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ASSESSMENT OF RISK AND CHALLENGES OF DEBT MANAGEMENT PRACTICES IN ORGANISATIONS

A CASE STUDY OF GHANA WATER COMPANY LIMITED

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Abstract

Account receivables have been a major problem for most utility service providers especially those still dealing with the post payment method where services are rendered before payment is made. This study assessed risk and debt management practices using Ghana Water Company Ltd (GWCL) as a case study. Both primary data and secondary data were used. Ratio analysis was main data analytical procedure. The study found account receivables to be fluctuating from 2010 to 2014 whereas revenue collected falls short of account receivables over the same period. The account receivable to current asset ratio indicated the existence of poor management of account receivables. Improper risk management of accounts receivables led to the inability of GWCL to initiate maintenance and expansion projects. The weakness of the law, ineffective and inefficient management of accounts receivables and poor investment in the collection of account receivable were some of the factors identified as the causes of poor

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account receivables. The study recommended that a very vibrant credit policy be put in place, monitoring and collections team should also be empowered and well resourced. And, management of GWCL should also be given targets to meet when it comes to account receivables.

Keywords: Accounts Receivables, debt management practices, public utility management, debt sustainability, financial management techniques

INTRODUCTION

Debt has been in inception and for a very long time especially in developing countries and the world over. But the causes of these debts in recent decades may differ, in the 1970s the causes of debt crisis included; uncontrolled accumulation of debt, social and economic dislocations of economy's, increase in poverty levels, ascendency in the dependence for most countries, declining level of development, "proliferating structural adjustment programs in the 1980s and 1990s", the oil shocks and changes in other international economy's resulting in a galloping demand and supply for financial services. The outcome of the various adjustment programs in diverse areas and sectors cost countries considerably and led to unsustainable debt levels (ESCAP,2006) resulting in the difficulty for these countries to restore their development avoiding future similar adjustments which we are currently facing as the "debt/development question" (UNITAR, 2005). The inability of developing countries to sustainably manage debts has been attributed to limited financing options and institutional constrains, causing ineffective debt management strategies (IMF & World Bank, 2013, 2009). However one cannot under estimate the input and assistance given by the public and donor support to close the gap which is needed to make water accessible to home (Mehta, Cardone, & Fugelsnes, 2009).

Musgrave and Musgrave (1984) define debt management as a fine art which requires a shrewd appraisal of market prospects from a considerable time ahead. According to Wheeler (2004) debt management is a process of establishing and implementing a strategy for prudently managing the government's debt in order to meet the governments financing needs, its cost and risk objectives and any other debt management goal the government might have. Entailed in the definitions is the fact that debt management must be a wise process, carefully planned to deal with the debt of a government. Sound debt management must be guided by good governance. Good governance has the following characteristics; participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive and follows the rule of law. According to Ansah (2011) the success of any business thrives on smooth cash

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flow. The top priority of any business is to stay solvent and ensure the availability of adequate working capital and very low or no debts at all.

The Ghana Water Company Limited (GWCL) is a limited liability company registered under the laws of Ghana (Government being the sole shareholder) and partly sponsored by donor communities has been unable to retrieve the company's debt. This has hindered growth and development of the water and sanitation sector in Ghana. This situation has led to the loss in donor confidence in the company and the public at large and to support the provision of water, the government of Ghana has to borrow to meet its annual budget (Government of Ghana, 2010). Therefore this study seeks to assess the risk and challenges of debt management practices in Ghana Water Company Limited (GWCL) with an emphasis on the trend or level of account receivables of Ghana Water Company Limited. The study also sought to determine factors accounting for poor account receivables and debt accumulation and to identify the effects of improper risk management of account receivables.

LITERATURE REVIEW

Prudent financial management is essential in every organization. This is influenced by a combination of the internal and external environments of the subject organization. An understanding of the relevant literature, theoretical and empirical gives an in-depth understanding about the subject and helps guide the rest of the study.

