CONTRIBUTION OF TWIGA CEMENT FACTORY TO THE IMPROVEMENT OF LIVING STANDARD OF THE SORROUNDING COMMUNITY, A CASE STUDY OF TWO SELLECTED HARMLETS OF WAZO WARD IN KINONDONI MUNICIPALITY.

BY

ERNEST TITO KAWEGERE

BDS/38491/123/DF

A RESEARCH REPORT SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF BACHELOR'S DEGREE IN DEVELOPMENT STUDIES OF KAMPALA INTERNATIONAL UNIVERSITY

APRIL, 2015

DECLARATION

I Ernest Tito Kawegere declare that the dissertation entitled "Contribution of Twiga Cement Factory in Improving Living Standard of the Surrounding Community. A case of two Selected Hamlet of Wazo ward in Kinondoni Municipality", is my own original work carried out under the guidance of **Mr. Nuwamanya Richard** It has not been previously submitted for the award of any academic qualification.

.....

(Signature)

16 April 2015

(Date)

COPY RIGHT

RESEARCH SUPERVISOR'S CERTIFICATION

I certify that this dissertation entitled "Contribution Twiga Cement in Improving Living Standard of the Surrounding Community", which is a case of two selected Hamlets of Wazo ward in Kinondoni Municipality submitted to the Kampala International University for the award of Bachelor Degrees in Development Studies is an independent research work carried out by **Ernest Tito Kawegere** a student in Bachelor Degree Development Studies under my supervision and guidance.

Mr. Nuwamanya Richard

(Supervisor)

Nuwamanya R

(Signature)

.....

(Date) 16th April 2015.

DEDICATION

To my loving Mother, Mrs.Ndeana Eliud Kanza for her enduring love, endless support and source of encouragement , my child Faith Ernest Kawegere and her Mummy Rita, My sister Elizabeth Tito Kawegere and my cousin Diana Mungy and all my friends for their inspiration.

ACKNOWLEDGEMENT

Sincere gratuity is directed to the Almighty God for his wonderful power which has enabled me to live in good health and accomplish this notable research.

Special thanks goes to my beloved Mother Mrs. Ndeana Eliud Kanza, u raise since I was no body up to now am somebody. Thanks for believing in me, u picked me up when I fell, I love u, am so grateful, blessed to have u mumy. A lot of people have their mother but there not happy as I am I real love u mum consider the effort u made for me and made who I am today. You're the only woman behind my success. It has been hard raising me and my sister without a father but u did all the sacrifices to make sure that we all get better education. Elizabeth Kawegere, I love u sister, Diana Mungy I love u sister, Macmillan Mungy, Baraka Bariki, and all Kanza and Kawegere family I appreciate for every support u showed to me. My aunt Kesia Eliud Kanza you're my hero and I love u my second mum God bless you mum. I wouldn't be who I am if it wasn't for u.

Great appreciation also goes to Mr. Nuwamanya Richard , for his advice, criticism, reaction, objection and re-interpretation as well as "sharp eyes" stimulated me to dig into the root and come up with this useful work from when I was preparing research proposal, during data collection, analysis as well as during actual preparation of this research dissertation. I feel honored to have the opportunity to work under him.

Sincere thanks should go to Twiga cement factory and Wazo and Tegeta household for their willingness to provide information and support which made this study meaningfully.

Lastly Special thanks should go to Rita Patience Kiconco for giving birth to my first born Faith Ernest Kawegere, and encouraging me whenever I almost lost hope. Am so grateful to have you always by my side. I thank all friends of mine for the supports and courage they gave me during the whole period of research and my studies

ABSTRACT

This study was conducted at Wazo and Tegeta hamlets of Wazo ward in Kinondoni municipality, to assess the contribution of Twiga cement factory in improving living standard of the surrounding community. A random sample of 80 respondents from the household level was interviewed by using questionnaires, and focus group discussion. And analysis was done using computer program called statistical package for social science (SPSS). Presentation of analyzed data was done by using tables, plates and words.

Building materials, employment opportunities social services like provision of water supply, electricity supply, education services were evidenced as the contribution of Twiga cement factory to the community, due to the fact that the factory the findings showed that Twiga cement factory was able to employ 35.5% of the people in Wazo, build schools Twiga Secondary and Wazo primary school, allocate water pipe and supply electric to most of the Mafuriko households. Evidenced of high price of cement, low employment opportunities offered to the people by the factory, insufficient water services, insufficient electric services, health problems caused by dust from the factory and environmental problems due to passing canal within the community areas are realized.

The study makes different recommendation to reduce and eradicates if possible the problems of price, unemployment, water services, and electricity services, health and environmental problems at household level. This can be achieved by the factory to increase employment opportunities, improve water and electric services, building health centers, and finding proper means of discharging solid (dust), and liquid substances away from the community areas.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF PLATES

ABBREVIATION

TPCC	Tanzania Portland Cement Company
GDP	Gross Domestic Product
NGOs	Non Governmental Organization
HIV	Human Immune Viruses
AIDS	Acquired Immune Deficiency syndrome
PCA	Portland cement Association
VEO	Village Executive Officer
WEO	Ward Executive Officer
SPSS	Statistical Packaging for Social Science
Gvt	Government
CCM	Chama cha mapinduzi
Tsh	Tanzanian shillings
USA	United States of America
TANESCO	Tanzania Electricity Supply Company Limited

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background Information

Tanzania is currently promoting the development of industry and exploitation of natural resources in an attempt to improve its economic stability. Cement production Industries are among of the important part of economic activities which contributes to the improvement of people's livelihood as well as adding to the national economy. Tanzania is set to become one of global giants in cement production as product continues to grow fast locally and abroad. At present there are three producers of cement in the country, with the combined annual output of three million tones. There are at least four other investors planning to establish cement production ventures and the projects are at different stages of implementation (Miller, 2009).

