

# The Effect of Accountability on Performance of National Water and Sewerage Corporation in Uganda

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## Abstract

The paper confirms that the effect of accountability on performance of national water and sewerage corporation in Uganda. Accountability can increase performance of an organization through implementing mechanisms which improve performance of individuals in those organizations. Such mechanisms include performance appraisals and specification of duties and responsibilities for each individual employee. The study was guided by objective to examine the effect of accountability on performance of national water and sewerage corporation in Uganda.

The study adopted a descriptive correlational and cross-sectional survey design, involving mainly a quantitative approach and supplemented with a qualitative approach. The model is statistically significant, implying that all the three constructs of accountability taken together significantly affect performance of NWSC ( $F=64.119$ , sig. = 0.000). These results imply that, there are many other factors which influence performance of NWSC, other than accountability. According to the findings of this study, components like transparency significantly improve performance of an organization. In order to improve accountability and eventually the performance of the entire organization, management should put more emphasis on implementation of the control environment component of internal controls.

**Keywords:** Accountability, Performance

## 1. Introduction

Accountability is expected to be correlated with the dependent variable (performance), based on assumption that, an improvement in accountability systems implies that the resources are being utilized efficiently. Several studies exist on the concept of accountability and its association with performance indicators in both private and public sector organizations. For example, Hang and Hong (2019) studied the effect of accountability on organizational performance in U.S. federal government firms. Their findings revealed that accountability is positively and significantly correlated with organizational performance. They indicated that high levels of accountability help in making public sector organizations more effective and this improves their performance. Moynihan and Ingraham (2003) also indicated that accountability can improve organizational effectiveness through rational budgeting practices and budgetary decisions as well as budgetary implementation. In this case of rational budgeting practices, budgeting allocations are based on performance achievements (Gilmour & Lewis, 2006) and that activity financing policies are drawn based on achievement funding policy (Rabovsky, 2012). This situation has to be redressed and this article is the first step. The next step will be to sensitize organizations by making the article available to the authorities. The last step will be a grand launch. The data came from 184 employees whose first foreign language is English.

## 2. Related Literature

According to Culture Partners (2021), improving performance of an organization requires alignment of employee efforts around a clear set of targets or objectives, which must be clearly communicated well, easy to memorize and measure, all of which are the key duties of corporate leaders. But they indicate that, if when the organization has developed clear targets and aligned them well across all staff and departments,

performance may not improve, without effective accountability. They draw a boundary between accountability and responsibility, indicating that, responsibility deals with clearly defined roles and duties to guide staff operations but accountability deals with a positive sense of feeling obliged and the choice to do everything it takes to achieve, in such a way that a person demonstrates a sense of ownership to achieve the desired results. With high levels of accountability, the staff is able to take full accountability not only in terms of psychological ownership, but also in active and daily commitment to identify obstacles, then innovatively and collaboratively identify solutions to overcome these obstacles, implement effective solutions and deliver beyond the promised results. It is indicated that such staff teams, where individual staff hold themselves countable to achieve high, the performance of the organization will go at a meaningfully higher level.

Some researchers have reported a negative relationship between accountability and organizational performance. For example, Dubnick and Frederickson (2011) revealed a negative relationship between the two variables. However their findings indicated that the negative effect comes from too much accountability demands. They explained that too much accountability can reduce performance of workers and therefore that of the organization. According to these researchers, the negative effect comes as a result of a mix of accountability obligations. For example, in public organizations, the staff or the manager may be required to be accountable to different stakeholders such as clients, suppliers, superiors, professionals and the public in terms of good service delivery. Kim and Lee (2010) revealed that employees sometimes experience conflict from these multiple accountability demands, which results into job pressure and lowers performance.

Koppell's (2005) Koppell (2008) and Kim and Lee (2010) further explain how the negative effect of accountability on performance comes. They indicate that the negative effect comes because; organizations and individuals think that they should practice accountability only if there is something wrong. This brings a mentality of considering accountability as a punitive response to wrong things. It is indicated that, when "organizations use accountability as a 'big stick' for punishing employees, fear and anxiety permeate the work environment". In this case, employees become afraid of trying new solutions, new approaches or suggest innovative ideas fearing failure.