Provision and Management of Public Utilities

Public utilities are considered as basic necessities for the populace of every country and are usually managed as social goods with the financing and management of these utilities in most cases are left in the hands of the public sector. Generally, literature alludes to some basic qualities which are supposed to be embedded in the provision of public utilities. By mentions, public utilities are expected to be available, accessible and sustainable (Ferreira da et al, 2013) but requires high capital expenditure (WaterAid, 2013). In developing countries like Ghana, public funding is the common source of finance for establishing and even operating public utilities such as water and electricity. A substantial proportion of national budget is therefore channelled to the provision of public utilities (UN-Water and WHO, 2014). About 80 percent of countries the world over face the problem of insufficient finance hence unable to provide the total amount budget for the providing water and sanitation (UN-Water and WHO, 2014) and this also leads to the continuous borrowing to finance public utilities which creates a situation of unsustainable debts among most developing countries such as Ghana and Nigerian (Williams, Okonkwo, & Abolore, 2014).

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The call for more sustainable ways of managing public utilities has dominated recent development discourse. One of the popular strategies has been the public-private partnerships (PPP). A recent example was the partnership between the GWCL and the Aqua Vitens Rand Limited (AVRL) in 2006 where a 5-year management contract was signed, with a responsibility to ensure cost recovery and financial sustainability (Veronika & Stefan, 2007, Osumanu, Abdul-Rahim, Songsore, & Braimah, 2010). However, the contract was terminated in 2011 owing to underperformance on the part of AVRL, as stated by the GWCL (Kwaku & Ampaabeng, 2014; AMCOW, 2011). The search for an appropriate and sustainable strategy for providing public utilities therefore continuous to elude many governments as the public-private partnership in most countries failed to live up to expectation.

Concept of Accounts Receivables

This is an old practice in which services are rendered or goods sold to clients under an agreement that permits the client to pay the amount due at some time in the future (Joy, 1978). Bastos and Pindado (2012) also added that the clients unpaid claims in totality to a firm was its accounts receivables usually at a given period and are mostly for very short period that is up limit being a year. Accounts receivables are being described by Demirguc-Kunt and Maksimovic (2001) as being a very significant part of working capital as it forms a section of the company's assets. They further said accounts receivables constituted 25% of the total assets of companies in Italy, France and Germany. This is supported by the earlier findings of Zingales (1995) who also stated that about 18% of the total assets of companies in the United States of America were accounts receivables. Accounts receivables have been accorded the necessary attention because of its effect on profits and the risk of a company and subsequently the survival and value of the company (Marotta, 2005; Eugene and Louis, 1999). Organizations are still able to invest and produce through debt financing during times when sales and internal revenue of the organization is insufficient, however there is an element of risk in using debt and this is mostly associated with how debt is managed, thus the effectiveness of the debt management strategy adopted is usually directly related to the effect (whether positive or negative) that a debt will have on the subject organization (Stephen, Mohanty, & Fabrizio , 2011).

Factors Accounting for Poor Account Receivables

Berry and Jarvis, (2006) believes every company has to know the level of accounts receivables they can offer to their clients so as to reduce the burden of the risk of default when it occurs. Hong (2008) looking at factors that can account for poor accounts receivable, also stated the "weakness of the law and its awareness and inadequate detailed management system qualify

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as factors. However, John (2008) is of the view that the process such as poor quotation, poor contracting and pricing, poor process of ordering, poor credit controls and finally poor invoicing can lead to poor accounts receivables. Enzhu (2008) also suggested imperfect management systems and lack of risk accounts for poor accounts receivables. To add to this another study conducted by Khandelwal (1985) at Rajasthan involving 40 small scale firms on their working capital management processes and practices revealed that ineffectiveness and disorderliness on the part of management in handling accounts receivables was the major cause of poor accounts receivables. Sinha et. al. (1988) also discovered that ineffective management of accounts receivables on the part of management was the prime cause of poor accounts receivables as management did not plan or planned poorly on how to handle accounts receivables.

