

Franchising Operation and Maintenance: Achieving Competition in the Water Market

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Abstract

The bottleneck of sufficient water services is sustainable operations and maintenance to improve water losses, plant performance, collection rates etc. If such problems were solved, water service quality would improve, revenues from water customers would be easier to collect, and financing of new facilities would become more feasible.

In the water sector, competition only takes place *for* the market and not *in* the market. The winner of a tendering process is a "monopolist on time". That is one reason why Private Sector Participation (PSP) models with large private water companies have often encountered public resistance – in developing countries as well as in Europe.

One promising way to improve water supply and to overcome public resistance against private water companies (PWC) is to use the franchise concept in the water sector, too. Compared to other PSP models the franchise concept has the following advantages: First, by using mainly local service providers there will be no anonymous international PWC in charge of operations and maintenance but familiar companies. Second, this concept allows to combine the professional experience of a PWC with the comparatively cheap manpower of local service providers.

Key words: Water supply, Private Water Companies, Operation & Maintenance, Franchising

JEL-code: L33, Q21, Q25, Q56

1. Introduction

The bottleneck of sufficient water services to the people is sustainable operations and maintenance to improve water losses, plant performance, collection rates etc. If such problems were solved, water service quality would improve, revenues from water customers would be easier to collect, and – as result of this – financing and investment of new facilities would become more feasible.

In the economic theory, the supply of water is considered to be a technical monopoly. This is why there is always only one supplier – either public or private – in a given region. Competition only takes place *for* the market and not *in* the market. This makes the winner of a tendering process a "monopolist on time", one reason why public private partnerships (PPP) or other privatisation models (BOX) with large private water companies often encounter severe resistance from public administration, NGOs and the media –in developing countries as well as in Europe. One promising way to improve water supply and to overcome public resistance against private water companies (PWC) is to use the franchise concept, well-known for its successful implementation in other sectors (e.g. fast food, gas stations), in the water sector, too. This idea has been discussed for a couple of years by donor organisations like the World Bank and WRC (Water Research Commission, South Africa). Basing on broad experiences with various PSP projects in the water sector (Institute for Environmental Engineering and Management, 2005, 2006a and 2006b), the Institute for Environmental Engineering and Management (IEEM) in Witten, Germany, has now started the first practical implementation of a franchise project to operate and maintain water utilities.

2. Brief review of donor financed infrastructure projects

The history of donor financed infrastructure projects can be divided into two stages: More than 40 years ago, the first programs to improve water supply in non-industrialised countries have been started. In that time, the focus of large donor organisations like the World Bank or the

KfW lay on funding of infrastructure projects, while the later operation of the facilities was left to local authorities.

But the facilities' design prevented a sustainable management by local authorities, due to several reasons: Operation and maintenance were not suitable for the environment they were constructed in, local staff was not experienced/educated enough for facilities with a very high technological level, or communities could not afford expensive materials indispensable for proper operation.

Therefore, in the second stage, donor organisations tendered for both construction and operation, the reasoning being the following: Large and experienced private water companies were supposed to have the relevant knowledge to run the technologies satisfyingly, that had just been set up.

Even though sustainable operation of the technologies was now provided, the donor organisations and the water companies encountered a new problem with the implementation of the projects: Public resistance against private water companies.

The customers were used to low priced and highly subsidised water, often with very poor service quality. Receiving their water from a private supplier, they feared that tariffs and prices would rise.

And indeed, in some cases tariffs more or less significantly increased after the implementation of Private Sector Partnerships (PSP). Either because the contractual arrangements had been ill-advised; or because public authorities thought that the implementation of a PSP would be a very good opportunity to stop subsidising the supply of water¹. Which, of course, forced the private water companies to increase tariffs.

Whatever reason may have been the cause, on the outside all the public got to know was that PSP very often leads to increased tariffs. This quickly spread the public opinion – with support

¹ Or even, like in industrialised countries, to cash in a high transaction profit.

from several NGOs – that PSP was equal to sharp tariff rises. With the result that the implementation of future PSP projects became very difficult and sometimes even impossible.

3. Two problems – one solution

Taking a look at today's situation of the water sector in developing countries, there are two problems to solve: First, the characteristics of water (political, social and economic) make it a very difficult product to allocate. Second, the bottleneck of sustainable water services to the people is the operation and maintenance of water facilities.

Economics describe the water market as a technical monopoly. High investments are needed for the construction of the water supply infrastructure. This yields high fix costs which account for 50 – 90 % of the total costs (Rudolph, 1999). Therefore, in a given area there can be just one water company in charge of water supply. A fact that even PSP projects cannot change because the so called privatisation only increases competition during the bidding process (i.e. *for* the water market). Afterwards the successful bidder has gained exclusive entry to a water market (for about 20 years). Therefore, PSP and other forms of privatisation only lead to "monopolists on time".

The problems of allocating water have been frequently and thoroughly discussed (e.g. Dalhuisen et al., 1999, or Harbach, 2004). To sum up this discussion, the economics of water make it a common pool resource², allocated by a monopolist. Combining these economic facts with its unique and vital importance for human life, it is understandable that people are very sensitive about who is their water supplier. These problems can be seen as the "institutional problems" of water supply.