Tanzania is blessed with huge deposits of raw materials needed in cement production, which include limestone and gypsum. One of the cement producers in Tanzania is, Tanzania Portland Cement Company (TPCC) based at Wazo Hill in Dar-es-Salaam. TPCC in which Heidelberg Cement holds a majority stake is the leading cement producer in Tanzania and operates a cement plant near the coastal city of Dar -es-Salaam (Wakaba *et al,* 1998).

Tanzania Portland Cement Company Limited (TPCC) was established by Cementia Holdings of Switzerland in 1959. In 1962, Cementia Holdings in collaboration with Tanganyika Development Company (now Tanzania Development Corporation) started to build the cement factory at Wazo Hill in Dar es Salaam. The Government of Tanzania owned 20 percent of the company shares. Construction of the factory was completed in mid 1966 and the first bag of cement produced in Tanzania came out of the factory at Wazo Hill (Wakaba *et al,* 1998).

In 1967, the government increased its shares in TPCC from 20 percent to 50 percent and in 1973, the company was nationalized, the government increased its shares to 100 percent. In 1992, the government entered into a joint venture with two foreign companies that is Scancem International (13 percent) and Swedfund International (13 percent) while the government retained 74 percent of the shares. The company manufactures sell and distributes construction cement in Tanzania. The company manufactures, two brands of cement; Twiga Ordinary and Twiga Extra. The objective of the company is to increase earnings through cost leadership and long-term, profit-oriented growth (Wakaba *et al*, 1998).

TPCC, and the Tanzanian cement industry as a whole, makes significant contributions to the Tanzanian economy through government taxes, employment, technology improvements, international business standards, community development programs, and by performing its core activity: making available cement for building the country. Since imported cement was zero-rated in 2008 to meet shortages, it is estimated that at least 30,000 tonnes were being dumped into the country per month, coming from Pakistan, India and China. Stakeholders estimate that a total of 3.6 million tones of cement freely imported on an annual basis, in contrast to domestic

demand of 1.9 million tonnes. Local producers, including TPCC want the Government to intervene and increase protection to local producers from losing businesses to cheap imports. Cheap imports have grown from a mere two percent to more than 20 percent in 2009 (Onyango, 2009).

It is undisputed factor that the cement industry sector contributes to the development of the important infrastructural facilities needed to speed up economic development of any country in the world, Tanzania included. Cement product is more useful to enable the construction go on.

For the Tanzanian economy to grow, It needs infrastructure development through the construction of major means of transport such as roads, bridges, railways as well as main telecommunication network towers. All these infrastructural development requires cement product. Other important features are such things like residential properties, commercial buildings, hospitals, fibre optic cables, service centres etc. are also important for national development. In 2007, Tanzanian industrial production comprising of construction and manufacturing grew by 9.2 percent compared with 8.5 percent in 2006. Whereas in 2007, the construction industry contributed 7.9 percent to the country's Gross Domestic Product (GDP), this is an increase of over 2 percent compared with 5.8 percent in 2006 (Onyango, 2009).

Several companies have initiated dialogue efforts in specific countries, and many are involved in local community assistance. However a cement industry as a whole have not moved effectively towards stakeholders engagement. In most cases cement companies do not open two way dialogues with stakeholders

Under community development issues, the cement companies supports existing NGOs and organizations such as a community development programme which deals with orphanage and youth counseling centers both Tanzania Mainland and Tanzania Isles. The companies support NGOs that address HIV/AIDS and cancer problems, thus donating food and other basic needy products to orphans in the city of Dar es Salaam. In addition to that, these companies engage in water supply wherever there is scarcity and this is supplied free of charge to villages neighboring the integrated cement factories. Human capital investment has a large multiplier effect where skills shortages and inadequate capacity constrain the development of industries. Tanzanian cement industry supports human capital development through training and development. All cement companies provide training to employees both on and off site and most of their training is related to production, technology and maintenance, but other examples of training include issues pertaining to labour laws, civil engineering, quality control and information technology. Language courses for English and Kiswahili are also offered because all three cement companies are subsidiaries of larger international corporations, they take full advantage of the training centres and courses offered worldwide. Twiga cement factory, as one of the factory also plays an important role in enhancing the

economy of the country as it produces cement which enables various development activities to be undertaken (Onyango, 2009).

1.2 Statement of the Problem and Significance of the Study

Industrialization is one of the major activities promoted by the government in their development `strategies to make a significant contribution to the enhancement of human welfare. Cement industry sector contributes to the development of the important infrastructural facilities needed to speed up economic development of any country in the world, including Tanzania. Cement product is more useful to enable the construction go on. For the Tanzanian economy to grow, needs infrastructure development through the construction of major means of transport such as roads, bridges, railways as well as main telecommunication network towers. All these infrastructural development requires cement product. Other important features are such things like residential properties and commercial buildings, hospitals, are also important for national development. In 2007, Tanzanian industrial production comprising of construction and manufacturing grew by 9.2 percent compared with 8.5 percent in 2006. Whereas in 2007, the construction industry contributed 7.9 percent to the country's Gross Domestic Product (GDP), this is an increase of over 2 percent compared with 5.8 percent in 2006 (Onyango 2009).

Twiga cement factory plays an important role in enhancing the economy of the country as it produces cement which enables various development activities to be undertaken, despite the contribution made by Twiga cement factory towards national economic growth, its contribution to the improvement of living standard of the people surrounding the factory is not promising. Therefore there was importance of caring out the study since it enabled the researcher to determine the contribution of Twiga cement factory in the improvement of living standard of the surrounding community.

