

Gender and Socio – Economic Differences in Public Attitude to Water Tariffs in Lagos and Abeokuta

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Abstract : The study investigated the extent to which public attitude towards water tariffs was affected by gender and some socio –economic factors such as socio – economic background and marital status in two Nigerian cities; Lagos and Abeokuta. It involved the use of 400 respondents (212 males and 188 females) who were selected from three (3) Local Government Areas in Abeokuta and Seven (7) Local Government Areas in Ibadan respectively through stratified random sampling. Data collection involved the use of a questionnaire while data analysis employed the use of frequency counts, percentages and T- test statistics for independent groups. The result show that there were no significant differences in public attitude to water tariffs on the basis of gender and marital status whirl there was a significant difference on the basis of socio –economic background. The implications of the result were discussed and recommendations made as to how the public can be made to respond positively to the payment of water tariffs.

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1. Introduction

The provision of safe and potable water supply for the public is a capital – intensive venture that incurs several costs. In order for production to continue, effort must be made to recover the cost of providing water in an economically efficient, environmentally sound and socially acceptable manner and which promotes efficient water use by customers. For this to be, mechanisms are often put in place to enhance a full cost pricing structure for safe and potable water. Several pricing structures and regimes have been devised to tackle the problem of cost – recovery and cost sharing among stakeholders involved in the provision of portable water supply. Examples of such include *water tariffs*, *water rates*, *water levies* etc. all of which are derived from the interplay of price mechanism. It is the belief of resource analysts' that there must be a realistic value of water as a commodity so that it can be effectively allocated and judiciously used so as to avoid wastages and inefficiency in its production and distribution. In most situations, water pricing is often aimed at achieving objectives such as equity, efficiency, financial sustainability and full cost recovery. In spite of this, many still feels that water pricing is rather irrational and unfair as many are left unserved. In view of this scenario, it becomes imperative to examine the attitude of the public towards water tariffs – a form of water pricing structure using the cities of Lagos and Abeokuta in Nigeria as a case study.

Conceptual Clarifications

To ensure a full understanding and grasp of some salient issues involved in water pricing it becomes necessary to make some clarifications on some central concepts relating to this study. They include water tariffs, water levies and water rates.

Water Tariffs

Water tariffs are prices assigned to water supplied by a public organization through a piped network to its customers. It also has a stricture in which case may be regarded as a set of procedural rules used in determining the conditions of service and the monthly bill for water users in various categories or classes. This type includes:

- *Increasing block tariffs* which is based on volumetric component in which case water use per billing is divided into a number of discrete blocks for which separate prices can be set
- *A uniform volumetric charge* which often differs according to the category of users.
- *Linear water charge* which is levied and increases as consumption increases.

Water Rates and Levies

Water rates are prices charged without the use of meters and are rather fixed on the basis of the amount of water consumed at a fixed period of time. Water levies on the other hand are often arbitrarily fixed depending on the type of consumer rating, the location of the consumer and the amount of water

consumption. Here, the charges are fixed in a discriminating manner and without any guiding rules or standards.

Water tariffs, levies and rates all constitute prices paid in respect of water consumption save that they are derived from the interplay of price mechanism, value judgments and discriminatory criteria.

Statement of Problem

This study investigated whether there were significant differences in the perception of the Nigerian public as to the charging and payment of water tariffs in respect of public water supply in Lagos and Abeokuta. This study came up in response to the call for the establishment of a realistic water tariff structure that will enhance effective service delivery and cost recovery as regards the provision of portable water in Nigerian cities. In the last four decades, public water supply in Nigeria has not been efficient and the quality of service has been on a fast decline. The result has been incessant water scarcity (particularly in the urban centre), inadequate provision of water in rural communities and regular disputes and conflicts as to the usage and ownership of available water resources. Several solutions have been preferred to the lingering water crisis. One of such is the fixing and payment of reasonable and realistic water tariff regime that will aid effective water supply and help reduce and recover costs incurred in the production of portable water.

In the light of this experience, it becomes compelling that a study be floated to determine and evaluate the public perception and attitude towards the charging and payment of water tariffs. Hence, this study seeks to evaluate the perception of the resident in Lagos and Abeokuta towards the charging and payment of water tariffs and whether there exist differences in the perception of water tariff on the basis of some socio-demographic factors such as gender, marital status and socio-economic background.

Research Question

Do respondents differ in their perception of water tariffs on the basis of gender, marital status and socio-economic background?

2. Materials and Methods

Sample and sampling procedure

The study involved 400 respondents (consisting of 212 males and 188 females) spread over the cities of Lagos and Abeokuta. The respondents were selected using stratified random sampling on the basis of Local Governments and wards.

Instrument

The major instrument used in the study for the purpose of obtaining information from respondents was a questionnaire titled: Questionnaire on Public Perception of Water Tariffs in Lagos and Abeokuta. It consists of three sections. Section 'A' covered issues on Personal background information of respondents such as age, sex, occupation, marital status, educational background and family size. Section 'B' covers the evaluation of the respondents' perception of Water tariffs while Section 'C' dwelled on the attitude of respondents to the payment of water tariffs. Before administration on respondents, the instrument was tested for reliability and it yielded a Cronbach alpha value of 0.714.

Procedure

The data collection exercise was supervised by the researcher with the help of four trained research assistants. Questionnaires were administered on the respondents and were retrieved immediately after they had been filled. It lasted six weeks.

