

**PUBLIC EXPENDITURE AND ECONOMIC GROWTH
IN GISAGARA DISTRICT, RWANDA**



A Thesis

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**In Partial Fulfillment of the Requirements for the Degree
Master of Business Administration**

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I do hereby certify that the information provided above is true and sincere

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DECLARATION A

"This thesis is my original work and has not been presented for a Degree or any other academic award in any University or Institution of Learning".



MWISENEZA Jacqueline

Date 2nd October 2012



DECLARATION B

"I confirm that the work reported in this thesis was carried out by the candidate under my supervision".



Professor Kabir Haruna Danja PhD

Supervisor

2nd October 2012

Date

APPROVAL SHEET

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DEDICATION

To the Almighty **GOD** whose love is incomparable

To my lovely husband Kalisa Ildephonse and Child Cyuzuzo Herve

To my parents, brother and sisters for having given me support and advice

It is out of their struggle that I have managed to succeed

Thanks for all and God Bless you.

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MWISENEZA Jacqueline



ABSTRACT

The purpose of this study Public expenditure and economic growth in Gisagara District, Rwanda was to generate new information from the existing one, to test the null hypothesis, and to establish the relationship between public expenditure and economic growth and to confirm or deny the theory of economy by Keynes (1936). The study was in Gisagara District, Rwanda. Four specific objectives were stated and these were to; Identify the profile of the respondents in terms of gender, age, occupation and level of education, To determine the extent of public expenditure in Gisagara District, determine the level of economic growth in Gisagara district, and to establish the relationship between public expenditure and economic growth in Gisagara district. In the literature, different opinions and ideas of scholars and authors were internalized to understanding the study concepts. Descriptive correlation design was used in this study and Sloven's formula was used to determine a sample size of 109 respondents from 150 research populations. Sampling was done by the use of purposive and simple random sampling. Self-administered questionnaires were used as research instrument and validity and reliability of research instruments were done using Content Validity Index and pre-testing. Ethical and logistic considerations of research were also seriously considered in this research. The study findings were in agreement with the existing ones. It showed that the level of public expenditure in Gisagara district is qualified as high. The computed overall mean index was 2.53, which falls under high on the Likert scale. The findings also showed high level of economic growth in the area of the study. The computed overall mean index was 2.53, which fell under high on Likert scale. There is a significant correlation between the level of public expenditure (independent variable) and the level of economic growth (dependent variable) where the r value is 0.907 and significance is 0.000. The researcher recommend to Gisagara district to involve female and old persons in the politic of development of their area. Also Gisagara district in collaboration with government of Rwanda must make effort in augmentation of pension s and social security of workers and give it at time. Finally, the government of Rwanda in collaboration of the Ministry of Finance and Economic planning should expend money in the legislative, executive and judicial functions because of their actually importance.

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CHAPTER ONE

THE PROBLEM AND ITS SCOPE

Background of study

According to Keynes (1936), public expenditure came into picture in the 20th century and the accelerated growth of government expenditure began in late 70s. Keynes (1936) goes on to say that there are several factors that have led to enormous increase in public expenditure through the years namely defense expenditure due to modernization of defense equipment by navy, army and air force to prepare the country from war or for prevention, population growth, which needs more of investment required to be done by government on law and order, education, infrastructure, and investment in different fields depending on the different age group is required, welfare activities-women welfare, mid day meals, pension provisions etc, provision of public and utility services-provision of basic public goods given by government (their maintenance and installation) such as transportation, accelerating economic growth in order to raise the standard of living of the people, price rise- higher price level compels government to spend increased amount on purchase of goods and services, increase in public revenue that is with rise in public revenue government is bound to increase the public expenditure, international obligation that is maintenance of socio economic obligation, cultural exchange etc.

Governments of developing countries, Rwanda inclusive are now giving new attention to foster the private sector involvement in their economies and more in terms of investment. This is done by augmentation of expenditure on infrastructure such as roads, communications, power, etc, which reduces production costs, increases private sector investment and profitability of firms, thus fostering economic growth. This is done in order to reduce the dependency on external aid, to create employment opportunities, to promote export of both goods and services and help the government remain with less profitable sectors like health, education, infrastructure and other social activities.

With the need to meet challenging situations like defense, population growth, education; infrastructure, and investment in different fields depending on the different age group, welfare activities, pension provisions, provision of public and utility services like basic public goods given by government (their maintenance and installation) such as transportation, accelerating economic growth in order to raise the standard of living of the people, international obligation that is maintenance of socio economic obligation and cultural exchange, Rwanda has also to face the legacies of the war and 1994 genocide and the post independence continuing economic crisis. The economic and social infrastructure was destroyed in the war and also in 1994 genocide. The Ministry of Finance and Economic planning writes that (2009) the Real Gross Domestic Product (GDP) fell by 50% and rate of inflation rose to 64% in 1994. In the aftermath of the genocide and associated conflicts (1996-2000) real GDP grew at over 10% per year as the economy recovered from a low base. This was followed by a period of stabilization (2001-2006) during which real growth fell to an annual rate of 6.4%. The Agriculture, construction of infrastructure, and external aid were the main source of growth in 1995-2006. The GDP growth rate of Rwanda in 2012 is 8%.

After 1994 genocide, the government of Rwanda came up with actions to provide major economic infrastructure and develop the form private sector, which led to capital spending increase (MINECOFIN, 2009). These derived mainly from the need to meet demands from the population growth, welfare activities, provision of public and utility services, accelerating economic growth, international obligation and price rise (MINECOFIN, 2009). There is, therefore, a need to investigate the level of public expenditure and its influence on economic growth in Rwanda.

Statement of the problem

Economic opportunities are very limited in Rwanda. The vast majority of labor force, 96% of females and 85% of males involved in agriculture not by the choice but by absence of choice. The secondary and tertiary sector are underdeveloped and provide little formal employment, the level of formal skills and human capital is low. The quality of infrastructure is general poor, and Rwanda lacks significant nature resources. This means that Rwanda lacks the main drive of foreign investment by large transnational corporation in search of resources, markets or competitive centers of production. This means that Rwanda is at a turning point of its economic development (Ministry of Finance and Economic Planning, 2000). And yet, after 1994 genocide, the government of Rwanda came up with actions to provide major economic infrastructure and develop the form of private sector leading to capital spending increase (MINECOFIN, 2009).