The study findings will help policy makers, planners and investors to be aware of the contribution of cement industries in supporting raising the standard of living of the people and thus the policy makers can make sound polices that can encourage investors to invest in cement industries

1.3 Research objectives

1.3.1 Main objectives

The general objective is to assess the contribution of Wazo hill cement factory in improving the living standard of the surrounding community.

1.3.2 Specific objectives

i) Identify Twiga Cement Factory community intervention

ii) Assess the impact of Twiga Cement Factory community Program

iii) Identify challenges of Twiga Cement Factory community intervention Program

1.4 Research Questions

i) What are the Twiga Cement Factory interventions in the community of two selective hamlets' of Wazo ward?

Indicators

- Building materials
- Employment opportunities
- Social services

ii) What is the impact of Twiga cement community program?

Indicators

- Improving infrastructure
- improving water supply
- Improving access to health services

iii) What are the challenges/ problems of Twiga community intervention program?

- Community
- Company

1.5 Scope of the Study

The study was carried out in Wazo ward, within two Hamlets namely Tegeta and Wazo. The selection objectively aimed on potentiality of the Twiga cement factory in activities it performs which also contribute to the improvement of the living standard of the community surrounding. The content of the study focused on the contribution of Twiga cement factory to the improvement of living standard of the surrounding community.

1.6 Conceptual Framework

The conceptual model guided the study based on assumption that, the contribution of Twiga cement factory was determined by several factors, the factors included independent, intermediate, and dependent variables.

The conceptual framework in figure one below assumed that, quality of the living standard of the community depends on the number of factors, these include the Income that the community get through various activities, employment level, social services that is health services, water and electric availability, education services and other important services including better houses which depends on the availability of building materials, that means when these factors rises and the quality of the life of the people will also be raised, and when these factors decline, the quality of life of the people also declines. Though there are other factors which when increases can also accelerate improvement of the quality of living of the community these include increase in the level of Investment, management of resources, energy and changes in the policy.

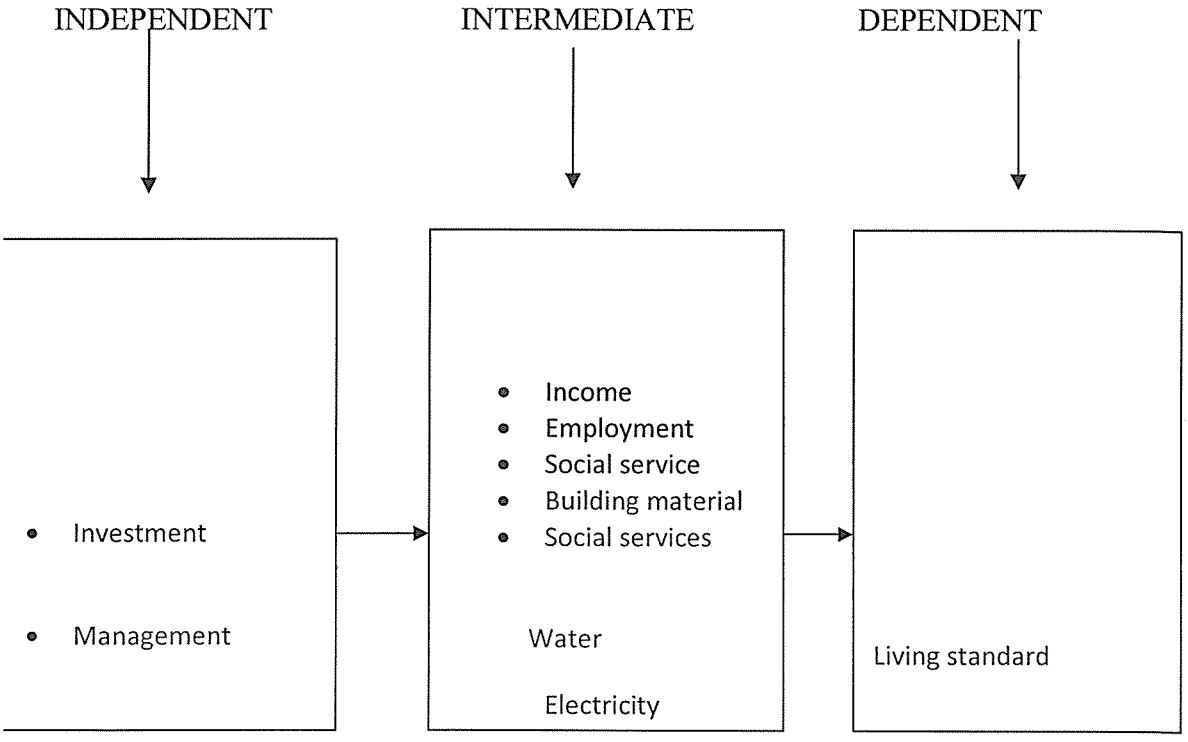

Figure 1.1: Conceptual framework of the study

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Definition of key Terms

Cement is a basic ingredient for the construction industry. Cement is made out of limestone, shell, clay mined out of a quarry close to the plant. The raw material is crushed, and then heated at temperature in excess of 1000 °C in rotating kiln become clinker. Clinker is then mixed with gypsum and ground to a fine powder to produce final grade of cement. The technology is a continuous process and is highly energy intensive (Philippe *et al,* 2007). Cement is the critical ingredient in concrete locking together the sand and gravel constituents in an inert matrix. It is therefore a critical part of meeting society's needs for housing and basic infrastructures, such as bridges, roads, water treatment facilities, schools and hospitals. Due to its use in construction, cement is made to strict standards.

