

Adaptive Leadership in Water Utility Operations: The Case of Uganda

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Abstract

This paper explores how adaptive leadership and associated tactics can enable a utility to confront challenges and improve water utility performance. We find that well designed tactical plans based on individual performance agreements (IPAs) are useful when implementing an organization's Strategic Direction. The paper shows how using cash flows from annual operating profits to enhance service expansion yields community support for later utility initiatives, including price increases that allow the utility to improve service quality. The case of the National Water and Sewerage Company of Uganda shows that incorporating cost and operating efficiency incentives can promote sustainable infrastructure development. In addition, when confronting external challenges, managers should focus on customer communication (providing information) and community collaboration (listening). Both activities increase citizens' sense of ownership and their willingness to support activities of the water utility. Thus, consultative monitoring and evaluation of performance programmes enhance stakeholder awareness and promote utility accountability. In addition, a high sense of customer focus buttressed by professional and motivated workforce is another key driver for improved utility performance. Initiatives that reveal threats and gather the information and support needed to address those threats require a leadership orientation that is not mired in the status quo.

Key Words: Institutional Change, Adaptive Leadership, Water and Sanitation, Uganda, Management, Communication.

1. Introduction

The former CEO of Uganda's National Water and Sewerage Company (NWSC) was heard to say: "This Company is not a charity." Those words seem somewhat harsh but they underscore the fundamental link between achieving financial sustainability and serving the poor and the vulnerable. Recognizing these linkages is one element of leadership that addresses emerging challenges and promotes improved performance. First, the terms *leader* and *leadership* need definitions. We can say that a leader provides direction when the right direction is already known. According to Heifetz (1994) in Jamison and Araceli (2011), "Leadership mobilizes people to tackle difficult and often ambiguous problems and circumstances."

Heifetz goes on to differentiate between *authority work* and *leadership*. According to Heifetz, "Authority work (1) provides solutions by applying established procedures; (2) protects people and the "system" from external threats, providing stability to the organization; (3) restores order so that work can continue when internal or external forces disrupt the normal performance of work; and (4) maintains norms so people can work by following established rules and procedures. In contrast, leadership work (1) identifies challenges by questioning how problems should be defined and pointing out why technical solutions cannot solve adaptive problems; (2) discloses threats by calling attention to fundamental changes in external forces that threaten the status quo and defy traditional solutions; (3) exposes real conflicts or facilitates their emergence so that those involved face and work through tough choices; and (4) challenges norms to ensure that 'solutions' are not adopted before the new environment is fully understood, the real conflicts are resolved, and key trade-offs are made."

This case study examines the adaptive challenges facing an African water utility, and the tactical plans used to implement the organization's strategic direction—as determined by the leadership team. According to Jamison and Araceli (2011), the practice of leadership in the context of infrastructure reform involves *stirring* and *steering*. The stakeholder environment needs to be stirred to surface problems, contradictions, and opportunities. But the system also needs to be steered, not in the sense of leading a particular direction, but rather ensuring learning, providing opportunities for resolving conflict, and orchestrating experiments that lead to “next practices.” Jamison et al (2005) emphasize that whether in public service or the private sector, we all face adaptive challenges and are more effective in our work when we recognize them and are equipped to respond. Thus, it is useful to distinguish between *adaptive* and *technical* challenges, where the latter can be addressed through data analysis and professional expertise. The former require leadership—adaptive work that identifies challenges, discloses threats, recognizes (and resolves) legitimate conflicts, and avoids premature closure in developing and implementing responses to those challenges.

Moving from the era of millennium development goals (MDGs) to sustainable development goals (SDGs), leaves unaddressed many issues confronting water service providers in Africa and other regions. In the October 2015 at the International Water Association (IWA) Development Congress & Exhibition held in Jordan, participants discussed a number of issues relating to water management. At this event, the African Water Association (AfWA) held a business forum and reflected on what could have gone wrong in the attempt to achieve MDG goals related to water and sanitation. A focus group of utility leaders identified several causal factors. These included weak utility leadership that did not adequately establish shared strategic visions reflecting unique country contexts; in addition, problems were often addressed using external “experts, without exploring potential solutions suggested by staff. Thus, there tended to be an over-emphasis on copying management and institutional arrangements from other countries without proper due diligence and analysis of practical problems facing the water sector in different countries. Moreover, conference participants noted the inadequate attention given to appropriate technological options that would serve people living in poor (often unserved) communities. Participants also pointed out that the inattention to sanitation was partly due to the view that sanitation investments are necessarily expensive and yield small returns; managers had not explored innovative approaches to wastewater collection and treatment. Finally, weak corporate governance characterised utilities, resulting in interference from powerful actors in day-to-day utility operations and inadequate political support for long-term initiatives.

