IMPACT EVALUATION OF INTERNATIONAL AID SUPPORTED ROAD PROJECT ON BENEFICIARIES INCOME: A CASE OF TANZANIA STRATEGIC CITIES PROJECT (TSCP) IN MWANZA CITY COUNCIL

IMPACT EVALUATION OF INTERNATIONAL AID SUPPORTED ROAD PROJECT ON BENEFICIARIES INCOME: A CASE OF TANZANIA STRATEGIC CITIES PROJECT (TSCP) IN MWANZA CITY COUNCIL

JANE MDULA

A Dissertation Submitted in Partial Fulfillment of the Requirement for Award of the Degree of Masters of Economics in Project Planning and Management (MSc. PPM) of Mzumbe University

2018

CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation entitled “Impact Evaluation of International Aid Supported Road Project on beneficiaries income: A case of Tanzania Strategic Cities Project (TSCP) in Mwanza City Council” in partial fulfillment of the requirements for award of the degree of Master of Project Planning and Management of Mzumbe University.

_____

Major Supervisor

_____

Internal Examiner

Accepted for the board of ……

DEAN/DIRECTOR, FACULTY/DIRECTORATE/SCHOOL/BOARD

DECLARATION

AND

COPYRIGHT

I, **Jane Juma Mdulla**, declare that this dissertation is my unique work and that it has not been presented and will not be presented to any other University for similar or any other degree award.

Signature_____

Date_____

ACKNOWLEDGEMENT

I am grateful to all who assisted me in the preparation and production of this dissertation. The information, which they shared with me, was very useful and relevant. I am thankful to all those who helped me in accomplishing this work, and would like to mention a few of them.

Without the knowledge and encouragement accorded to me by the Almighty God, this dissertation could not have been written. I owe much to Prof. Aurelia Kamuzora for her invaluable critical and analytic supervision and constructive criticism that have enhanced this work. I express my deep appreciation and gratitude to her.

Since it is not practically possible to mention everyone who helped me; I would like to thank everybody who, in one way or another has supported me. These include my husband, parents, friends, relatives and family.

DEDICATION

This Dissertation is dedicated to my beloved mom **Wilda Dickson Kabuka**, who laid the foundation for my education and professional carrier. Mom, your financial, moral support and prayers are immeasurable!

LIST OF ABBREVIATIONS

IDA	International development association
MDC	More developed countries
MDG	Millennium development goals
MKUKUTA	Mkakati wa kukuza uchumi Tanzania
NGO'S	Non government Organizations
OECD	Organization for economic cooperation and development
TASAF	Tanzania social action fund
TSCP	Tanzania strategic cities program
UN	United Nations
WSDP	Water and sanitation development project
NPV	Net present value
BCR	Benefit cost ratio
IRR	Internal rate of return

ABSTRACT

This study evaluated the economic impact of Tanzania Strategic Cities focusing on Mwanza City as a case study. The Tanzania Strategic Cities Project (TSCP) is funded by International Development Association (IDA) with the objective of enhancing accessibility of basic urban services. TSCP has been in operation for eight (8) years and therefore this study set to evaluate it. Specifically, the study intended to assess the cost of the projects under Tanzania strategic cities projects in Mwanza city; evaluate the benefits of roads projects under Tanzania strategic cities projects in Mwanza city and; assess the economic impact of roads projects on change of per capital income of road users in Mwanza city.

The study involved 130 diverse respondents in terms of gender, education background and age group. Questionnaire was used as research tool for gathering information and that data was analyzed through frequency statistics, cross tabulation and other descriptive statistics.

The study found out that income of road users has risen due to construction of the new roads and rehabilitation of old roads. The findings have also shown among the costs incurred by road users in regard to access and use of roads to include public transport fare, wastage of travelling and transporting time, maintenance cost, increase of house rent and fuel consumption. Road users also benefited from time saving on the roads, reduced transportation cost, availability of goods and services at lower price, opening of business opportunities, job creations, and population growth.

Lastly the study recommends to the Government on the need to put much emphasis on road maintenance after on road constructed as it is cheap to maintain road than constructing it. Good road infrastructure will allow materials and goods transported in lower price to the industries and so join President John Pombe Magufuli on making “Tanzania ya Viwanda” a reality.

TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION AND BACKGROUND OF STUDY

Aid can be defined as the amount of money that one country transfers voluntarily to another country and can be in form of loan or in form of grants. Not only in form of money but an aid can be provided in form of military assistance and other economic assistance such as technical assistance, equipment, training and commodities such as food, health, infrastructure and transport. Foreign aid is the international transfer of public funds in form of loans or grants either directly from one government to another or in directly through multilateral agency such as World Bank or IMF. The most common type of foreign aid is official development assistance (ODA) and is the acceptable measure of foreign aid for international development purposes (Todaro, 2011). It is suggested that there are three types namely; Humanitarian or emergency aid, charity based aid and systematic aid. Humanitarian type of aid is provided due to disasters and calamities. These aids are mobilized and dispensed in response to emergency issues; for example, the Asian Tsunami in 2004 or hurricane hit in Myanmar in 2008. Charity based aid is the type of aid disbursed by charitable organizations to institutions or societies. Systematic aid is the aid payment made directly through government to government transfer, that is bilateral aid or multilateral aid of which fund are transferred through institution such as World Bank (Moyo, 2009).

Different aids have been given in Tanzania especially in Mwanza City Council; and road infrastructure project is among the internationally funded project. This study aimed to evaluate whether the project contributes to the welfare of the society by increasing the per capital income of the people. Different methods can be used in project evaluation; these includes Net Present Value (NPV), Internal rate of return (IRR), Cost – benefit ratio, payback period, accounting rate of return among others. NPV is the summation of all benefits which are discounted substituted from the sum of discounted cost of the project

during the duration of the project where the project is selected or is worth undertaken if the NPV is greater than 0 (zero) but BCR is the ratio of discounted benefits divided by cost (discounted) and if BCR is greater than one means the project is viable since it will increase real wealth (Kooten, 2017). By using these methods, the worthiness of project can be determined and evaluated.

This chapter presents the background of the study, problem statement, research objectives, research questions, hypothesis, scope of the study limitation and delimitation of the study

1.1 Background

Foreign aid has emerged as a major financing model for supporting projects in developing as well as developed countries and therefore strengthens international relation and cooperation among nations involved. International financing through aid deals with moving resource for developments from developed to developing nations (Farah et al, 2018). Aid is perceived by many international financial institutions such as IMF and WB as the tool for poverty reduction in developing nations but statistically less has been achieved through aid. Aid was envisaged to support achievement of the Millennium development goals (MDGs) and reduce poverty by half of the population up to 2015 in sub Saharan Africa countries. This is still a challenge although it is forecasted to be achieved in 2147 (McGillivray, 2014).

The idea of transferring resources through aid emerged after the end of cold war after 1940 as the new way of cooperation in development as Western countries promoted the idea putting to an end the military foundation (Farah et al, 2018). By 1965 when around half of sub Saharan Africa were independent, foreign aid provided to African countries was about US $ 950 million (CIDA, 2017). In the early 1970s donors increased the amount of aid to the developing nation due to bad world economic growth influenced by increase of oil and commodity prices of 1972 to 1974. But in post 1990's the direction of aid changed to focus on special groups in the society mainly microfinance programs, women empowerment, environment, vitamin A and child care (Qayyum et al, 2014).

Since 1970's 15 countries of European union contributed to more than 45 percent of the total aid. The United states of America was leading in aid provision in the world, but was bypassed by Japan in recent years. From 1978 to 79 Africa received up to 29 percent of all aid in the world followed by Asia which took 26 percent in that time. The direction of aid changed in 2008 to 2009 where Africa received 41 percent of all aid provided in the world followed by Asia which receives only 18 percent (OCED, 2014). A lot of resources have been transferred from developed nations to Southern countries especially sub-Saharan countries for developments purposes. However, little benefits have been attained or realized as productive sectors grow slowly, poor social conditions, low export, weak institutions and increase of environmental degradation (Farah et al, 2018). The road infrastructure includes all road categories, facilities, structures, signage and markings, electrical systems, and so on needed to provide for safe, trouble-free and efficient traffic to transport passengers and goods (Ivanova & Masarova, 2013). Road is a key input in creating an active export investment in sub Saharan African country such as Tanzania (African Development Bank, 2013). Furthermore, because of the region's geographic nature, where many of the countries are landlocked, imports and exports of goods happen primarily by land and in this case by road transport. This is due to the fact that other means of surface transportation like rail and navigable rivers are not well developed (Kgamanyane, 2015). Roads contributes to both economic and social development and also roads can constrain or act as building block development thereby put in risk the possibility of country's growth and development. Road is an input cost for entrepreneur and consumer and as such the high costs incurred in the import and export of goods ultimately passes on to the last consumer. Producers suffer due to high transport costs. Hence with poor roads users and consumers suffer the most (Kgamanyane, 2015).

In 2011, roads networks in Tanzania covered 91,928 kms while trunk road network covered 12,786 km out of which only 40 percent are paved. Regional roads cover around 21,105 km out of which only 4 percent are paved. The district, urban and feeder rods covered a total road network of 58,037 km, out of which only 1 percent is paved. Specifically, in Mwanza, paved trunk roads crossing Mwanza region cover 241.8 km

while unpaved cover 18 km making a total of 259.8. The Mwanza regional roads cover about 751.1 while the paved regional roads cover about 20.2 km and unpaved is731 km (Tanroads, 2016). Roads creates positive and negative outcome as any other development process. The poor design can damage the environment and lower travel time either through public transportation or commercial travel time. Roads are also responsible for reducing transportation cost through lowering transportation fares and commercial transportation of operating cost while creating employment on the war (European Union, 2016).

Tanzania strategic cities projects (TSCP) are among donor funded projects subjected to Mwanza city council with the objective of improving access of individual to town services such as hospitals, education, work, business activities and local government services in Mwanza city (World bank, 2017).

Project evaluation is important for the road project and other costly projects to help in providing information that can used in improving the whole project and trying to see if project objectives are met in terms of desired impact or results (Frechtling, 2010). Resources are limited and scarce, hence it is significant to conduct economic evaluation of project as resource location and utilization has to be effective and efficiency to the benefits of the society (Slothuus, 2015). Due to risk, uncertainty and complexity of projects such as roads, economic evaluation is necessary to tell how the proposed projects is worth so that the policy or decision makers have to rely on it during decision making process (Dimitric & Alilovic, 2015).

This research aimed at evaluating the cost and benefits of Tanzanias strategic cities projects (TSCP) on roads such as Liberty (0.25km), Karuta (0.5km), Mkuyuni – Butimba(2.445km), Tilapia (0.60 km), Isamilo – Mji mwema (0.8km) Sanga – Kiloleli (1.98), Pasiansi – Buzuruga (7.29km), Tunza loop (4.79km) and Pepsi loop (1.11km)

1.2 Problem statement

There has been a bunch of debates about the significance of road infrastructure for the development of a country. Road plays a serious position in enhancing the productivity of

individuals. But the process of building it is costly, including labor force and materials used in the construction of roads (Glăvan, 2018). There are more than 63,000 development projects in developing nations in which 4 billion USD per year are injected and launched by more than 30 aid agencies (Qian, 2014).

Roads have unique social and economic benefits as they create employment as income for individuals. Roads stimulate investment and development along it by creating opportunities to citizens while it is believed that roads are like heart of the development of any society. Road facilitates/enhance trade by improving the movement of people and goods across barriers hence improving the life standard of the individual. Furthermore, good roads contribute to passengers' comfort, rapidity and technological innovations (Attane & Papi, 2019).

Tanzania government through different efforts such as National strategy for growth and reduction of poverty MKUMKUTA, Tanzania vision 2025 and the implementation strategy transport policy of 2011 - 2025 has prioritize roads infrastructure as the key instrument to achieve sustainable development and improve welfare of the people (MKUKUTA, URT 2013)

There are emerging beliefs among the community about road infrastructure project without even logical thinking that the taller, bigger or faster the infrastructure is perceived as better project. The political perspective cements this assumption as exaggerating the benefits by overlooking the cost by preferring short term benefits of the proposed project. Thus, proper and sound economic evaluation is needed to provide real picture of the project (Rus, 2014). In spite of growing quantity of aid flow from north to south, such as Africa and Tanzania through infrastructural projects such as roads, most of projects are not evaluated from the many one. Furthermore, just small a percent (1 percent) of projects are well evaluated as many of the project evaluation initiatives encounter lack of data and that most come to common problems (Riddell, 2014).