2.1.1 Sustainable Cement Industry

Since Cement industry is very important as it serves many purposes it should be made sustainable so as to make sure that it serves longer objectives, therefore issues like transparence should be much considered to avoid corruption and thus sustainable development. It is important for cement companies to support transparency and affirm their opposition to corrupt practices. Non governmental organizations, (NGOs) are playing an important role in influencing government polices and promoting principles of sound governance at both national and international level. Thus it is in the interest of the cement companies to corroborate with public and private institutions including (NGOs), religious leaders, unions, academia, and trade associations to help designing effective governance systems that benefits all stakeholders. At the same time cement companies need to ensure that their internal cooperate governance policies and mechanisms are consistent with goals of sustainable development (Sylivie, 2010)

2.1.2 Stakeholders of Cement Industry

Stakeholders for cement industry are all individuals and groups who see themselves as potentially affected by or who can impact cement operations at the local, national and international scale. These groups include, but are not limited to neighbors, community organizations, employees, trade unions, government agencies, the media, nongovernmental organization (NGOs), contractors academia and supplies.(Battelle, 2001)

Therefore one of the most driving forces that enhance sustainable cement industry has been growing influence of external stakeholders.

2.1.3 Contribution of Cement Industries

IT is undisputed factor that the cement industry sector contributes to the development of the important infrastructural facilities needed to speed up economic development of any country in the world, (Onyango, 2009). And it is one of the most important sector that provide employment to the large part of the population.

2.1.4 Contribution of Canada Cement Industry

In 2003, Lehigh developed a Community Liaison Group as a required part of an approval process .After the process was complete, the plant continued to support the group, and it became a forum where surrounding communities could discuss any concerns they would like addressed, as well as the plant's own environmental objectives.

The Cement Association of Canada is the voice of Canada's cement industry. Canadian cement and concrete sales amount to more than $8.0 billion annually, and support more than 27,000 jobs. Canada's cement industry works to ensure the reliable supply of cement required to build Canada's network of critical infrastructure of roads and bridges, buildings and homes, water and sewage works and dams. In addition, soil solidification/stabilization with cement is an increasingly common technology for the safe management, treatment and reuse of contaminated sites (Sylvie, 2010).

2.1.5 Contribution of Cement Industry in USA

Six cement plants received special recognition for their commitment to improving the environment and their communities at the Tenth Annual Cement Industry Environment and Energy Awards, presented by the Portland Cement Association (PCA) and Cement Americas magazine. The awards honor individual cement facilities that exemplify the spirit of continuous environmental improvement and support this spirit with action. These plants went beyond government regulations and local laws to ensure that their processes and policies contributed to making their communities better places to live and work. Although it is one of the most highly regulated industry sectors in the United States, cement companies are consistently challenging manufacturing policies and procedures to improve energy efficiency and other environmental factors. This means not just producing a high quality product, but making the plant's local communities quality places to live and work (Brian 2011).

2.1.6 Contribution of Cement Industry in Tanzania

For the Tanzanian economy to grow, needs infrastructure development through the construction of major means of transport such as roads, bridges, railways as well as main telecommunication network towers. All these infrastructural development requires cement product. Other important features are such things like residential properties, commercial buildings, hospitals, fibre optic cables, service centres etc. are also important for national development. In 2007, Tanzanian industrial production comprising of construction and manufacturing grew by 9.2 percent compared with 8.5 percent in 2006. Whereas in 2007, the construction industry contributed 7.9 percent to the country's Gross Domestic Product (GDP), this is an increase of over 2 percent compared with 5.8 percent in 2006 (Onyango, 2009).

2.1.7 Contribution of Twiga Cement Factory

Twiga cement factory as a whole makes significant contributions to the Tanzanian economy through government taxes, employment, technology improvements, international business standards, community development programs, and by performing its core activity: making available cement for building the country. Since imported cement was zero-rated in 2008 to meet shortages, it is estimated that at least 30,000 tones were being imported into the country per month, coming from Pakistan, India and China. Stakeholders estimate that a total of 3.6 million tones of cement freely imported on an annual basis, in contrast to domestic demand of 1.9 million tones. Local producers, including TPCC want the Government to intervene and increase protection to local producers from losing businesses to cheap imports. Cheap imports have grown from a mere 2 percent to more than 20 percent in 2009 (Onyango, 2009)

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

Methodology Is the systematic, theoretical analysis of the methods applied to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. Typically, it encompasses concepts such as paradigm, theoretical model, phases and quantitative or qualitative techniques

A methodology does not set out to provide solutions - it is, therefore, not the same thing as a method. Instead, it offers the theoretical underpinning for understanding which method, set of methods or so called "best practices" can be applied to specific case, for example, to calculate a specific result.

3.2 Data Types and Sources

Both primary and secondary data were collected from the heads of the households and other adult members of the family. Also data was collected from key informants. Data were related to the contribution of Wazo hill cement factory to the improvement of living standard of the surrounding community.

3.3 Sampling Designs

This refers to the techniques or procedures that had been used in selecting sample units. It was a definite plan for obtaining a sample from the agreed population (Kothari 2000), In the study the sampling design helped to determine sampling frame, sample size and sampling procedures and techniques.

3.4 Sampling Frame

The sampling frame for the study consisted of the households respondent, ward office and village office of Tegeta and Wazo. In this study a list of households from Tegeta and Wazo streets were used to choose respondents, where a sample of 67 households respondents were taken to represent the total population. Some leaders were also involved in this study such as leaders from village level, village executive officers (VEO) of Tegeta and Wazo, and staff respondent from Twiga cement factory were involved.

