Examination of The Problems Associated with Revenue Collection at Electricity Company of Ghana. A Case Study of Afienya District

T. Adjirackor[1,3,4], R. Paintsil[3], D. Oppong[1,2], S. Agarwal[1], R. Amankwah[1], W. Gagakuma[4]

1.   Data Link University College, P.O. Box 2481, Tema, Ghana
2.   Central University, P.O. Box 2305, Tema, Ghana
3.   Ghana Institute of Management and Public Administration, Accra, Ghana
4.   Nuclear Regulatory Authority, P. O. Box AE 50, Kwabenya, Accra, Ghana
5.   Dominion University College, PMB CO 69 Cantonments, Accra, Ghana

* Corresponding Author

Abstract

Revenue refers to the amount in a monetary unit received during a period of time. These monetary units are generated from different sources such as taxes, fines, borrowings, fees and bills. Revenue is important to an organization because an increase in revenue could mean an increase in profit, however if revenue increases, expenses will also (usually) increase and so on the percentage change in profit will not shift as much as one might think. The study examined the problems associated with revenue collection at Electricity Company of Ghana using Afienya District as a case study. Both primary and secondary data were sourced for the study. The data collected were analysed qualitatively using descriptive analysis like charts, graphs and tables. The major findings of the study were that though Afienya District of Electricity Company of Ghana applies guidelines like disconnections, taking action against illegal connectors, monitoring of consumption patterns of customers and billing customers. These guidelines are not effectively followed to enable it meet annual targets. The recommendations are that the company intensifies its monitoring, bill customers promptly, and take prompt and stringent action against illegal connectors and overdue accounts to maximize revenue.

1.1 Background to the Study

Government of every country needs revenue to undertake developmental projects and part of these revenues can be mobilized from governmental organizations of which ECG is among the leading companies that government mobilizes revenue from. In their quest to achieve this, Electricity Company of Ghana faces the challenge of revenue collection from its customers.

Revenue refers to the amount in a monetary unit received during a period of time. Revenue is associated with products or services of the firm as the source of the expected cash receipts the asset value increasing in the firm occurs because the firm undertakes certain activities or there is performance by the firm. (Kam, 1986).

Revenue is the income gathered from sale of goods or services, or any other use of capital or assets associated with the main operations of an organization before any costs or expenses are deducted. Revenue is shown usually as the top item in an income (profit and loss) statement from which all charges, costs, and expenses are subtracted to arrive at net income. Revenue can also be defined as the income a business makes from their daily activities, whether that's selling a product or providing a service.

ECG operates both an extensive credit and minimal prepayment billing system. Ghana Electrometer provides the country with quality credit and pre-paid electricity meters through the Electricity Company of Ghana (ECG). The company has deployed over 1,000,000 properly functioning prepaid and credit meters in many cities across the country. The tariff applicable in billing customers for any given period is approved by the Public Utilities Regulatory Commission (PURC) and is invariably the same for both customers operating under the credit and prepayment system. The tariff is designed to provide the privately owned electric utility with enough income to allow investors to earn a cash return and cover operation and maintenance costs. Prepayment billing has an upfront revenue collection advantage. However, under the credit billing system, the customer consumes energy first and pays afterwards. This approach has led to the accumulation of the company's outstanding receivables. Indeed, the Revenue Cycle Management involved in the credit metering system and to some extent the prepayment has been both expensive and cumbersome.

Revenue is important to an organization because an increase in revenue could mean an increase in profit, however if revenue increases, expenses will also (usually) increase and so on the percentage change in profit will not shift as much as one might think. An increase in revenue could also lead to more investments back into the business, for example to buy new technology, staff training, extending a department etc. If there is no revenue for an organization there will be a decrease in profit, and probably having to cut budgets. A percentage of profit can be put back into the business if the revenue is smaller, helping to cover costs of the expenses. If the business cannot cover expenses over a period of time and generate revenue to quickly, cutbacks like redundancies or the

closure of entire departments may have to be made. Basically, the revenue is all the money made by the business. Expenses will usually stay the same, or be proportional to the income of the business, so the less revenue made, the less the profit. This can also lead to a slowdown in growth of the business, as competitors might use their profits to invest and develop their own brand.