Effects of Improper Risk Management of Account Receivables

The effects of accounts receivables during financial crisis period would be enormous as working capital is locked up and financial intermediaries become extra cautious about giving financial aid to companies at such positions (Bastos and Pindado, 2012). Receivables are large investments in firm's asset, which are, like capital budgeting projects, measured in terms of their net present values (Emery et al., 2004) and according to Enzhu (2008) the outcome of improper risk management of accounts receivable leads to a decrease in company profits. Sinha et. al. (1988) in their study in India revealed that a large proportion of their working capital was locked up in accounts receivables which lead to the corporation losing their profits and unpredictable cash inflows and large volumes of the companies' money going into bad debt. Baveld (2012) studies indicated a statistically significant negative relation between accounts receivables and gross operating profit during non-crisis period. On the other hand, during crisis period, no significant relation between these two variables was observed. Whether this a relationship exist or not, one question that must be asked is there in existance a debt management strategy that outlines the target for total acceptable debt portfolio (Melecky, 2007)

Padachi (2006) also added that poor management of accounts receivables had a negative effect on the company's profitability and in addition Deloof (2003) found a significant negative relation between gross operating income and the number of days accounts receivables, inventories and accounts payables of Belgian firms. The risk of improper management of accounts receivables is a direct financial crisis in which the company would have no cash to operate and even run into debts (Enzhu, 2008).The situation is worse as this increases the bargaining power of buyers to the sellers company because insufficient funds leading to sell at lesser prices for the cash instead of accounts receivables (Love et. al., 2007).

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RESEARCH METHODOLOGY

The study outlined the various procedures and methods used in achieving the objectives of the study. This study addresses the risk and challenges of debt management practices in organizations using a descriptive and explanatory survey. This study design involved the collection of information from a sample of staff of GWCL through their responses to questions. This study design owes its continuing popularity to its versatility, efficiency, and generalizability. The population of the study was the employees of Ghana Water Company Limited of the Kumasi metropolis of the Ashanti region with total staff strength 172. A sample size of 50 respondents was selected for the study and the sample size was based on non probability or convenience sampling. This was because the researchers choose respondents who had some knowledge or/and their work had a bearing on accounts receivables of the company.

A well designed questionnaire containing both close ended and open ended questions was used in the collection of data for analysis to help achieve the objectives of the study. Questionnaire in the form of a five (5) point Likert scale was adopted (ie strongly disagree, disagree, neutral, agree and strongly agree). These set of questionnaire was distributed to the employees selected from the departments (Finance, Commercial, Human resource, Audit, Distribution and Public Relations) of GWCL.

Secondary data was also used in addition to the primary data collected. To achieve the trends analysis, the following calculations were made as per Table 1 below.

Table 1: Ratio Analysis Computations Formulas

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Accounts receivables to current asset ratio was to show the amount of current assets that are in account receivables, the higher the percentage the higher the cost of carrying the accounts receivables. It was calculated using the formula below; **Accounts receivables to current assets ratio=** $\frac{\textbf{account receivables}}{\textbf{current assets}} \times 100$
Account receivables to total assets ratio was used to show how much of the total asset are accounts receivables. This is an indicator of good and effective management of account receivables. It was calculated using the formula below; **Accounts receivables to total assets ratio=** $\frac{\textbf{account receivables}}{\textbf{total assets}} \times 100$

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The accounts receivables to sales ratio was calculated to show the amount of receivables in the sales made for a certain period. This shows the ability of the firm to do business with less debtors or how effective the collection system is. Below is the formula that was used:

$$\textbf{Accounts receivables to sales ratio} = \frac{\text{account receivables}}{\text{sales}} \times 100$$

Operating profit margin was also calculated to show how management is able to use the firm's assets to do normal business to generate profit out of its sales. It was calculated using the formula below:

