



## **MANAGEMENT IN PUBLIC UTILITY COMPANIES IN GHANA: AN APPRAISAL OF GHANA WATER COMPANY LIMITED**

**Kwaku D. Kessey<sup>1</sup> --- Irene Ampaabeng<sup>2</sup>**

<sup>1</sup>*Kwame Nkrumah University of Science and Technology, Kumasi, Ghana*

<sup>2</sup>*Development Practitioner, Accra, Ghana*

### **ABSTRACT**

*Urban water provision system in Ghana covers 70 percent of the resident population but it is estimated that only 40 per cent of residents connected to the supply system have regular supplies. The Ghana Water Company Limited (GWCL) which is responsible for production, distribution of potable water, billing and revenue collection from consumers is beset with many challenges. It faces several management challenges manifested in poor service delivery in terms of quantity and quality, poor cost recovery, weak capacity for operation and maintenance and poor financial management. This state of affairs has compelled the Government of Ghana to initiate reforms of the water sector including reengineering of the systems and possible Private Sector Participation in urban water provision. Presently, government has started physical expansion works in the water sector of many cities in Ghana. But not much has been done on the management system and its effect on water provision. The contention is that without effective management the expansion and reengineering works will not have sustainable effect on urban water provision. Given this scenario, Cape Coast, capital of Central region was chosen as case study on the management dimension of urban water provision. The institutional management assessment revealed that the GWCL as a quasi-state institution has limited autonomy for effective operation. This has culminated in poor performance and negative public image. The staff of the company admitted its poor service delivery and financial management. They are of the opinion that public-private partnership investment would improve the situation. However, consumers are unwilling to accept private investors' participation in water provision due to the general perception that partnership will increase water tariffs.*

**Keywords:** Public, Utility, Potable, Management, Public- Partnership, Tariff.

**Received:** 27 October 2013/ **Revised:** 13 December 2013/ **Accepted:** 10 June 2014/ **Published:** 15 July 2014

### **1. INTRODUCTION**

The performance of many Public Utility firms in several developing countries is poor. Consequently many people have lost confidence in the Water, Electricity, Telephone and

Communication companies just to mention a few. The search for a solution to the problem has brought to the fore several options one of which is public – private partnership. It is important to emphasize that the utilities more than any other commodity affect all the main themes of the current development agenda namely poverty reduction, environmental sanitation, private sector-led growth, non-traditional export led growth, participatory development and good governance (UN, 2003). Therefore the increasing number of people without access to public utilities poses an enormous challenge to national leaders and institutions worldwide. The UN Secretary-General's initiative on water, energy, health, agriculture and biodiversity (WEHAB) is therefore in line with the provision of Public Utilities (The World Bank, 2003). The year 2003 was declared "International Year of Freshwater" by the United Nations General Assembly due to the gravity of the problem of freshwater shortage worldwide.

The World Commission on Water reported to the Ministerial Conference at the 2<sup>nd</sup> World Water Forum, that an estimated investment of \$100 billion a year was needed to finance the water sector in addition to the current expenditure of \$ 80 billion if current UN targets were to be met. Hence ministers at the Third World Water Forum in Kyoto, Japan declared to explore the full range of financing arrangements including private sector participation (PSP) in line with their respective national policies and priorities, as well as identify and develop new mechanisms of public- private partnerships for the different actors involved. This should be done while they ensure that the necessary control measures are in place to protect public interests with particular emphasis on protecting the poor (FAO, 2003). In response, the government of Ghana has established the Ghana Water Company Limited (GWCL), to be responsible for water provision, distribution and conservation for domestic, commercial and industrial purposes in urban areas, while the Community Water and Sanitation Agency (CWSA) facilitates rural water supply.

The challenges associated with management of Public Utility companies have been taken for granted by both the government and employees in many developing countries. The contention is that many Public Utility firms have competencies in staff capacity, adequate equipment and machinery but weak in management activities resulting in poor performance and service delivery. A case in point is that there is about 50 per cent unaccounted for water produced by the Ghana Water Company Limited. In addition, although the Company estimates 70 per cent water coverage for urban Ghana only about 40 per cent of the population has water regularly flowing through their taps. The majority of the negatively affected people are the urban poor who are compelled to buy water from vendors between 4 to 10 times the normal tariff rate. Again, many Public Utility firms are characterized by low tariff levels, poor billing and low revenue collection. The companies structures for revenue collection are largely non-functional and therefore they hardly break-even. Although some of these problems could be attributed to technical problems facing the firms the argument is that they are evidences of poor management practices and inappropriate policy framework directing the Public Utility firms. The companies have operational managers as against managers and board members who think strategically. As far as some of the people directing the Public Utilities do not have long term vision for the companies and a helicopter perspective of their operations they can hardly

produce effective results. Thus for the purpose of this study the effectiveness of corporate governance of the Ghana Water Company Limited was the main variable for assessment as the state of this variable influences the effectiveness of technical, financial and external interventions. In that context, the following research questions were raised: What management practices are found in Ghana Water Company Limited (GWCL)? How integrated are the different units of the GWCL? How do the workers assess the management? What is the public image of the company as well as its competence?