The literature is silent on the impact evaluation of road project under Tanzania strategic cities project (TSCP) basing on income of beneficiaries in Mwanza, that prompted this study to pursue the objectives meant to fill the information gap in place as presented in section 1.3.

1.3 Research objective

1.3.1 General objective

To evaluate impact of internationally aid supported road projects on beneficiaries' income under Tanzania Strategy Cities Projects focusing on Mwanza city.

1.3.2 Specific objectives

i. To assess the cost of road use incurred by beneficiaries under Tanzania strategic cities projects in Mwanza city.
ii. To evaluate the benefits of roads use gained by beneficiaries under Tanzania strategic cities projects in Mwanza city
iii. To assess the impact of road use under Tanzania strategic cities project on beneficiaries' income in Mwanza city.

1.4 Research questions

i. What are the costs of road use incurred by beneficiaries under Tanzania strategic cities projects in Mwanza city.
ii. What are the benefits of roads use gained by beneficiaries under Tanzania strategic cities projects in Mwanza city
iii. What is the impact of road use under Tanzania strategic cities project on beneficiaries' income in Mwanza city.

1.5 Research hypothesis

a. HO: Internationally aid supported road projects does not contribute to increase of beneficiaries' income
b. H1: Internationally aid supported road projects contributes to increase of beneficiaries' income.

1.6 Significance of the study

1.6.1 Significance of the study to project donors

Socio economic evaluation of international aid supported projects in Mwanza City Council provides the solutions to decision makers on what project to support by considering the costs and benefits and suggests on whether to continue providing funds to support projects

1.6.2 Significance to project team and organisation

Learning from actual project experience, program or project may fail or succeed to meets its established objectives. However, as the project evaluation is conducted the project team and project organisation may be in a position to learn from project failure or success and rectify the bad results by improving the project task. For better communication, for the project organisation or project team, the economic evaluation of project will enable communication to be smooth, simple and reliable to provide feedback of the progress of the project cycle development as stakeholder will understand the potential of project. Project transparency, Proper evaluation shows how resources were used and how much were converted into project derivable and at the end show the relationship of the results by justifying it.

1.6.3 Significance to the community

Project evaluation provides information and knowledge to various group in the society or to different stakeholders such as donors and be able to fully understand the hypothesis, used theory and alternatives. This will allow for more discussion on the matter for the good community. The study will provide an understanding of social and economic value, the welfare of the citizen and criteria for the selection of project for the people to be aware of the purpose of the projects and how are the society benefits from the project

1.6.4 Significance of the study to researchers and literature

The completion of this study will serve great purpose for other researchers in the world by using this study as reference to other works and also pick for further research. The study also adds to the literature the economic evaluation on international aid supported projects in infrastructure for Mwanza city. Finally, the study enables the researcher to fulfil of requirement for award of degree of masters of Project Planning and Management (MSc. PPM) of Mzumbe University.

1.7 Limitation and delimitations

1.7.1 Limitation of the study

Time limit, negative response from respondents and budgeted cost are some of the limitation of this study. These were likely to affect the study as they were beyond the control of the researcher.

1.7.2 Delimitation of the study

It is understood that roads project evaluation can be done on or basing on project sustainability, environmental impact assessment and gender impact evaluations. However, the researcher rejected other dimension of project outcome evaluation and chose to stick with cost and benefits of road projects in relation to improving people life standards

through the increase of per capital income as a result of accessible roads. Road Project costs are treated only those which are paid by the road users as through fuel, maintenance, fare, toll and price change.

1.8 The organization of the study

The study is divided into six chapters. Chapter one presents an introduction of the research where background and problem statement are introduced. Chapter two focused on the literature review with the aim of justifying the study in relation with research works. Chapter three focuses on the research methodology while chapter four presents the findings. Chapter five highlights the discussion of findings whereas chapter six presents the summary, conclusion and recommendation.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This study is about impact assessment of internationally funded road project under Tanzania strategic cities projects in Mwanza city council. This chapter shows both the theoretical and empirical studies review based on specific objectives and research questions. Theoretical literature review focus on theoretical framework and methods of economic evaluations of projects. The empirical review focused on provision of useful information from which the research gap can be justified based on the research questions. Findings in literature review leads to development of conceptual framework for guiding the research as synopsized by the end of the chapter. The reviewed materials in chapter cover definition of key concept used in this research, theoretical framework, literature gap and conceptual frame work.

2.2 Theoretical review

2.2.1 Definition of important terms

2.2.1.1 Evaluation

Evaluation is the systematic assessment and structured interpretation of the subject's value, worth and significance. There are different types of evaluation depending on the purpose. Basically evaluation approaches are formative and summative (Boulmetis& Dutwin, 2015)

2.2.1.2 Economic evaluation

According to Drummond et al. (2015) economic evaluation is comparative course of action in terms of both costs and consequences i.e resource use and outcomes or effects. It can be defined as the process of systematic identification, measurement and valuation of inputs and outcomes. Most common methods of socio - economic evaluation include;

Cost Benefit analysis (CBA), Cost effectiveness analysis (CEA), Cost utility analysis (CUA) and cost analysis.

2.2.1.3 Economics

Economics is the science which deals with the use of scarce resources as the end of human behaviour in relation to input and output where the main objective is to increase the utility welfare of the society (Brouwer & Georgiou, 2013).

2.2.1.4 Foreign Aid

These are grants and loan which multilateral organisations and government provide to developing nations with the purpose to promote development (Reci, 2014). Political inspiration, government strategy or economic self-interest can lead a donor country to give aid to the poor countries. Some development assistance can be inspired by decent and humanitarian desire to support the less fortunate (Andrew & Sheehan, 2014). The notion that aid can alleviate poverty can also be a reason to some poor countries in need of aid also to the fortunate countries it seems to be decent if they provide something to those are worse off. We are living in a culture that believe in giving alms to poor is something better to do for those who are better off (CIDA, 2017) No historical evidence to suggest over longer period of time that rich countries are not benefiting from the aid provided to the poor countries instead they are expecting some benefits in many ways for instance political support, military, counterterrorism and others in return (Andrew & Sheehan, 2014).Richer countries can use positive policy of the country as the reason to provide aid and also intervene by their new policy so that it can be easy for them to make some structural adjustment. Open up markets in order that to have market liquidity so that it can be easy for them to invest although they are providing aid of which can be in form of loan by the end of many years can earn interest or increase the burden of repayment to the poor country (CIDA, 2017).

2.2.1.5 Technical assistance

Technical assistance can be defined as the foreign aid that can be multilateral or bilateral and being provided in form of transfer of expert personnel, technicians, educators,

scientists and economic advisers that impart their knowledge (Andrew & Sheehan, 2017). This can be type of aid which is not in form of financial support. It is not provided in form of financial assistance instead it is transferred in form of knowledge. For instance, expert doctors comes from abroad and do on work training and build capacity to the doctors of poor country by so doing they can fill skill gap thus promote development of countries with economies in transition or developing countries and being able to solve their difficulties by using the acquired necessary skills. Capacity building is a broad term which means building abilities, relationships and values that will enable groups or individuals to improve their performance so as to meet their development objectives (UNEP, 2014) Skill can be improved in some area of specialization such as irrigation or agriculture of which can boost harvesting capacity and enhance economic growth.

According to Muneer, sustainable development cannot be achieved in absence of well qualified and trained human resources equipped with up to date information, knowledge and skills to address various issues occurred in the society (Muneer, 2016). Technical assistances provided to poor countries has shown some benefits to society as there is increasing in productivity in some areas where these technical assistances provided also increases employees job satisfaction and morale, motivation and increase the capacity to adopt new technologies and methods and shifts from the old methods which its productivity was low or poor. It is suggested that by Ardit, Jones and Tarp (2015) Assessment of the impact of technical assistance shows effectiveness, and has contributed to economic growth. Technical assistance can have greater impact to the society if it is well coordinated.

2.2.2. Cost-benefit analysis

CBA is tool for analyzing projects for investment economic decisions making for most projects which examine the welfare change. It is the framework mostly used to assess the merits with costs of public project and policies (Alem et al, 2016). The purpose of cost benefit analysis is to ensure and maintain effective or efficient allocation of resources to

the people not just selecting projects among alternatives. It used for widely range of projects especially public projects and its recommended analytical tool for European Union projects (European Union, 2015).The tool estimates the future cost and benefits of the project or program and setting projects duration known as time horizon while applying reasonable discounts rate in order to calculate the present value for future cost and benefits and also taking risks assessment into consideration. CBA use discount rate to find out the economic net present value and the economic rate of return by considering positive and negatives known as cost and benefits (European Union, 2015).

Cost benefit analysis is issued in all stage of the project including Description of the context, Definition of objectives, Identification of the project, Technical feasibility & Environmental sustainability, financial analysis, Economic analysis and Risk assessment (European Union, 2015). CBA has been widely used has it is known for objective tool for decision making for evaluating different projects (sijtsma, 2016).

This is the systematic assessment of cost including the opportunity cost and associated benefits of the proposed project program or interventions. Cost are any changes that may decrease the welfare or the well-being of people while benefits are any changes that may increase or improve the wellbeing of the people by using the monetary Assessment tool, but cost and benefits needs to be discounted first into value of today if they will be delayed and if found the NPV is positive then the proposal are economically viable or by using cost benefit ratio (Brouwer & Georgiou, 2013).

Benefit cost ratio model

Benefit cost ratio (BCR) takes consideration of the amount of money that will be gained by the project versus the amount of its costs to implement the project. BCR is the ratio of discounted benefits of the project divided by discounted costs of the project and if BCR is greater than one means the project is viable since it will increase the real wealth (Kooten, 2017)

Formular for BCR is given as;

$$BCR = \frac{\text{Discounted value of incremental benefits}}{\text{Discounted value of incremental costs}}$$

2.3 Various sources of development funds.

Development financing in highly centralized among developing countries may take long time to pass through different bureaucratic steps or procedure until it reach local government and communities where most of development project or investment projects are implemented (Robertson et al, 2015).Local development fund known as LDF is one of the common source of fund for development purpose such as projects in some country such as Myanmar on which these LDF are managed by the local government and special fund elected or appointed committee. This type of development funds is quicker, reliable and effective as the source is close to the people who are target or beneficiaries of development target. (Robertson et al, 2015)

Given in 1990s Africa has easy access to external financial assistance mostly in terms of concessional loans and grants for development financing where governments have avoided domestic loans which termed as expensive loans. But currently some African countries have invested in domestic financing as the reliable source of fund for development (UN, 2016). However, the condition for the developing nations to get economic assistance such as loan set by IMF and World Bank they should consider reducing budget deficits and reducing spending, devaluation, reducing domestic credit expansion, free market, privatization of state enterprises and state subsidies (Githua, 2013).Grants aid is one of the sources of development fund available for developing nation with low income ratio from international organisation and developed countries without the necessity of return it back to the donor. Grants aids are provided for the purpose of improving infrastructure such as roads, schools, hospitals, and water supply facilities (JICA, 2014). Unlike the loan aid which is the other source of development funds which are available for developing countries provided with low interests, long term and concessional funds to support development for large scale infrastructure. For example in

just four years from 2010 to 2014 Tanzania has received more than 479.81 USD from Japan alone as loan (JICA, 2014).

2.4 Aid funded projects

In international relation and cooperation foreign aid has emerged as a main instrument in delivering projects in developing nations which deals with moving resource for developments from developed to developing nations. A lot of resources have been transferred from developed nations to South countries especially sub-Saharan countries for developments purposes but little benefits have been attained or realized as productive sectors grow slowly, poor social conditions, low export, weak institutions and increasing of environmental degradation (Farah et al, 2018).