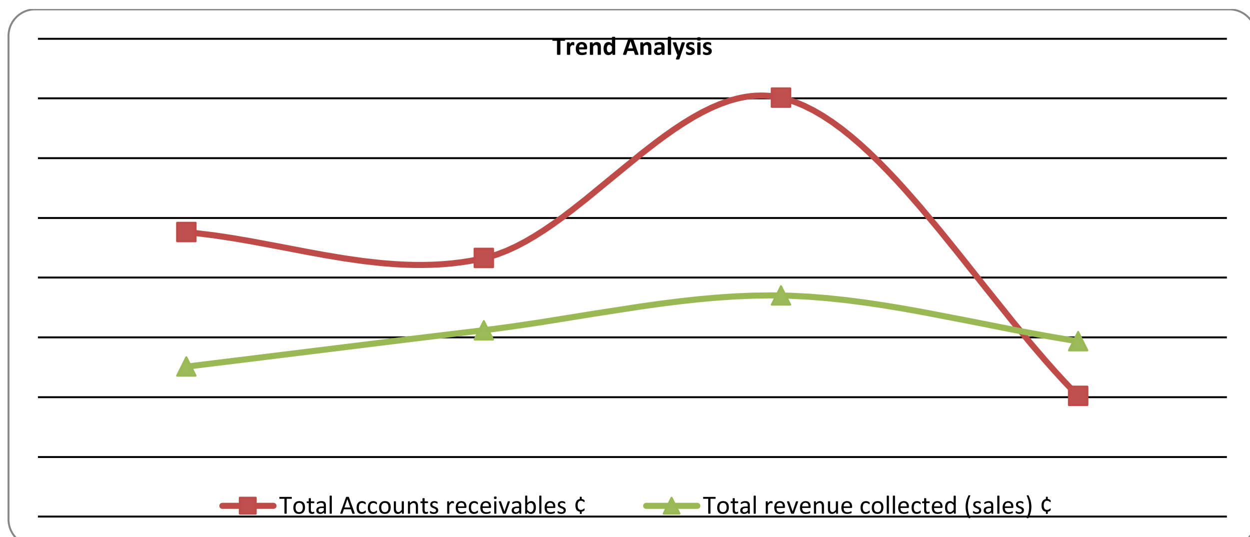
$$\textbf{Operating profit margin} = \frac{\text{operating profit}}{\text{total assets}} \times 100$$

RESULTS AND DISCUSSIONS

Levels of Account Receivables

From Figure 1 the account receivable for GWCL fluctuates as it reduced in 2011 from 23,806,429 in 2010 to 21,631,151 in 2011, increases in 2013 to 35,056,996 and reduces again in 2014 to 10,094,296. The total amount of revenue collected increases marginally for the first three years and then decreased.

Figure 1. Trend Analyses of Accounts Receivables and Total Revenue



Source: (GWCL, 2015)