The general purpose of the study was to assess water policies and institutional management for water provision in Ghana. In specific terms the objectives of the study were; to assess the effectiveness of the policies guiding the provision of Water in Urban Ghana; to assess the vision of public officers who have been assigned new roles of managers in a public institution turned into a company with limited liability, the challenges they face in the performance of their duties and to evaluate consumers' perception of the Water Company under new management;

## **2. METHODOLOGY**

To make it possible to analyses in detail the complexities of the twin variables of management and public policy the case study approach was selected. It allowed an in-depth analysis of the phenomenon over a relatively smaller geographical scope. The Cape Coast Municipality was selected as the study area by virtue of the fact that it is one of the urban areas in Ghana that experiences frequent water shortage that impacts negatively on the development activities of the municipality. Water shortage in the municipality affects its roles as major educational Centre and the nerve Centre of Ghana's tourism as it is the destination for about 40 per cent of tourists visiting Ghana ([Republic of Ghana, 2001](#)).

## **3. CONCEPT OF MANAGEMENT**

Management was defined by [Henri \(1916\)](#) as follows: "To manage is to forecast and plan, to organise, to command, to coordinate and to control". Again managing is an operational process initially best dissected by analysing the managerial principles...which are forecasting, planning, organising, commanding, coordinating and controlling. These broad definitions are basically saying that management is a process that enables organisations to set and achieve their objectives by planning, organising and controlling their resources. Others submit that management as a collection of activities involving planning, organising, motivating and controlling". In other words management is not an activity that exists in its own right but rather a collection of a variety of activities carried out by members of an organisation whose role is that of a "manager" i.e. someone who either has formal responsibility for the work of one or more persons in the organisation, or who is accountable for specialist advisory duties in support of key management activities. The activities in the definition describe what managers do in practice, primarily in terms of inputs. These activities therefore serve as feedback for all managerial activities, thus in assessing the managerial capacity of Public Utility Companies in Ghana these activities are deemed appropriate. The institutional framework in which the management process occurs

largely influences the functioning of the management system and principles. Although management principles are dynamic in nature, they have been operated as static management functions in some organizations. It was therefore the focus of this research to assess the extent to which the Ghana Water Company Limited operates in water provision in Urban Ghana.

#### **4. FRAMEWORK FOR ASSESSING FORMAL WATER INSTITUTIONS**

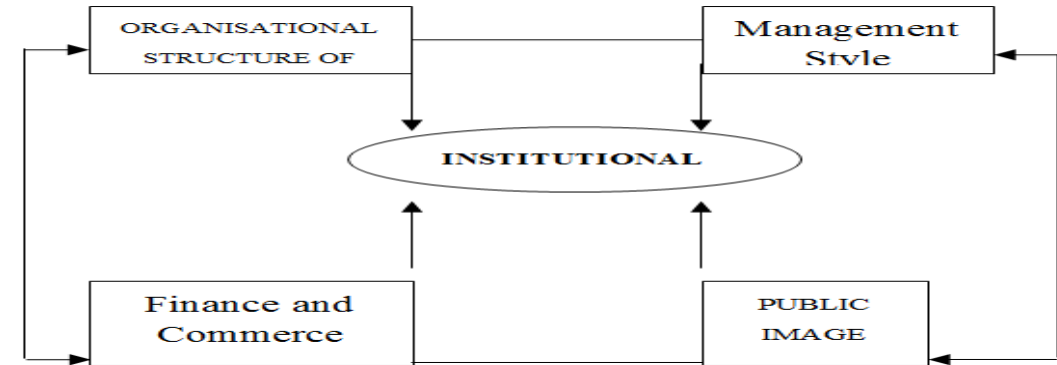
Saleth and Dinar (1999) in assessing the effectiveness of institutions decomposed them into their constituent components, by considering the following components of institutions: law, policy and administration. In applying this approach to water management institutions, they defined them in terms of water law, water policy and water administration. To be able to evaluate the effectiveness of each component, they took into consideration the aspects that are within each and the strength of linkages to other components. The indicators were developed on the basis of their ability to reflect the “performance” of a given component or aspect, as well as the possibility to translate it numerically. The focus is therefore on the efficiency of water law, water policy and water administration as well as water sector performance. Saleth and Dinar evaluated these indicators based on the questionnaires filled out by water specialists. The aspects of water law considered were legal treatment of water and related resources; format of water rights; provisions for conflict resolution; provisions for accountability; scope for private sector participation; centralization tendency; degree of legal integration within water law.

The aspects of water policy are project selection criteria, pricing and cost recovery, inter-regional/sectoral water transfer, private sector participation, user participation and linkages with other economic policies. The aspects of water administration are spatial organization, organizational features, functional capacity, pricing and finance, regulatory and accountability mechanisms, information, research and technological capabilities.