This paper contributes to our understanding of the practical ways those in authority and those leading teams can explore ways to enhance utility performance through adaptive leadership. The World Health Organization/UNICEF Report (2013) underscores the need for better performance; that report notes that most people in Africa and Asia lack decent water access: nearly 800 million people have no access to an improved source of water¹. The sanitation situation is worse, with almost 2.5 billion people having no access to improved sanitation

¹ “[An] improved source of water” is an acceptable access to water for human development, defined by organisations of the United Nations. It may refer to various types of delivery: piped water into dwellings, piped water to yards/plots, public taps or standpipes, tube wells or boreholes, protected dug wells, protected springs, rainwater. It does not include the following: unprotected springs, unprotected dug wells, carts with a small tank/drum, tanker-trucks, surface water, and bottled water. A person has access to water when he/she gets 20 litres of water per day from an improved source of water within a 1000-metre distance.

facilities². This situation is disastrous for public health: according to WHO (2004), every year, 1.8 million people (mainly children) die from diarrhea of which 88% are caused by failing urban water utilities. Such statistics underscore the importance of people with a high sense of leadership taking on the mantle of managing urban water utilities. These organisations need individuals and teams that primarily focus on the growth and well-being of people and the communities to which they belong. That does not mean that “low prices” or “low hook-up fees” solve the problem. In fact, such a short run decision can destroy the long-term financial viability of the utility—harming the very groups that the company managers might be trying to assist.

Clearly, the water sector presents challenges for developing countries. This case study argues that an adaptive leadership orientation is a useful tool for addressing those challenges. The elements of adaptive leadership lead to more effective strategies for improving urban water sector performance. According to Friesland and Alford (1991), institutional logics refer to a set of material practices and symbolic constructions of an organisation. This paper contends that an adaptive leadership orientation can be a catalyst for positive institutional change, promoting better service delivery to citizens. According to Heifetz (1994), adaptive leadership incorporates a practical leadership framework that helps individuals and organizations adapt and thrive in challenging environments. “Stirring” promotes the disclosure of threats and reduces the likelihood of prematurely adopting new tactics. The result is that the leadership team is able to take on the gradual but meaningful process of change. Ultimately, Leadership is about identifying fundamental threats and working through the trade-offs required to meet organizational objectives that are consistent with emerging public expectations.

2. Objectives, Methods and Approach

This paper highlights the linkage between an adaptive leadership orientation and institutional change. We use a case study of performance reforms and practices that have taken place in the National Water and Sewerage Corporation (NWSC) of Uganda from 1998 to 2015, emphasizing how recent initiatives have built on foundations built early in the reform process as outlined by Mugisha and Berg (2008) and by Muhairwe (2009). Within the urban water sector, actors, frontiers, and institutional issues are identified as key features of the decision-environment. Here, we highlight ten driving forces that characterise organizational innovation. The paper summarizes the practices, experiences, and outcomes at NWSC to illustrate some impacts of an adaptive leadership orientation.

3. Practices and Experiences at NWSC

National Water and Sewerage Corporation is a public corporation wholly owned by the Government of Uganda, established by Decree in 1972 and re-established by an Act of Parliament in 1995. Its mandate is to provide water and sewerage services in urban centres of Uganda on a commercially and financially viable basis. The corporation currently operates in 141 urban towns. The vision of NWSC is “to be a leading customer centered water utility in the world”. The mission of the corporation is “to sustainably and equitably provide cost effective, quality water and sewerage services to the delight of all stakeholders while

² Improved sanitation facilities include: flushing toilets, piped sewer system, septic tanks, flush/pour to flush to pit latrines, ventilated improved pit latrines (VIP), pit latrines with slab, composting toilets, and special cases (WHO, 2014).

conserving the environment. The main motto for operating staff is “the customer is the reason we exist;” another widely applied phrase is “water for all, by a delighted workforce for a delighted customer”. Of course, such phrases are only “words” unless the organization truly takes them seriously.