The idea of transferring resources through aid emerged after the end of cold war after 1940 as the new way of cooperation in development as Western countries promoted the idea putting to an end to military foundation (Farah et al, 2018). Aid can be provided in different forms, but the most provided type of aid in African countries are in form of grants and concession loan and sometimes tied aid of which donor country require recipient country to use the funds to purchase goods or services from the donor country. The most common type of foreign aid provided in poor countries especially African countries is disbursements of grants and loans are made by official agencies especially developed countries with high income member of the Organization for Economic Cooperation and Development known as OECD (CIDA, 2017).

Most of the aids are directed towards investment projects such as construction of infrastructure and social services. Technical assistance is one of aid given by donors Technical assistance appeared to decline in past several decades but it appears to rise back in recent years (Wangwe, 2016). The modality of aid and its direction have changed from projects investment support to budget support taking into consideration with national priorities and debt relief mechanism (Qian, 2014).There are different reasons in which the assistance is given and certainly has different effects on development where by the

assistance is designed to promote economic reforms or to improve production methods to have a greater effect on development (Reci, 2014) but Provision of aid from the major donor countries had more consideration on political motivation specifically United States (Andrew & Sheehan, 2014). Todaro continues to say that, US policy emphasizes aid program which are politically, economically and military benefiting USA development countries. It is difficult to conclude on the impacts or benefits of the aid given under political motivation that can alleviate poverty and improve economic development. Aid may properly function or dysfunction depending on the capacity of institutions in the recipient country as most of it influenced by political conditions and political will. However the actual impact of foreign aid on variables of macroeconomics of the recipient's countries has not been clear or straightforward (Wangwe, 2016).The debate of aid effectiveness and aid ownership campaign has pushed donors to agree that developing countries should highlight their national priorities and then aid should be allocated in identified areas accordingly as there are conflicting ideas whether aid helps the developing countries to promote development and reduce poverty or otherwise. The Aid funded projects in Africa is to promote development sustainability and achieve poverty reduction as most donors recommend. Donor agents such ions recipient countries to submit poverty reduction strategy for aid allocation (OECD, 2013).

2.5 Empirical Literature Review

2.5.1 Advantages of aid

From the agreements in Paris declaration in 2005 and Accra agenda for action in 2008 there were consensus that aid is moving to the right direction in ensuring the quality of aid and its effectiveness as the agreements pinpointed that aid recipients discuss their national development strategies and donors has to support the aid recipient national agenda (Qayyum et al, 2014). The major function of foreign aid in stimulating economic growth as aid provides domestic source of finance so as to increase investment and capital stock. Aid has influence in expanding human capital stock in the country,

improvement of technology which in turn increase productivity as the transfer of technology is concern (Ekanayake & Chatrna, 2017).

In most developing nations aid has resulted to economic growth for 1% but followed with negative result the year but in countries with proper economic policy the early effect of aid goes around 2% (Gillanders, 2016). Countries with strong and good institutions do enjoy the benefits of aid compared to the country with weak institutions yields poor result but Gillanders found out that small amount of aid does not led to economic growth but human capital development until huge amount is injected. Most of the developing nation depends on aid flow in their balance of payment, building more infrastructure projects such as roads as well as railway, getting technical assistance and also in case of providing funds to their deficit budget but there are developing countries which receive food aid since they have been affected by war while other receives peacemaking efforts from outside the country (Hotouom, 2015).

2.5.2 Advantage of Aid in Tanzania

In Tanzania for instance, there has been increasing amount of foreign aid for couple of decades where from 1987 to 2013 Tanzania has received more than 894,410,000 US Dollar in 1987 to 3,430,280,000 US dollar in 2013 (Hotouom, 2015). Tanzania has enjoyed the economic growth of 6.9% in 2012 and 7.3 percent in 2013 (African economic outlook, 2015) According to Wangwe (2016) aids free up government resources in order to be used in other area such road consumption; debt payments service tax exemption agriculture and social services. This means aid can be used to boost government expenditures by 90% as more financial freedom is obtained through availability of foreign aid.

Aid is said to be more effective towards development of recipient country if it goes together with well installed good macroeconomic policies (Martine, et al, 2015). Institutional issue mediates the relationship between aid and development or poverty alleviation (Wangwe, 2016).

Tanzania is the largest country recipient of foreign aid while World Bank is the leading aid provider to Tanzania followed by African Development Bank but for countries United Kingdom has been the leading nation in providing aid to Tanzania since 1960s (IMF, 2018). One of the first aid to Tanzania was USD 500 which went to build TAZARA from people of China in 1973 against the wish from western countries but surpassed after the first aid of USD 500 in 1972. From 1973 West increased aid to Tanzania in fearing China influence in African continent (IMF, 2018).

2.5.3 The economic contribution of road infrastructure

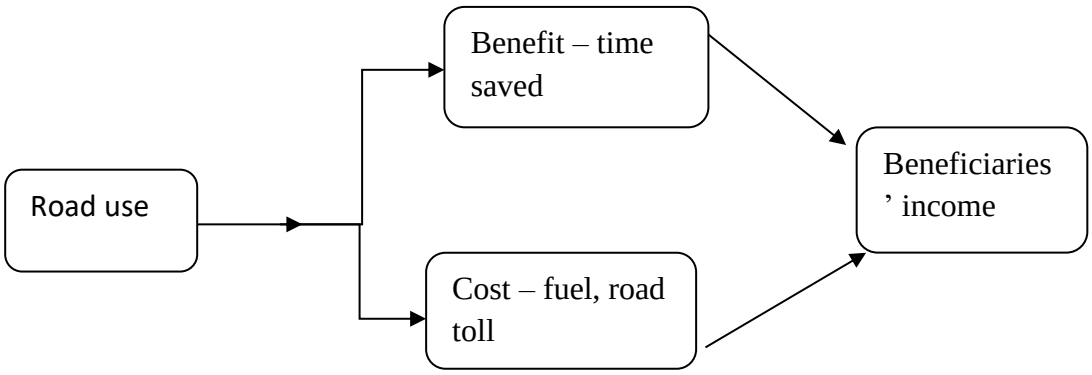
In Tanzania about 75 percent of all goods are transported through road infrastructure while more 90 % of all passengers travel via road transport. Tanzania government classifies roads to trunk road which are 42 connecting the corridor routes, regional, district, urban and feeder roads. More than 12,000 km of trunk roads, 21,000 km of regional roads are managed by TANROADS while 52,500 km of district, urban and feeder roads are managed by local authorities (IT Transport, 2014).

Kossele and Abeid (2016) on their study on impact of foreign aid on Tanzania growth by using time series found out that foreign tends positive influence economy in long run as after long period of time in Tanzania while no significant evidence of the its positive impact in short term rather than negative impact on short run.

Development aids are crucial toward reduction or elimination of poverty in Tanzania as the largest East African country aid recipient compared to Kenya which receives only 15 percent of his total national budget per year. Tanzania receives more than 40 % of foreign aid of its public expenditure (Kossele & Abeid, 2016).

2.6 Conceptual Framework

Figure 2.2 Conceptual framework



Source: Author constructive, 2017

Figure2.2 shows the conceptualization of the relationship of using road per day and the change of beneficiaries’ income. Benefits of having road project in terms of time saved and cost in terms of fuel and road toll are the inputs for change of beneficiaries’ income. Benefits and costs are independent variables which influences the change of beneficiaries’ income which is the dependent variable.

Benefits and costs influences change of income of road beneficiaries under the assumption that as people use roads in their daily economic and social activities they both incur cost and at the same time gains benefits.

The model is represented as:-

$Y = f(B, C)$

Where Y is the change of income

B – Benefits (time saved)

C – Cost (fuel, road toll)

2.6.1. Advantages of using roads per day

Road Infrastructure is multidimensional factor toward development which promotes mobility of goods, materials and human resources from different places at a time. Through road transport infrastructure play a role of distributor of population, industry and income (Queiroz and Surhid, 2014). Through roads people benefit from it as it serve with social purpose needs such as visiting family and relatives (Hettige, 2016).Roads helps in communication and information exchange as people travel through roads from one area to another and interact at the end they communicate and exchanges various information which may be technological, education and economical on which contributes to the development of the society and nation in general. With construction of better roads these information travel at highest speed in which many people may become aware of certain events, projects, and needs (Hettige, 2016). Roads bring people together every day by connecting them as roads reduce distance between people (Morisset & Wane, 2016) Reduction of travel time is associated with construction of tarmac roads as people use short time to travel over distance areas and cover many kilometers and hence save huge time. Roads also reduce vehicle operating cost in terms of fuel consumption per every day as they will be good fuel efficiency per kilometer travelled (Carey, 2014).

2.6.2 Boosting Economic activity

Roads infrastructure is an important sector of economy especially in most developing nations since its market agricultural products and access of inputs and output within the economy while presence of poor roads hinder (Queiroz and Gaurav, 2014).There is strong correlation between roads network and economic development as economic growth has been indicated in different countries like Tanzania and Kenya but in 2011 roads in Tanzania three time less dense than Uganda and Kenya while it is 5.8 % of the national roads are considered goods and in reliable conditions while Kenya has 19.7 and Uganda has 20.7 percents (Morisset, & Wane, 2016). Construction and improvement of roads creates a lot of new economic opportunities such as new market opportunities. Roads also

reduce input price as transporting cost of inputs goes down (Burningham, and Stankevich, 2015).

During production time roads transport is mainly used to help farmers to reach their farms for cultivation. Road has great impact of the improvement of the wellbeing or welfare of the people as it connects all human activities. Workers use roads to go workplace every day to produce so as to get earnings for family basic needs in daily life (Hettige, 2016).During roads construction and even before as during planning stage of roads, project community participation is the key to sustainability of roads. But also through community participation of roads project local people get technical knowledge, access to latest technology and information about roads project. Community participation contributes to feeling of ownership of project by the community (Hettige, 2016).In some areas on which highway roads are constructed there emergence of new economic activities such as resorts and other leisure activities are constructed with customers are willing to pay and spend their time in resorts or leisure area with accessible to roads (Carey, 2016).There is increase of commercial activity around areas with roads such as highways where people open up shops selling different products as they are able to employ themselves through economic activities and get quick cash because population density goes up hence local business or entrepreneurs are willing to invest in the areas (Carey, 2016).

2.6.3. Benefits of using roads

In developing nations, it is 80 to 90 percent of all transportation depends on road network. An effective road network can speed up progress in agricultural and rural development, industry and trade, the viability of urban areas, and the expansion of jobs, education and personal opportunity (Queiroz and Surhid, 2014).People benefit from using roads for accessing health centre even if they are distant but people especially poor may have chance to get medical care services from various health centre but students has opportunities to reach their schools for getting education when roads are constructed (Hettige, 2016; Morriset & Wane, 2016; Burningham, and Stankevich, 2015).

With remoteness market as the problem to entrepreneurs and farmers, good roads is the solution to the problem because it is capable of shortening the distance by using few hours for sellers to reach the market. Through roads it is possible to reduce poverty in the society at large. Business people or entrepreneurs may have access to market through the help of roads network in which they will be able to transport goods, and raw material from production area to the market area especially farmers have great benefits of roads outside their hometown or villages (Hettige, 2016). Morriset and Wane (2016) view roads as important tool for reducing distance between people and market which then improve people access to various markets. The problem with roads is maintenance that most of constructed after sometime they needs repair but shortage of fund affect these roads which in turn leads to failure of delivering its original purpose helping people in improving their wellbeing (Hettige, 2016).

2.6.4 Costs related to using/ accessing roads

With all the benefits accessibility of roads brings it comes with potential cost at the end. During the construction phase it brings disturbance to the motorist as most divergence roads are required in place to allow the construction of roads but also there is air and noise pollution due increase vehicles on roads (Carey, 2016).There cost of having roads in the country especially in urban as goods roads are constructed motor vehicle drivers tend to use high speed as the result it leads to car crashes and fatalities (Carey, 2016).Construction of roads and its maintenance are very expensive but most of African countries spend 25 to 50 percent on roads maintenance but these costs are paid by community through their tax collected by central and local government. So until people may access the constructed roads it need to be paid millions of money for planned kilometers of roads (Burningham, and Stankevich, 2015).