1.2 Problem Statement

The Electricity Company of Ghana over the years has been unable to meet its revenue targets. This has led to the provision of unsatisfactory service to customers because of its inability to procure new equipment to replace old ones, operational performance, and profitability and also for expansion purposes.

According to documents made available to the researcher by the operations manager of Afienya District branch of Electricity Company of Ghana, the district was unable to meet its targets for the year's 2013 and 2014.

Table 1: Revenue Targets with Actuals

Year	Budget (Ghc)	Actual (Ghc)	Variance (Ghc)
2013	6,540,700.00	4,824,650.00	1,716,050.00
2014	9,303,520.00	6,400,921.23	2,902,598.77

Source: ECG Afienya District Budget (2015)

From table 1.1 it shows that ECG revenue collection at Afienya District had a shortfall in collection for the two years. The study is therefore being undertaken to examine the problems associated with revenue collection in Electricity Company of Ghana, using Afienya District as a case study.

1.3 Research Objectives

The general objective of the study is to examine the problems associated with revenue collection in Electricity Company of Ghana, a case study of Afienya District.

The specific objectives are:

a. To determine the guidelines and policies for revenue collection at Afienya District of E.C.G

b. To determine the extent to which the guidelines and policies are being followed effectively.

c. To determine challenges associated with revenue collection in Afienya District.

d. To determine the effects of the challenges on the operations of the district.

1.4 Research Questions

The research questions for the study are:

a. What are the guidelines and policies for revenue collection at Tema South district of E.C.G?

b. What is the extent to which the guidelines and policies are being followed?

c. What are the challenges in revenue collection at Afienya District of E.C.G?

d. What are the effects of the challenges on the operations of Afienya District of E.C.G?

2.0 METHODOLOGY

2.1 Research Design

Parahoo (1997) describes research design as a plan that describes how, when and where data are to be collected and analysed. The study is an evaluative case study. The study evaluated the problems associated with revenue collection in Electricity Company of Ghana, using Afienya District in a case study. According to Merriam (2000) a case study is an in-depth or intensive descriptions and analysis of a single unit or bounded system. Both primary and secondary data were collected for the study. These were analysed qualitatively.

2.2 Population

Population studies the total member of a defined class of people, objects, places or events selected because they are relevant to a research question. (Elsiever, 2009). The numerical strength of the population considered is thirty (30) Staff of Electricity Company of Ghana, Afienya District.

2.3 Sample and Sampling Techniques

Sample is a subset of a population that is used to represent the entire group as a whole. The total population of Electricity Company of Ghana, Afienya District is thirty (30). The sample size for the study is thirty (30). According to Glenn (1992) the purpose of sampling is to provide various types of statistical information of a qualitative or quantitative nature about the whole population examining a few selected units. In concept of Smith (1983), there are several approaches to determining the sample size; these include using a census for small populations, imitating a sample size of similar studies, using published tables, and applying formulas to calculate a sample size. Where the population to be studied is small, all the individuals can be selected through the census of small population approach provided they can give the desired response. In this study the sample size was equal to the population due to the small number of staff in the selected offices hence the census approach. The entire population sampled helped to achieve a desirable level of precision.

2.4 Measurement of Research Variables

With regards to how the variables were measured, the researchers used questionnaires to measure all the variables. The variables used were; delays in billing customers and reading of meter, treatment of overdue account, inaccurate billing and illegal connection and level of monitoring. Their responses on the questionnaires

collected were tallied, frequencies were measured descriptively using tables, pie charts and bar graphs.

3.0 DATA PRESENTATION, INTERPRETATION AND DISCUSSIONS

3.1 Response Rate
Table 2

Number of questionnaires	Response	Percentage
30	30	100%
Total	30	100%

 Source: Fieldwork, 2015.

Table 2 shows that, total 30 of questionnaires were administered to respondents for the purpose of gathering responses for the study. All 30 questionnaires were received for the analysis. This is a hundred percentage success rate.