In this case, the corporation has implemented a number of change management programmes since 1998, leading into significant commercial, financial and operational efficiency gains. The successes achieved from 1998-2011 involved growing from 12 to 23 towns—increasing territorial responsibility and deepening the pool of resourceful managers. During the period 2013-2015, managers confronted a new set of challenges as citizen expectations and political priorities called for a dramatic expansion in corporate responsibilities. The managerial team established a new Strategic Direction 2013-18: a performance paradigm shift from an organisation focusing on two dozen towns via a profit maximising orientation to a much broader service delivery model--expanding service and improving utility professionalism throughout the nation. Mugisha (2015) summarises ten driving factors that have characterised the shift from a state-owned utility that focused on cost containment and profit maximisation to one whose ultimate objective is to maximize service delivery. Of course, without the initial emphasis on efficiency, collections, and capacity building within the organization in the first two decades, the ability of the organization to move into an expansion mode would not have been possible.

(i) Formulating a Strategic Direction for 2013-18 via Participative Processes

In August 2013, one of the authors (Mugisha--as the new Managing Director) brought an outline highlighting key ingredients that would be the foundation for a new Strategic Direction of the corporation. As had happened in 1998 when the previous MD/CEO initiated reforms in NWSC (Muhairwe, 2009) all senior managers met to contribute their ideas to the initiative. They discussed the strategic outline with the rest of the staff through extensive discussions; within one month the team came up with an enhanced draft of the corporation’s Strategic Direction. The draft was presented to the Board of Directors whose members discussed it thoroughly; their input lead to a final draft Strategic Direction 2013-18. The final draft was then presented to the Minister of Water and Environment who also provided recommendations that led to a final Strategic Direction (SD). The new direction presented substantial challenges for NWSC, as management faced absorbing over one-hundred smaller utilities into the organization. The SD was officially launched in November 2013 by the Minister, with stakeholders present—including staff, senior managers, the Board of Directors, senior Government officials, development partners, the media, and customers. The SD adopted a 10-point agenda, incorporating broad services expansion programmes, water quality improvement, staff welfare, information technology, and financial sustainability measures, among others.

(ii) Extracting Tactical Plans from the Strategic Direction

Initiatives are not self-implementing. After the launch of the Strategic Direction, it was important to take the SD to the implementation level through annual operational tactical plans. This initiative gave the aspirations expressed in the SD concrete steps. The corporation faced annual targets and milestones; these targets identified detailed processes and activities to be initiated, incentivized, and monitored. Then the activities were allocated to specific actors using individual personal agreements (IPAs) to increase employee accountability and productivity. The process of linking tactical plans with associated IPAs is quite rigorous and

highly participatory, involving affected staff. The plans also incorporate a monitoring and evaluation mechanism to track implementation progress in a structured and transparent manner. The plans are then launched in a public ceremony with all department heads signing commitments with the Managing Director/CEO. The signing process flowed through all supervisory levels to achieve similar commitments from managers and staff.

(iii) Emphasizing Service-expansion rather than Cash-flow Protection

When NWSC was responsible for only a few large towns and Kampala (the capital city), managers focused on retained earnings which could ultimately be plowed back into the areas—addressing capacity-building, network remediation, and sanitation. The key distinguishing feature of the SD from previous strategic plans was the overall objective. That objective of service expansion presented new challenges for managers. However, since the organization had successfully moved from a relatively small, high cost utility, it was in a position to emphasize network expansion in less densely populated towns. It was ready to move beyond improving cash flows to applying efficiency gains to financing capital outlays and maintenance expenditures. The savings had partly been achieved through scale economies in larger (and more densely-populated) towns. Now they were applied to towns and villages that had not been part of NWSC in the past. These smaller utilities lacked the managerial and technical skills necessary to increase their cash flows.

By cutting back on overall corporate profitability, NWSC was able to rapidly increase the number of towns under its organizational umbrella; NWSC was in a position to serve more people and provide better service³. In addition to operational expansion, the SD established an aggressive investment program to expand networks, even in towns with predominantly low income communities (what profit-oriented service providers would call ‘social-mission’ programmes). The initial result of such development programmes would be low levels of returns on investments; however, the strategy was designed to improve cash flows later when connection hook-ups and water consumption expanded. In such cases, the main mode of service was public stand posts (PSPs) that served 20-30 homesteads each (about 200-300 people), obtaining water within a maximum distance of half (0.5) a kilometre.