Many scholars have approached this problem in public expenditure point of view. According to Keynes (1936) increase in public expenditure (to increase aggregate demand) increases income more than original public expenditure, for example if the government spends on investment, it creates income. The people who receive that money also spend it and create more income. Al-Faris (2002) also writes that Government expenditure on socio-economic and physical infrastructures encourages economic growth. For example, Government expenditure on health and education raises the productivity of labor and increase the growth of national output. Similarly, expenditure on infrastructure such as roads, communications, power, etc, reduces production costs, increases private sector investment and profitability of firms, thus fostering economic growth. Supporting this view, the researchers concluded that expansion of government expenditure contributes positively to economic growth. The question is therefore what is the level of public expenditure? And how is public expenditure affecting economic growth in districts?

Purpose of the Study

1. To test the null hypothesis of no significant relationship between the public expenditure and economic growth in Gisagara district, Rwanda.
2. To validate existing information related to the theory to which the study was based.
3. To generate new information based on the findings of the study.
4. To bridge the gap noted in the previous study.

General objective

The main objective in this study is to investigate the relationship (correlation) between the level of public expenditure and the level of economic growth in Gisagara district.

Specific objectives

(1) Identify the profile of the respondents in terms of

- 1.0. gender
- 2.0. age
- 3.0. occupation
- 4.0. level of education

(2) Determine the extent of public expenditure in Gisagara District.

(3) Determine the level of economic growth in Gisagara district.

(4) Establish the relationship between public expenditure and economic growth in Gisagara district.



Research questions

This study sought to answer the following questions:

1. What is the profile of the respondents in terms of gender, age, occupation and level of education?
- (2) What is the extent of the public expenditure in Gisagara district?
- (3) What is the level of economic growth in Gisagara district?
- (4) What is the relationship between public expenditure and economic growth in Gisagara district?

Null Hypothesis

There is no significant relationship between public expenditure and economic growth in Gisagara district.

Scope

Geographical scope

The study was conducted in Gisagara district. Gisagara district is located in the southern province. Gisagara district is bordered by Huye district in the West, Nyanza district in the North, Bugesera district in the East Burundi in the south.

The theoretical scope

The theory that has inspired this study is Keynesian Theory. (Keynes, 1936) argued that government spending can be used to increase aggregate demand, thus increasing economic activity, reducing unemployment and deflation. The study has proved the theory.

The content scope

This study focused on public expenditure and economic growth. These were contextualized as public expenditure on central and local administration, public expenditure on social services, public expenditure on basic infrastructure and economic growth.

Significance of the Study

The findings of this study will benefit the following:

The Government of Rwanda

The study will inform the policy makers about the real levels of situation of public expenditure and economic growth in Rwanda. Hence, they will be able to design better, to control public expenditure in the desired directions to encourage economic growth and development.

The Ministry of Finance and Economic Planning

It will be informed about the actual public expenditure effectiveness in Rwanda. In addition, on the basis of the findings of this study, the Ministry of Finance and Economic Planning will become aware of its strengths and weaknesses in capital supply and take responsive action.

The Business Persons

The study will also help the Rwanda Investment and Export Promotion Agency (RIEPA) by availing information on which it can base to effectively regulate and supervise the public sector for improved efficiency and contribution to the economy.

Operation Definitions of Key Terms

Public expenditure

In the present work public expenditure is the amount of money spent by the government on salaries, social infrastructures, social welfare and in education.

Economic growth

It refers to the quantitative increase of goods and services.



CHAPTER TWO

REVIEW OF RELATED LITERATURE

Concepts, Ideas, Opinions from Authors/Experts

Public expenditure

Public expenditure was primarily advocated by Keynes (1936) after the great economic depression that hit a large part of the world. Public expenditure is that expenditure incurred by the public authorities that is central state and local government to satisfy those common wants which people in their individual capacity are unable to satisfy efficiently. In other words, expenditure is meant to satisfy collective wants. Expenditures may be in form of increased salaries and wages of its employees, in the form of interest payment on the debts or results in welfare payments like pensions or social security benefits (Keynes, 1936). Public expenditures tend to increase disposable incomes of the people which cause an increase in aggregate demand for goods and services (P.A.T & Wiseman, 1961).

Keynes (1936) goes on to say that the central government is responsible for those expenses functions that affect the country as a whole: for example national defense, conduct of relations with other countries and international organizations, establishment of legislative, executive and judicial functions that cover the entire country, and delivery of public services such as healthcare and education, pension for retired workers, etc. Non-market, non-profit institutions controlled and mainly financed by the central government are included in the central government. Not existing separately from the central government, the local government as a collection of public bodies with authority over a subdivision of significant area of country's territory (regions, counties, municipalities, etc.) relies on subsidies from the central government. These subsidies that are included in the public expenditures enable the local

government to meet demands related to social security funds providing social benefits to the community through a social insurance scheme that generally involves compulsory contributions by participants, healthcare, education, adequate food supply, housing, clothing, good health ,and clean water.

In the same line of view, Afxentiou & Serletis (1996) write that public expenditure includes the expenses incurred to eliminate the problems of mass poverty such as inadequate food supply, lack of housing, clothing, good health, and clean water and meet welfare levels expected by citizen of the country and also enable a country's capacity to produce goods and services and therefore to create wealth and treasures and to make human life more enjoyable.

The World Bank (2003) writes that economists classify government spending or government expenditure into three main types. Government purchases of goods and services for current use are classed as government consumption. Government purchases of goods and services intended to create future benefits, such as infrastructure investment or research spending, are classed as government investment. Government expenditures that are not purchases of goods and services, and instead just represent transfers of money, such as social security payments, are called transfer payments. Those expenditure are in turn summarized in two categories; current expenditure which, on one hand, entails all sorts administrative and defense expenditure and debt services or sometime called non-developmental expenditure on the other hand, capital expenditure are intended for the criterion of net productive assets in the economy. They contribute to increase productive capacity of the nation and therefore are known as development expenditure (World Bank, 2003). As for Al-Faris (2002) public spending aims at enhancing foreign trade, technical improvement, and monetary policy.

In every situation where we talk about public expenditures we have to keep in mind the integral relationship between revenue and expenditure, that is.

between the money collected directly or indirectly from the people, and the use of that money in a manner that reflects most closely the people's preferences like (payment of salaries, social services, school fees payment and basic infrastructure), (Bird, 1971).

As Al Faris (2002) notes, the government needs income for the performance of a variety of functions and meeting its expenditure. Public revenues or incomes are in two folds, such as public receipts which may result from all sources of revenues such as borrowing or sales of capital, whereas public revenue entails only those sources of income of the public authority which are ordinarily known. The necessity of public revenue is of course, due to the needs of public expenditure. The size of public revenue is thus determined by the volume of public expenditure.

Economic Growth

According to Bisaasa (1999), economic growth is steady process by which the productive capacity of economy has increased over time to bring about rising level of national income. If the production of goods and services in nation rises, by whatever means one can call that rise is economic growth. Economists have determined five important source of growth: capital accumulation (investment in productive capacity), available resources, growth compatible institutions, technological development, research development and entrepreneurship.