##### **4.1. Institutional Management Performance Indicators**

To assess the management performance of the Public Utilities firms some of the common indicators are organizational autonomy, leadership, administration, commercial orientation, consumer orientation, technical capability, developing and maintaining staff, organizational culture, interaction with key external institutions and management style. These indicators were discussed in the study under four major headings Figure 1 and further elaborated.

Figure- 1. Aspects of Institutional Assessment



Source: Authors'

The structure of the organization includes organizational autonomy, defined as the institution's degree of independence government and regulatory bodies. It covers administration which is defined as organizing people and resources to accomplish the work of the organization. Effective management is demonstrated by the capacity to get the most out of the resources available (human and other) in a deliberate or planned manner. Staffing include those activities directed toward recruiting staff, providing skills to do the jobs and grow professionally, and providing adequate job satisfaction and wages and benefits to retain competent personnel in the organization. It covers organizational culture; that is the set of values and norms, which inform and guide everyday actions. The culture forms a pattern of shared beliefs and assumptions, which translate into behaviour, which can be observed. (Table 1)

Table-1. Institutional Management Indicators.

Dimensions of Assess	Indicators
Organizational Structure	Organizational Autonomy, Organizational Culture, Administration, Staffing
Finance and Commerce	Commercial Orientation
Public Image	Consumer Orientation
Management Style	Leadership, Linkage with other key institutions

Source: Authors' Construct

The main concern of finance and commerce is commercial orientation; that is the degree to which actions in an institution are driven by cost effectiveness and operating efficiency. The performance of an institution's functions should be guided and disciplined by a strategy to achieve financial self-sufficiency at an appropriate stage of growth.

The public image of an organization is focused on its consumer orientation; that is organizing and directing the services of the organization towards consumers. People who staff an effective institution see serving consumers as their primary function.

Management style implies how the people in control of the organization direct affairs. The extent to which decision making is decentralized as well as the type of vision the management has; that is whether operational or strategic. This includes leadership that is the ability to inspire others to understand the institution's mission and vision and commit themselves to that mission and vision, and to work toward its fulfilment. It covers linkage with key external institutions and the institution's capacity to influence positively and strategically those institutions, which affect its financial, political, and legal ability to perform. This is the essential characteristic of this category.

## **5. POTABLE WATER IN GHANA – HISTORICAL PERSPECTIVE**

The development of Ghana's public water supply began in 1928 with a pilot pipe borne water system. In 1948, a Rural Water Development department was created to take care of the provision and management of rural water supply. After independence, a Water Supply Division was established under the Ministry of Works and Housing charged with the responsibility of supplying water for both urban and rural areas. In 1965 the water supply division was transformed into the Ghana Water and Sewerage Corporation (GWSC) by an Act of parliament (Act 310) as a legal, public utility entity with two main objectives; the provision, distribution and conservation of water supply in Ghana for public, domestic, and industrial purposes; and the establishment, operation and control of sewerage systems for such purposes. The execution of these responsibilities entailed: Planning and development, Research, Engineering design and works, and their operations, establishment of water quality and sewerage standards determination and collection of tariffs.

The Act of incorporation required that “the Corporation shall cause its affairs to be managed in accordance with the practices observed in public utility enterprises and in particular shall cause its functions under this Act to be carried out so to ensure that, taking one year with another its revenues are equal to or greater than its outgoings” (section 7 of Act 310).

Thus GWSC was required to be cost efficient as a public utility entity but its operations were largely dependent on Ministerial approval of tariffs which will enable sufficient funds to be generated to cover operational expenses, debt service charges, depreciation costs and development cost, but governments over the years lacked the political will to charge economic rates inhibiting the corporation from balancing revenue with outgoings and developing the business (Marty, 2000).

Hence government had to pay for the shortfalls in operational expenses and being totally responsible for all investment. But due to deteriorating economic conditions, budget allocation to the water sector kept dwindling, and the GWSC was characterised by a general breakdown of the water supply system, inability to undertake rehabilitation or source expansion, weak and inadequate organisational structure, and less attention to rural water supply in the face of increasing population. This necessitated the sector reforms in 1999 when the corporation was

converted into a Limited Liability Company known as Ghana Water Company Limited (GWCL) under Act 461, concentrating its activities exclusively towards the provision of water for urban areas and further reducing its control over wastewater collection and disposal (GWCL, 2001).

## **6. POLICIES ON WATER SECTOR REFORMS**

The Government of Ghana (GoG) has since 1994 been pursuing a restructuring of the water sector. The objective is to improve efficiency and improve access to potable water for the population. The key elements of the process has involved the de-linking of rural/small towns water supply from municipal/urban, the establishment of regulatory bodies and the promotion of increased private sector participation in the water supply process. Under the reform, the GWCL was made the agency responsible for urban water supply, while Districts Assemblies and communities were mandated to provide these services to rural and small towns, based on a demand-driven approach with the CWSA playing a key facilitation role.