Road user usually face with the problem called road user cost such as delay in opening up new or improved road facility that may prevent user from gaining the travel time benefits on the roads. In urban areas where road users experiencing traffic congestion travel time

is increased hence it cost more because the time spend on road could be used in job for generating income (Ginger et al, 2019).Feeder roads and urban areas are faced with the challenge of having congestion which has shifted from constructed highways to feeder roads as the new constructed roads will allows vehicle to move fast while feeder roads has to move in the same speed but the size of most of feeder roads are enough too wide hence experience congestion (Dodgson, 2014).

Accessing new roads goes with the cost of destruction of natural beauty of the land to give space road infrastructure where trees, non-made vegetation and natural grass growing on the land have to be removed by construction machines. Even if the natural beauty has to be reallocated to some other place but the surrounding community will not be able to benefits from (Dodgson, 2014).

2.6.5 Additional reward after using roads

According to the study on impact of road on rural poverty undertaken in Ethiopia by Terefe (2013), shows that poverty declines due to investment of road infrastructure in the area which provided the community with economic freedom and opportunities. The study also reveals that the community with presence of roads enjoys much more benefits than the society with no roads. Road infrastructure has positive effects on improvement of the economy of many countries with low coverage of roads (Terefe, 2012). After using good roads users experience that they are safe than poor roads as goods roads should have sign and symbols which ensure safety of roads users. Comfortability also increases for road users when standards roads are constructed as there will be no dust for using tarmac roads (Burningham, and Stankevich, 2015).

2.6.6 Land value increase after using roads

Increase of land value is a result on many factors such availability of important community service, land use plan, relief, drainage pattern, natural attractions, regional growth, and availability of capital (Gamble et al, 2018). Access to roads has impact to property values

such as land as roads constructions makes residential and commercial areas more accessible from any point in the district hence attracts more to buy and invest in the area with road accessibility. As the results of more attraction there will be influx of people in the area with accessible roads which in turn increase the value of property such as land due to the increase of demands of it as the price will rise up as the result (Carey, 2016).

As availability and usage of roads contributes to existing business growth or attraction of new business then land value increase at large of either through highway, main roads or feeder roads. It is also possible for land value to increase due to location of industries and firm on areas with roads network for market and transport reasons (Carey, 2016)Using roads has an impact on real estate market, as it increase the access to roads as industrial commercial and residential users really want and able to pay premium price for land which is closer to highway or main roads which means the land buyers in the roads area they paying the roads accessibility benefits higher such as time saving on roads, discounted operating cost and market opportunities to be close to consumers or customers (Gamble et al, 2018).

With limited supply of land as land doesn't increase then more buyers will be searching for land with roads accessibility which increase the demands of land so as its value will rise shown through the increase of price or land rents (Carey, 2016; Dodgson, 2014). As the effect of investment and use of roads there are rise of land rents and land values along roads areas such as main road and high but in other areas land values tend to decrease making the difference as zero (Dodgson, 2014).

2.6.7 Change in income earning of road beneficiaries.

Roads construction employ a lot of people especially when the construction is labour based but all in all people from communities surrounding the project gets employment which they get income to support their families with different needs (Hettige, 2016).There occasion where there is income gains of people around roads network such as landlords, land owners and seller and purchaser of goods/service as price of property increase (Carey,

2016).For road users reduction of vehicle operating cost and transportation cost through vehicle fuels and price paid for public transport due to the use of good standard roads such as tarmac roads leads to reduction of cost hence boost money saving from user's income to be used elsewhere (Terefe, 2013).Roads is also responsible for increasing productivity of many producers in the economy with in the country and hence rise of wage of workers due to increase to profit of firms which provide the capacity of firms to pay more their workers. But it is also valid that due to increase of productivity of producers in the region with roads infrastructure these producers will be able to sell more and increase their earnings or income as the result of presence of roads in their area (Biehl, 2019).

2.7 Tanzania 2025 Vision (industrialization) and making Tanzania a middle income country (Hapa kazi tu slogan).

Hapa kazi tu is the slogan developed by president of Tanzania, Dr. John Pombe Joseph Magufuli during and after 2015 General election. The slogan stands for hard and increasing productivity in the country economy (Wandiba, 2016). The slogan goes together with scrapping unwanted government expenditure and to increase tax collection as the way to increase government revenue. The slogan of hapa kazi tu is also the target of ensuring Tanzania to become middle country economy by 2025 vision that depends much on industrialization (Shila, 2019). According to Tanzania investment centre (2019) It is still known that industrialization in Tanzania is growing at gradual rate where by manufacturing sector (Textile, food processing and chemicals) is 53%, processing comprise of 43% and assembling industries are available for only 4 percent of all industries in the country.

To achieve the 2025 vision which focuses on poverty reduction through industrialization, Tanzania aims to transform its traditional economy into industrial economy through investing in industries and agriculture as well was setting modern infrastructure such as roads to transport materials from production to markets and industrial areas ready for processing and manufacturing (TIC, 2019). Roads are essential infrastructure for the attainment of hapa kazi tu slogan, and Tanzania to become middle economy with

manufacturing contribute more than 40% of the GDP since they distribute every item needed and produced by the different industries in the country (Tanroads, 2016).

2.8 Conclusion

There is strong correlation between roads network and economic development as economic growth has been indicated in different countries like Tanzania. Roads improve industry and trade, the viability of urban areas, and the expansion of jobs, education and personal opportunity. Roads network are responsible for reducing distance among people to goods and places as a result roads increase the value of the land hence influence the income of the people around and road users. The cost of constructing roads has tended to push the government to mobilise aids into various road infrastructure projects. There are limited studies in the literature on aid supported road infrastructure project especial road projects under Tanzania strategic cities project (TSCP) undertaken in Mwanza city. This study in Mwanza aid supported infrastructure projects will cover the literature gap.

CHAPTER THREE
RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents the research area, research design and unit of analysis used in the research. Also explains about the area of study, sampling and sampling technique also data collection technique and data analysis methods. This section shows the validity and liability of the research.

3.1 Research design

Kothari (2004) defines the research design as the conceptual structure within which research is conducted and it constitutes the blueprint for the collection, measurement and analysis of data. This study used mixed research design by integrating both qualitative and quantitative design to guide data collection as well as analysis and data interpretation. Mixed research design with equal weight was useful because it allows the researcher to

use both quantitative and qualitative information. Mixed research design was used to address both qualitative and quantitative aspects which solve errors in complexity research involving many elements. According to Creswell (2014) mixed research design is the employment of the combination of both qualitative and quantitative approaches.

3.2 Area of the study

The study was conducted in Mwanza city. Mwanza is the headquarters of the region and also the headquarters of the City Council. Mwanza is located on the southern shores of Lake Victoria in northern part of Tanzania and is one of Tanzania administrative regions and neighbouring regions are Geita to the west, Shinyanga to the south, Simiyu to the east. The area covered is 256.45 Kilometre square of which 184.90 (72%) is dry land and 71.55 kilometre square (28%) is covered by water. According to the 2012 National Census, the population of Mwanza City is 363,452 where 177,812 are Male and 185,640 are female with the annual natural growth rate of 3.percent. The average household size is 4.7 which is closer below the national average of 4.8. Mwanza City has 18 wards now but during census it was 12 wards only and the population distribution in the twelve wards are as indicated in brackets. Mkuyuni (18,780), Igogo (27,303), Pamba (23,519), Nyamagana (5,807), Mirongo (2,925), Isamilo (24,220), Mbugani (39,041), Mahina (59,437), Igoma (56,596), Buhongwa (26,681), Mkolani (32,199) and Butimba (46,944)

3.3 Population of the study

A population is a group of individuals, object, items group or elements that have at least one thing in common from which sample are taken for measurement (Kombo & Tromp 2006). According to Alvi (2016) population of the study entails elements or members that fit to the criteria to be selected in research investigation. The criteria may be geographical location which means any member within specified geographical location to be studded is concern or contextual tagged population in the study which deals with students or teachers or doctors may be the target population.

The population of study comprises of individual household and road users. Road users include both who use private means of transport and those use public transport. Household who are beneficiaries of the road constructed under TSCP project were also included in the population study. According to TSCP implementation report and monitoring and evaluation report in 2015, number of population with access to road or target population who benefited from the project were 520 for Mwanza Region which includes Nyamagana and Ilemela municipal. The study conducted in Nyamagana district with estimated population of 193

3.4 Sample

Sample is the small group of people which are selected from the target population to be studied but the member of respective group is known as participants (Alvi, 2016). According to Kombo & Tromp (2006), Sample refers to the number of items that is chosen from the universe. One of the sampling approach commonly used if the total population is know is the Yamane, (1967) formulation, the approach is given as;

$$n = N/((1 + N(e)^2)$$

Where: n= sample size, N= total population, e=probability error term at 95% confidence interval

$$n = \frac{193}{1 + 193(0.05)^2} = 130$$

Table 3.1 Sample vs Sample size

For road users $= \frac{148}{193} * 130 = 100$

That means out of 148 sample populations (study sample), just 100 (77%) road users was selected as a unit of analysis for the study.

For individual household $= \frac{45}{193} * 130 = 30$

That means out of 45 sample populations (study sample), just 30(23%) individual household was selected as a unit of analysis for the study

Table 3.1 Sample vs Sample size.

No	Sample	Sample size
01	Individuals household	30
02	Road users	100
	TOTAL	130

Table 3.1 shows that out of 130 (100%) respondents 30(23%) are individual household where the project has been implemented and 100(77%) are road users

3.6 Sampling techniques

According to Alvi (2016) sampling is the way to take participants from the target population for research purpose since it is difficult to take every element within the population. Alvi (2016) also adds that research become more accurate when large sample is selected but the sample has to be a true representative of the population. The research can be generalized if and only if the result of that research represents the image of the whole population selected. The study used simple random sampling for road users surrounding the project. Purposive sampling enabled the researcher to target someone which she/he believes has information required in the research. Simple random sampling was beneficial to the study since it gave equal chance for anyone to be included in the study and hence reduce bias. According to Alvi (2016) simple random sampling is the sampling technique which allows every element from the target population to have equal chance to be selected into the study through rotary or other mechanisms such as computer.

3.7 Methods of data collection

In this sturdy both secondary and primary data were used. Primary data was collected by using questionnaire while secondary data used documentary review

3.7.1 Types of data

3.7.1.1 Primary data

According to Kothari (2004) Primary data are those original data which collected for the first time by researcher for research purpose. There are several methods used in collection of primary data in this study, namely; observation method, interview method and questionnaire.

3.7.1.2 Secondary data

Secondary data are those data which have already been collected by someone else or organisation and which have already passed through the statistical process such as government reports, magazine, researches and company annual reports (Kothari, 2004).

3.7.2 Data collection technique

3.7.2.1 Questionnaire

Kothari (2004:134) defines questionnaire as a set of questions which you give to a large number of people in order to collect information. Questionnaires were used to collect data from project beneficiaries because questionnaire is less expensive to be used in the study. However, questionnaire were used to gather data from potentially large number of respondent especially to geographically dispersed population focusing on road project beneficiaries specifically road users and individual household.

3.8 Data analysis procedure

According to Kothari (2004) data analysis is a process which implies editing, cording, classifying and tabulating collected data. After the data was collected, it was edited, corded, tabulated and then analysed by using SPSS. The unwieldy data were necessarily condensed into a few manageable groups and tables for further analysis. In the process of analysis, relationships or differences supporting or conflicting with established hypotheses were subjected to tests of significance to determine the validity of data. Both quantitative and qualitative methods of data analysis were employed in analyzing the gathered data to provide clear picture of the projects outcome in different dimension of community perceptions.

Table 3.2: Description and measurement of variables

Variable	Definition of variable	Measurements	Unit	Expected sign
Dependent variable				
Beneficiaries Income	These are change of earnings resulted from road use for different economic and social activities as cost and benefits of road use are concern	Currency	Tshs.	-/+
Independent variables				
Road use	Is the number of times people access constructed road.	Frequency	Time	+
Cost	Amount to be paid or spent to acquire something (service) by road users.	Currency	Tshs	-
Benefits	Advantages of using constructed roads in terms of time saved on road by users	Time	Hours	+

Regression model

Regression analysis is a set of statistical processes for estimating the relationship among variables. Depending on the nature of the study linear regression model was used to model the variables. The regression model can be presented with a random variable Y called as dependent (or study) variable, depends on a number of independent variables (or explanatory) variable. Regression analysis helps the research and third party to understand how the typical value of the dependent variable changes when any one of the dependent variable varied while the other independent variable held constant. The regression coefficients brought meaning of whether the variables tested in the study were significant to research or not significant

3.9 Reliability and validity

According to Tavakol and Dennick (2011) Reliability and validity in research are important tools used for ensuring accuracy of the assessment or evaluation of the research.