Davidson & Mackinnon (1993) discusses the theory of economic growth within the framework of the theory of equilibrium. Attempts on the one hand to resolve much of the controversy on growth that results from differences in assumptions made by various authors and, on the other hand, to make a contribution to the theory of dynamic economics. Practical problems are not discussed, and the economy dealt with is isolated from foreign countries and is provided with knowledge of industrial arts that does not change throughout the time horizon concerned.

MINECOFIN (2002) contends that indicators of economic growth are economic policy, financial sector, private sector and trade, poverty and public sector. The author goes on to say that the International Economic Development Council defines economic development as an "activity that seeks to improve the economic well-being and quality of life for a community, by creating and/or retaining jobs...". As for the World Bank (2008) the primary international measurement of economic growth on a national and global scale focus on balance of payments, external debt and national accounts, capital and financial accounts, as well as the current account, reserves and purchasing power parity.

Schwarz (1978) discussion of the economic growth covers income distribution and poverty. Poverty is measured nationally and separately as a percentage of rural population and urban populations. Income distribution is measured by quintiles and deciles. The author goes on saying that measures of private infrastructure investment in this section, such as investment in energy, transportation and telecommunications are included.

Gupta (1967) described expenditure as expenditures on political executives like maintenance of ceremonial heads of state, like the president; administrative expenditure like maintenance of the general administration of the country, government departments and offices; security expenditure like maintenance of armed forces and the police forces; expenditure on administration of justice including maintenance of courts, judges, public prosecutors; developmental expenditures to promote growth and development of the economy like expenditure on infrastructure, irrigation; social expenditures on public health, community welfare, social security; public debt charges including payment of interest and repayment of principle amount.

The World Bank (2003) says that we can talk about economic growth from the point of view of financial self-reliance. In this respect, the World Bank assigns low income nations a set of ratings called "Country Policy and

Institutional Assessment." These ratings are important because they determine the amount of money countries receive from the World Bank, debts and foreign aids.

Public Expenditure and Economic Growth

Goffman & Mahar (1971) argues that increase in government expenditure on socio-economic and physical infrastructures encourages economic growth. For example, Government expenditure on health and education raises the productivity of labor and increase the growth of national output. Similarly, expenditure on infrastructure such as roads, communications, power, etc, reduces production costs, increases private sector investment and profitability of firms, thus fostering economic growth. Supporting this view, the researchers concluded that expansion of government expenditure contributes positively to economic growth (Goffman & Mahar, 1971).

However, Governments' officials sometimes increase expenditure and investment in unproductive projects or in goods that the private sector can produce more efficiently. Thus, government activity sometimes produces misallocation of resources and impedes the growth of national output. In fact, studies by suggested that large government expenditure has negative impact on economic growth. About this contradiction there is wished to evaluate the exact relationship between public expenditure and economic growth (William & Branson, 2007).

If you see the causality between public expenditure and economic growth, Wagner's Law and the Keynesian Theory (1936) present two opposite perceptions in terms of the relationship between public expenditure and growth in community output. While according to Wagner's approach causality runs from growth in community output to public expenditure, the Keynesian approach

assumes that causality runs from public expenditure to growth in community output in times of recessions.

Wagner's model is not the only one explaining the growth of public expenditure. There are also some other models. For example, the model of the displacement effect and the theory of bureaucracy are also most common ones, explaining the expansion of public sector expenditure from different angles (Peacock & Wiseman, 1961).

According to Payne & Ewing's (1996) paper examining the period of 1950-1994 by taking five versions of Wagner's Law 2, they found that there is an empirical support on the Wagner's law of causal relationship from economic growth to public expenditure. Contrary to Payne & Ewing's (1996) findings, Demirbas's (1999) study examined the period of 1950-1990 by taking six versions of Wagner's Law 3 into account. He found no support on Wagner's Law of causal relationship from economic growth to public expenditure and, partly, nor Keynesian hypothesis of causal relationship from public expenditure to economic growth.

Theoretical Perspectives

This study based on Keynesian Theory also called Keynesianism and Keynesian Economics (Keynes, 1936). According to Keynesian Theory, some individually rational microeconomic level actions if taken collectively by a large proportion of individuals and firms can lead to inefficient aggregate macroeconomic outcomes, wherein the economy operates below its potential output and growth rate. Such a situation had previously been referred to by classical economists as a general glut. There was disagreement among classical economists on whether a general glut was possible. Keynes (1936) contended that a general glut would occur when aggregate demand for goods was insufficient, leading to an economic downturn. Losses of potential output due to unnecessary high unemployment are the result. Producers then react defensively making decisions that damage macroeconomics.

Most Keynesians advocate an active stabilization policy to reduce the amplitude of the business cycle, which they rank among the most serious of economic problems. According to the theory, government spending can be used to increase aggregate demand, thus increasing economic activity, reducing unemployment and deflation. For example, when the unemployment rate is very high, a government can use a dose of expansionary monetary policy.

Keynes (1936) argued that the solution to the great depression was to stimulate the economy (inducement to invest) through some combination of two approaches namely a reduction in interest rates and government investment in infrastructure. Investment by government injects income, which results in more spending in the general economy. This in turn stimulates more production and investment involving still more income and spending and so forth. The initial stimulation starts a cascade of events, whose total increase in economic activity is a multiple of the original investment.

Related Studies

Various studies conducted in this area suggested that there is a relationship between public expenditure and economic growth. The explanation of the growth-patterns or the growth of public expenditure has been discussed for decades. One suggestion on the growth came from the German economist Adolph Wagner (1835-1917). Wagner's work based on empirical observations in a number of Western industrializing countries. Hence, his suggestion is not prescriptive, but rather explanatory in character (Michas 1975). It does not contain any priori property. He put his model forward with regard to posterior results, i.e. he made his suggestion depending on empirical results observed in a number of industrializing countries. His main implication is that as community output increased in the past, public expenditure grew as well. The basic Wagnerian assumption is that public expenditure grows continuously associated with the continuing growth in community output in developing

countries. Gupta (1967) therefore argued in favor of the causality between public expenditure and economic growth.

The Turkish Case Wagner's suggestions had shed light on the literature that there is a correlation between growth of community output and public expenditure and this correlative relation is in one direction that is in from of the growth of community output to public expenditure. This was the main point of Wagnerian theorem that, with the law, it was aimed to establish this suggestion as generalized on public expenditure. In other words, Wagner seems expecting the law not to be considered as inevitably everlasting, but to be considered something more than a simple historical accident (Gupta, 1967).