(iv) Prioritising Capital Investments rather than Recurrent Expenditures

During the last two years, the Board and management have emphasised network expansion (investment) rather than recurrent expenditures (variable costs). Annual budgets are implemented in a flexible manner, cutting back on recurrent expenditure to apply cash flows for expansion programmes. Staff expenditure, inland/foreign travel, meetings and similar expenditures were drastically reduced to increase funds for capital expenditures. Security expenses and billing system licenses needed to be reduced and/or eliminated. Accordingly, the corporation’s IT software applications development team developed a new customer billing system, based on the web (instead of relying on a license-based system). The corporation has also introduced an infrastructure fund to take care of short-medium capital investment requirements and also build a financial base that could ultimately be used to

³ Better services mean better customer care, increased water supply reliability, more dependable functionality within water production systems, better financial and billing systems, increased network expansion (increased new connections in the towns), increased focus on the poor and vulnerable citizens, greater attention to stakeholder engagement and more avenues for promoting accountability.

match funds from national and international capital markets. The contribution to the infrastructure fund stems from a new connection policy requiring the wealthier customer segments to pay for their own connections, leaving the corporation to provide only free public stand posts. The other contribution is from 10 percent tariff adjustment, implemented over two years. All infrastructure fund resources are ring-fenced for capital development activities. Of course, funds for recurrent expenditures remain important: maintenance and other activities have implications for future financial sustainability. However, after much discussion, managers determined that the sources of such funds should be from continuing improvements in cost containment, reduced non-revenue water, and increased collections.

(v) Incorporating Consultative Monitoring and Evaluation

Managers needed to address the changes in stakeholder expectations; past approaches would not address the new challenges. During the past two years, the corporation has focused on four stakeholder groups: customers, the public, internal staff, and government officials—each with different interests and time horizons. Accordingly, an accountability system had to be established, which promotes the effective interactions among actors. In order to keep all the stakeholders fully aware of the progress of implementation of the Strategic Direction (SD), NWSC adopted a consultative monitoring and evaluation design approach. In particular, NWSC organised bi-annual ‘*people’s parliaments*’ (‘barazas’) where senior managers of the corporation appear on a round table in front of a public gathering and describe performance improvements, challenges, and future plans addressing those challenges. The general public and those receiving service, through a structured moderated process, ask questions, raise concerns, give compliments and obtain feedback. Managers often ask attending staff to respond to specific questions. The baraza normally comes at the end of a rigorous quantitative evaluation of annual tactical plans that usually include process benchmarking of best operating practices. There is also a “naming and shaming” activity involving a diversity of reward and penalty mechanisms (primarily publically announced trophies and certificates of concern).

(vi) Infusing NWSC with a High Sense of Customer Focus

A focus on customers has been central to the long-term reform initiatives that began in 1998. Continuing that tradition, ‘customer delight’ ‘customer is king’ and ‘customer is the reason we exist’ have been the main motivating customer service themes during the first two years of the new SD implementation. It has been corporation’s deliberate effort to make sure these messages of customer service apply at all levels of staff so that there is a shared vision and understanding in the way customers ought to be treated daily. Posters bearing these messages are printed and posted at strategic locations in offices to encourage a common business conduct by staff. All senior managers of the corporation, including the Managing Director/CEO, must emphasise these messages as they address staff in their operational Areas. All printed material in the corporation also bears these messages. Ultimately, the proof of the claim to have a customer focus is in citizen attitudes towards NWSC. Surveys indicate a high degree of trust in the organization; it has received numerous awards for staff accomplishments.

(vii) Incorporating Community and Stakeholder Connectivity Systems

Neither high-level decision-makers nor staff serve people when they operate aloof from their constituencies. The corporation instituted a variety of mechanisms for relating to groups of

opinion leaders. These institutions include water community communication (WACOCO) clubs that draw upon organised community units throughout the service areas, with an emphasis on the capital city, Kampala. These units are periodically gathered together to discuss issues, such as controlling illegal water connections, water leaks and sharing information on infrastructure expansion programmes, among others. Such “stirring” activities bring fresh perspectives on the sources of problems and on ways to address the issues.