The main strategies employed in the water sector reform process were the segregation of urban and rural water supply, the setting up of institutions responsible for water resources allocation and utility tariff regulation, namely the Water Resources Commission, and the Public Utilities Regulatory Commission.

### **6.1. Corporate Governance Reforms and Public Policy**

This section presents the analysis of data on the four pillars of institutional assessment namely structure of organization, finance and commerce, public image and management style of the sector as presented in Figure 2.

In Ghana, institutions manage water provision at the national, regional, metropolitan, municipal, district, and community levels. There is Ministry of Water Resources, Works and Housing (MWRWH) which is responsible for setting the overall Government policy objectives in the water sector. These national policies are operationalised through a number of agencies including national institutions such as the Water Resources Commission (WRC), which is responsible for management of water resources. The Public Utilities Regulatory Commission (PURC) is an independent national regulatory body for public utility (water and electricity) services including tariffs. The State Enterprises Commission (SEC) sets the objectives and operational targets for the water provision institutions. The Environmental Protection Agency (EPA) which ensures that the activities of water operators do not cause any harm to the immediate environment and water bodies. Ghana Standards Board (GSB) set standards for drinking water quality. Both GWCL and CWSA have national, regional and district offices throughout the country.

Domestic and industrial Consumers/Users are the beneficiaries of the services of the water institutions, and also expected to contribute towards the attainment of sustainable water provision through the payment of tariffs and cooperation with the institutions.

In promoting a sustainable institutional and managerial capacity in water provision, these institutions play important roles however what is happening on the ground is limited coordination of institutional policies among the agencies. As shown in Fig 2 different agencies are responsible for each category of water use, with each of them taking their own policy decisions related to water without coordinating their actions. Thus Ghana's water policy is criticised for not having adequate linkages to other policies. The MWH has observed that: "Ghana lacks an overall water policy for tariffs in the form of strategies; national water master plans and mechanisms for inter sectoral coordination" (Republic of Ghana, 1998). This state of affairs has partly been attributed to the absence of a water secretariat under the MWRWH to coordinate the activities of the various actors and the extent to which these institutions influence the operations of the GWCL; Water Sector Stakeholders and Institutions in Ghana

## 7. ANALYSIS AND DISCUSSIONS

The GWCL as a utility provider forms an integral part of the water management structure in Ghana with the mission statement of "abstraction, treatment, transmission, storage and distribution of potable water to urban communities" (Mission of GWCL). It has Board of Directors and a management headed by the Managing Director of the company who is a member of the Board. The Board of Directors is responsible for major policy issues. The managers of the thirteen units of the company and the Managing Director constitute the Management team of the company at the national level as indicated in Figure 3.

The Regional Chief Managers (RCM) head regional management teams and reports to the operations manager at the National level. The district and sub-district offices are the lowest on the organisational chart and deal directly with consumers. They comprise operations, production and commercial units. The Figure 3 illustrates the command chain of GWCL with specific reference to the central region of Ghana. The GWCL has a well-defined command structure from the national to the district level, with functions well spelt out for officers. However the administration of the company is highly centralised with managers at the sub national level taking instructions from management at the national level, and unable to initiate measures to ensure sustainable water provision in urban areas.

