sectors used for triangulating this case concern.

Five research tools in the case study method including interview, personal communication or email, document analysis, direct observation and documentation are chosen for collecting information from stakeholders in the three governance sectors. The survey is only used to investigate 431 respondents from three case study locations, and the two focus groups are conducted in the water supply company management for discussing problems of water supply performance summarized from the survey.

The locus of this study is concentrated in the Malang city jurisdiction area, and the focus is performance problems in managing a water supply company. However, a comparative study of water



supply performance nationally and internationally is presented for analyzing performance gaps from one to another. This research evaluates interconnections among cost inefficiency, tariff escalation and other non-financial performances: water supply quantity, quality, continuity and pressure.

## RESULTS AND DISCUSSION

Performance measurement stresses that organization serves the water community. Performance measurement is not just within boundaries of organization. It serves community and environment. One of the ways to do this is to include the service users in the accountability process. Thus performance measures need to be accountable to the government, the corporate managers and all the people they serve.

It is hard to rely on the public enterprise interests to save money by being more efficient and to use the savings to supply water at a subsidized price, because water is a public good. Findings in this case demonstrate a comprehensive performance measure and show how (if it were applied more widely than in one of the top performing companies) the poor pay for or subsidize inefficiency. The poor could be better served if the savings were allocated to subsidizing services for them.

The price policy is up to the elected local government to decide on tariff differentiation within National/Local policies and regulations to transparently discuss and decide this with advice from the company. But, society has to be involved in that process through public hearings, and openly accessed to that decision making process. By advocating performance measurements to be required practice that is legislated by government and by advocating that compliance is checked by enabling the society to have a say in whether accountability standards have been achieved, perhaps better corporate governance can be achieved.

Accountability crucially requires transparency, open voting on policies and sanctions if policies infringed, but also protection for objectors or competing organized opposition groups or rival claimants to be community or consumer representatives who raise complaints and issues. However, a democratic atmosphere for better governance needs to consider

possibilities that principles of social, economic and environmental justice will run up against or conflict with principles of democratic local decision making. Locally influential wealthy could use democratic process to have accepted unjust tariffs or usage policies. Protection for disadvantage people in the society such the poor need definite arrangements in legislations, and law enforcement for them.

Transparency necessities making all relevant operational, including tariff policy, information publicly available to those who request it (rather than wasting resources producing and distributing large numbers of copies which most will not be interested in or read), including by putting it on a website would be a cost-efficient way of doing it (as well as being part of a more general provision of governance transparency).

This thesis makes a contribution because it develops more than a systematic or linear approach (called a systematic approach) and instead develops a systemic approach, in the sense used by Gerald Midgley (2000) in his work *Systemic Intervention*. The measures are not imposed in a top down manner, but need to be checked out and adapted to meet the contextual considerations in the urban and more regional areas of Indonesia. But the measures will always take into account the needs of diverse service users within the diverse environments in which they live.

The performance measures are not off the shelf measurements, they are based on a process of involving the stakeholders in accountable governance. This thesis provides an example of how it could be done. Perhaps it would be good to work with the PDAM to show how money can be saved. Of course it is unlikely that they will act or implement the savings, unless there is legislation and a process for ensuring accountability. Openness and scrutiny by the service users could be a requirement for all PDAM.

Performance measures and indicators are a means for governing water supply service performance. As a tool, performance measures and indicators need a further explanation on the ways of those indicators linked together. The explanation in this thesis demonstrates an interconnection among performance indicators and measures socially, economically, environmentally and politically. Analyses in the previous chapters on five aspects of water supply



service performance which are cost inefficiency, price policy, water quantity, quality, pressure and continuity demonstrate that those factors are correlated with one to another and carry on implications. The poor is identified as the community who get more cases of a low service performance of water supply, and desperately needs more attention in overcoming water problems in its area.

Data and information derived from the three sectors: the water company, the Local Government as the water company's owner, and the Community are used to explain the performance gaps and problems. Accommodating demands and values from stakeholders from the three sectors is significantly urgent in narrowing gaps among them. The water company is expected to follow the government regulations in providing water supply service, but it is not entirely implementing them. The water company behaves as it wants to be in delivering water supply service to the community. The community safety in consuming water is supposed to be guarded with a strong regulation and its implementation.

In the case of cost inefficiency and price policy, this research finds out the hidden agenda of the water company that shifts a cost burden from the cost inefficiency and the government demand on the escalation of yearly profit sharing through the escalation of water price. Inefficiency Problems that are identified significantly contribute to the cost inefficiency in the water company.

In addition, the Local Government always insists the water company to increase a yearly sharing profit for them. The fast way for the water company to accomplish the Local Government demand is through the escalation of the water price. However, it is arguable for the price escalation for the poor or household type A since a subsidy price for them as recommended in the government regulation is not available. Even though they pay lower than other customer household groups, they have paid the water in a profitable price. It is ethically inappropriate. The poor pays for unsubsidized price, but cost inefficiency in the water company as one factor of price escalation is still going on. It means that the poor has paid for cost inefficiency supposed not to be happened. The social and economic implication of them is that they pay the water as supposed not to pay in that price

level. However, preventing cost inefficiency from corrupt practices is unarguably needed. The potential saving money from cost inefficiency can be allocated for improvements of water service delivery performance including maintenances, investments, equipments and trainings. It can also be used for a cross subsidy program for the poor.