Data Analysis

Analysis of the collected data involved the comparison of the means of responses from the respondents using the t-test statistic for independent samples. The significance level was set as 0.05. Analyses were computed with the Statistical Packages for the Social Science (SPSS) software version 15.0 for windows.

3. Results

The t-test statistic was used in analyzing the data since the variables under study, that is, gender, socio-economic background and marital status exist in two groups. The results are presented in tables 1-3.

Table 1: T – test Comparison of the Mean Perception of Respondents on the Basis of Gender.

Gender	Sample (N)	Mean	Standard Deviation	tcal	tobs	P .value
Male	212	1.5716	1.4221	1.0495	1.960	0.0614 *
Female	188	1.4948	1.3628			

*Not significant as $p > 0.05$

Table 2: T – test comparison of the Mean Perception of Respondents on the Basis of marital status.

Marital Status	Sample (N)	Mean	Standard Deviation	tcal	tobs	P .value
Single	232	1.119	1.7261	1.172	1.96	0.551 *
Married	168	1.048	1.6137			

*Not significant as $p > 0.05$

Table 3: T – test comparison of the Mean Perception of Respondents on the Basis of Social Economic Background.

Social Background	Economic	Sample (N)	Mean	Standard Deviation	tcal	tobs	P .value
Low		153	1.0468	0.6961	6.7925	1.96	0.0213*
High		247	1.9733	0.7769			

*Significant as $p < 0.05$

From table 1, it is clear that respondents do not differ in their perception of water tariffs because the t. value calculated (1.0495) is less than the t. value of 1.960 obtained from the statistical tables. Furthermore, the p value of 0.0614 is greater than the significance level set at 0.05. In other words, it can be said that respondents both male and female do not differ in their perception or view about water tariffs as they tend to see it the same way irrespective of their gender.

Table 2 shows that respondents do not differ in their perception of water tariffs on the basis of marital status because the t. value calculated (1.172) is less than the t. value observed from the statistical table which is 1.96. What is more, the p. value of 0.551 obtained is less than 0.05 and is therefore not significant at 5% confidence level. Hence it may be inferred that there exist no difference in the perception of water tariffs by respondents on the basis of marital status as married respondents perceive it the same way as the singles.

Table 3 reveals a significant difference in respondent's perception of water tariffs on the basis of socio – economic background. This is so because the t. value obtained or calculated (6.7925) is greater than the t. value observed from the statistical table which is 1.96. Furthermore the p. value of 0.0213 is less than 0.05 and is therefore significant at 5% confidence level. Hence it can be safely concluded that there exist significant difference in the perception of water tariffs by respondent on the basis of socio – economic background. This goes to show that both the rich and poor do not perceive water tariffs the same way.

4. Discussions

The results obtained in the previous section indicate that there were no significant differences in the public perception of water tariffs on the basis of gender and marital status. This implies that whether male or female, married or single, respondents

perceive the issue of water tariffs the same ways. This goes to say that since water is consumed by all irrespective of socio – economic background and culture, people are bound to see it as a product that is essential and which touches virtually all aspect of their lives. Since water tariff constitutes a means of pricing water and fixing a fee which people have to pay for its consumption, then it is clear that they will see it as a sensitive issue which touches them. Given the fact that in developing countries, water is seen as a public good and a free gift of nature in view of its ubiquity, being asked to pay for the use and consumption of water is often frowned at and usually an aversion is often developed for it. In essence, people will do everything to avoid payment. This perhaps explains why water tariffs just like taxes are regarded as unnecessary economic burden and everything is often done to evade its payment or avoid it completely. Hence, for respondents to perceive it the same way goes to show that it is an issue that they would want to avoid if possible. The inefficient and epileptic nature of public water provision in developing countries goes further to show why many see the payment of water tariffs as unnecessary and a way of justifying wastes and misuse of scarce resources. All of these views tend to make people see water tariffs as an unnecessary economic burden and a compulsive way on siphoning scarce funds from people pockets. In essence, it is not surprising that respondents are not different on their perception of water tariffs on the basis of gender and marital status.

However, result also showed that respondents are different in their perception of water tariffs on the basis of socio – economic background. This means to say that the rich and the poor differ in their perception of water tariffs. This result is not surprising in view of the fact that these two groups are likely to differ in their perception on the basis of two issues: affordability and enlightenment. In real situation, the rich are likely to be able to afford the

payment of water tariffs because of their economic standing and the possession of the ability to pay unlike the poor that may not be able to afford its payment due to their low purchasing power. For this reason, it may be certain that the poor are likely to perceive water tariffs as additional burden placed on them as they consume water. To them, water should be a free good made available by the government. On the basis of enlightenment, the rich due to their level of exposure and education are likely to see water tariffs as means of recovering costs incurred in the process of producing water. The poor are not likely to see it this way as they are more prone to see water provision as a public responsibility for which they are not liable to pay.

Given the nature and purpose of water tariffs, it will not be proper and realistic to regard water as public good for which nothing is to be paid. Through effective enlightenment, the public would be made to appreciate the fact that water provision cannot entirely be a public utility. Something ought to be paid to help augment and recover substantial part of the costs expended in water supply. In addition, a fair and realistic method of fixing water tariffs ought to be devised so that the public is made aware of the fact that they are not being overburden with the responsibility of bearing the entire cost of public water supply

Conclusion

This study revealed that there were no significant differences in the way public perceive water tariffs on the basis of gender and marital status. However, there was a significant difference on the basis of socio – economic background. The implications were indentified and recommendations put forward in improving the use of water in developing countries and also encouraging public water supply.

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