3.5 Sampling Unit

Sampling unit refers to the geographical constructive unit such as house, social unit The sampling unit was limited to the community of Tegeta and Wazo which included household heads respondent, key informants such as Ward officer, village officer and Twiga cement factory staff members .

3.6 Sample Size

With total households of 400 from Tegeta and Wazo hamlets, the sample size of 80 respondent was drawn, the sample size was reasonable due to large number of households in both villages.

A total of 80 respondents were consulted and their distribution (Table 1) is shown below

Table 3.1 Respondents distribution

Category	Villages		Total
	Tegeta	Wazo	
Household member	30	37	67
VEO	1	1	2
WEO		1	1
Twiga cement staff	5	5	10
Grand total			**80**

3.7 Sampling Procedure

Non probability sampling procedure were used to obtain the required respondent for the study

3.7.1 Probability sampling

Simple random sampling procedure was employed to obtain the respondent from the households heads, by listing all members of the study area, and the study used sequence of numbers from a table of random number. The reason for the selection of the method is because the method gave equal chance to each unit or person in the population to be selected and be included in the sample. where from five household one respondent was taken.

3.7.2 Non Probability Sampling

Purposive or judgmental sampling procedure was used to select ward executive officer, village executive officer, and Twiga cement factory staff members.

3.8 Data Collection Methods

In the study several data collection methods were used to obtain data. Interview and

questionnaire methods were used to collect data .Secondary data were collected by reviewing several documents this include official reports, such as reports from VEO's office, WEO's office.

3.8.1 Questionnaire

A list questions was given to the household heads, and the key informants which were VEO, and WEO. Structured questionnaires were used as a technique of data collection from respondents to generate information needed in this study. The questionnaires were used to enable face to face meeting in which the interviewer asked the interviewee questions and recorded their responses. Closed ended questionnaires (where list of possible answers were provided) and open ended questionnaires (where complete freedom to the respondent) were used.

3.8.2 Focus Group Discussion

The focus group discussion was used as the data collection method, where by checklist prepared by a researcher was used as guide in asking questions for acquiring information from the respondents on the contribution of Twiga cement factory to the community. The method enabled respondents, to express and interchange their views before giving the precise answers to the researcher.

3.8.3 Detailed Field Work

I directly reported to the Ward Executive Officer (WEO) and Village Executive officer of Wazo Ward in Kinondoni municipality, for the introduction and explanation of the intention of conducting research in the area. Then they directed me to the household members of Tegeta and Wazo for the detailed introduction with the household members of the two hamlets and get more information that I needed.

3.9 Data Processing, Analysis and Presentation

3.9.1 Data Processing

The data were edited immediately after being collected, classification, tabulation and coding of data were done to enable analysis of the data into meaningful information.

3.9.2 Data Analysis

The collected data were categorized by coding, excluding the responses to open-ended questions. Both qualitative and quantitative techniques were used to analyze the data through statistical tabulation. This includes frequencies and tables whereby SPSS 11.5 Content analysis for data collected through discussion with key informants was used. Content Analysis determines the presence of sets of texts. Researchers quantify and analyze the presence, meanings and relationships of such words and concepts, then make influences about the message within the texts.

3.9.3 Data Presentation

The data analyzed were presented by using tables, figure plates and words which associated with descriptive interpretation of the research results.

3.10 Research Limitations

During the course of this study I met a number of constrains,

- Budget constraint was one of the obstacle to the study as the available fund sources did not fully meet the actual research cost.
- Some of the respondents were not willing to be interviewed, they wanted to be paid for their concern to give information to me, the thing which I was not prepared for.
  To overcome the situation I had to ask the VEO of Wazo to make it clear to some of the respondents to give information at no cost.

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

This chapter is devoted to the analysis, presentation, and interpretation of the research findings. Major findings obtained here are from the ward respondents, mainly household members who were selected purposively. Respondents and key informants for the study were obtained by purposive sampling where questionnaires and focus group discussion were used for data collection. The study involves the sample size of 80 respondents.

4.1Characteristics of Respondents

Some general characteristics of the respondents involved are summarized below in table 4.1 . The sex tabulation shows that the number of males is more than the number of females. As it has been indicated in the results that 32.5% were men and 67.5% were female from both hamlets of Tegeta and Wazo, women are the immediate beneficiaries of the services which are offered by the factory, these service include water facilitation, mostly used by women for domestic use, electricity and health servise where these women can improve their standard of living

Table 4.1: Respondent characteristics

Respondents Characteristics Sex	Frequency	Percentage (%)
Male	26	32.5
Female	54	67.5
Education level		
Primary Education	43	53.8
Secondary Education	24	30.0
University/College	0	00.0
Not attended school	13	16.3
Occupation		
Businessmen	26	32.5
Agriculture	30	37.5
Employed	24	30.0
Age of respondents		
18-35 (Youth)	33	41.1
36-45 (Adult)	29	36.3
46-55 (Elders)	13	16.3
55 and above	5	6.9
Total	**80**	**100**

The study showed that most of the respondents were involved in agriculture, some are employed in government sectors, others were not involved in small business like retails shops, food vending the activities which help them earn money to afford their daily life.

Also the findings showed that majority of respondents in the study area attained primary education. The results are in line with those reported by URT (2005) which showed that, most of rural Tanzanian dwellers have either attained primary education or no formal education. This leads to most of the people in Wazo ward to get difficulties in getting employment, since most of the employment vacant announced need qualifications of at least secondary education. and only 30% of the respondent were of secondary education, which may be due to poor income of most of the families in the area.

Majority of respondents covered by this study were of the age between 18 and 35 years as shown in table 4.1. This shows that majority of the respondents covered by this study are youth, and thus were able to delivered their critical ideas and experience concerning contribution of Twiga cement factory to them as the surrounding community.