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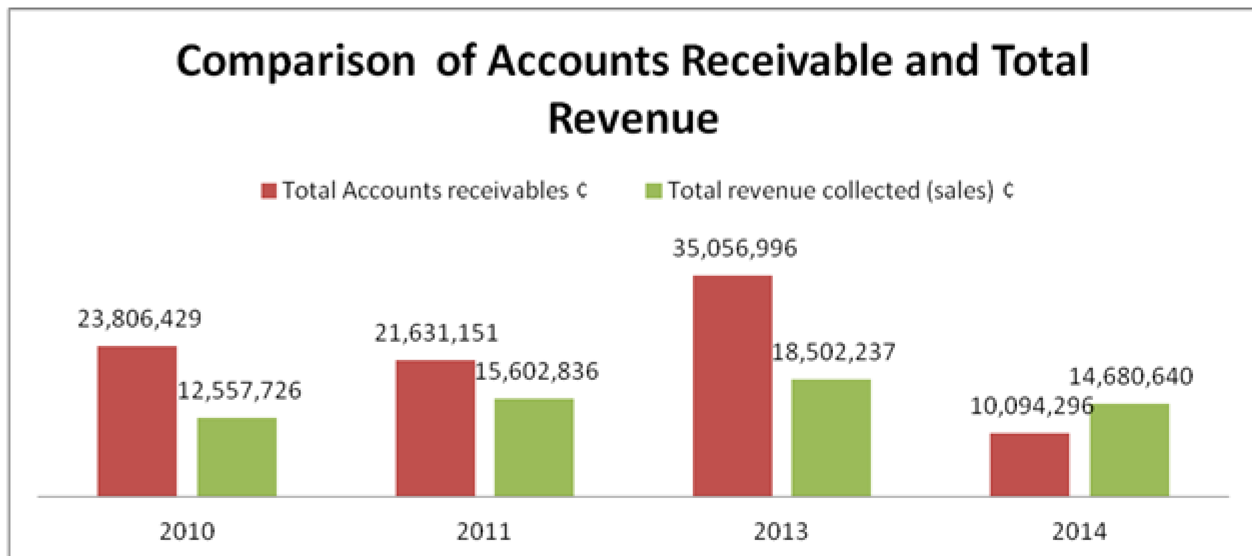
In addition, the revenue collected has always been less than the account receivables which is as shown in Fig 2 below, an indication that there is more work to be done when it comes to the recovery of account receivables. This is an indication of poor management of accounts receivables which is supported by the response from the respondents on factors causing poor accounts receivables (Berry and Jarvis, 2006; Hong, 2008)

Figure 2. Comparisons of Accounts Receivables and Total Revenue



Source: (GWCL, 2015)

The Effects of Improper Risk Management of Account Receivables

The Perspective of Respondents

From Table 2 below, the effects of improper risk management of account receivables were presented as follow; all respondents agreed that inability to initiate maintenance and expansion projects was ranked highest with a mean response of 4.96. In respect to decrease in the company's profits, direct financial crisis, loss of donor trust and confidence, loss of public trust and confidence in management were also rated high and lastly, the least of respondents with a minimum mean of 4.22 still agreed that, improper risk management of accounts receivables led to a misleading financial statement. This is equally evident in the findings of Sinha et. al. (1988) which revealed that a large proportion of their working capital was locked up in accounts receivables which lead to the corporation losing their profits and therefore incapacitated to carry out maintenance and expansion projects. Also Enzhu (2008) stated a very important point worth noting that "because of the accounts receivable, the logistics cannot match the flow of capital in the company."

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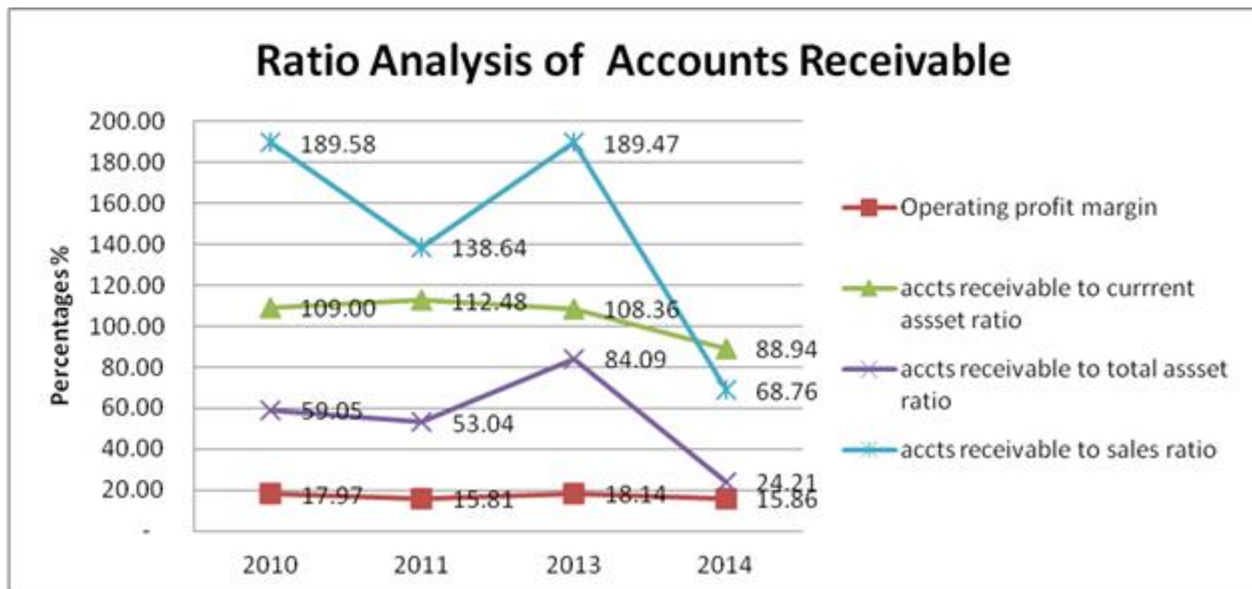
Table 2. Effects of Improper Risk Management of Account Receivables