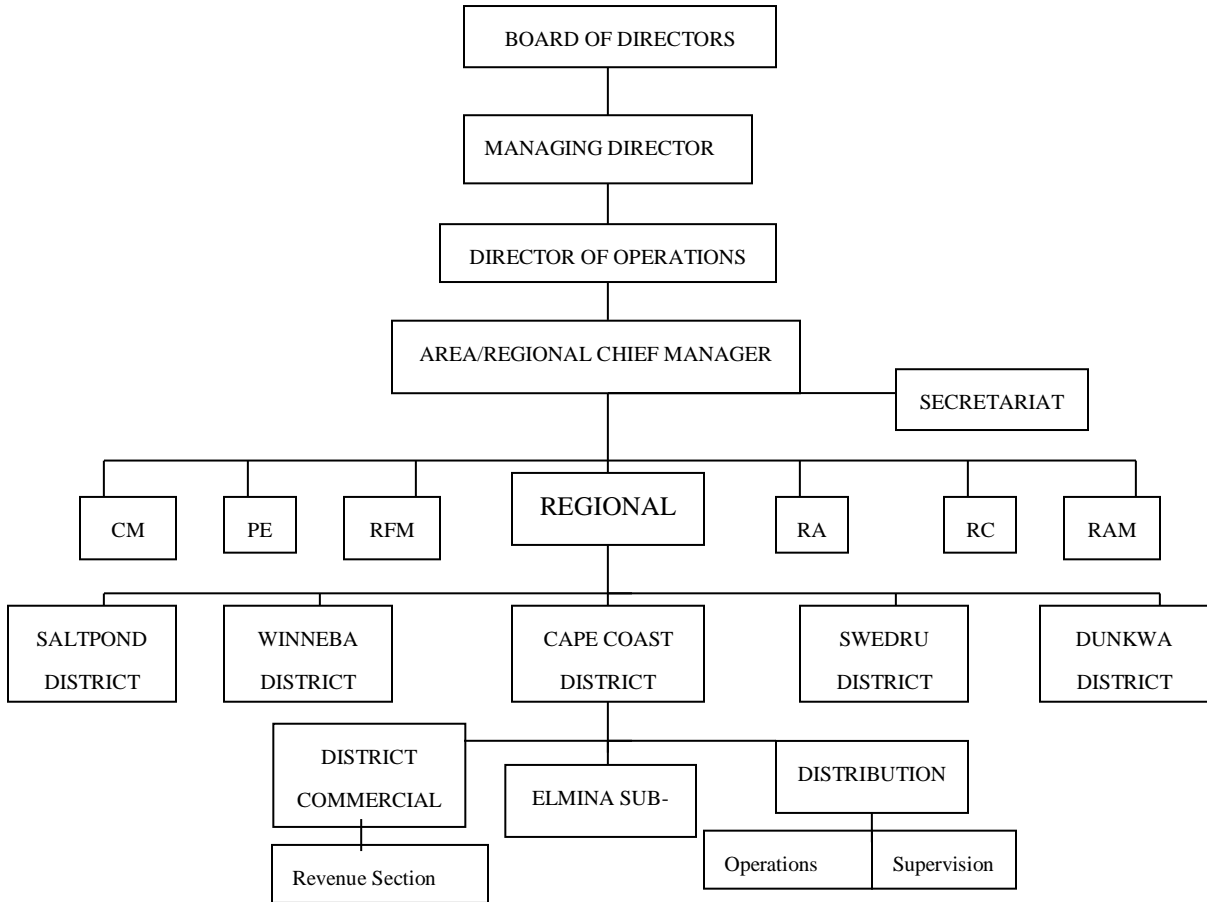
### 7.1. GWCL System of Operations

First, GWCL connects houses and firms as consumption units. Although delivery of bills is prompt, the company is unable to generate the expected revenue due to wastage, under billing due to unmetered premises, illegal connection and nonpayment of bills. The management of the company is of the opinion that the estimation of water consumption for unmetered premises



constitutes the major case of under billing. This makes the metering of all premises imperative but the company is unable to buy the required number of metres due to their high price.

Figure-3. Cape Coast District in Regional Context.



Source: GWCL

The connection procedure for new consumers is considered as laborious and time consuming as; connection is not effected within the stipulated twenty eight days. For consumers who stay at city outskirts they are unable to meet the requirements laid down to be followed especially the attachment of site plan to an application is a deterrent, thus contributing to the existence of illegal connections and loss of revenue.

Disconnection and prosecution are the punitive measures for nonpayment of bills and illegal connections, but this seems ineffective as the company in recent months extended an amnesty for illegal connections as a better option.

## 7.2. Administration

In terms of management and administration the evidence shows that managers have a clear sense of goals and priorities and were aware of operational details of the company. The actions of management are guided by the policies and procedures of the company and therefore characterized by teamwork, cooperation and good communication among the staff. The company has personnel, finance, commercial and management information systems units. Management of the company is however incapable of getting the best out of the resources available in a planned manner, as 55 per cent of their product is not paid for, this is classified as non-revenue water (NRW). Thus a combination of high unaccounted-for-water and poor revenue collection by the Company make revenue collected just sufficient for payment of recurrent costs only, like many sub national entities in public sector of Ghana (Kessey, 1995)

The procedure of hiring staff for the company entails advertising of the vacant positions, short

listing, conducting of interviews and hiring of the qualified personnel. The company has a number of casual staff who reapplies for their position every two months and some have been casual staff for over twelve years, staff in this category is mostly plumbers, revenue collectors and metre readers. The GWCL has a policy of developing the talents of staff through further education. The performance of the district staff is assessed by the district manager based on the ability of staff to meet the set targets. The promotion of staff is based on the recommendation of the district manager

By PURC standards, personnel emoluments of utility companies should not exceed 20% of the company's total revenue and given the low revenue base of GWCL, salary levels are low compared to other utility companies such as the Electricity Company of Ghana (ECG). According to staff at the management level this has affected discipline and resulted in low morale among staff, and the company could not retain a number of high profile engineers at the national and regional levels as a result of low salary and the nonexistence of incentives for staff. There are no engineers at the district level but in some instances the district managers are trained engineers. General staff turnover is however low due to the inability of the district or regional office to hire and fire staff who misconduct themselves as the hiring, posting and transfer of staff are centralised.

## 7.3. Finance and Commerce

Capital deficiency is the major obstacle hindering the company's performance. The company plans to overcome that through partnership with a private entity. In 2003 the Ghana News Agency (GNA) put the company's losses at 72 billion Cedis (US\$ 3,600,000). The low revenue collection is a source of concern to the board of the company and government alike. This is by virtue of the fact that the company is not allowed to charge economic tariffs, while the rates approved by the PURC are below the company's operational cost. For example, in 2001 the

approved rate of a gallon of potable water produced at a cost of 102.00cedis was sold for 54.00 cedis constituting a loss of 48.00cedis on a gallon of water produced by the company. Ideally, the tariffs should be reviewed realistically upwards from time to time but political expediency prevents that from happening. For example, marginal or no tariff increase takes place in election years. This confirmed by the analysis in Table 2 which summaries water tariffs adjustments for various categories of users from 1999 to 2004.