Wagner's law seems expecting that it is the duty of government to expand its spending in connection with increasing social progresses and such expansion does not only indicate to quantitative expansion of publicly provided goods and services, but also qualitatively increases as well. Wagner's (1967) work and ideas motivated a large number of researchers to study the law of increasing expansion of public expenditure to find out how it fits empirically in industrializing countries.

Pryor's (1969) examined 6 countries using data from around mid 19th century to 1913 and found unidirectional causality from public expenditure to income hence offering considerable support for Wagner's law in 19th century. Ram's (1986) cross-country study analyzed 63 countries and found some support on the proposition. Chang's (2002) study examined five different versions of Wagner's law for 6 countries and found long-run relationship between income and public expenditure with the exception of one sample country.

Abizadeh and Gray's (1985) cross-country study analyzed 55 countries and found support on Wagner's law for richer countries. They, however, found no support for the poorest countries. Chletsos and Kollias's (1997) study examines the validity of Wagner's law in the case of Greece by considering

disaggregated public expenditure and found support for the law only in the case of defense expenditure.

Al-Faris's (2002) work put the Gulf Cooperation Council Countries into the analysis to examine existence of causal relationship between public expenditure and national income and found causality from national income to public expenditure (as proposed by Wagner's law), but no support for the causality from public expenditure to national income (as proposed by Keynesian theory).

Islam (2001) collected data from over a hundred large British businesses and found that in every case, except that of companies heading for bankruptcy, the sums paid out in salaries, wages and dividends were always less than the total costs of goods and services produced each week. The workers were not paid enough to buy back what they had made.

CHAPTER THREE

RESEARCH METHODOLOGY

Research Design

This study used a descriptive correlation design. The researcher was looking for a relationship between the independent variable and the dependent variable.

Research Population

The target population has included on one hand the total of 60 informal sector members operating in GISAGARA district and on the other hand 60 people, among which we found 15 Central Government officials and 45 Local Leaders, and 30 military service members. Those departments possessed the information that interested the researcher. The total population was therefore 150.

Sample Size

The sample for this study was drawn from the target population using the Sloven's

formula. This formula is written as
$$n = \frac{N}{1+N(e^2)}$$

Where

n= the sample size,

N= the population size

e= the level of significance.

Applying the formula, informants were sampled as can be seen in the table 1 below:

Table 1
Sample Size

OCCUPATION	TARGET POPULATION	SAMPLE
Informal Sector Members	60	45
Local Leaders	45	32
Military service members	30	21
Central government officials	15	11
Total	150	109

Source: Primary data 2012

The table 1 above shows that 109 informants were sampled within the groups to constitute the sample for this study. So thus, the number of questioned informants was 109 altogether.

Sampling Procedure

The researcher used purposive and stratified sampling. Purposive sampling was used to select respondents basing on the following inclusion criteria: either male or female, only those groups that were judged capable of providing the information that interested the researcher. Stratified sampling was used to select different groups from which respondents were selected. Simple random sampling was used to select respondents from the qualified groups.

Research Instrument

The research instruments in this study were a face sheet, questionnaire to determine the level of public expenditure (LPE) and a questionnaire to determine the level of economic growth (LEG).

The face sheet (Appendix II A) was used to gather data on the profile of the respondents. Both the Level of public expenditure questionnaire (Appendix II B) and the questionnaire to measure Level of economic growth (Appendix II C) were a researcher. The Level of public expenditure was questionnaire contextualized in twenty items whereas the Level of economic growth questionnaire was contextualized in thirteen items.

The response for the questionnaire on the Level of public expenditure and Level of economic growth were the same in terms of scoring (4, 3, 2, 1), response mode for the level of public expenditure and Level of economic growth (strongly agree, agree, disagree and strongly disagree), description and interpretation for Level of public expenditure responses and Level of economic growth responses (Very high, high, low and very low).

Validity and Reliability of the Instruments

To ensure the validity and reliability of the instrument, the research employed the expert judgment method. After constructing the questionnaire, the researcher contacted experts in the study area to go through it to ensure that it measured what it was designed to measure and necessary adjustments were made after consultation and this ensured that the instrument was clear, relevant, specific and logically arranged. First, a pre-test was conducted in order to test and improve on the reliability of the questionnaire. Secondly, a content validity index (CVI) of 0.823 was obtained using the formula:

$$\text{CVI} = \frac{\text{The number of relevant questions}}{\text{The total number of questions}}$$

Calculations are indicated in the appendix (III). CVI which was greater than 0.70 thereby declaring the instrument valid.

Reliability of the instrument was tested using the Cronbach's coefficient alpha (α) and the results obtained $\alpha = 0.74$ (SPSS results) which was greater than 0.70 indicating that the instrument was highly reliable.

Data Gathering Procedures

The following data collection procedures were implemented:

A. Before the administration of the questionnaires

1. An introduction letter was obtained from the College of Higher Degrees and Research for the researcher to solicit approval to conduct the study from respective authorities.
2. When approved, the researcher secured a list of the qualified respondents from the departments' authorities in charge and selected through systematic random sampling from this list to arrive at the minimum sample size.
3. The researcher reproduced more than enough questionnaires for distribution.
4. The researcher selected research assistants who would assist in the data collection; briefed and oriented them in order to be consistent in administering the questionnaires.

B. During the administration of the questionnaires

1. The respondents were requested to answer completely and not to leave any part of the questionnaires unanswered.
2. The researcher and assistants emphasized the retrieval of the questionnaires within five days from the date of distribution.
3. On retrieval, all returned questionnaires were checked if all were answered

C. After the administration of the questionnaires

The data gathered were collated, encoded into the computer and statistically treated using the Statistical Package for Social Sciences (SPSS).

Data Analysis

The frequency and percentage distribution were used to determine the demographic characteristics of the respondents. The mean and standard deviations were applied for the levels of public expenditure and economic growth. An item analysis illustrated the strengths and weaknesses based on the indicators in terms of mean and rank. From these strengths and weaknesses, the recommendations were derived.

The following mean ranges were used to arrive at the mean of the individual indicators and interpretation:

For the levels of public expenditure and economic growth

Mean range	Respondent mode	Interpretation	Rank
3.26-4.00	Strongly agree	Very high	4
2.51-3.25	Agree	High	3
1.76-2.50	Disagree	Low	2
1.00-1.75	Strongly disagree	Very low	1



A multiple correlation coefficient to test the hypothesis on correlation (H_0) at 0.05 level of significance using a Pearson correlation coefficient; the regression analysis R^2 (coefficient of determination) was computed to determine the influence of the independent variable on the dependent variable.

Ethical Considerations

To ensure confidentiality of the information provided by the respondents and to ascertain the practice of ethics in this study, the following activities were implemented by the researcher:

1. The respondents' names were not reflected in this study.
2. Permission was solicited from the concerned officials of the different departments.
3. The researcher acknowledged the authors quoted in this study through citations and referencing.
4. The findings were presented in a generalized manner.