4.2 Types of the Contributions of the Twiga Cement Industry intervention

Cement factories seem to play an important role in improving quality of life of the people as well as facilitating economic development of the country. Cement plants are important for promoting economic development through the implementation of community-based activities that will improve the quality of life for the primary stakeholder communities and the local region, (Kano,2005).Twiga cement factory contribution is vivid in many areas including Mafuriko street in Wazo.

4.2.1 Building Materials

The results from the study showed that, Twiga cement factory produces cement as the major building material which is supplied to the cement agents who supply cement bags to the wholesalers and construction sites. Majority of the respondent in the study area accepted to get building materials especially cement from the cement retailer though not in low price as the people of Wazo expected by being near the factory. The results further shows that, the factory provide residue from cement production which is normally used by the community to fill unwanted holes in their feeder roads whenever needed.

Therefore, with these results above, there is the need for the factory to consider people's needs of making discount so that even the local people in the community can afford to buy cement.

4.2.2 Employment Opportunities

The result from the study shows that, Twiga cement factory offers employment opportunities to the surrounding community though it is in little percent. Result in table 4.2 show that 35.5% of the respondent from the community of Wazo ward have been employed in the factory as laborers. The percent is small due to the fact that the factory does not take just any one in the community; they only employ those who are well known for the security purpose. With these result there is a need of increasing employment opportunities regardless of the limitations the

factory to enable large number of the members of the community of Wazo ward to get employment and thus being able to get income to improve the quality of life.

Table 4.2: Community Members Employed in the Factory in Wazo Ward

	Frequency	Percent
YES	28	35.0
NO	48	65.0
Total	**76**	**100.0**

Further more the result showed that the salary paid to those employed in the factory is little note for instance for those who have been employed as laboures they are paid only ninety five thousand Tsh per month which is not enough for them to meet their needs, a situation which makes them to still live in poor life.

4.2.3 Social Services

Result from the study showed that Twiga cement factory provides social services to the community of Wazo ward. It is shown that several percent of the respondent are served by Twiga cement factory with different social services, which include educational services, water services, electric service and road infrastructure.

Twiga cement factory made a contribution to facilitate the construction of primary school and secondary school named Wazo primary school and Twiga secondary school. The factory gave contribution by building three class rooms of Wazo primary school. To Twiga secondary the factory contributed by providing cement bags to facilitate construction of school buildings. The result further showed that the factory apart from contributing in construction of class rooms they also provide several educational facilities like desks, school bags exercise books and pens to both schools.

Plates 4.1: Twiga Secondary school.

Plate 4.2: Wazo primary school.

Result in table 4.3 showed that 35% of the household in Wazo ward are served with water from the factory. Most of these household are those living near the factory, the percentage is low because factory has just put a single water pipe in the place near the factory and it gives out water three days per week. This situation has led to most of the households living a bit far from the factory such as Tegeta not to have such access to the water provided by factory.

Plate 4.3: Water tape from the factory at Mafuriko street in Wazo.

With this result it shows that there is a need for the factory management to take this into consideration to make improvement in water facilities by increasing number of water pipes to the Wazo ward households so as to improve quality of their lives.

Table 4.3: Percent of the Household Wazo ward Served with Water from the Factory

	Frequency	**Percent**
Respondents		
YES	28	35.0
NO	52	65.0
Total	**80**	**100.0**

47.5% of the household of Mafuriko and CCM streets in Wazo hamlet are served with electricity from the factory. The percent of the household served with electricity from the factory is small due to the expenses that the factory might incur by providing this service to the community surrounding.

Result further showed that the factory also contributed construction of the road from Tegeta Kibaoni to the factory. The road enabled the people to reach the factory easily, apart from that, with this road, investors were able to start new bus routes which carry passengers from Wazo to Tegeta kibaoni and to other places through this Wazo road.

4.2.4 Customer services

By continuing to support development in the sub-regional markets through the appointment of more distributors, Twiga Cement products are now available to customers across the country. With an increased professional use of cement and concrete, TPCC has also implemented enhanced customer services focusing on the ease of delivery (bag, jumbo bags or bulk) and technical support to its customers.

4.3 What is the impact of Twiga cement community program?

4.3.1 Improving Infrastructure

As result from Twiga cement respondent showed that the factory expects to contribute more so as to improve the infrastructure, these include improvement of roads, especially feeder roads which are found within community areas by using remaining materials from the factory. Furthermore staff respondent from Twiga cement expected to contribute also in maintenance of major roads to and from the factory so that it easen transport to and from the factory. As one of the activities that any factory is expected to perform in improving infrastructure to facilitate economic growth.

4.3.2 Improving Water Supply

Result from the staff respondent of Twiga cement showed that the factory has contributed to the improvement of water supply due to the fact that it was able to direct a single water pipe which is found at Mafuriko Street. This water serves few people especially those around Mafuriko, while those living far from that area are not able to access water. Result from Twiga cement respondents shows that the factory expects to contribute more to the improvement of water supply in the future when the benefits of the factory increase.

4.3.3 Improving access to health services

Result from the respondents of Twiga cement showed that Twiga cement factory, expects to contribute in the building of health center at Wazo ward which will offer services to the people of wazo as the part of its contribution in facilitating good health to the people and thus improve their quality of living. This is due to the fact that Twiga cement factory built a health centre before but it is no longer offering services, due to insufficient fund to run the service.