Thus defeating the company's vision of becoming "a reputable utility provider, valued by its customers and playing a key role in the economic development of the nation" (GWCL, 2004). Therefore as part of the water provision reforms, the Government has decided to write off part of GWCL debt.

Financial planning of GWCL is a cooperate issue at the national level, viable regions and districts are not allowed to reinvest their surplus. Capital budget for the company is centralised with the head office being solely responsible for major projects in region/districts; these are based on directives from the MWRWH and Ministry of Finance (MOF). The annual operating budgets are prepared at the regional level, based on guidelines from head office, approved by of the head office before execution. In the process, the operation cost of the company is not met as the level set by government does not cover cost of operation.

**Table- 2.** Summary of Approved Water Tariffs for GWCL: 1999-2004

Category of Consumer	Average Rate in Cedis per 1000 litres				Percentage Increase
	1999	2001	2003	2004	
a) Domestic	1206	2295	4150	4031	234
b) Commercial/Industrial	2093	4000	6000	6911	230
c) Public Institutions	1560	3600	5400	6220	290

Data Base: *GWCL*

The company is weak commercially as its activities are not driven by cost effectiveness and operating efficiency. At the policy level, the company restructured its operations to achieve financial equilibrium. But the problem is that GWCL has not established a reputation of a financially well run business in the eyes of the financial institutions and users in order to obtain financial support for growth and promotion of financial and operating autonomy.

### 7.3. Consumer Orientation

Consumers do not impact directly on the day to day activities of the company; however there is a complaint desk at the district offices where the complaints of consumers are addressed. The complaints of consumers are on the quality of water supplied, the irregularity of supply to some areas as well as billing disputes. Pipe bursts and leakages are also reported to this desk. The GWCL occasionally organises a forum to interact with consumers, but the organisation of these form has not been successful as consumers fail to

patronise these form, since they are dissatisfied with water provision and perceive the water company to be incompetent and not considering their needs.

#### **7.4. GWCL Management Style**

Majority of the GWCL non-management staff who were randomly sampled were females (62%) and 38 percent males. They included stores controllers, stenographer secretaries, typists, plumbers, revenue collectors and senior grade officers. The respondents know about the company's mission. They learnt it through management staff. About 33percent rated the leadership of the company as good while remaining 67percent assessed the quality of leadership as satisfactory or average. About 87 per cent confirmed that the major problem of the company is financial. The respondents indicated that management impacts positively on their work and they are therefore encouraged to bring issues to their notice. However leadership at the national level does not deal directly with district offices. Thus staff at sub national levels of the company is not proactive. Although the GWCL staffs are satisfied with the leadership style of the company, but due to poor remuneration there is widespread low motivation low which affects staff performance negatively. The key external collaborators who influence the activities of GWCL are the government acting through the MWRWH, SEC, WRC, WRS, MOF, the PURC, and donor agencies. Usually contacts with these collaborators are initiated at the ministerial level. As far as interactions with key external institutions is concerned, it is evident that the GWCL is incapable of influencing positively and strategically the institutions that affect its performance since they above the company in terms management decision making.

#### **7.5. Performance Evaluation**

The study examined the evaluation of GWCL from consumers' point of view. That was to assess whether the poor image of GWCL among the populace is a reality or just a perception. The study considered the evaluation from the company's commercial orientation, consumer orientation, and process. The GCWL depends more on political policies and public regulatory bodies to discharge its duties, and in the process the company's autonomy is compromised thus bringing into question the effectiveness of the existing organizational system within which the GWCL operates. That observation has affected negatively the image of the company among the citizenry. The respondents of the Water Company Limited staff claimed the Company's management and accountability systems accountability are weak and so is the level of efficiency. On their part the management submitted that GWCL is poor in water distribution and financial management issues, therefore it would be necessary for external partners to handle those aspects of the company's operation. Table 4 summarizes the evaluation of GCWL'S general operational performance by aggregate opinions of respondents using a Likert scale from High to Low.