Table 3: Categories of Customers

Category	Number of respondents	Percentage %
Prepaid customers	26	87
Fixed Rate	1	3
Credit customers	3	10

Source: Fieldwork, 2015

Table 3 shows that the result accumulated from the field survey with respect to the categories of customers the district has, 26 respondents representing 87% said that it was prepaid customers, 3 respondents representing 10% also said credit meters whiles fixed rate had 1 respondent representing 3% categories of customers.

Table 4: Guidelines Used for Effective Revenue Collection

Category	Number of respondents	Percentage%
Prompt billing of customers	30	100
Prompt reading of meters	30	100
Disconnection of customers with overdue accounts	30	100
Introduction of computerized billing	30	100
Handing over of accounts to debt collectors	0	0
Monitoring of customers consumption pattern	30	100
Court Action	30	100

Source: Fieldwork, 2015.

From table 4 Prompt billing of customers, Prompt reading of meters, Disconnection of customers with overdue accounts, Court action, monitoring of customers consumption pattern, Introduction of computerized billing where all found to have been applied as guidelines for effective revenue collection. Handing over of accounts to debt collectors was not indicated as one of the guidelines by all respondents.
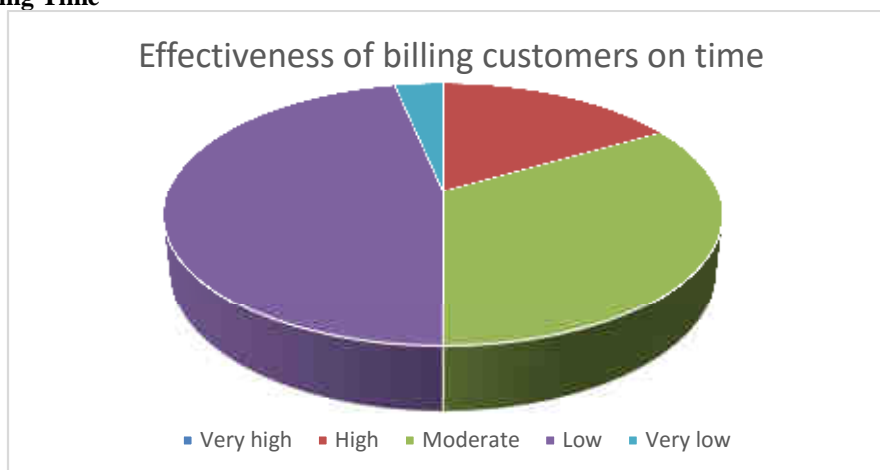
Figure 1: Effectiveness of Meter Reading
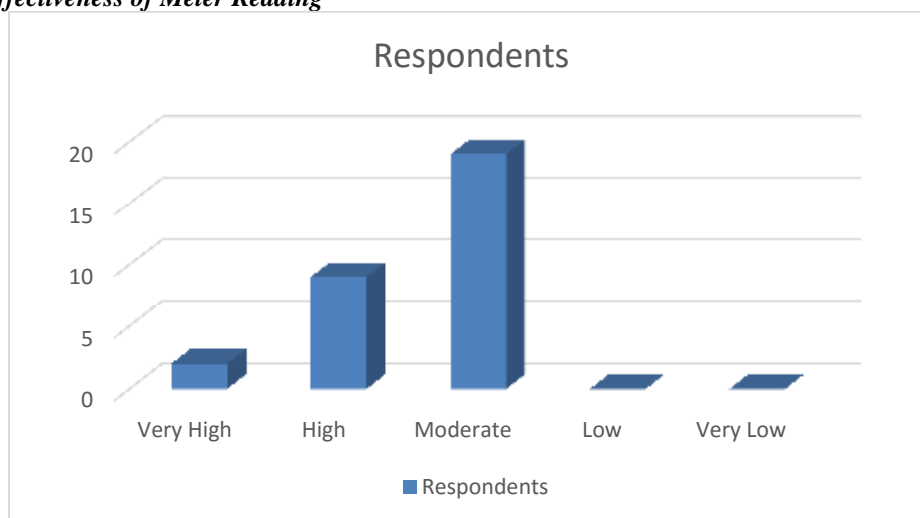
Source: Fieldwork, 2015

Figure 1 shows that 19 respondents representing 63% believed that it was moderate, 9 respondents representing 30% believed that it was high whiles 2 respondents representing 7% indicated that it was very high giving a full view of how effective reading of meters has been.