Effects of improper risk management of account receivables	Agree%	Mean
Decrease in company profits	98	4.9
Causes Direct Financial Crisis	96	4.66
Misleading financial statement	78	4.22
Affects lag of the business	96	4.74
Loss of public trust and confidence in management	90	4.58
Inability to initiate maintenance and expansion projects	100	4.96
Loss of donor trust and confidence	94	4.42

Statistical Implication of poor accounts receivables at GWCL

Some ratio analysis was done on the account receivables to help give a clearer picture and a better understanding of the levels and their implications.

Figure 3. Ratio Analyses of Account Receivables



Source: (GWCL, 2015**)**

Figure 3 above presents the account receivables to current assets ratio, with the ratio increasing from 109% in 2010 to 112.48% in 2011 where it again decreased to 108.30% in 2013 and finally decreased to 88.94% in 2014. This implied that the higher the percentage, the greater the cost in carrying receivables for the company, an indication that GWCL has a lot of its assets as receivables which made it more costly to run the company. The account receivables to total assets ratio was also presented on Fig 3 above. The ratio fluctuates as it decreased from

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59.05% in 2010 to 51.89% in 2011; it then increased to 84.41% in 2013 and reduced again to 24.21% in 2014. This ratio is used as an indicator of whether there is effective management of account receivables or not. The smaller the percentage the more effective account receivables are managed therefore one could say that the management of GWCL in Kumasi have been struggling to effectively manage accounts receivables but one can acknowledge that they have in made some strides in 2014. An effectively managed accounts receivables must fall within some standards with evidence from developed economies falling between 18% and 25% of its total assets as stated by Demirguc-Kunt and Maksimovic(2001) and Zingales (1995).

The accounts receivables to sales ratio was also done to see the proportion of account receivables which were in sales. From the graph, the ratio reduced from 189.58% in 2010 to 138.64% in 2011 where it again increased to 189.47% in 2013 and finally 68.76% in 2014. Generally, the amount of accounts receivables in sales is high because considering the least mean ratio of 68.76% means that more than half of the sales done for the period was in debt. This meant that for the first three years 2010, 2011 and 2013 the accounts receivables was even more than the sales done for each period, an indication of unpaid debts carried forward from the previous year.

From the graph the operating profit margin kept on increasing for the three years that is; 2010 was 17.97%, 2011 was 15.81% and 2013 was 18.14% and it finally reduced back to 15.86% in 2014. The operating profit margin was used to see whether management still made any profits at all from the regular business. But from the graph they did make profits but very marginal as profits were not even up to 20%, thus before non operation expenses which meant they were struggling to survive and dependent on grants and other sources of funding aside their own internally generated funds.