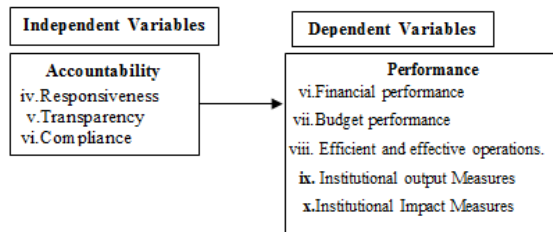
Some researchers have indicated that the relationship between accountability and performance is bi-directional, meaning that they can cause each other (Tsafack, 2018; Dubnick, 2005), which means one variable can enhance the other. Dubnick, 2005; Acaret al., 2008; Yang, 2012), explain that the link between accountability and performance is beyond the inherent simplistic analysis, because it is of a competing nature. It is argued that as managers respond to accountability pressures, they transform the pressures into management strategies. The other direction is from the comparison of accountability, responsibility and organizational culture. Clear definition, communication and evaluation of specific work targets and the pressure to achieve the targets, will in many chances boost performance but also increases the attention of managers to accountability.

In another publication, the Culture Partners (2020) indicates that accountability improves employee engagement and high levels of engagement improve organizational performance. They indicate that employee engagement are critical to boosting organizational performance, indicating that highly engaged employees outperform their disengaged counterparts with far high percentages. They indicate that employee disengagement is caused by lack of or low levels of accountability and it leads to low levels of productivity. Disengaged workers are less productive and innovative because they do not psychologically own the organization. They add that high levels of accountability help to empower employees to identify the critical gaps in the current and desired outputs and have the feeling that it is their responsibility to close those gaps, by implementing innovative troubleshooting ways to solve existing problems.

Gleeson (2016); Culture Partners (2021) discuss the different ways in which accountability is linked to performance at individual and organizational levels. For example, they indicate that accountability helps to create a high performance culture in an organization. They explain that; "accountability becomes embedded into corporate culture by establishing meaningful goals and team buy-in, building trust through support and encouragement, empowering everyone on the team and celebrating successes together." This is true because,

in organizations with high accountability levels, employees collaborate to come up with effective solutions and increase results. Employees are able to do so because they believe that they are responsible for improving the results. This is when the culture of accountability is said to have developed in an organization, when “employees collectively seek feedback from peers and leaders to pinpoint performance gaps, take ownership for closing those gaps, strategize in order to create innovative solutions and follow through on their promise to achieve desired results”. With such a strong accountability culture, the organization is able to improve its performance in different angles.

Figure I: showing the conceptual framework



### 3. Accountability

Accountability refers to a situation where the staff in a given organisation can be held responsible, have obligations to act in ways that are consistent with accepted standards of behaviour and they will be sanctioned for failures to comply (Grant & Keohane, 2005). There are so many types of accountability, depending on the field one is talking from (Andreas, 2008). There is political accountability, public accountability, financial accountability and so on (Grant et al, 2005). Accountability goes with responsibility; it often tops the list of suggestions when systems fail. Therefore, one has to be very careful on using this concept, which has been evolving, as indicated by Andreas (2008). In this study, the concept of accountability is being used within the discipline of finance and accounting. The framework developed by the COSO (2004), divides financial accountability into five components which are effective and efficient financial operations, compliance with applicable laws and regulations, reliable financial reporting, reliable flow of information, as well as transparency (Feyisayo & Odunayo, 2019). Van Horne (2002) argued that financial accountability is to measure performance and it is related to ensure that money released to people is spent in line with the budgetary provisions in accordance with the set rules.

Although many people are always involved in processes of distribution services, accountability starts with governments who have primary responsibility to improve access to water services. The establishment of a comprehensive water distribution and access network is the basics of accountability. The water investment plan by the government has clear targets and lines of responsibility as well and allocation of resources through transparent budgets that can be tracked and queried. Putting the government aside, everyone has a role and responsibility in the generation and distribution of water and sewerage. The media plays a role in investigating wrong doing. An effective accountability system characterized by regulatory processes that are open to broad and meaningful consultation, with transparency of information to make accountability work.