Figure 2: Billing Time

Source: Fieldwork, 2015

The above figure 4.2 shows that 5 respondents representing 17% said effectiveness of billing customers was high, 10 respondents representing 33% said it was moderate, 14 respondents from the study representing 47% said effectiveness of billing customers on time was low whiles 1 respondent representing 3% said it was very low.

Table 5: Effectiveness of Disconnection for Non-payment of Bills

Category	Number of respondents	Percentage%
Very high	9	30
High	16	53
Moderate	3	10
Low	2	7
Very low	0	0
Total	30	100

Source: Fieldwork, 2015

Table 5 shows that on the issue of the extent to which disconnection deters customers from non-payment of bill from the total staff of 30, 9 representing 30% said it was very high, 16 respondents representing 53% said it was high, 3 respondents representing 10 said it was moderate whiles 2 of the respondents representing 7% said it was low.

Table 6: Effects of Disconnection on Bill Payment

Category	Number of respondents	Percentage%
Very high	5	17
High	23	77
Moderate	2	6
Total	**30**	**100**

Source: Fieldwork, 2015.

Table 6 shows that out of the 30 staffs that took part in the study, 5 staffs representing 17% said that it was to a very high extent, 23 staffs representing 77% also answered that it was to a high extent whiles 2 staffs representing 6% indicated that it was moderate.

Figure 3: Effects of Computerized billing
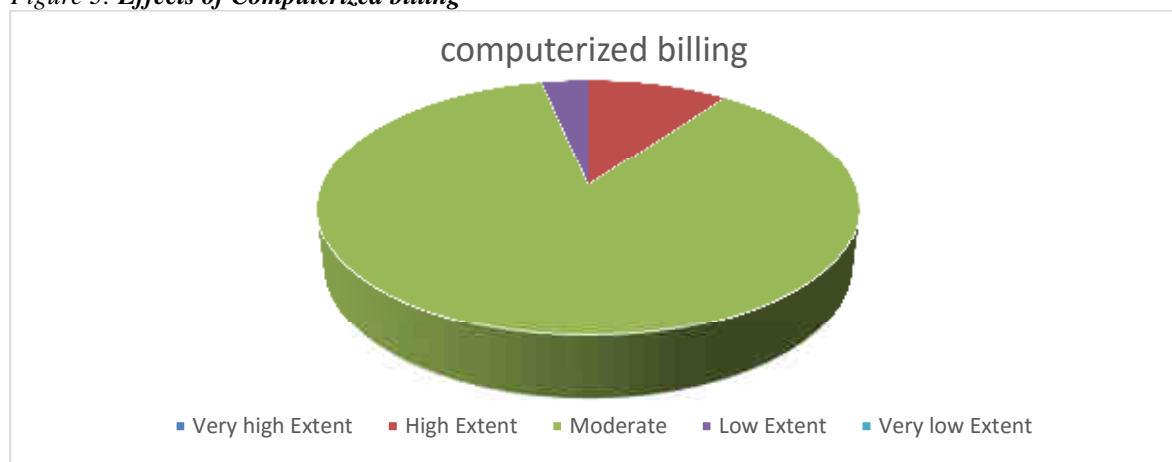
Source: Fieldwork, 2015.

Figure 3 indicates that 30 respondents of the total population of 2 representing 7% are of the view that it is to a very low extent, 4 respondents representing 13% said that it was to a high extent whiles 24 respondents representing 80% also said that the extent at which the introduction of computerized billing has helped increase revenue collection is moderate.

Table 7: Effects of Monitoring on Revenue Collection

Category	Number of respondents	Percentage%
Very high	3	10
High	19	63
Moderate	8	27
Total	30	100

Source: Fieldwork, 2015.

Table 7 shows that out of the 30 staffs who took part in the study, 8 respondents representing 27% said the extent at which monitoring of customers consumption pattern has helped in revenue collection is moderate, 19 respondents representing 63% said that it was high whiles 3 respondents representing 10% also indicated that it was very high.