The escalation of water supply tariff, in some extent, is not pro for environmental preservation. Industries are more likely to use bored well water for supplying their water need. Uncontrollable of under ground water takings endanger the water availability in the future. Charging and installing of underground water takings is likely at a comparable cost with the water supply service. Otherwise, industries continually exploit underground water. The underground water regulation and its implementation need to be reformed. A loss and miss of (potential) customers also means a loss of potential benefit for the water company.

Thus, the political atmosphere is not generally supportive a fair arrangement of water supply service performance for water users, especially the poor. The Local Government and the A Company take benefits from the current arrangement of water price policy. However, the credibility of the Local Government and the water Company is questionable in front of the community. Some communities especially the poor suffer from the current price arrangement. The environment also suffers from less controllable of underground water exploitation by industries. The water company is also loss of a potential benefit from these prospective customers. It is a kind of a negative loop feedback for them.

Cost inefficiency and loss of potential income reduce the water company capacity to finance and invest development programs and projects for improving water service delivery. In fact, the other four aspects of water supply service: water quantity, quality, pressure and continuity need funds for maintaining and improving the current service. A limitation of funds for investments and maintenances in the production sector is a disadvantage for the water Company, the Local Government and the Community. Decreasing the idle capacity of the current water production installation at zero level can add 11 percent of the coverage level. In addition,



reducing unaccounted for water (UFW) at zero level can add between 33 and 37 percent of the coverage level. The current coverage level is 67 percent of the total population. It means that a combination of reducing the idle capacity and UFW can improve the coverage level at 100 percent or more. It is over the coverage level standard demanded by the Local Government at 80 percent.

The additional coverage level or customer is benefit for the three stakeholders. The water company and the Local Government can get more income. It is also a more chance for them to reinvest for further improvements and to implement a cross subsidy program or the poor. The water customer is benefit, because they can use tap water that is generally safety for drinking water compared with well water. It is considered as a positive loop feedback.

Communities in the Malang City who have not been served by the water company generally use well water. But, test results from the Health Department demonstrate a high case of well water containing e-coli bacteria from water samples taken from the well water. Wells in the high density housing areas or the poor housing locations are easily contaminated with dirty water from individual sewerages. A distance between a well and a sewerage system is too closed in this poor area. Contaminated well water also comes from industrial wastes surrounding the housing location.

Connecting water supply service from the water company into the poor areas help the poor consuming a higher quality of drinking water. This also helps in reducing the case of water borne diseases that are highly found in the areas with a low connections or coverage level from the water company. The government also needs to reinforce the regulation on industrial wastes.

However, the current poor housing location that has been connected with the water supply company from the water company face a problem of low service performance on water pressure and continuity. The current design of water supply pipe network system generally puts them on the end of the water service delivery. A high case of low water pressure and discontinuity at 24 hours are found in the poor housing locations. This is an alarming signal

for repairing the pipe network system. Particles and small organisms can easily contaminate the tap water through pipe leakages when the water pressure is low and the pressure is not 24 hours. Considering a high case of pipe leakages is found in this study. So this way, renewing the current water pipe system is critical, because it prevents the water contamination process and give a save delivery process of water supply. The water is originally derived from springs with a good water material. The water customers should get the water quality as good as spring water. The mission of water distribution job by the water company is without any purposes to make the water contaminated. The water company's job as a water supply enterprise must ensure that the water supply is safely distributed to its customers.

Again, improving the current infrastructure system needs investments and funds. It is correlated with the actions of the water company and the Local government to behave efficiently to save the money for a better allocation. This thesis demonstrates the interconnections among cost efficiency, price policy, water quantity, quality, pressure and continuity. The social, economics, environmental and political implications of the inappropriate management practices in these aspects carry on disadvantage for the three stakeholders, particularly the poor. Balancing performances as mentioned in several concepts including economic and non economic performances (Kaplan and Norton), shared values among the three governance actors (Rhodes), triple bottom line missions (Elkington) is essential. However, this research underlines the urgency to critically analyze who manipulates the performance for their benefits and who gets disadvantage from the current system. Findings in this research demonstrate the need for readdressing and rescuing demands from the poor.

## **CONCLUSION**

Inefficient costs in an Indonesian water supply company implicate cost burdens in this company and prevent this water local public enterprise to perform its social and environmental missions. The local government as the owner of this local public enterprise and the local parliament hold a monopoly power in some important decisions related with this local public enterprise included a policy change on tariffs, senior



management positions and the total amount of profit share values for the local government. Such poorer household customers instead of being subsidized as regulated in the national regulation, are paying at a profitable tariff and subsidizing this enterprise's inefficiency and the government's locally generated revenue. The inefficiency alongside profit sharing policy also weakens this enterprise's capacity to invest and improve its service performances. Improving of this utility service performance is essential for current and potential customers and also benefit economically, socially and environmentally for the society, the government and the enterprise itself. Securing public health concerns and groundwater preservations can be conducted by improving the accessibility, the availability and the reliability of water quality, quantity, pressure and continuity. Giving a legitimated control power and access to elements of society either individually or collectively is essential to make them: the local public enterprise and the government accountable for any decisions that they make. This research presents an accountability means that is used for evaluating economic, social and environmental implications of water supply performance management and policy.

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