NWSC has also spearheaded the establishment of school water and sanitation (SWAS) clubs, with the overarching objective of educating schoolchildren about issues of efficient water use, environmental protection, public health, and personal hygiene. The idea behind such “steering” activities is that once the young generation grasps such information, they can easily spread it among themselves and parents at home. The children are also drawn into carrying out practical activities like tree planting, hand-washing activities, toilet cleaning, and erecting waste bins. They are also encouraged to compose informational messages themselves, through drama, poems, and songs. NWSC rewards the schools that excel in these practical activities. Other public awareness mechanisms include regional management team presentations of the corporation’s activities and plans in communities, such as places of worship, booths at big market days, and discotheques, among others. Reaching out to citizens expands on the NWSC tradition of citizen engagement.

(viii) Prioritising Staff Welfare and Motivation

No organisation can expect to serve outside customers well without catering to its internal customers: the staff. Accordingly, staff welfare and motivation is another key component of the SD. Staff salaries, emoluments and incentive systems have been re-engineered to reduce disparities between top managers and lower cadre staff, a problem that had been a source of discontent for some time. Incentive criteria also had to be revised to reflect practical performance realities on the ground and make it possible for staff to earn a rewarding share commensurate with realized efficiency gains. A provident fund has also been introduced where staff voluntarily contribute five percent of their pay, while the corporation matches it with another five percent, to be owned by the staff after some time-period. This fund constitutes a powerful staff retention tool. In addition, NWSC has also introduced a 360 degree appraisal system where staff are periodically evaluated by their supervisors, peers and subordinates. These reviews pinpoint strengths and weaknesses of a staff/manager, based on prior self-evaluation of individual performance agreements (IPAs). The IPAs ensure that staff/managerial appraisal is based on agreed performance targets/milestones.

(ix) Maintaining a Focus on Cost and Operating Efficiency

A number of initiatives have been put in place to leverage more financing to make the corporation more self-reliant. These have included a number of initiatives: significant energy reduction plans in water treatment plants through innovative engineering; introduction of e-payment systems using banks and mobile money, among others; e-procurement systems that eliminate excessive paperwork; home-grown web-based billing system that eliminates payment of license fees; and performance-based manpower planning arrangements. The corporation is also finalising arrangements to enter into a public-private partnership to construct a waste-to-energy independent plant that will lead into at least 40 percent reduction in power costs that currently constitute 30-40 percent of total operating costs. The corporation will only offer land and enter a negotiated power purchase agreement. On pipe network efficiency, the corporation is using community-engagement approach to reduce non-

revenue water. A plethora of water loss prevention units (WALOPUs), with varying forms of incentive plans, have been established in all NWSC utilities for this purpose. This approach involves working with police, other security agencies and local communities to combat illegal connections/water thefts that are the major sources of commercial losses. In addition, NSWSC has introduced on-spot billing systems using smart phones to reduce the cost of customer invoicing and to reduce attendant errors.

(x) Using Communication Tools

The dramatic expansion of NWSC's responsibilities required new communications initiatives. During the last two years, the corporation has significantly revamped use of various forms of communication tools to reach out to its customers and the public. For external communication, these include, among others: use of twitter, Facebook, Linked-In, NWSC website and a highly interactive call centre facility with inbound and outbound interfaces. All these outlets have been adequately staffed with appropriate skills and linked to operating staff teams so that issues raised as complaints can be promptly addressed and solutions provided. An NWSC mobile application has also been designed to make it easy for customers to access personal information in a timely manner. A customer relations model has also been introduced where each customer has been assigned a staff in the corporation for prompt and easy resolution of issues. Details of customer relations staff are printed on individual customer monthly invoices for ease of reference. For internal communication, the corporation also uses extensive IT solutions through e-communities of practice using *whatsApp* tools. Through this system of communication, all staff are required to share their successes, challenges and plans for process benchmarking. This approach has contributed to the creation of shared values that have increased staff productivity and performance.

4. Historical Performance: Empirical Data

Adaptive leadership has required the surfacing and resolution of conflicts between several objectives: maintaining high levels of performance within larger cities and towns vs. expanding professional management into smaller towns. By implementing the above initiatives, NWSC has made significant progress towards improving financial and operational performance. Table 1 below shows highlights of key achievement realised in two periods 1998-2011 and 2011-2015.