Figure 4: Effectiveness of Illegal Connection on Revenue
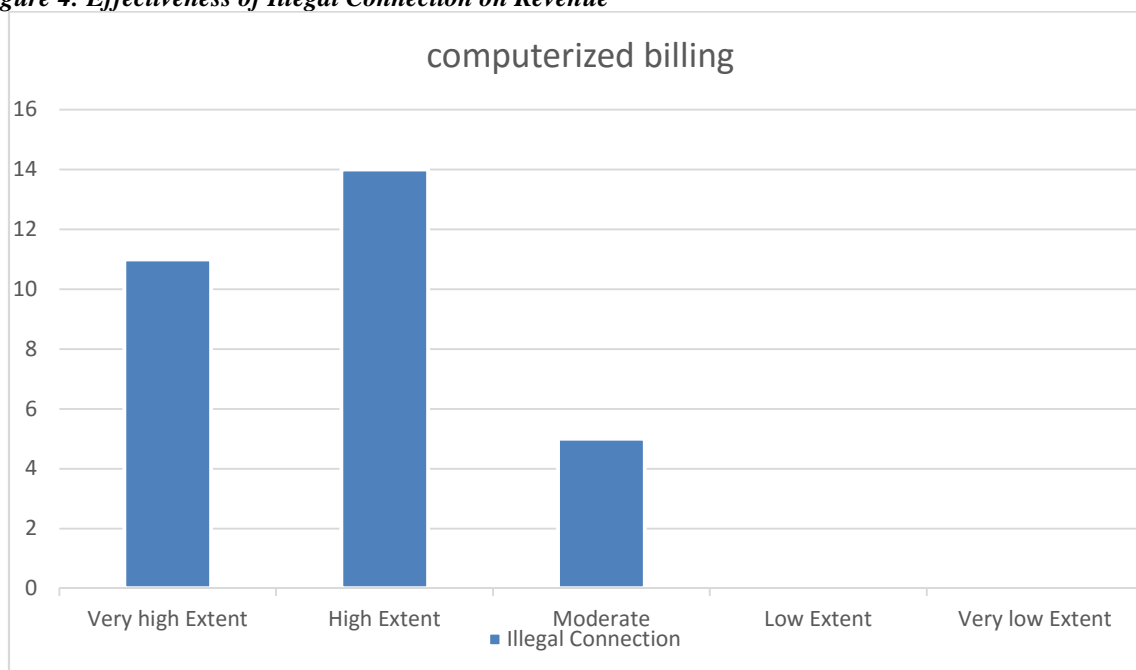
Source: Fieldwork, 2015.

From Figure 4 the responses received, 15 of the respondents representing 50% answered that it affects it to a high extent, 10 respondents representing 33% also stated that it affected it to a very high extent whiles 5 respondents representing 17% also said that it was moderate.