### 4. Materials and Methods

#### Research Philosophy

According to Saunder *et al* (2009) philosophy of a research is the way the researcher forms understanding of the natural world. It is therefore the way the researcher’s knowledge of the world is constructed. The researcher uses their own intuition and innovativeness to select approaches and methods or to accept methods used by other people and may refine them in order to study a given phenomenon.

#### Research Design

This study followed a descriptive correlational and cross-sectional survey design, involving mainly a quantitative approach and supplemented with a qualitative approach. The cross sectional survey design was employed to collect primary data by sampling a cross-section of a big sample of respondents from the

employees of NWSC and each was contacted once and the data was collected from all of them at the same period of time.

The descriptive correlational design was used to collect data with an objective of systematically explain how effective the internal controls are being implemented and whether this effectiveness is significantly linked to the extent to which NWSC is performing.

### Sample size

The study was based on a sample size of 184 drawn from a population of 350 NWSC employees was adequate for this study. This sample size of 184 was sufficient as derived from Krejcie and Morgan (1970).

Table 1: Population and Sample size categorization

<i>Respondents</i>	<i>Target population</i>	<i>Sample</i>	<i>Sampling Technique</i>
Top managers	20	10	Purposive
Middle manager	70	37	Simple random
Lower managers	80	42	Purposive
Staff/employees	180	95	Simple random
<b>Total</b>	<b>350</b>	<b>184</b>	

### Method

Proportionate stratified and simple random sampling techniques were used to select respondents. First of all, respondents were grouped into four strata, following their positions in NWSC, as indicated in Table 3.1. Designation was an identifiable characteristic to create homogeneous groups (Amin, 2005). The researcher considered the population to be much heterogeneous (as shown in Table 3.1) and so their views and responses about the study variables would greatly vary. According to Kumar (2011) heterogeneity of a population reduces the accuracy of the estimates. So stratifying enabled to reduce heterogeneity and increase accuracy of the estimates (Sekaran&Bougie, 2010). To select respondents from each stratum, simple random sampling was used, as per the recommendations of Sekaran and Bougie (2010) and Kumar (2011). The researcher obtained lists of members for each category from the relevant offices of NWSC, and then used a random number generator to select respondents based on respondents' serial numbers on the lists. As indicated by Kumar (2011), proportionate stratified random sampling technique was used by selecting a sample of respondents from each stratum according to the contribution of that category in the total population. This enabled the researcher to arrive at the sample size proportions indicated in Table 3.1, using the following formula;

$$n_1 = \frac{N_1}{N} \times n$$

Where  $n_1$ = the sample size proportion for the first stratum (Directors/Senior managers) and  $N_1$ = the population size for the first proportion or category (Directors/Senior managers).  $N$ = overall total population size (in this case,  $N = 350$ ) and  $n$  = the overall sample size as determined from the table (Appendix VIII).

$$n_1 = \frac{350}{350} \times 183.5$$

Sample size =  $n_1=183.5$  which was approximately 184 derived from the Directors, senior manager, Managers and branch managers of National water and sewerage corporation in Uganda.

## 5. Results and Discussion

Description of the Dependent Variable: Performance in NWSC

The five performance measures assessed in this study include; i) financial performance; ii) budget performance; iii) operational efficiency and effectiveness; iv) Institutional outcome measures; and v) institutional impact measures.

For the five performance measures assessed, NWSC performance was rated highest on institutional impact measures (average mean =3.20; SD =0.461), followed by institutional outcome measures (average mean =2.96; SD =0.368) and financial performance (average mean = 2.94; SD =0.342). Performance of NWSC was rated lowest on operational efficiency and effectiveness (average mean =2.87; SD =0.514). These findings imply that on average, respondents viewed performance of NWSC as generally high. Most of the interviewees indicated that NWSC was performing well. Some of their views are quoted below;

*P1: “Yes NWSC has achieved most of its target over the years, the drive of water for all, from 25 towns ten years ago and now to over 250 towns, this is seen in our mission, vision. Our customers are happy”*

Description of the Independent Variable: The effect of accountability.