Limitations of the Study

The researcher claimed an allowable 5% margin of error at 0.05 level of significance in view of the following threats to validity. Measures were also indicated in order to minimize if not to eradicate the threats to the validity of the findings of this study.

1. *Extraneous variables* were beyond the researcher's control such as respondents' honesty, personal biases and uncontrolled setting of the study.
2. *Instrumentation*: the research instruments on public expenditure multiplier and economic growth were not standardized. Therefore a validity and reliability test were done to produce a credible measurement of the research variables.

3. *Testing:* the use of research assistants can bring about inconsistency in the administration of the questionnaires in terms of time of administration, understanding of the items in the questionnaires and explanations given to the respondents. To minimize this threat, the research assistants were oriented and briefed on the procedures to be done in data collection.
4. *Language:* not all the questions may be returned answered due to the respondent's non-understanding. The researcher had therefore to translate for them.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

Profile of the Respondents

Respondents in this study were informal sector member, local leaders, military service members and central government officials of Gisagara district. The first objective of this study was to determine the profile of the respondents. In this respect, the respondent of this study were described in terms of age, gender, occupation and level of education. The table 2 below shows this description.

Table 2

Profile of the respondents

Category	Frequency	Percentage
Gender		
Male	66	57
Female	43	43
Totals	109	100
Age range		
20-29	28	26
30-49	48	43
50-65	22	23
66 and above	11	8
Totals	109	100
Occupation		
Businessperson	12	8
Civil servant	20	19
Farmer	65	63
Central and local administrator	8	7
Military	4	3
Totals	109	100
Level of education		
Primary basic education	12	13
A' Level	54	41
Diploma	19	20
Degree	22	25
Master's	2	1
Totals	109	100

Source: Primary data 2012

In terms of gender, the table 2 above shows that the sample was dominated by male respondents (57%). Females represented 43% this indicates a big gender gap in rural areas of Gisagara District. This big gap may be due to little number of women who participate in different business or politic activities in rural areas of Gisagara District.

As regards age, the table depicts that many respondents were aged in the range between 30 and 39 years while very few respondents (8%) were between 66 and above years old. As we go up the ladder, ages increase the age range of 20-29 and decreases from the age range of 50- 65. This means that the majority of our respondents are youths.

With regards to the profession, the majority of the informants were famers (63%) whereas a scanty number of the respondents were military (3%). It is noticeable that farmers dominate our sample because it's the major activity of the rural areas and in that area the persons of military services are not many.

Concerning educational attainment, the majority are those who hold A' Level (41%). Only one percent holds a Master's Level. The data depicted in table 2 above shows on whole that A' Level holders dominated our sample. It indicate that respondents are relatively qualified. In the rural areas there is not every big number of persons hold Master's level, only in our respondents we have (1%).

Level of Public Expenditure

The second objective of this study was to determine the level of public expenditure. This was concerned with the extent to which the central government spends money to different developmental activities in the district. The responses were presented in the table 3 below.

Table 3

Level of Public Expenditure (Item analysis) N=109

Items	Mean	Interpretation	Rank
The government provides grants including subsidies for infrastructure in the district	3.10	High	1
Money spent on telecommunications has kept rising these last fifteen years	3.10	High	2
The government provided grants to develop infrastructure in the district has increased during the last fifteen years	3.00	High	3
The government provides a lot of money for research development	3.00	High	4
The government spend a lot of money to provide shelter for the poor	2.97	High	5
Healthcare, education, adequate food supply, housing, clothing, good health and clean water are the concern of the government and therefore the government has been investing a lot of money in these	2.96	High	6
The government has increased the cost to meet salaries and the wages for all civil servants on the district level during these last fifteen years	2.81	High	7
Capacity building has been increasing costing a lot of money from the government	2.81	High	8
The government's money spent on buying office equipment (computers, furniture, filing cabinets, etc) has increased these fifteen years	2.80	High	9
The government helps the poor to get health insurance scheme	2.77	High	10
My salary has increased these recent fifteen years	2.74	High	11
The government provides subsidy on tuition fees, teaching and learning materials as well as expenses of co-curricular activities to educate the citizens	2.74	High	12
The government provides subsidies to fees for poor students	2.69	High	13
The government expenses on buying arms and ammunition have increased during the last fifteen years	2.67	High	14
The money spent by the government on buying clothes, food etc for the army, police and the local defense forces keeps on increasing	2.62	High	15
Retired workers get their pensions and social security benefits	2.26	Low	16
The government expenditure on office equipment increases the general consumption of goods and services	2.08	Low	17
The government spends money to built employees' accommodation in public institutions	1.68	Very low	18
In many institutions salaries have been increasing these last fifteen years	1.60	Very low	19
Legislative, executive and judicial functions require a lot of money from the government	1.11	Very low	20
Average Mean	2.57	High	

Source: Primary data 2012.

Table 3 above shows the means of the Likert scores from the questionnaire on the level of public expenditure. They are ranked from top based on the mean score for each item. Based on the Likert analysis, the top 15 indicators of public expenditure (from 1 to 15) ranked items range between 2.51 and 3.25, which falls under high on the Likert scale. Therefore, these items are high and show how the grants and subsidies spent by the government for developing infrastructure, healthcare, education and cleaning water are augmented day to day. Also the cost to meet salaries and wages are augmented by the government. It means that the public make effort in order to increase the welfares of his population.

The findings above have a sheer agreement with Goffman & Mahar (1971) argues that increase in government expenditure on socio-economic and physical infrastructures encourages economic growth. For example, Government expenditure on health and education raises the productivity of labor and increase the growth of national output. Similarly, expenditure on infrastructure such as roads, communications, power, etc, reduces production costs, increases private sector investment and profitability of firms, thus fostering economic growth.

On the other hand, the means for the next two items as shown in the table 3 above (from 16 to 17) proved to be low. Their means range between 1.76 and 2.50, which falls under low on the Likert scale. These items concern with the many that the public spent in buying the office equipment and augment the passions and social security this money is low according to many responsibility that has the government it began with the priority.

The level of the last three items as indicated in the table 3 above is very low. Their means range between 1.00 and 1.75 on the Likert Scale, which talk about the money that the government spends to build employees' accommodation and to financing the legislative, executive and judicial functions. This money still very few it's according of country capacity they began with expending money in the functions which can cause dangerous problems.

To get a summary picture on how the respondents rated the level of public expenditure, an average index was computed for all the items in table 3 above , which turned to have a mean index of 2.57 confirming that the public expenditure in Gisagara district is high. This mean ranges between 2.51 and 3.25 on the Likert scale.