Figure 5: Actions against Illegal Connection
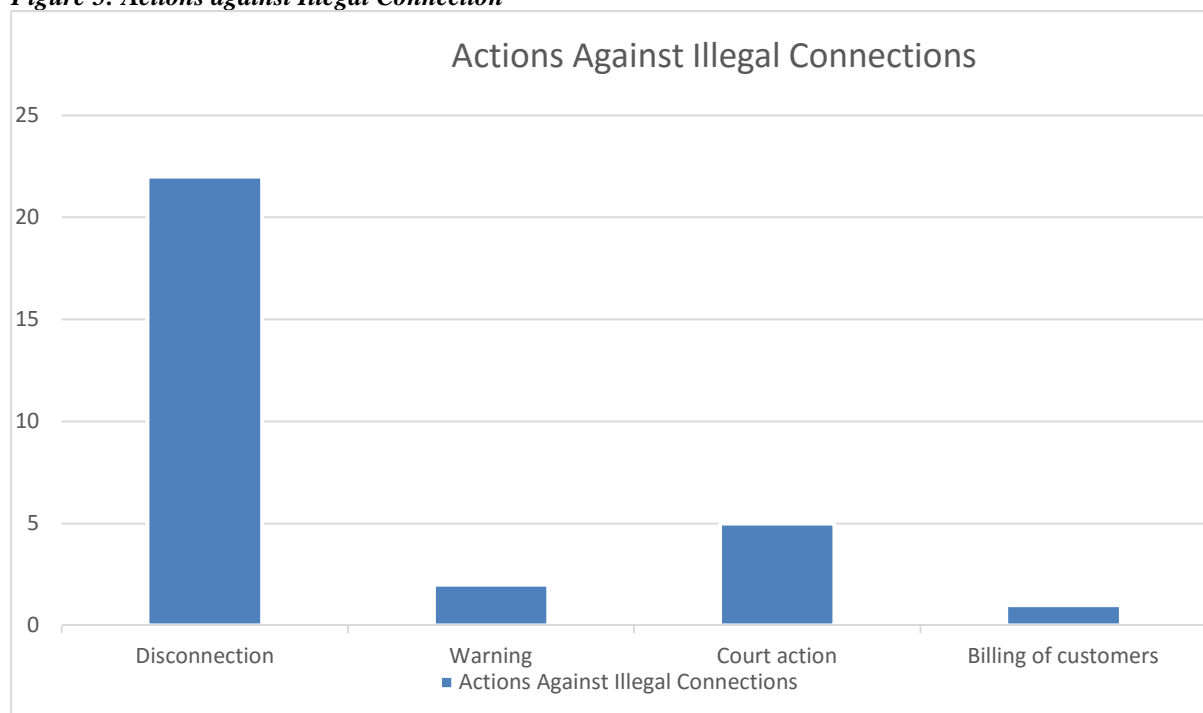
Source: Fieldwork, 2015

Figure 5 shows the actions taken against customers who engage in illegal connection. 20 respondents representing 67% said it was disconnection, 5 respondents representing 17% also said it was court action, 4 respondents representing 13% also said that it was warning whiles 1 respondent representing 3% also said it was billing of customers.

Table 8: Effectiveness of measures against illegal connection

Category	Number of respondents	Percentage%

Disconnection	20	67
Warning	5	17
Court action	1	3
Billing of customers	4	13
Total	30	100

Source: Fieldwork, 2015

Table 8 above shows that out of the 30 respondents, 20 of the respondents representing 67% said disconnection was the most effective, 5 respondents representing 17% also said it was warning, 1 respondents representing 3% said it was court action whiles 4 respondents representing 13% said billing of customers.

Table 9: Methods Used to Retrieve Overdue Account

category	Number of respondents	Percentage %
Court action	5	17
Disconnection	22	73
Hand over debt to debt collectors	0	0
Write off debt	3	10
Total	30	100

Source: Fieldwork, 2015

Table 9 shows that 5 respondents representing 17% percent said that it was court action, 22 respondents representing 73% said that it was disconnection whiles 3 respondents representing 10% also said that it was written off.

Figure 6: Revenue Targets
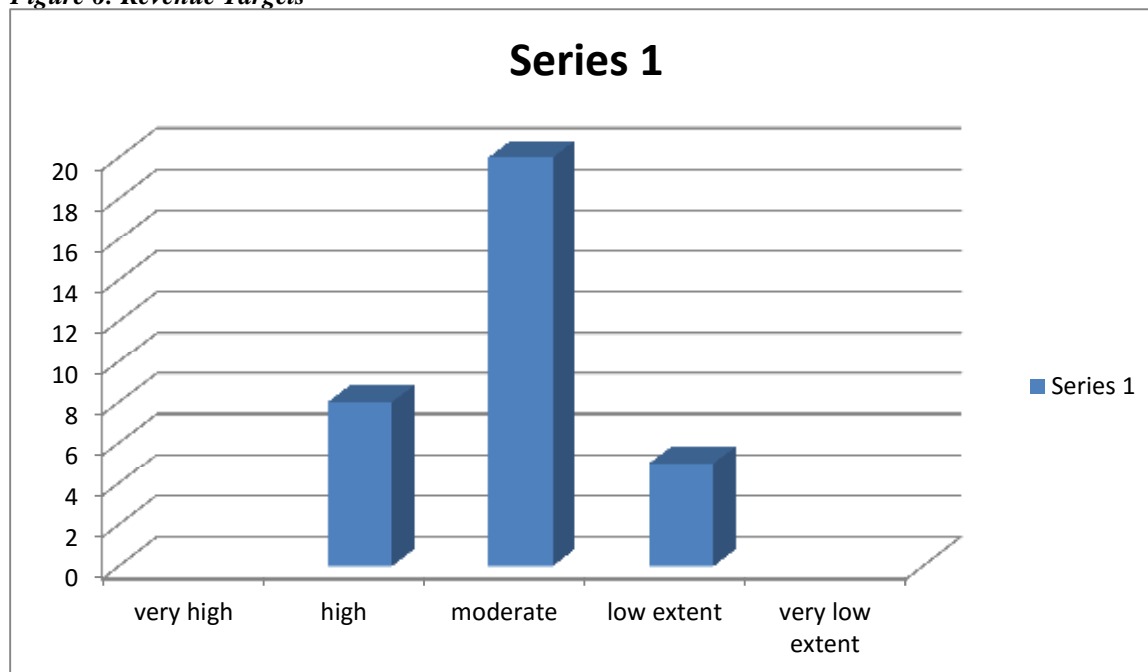
Source: Fieldwork, 2015