4.4 What are The Challenges/ problems of Twiga community intervention program

4.4.1 Level of unemployment

The result from the study showed that the community of Wazo Ward is facing a number of challenges including unemployment. Few people of Wazo community got employment access

from the factory. The result in 4.4 showed 35.5% of the respondent in Wazo ward has been employed in the factory on the other hand majority of the people in Wazo are still having unemployment problem due to the fact that they lack qualifications to be employed to the factory, and sometimes the factory do not need more people to be employed. This situation causes most of the youth to be just on the streets, a situation which undermines their lives.

Table 4.4: Number of Respondent in Wazo ward Employed in Twiga cement factory

	Frequency	Percent
YES	28	35.0
NO	48	65.0
Total	**76**	**100**

4.4.2 Dust

The result from study showed that activities in the factory emits a lot of pollutants which pollute environment. These pollutants include dust and several toxic gases, the most reported environmental pollutant mentioned by respondent from Wazo is dust, which seem to be severe during the months of September, October and November when the wind blows from the direction of factory to the community residence.

4.4.3 Buildings Destruction

The result showed that activities in the factory discharge some liquid substances in which the factory empty those liquid substances through the canal which cut along residential area and thus threatens buildings which are situated neat it due to the fact that the canal digs following the houses. Apart from threatening the buildings the liquid discharged produces bad smell and accelerate mosquito reproduction.

Plate 4.4; Discharge canal from the factory which passes near community buildings.

4.4.4 Noise pollution

The result from Wazo respondents shows that, the community faces the challenge of noise from the factory. Most of the respondents, especially those who are very close to the factory (specifically the Mafuriko area people) are the most affected people by the noise, and said that the noise comes out with great vibration a situation which cause even the houses to shake and sometimes result into the walls crakes

4.5 Company challenge

4.5.1 Electricity

The biggest problem Twiga cement factory facing is electricity issue. It should be noted that Tanzania is going through electricity sharing. This is a situation were sometimes one area can get electricity while another cannot. So Twiga Cement is going through this hard time in Tanzania of which it was forced to get the own generator which will increase the cost of production

Tc

CHAPTER FIVE

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The study shows Twiga cement factory which is situated within community area of Wazo ward plays an important role of producing cement as the major building material needed in the country. The study further shows that the factory take some of its profits to contribute to the community development. The factory managed to contribute in the construction of school buildings, this include buildings of Twiga Secondary school which is in Wazo in which it contributed cement bags for school building, and Wazo primary school in which the factory contributed in constructing three class rooms. Apart from the school buildings the factory also contributed in providing other school facilities such as exercise books, school books, pen and pencils.

Also, the study shows the factory also play some part in helping the community with some social services as, it has been seen that it provide the community with water pipe, since it has put a single water pipe within the community area (Mafuriko street in wazo ward). This situation enabled large number of the people especially in this area to have water access. The study father shows that some of the households especially those near the factory are being served with electricity from the factory, the situation which enable them to carry on with their income generating activities as usual.

Furthermore, the study shows that, the factory expects to contribute in the improvement of water supply by locating more water pipes in the community area. The factory also expects to contribute towards building of health center to serve the people of wazo when the profits increases in future.

However, the community surrounding Twiga cement factory faces several problems these include health problems which is caused by dust from the factory, environmental problems which is caused by the canal which carries dirty water from the factory, the canal cause serious house destruction especially for the houses passed through with the discharge canal and noise pollution as well.

5.2 Recommendations

The community where the factory is a located is supplied with electricity from TANESCO. However this supply is not regular due to insufficient capacity. Since the factory uses its own electricity. I recommend it should make sure that it supply electric to the Wazo household to enable them get rid of rationing electricity to the community.

The factory provides water to the community only 3 times a week. This is not sufficient to meet the water demands of the community. I recommend that the factory invest more into water services and makes it possible for the community to have access to water more regular

The factory should also make effort to build the health centers for Wazo community which would significantly improve people's health status. This will enable them to have the ability to perform their income generating activities and to improve their standard of living.

From the study, I observe that the factory discharges liquid substances from the factory to the community, and emits dust from the factory to the community. I therefore recommend that the factory should find a way to discharge liquid substances and to manage dust emissions.

REFFERENCES

- Adam J. and Kamuzora, F., (2008). Researh Methods for Bussiness and Social Studies Published by Mzumbe Book Project. P.O.BOX 113 Mzumbe Morogoro.
- Battelle and ERM, (2001) " Towards a Sustainable Cement Industry: Public Policy Instruments, substudy Report, Published in Togo 2001.
- Brian G, (2011) Lafarge North America Inc 400 Town Center suit, Southern field Michigan.
- Kano P.,(2005). Influx Management/ Community Development Planning Initiative for Obajana Cement Project. Published by OICT Nigeria Program Coordination office. August 10, 2005.
- Kothari C.R., (2004). Research Methodology, Methods and techniques Second revised Edition. Published by New age International Publishers Ltd. Ansari Road, Daryaganj. New Delhi-110002.
- Miller G.T., (2009). Sustaining the Earth 10th edition,Published by Thomson learning Inc, Newbury and Cambridge, UK.
- Onyango E, (2009). Knowledge matters, Manufacturers India, Suppliers Surat, Exporters Gujarat, Wholesalers, Agencies Yellow Pages and Directory, Published in India May 2009.
- Phillipe L, Lasserre M. G, and Stockley.D, (2007), Globalization Cement Industry. Global Strategic Manegement Mini Cases series. Published in Herndon Virginia.
- Rwegoshora, H., (2006). A guide to Social Science Research, published by Mkuki na Nyota Publishers P.O.BOX 4246 Dar es Salaam, Tanzania.
- Sylivie M, (2010), Influx Community Development Innitiatives for Cement Project. Published in Kogi Nigeria.
- URT, 2005 National strategy for growth and reduction of poverty (NSGRP), vise president office, Dar es Salaam
- Wakaba M, Holliday P, and Fiber M, (1998). Institute of Developing Economies Japan External Trade Organization