Factors Accounting for Poor Account Receivables

Table 4 shows that 86% of respondents do not knowing the optimal level of accounts receivables of GWCL, 98% of respondents each agreed that poor preparation of accounts receivables and inadequate detailed management system were both factors accounting for poor accounts receivables in GWCL and all respondents agreed that the weakness of the law, ineffective and inefficient management of accounts receivables and poor investment in the collection of account receivable were factors leading to poor account receivables. All the respondents agreed that the weakness of the law, ineffective and inefficient management of accounts receivables and poor investment in the collection of account receivable were the major factors accounting for poor account receivables. This goes to complement the findings of Berry and Jarvis (2006) that the main factors contributing to poor accounts receivables were that

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companies were not even aware of the optimal level of accounts receivables that their company could risk given out and companies were also reluctant at investing in debt recovery to aid retrieve some of the accounts receivables if not all. Similarly Hong (2008) also stated that one of the main causes of poor account receivables is the "weakness of the law and its awareness

Table 4. Factors that causes poor accounts receivable

Causes of poor account receivables	Agree%	MEAN
Not knowing the optimal level of account receivable	86	4.14
Poor investment in the collection of account receivable	100	4.68
Poor accounts receivables preparation	98	4.52
Inadequate detailed management system	98	4.62
Ineffective and inefficient management of accounts receivables	100	4.8
Weakness of the law	100	4.54

CONCLUSION AND RECOMMENDATIONS

The findings of the study, draws the necessary conclusions and makes the important recommendations based on the findings of the study and the following conclusions can be drawn that the accounts receivables was still increasing except for the year 2014 and therefore much still had to be done as the revenue collected (sales) was equally at a fast rate of decline. The company had many debtors due to it always having more than half of its sales being account receivables and therefore the cost of carrying account receivables was greater. Secondly, the weakness of the law, ineffective and inefficient management of accounts receivables and poor investment in the collection of account receivable were the factors identified as the causes of poor account receivables. Finally inability to initiate maintenance and expansion projects, reduction in the profits, affected the lag of the business and caused financial crisis were the effects of improper risk management of account receivables.

From the results of the study, it was recommended that the management of GWCL should put in place a very vibrant credit policy so as to help avoid poor account receivables. The monitoring and collections team should also be empowered and well resourced to enable them carry out their due of recovering the debts for the company. Management of GWCL should also be given targets to meet when it comes to account receivables in particular and employees should be awarded or sanctioned appropriately when they fail to achieve their targets. GWCL should also introduce the prepaid system in their operations to reduce the number of account receivables they usually incur from their customers. However theses conclusions and recommendations were not achieved without some limitations to the study which included the

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bureaucratic process and near impossibility in obtaining financial data for ten (10) years from GWCL. Another limiting factor was the reluctance of the customers of GWCL to provide information for further understanding since it involved their debt situations.

REFERENCES

AMCOW. (2011). Water supply and sanitation in Ghana: Turning finance into services for 2015 and beyond. African Ministers' Council on Water (AMCOW).

Ansah, O. S. (2011). An Assessment of Working Capital Management Practices within Ghana Water Company Limited. A student dissertation in partial fulfilment for the award of a Commonwealth Executive Masters in Business Administration. Kwame Nkrumah University of Science and Technology.

Baveld, M. B. (2012) Impact of Working Capital Management on the Profitability of Public Listed Firms in the Netherlands during the Financial Crisis. http://essay.utwente.nl/61524/{Accessed 21MARCH 2015)

Bastos, R., and Pindado, J. (2012), Trade credit during a financial crisis: A panel data analysis, Journal of Business Research (2012), doi:10.1016/j.jbusres.2012.03.015

Berry, A. And Jarvis, R. (2006), Accounting in a Business Context, Cengage Learning EMEA, Andover, UK.

Deloof, M. (2003), Does Working Capital Management Affect Profitability of Belgian Firms? Journal of Business Finance and Accounting, 30(3-4), 573 – 587.

Enzhu, L. (2008). An Analysis of the Construction of Total Risk Management Mechanism for Enterprises' Accounts Receivable. International Journal of Business and Management.