Figure 6 shows that 2 respondents said the extent to which they meet their revenue target is low, 20 respondents also said that the extent at which they meet their revenue target is moderate whiles 8 respondents also said that the extent at which they meet their revenue target is high.

 Challenges in implementing the guidelines for effective revenue collection.
On the responses received from the respondents on the challenges in implementing the guidelines, the staff's provided the following answers; government interference, staff interference on behalf of customers, inadequate infrastructure and illegal connection of electricity.

Effects of the challenges on the operations of E.C.G
Response from the respondents on the effect of the challenges on the company's operations, the respondents gave the following answers; targeted revenue is not met, the company is unable to buy new equipment's to improve provision of service, poor policy implementation leading to poor customer service, motivation of staff is low and loss of revenue as a result of illegal connection.

4.0 SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS
4.1 Summary of Findings
The study revealed that ECG uses prompt billing of customers, prompt reading of meters, disconnection of

customers with overdue accounts, court action, monitoring of customers consumption pattern, introduction of computerized billing as guidelines for revenue collection which include.

The study revealed that disconnection, court action, warnings and billing of power consumed are the once applied for those who engage in illegal connections.

The study revealed that reading of customer's meters is moderately effective, however the effectiveness of billing customers is low. The study also discovered that the extent to which disconnection deters customers from non-payment of bills is high.

Furthermore, the study showed that the introduction of computerized billing moderately helped in revenue collection and that illegal connections on the part of individuals affects revenue targets highly. Finally, disconnections, court actions and rescheduling of accounts are used for treatment of overdue accounts.

4.2 Conclusions

The following conclusions have been derived from the findings of the study at Afienya District of ECG. The study sort out to identify the guidelines used for revenue collection at Afienya District. Prompt billing of customers, prompt reading of meters, disconnection of customers with overdue accounts, court action, monitoring of customers consumption pattern and introduction of computerized billing were identified as the guidelines used.

It can be concluded that reading of customer's meters, disconnection for non-payment of bills and action taken against customers who engage in illegal connections has been effectively moderate and were seen to be the most effective of the application of the guidelines.

On the challenges associated with revenue collection, it can be concluded that the following negatively affected the meeting of revenue target; government interference, staff interference on behalf of customers, inadequate infrastructure and illegal connection of electricity.

On the effects on the challenges on the operation of the company, the following can be concluded that targeted revenue is not met, the company is unable to buy new equipment's to improve provision of service, poor policy implementation leading to poor customer service, motivation of staff is low and loss of revenue as a result of illegal connection.

4.3 Recommendations

The following recommendations have been made from the findings and conclusions.

- That there should be prompt reading of meters, prompt billing of customers and promptly making available the bills to customers in other to improve revenue targets whiles the public should be educated on the negative effects of illegal connections and non-payments of bills on schedule by customers in other to improve revenue targets.
- Strict measures should be taken against customers who engage in illegal connections as well as those whose accounts are overdue for payments.
- It is also recommended that in order to improve revenue collection, prepaid meters should be introduced more to improve upon revenue collection and the company should find ways to resist attempts by government to intervene on behalf of state companies.

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