3.9.1 Reliability

Reliability is the consistence, stability and repeatability of the research findings or results, hence the result are said to be reliable (Creswell, 2014). Errors and mistakes were checked through deep review of the research project. Research instrument was given to two different group respondents one before the actual data gathering to determine errors, stability and consistence of the research. Errors obtained from the first data gathering were used to rectify the instrument which was used in the second data gathering and data were compared for stability. Results were then found to be consistence and stable as the same results were obtained.

3.9.2 Validity

Validity is the degree of the measurement an instrument measures what it is supposed to measure (Thatcher, 2010). It is possible for research measurement to be reliable but invalid. However, if the measurement is unreliable then it is impossible to be valid (Thatcher, 2010; Creswell, 2014). In ensuring validity of the research, external auditor, peer debriefing is method used to check for research validity (Creswell, 2014). Peer and expert debriefing were deployed to check all questions from expert point of view in order to avoid personification in finding the research problem. Different experts such as research supervisors were involved in the study and their idea and advices were incorporated in the final report. This was done to ensure that the research instrument measure what is suppose to measure so as the content validity could be achieved.

CHAPTER FOUR

PRESENTATION OF DATA

4.1 Introduction

This chapter presents research findings in line with the study objectives and questions. Data were collected, analyzed in descriptively and by using regression with the aid of SPSS. The presentation in this chapter takes a verbal, descriptive (in terms of frequency charts, histograms and tables) and statistical forms. The first part of this section presents the demographic information of the respondents and then followed with a thematic presentation of findings in an order of study objectives.

4.2 Sources

The development objective of the Tanzania strategic cities project is to improve the quality of and access to urban services. The main source of fund for the project is World Bank concession loan through President's Office. The first phase IDA Credit US dollar 50.0 million was provided with maturity of 40 years and grace period of 10 years. The second additional financing project World Bank provided 130 million with the same conditions.

The third addition financing is still in process by measuring the outcome second additional financing. In Mwanza City the parent project implemented in 2011/2012 package 1 worth Tshs7, 750,138,000.00 for works and 2012/2013 package 2 worth Tshs 8,225,397,950.00. A consultancy service for both packages was Tshs 46,303,000 and US $1,183,860 respectively. In additional, financing Mwanza city implementation of road projects worth 6,535,505,900.00 for works and Tshs 762,675,000.00 for consultancy services.

4.3 Demographic information of the respondents

This subsection deals with the demographic information of the respondents which are important in relation to the respondents' response. Different information such as age, gender and education level of the respondents are described in this chapter.

4.3.1 Respondents' age distribution

The study involved different age groups from young people to old with aim to see on how they are affected by the road project.

Table 4.1: Respondents' age distribution

Age group	Frequency	Percent
Below 20 years	12	9.2
20-30 years	12	9.2
31-40 years	52	40.0
41-50 years	14	10.8
51-60 years	27	20.8
Above 60 years	13	10.0
Total	130	100.0

Source: Field data, 2018.

Data in the table 4.1 shows that 130 (100 %) respondent of age group involved in the study range from below 20 years to above 60 years. Out of 130 (100 percent) Respondents below 20 years were 12 which is equal to 9.2 percent and from 20 to 30 years old were 12 which is equal to 9.2 percent of whole sample population while respondents with age between

31 to 40 years were 52 which equals to 40 percent. More than 10.8 percent and 10 percent of the respondents are having age between 51 to 60 years and above 60 years respectively.

4.3.2 Gender distribution

The study considered both genders as they both use road projects in their areas as they are all suitable in the study.

Table 4.2: Gender distribution

Gender	Frequency	Percentage
Male	53	40.8
Female	77	59.2
Total	130	100

Source: Field data, 2018

Table 4.2 shows that the study involved 130 (100%) total number of respondents. Out of 130(100%) the study has 53 (40.8%) male respondents and 77 (59.2%) were female respondents. This show most of the respondents were woman than men.

4.3.3 Educational level of the respondents

The study involved various respondents with different level of education from primary education to post graduate and PhD holders.

Table 4.3 Showing level of education of the respondents

Educational level	Frequency	Percent
Primary education	1	.8
Secondary	32	24.6
Certificate	35	26.9
Diploma	14	10.8
Bachelor degree	11	8.5
Master degree	35	26.9
PhD	2	1.5
Total	130	100.0

Source: Field data, 2018.

Table 4.3 shows that out of 130 (100%) respondents only 1 (0.8%) having primary education while respondents with secondary education are 32 (24.6 %). Respondents with diploma was 14 (10.8%) and 11 (8.5%) have bachelor degree. Respondents with master degree and doctorate are 35 (26.9 %) and 2 (1.5 %) respectively.

4.4 Cost incurred by road beneficiaries under Tanzania strategic cities projects in Mwanza city

The study examined the cost experienced by the road users before and after road construction as categorized in the following sections.

4.4.1 Maintenance and operation costs for vehicles

Respondents were asked to rate the change in expenses on vehicle maintenance and services following the road construction. This involved only 44 respondents who are road user of private cars as their means of transport. A total of 86 respondents used public transport and they are not liable for maintenance and services. The table 4.4 indicates the difference in maintenance and services expenses or cost incurred by road users for their vehicle before and after road construction.

4.4.1.1 Cost for maintenance and services before road construction

Respondents using private transport were asked to rate the cost they incurred for vehicle maintenance and services. The responses are provided in table 4.4.

Table 4.4: Maintenance cost before road construction

Maintenance cost	Frequency	Percent
100,000-200,000	18	40.9
200,001-300,000	6	13.6
Above 300,000	20	45.5
Total	44	100.0

Source: Field data, 2018

A total of 44 respondents (33 %) indicated to use their private cars for transportation and travelling purposes. The other 20 (45.5%) respondents indicated that they use above 300,000Tsh for their vehicle maintenance and services per month before road construction and 18 (40.9%) respondents use 100,000 to 200,000. Those road users who spend from 200,000 to 300,000 are 6 (13.6%) of those who use private vehicle as the means of transportation as they own vehicles. It is also revealed from the finding with the aid of table 4.4 that respondents who mentioned that they spend from 100,000 to 300,000 Tshs are 22 equals to 54.5% cumulatively.

4.4.1.2 Car maintenance and services after road construction project

Respondents were asked to rate the monthly spending on their vehicles. The responses are presented in Table 4.5

Table 4.5: Car maintenance and services after road construction project

Maintenance cost	Frequency	Percent
Below 100,000	20	45.45
100,000-200,000	16	36.36
200,001-300,000	6	13.64
300,001-400,000	2	4.55
Total	44	100.0

Source: Field data, 2018

Table 4.5 indicates that 20 (45.5 %) respondents use below 100,000 Tshs as expenses for their vehicle maintenance and other services; while 16 (36.36%) respondent road users spend from 100,000 to 200,000 after road construction. Also 6 respondents (13.64%) Otherwise, 2 (4.55%) respondents spend from 300,000 to 400,000 Tshs for vehicle maintenance and various services. Generally, 44 (95.5%) vehicle users indicated to spend up to 200,000 as cost for their vehicle maintenance.

4.4.2 Change of fuel consumption

This subsection depicts the fuel consumption of vehicle before and after roads constructions. Respondents were asked to indicate their vehicle's fuel consumption

differences before and after the roads' construction. The responses are presented in table 4.6.

Table 4.6: Change of fuel consumption per month

Fuel consumption per month	Frequency	Percent
Above - 7 litters	21	47.7
-5 to -6 litters	5	11.4
-3 to 4 litters	9	20.5
-1 to -2 litters	2	13.6
1 - 2 litters	3	6.8
Total	44	100.0

Source: Field data, 2018

Table 4.6 indicates out of 44 respondents that, 6 (13.6%) private vehicle users have difference of -7 liters of fuel while 5 (11.4%) said they experience a difference of -5 to -6 liters of fuel. A total of 9 respondents (20.5%) indicate -3 to -2 liters of fuels difference and 2 (13.6%) experienced -1 to -2 fuel liters and that 3 (6.8%) respondents indicates a difference of 1-2 liters. But 47.7% (21 respondents) suggested that they use less than 7 liters of fuel after road were constructed in their area or route. This difference of fuel consumption takes into consideration current fuel consumption (After road construction) and previous fuel consumption (Before road construction).

4.5 Benefits of Road construction project to road users and household

4.5.1 Time spent on the road before and after road construction

Respondents were asked to indicate the time they used from their home to working areas before the road was constructed; their responses are indicated in the table 4.7.

Table 4.7 Time spend by road users on the road to working areas before and after road construction

Time spent before road construction	Frequency	Percent	Time spent after road construction	Frequency	Percent
11-20 minutes	1	.8	5-10 minutes	28	21.5
21-30 minutes	28	21.5	11-20 minutes	54	41.5
1 hr - 1:30 hr	43	33.1	21-30 minutes	40	30.8
1:31 - 2 hrs	11	8.5	1hr - 1:30 hr	3	2.3
Above 2 hrs	47	36.2	1:31hr-2 hrs	5	3.8
Total	130	100.0	Total	130	100.0

Source: Field data, 2018.

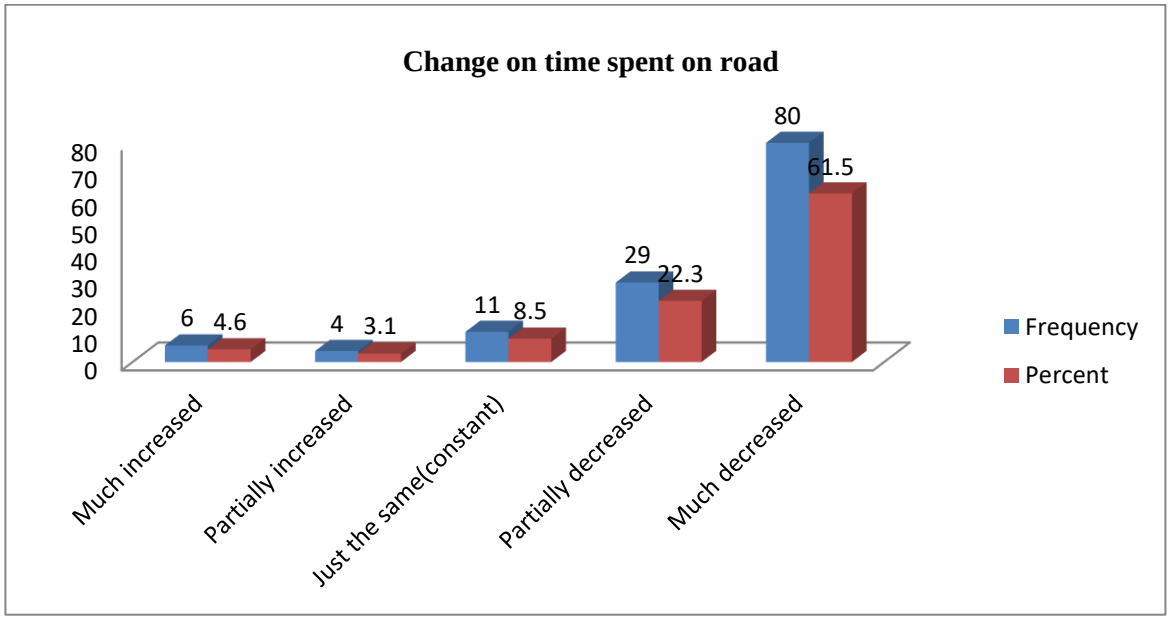
The table 4.7 indicates that, before road construction 47 road beneficiaries (36.2%) out of 130 spent more than 2hrs on the road to their work stations and 43 respondents (33.1%) spend around 1hr to 1:30hr and only 1 respondent equals to 0.8% spends use just 11-20 minutes; for the same question, 28 respondents (21.5%) spent up to 30 minutes.