Level of Economic Growth

The third objective of this study was to determine level of economic growth in the area of the study. The responses were presented in the table 4 below.



Table 4
Level of Economic Growth (Item Analysis)

n= 109

Items	Means	Interpre tation	Rank
My annual income has increased these last fifteen years	2.87	High	1
There has been a remarkable increase in goods and services	2.87	High	2
Compatible institutions, technological development, research development and entrepreneurship have remarkably contributing to a positive change in my living conditions	2.69	High	3
Drinkable water has been increasingly reaching the populations	2.69	High	4
There is more and more economic equilibrium among the citizens	2.67	High	5
Internal and external security has remarkably improved	2.67	High	6
Well-being and quality of life has remarkably turned to better these last fifteen years	2.64	High	7
People' healthcare, education, adequate food supply, housing and clothing have kept on bettering	2.64	High	8
Purchasing power parity goes increasingly in our district	2.33	Low	9
Both public and private infrastructure investment, investment in energy, transportation and telecommunications have developed remarkably during the last fifteen years	2.33	Low	10
There has been favorable balance of payment during these last fifteen years	2.31	Low	11
Many jobs have been created these last fifteen years	2.20	Low	12
Dependency on foreign aids and debts has remarkably reduced these last fifteen years	2.08	Low	13
Average Mean	2.53	High	

Source: Primary data 2012

Table 4 above depicts the means of the Likert scores from the questionnaire on the level of economic growth. They are ranked from top based on the mean score for each indicator. Based on the Likert analysis, the top 8 indicators of economic growth (from 1 to 8) ranked items range between 2.51 and 3.25, which falls under high on the Likert scale. Therefore, these items are talking about increasing of annual income, goods and services, drinkable water, improvement of security and well-being all those elements founded on the high level because of the effort made by the government in order to improve the economic growth of their population.

This agrees with Bisaasa (1999), economic growth is steady process by which the productive capacity of economy has increased over time to bring about rising level of national income. If the production of goods and services in nation rises, by whatever means one can call that rise is economic growth. Economists have determined five important source of growth: capital accumulation (investment in productive capacity), available resources, growth compatible institutions, technological development, research development and entrepreneurship.

The means for the next five items as shown in the table 4 above (from 9 to 13) proved to be low. Their means range between 1.76 and 2.50, which falls under low on the Likert scale. These items concerned with increasing of purchasing power and energy, creation of jobs and reduction of foreign aids and debits which are therefore low those are the problems in which all the poor countries meat with because their projects of growing are in relation with the foreign aids or debits and they are always dependent to the rich countries.

To get a summary picture on how the respondents rated the level of economic growth, an average index was computed for all 13 items in table 4 above , which turned to have a mean index of 2.53 confirming that the public expenditure in Gisagara district is high. This mean ranges between 2.51 and 3.25 on the Likert scale.

Relationship between Level of Public Expenditure and the Level of Economic Growth

The last concern of the researcher carrying out this study was to establish whether there is a significant relationship between the level of public expenditure and economic growth in Gisagara district, Rwanda. For which it was, hypothesized that the two variables are significantly not correlated. To test this null hypothesis, the researcher correlated the mean indices on both variables using Pearson's linear correlation Coefficient (PLCC). The summary of r-value of those variables is presented in table 5 below.

Table 5

Correlation between level of public expenditure and economic growth in Gisagara District.

Variables Correlated	r-value	Sig-value	Interpretation of Correlation	Decision on Ho
Level of public expenditure vs. level of economic growth	0.907	0.000	Significant correlation	Rejected

Source: Primary data 2012.

After testing the null hypothesis, the PLCC results in Table 5, indicated that there is no significant correlation between public expenditure and economic growth in Gisagara District. Results indicated positive significant correlation between public expenditure and economic growth and in Gisagara District ($r = 0.907$, $\text{sig.} = 0.000$). Basing on the results, the null hypothesis was rejected and a conclusion made that public expenditure and economic growth in Gisagara District are significantly correlated. The decision on the null hypothesis was rejected. The significant value indicates that the two variables (level of public expenditure and

level of economic growth) are significantly correlated (significance is less than 0.05, which is the maximum significance value to declare a significant relationship).

Table 6

Regression Analysis between public expenditure and economic growth

According to O'Brien PC (1981), regression analysis mathematically describes the dependence of the Y variable on the X variable and constructs an equation which can be used to predict any value of Y for any value of X and assumes that each of the variables is normally distributed with equal variance.

Variables regressed	R²	F-Value	Sig	Interpretation	Decision on Ho
Public expenditure Vs Economic growth	0.907	51.098	0.000	Significant effect	Rejected

Source: Primary data 2012

The regressed results in the table 6 above showed that, the ($R^2 = 0.907$) and F-value (51.098) with the (sig= 0.000) as indicated in table 6 means that the level of public expenditure exerts a significant effect on level of economic growth in Gisagara district. The significant value indicates that the independent variable (level of public expenditure) significantly influence the dependent variable (level of economic growth). The significance is less than 0.05, which is the maximum significance value to declare a significant effect.

These findings are in agreement with Douglas's (2008) findings in examined 6 countries using data from around mid 19th century to 1913. He found

unidirectional causality from public expenditure to income hence offering considerable support for Wagner's law in 19th century. Ram's (1986) cross-country study analyzed 63 countries and found some support on the proposition. Chang's (2002) study examined five different versions of Wagner's law for 6 countries and found long-run relationship between income and public expenditure with the exception of one sample country.

These finding also agree with Abizadeh and Yousefi's (1998) findings. Through a cross-country study analyzing 55 countries, they found support on Wagner's law for richer countries. They, however, found no support for the poorest countries. Chletsos and Kollias's (1997) study examines the validity of Wagner's law in the case of Greece by considering disaggregated public expenditure and found support for the law only in the case of defense expenditure.

There is also an agreement between these findings and Al-Faris's (2002) findings through a work in the Gulf Cooperation Council Countries examine existence of causal relationship between public expenditure and national income and found causality from national income to public expenditure (as proposed by Wagner's law), but no support for the causality from public expenditure to national income (as proposed by Keynesian theory).

Last but not least, the findings of this study agree with Goffman & Mahar (1971) argues that increase in government expenditure on socio-economic and physical infrastructures encourages economic growth. For example, Government expenditure on health and education raises the productivity of labor and increase the growth of national output. Similarly, expenditure on infrastructure such as roads, communications, power, etc, reduces production costs, increases private sector investment and profitability of firms, thus fostering economic growth. Supporting this view, the researchers concluded that expansion of government expenditure contributes positively to economic growth.