**Table-3.** Performance Profile for GWCL Cape Coast District

Aspect of Institutional Assessment	Performance Indicator	High	Average	Low
Organisational Structure of the Water Company	Autonomy			x
	Organisational Culture		X	
Procedure and Processes	Commercial Activities			x
	Developing and Maintaining Staff			x
Financial Management and Administration	Financial Management and Administration		X	
	Leadership		X	
Public Image	Consumers impression			x
	Interactions with key external Institutions			x

**Source:** Authors' Construct

Performance indicators are high for categories where the company excelled, average for categories that performed moderately and low for poor performance. For the performance category of organisational autonomy, given the company's inability to be self-sufficient in its operations, it was rated low, while organisational culture had a medium scale due to the company's ability to adapt to major changes as the change of its Board of Directors. The institutional assessment dimension of procedures and processes had low scores due to the company's poor commercial orientation of not covering the cost of production from its revenue and the prevailing situation of demoralised staff. The dimension of Management and Administration however had medium scores as staff considered the leadership of the company as competent and able to manage the limited resources satisfactorily. The performance categories of consumer orientation and interactions with external key institutions had low scores as the company is incapable of influencing positively and strategically those institutions, which affect its financial, political, and legal issues. This is coupled with the indifferent attitude of water users, thus giving the company a negative public image. On the whole, the modal and median responses give GWCL 'low' in terms of performance. Since the company's operations have been negatively affected by several factors a corrective measure in the worst affected areas is necessary to ensure an effective management and leadership for the company.

### 7.6. Consumers Perception on Urban Water Supply

Consumers of potable water in Cape Coast were asked to give their impression on provision of water by GWCL using three indicators namely, Taste, colour of water and billing (Table 4). Using the Likert Scale of one for very good to four for unsatisfactory as weights it was realized that consumers are highly dissatisfied with the colour of water provided, followed by billing system and then taste of waste.

**Table 4** Rating of Areas of Service

Quality of Service	Weight/ Score	Very Good	Good	Satisfactory	Unsatisfactory	Weighted Total
		1	2	3	4	
Taste of Water	AR*	4	17	20	12	146
	WR*	4	34	60	48	
Colour of Water	AR	3	9	15	29	182
	WR	3	18	45	116	
Billing	AR	4	9	14	24	160
	WR	4	18	42	96	
Absolute Total		11	35	49	65	

**Source:** Authors' Construct; AR\*-Absolute Responses; WR\*-Weighted Responses

On the whole, 41 per cent of the respondents gave positive comments on quality of water supplied and other services at the Cape Coast municipality. But 59 per cent disagreed and called for service improvement. Also, 41 per cent of respondents who were dissatisfied attributed the challenges to incompetence of GWCL staff.

### 7.7. Public Image

About 84 percent of the sampled respondents expressed general dissatisfaction with water provision. The reasons cited for their dissatisfaction were irregular flow and poor quality of water supplied in terms of taste and colour. The 16 per cent who are satisfied with water supply in terms of regularity of flow live mostly in high class residential areas. On regularity of flow about 85 per cent of the consumers indicated that they had supply for about three days in a week, the rest, 15 per cent receive potable water three to five days in a month. Respondents rated water tariff as fair. However, commercial users indicated that public water tariff is reasonable compared to spending about 5000 Cedis (US\$ 2,500) on water per week from private suppliers.

## 8. KEY FINDINGS

The foregoing analyses have brought to the fore some of the major challenges that have bedevilled the functions and operations of the GWCL, like several public companies in Ghana, thus impairing its effectiveness from management and operational dimension. Some of the factors are exogenous to the organization while others are endogenous. The exogenous factors include policy formulation by the MWRWH, GWC, PURC to mention a few,

Some of the endogenous factors are local management staff is less proactive because of highly top down organisational structure. The issue of about 50 per cent unaccounted for water produced by the company is a huge financial loss. Generally consumers are dissatisfied with the product of the company in terms of taste and colour of water, irregularity of flow, and billing. Morale among staff is low as a ceiling has been placed on the proportion of the total revenue that can be used to pay salaries and allowances.

Public image of the company is low as a result of the unsatisfactory services provided to customers. That is applicable to all non performing public entities. The low financial capacity of the company makes it impossible to replace old machinery to meet the ever increasing demand for potable water by the citizenry. About 63 per cent of

the indicators used to assess the company's institutional management performance scored 'low' on ordinal scale. The administrative system is highly centralized and "Top-Down" in practice.

## **9. RECOMMENDATIONS**

The factors that have made the GWCL ineffective are so complex that the experiences and expertise of both the public and the private sectors are required to bring the company out of the doldrums and place it on the path of progress. For example, it is on record that since the company's debts were partially cancelled, it has been able to make investment from its resources to the sum of about 4,200,000Cedis(US\$ 2,100,000) plus 274,000 pounds and 364,000 euros since 2005. That indicates there could be improvement if more appropriate and strategic operational measures are put in. Again, the study revealed that majority of consumers is unwilling to accept private sector intervention as that could raise the unit price of water to consumers. Proverbially," the consumers want to eat their cake and have it", as they wish for better service delivery without paying reasonable tariff. In this respect the introduction of intensive public education on private sector partnership with GWCL is important before such moves are introduced in Ghana.

Massive capitalization of the GWCL which is using some equipment and systems introduced as far back as 1965 is a necessary condition for improved performance. The present massive injection of multilateral and bilateral capital into the GWCL to revamp the company may call for private capital in the long run as the current system may not be able to sustain itself.