Also table 4.7 indicates that there is a total of 82 (63%) out of 130 road users spend up to 20 minutes reach their work station from their homes after road being constructed. Those who use up to 30 minutes to reach their work stations are 122 (93.8%) cumulatively. But after road construction only 8 respondents (6.1%) road user spent from 1hour to 2 hours to reach they work stations.

4.5.2 Change on time spent on the road

Respondents commented on the changes of time they spend on the road to their working areas from their homes. The responses are indicated in figure 4.1

Figure 4.1 Change on time spent on road



Source: Field data, 2018

The responses in figure 4.1 shows that 80 out of 130 respondents (61.5%) suggested that the time used to work station has decreased after road construction; while 29 respondents (22.3%) said time has partially decreased (not much decreased). A total of 6 (4.6%) road users commented that the time spent on roads after road construction increased much while 4 respondents (3.1%) said it has partially increased. However, 11 (8.5%) respondents said they just spend the same time on the road even after the construction.

4.5.3 Regression analysis on road benefits

The statistical analysis was conducted by using regression so as to test whether the dependent variable (change in income of the road beneficiaries) is influenced by independent variables (benefit and cost) from the model;

Y= f (B, C) where

Y is a change in income of road beneficiaries

B – Benefit (time saved)

C- Cost (fuel, road toll)

Table 4.8 Model Summary of the variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.869[a]	.756	.750	.29959

Source: Field Data, 2018.

The findings obtained from the household and road users indicate that there is a regression coefficient of 0.869 which means each independent variable in the equation explains the dependent variable by that much. From the table 4.8 of the model summary, R Square is 0.756 equivalents to 75.6% which is greater than 50%. That implies a significance of the model. R square is the tool to test how strong the independent variables (benefits and cost) and can influence change in income. Principle R square must be greater than 50, which implies that one proportionate change in independent variable results to a proportionate change in dependent variable (change in income) by 0.869

Table 4.9 Analysis of variance of variables

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.703	3	11.568	128.883	.000[a]
	Residual	11.219	125	.090		
	Total	45.922	128			

Source: Field data, 2018

The table 4.9 indicates that the level of significance is 0.000 which is appropriate to P-Value of $\leq$ 5 % also residual is less than regression which implies that the model is significant as it accommodate less error than expected. The researcher analyzed the sum of squares so as to check if the model is appropriate to explain the variables in question and the model proved to be significant.

Table 4.10: Regression coefficients of variables

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.266	.071		3.727	.000
Income after road construction	.205	.032	.353	6.313	.000
Fuel consumption	-.057	.031	-.084	-1.833	.069
Time saved	.398	.036	.611	11.008	.000

Source: Field data, 2018

Table 4.10 shows the standardized beta coefficient which determines the variable which has more influence over the other variables. According to the results on the table 4.10, time saved has beta coefficient of 0.611 which means that a unit change in time saved results to a 0.611 change in dependent variable and its significance level is 0.000. This means that it is significant in explaining the dependent variable (income). Also the result show that there is a negative relationship between the change in income and fuel consumption as it has a beta coefficient of -0.084 which means a unit change in income result to 8.4% decrease to the time spent on road.

4.6 Change of road beneficiaries' income

Change of road beneficiaries' income is a result of estimated cost and benefits incurred by road users on those new road projects as shown on table 4.11. Time value and fuel consumption were used as project benefits and cost respectively to calculate benefit and cost ratio (BCR). Cost and benefits were calculated from 44 respondents who were using vehicles when the study was undertaken as they were able to estimate their fuel consumption and time they saved after road construction project in Mwanza city. The rule of BCR is that if BCR is greater than 1 then the project is viable taken which means project benefits are greater than cost.

Table 4.11 Estimated project benefits and cost in monetary terms (Tshs)

Benefits (Monthly)	Monetary benefits	Discounted benefits @10%	Costs (Monthly basis)	Monetary costs	Discounted cost @10 %
Time value	7,583,333.33	6,893,250.00	Fuel consumption	4,899,000.00	4,453,191.00
Total	7,583,333.33	6,893,250.00		4,899,000.00	4,453,191.00

Source: Field data, 2018

As table 4.11 indicate discounted road project benefit is 6,893,250 while project benefit is 7,583,333.33 and project cost incurred by road beneficiaries is 4,899,000 while discounted cost is 4,453,191.00 Tshs.

$$BCR = \frac{\text{Discounted benefits}}{\text{Discounted cost}}$$

$$\frac{6,893,250.00}{4,453,191.00} = 1.547$$

BCR = 1.547

BCR criteria; accept >1 reject < 1

Since project BCR is 1.547 which is greater than 1 then project is viable taken considering project cost and benefits where is indicated that benefits incurred by road beneficiaries are greater than the cost. Then road projects were having much benefit than the cost by considering the road beneficiaries.

Furthermore were respondents asked to indicate if there any change on their income after road construction projects under Tanzania strategic cities project. Road users responded on the impact of road use to the change of their income in various ways. Respondents were asked if they experienced an increase of income.

Table 4.12: Road beneficiaries' views on Change of their income

Change of income	Frequency	Percent
Extremely Increase	85	65.4
Moderate Increase	27	20.8
Constant	3	2.3
Moderate Decrease	13	10.0
Extremely Decrease	2	1.5
Total	130	100.0

Source: Field data, 2018.

A total of 85 (65.4%) respondents observed that their income extremely increased as indicated in Table 4.12 while 27 (20.8%) respondents viewed that on the increase of income is moderate as the result of road construction projects. Other 15 (11.5%) road users said to have their income remaining the same despite the road construction.

CHAPTER FIVE
DISCUSSION OF FINDINGS

5.1 Introduction.

This chapter presents the discussion of the data and presented in the chapter four of this study. This chapter presents a discussion of respondent characteristics, project cost and benefits as well as benefit cost analysis by using benefit cost ratio.

5.2 Respondents' characteristics

5.2.1 Gender and level of education

Gender and level of education are of the social characteristics which define people as well as respondents. The study involved both female and male respondents but study also comprised respondents with most common different level of education from the lowest point of view to the highest. Among 130 all respondents, female respondents were 77 while male respondents were 53 in totality. Respondents according to education level were as follows, primary education, 1; secondary education were 32; certificate, 35; diploma, 14; degree holders were 11; master graduates were 35 while there were only 2 PhD holders as respondents.

Female respondents with primary education none while those with secondary education were 22, diploma education were14, but those with bachelor degree were only 4 and those with master degree were 7 and unfortunately female respondents with postgraduate level of education of doctor of philosophy was only 1. Male respondents having only primary education was just 1, those with secondary education were 10, those with certificates were 6 and there were no male respondents with diploma as level of education. Respondents with degree level of education were 7, master degree 28 and PhD holder was only 1.

This characteristics description means the study involved almost every category of respondents as basing on the gender as well as education background. The study can be generalized into most people as their involvement in the study made so happen. The study touches from the lowest education level to the highest and view how they perceived the impact of road construction projects in terms of benefits and cost attributed to them.

5.2.2 Age of the respondents

The study involved all age group as from under 18, 20 to 30, 31 to 40, 51 to 60 and above 60 years of age. There was bias basing on age as all age group were full involved so as the study could reveal the real evaluation not for just group of people in the society but

the whole in general. Under18 and respondent below 20 years of age were only 9.2 while those above 60 years of age were only 10 percent. The rest of age groups ranged from 20 to 30 years of age who are termed and as working age of the common societies. The most involved group of age were from 31 to 40 years old because these group are the majority who are working and they are could to tell if the project facilitated to the decrease, not effective or increase of their per capital income. Youth group of population, adults and old people were all involved in the study with the objectivity to evaluate how they are affected or effected by the road infrastructural projects.

5.3 Cost incurred by road beneficiaries

5.3.1 Vehicles maintenance cost

Maintenance costs associated with the projects were evaluated comparatively as before and road project scenarios were applied. Maintenance cost for vehicle was derived from usual cost incurred for different services by vehicles users. These costs for services includes for washing, lubrications, spare parts and tyre changing etc.

A total of 44 respondents (33 %) indicated to use their private cars for transportation and travelling purposes. Before road construction project in Mwanza city under Tanzania strategic cities project (TSCP) maintenance cost for vehicle was too high such that most car owner up to 45 % of the respondents estimated that they were spending more than 300,000 per month in car maintenance alone. Furthermore 18 (40.9%) respondents use 100,000 to 200,000. Only few road users suggested that spend from 200,000 to 300,000 are 6 (13.6%) of those who use private vehicle as the means of transportation. It is also revealed from the finding with the aid of table 4.4 that respondents who mentioned that they spend from 100,000 to 300,000 Tshs are 22 equals to 54.5% cumulatively.

Furthermore, table 4.5 indicates maintenance cost after construction of road project where 20 (45.5 %) respondents use below 100,000 Tshs as expenses for their vehicle maintenance and other services; while 16 (36.36%) respondent road users spend from

100,000 to 200,000 after road construction. On top of that, 2 (4.55%) respondents spend from 300,000 to 400,000 Tshs for vehicle maintenance and various services. Generally, 44 (95.5%) vehicle users indicated to spend up to 200,000 as cost for their vehicle maintenance.

The study found out that most of the vehicle users have benefited from the reduced cost of such aspects like maintenance cost of their vehicle. Car breakdown were reduced in great number as rough roads were replaced with new tarmac roads which are suitable for cars or vehicles. In comparison to road project cost in both before and after project scenarios, it is then indicated that project cost were reduced after road constructions compared before roads were constructed. Only few respondents (4.55%) indicated that they spend between 300,000 to 400,000 Tshs for maintenance after road construction and services while 54.5% of the respondents suggested that they spend up to 400,000 for maintenances before road constructions.

It is observed in the study that there is increase of cost for road project such as road tolls, and different taxes for imported spare parts which increase cost for maintenance. Different stakeholders such as government should reduce taxes for imported spare parts so that the cost for vehicle maintenance could go fall down. Local government has introduced different road tolls for parking services in Mwanza city, apparently these road tolls acts like burden to drivers and car owners as they should reduced or eliminated and they should focus on other source for revenue.

5.3.2 Fuel consumption

Fuel consumption in the study was found by using difference of amount of fuel consumed before and after road construction. This difference of fuel consumption takes into consideration current fuel consumption (After road construction) and previous fuel consumption (Before road construction).

Table 4.6 indicates out of 44 respondents that, 6 (13.6%) private vehicle users have difference of -7 liters of fuel while 5 (11.4%) said they experience a difference of -5 to -6 liters of fuel. As table 4.6 shows that 47% have difference of -7 liters of fuel which means that they have decreased their consumption by 7 litters but 11.4 % of road users questioned they have decreased their fuel consumption by 5 to 6 litters.

A total of 9 respondents (20.5%) indicate -3 to -2 liters of fuels difference and 2 (13%) experienced -1 to -2 fuel liters and that 3 (6.8%) respondents indicates a difference of 1-2 liters. 20.5 percent of respondents (road beneficiaries) indicated that they have use less fuel in terms of liters as they used less than 3 to 2 litters. Majority of road users (private cars) equals to 47.7% have showing that they have decreased their fuel consumption to more than 7 liters of fuel after road construction which means that road projects were able to reduce cost in terms of fuel consumption compared to when roads were rough.

High cost for transportation and importation influences the selling price for fuel to be also to be high. The government imposes different taxes such as import duties and value added tax (VAT) for importation only while those supplying and using fuel are required to pay VAT, ewura deductions and after pardon of road license fees which was replaced on increase of tax for fuel.

5.4 Project benefits

5.4.1Time saving on the road

Respondents were asked to estimate the time they spend to their working stations and other destinations before and after road constructions. The study revealed that only 20% of the respondents spend up to 30 minutes to reach their destinations such as working stations and business areas as well as social centers before road construction. But after road construction those 20% who spend 30 minutes currently spend only 20 minutes to reach their destinations. On top of that, more than 93% of the societies spend up to 30

minutes to reach their working areas and other social areas after road construction. This is mainly because tarmac road enables vehicle to move faster and that roads expansion and rehabilitations reduce traffic congestion hence fast and quick movement of cars is enhanced.