CHAPTER FIVE

FINDINGS, CONCLUSIONS, RECOMMENDATIONS

Summary of Findings concentrate on the objectives

The study intended to determine the demographic characteristics of the respondents as to: Gender, Age, Occupation and level of education. The results indicated that a high number of our respondents are men, and more of the respondents are aged between 30-49 years. A high number the respondents had attended secondary school (A' Level) while a small number of the respondents have Masters Degree qualification.

In relation to determine the extent of public expenditure in Gisagara district, the results stated that the public expenditure has a significant effect on the economic growth; data were collected and analyzed using statistical package of social sciences and found that high number of respondents rated the aspects highly at the overall range mean of 2.53.

Determining the extent of economic growth in Gisagara district, the results indicated that the economic growth has been caused by the public expenditure. There is a significant effect of public expenditure; the objective was achieved, collected data were analyzed, interpreted and rated as high by the respondents.

The results indicated that the significant relationship between public expenditure and economic growth in Gisagara District level through statistical test of correlation of the independent and dependent variables was rejected. The null hypothesis was rejected at the significance value of 0.000 which is less than $r = 0.907$ since the results are significant at 0.05 level of significance.

Conclusions

The purpose of this study was to test the hypothesis relationship of the significant relationship between the public expenditure and economic growth in Gisagara District, Rwanda. Testing the null hypothesis, the PLCC results indicated that there is no significant correlation between public expenditure and economic growth in Gisagara District. Results indicated positive significant correlation between public expenditure and economic growth in Gisagara District, basing on the results, the null hypothesis was rejected

The existing information related to the theory to which the study was based, was validated according Douglas's (2008) findings in examined 6 countries using data from around mid 19th century to 1913. He found unidirectional causality from public expenditure to income hence offering considerable support for Wagner's law in 19th century. The study attempts to contribute to the public expenditure literature by comprehending the current experience of data collection from the local and central government and informal members. Under this assumption, it turns out that the economic growth is generally high when also the public expenditure is high.

Based on the findings of the study, the foregoing analysis indicated that there is no significant relationship between these two variables. The results indicated positive significant correlation between public expenditure and economic growth in Gisagara District, the null hypothesis was rejected and a conclusion was made that these two variables are significantly correlated at 0.907 r- value and these results are significant at 0.000 level of significance. Basing on the calculated r- value (0.907), the researcher concluded that there is a significant correlation between the level of public expenditure and the level of economic growth in Gisagara district, which provided enough evidence to reject the null hypothesis of there is no significant relationship between the level of public expenditure and the level of economic growth in Gisagara district.

Recommendations

From the findings and the conclusions of the study, the researcher influenced with the weak points found in the study recommend that, Gisagara district should help female and the old people to be interested with the political of their development because the results from this study represent the low rate of females (43%) as compared to their counterpart males (57%), also the old people are only 8% while the youths are (69%).

Considering the giving of the pensions and social security to the workers also the mean is low (2.26), the district of Gisagara in collaboration with the government of Rwanda must make effort in augmentation of pensions and social security of the workers and try to give it to them at time not very rate.

The government of Rwanda in collaboration with the Gisagara district should organize the training of all people but especial the youths the creation of jobs because it has a low mean of (2.20) and it's an important thing the growing of economy.

The government of Rwanda should make effort for the independency on foreign aids and debts which have a low mean of (2.08). This is a very bad condition for a country because it cannot organise his plan of growing their economy without the intervention of foreign countries.

Lastly, the government of Rwanda through the Ministry of Finance and Economic planning should expend money in the legislative, executive and judicial functions because the respondents show that the mean is very low (1.11) and those functions are very important in a country which has meat war and genocide of 1994.

Areas for Further Research

The research does not and cannot guarantee that the study was completely exhausted. In any case, the scope of the study was limited in accordance with the space, and objectives. It is therefore, suggested that a national research covering the whole country be undertaken. Also, prospective researchers and even students should be encouraged to research on the following areas:

1. Public expenditure and the level of economic growth other districts of Rwanda
2. Public expenditure and the level of achievement in performance contract not only in Gisagara district but also in other districts of Rwanda.



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**OFFICE OF THE HEAD OF DEPARTMENT, EDUCATION AND DISTANCE
LEARNING
COLLEGE OF HIGHER DEGREES AND RESEARCH (CHDR)**

Date: 4, August, 2012

**RE: REQUEST FOR MWISENEZA JACQUELINE MBA/42572/91/DF
TO CONDUCT RESEARCH IN YOUR ORGANIZATION**

The above mentioned is a bonafide student of Kampala International University pursuing Masters of Business Administration.

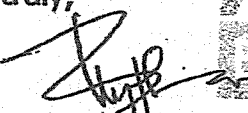
He is currently conducting a research entitled "The Public Expenditure Multiplier and Economic Growth in Rwanda."

Your organization has been identified as a valuable source of information pertaining to his research project. The purpose of this letter is to request you to avail him with the pertinent information he may need.

Any information shared with him from your organization shall be treated with utmost confidentiality.

Any assistance rendered to him will be highly appreciated.

Yours truly,


Dr. Ssemugenyi Fred
Head of Department,
Education, Distance Learning (CHDR)

NOTED BY:

Dr. Sofia Sol T. G.
Principal CHDR

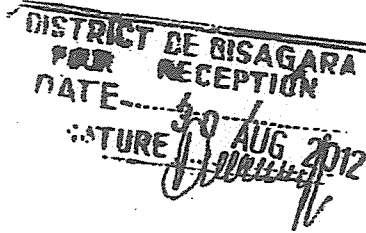


G.S.St PHILIPPE NERI GISAGARA

P.O BOX 179 BUTARE

7th Augustin 2012.

To the Mayor of
Gisagara Disagara.



Dear Sir,

Re: PERMISSION

I wish to apply for the permission of doing research in your district with a topic "Public Expenditure and economic growth in Gisagara District, Rwanda".

I am a master's candidate in Business Administration in Kampala International University.
If my request is accepted, my research will be carried out easily because I work and live in Gisagara District, I plan to do research with a period of one month.

Yours faithfully.

A handwritten signature in black ink, appearing to read "MWISENEZA Jacqueline", is written in a cursive style.

MWISENEZA Jacqueline

APPENDIX I A

TRANSMITTAL LETTER FOR THE RESPONDENTS

Dear Sir/Madam,

As part of my degree course requirements for the award of Master's Degree Business, I have to write a research paper. In this respect, I am carrying out a study on "**Public Expenditure Multiplier and Economic Growth in Gisagara District, Rwanda**". As a civil servant in the above mentioned district, you were selected to take part in this study. You are asked to answer the questions about the level of public expenditure and economic growth in your district. The information you will provide through this questionnaire will be used only for the academic purpose and will be treated with confidentiality.

Thank you for your co-operation.