On the positive side, partnership with the private investors in corporate management could address the unaccounted for 50 per cent of water produced by the company. By implication this could reduce cost and increase the total revenue generated by the company without necessarily high tariffs. Furthermore the partnership has potential to administer an efficient price discrimination among the three different major water consumers namely domestic, commercial/industrial, and public institutions. Effective price discrimination could produce a social safety net for the poor and vulnerable groups in the society.

The government should ensure that partnerships in the water sector do not lower her protective guard for the citizenry. Therefore the citizenry should be made active stakeholders in the making of decisions, management of the system and mobilization of the company's revenue.

## **10. CONCLUSION**

The different reasons that have been assigned for the gap between the demand and supply of urban potable water include population growth, urbanization, deterioration of water sources, and mismanagement of public institutions among others. Again, as a traditional engineering-dominated area, the urban water sector is plagued by a long history of underpricing, a politicized debate about basic needs, moral imperative of subsidies, and high capital intensity, resulting in long payback periods and high associated risks the urban water sector. Thus presents difficult economic and political choices for governments. Therefore, many governments fail to acknowledge water as a finite natural resource and an economic good or a commodity that needs a market price reflecting its true value to society.

As a result of this scenario the GWCL has limited autonomy over its operations and has resulted in non-commercial pricing, budget constraints, limited managerial accountability, sporadic maintenance and

limited coverage. Thus the public describe GWCL services as unreliable and inefficient and unable to meet the expectation of consumers.

The partnership model is being reemphasized as the way forward for enhancing the institutional capacity of GWCL as the method will bring local capital, expertise, and experience to sustain an efficient water provision for urban Ghana. Although the policy on water provision and sale in LDCs, through Public-Private Partnership (PPP) have aroused different sentiments and emotions it appears to be the way forward within the context of price discrimination among consumers.

**Funding:** This study received no specific financial support.

**Competing Interests:** The authors declare that they have no competing interests.

**Contributors/Acknowledgement:** All authors contributed equally to the conception and design of the study.

## REFERENCES

- FAO, 2003. Review of world water resource. Rome: FAO.
- GWCL, 2001. Review of water sector activities in public utilities regulatory commission, Annual Report, Accra. pp: 32-36.
- GWCL, 2004. Performance of quality service of Ghana water company in public utility regulatory commission, Annual Report, Accra. pp: 25-35.
- Henri, F., 1916. Theories of management in Duncan, W.J. (1999) Management ideas and action. Oxford: Oxford University Press.
- Kessey, K.D., 1995. Financing local development in Ghana: Mobilisation and management of fiscal resources in Kumasi. Dortmund, SPRING Centre, University of Technology.
- Marty, E., 2000. Reform water sector. Available from <http://www.worldbank.org>.
- Republic of Ghana, 1998. Ministry of water resources, works and housing. Accra: State Publishing.
- Republic of Ghana, 2001. Ghana tourist board. Accra: State Publishing Company.
- Saleth, M. and A. Dinar, 1999. Institutional economics of water. London: E,algar/Bookentry.
- The World Bank, 2003. World water resource programme. Washington: The World Bank.
- UN, 2003. United nations environment programme. New York,: United Nations.

## Internet Websites

### e- publications

- Abrams, L.J., 1996. Water policy development in South Africa. Available from <http://www.allafrica.com>.
- Aheto, W.K., 2002. Member of parliament and chairman, parliamentary select committee on works and housing potable water supply delivery in Ghana government policy and strategies. Available from <http://www.ghanaweb.com>.
- Amenga-Etego, R., 2003. Water privatization in Ghana: Still born or born deformed. The World Bank Washington. Available from <http://www.worldbank.org>.
- Cape Coast Municipality, 2003. Cape coast municipality, Ghana's preferred hub for education, trade, investment and tourism /crha Government of Ghana: SPS Document Water and Sanitation Sector Programme. Available from <http://www.hansbotel.com>.



- Gyekye, T. and k. Cusack, 2002. Ghana the struggle over water/news Available from [twnafrica@ghana.com](mailto:twnafrica@ghana.com)<http://www.afrol.com>.
- Manu, S.K., 2001. PIAF/CWSA study on private sector participation in small towns water supply, 1: 15-16; 40-41. Available from <http://www.ghanacdf.org.gh/water.doc>.
- Martey, E., 2000. The Ghana experience: Initiating and managing the reform process in the water sector. The World Bank Washington. Available from <http://www.worldbank.org>.
- NWP-NGO, 2004. Group in collaboration with Ghanaian NGOs and private sector (February 2004): The feasibility of public- private partnership for sustainable water supply to the urban poor in Ghana. The Netherlands. Available from [www.nwp.nl](http://www.nwp.nl).
- Report of the World Panel on Financing Water Infrastructure Financing, 2003. Water for all. The World Bank Washington. Available from <http://www.worldbank.org>.
- The Office of the First Minister and Deputy Minister, Review of opportunities for public private partnership. Available from <http://www.house.memphis.edu>.

*Views and opinions expressed in this article are the views and opinions of the author(s), International Journal of Management and Sustainability shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.*