Up to 22.3% of respondents said that their time on the road have been partially decreased as the result of construction of new roads and 61% added that they spend much less time on the roads due to new and better roads. However, cumulatively up to 83% of those who were interviewed suggested that they use short time to reach where they want go in the city for their different purpose and without delay as a result of road construction projects in Mwanza city.

Only few people have indicated that they are not affected positively by road construction as they still spend the same amount of time. Up to 7% of the interviewees indicated that they spend more time to reach their destinations even with the presence of new roads as their time on roads has increased. This is due to different reasons such as temporary events occurring on the roads such as leaders motorcade, accidents, poor road management by road users and officers and traffic congestions due to traffic lights which other road users suggest that it is just a waste of time.

Initially construction of new tarmac roads helps to save time on roads by travelling long distance by short time but it is become very complicated when cars inspection on roads are too many and unnecessary. Time spend on the roads have complication to traffic post as traffic police officers tend always stop and inspect cars for different reasons. These continuous police inspections acts as burden to most car drivers as to disturb drivers by increasing time spend on the roads. In boosting the efficiency of new constructed roads there should be permanent established police point so as cars could moves straight from point to point without any delay by police officers.

5.6 Change in beneficiaries' income

Respondents were initially categorized according to their earnings as the how much they earn as income per month. Majority (39.2 %) of the respondents falls in the category of within 100,000 Tanzanian shillings but those who fall in the income group of between 100,000 and 300,000 Tshs were just not more than 13.1%. 38 % of the respondents belong to the income group of 700,001 to 1,000,000 Tshs but those who falls in the category of 310,000 to 700,000 are only 6.9% of the total number of the respondents and from above one million the rest occupy the space,

Respondents were first asked to the impact of road infrastructural project on their per capital income where by 87.3% said that their income has increased after the road construction projects as it boosted their production, sales, cost minimization and revenue as well as time saving on roads. Only 3 % have commented that there is no change as their income is still the same to the previous one before road construction project but 9.2 % have said that they have experienced decrease of income since the road project were open up. The statistics suggests that more people have experienced the increase of their income as the result of construction of road project and its access to the majority.

Furthermore, respondents had to respond on whether the increase of their income is close related to the project impact or something else. On their response 86.2 % of the respondents agreed that road construction have contributed to the increase of their own income and nothing else but others (11.5 %) reckon that increase of their income is not as the result of the road construction projects but something else.

5.7 Regression results

The statistical analysis was conducted by using regression so as to test whether the dependent variable (change in income of the road beneficiaries) is influenced by independent variables (benefit and cost).The findings obtained from the household and road users indicate that there is a regression coefficient of 0.869 which means each independent variable in the equation explains the dependent variable by that much.

From the table 4.8 of the model summary (Fitness of the model), Since R Square is a statistical measure of how close the data are to the regression line hence R square of 0.756 equivalents to 75.6% which is greater than 50% indicates the model is valid to explain the relation between independent variables (cost and benefits) and dependent variable (income) which also implies a significance of the model. R square is the tool to test how strong the independent variables (benefits and cost) and can influence change in income.

The principle governing R square suggests it must be greater than 50, which implies that one proportionate change in independent variable which results to a proportionate change in dependent variable (change in income) by 0.869. As R square lies between 0 to 100% then 0 means the model explains nothing about the variation of variable response while 100% indicates the model explains the variable response around predicted line (mean). The model fits the data well if the difference between the observed values from the study and the model predicted values are small enough. R square of 75.6% suggested that independent and dependent variables variable variation are explained by the model as is the result from explained variations over total variations.

Furthermore, the fitness of the model is explained residual plots because r square which is also used in this study has limitations to determine whether the coefficient estimates and prediction are biased. For the case of residual and regression plots, the table 4.9 indicates that the level of significance is less than 0.001 which is appropriate to P- Value of ≤ 5 % also residual is less than regression which implies that the model is significant as it accommodate less error than expected. The researcher analyzed the sum of squares so as to check if the model is appropriate to explain the variables in question and the model proved to be significant.

For the case for regression coefficient table 4.10 shows the standardized beta coefficient which determines the variable which has more influence over the other variables. According to the results on the table 4.10, time saved has beta coefficient of 0.611 which means that a unit change in time saved results to a 0.611 change in dependent variable and its significance level is 0.000 which is less than 0.001. This means that it is significant in

explaining the dependent variable (income). Also the result show that there is a negative relationship between the change in income and fuel consumption as it has a beta coefficient of -0.084 which means a unit change in income result to 8.4% decrease to the time spent on road.

Change of income

As table 4.11 indicate discounted road project benefit is 6,893,250 while project benefit is 7,583,333.33 and project cost incurred by road beneficiaries is 4,899,000 while discounted cost is 4,453,191.00 Tshs whereby BCR criteria; accept >1 reject < 1

As is obtained through BCR = Discounted benefits /Discounted cost. Then: 6,893,250.00/ 4,453,191.00 = 1.547, so BCR = 1.547.

Since road project BCR is 1.547 which is greater than 1 then project is viable taken considering project cost and benefits where is indicated that benefits incurred by road beneficiaries are greater than the cost. Then road projects were having much benefit than the cost by considering the road beneficiaries.

Furthermore were respondents asked to indicate if there any change on their income after road construction projects under Tanzania strategic cities project. Road users responded on the impact of road use to the change of their income in various ways. Respondents were asked if they experienced an increase of income.

From the study, benefits generated by the study are observed to be greater than the cost incurred by the road beneficiaries. Roads are in a position to improve peoples' life and community in general by increasing their daily or monthly incomes. Hence the government should focus more on construction of new roads and perform routine maintenance on roads so as to make it more accessible, efficient and to increase comfortability of car drivers and other road users.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

6.1 Introduction

This chapter presents a summary, conclusion and recommendation from the study findings. The chapter is divided into three parts namely; summary, conclusion and recommendation. Recommendations are further divided into two parts which are recommendation for practitioners and policy makers and other private and public stakeholders and for further studies.

6.2 Summary of the study

The main purpose of this study was to evaluate the impact of internationally financed road infrastructural projects. The objectives of the study were to assess the cost of roads projects under Tanzania cities projects; to evaluate the benefits of roads projects under Tanzania cities projects and; to assess the impact of road use on change of road beneficiaries' income of road users in Mwanza city. The study was undertaken in Mwanza city covering road projects under Tanzania strategic cities TSCP funded by World Bank.

TSCP funded among the projects in more than five cities and municipalities including Arusha city, Kigoma municipality, and Mwanza city. The main objective in TSCP is to improve the quality and access to basic urban services in participating local government authorities. Tanzania strategic city projects were approved by donors on May 27, 2010 and were expected to be completed on May 27, 2020. The World Bank and other stakeholders (donors) have committed to fund US$ 163 million although the total project cost is US$ 175.50 Million. Among the roads in Mwanza city benefited the TSCP Liberty (0.25km), Karuta (0.5km), Mkuyuni – Butimba(2.445km),Tilapia (0.60 km), Isamilo – Mji mwema(0.8km) Sanga – Kiloleli (1.98), Paiansi – Buzuruga (7.29km), Tunza loop (4.79km) and Pepsi loop (1.11km)

In designing and executing the study, mixed research design was used to guide the operation of the study from the beginning to the end. Both qualitative and quantitative methods were incorporated. The study employed 130 respondents including both female and male, different age group and those with different level of education. Semi structured questionnaires was used to gather information from road users.

Road users had to pay for road benefits as there are costs related to the access and use of roads as long as there are benefits gained as they use the roads. The study found among the cost incurred by road users in regard to access and use of roads as transport fare, wastage of travelling and transporting time, maintenance cost, increase of house rent and fuel consumption. Road users also benefited from time saving on the roads, reduced transportation cost, availability of goods and services at lower price, opening of business opportunities, job creations, and population growth. Other benefits related to road project, include land value increase, city recreation, increase houses for residential purposes and commercial needs.

Majority of the respondents acknowledged efficiency on several aspects of life, such as reduced fuel consumption and time spent on transit to workplaces. Road user related cost to projects such as public transport fare was seen to be lower than before the road projects. Hence reduction of fare price for public transport trickles benefits to both private car owners as well the public transport users.

6.3 Conclusion

Roads infrastructural project is the medium or means for transportation of goods and passengers in the country like Tanzania. Road project connects between farms, factories, fields and markets. Roads contribute to economic development and growth of the country as most sectors are well connected with it. Without roads a country can miss opportunities for better schools and health services. Through roads a community is able to access and use social needs such as hospitals and education, employment opportunities and it very vital in battle for poverty in line with the Tanzania 2025.

Roads are very important in short and medium distance but do not manifest efficiency when used for long distance since the cost for transportation cost rises. If the cost of transportation rises up the entire economy is jeopardized as the cost of input in the production or economy also rises up which in turn force out the product price to rise beyond purchasing capacity of household or consumers. Hence sustainable development could not be achieved and poverty level may not be reduced and consequently cause community to have miserable life due to different spills over effects from road sector.
It is important to invest in roads projects because roads connect most hindered parts and areas in the country including rural areas. This means roads projects are supposed to be very close to people regardless of the social and economic status than any other means or type of transport infrastructure.

6.4 Recommendations and policy implications

The slogan of the current president of United Republic of Tanzania "Tanzania ya Viwanda", may be well implemented if there are good conditions of the infrastructure. Roads offer means of transportation of goods and services between the industrial area and consumers of the goods. Hence, the government should put much emphasis on investment of road sector since it effective and cheap than other means of transport. The investment on road sectors is less compared to other means of transport such as railways and air transport as the cost for constructing operating and maintaining is cheaper than of air or railway transport. This makes road transport suitable for the developing nation facing much of budget deficit like Tanzania.

Tanzania has different road projects all over the country. These include the Tanzania strategic cities projects which indicate a good intention of the government and other development partners to construct more road in tarmac standards which are durable than lower grade (gravel level of roads). Government should also put much emphasis on road maintenance for the road constructed, as it cheap to maintained road than construct new

ones. By doing so government shall be able to save lot of money directed into road construction.

6.5 Recommendations for future studies

Other studies can be conducted on parts or areas not covered in this study due to time and budgets constraint. This study evaluated the outcomes of the roads project in Mwanza city which are internationally financed such as TSCP. Other researcher can direct their efforts on using real project cost paid to the contractors to build such roads which has not been covered in this study. Other studies should focus on the government sponsored projects of road construction in order to determine their value for money.

REFERENCES

African Development Bank (2013). *Regional Economic Brief, Developing Economic Corridors in Africa*: Nepad No.1

African development bank group (2013). *Tanzania Transport sector review*. Dar es salaam: ADB

African Economic Outlook (2015) Retrieved from http://www.africaneconomicoutlook.org/Googlescholar (accessed on 25 February 2018)

Alem, M.C, Olav T, Carl T & James Odeck (2016) A *framework for organizing a resilient Cost Benefit Analysis for construction projects*. International conference on sustainable design, engineering and construction Vol. 145, pp 1169-1176, (2016)

Alvi, M (2016) *A Manual for Selecting Sampling Techniques in Research. Munich*: MPRA.

Attane, M &Papi, J (2019*)Tecapsy – trans European car pooling and parking system in Brebbia, C. A (ed) The Sustainable city;Urban regeneration and sustainability*. Spring Verlag

Biehl, D. (2019). *The road infrastructure in regional development*. London: Pion

Boulmetis, J & Dutwin, P (2015). *The ABC'S of evaluation; Timeless techniques for Program and Project Managers* (2nd ed.) San Francisco: Jossey -Bass

Brouwer, R & Georgiou, S. (2013). *Animal waste, water quality and human health*. London: IWA Publishing

Burningham, S. and Stankevich, N. (2015). *Why road maintenance is important and how to get it done*.

Martine, A., Mohamoud, T. & Thiele, R. (2015). Corrupt governments do not receive more state to state aid: Governance and delivery of foreign aid through non state actors. Journal of Development Economics, No 114

Carey, J. (2016). *Impact of highway on property values*: Case study of the superstitions freeway corridor. Phoenix: Arizona Department of transportation.