Table 2: Pearson Correlation for Accountability and Performance of NWSC in Uganda.

Variables correlated	R-value	Sig.	Interpretation
Responsiveness Vs Performance	.501**	.000	Significant correlation
Transparency Vs Performance	.641**	.000	Significant correlation
Compliance Vs Performance	.653**	.000	Significant correlation
Overall Accountability Vs Performance	.705**	.000	Significant correlation

\*\**. Correlation is significant at the 0.01 level (2-tailed).*

Source: Researcher’s computation (2021)

The findings show that each of the three constructs of accountability (Responsiveness, transparency and compliance) taken individually or taken together positively and significantly correlates with performance in NWSC. Therefore, based on these results, the null hypothesis is rejected and the alternative is accepted, suggesting that an increase in accountability improves performance of NWSC and vice versa.

Table 3: Multiple Linear Regression Analysis Results for Accountability and Performance of NWSC.

Variables Regressed	Adjusted R <sup>2</sup>	F-value	Sig.	Interpretation	Decision on Ho
Accountability Vs. Performance	.511	64.119	.000 <sup>a</sup>	Significant effect	Rejected
<b>Coefficients</b>	<b>Standardized Beta</b>	<b>t</b>			
(Constant)	.745	4.465	.000	Significant effect	Rejected
Responsiveness	.132	2.004	.047	Significant effect	Rejected
Transparency	.304	3.966	.000	Significant effect	Rejected
Compliance	.395	5.739	.000	Significant effect	Rejected

Source: Researcher’s computation (2021)

According to the findings in Table 4.24, the model is statistically significant, implying that all the three constructs of accountability taken together significantly affect performance of NWSC (F=64.119, sig. = 0.000). The adjusted r-square indicate that the three constructs of accountability taken together accounted for 51.1% towards variations in performance of NWSC (adjusted R<sup>2</sup>=0.511) and the remaining 49.9% is the

contribution of other factors not included in the model. These results imply that, there are many other factors which influence performance of NWSC, other than accountability.

The findings from Tables 2 and 3 suggest that effective implementation of accountability rules, helps to improve performance in NWSC. Therefore, there is enough evidence that good performance in NWSC can be partly attributed to strong adherence to accountability rules by the staff and management. During face to face interviews, participants were asked whether there is a strong link between effective accountability and performance in NWSC.

## **6. Discussion**

### **Effect of accountability on Performance of National Water and Sewerage Corporation**

In line with the third objective, it was found out that there is a positive significant relationship between all the three components of accountability and performance in NWSC (all sig.-values  $\leq 0.01$ ). Multiple linear regression results showed that, all the three components of accountability taken together significantly affect performance in NWSC ( $F=15.866$ , sig.=.000), explaining 51.1% towards variations in performance ( $R^2=0.511$ ). All the three components of accountability can individually affect performance in NWSC, although, compliancy ( $\beta = 0.395$ ,  $p = 0.000$ ) and transparency ( $\beta = 0.304$ ,  $p = 0.000$ ) were found to be more powerful predictors of performance.

The findings imply that improving accountability can help to improve performance in NWSC and vice versa. These results agree with theoretical assumptions that high levels of accountability will improve performance of an organization and vice versa (Hang & Hong, 2019). As indicated by Kim and Lee (2010), effective accountability involves specification of duties and responsibilities for each employee position and performance appraisals based on these duties. These appraisals help employees to identify their strength and weaknesses and so it becomes easy to improve areas of weaknesses which eventually results into improved performance.

According to the findings of this study, components like transparency significantly improve performance of an organisation. This is also in line with Moynihan and Ingraham (2003); Gilmour and Lewis (2006); Rabovsky (2012) who revealed that accountability involves rational budgeting practices and budgetary implementation, where funds allocations are based on performance achievements. Experts in Culture Partners (2021), explain that accountability requires the employees have a feeling of psychological ownership and active commitment to achieve and deliver beyond the desired results. This perspective of accountability is directly intertwined with performance, suggesting that the higher the feelings of accountability, the higher the performance and vices versa.