Table 1: Highlights of NWSC Key Achievements

Performance Indicator	1998	2011	2015
Number of NWSC towns	12	23	141
Water Network Expansion (Km/yr)	45	120	1470
Service Coverage (%)	48	75	78
Total Connections	50,826	272,406	417,938
New Connections per year	3,317	25,633	33,982
Proportion Metered Accounts (%)	65	99.8	99.8
Staff per 1000 Connections	36.4	6.2	5.8
Collection Efficiency (%)	60	98	105
Non Revenue Water (%)	65.2	33.4	31.2
Annual Turnover (Billion Shs)	21	132	220

Source: Authors' Analysis of NWSC Audited Annual Reports (1998, 2011 and 2015).

5. Analysis and Discussion

During the last two years, the activities associated with the ten driving forces required buy-in from affected parties (staff, customers, the general public, and political leaders). The initiatives were not taken without input from these stakeholders. As a result, managers have almost doubled the annual turnover for the company. The emphasis on adding small towns reflects an adaptive leadership orientation. It is also a politically popular move, since the expansion has brought many more communities into the NWSC family. Of course, the achievements in the first decade of reform laid the foundations for a renewed emphasis on network expansion. Without the record of accomplishment, transparency regarding individual system performance, and higher levels of efficiency and collections, NWSC would not have the confidence of citizens that their funds were being used effectively for the benefit of customers.

Nevertheless, this initiative to reach out to small towns required some institutional changes. From Table 1, for example, the number of towns have increased by more than five times in a space of only two years, mainly because the corporation's Board and management were prepared to take over non-viable towns. For this stage of the reform process, the leaders chose network expansion, at the expense of reduced net cash flows. Management believed that by taking over unviable towns and aggressively increasing the network and connection hook-ups, there would be a future pay-off in terms of increased turnover. The initiatives were designed to ultimately improve operating surpluses through improved management of non-viable towns. There were risks in assuming the responsibilities for many new towns: Would NWSC managerial talent be able to handle the new tasks? Were there scale economies in testing for water quality and sharing engineering expertise across wider geographic areas? Would citizen expectations be unrealistic—leading to disappointment and political interference? Would politicians attempt to micro-manage the pace at which different regional utilities were able to make progress. To date, the negatives are outweighed by the positive outcomes. Indeed, by increasing the number of towns, the number of people served with improved water services by the corporation in urban centres has increased from about 4.0 million to about 6.4 million. There is more political/government support to finance infrastructure investments due to widespread citizen goodwill: complaints from communities about poor service delivery have drastically reduced. This trend will return significant benefits in terms of citizen health and hygiene, especially in low-income communities which are now being served through increased public stand posts.

From Table 1, one can see that there has been rapid growth in annual network growth while at the same time using low-cost approaches to investment. In most cases, customers in benefiting communities are asked to contribute physical labour to dig trenches, with the corporation providing pipes and materials. In addition, through close collaboration with beneficiary communities, costs of compensation have been drastically reduced. The smart community partnerships also help to sensitise new customers to the benefits of connecting to the new pipelines and using water efficiently, avoiding illegal connections and reporting leaks in a timely manner. Thus, there has been rapid increase in new connections per year and hence the number of total connections. The metering efficiency has remained high (almost 100 percent) because there is a deliberate policy that all connections must be metered to ensure that customers invoices are based on actual water consumption.

The staff per 1000 connection indicator has not shown drastic improvement because of the

very many smaller towns that have been taken over. The towns still have low economies of scale and need to grow in terms of number of connections and revenue to match the efficiency of larger towns and cities. On the other hand, the collection ratio has improved over the last two years due to increased public awareness and hence willingness to pay among the customers/communities. The community/customer connectivity systems and a strong customer focus among staff have had significant positive effects on the revenue collection ratio. In addition, demonstrating adaptive leadership, the Board and management gained the approval of top government officials regarding payment of government debts (an issue that plagues most African water utilities). The President of Uganda, on learning about rapid achievements of the strategic direction, directed that all Government debts be paid on condition that funds would be applied to development expenditure in newly taken over (unviable) towns. After a signed commitment, all government debts have been paid and arrangements to consistently pay all emerging debts have been put in place. Thus, political backing made this expansionary initiative financially feasible, since those funds were used to jump-start the investment program.