Besides, there are also "operational problems": As said before, operation and maintenance of water facilities are the key issues of sustainable water supply. A lot of the problems many water utilities are faced with could be solved by improved operation and maintenance, because

² A resource with finite capacities which has to be allocated to different ways/locations of utilisation.

- it reduces water losses,
- which results in better plant performance,
- and leads to improved water service quality.

Now, when customers receive better water services,

- their willingness to pay improves,
- revenues increase, and
- financing and investment of new facilities become more feasible.

Private Sector Participation was able to overcome problems with operation and maintenance.

But public resistance to private water companies made it increasingly difficult to implement such projects. Therefore, a new approach is needed which solves these two problems.

Franchising with Local Service Providers (LSP) for operation and maintenance is such a promising approach. Its advantages and risks are subject of the next sections.

4. Franchising in the water sector

The franchising concept is a very successful business model, well-known from the food and service industries³. In theory, the franchising system consists of two parts: one franchisor and several franchisees.

The ideal franchisor has started his (or her) own business model and has run it successfully for a couple of years. He now is willing to scale-up but is reluctant to take the risk of opening his own branch offices. On the other side, the ideal franchisee is someone who wants to be self-employed but is reluctant to take the financial risk of starting his own (and until now untried) business. This is where both ends meet. Through a franchise agreement the franchisor can set up branch offices in different areas, whereas the franchisee can run his own business guided by the beforehand tested and verified business model of the franchisor.

³ McDonalds probably is the most famous example of the franchise industry.

For the rights to use the business model, the franchisor receives a royalty fee – an annual percentage of the franchisee's turnover – and the franchisee additionally pays the franchisor extra fees for marketing activities, legal support, etc.

During the last ten years, there have been several theoretical approaches to transfer the franchise concept to the water sector. A lot of the research has been done by the World Bank (e.g. v. Ginneken, 2004; Kariuki, Schwartz, 2005; or Roche et al., 2001). But these studies focused mostly on franchise schemes with small-scale private water suppliers, which resembled more or less the private water markets one can find in many cities of developing countries – just in an organised way.

5. Pilot Project in South Africa

Another version of a franchise concept in the water sector is now being implemented by the German Institute for Environmental Engineering and Management (IEEM) for the first time in South Africa. Their approach focuses on operation and maintenance of water facilities. As it has been argued in this paper before, operation and maintenance are the key factors for sustainable plant performance.

In the approach of IEEM the franchisor will be an international experienced private water company⁴ while the franchisees will be recruited from Local Service Providers (LSP) like plumbers and other craftsmen. Once implemented, the system will work the following way: The franchisees will be in charge of operating and maintaining technologies of the water supply infrastructure (pumping stations, pipe systems, etc). The franchisor will instruct and regularly teach them how to best perform these tasks.

For these services the franchisees shall get paid by the South African Water Management Authorities (WMA). They are responsible for the supply of water in their area/community. The franchisor will receive a percentage share of the franchisees annual turnover for the courses and

⁴ Biwater: www.biwater.com

seminars held and potential administrative support. The customers still pay their water bills to the WMAs (as today). For them the only noticeable change will be the improved water service quality.

The advantages of this PSP approach are the combination of the experience of a private water company with the (comparatively) cheap labour force of Local Service Providers. Because the public only gets in touch with the LSP – who might be their neighbours – and not with an anonymous international water company, the acceptance of this PSP alternative will be very high.

6. Competition *in* the water sector

The private water company acting as franchisor will benefit from the franchising scheme by gaining access to new markets. Because there now exists an alternative to the "old" PSP-models, this approach will increase competition during the bidding process.

Furthermore, there can now even be competition in the market (for operation and maintenance of water facilities) because it will be feasible to have franchisees of different franchisors in one area, with all of them competing for operation and maintenance contracts. So, the franchising approach could avoid the restrictions of the technical monopoly.

This might even eliminate the requirement of public authorities (in Europe) to tender for these services, as the value of a service contract for one franchisee will be lower than the amount demanding tendering.

7. Summary

Taking a look at today's situation of the water sector in developing countries, there are two problems to solve: First, the characteristics of water (political, social and economic) make it a very difficult product to allocate. Second, the bottleneck of sustainable water services to the people is the operation and maintenance of water facilities.

Operation and maintenance are the bottleneck of sustainable water services. Solving this problem will lead to reduced water losses, improved plant performance and increased collection rates.

Private Sector Participation was able to overcome problems with operation and maintenance. But public resistance to private water companies made it increasingly difficult to implement such projects. Therefore, a new approach is needed which solves these two problems.

Franchising with Local Service Providers (LSP) for operation and maintenance is such a promising approach. Compared to other possibilities of using the power of a private water company (PWC) – e.g. PPP – the franchise concept has the following advantages: By using mainly local service providers (plumbers etc.) there will not be an anonymous international PWC in charge of operations and maintenance but familiar (and thus more trusted?) companies. Furthermore, this concept allows to combine the professional experience of a PWC with the comparatively cheap manpower of local service providers.

The World Bank supports this first practical implementation world-wide and has awarded a Development Marketplace 2006 grant – worth about 200,000 US-\$ - to the IEEM.

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