In line with these findings, the key informants explain how accountability affects performance in NWSC. For example, having daily accountability frameworks, having a chain of accountability from bottom to the top and constant risk monitoring and evaluation help to enhance accountability levels and this translates into improved performance. High levels of accountability mean that workers are compliant, transparent and responsive to the rules and requirements of the organisation. So when workers comply and work transparently, performance of the organisation will improve.

The findings in this study are contrary to findings from researchers like Dubnick and Frederickson (2011), who reported a negative relationship between accountability and organizational performance. They explained that too much accountability demands reduce performance of the organisation, as a result of mixed accountability obligations, between clients, suppliers, superiors, professionals and the public in terms of good service delivery. Though this study did not find problems of too much and mixed accountability obligations, the researcher agrees with this argument and as pointed out by Kim and Lee (2010) employees may experience conflict from multiple accountability demands, causing job pressure and hence reduced performance.

## 7. Conclusions

There is enough evidence that accountability significantly influences performance in NWSC. Therefore there is causation between accountability and performance in NWSC. Accountability helps to improve performance, which accountability translates into improved performance in NWSC. Therefore any efforts to improve effectiveness of accountability will go a long way in improving performance and improved accountability will eventually translate into improved performance.

## 8. Ethics approval and consent to participate

**Permission to conduct research:** First of all the researcher acquired a letter of introduction from DHDR, KIU Main Campus, which was attached to the data collection instrument and sent to the relevant authorities. Secondly, permission from National Water and Sewerage Corporation was got, which allowed the researcher to conduct the study.

**Respondents' freedom:** Respondents' freedom was respected by ensuring that each respondent was given an informed consent form and were guided to read through and if they accepted the terms, sign as a sign of acceptance to participate in the study. Respondents were educated about the purpose of the study, what they were expected to give and about their freedom to withdraw their participation any time. Nobody was therefore forced to take part in this study.

**Respondents' confidentiality and anonymity:** Maximum confidentiality of the participants' responses was observed. Respondents' views and information they provided, were not disclosed in any way that would enable other persons to identify individuals' responses/views. The data collected was processed by coding and the findings presented in a generalized way. In addition, during instrument design, the researcher avoided questions asking about personal information what could be used to identify the respondent at any one times.

**Avoiding Plagiarism:** The researcher made sure that academic works, ideas and information from other people, were properly recognized through proper citations and referencing. Similarly, ideas and academic works of other scholars were properly studied and understood by the researcher and then used in the discussion of ideas, other than copying directly, transplanting and representing them as researcher's ideas' where such statements were directly transplanted, they were properly put in quotation marks and the author was properly cited.

## 9. List of abbreviations

GOU : Government of Uganda  
ICS : Internal control systems  
IP : Institutional performance  
NSSF : National social security fund

NWSC : **National water and Sewerage Corporation**  
OPM : Office of the prime minister

PSO : **Public sector organization**  
USA : United States of America  
MNC : Multi-National Companies  
CVI : Content Validity Index  
DHDR : Directorate of Higher Degree In research

## 10. Data Availability

This was done using SPSS data analysis tool and this will be available on the appendix on the research dissertation which shall be submitted to Kampala International University for further review.

### 11. Conflicts of Interest

This being purely academic research, the authors followed every procedures and guidelines by the university and Institution where the study was carried out. There was completely no conflict of interest in respect to this study. "Therefore we the authors declare that there is no conflict of interest regarding the publication of this paper."

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### 13. Authors' contributions

"JAO was the brain behind the conceptual, theoretical and contextual framing of this research, he presented the topic to various readers, where authors discussed and agreed on the publication. BEM help in drafting of the manuscript as well as searching for this cite where the authors intends to published. BT carried out the analysis of data while JAO helped on interpretation. INK read through the manuscript several times thereafter edited and approved the final manuscript."

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