Emery, D. Finnerty, J. And Stowe J. (2004), Corporate Financial Management, Pearson, Prentice Hall, New Jersey

ESCAP. (2006). Manual on effective debt management. New York: United Nations Economic and Social Commission for Asia and the Pacific (ESCAP).

Ferreira da Cruz, N., Berg, S. V., and Marques, R. C. (2013). Managing Public Utilities: Lessons from Florida. Journal of Local Self Government, 101-118.

Ghana Water Company Limited (GWCL) (2015).Available on http:// www.Ghanawater.com {Accessed March 2015}.

Government of Ghana. (2010). Ghana shared growth and development agenda: Costing framework (2010-2013). Accra: National Development Planning Commission.

Hong, M. (2008). Establish Credit Systems in Enterprises to Strengthen the Management of Accounts Receivables. Journal for Management Science and Engineering, Vol. 1.

IMF and World Bank. (2009). Managing public debt: formulating strategies and strengthening institutional capacity. International Monetory Fund (IMF) and World Bank.

IMF and World Bank. (2013). Helping developing countries address public debt management challenges: Background paper. International Monetary Fund and The World Bank.

John, G. S. (2008). Accounts Receivables Management Best Practices. John Wiley and Sons Incorporation Sinha, K., and Sinha, A. (1988). Management of Working Capital in India. New Delhi: Janaki Prakashan.

Joy, O. (1978). Introduction to Financial Management (Madras: Institute for Financial Management and Research, 1978).

Kwaku, K. D., and Ampaabeng, I. (2014). Management in public utility companies in Ghana: An appraisal of Ghana Water Company Limited. International Journal of Management and Sustainability, 3(8), 500-516.

Licensed under Creative Common

Khandelwal.NM. (1985). Working Capital Management in Small Scale Industries. New Delhi: Ashish Publishing House.

Love, I., Preve, A. P., and Sarria-Allende, V. (2007), Trade credit and bank credit: Evidence from recent financial crises, Journal of Financial Economics, 83, 453–469.

Louis, G. G. and Eugene, F. B. (1999). Financial Management: Theory and Practice. Beijing: China Machine Press. Marotta, G. (1997), Does trade credit redistribution thwart monetary policy? Evidence from Italy, Applied Economics, 29, 1619–1629.

Mehta, M., Cardone, R., and Fugelsnes, T. (2009). How can reforming African water utilities tap local financial markets. Pretoria: World Bank.

Melecky, M. (2007). A cross-country analysis of public debt management strategies. Policy Research Working Paper 4287. Washington DC: World Bank.

Padachi, K. (2006). Trends in Working Capital Management and its Impact on Firm's performance: An Analysis of Mouritian Small Manufacturing Firms. International Review of Business Research papers, 2(2), 45-48.

Stephen, G. C., Mohanty, M. S., and Fabrizio , Z. (2011). The real effects of debt. BIS Working papers.

UN-Water and WHO. (2012). UN-water global annual assessment of sanitation and drinking-water (GLAAS) 2012 report: the challenge of extending and sustaining services. Geneva: World Health Organisation (WHO).

UN-Water and WHO. (2014). Investing in water and sanitation: Increasing access, reducing inequalities. UN-Water global analysis and assessment of sanitation and drinking water: GLAAS 2014 Report. Geneva: World Health Organisation (WHO).

Veronika, F., and Stefan, A. H. (2007). PPP – policies, practices and problems in Ghana's urban water supply. Journal of Water Policy, 169–192.

WaterAid. (2013). Financing of the water, sanitation and hygiene sector in Ghana. Accra: WaterAid.

Wheeler, G. (2004), Sound Practice in Government Debt Management, the World Bank, Washington D.C.

Williams, T. H., Okonkwo, M. J., and Abolore, R. O. (2014). The impacts of financing public utility with bonds in a developing economy (a co-integrated approach). Global Journal of Management and Business Research.

Zingales, L. And Rajan, R. (1995). What do we know about capital structure? Some evidence from international data, Journal of Finance, 50, 1421–1460.

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