Channing Arndt and Sam Jones (2015) "*Assessing Foreign Aid's Long-Run Contribution to Growth and Development"* Finland World Development Vol. 69, pp. 6–18

Chong, C., Zheng, T., Tiong, L. (2010*) Foreign aid, policy effectiveness and economic growth in Tanzania.*

Conchesta, N. (2008). *Foreign aid and economic growth*: The case of Tanzania

Creswell, J. (2014). Research design: *Quantitative, qualitative and mixed methods approaches. Los Angeles*: Sage publishers Inc.

CIDA (2017). Canada is making a difference in a developing world. Retrieved on March 12, 2019 from https://lop.parl,ca/content/lop/researchpublication

Dimitric, M. & Alilovic, D. (2015). *Investment project evaluation in decision making process*. Zbormic rad, Vol 1, 51-69.

Dodgson, J. (2014). *External effects and secondary benefits in road investment appraisal.* Journal of transport economics and policy

Drummond, Michael; Sculpher, Mark; Torrance, George; O'Brien, Bernie; Stoddart, Greg (2015). *Methods for the Economic Evaluation of Health Care Programmes (3 ed.)* New York: Oxford University Press.

Easterly, W. (2007). *Are aid agencies improving*? Economic policy 22(52)

Ekanayake, E. & Chatrna, D. (2007). *The effect of foreign aid on economic growth in developing nations*. Journal of international business and cultural studies.

Qian, N. (2014) Making progress in foreign aid. Annual review of economy vol 7

Enon, J. (1998). *Education research, statistics and measurements*. Kampala: Makelele university printery.

European Union (2019). *Outcome and impact level indicator in road sector*. Brussels :EC

European Union (2015). *Guide to cost benefit analysis of investment projects*. Italy: European Union.

Frechtling, J. (2010). *User friendly handbook for project evaluation*. Arlington: National science foundation.

Gamble, Hays, B. & Thomas, D. (2018). NCHRP Report 193: *Beneficial effects associated with Freeway construction, environment, social and economic*. Washington DC: Transportation research board, National research council.

Gillanders, R. (2016). *The effects of foreign aid in sub Saharan Africa.* Unpublished Ph.D thesis. UCD School of economics

Githua, D. (2013). *The impact of international monetary fund (IMF) and the world Bank structural adjustment programmes in developing countries*. A case study of Kenya. Unpublished dissertation. University of Nairobi, Kenya.

Ginger, D., Eliss, D & Wm, P. (2019). *Technique for manual estimating road user cost associated with constructing projects*. Texas: Texas transportation institute.

Glăvan, B (2018). *Urban road infrastructure: an economic analysis*. Romanian economic and business review – vol. 3, no. 1.

Hettige, H. (2016). *When do rural roads benefits the poor and how*. Philippines: Asian development bank

Hotouom, L. (2015). The effect of foreign aid on economic growth in Tanzania. Research gate

IMF (2019).*World economy outlook database*. Washington :IMF

IT Transport (2014). *Tanzania transport infrastructure and demand*. Dar es salaam: IT transport

Ivanova ,E. & Jana Masarova, J. (2013) *importance of road infrastructure in the economic development and competitiveness.* Economics and management, 18 (2)

JICA (2014*). A bridge linking Japan with developing countries.* Dar es Salaam: JICA

Kgamanyane, M. (2015). *The Importance of Road Transport Infrastructure Development and Maintenance in Trade Facilitation*: A South African Case. Thesis. University of Cape Town

Kgamanyane, M. (2015). *The Importance of Road Transport Infrastructure Development and Maintenance in Trade Facilitation*: A South African Case. Thesis. University of cape town

Qayyum, U. Musleh-ud, D. & Haider, A. (2014). Foreign aid external debt and governance . Economic modeling vol 37 No C

Kombo, D. & Tromp, D. (2006). *Proposal and thesis writing* : An introduction. Nairobi: Paulines Publications Africa.

Kooten, G (2017). *Applied welfare economics and agricultural policy analysis*. Canada:University of Victoria

Kossele, Y & Abeid, A(2016). *Impact of foreign aid on Tanzania economic growth time series approach.* Journal of Academy of Social Science(2016) 1(6), 89-94

Kothari, C. (2004). *Research methodology*. Newdelhi: New age international publishers.

Levin, H. (1995). *Cost effective analysis*. Oxford: Pergamon.

Leyva, J. & Sayayi, S. (2005). *Economic valuation of water and «willingness to pay» analysis with respect to tropical fruit production in south-eastern Spain*. Spanish Journal of Agricultural Research (2005) 3(1), 25-33.

McGillivray, M. (2004). *Is aid effective*?. Finland: WIDER

Morisset, J. & Wane, W. (2016). *Got a road? The importance of good network*. World Bank

Muneer , S. (2016). *Transfer of knowledge through expatriates' national (TOKTEN) as gender sensitive development assistance modality in patriarchal society an example of Kassala State, Eastern Sudan*. Journal of Saudi Society of Agricultural Science (2011) 10, 89-94

OECCD (2013*). Tanzania review*. Paris: OECD

OCED (2011a). *Measuring aid*. Paris: OCED

Queiroz, C. and Gaurav, S. (2014). *Road Infrastructure and Economic Development*. Washington DC:

Reci, A. (2014). *Advantage and disadvantage of Foreign aid in Albania.* Forum Scientiae Oeconomia Volume 2 No. 3

Riddell, R. (2014). *Does foreign aid really works.* A paper presented to the Australasian Aid and International Development Workshop, Canberra February 2014.

Robertson, B., Joelene, C. & Dunn, L. (2015). *Local development funds in Myanmar*. Myanmar: Action aid

Farah, A., Onder, M. & Ayhan, E. (2018). How foreign aid affect developing countries: The case of Ethiopia. Research gate, 53

Rus, G. (2014*). Economic evaluation of infrastructure investment: Some inescapable tradeoffs*. Madrid: FEDEA

Sam Jones and Finn Tarp (2016) *Does foreign aid harm political* institutions Journal of Development
Economics 118 (2016) 266–281

Shila, E. (2019)Hapa kazi tu. Retrieved https://aggreyclifford.com

Sijtsma, F. (2016). *Project evaluation sustainability and accountability*. Groningen: REG Publication.

Slothuus, U. (2015). *Economic evaluation*: Theory, methods and application. Health economics paper series, 5.

Tanroads (2016). *Tanzania Road network.* Retrieved on 02-02-2018 from www.tanroads.go.tz

Tavakol, M. & Dennick, R. (2011). *Making sense of Cronbach's alpha*. International journal of medical education, 2, pp 53 – 55.

Terefe, L. (2013*). Impact of roads on rural poverty*: Evidence from fifteen rural villages in Ethiopia. Thesis. International institute of social science, The Hague, Netherland

Thatcher, R. (2010). *Validity and reliability of quantitative electroencephalography*. Journal of Neurotherapy, 14, pp 122 – 152.

TIC (2019). Tanzania industrialization. Retrieved on march 14 2019 from https://www.tanzaniainvest.com

URT (2013) MKUKUTA, Dar es Salaam: Vice President's Office

UN (2016). Economic development in Africa Report 2016: *Debt dynamic and development finance in Africa*. New York: United Nations

UNEP (2016) *Capacity building for sustainable development* an overview of UNEP environmental capacity development activities.

Vilby, K. (2007) *Independent? Tanzania's Challenges since Uhuru*. Dar es salaam: E & D Vision Publishing ltd

Wangwe, S. (2016). *Foreign aid in Africa: the role experience and challenges* Dar es Salaam: Daima associates Ltd.

Wandiba, W. (2016). Hapa kazi tu slogan. Retrieved march 14, 2019 from http//www.cynesa.org.com

World Bank (2017). *Tanzania strategic cities project*. Washington DC: World Bank group

APPENDIX

Questionnaire for road users and household

Dear Respondents,

My name is Jane J. Mdulla a finalist student from Mzumbe University pursuing Masters of Science in Project Planning and Management. I undertake field research study on the impact of internationally financed road projects in Mwanza City Council as one of requirement for award of master's degree. For the sake of gathering information, I kindly ask you to respond sets of questions that will take you few minutes

This questionnaire is about gathering information about economic evaluation of road infrastructure projects. You are requested to answer the set of questions below accordingly to the instructions given. Your response will be confidential used in this research purposes only.

Instructions:

Tick the appropriate answer

PART ONE: Respondent's profile

1. Gender

   Male ☐ Female ☐

2. Age: Age <20 ☐ 20-30 years ☐ 31 – 40 ☐ 41 – 50 ☐ 51 – 60 ☐ >60 ☐

3. Educational Level: Primary education Secondary education ☐
   Certificate ☐ Diploma ☐ Bachelor Degree ☐
   Master of Degree ☐ (v) PhD ☐

PART TWO: Project impact

Section A: Use of the road

1. How often do you use roads
   a. very often on Every day basis (7 times a week)
   b. Less often (2 times a week)
   c. Less often 4 times in a month

2. How do you use roads in every day of your life? If the answer is b then answer the next question
    a. Traveling from places to places
    b. Transporting goods
3. What goods do you transport
    a. Agricultural products
    b. Manufactured products
    c. Raw materials

Section B: Cost associated with the project outcome

1. Which means of transport you are using in daily activities?
    a. Public transport
    b. Private transport
2. How much do you use for your vehicle's services in a month before the road construction project?

    Below 100,000 ☐ 100,000-200,000 ☐ 200,001-300,000

    300,001-40☐0 Above 400,000. ☐
3. How much (Tsh) do you use for your vehicle's services in a year after the road construction project?

    Below 100,000 ☐ 100,000-200,000 ☐ 200,001-300,000 ☐

    300,001-☐,000 Above 400,000 ☐
4. What is the difference between amount of fuel you used before and after road construction project per trip?
    a) Above -7 litters
    b) -5 to -6 litters
    c) -3 to- 4 litters
    d) -1 to- 2 litters
    e) 0 litter
    f) 1-2 litters
    g) 3-4 litters
    h) 5-6 litters
    i) Above 7 litters
5. How much do you use for daily public transport fare _____

Section C: Benefit associated with the project

1. How much time do you spent on the road to your workplace

Before road construction

5-10 minutes ☐
11-20 minutes ☐
21- 30 minutes ☐
1 hr – 1:30 hr ☐
1:31 – 2 hrs ☐
Above 2 hrs ☐

After road construction

5-10 minutes ☐
11-20 minutes ☐
21- 30 minutes ☐
1 hr – 1:30 hr ☐
1:31 – 2 hrs ☐
Above 2 hrs ☐

2. How can you comment on the time you spent on road for your daily activity
   a) Much Increased
   b) Partially increased
   c) Just the same
   d) Partially decreased
   e) Much decreased.
3. Is any way in which road construction has helped you to increase your income? If yes answer the following question(Qn 4) if no answer qn 5
   a) Strongly agree
   b) Agree
   c) Not sure
   d) Disagree
   e) Strong disagree
4. How does road construction increases your daily income
   a) Employment
   b) More business opportunities
   c) Transporting/Travelling at lower price
   d) Availability of goods and services at lower or market price
   e) Fair land compensation
   f) Increase of land value
5. How does road construction decreases your income
   a) Accidents and fatalities
   b) Unfair land compensation
   c) Reallocation of settlements
   d) Increase of land value

Section D: Land value

1. What happened to the price of the land in nearby road areas.
   a. Land price increased
   b. No change
   c. Not sure
   d. Always changing
   e. Decreased
2. Are there any emerging business opportunities surroundings roads areas
   a. Extreme available
   b. Available
   c. Neutral
   d. Unavailable

e. Not at all available.

Section E: Additional reward

1. What are the changes which have been brought to you by the roads access? Use 1 to 5 where by 1 stands for extreme increase, 2 = increase, 3 = no change, 4 = decrease and 5 = extreme decrease.

No	**Change**	**Grade 1 - 5**
1	Population	
2	New houses and apartments (Residential)	
3	House rent	
4	Food prices	
5	Product/goods prices	
6	New job creation	
7	Commercial houses i.e. complexes for offices	
10	Recreations and city attractions	

Section F: Change in income

1. What is your current income in a month

100,000 – 300,000 ☐ 300,001 – 700,000 ☐ 700,001 – 1,000,000 ☐

1,000,000 – 1,500,000 ☐ Above 1,500,000 ☐

2. How can you comment on any change of your income before and after the road project?

Increased ☐

Constant ☐

Decreased ☐

Thanks for your time