The non revenue water (NRW) performance is showing good progress because of the largely successful partnership between the corporation, security agencies and the community in fighting water thefts. Illegal connections are the largest contributors of NRW, especially in Kampala, where it has now come down from about 37 to 30 percent over a period of one year, using this partnership. Related to this effort, NWSC staff have also been sensitised and warned against assisting illegal connections. The customers that are caught in illegal connections acts are heavily fined, named and shamed in the media and selectively prosecuted in courts of law, as a deterrent measure. Some of the strong catalysts of these measures include sharing of information from different regions using e-communication tools described above.

The turnover performance is attributed to high collection rates that have been achieved through meaningful communication, education, and information sharing. For example, NWSC staff have consistently demonstrated that, according to its tariff structure, the cost of one half-litre bottle of beer is equivalent to over ninety five twenty-litre jerrycans of water from a public standpoints aimed at serving the poor. The cost of a single phone sms-message that every low-income person is capable of sending everyday is equivalent to about four twenty-litre jerrycans. With these simple illustrations, based on a jerrycans-model that everyone understands, public awareness that water tariffs are affordable has increased, promoting increased *willingness to pay* even if the *ability to pay* has not increased! The other key message has been that those underprivileged people without easy access to water pay more than five times more than those connected to services. NWSC messages emphasize that such people actually pay more than even the rich people. Consequently, customers that are connected to the network look at the corporation as a service oriented organisation that warrants support in terms of timely payment of bills. Moreover, like it has been in the last two decades, the positioning of the utility as a publicly-owned corporation is very favourable, having consistently won over fifteen awards of both national and international recognition for exemplary service in the last two years.

6. Concluding Observations

This case study of NWSC contributes to policy analyzes regarding steps that can improve water utility performance in developing countries. It addition, it contributes to institutional analysis by providing concrete examples of re-orienting a utility from focusing on larger

towns to the wider community as a way of tapping into political support for infrastructure financing—despite the associated risks of operating at small scales and the challenge of meeting high citizen expectations. Drawing upon the analysis of institutional change by Greenwood et al. (2002), the paper highlights some micro-processes at work during different phases of institutional change. It also emphasizes the need to take into account practices and intra-organisational changes (including the benefits of a track record that results in political support). The ten initiatives described here can be viewed as a part of the process leading to institutional change (Lounsbury, 2008; Smets et al. 2012; Lounsbury, 2007;). By looking at the role of adaptive leadership, this work contributes to exploring the link between individuals, institutions information, incentives, and practices (Leca et al., 2009; Arjalies, 2010; Kaghan and Loussbury, 2006; Labatut et al., 2012). This case study illustrates how the application of adaptive leadership orientation contributed to network expansions that strengthened NWSC's credibility with citizens and their elected leaders.

The case study also identifies a number of driving factors and shows that their incorporation in managerial strategies can yield performance improvements. We find that well designed tactical plans based on individual performance agreements (IPAs) are a valuable step after establishing the Strategic Direction. The paper shows that looking beyond annual operating cash flows and instead using them to enhance services expansion (in viable *and* unviable localities) improves water access for citizens. We also find that incorporating cost and operating efficiency incentives supports sustainable infrastructure development. Decision-makers manage what they measure and NWSC has a long history of measuring key performance indicators, monitoring progress over time, and incentivizing staff to meet realistic (but strong) targets. Maintaining connectivity with customers and communities increases a sense of public ownership and strengthens the willingness of politicians to support activities of a high-performing water utility. Consultative monitoring and evaluation of performance programmes enhances stakeholder awareness and mutual accountability. In addition, a high sense of customer focus buttressed by a motivated workforce is another key driver for improved utility performance.

However, without a willingness of leaders to go beyond a technical (engineering) orientation to one that seeks to engage external stakeholders and address emerging challenges, NWSC would not be winning awards. It might be easier to defer addressing genuine conflicts such as the one between those who would focus on a few cities and those who seek a wider impact for the utility. However, confronting and resolving differences ultimately improves the financial and political sustainability of the organization. Nothing is risk-free—moving into uncharted terrain presents more challenges than maintaining the status quo. Nevertheless, the case of NWSC suggests that adapting to changing expectations and adopting new tactics can lead to significant improvements in sector performance and greater legitimacy for the utility.

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