MWISENEZA Jacqueline

APPENDIX I B

INFORMED CONSENT

In signing this document, I am giving my consent to be part of the research study of Ms MWISENEZA Jacqueline that will focus on Public Expenditure Multiplier and Economic Growth.

I shall be assured of privacy, anonymity and confidentiality and that I will be given the option to refuse participation and right to withdraw my participation any time.

I have been informed that the research is voluntary and that the results will be given to me if I ask for it.

Initial:

Date:

APPENDIX II A

Profile of the respondents (Face sheet)

Put a tick (✓) in the provided space that corresponds to the correct answer.

1. Gender

- 1. Male
- 2. Female

2. Age:

- 1. 20-29 years
- 2. 30-49 years
- 3. 50-65 years
- 4. 66 and above

3. Level of education:

- Primary
- A' level
- Diploma
- Degree
- Master's
- PhD

4. Occupation:

- Businessperson
- Civil servant
- Farmer
- Central and local Administrator
- Other

(specify).....
.....

APPENDIX II B

QUESTIONNAIRE TO DETERMINE THE LEVEL OF PUBLIC EXPENDITURE

(FOR INFORMAL SECTOR MEMBERS, LOCAL LEADERS, MILITARY SERVICE MEMBERS AND CENTRAL GOVERNMENT OFFICIALS TO ANSWER)

Direction: Please write your rating on the space before each option which corresponds to your best choice. Kindly use the scoring system below.

Rating	Response Mode	Description
4	Strongly Agree	You agree with no doubt at all
3	Agree	You agree with some doubt
2	Disagree	You disagree with some doubt
1	Strongly Disagree	You disagree with no doubt at all
1.	The government provides grants including subsidies for infrastructure in the district	
2.	The government provided grants to develop infrastructure in the district has increased during the last fifteen years	
3.	The government has increased the cost to meet salaries and the wages for all civil servants on the district level during these last fifteen years.	
4.	The government's money spent on buying office equipment (computers, furniture, filing cabinets, etc) has increased these fifteen years.	
5.	My salary has increased these recent fifteen years.	

6. The government provides subsidy on tuition fees, teaching and learning materials as well as expenses of co-curricular activities to educate the citizens
7. The government expenditure on office equipment increases the general consumption of goods and services.
8. The government spend a lot of money to provide shelter for the poor
9. The government helps the poor to get health insurance scheme
10. The government provides subsidies to fees for poor students
11. The government spends money to built employees' accommodation in public institutions
12. The government expenses on buying arms and ammunition have increased during the last fifteen years
13. The money spent by the government on buying clothes, food etc for the army, police and the local defense forces keeps on increasing
14. In many institutions salaries have been increasing these last fifteen years
15. Retired workers get their pensions and social security benefits
16. Legislative, executive and judicial functions require a lot of money from the government
17. Healthcare, education, adequate food supply, housing, clothing, good health and clean water are the concern of the government and therefore the government has been investing a lot of money in these
18. Money spent on telecommunications has kept rising these last fifteen years

19. The government provides a lot of money for research development
20. Capacity building has been increasing costing a lot of money from the government

APPENDIX II C

QUESTIONNAIRE TO DETERMINE THE LEVEL OF ECONOMIC GROWTH (FOR INFORMAL SECTOR MEMBERS, LOCAL LEADERS, MILITARY SERVICE MEMBERS AND CENTRAL GOVERNMENT OFFICIALS TO ANSWER)

Direction: Please write your rating on the space before each option which corresponds to your best choice. Kindly use the scoring system below.

Rating	Response Mode	Description
4	Strongly Agree	You agree with no doubt at all
3	Agree	You agree with some doubt
2	Disagree	You disagree with some doubt
1	Strongly Disagree	You disagree with no doubt at all

1. My annual income has been increasing these last fifteen years
2. Compatible institutions, technological development, research development
and entrepreneurship have remarkably contributing to a positive change in my living conditions
3. There is more economic equilibrium among the citizens
4. Well-being and quality of life has remarkably turned to better these last fifteen years

5. Purchasing power parity goes increasingly in our district
6. There has been favorable balance of payment during these last fifteen years
7. Many jobs have been created these last fifteen years
8. Dependency on foreign aids and debts has remarkably reduced these last fifteen years.
9. There has been a remarkable increase in goods and services
10. Drinkable water has been increasingly reaching the populations
11. Internal and external security has remarkably improved.
12. People' healthcare, education, adequate food supply, housing and clothing have kept bettering.
13. Both public and private infrastructure investment, investment in energy, transportation and telecommunications have developed remarkably during the last fifteen years.

APPENDIX III

VALIDITY AND RELIABILITY COMPUTATION

FORMULA

$$C.V.I = \frac{RQ}{TQ}$$

VALIDITY:

C.V.I = Content Validity Index

RQ = Relevant Questions

TQ = Total Questions

Therefore:

$$CVI = (CVI_1 + CVI_2 + CVI_3 + CVI_4 + CVI_5 + CVI_6 + CVI_7 + CVI_8 + CVI_9) / 9$$

$$CVI = \left(\frac{32}{33} + \frac{24}{33} + \frac{26}{33} + \frac{25}{33} + \frac{29}{33} + \frac{23}{33} + \frac{27}{33} + \frac{31}{33} + \frac{28}{33} \right) / 9$$

$$CVI = (0.96 + 0.72 + 0.78 + 0.87 + 0.75 + 0.69 + 0.87 + 0.93 + 0.84) / 9$$

$$CVI = (0.96 + 0.72 + 0.78 + 0.87 + 0.75 + 0.69 + 0.87 + 0.93 + 0.84) / 9$$

$$CVI = 7.41 / 9$$

$$CVI = 0.823$$

$$CVI = \mathbf{0.8}$$

RELIABILITY

Public expenditure Questionnaire	
Number of Items	Cronbach's Alpha Co-efficient
20	0.71

Economic growth Questionnaire	
Number of Items	Cronbach's Alpha Co-efficient
13	0.78
Average mean	0.74



APPENDIX IV

RESEARCHER'S CURRICULUM VITAE

Personal Profile

Surname: MWISENEZA

First name: Jacqueline

Nationality: Rwandese

Date of birth: 8th Mars 1981

Father: Bavon NIYIBAHO

Mather: Berthe ITANGISHAKA

Place of birth: Ndora sector, Gisagara District, Rwanda

Marital status: Married



Educational Background

2004-2007: Higher Education at Catholic University of Rwanda, Department of Psycho-pedagogy (Bachelor's Degree in Education),

1995-2001: Secondary studies at Ecole Secondaire st Esprit de Nyanza, Professional Certificate in Commerce and Accountability,

1989-1994: Primary education at Gisanze primary school.

Work Experience

From 2001-2003: Teacher in primary school of Gisanze