HOUSEHOLD QUESTIONARE ON THE CONTRIBUTION OF WAZO HILL CEMENT FACTORY TO THE IMROVEEMENT OF LIVING STANDARD OF THE SORROUNDING COMMUNITY

I. Identification

QUESTIONARE NUMBER	
VILLAGES 1.BOKO 2.TEGETA 3.WAZO	
NAME OF HOUSEHOLD HEAD……..	
DATE OF INTERVIEW	
NAME OF INTERVIEWER ……	
NUMBER OF PERSON LIVING IN THE HOUSE	

HOUSEHOLD DETAILS

1.name of	relationship	2.sex	3.age	4.marital status	5.main economic activity	6.education status
households	To the head	1.male		1.married	1.agricuture	1.none
member	of	2.female		2.separated	2.livestock keeping	2.primary
	household			3.widow	3.agropastoralism	3.secondary
	1=head 2=spouse 3=child 4=grand child 5=parent 6=brother 7=sister 8=in –law 9=friends 10=others			4.never married	4.employee 5.homemother	4.college/university

1. Do you get any building materials from Wazo hill Cement factory?

a) YES

b) NO ( )

2. Do you contribute anything in accessing these building materials?

a) YES

b) NO ( )

3. If the answer above is YES to what percent do ou contribute to get the materials?

a) 10% b) 40% c) 50% d) 80% e) 100% ( )

4. Do you get any discount in price made in building materials?

a) YES

b) NO ( )

5. Do you really benefit from the building materials from Wazo hill Cement factory?

a) YES

b) NO ( )

6. If YEW how does you benefit?

.....
.....
.....

7. If NO why?

.....
.....
.....

8. Do you get employment access from Wazo hill Cement factory?

a) YES

b) NO ( )

9. Are there any member from your family being employed in the factory?

a) YES

b) NO ( )

10. You have been employed in which position?

a) Subordinate

b) Labor

c) Any other mention……..

11. Is the amount paid to the employed household enough to meet your needs?

a) YES

b) NO ( )

12. If YES to what extent?

……
……
……

13. if NO why?

……
……
……..

14. What do you think should be done to improve the salary paid to the household?

a)……
……..

b)……
……..

c)……
……..

d)……
……...

- **ACCESS TO SOCIAL SERVICES**

15. Does the factory provide any social services to the community around the factory?

a) YES

b) NO ( )

16. If YES what services?

a).....
.....

b).....
.....

c).....
.....

d).....
.....

e).....
.....

17. Do you benefit from each of the services mentioned above?

a) YES

b) NO ( )

18. If YES how?

a).....
.....

b).....
.....

c).....
.....

d).....
.....

e).....
.....

19. Do you have access to water facilities?

a) YES

b) NO ( )

20. Does the factory provide any support for the improvement of water facility and availability?

a) YES

b) NO ( )

21. do you get any support from the factory for the improvement of electricity supply to the household members?

a) YES

b) NO ( )

22. if YES what is the percent of the household being provide with electricity by Wazo hill cement factory?

.....
.....
.....

- **FINANCIAL SERVICES**

23. Is there any financial institution induced by the presence of the factory in the area?

a) YES

b) NO ( )

24. If YES mention

a).....
.....

b).....
.....

c).....
.....

d).....
.....

25. Do you have access to those financial institutions mentioned above?

a) YES

b) NO ( )

26. If YES how?

.....
.....
.....

27. If NO why?

.....
.....
.....

28. Do you benefit by the presence of these financial institutions?

a) YES

b) NO ( )

29. Do you get any challenges / problems by the factory in the area?

a) YES

b) NO ( )

30. If YES what challenges / problems?

a).....
.....

b).....
.....

c).....
.....

d).....
.....

31. Does the factory do anything to compensate you for the problems you are getting?

a) YES

b) NO ( )

32. If YES how?

.....
.....
.....

33. If NO why?

.....
.....
.....

QUESTIONNAIRE FOR THE STAFF RESPONDENTS OF TWIGA CEMENT FACTORY

Name……..

Sex

Female ( )

Male ( )

Occupation

Manager……..( )

Assistance manager……..( )

Subordinate……..( )

Labour……..( )

1)What is the performance benefits of of Wazohill Cement Factory?

Good ( )

Bad ( )

If good (Tick appropriate)

2) What is the maximum level of cement bags produced per month?

……

……

……

3) What is the current market situation for the cement production

Good

Bad

If good (Tick in the appropriate)

If good how……

And if bad how……..

4) Do you get any surplus from what is being sold?

Yes ……..( )

No……..( )

If yes to what extent……

……

……..

5)Does the suplus benefit obtained contributes any thing to the community?

Yes ( )

No ( )

6) if yes in above question what contribution

a)……

b)……..

c)……..

d)……..

e)……..

7) If no why?.....

……..

QUESTIONNAIRE FOR RESPONDENT OF KISANGA PRIMARY SCHOOL.

- When was the school built?

Year

……

……..

2. Where did the funds for school building come from? Tick in the appropriate part.

a)Government ( )

b) Private companies ( )

c) community ( )

d)Any other mention.....

3. Does the Institution mentioned above provided full fund or just part of it?

.....
.....

.....
.....

4. If it is just part, where does other part of the fund come from?

.....
.....

.....
.....

.....
.....

5. The school is capable of taking how many students?

.....
.....

6. Where does most of the enrolled students come from

a) Around Wazo

b) outside Wazo

7.Does the factory still provide aid to your school up to date?

a)YES

b)NO