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DEPARTMENT OF CIVIL ENGINEERING

OPTION OF CONSTRUCTION TECHNOLOGY

THE IMPACT OF CONSTRUCTION COMPANIES ON SOCIAL ECONOMIC DEVELOPMENT OF URBAN

AREAS.

CASE STUDY: KANOMBE SECTOR IN KICUKIRO DISTRICT (2015-2023)

Submitted in partial fulfilment of the requirements for the Award of advanced diploma In construction technology.

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Kigali, September 2024

DECLARATION

I do hereby declare that the work presented in this dissertation is my own contribution to the best of my knowledge. The same work has never been submitted to any other University or Institution. I, therefore declare that this work is my own for the partial fulfillment of the award of advanced diploma in construction technology at ULK Polytechnic Institute.

. . . .

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CERTIFICATION

This is to certify this dissertation work entitled "**The impact of construction companies on social economic development of urban areas. Case study: NPD ltd (2015-2023)**" is an original student conducted by RUGWIRO Fabrice under my supervision and guidance.

Supervisor's name Eng. Bonaventure NKIRANUYE

Signature of the supervisor

Submission date.....

DEDICATION

I dedicate this dissertation work to:

My parents

My brothers and sisters

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This Thesis has benefited greatly from substantial inputs, guidance and comments from many people and institutions.

First of all, I would like to thank to the Almighty God for giving the wisdom and granting me resources whether financial and non-financial that has made a great contribution to this research project and my education in general.

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RUGWIRO Fabrice

ABSTRACT

The main objective of this study was to assess the impact of construction companies on social economic development of urban areas. Case study: Kanombe sector/ Kicukiro district. The specific objectives were to examine the benefits of construction companies in Kanombe sector, to identify the major factors that contribute to the social economic development in Kanombe sector and to examine the impact of construction companies on social economic development of Kanombe sector. The questionnaire survey conducted in the 100 respondents from the active construction companies in Kanombe sector. Collected data were analyzed by tables and ranked using SPSS software. Based on the findings, it is concluded that the the benefits of constriction companies in urban areas were the job creation, improved infrastructure, housing development, social cohesion, reduction in urban puberty, Community Development Programs and community development. The results showed that the major factors that contribute to the social economic development in Kicukiro sector are government policies and vision, population growth and urbanization, foreign investment and trade, public private partnerships, tourism development and regional integration and trade. The results show that The findings shown that the impact of construction companies on social economic development of Kanombe sector were Urbanization and Economic Growth, Housing market dynamics, Improved Infrastructure and Public Services, Mixed-Use Development and Affordable Housing Initiatives, Portfolio and technology choice of road investments matters for employment, Opportunity to create employment and reduce underemployment through employment in the construction sector, Promotion of investments in roads to reduce poverty and support structural transformation, Prioritization of roads construction to improve labour market access and rural workers income, Policy option to improve women and youth employment, Enhanced housing quality, Environmental sustainability, Promotion of social equity, Improved standard of living and Housing development.

Keywords: Construction companies and social economic development of urban areas

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LIST OF SYMBOLS AND ABBREVIATIONS

RHA	: Rwanda Housing Authority
HR	: Human Resource
HRM	: Human Resource Management
ULK	: Kigali Independent University
UPI	: ULK Polytechnic Institute
HoD	: Head of Department
Dr	: Doctor
GDP	: Gross Domestic Product

CHAPTER 1. GENERAL INTRODUCTION

1.1. Introduction to the study

This chapter highlights the background of the study, statement of the problem, purpose of the study, objective of the study, research questions, research hypotheses, scope of the study, significance of the study and lastly the structure of the study.

1.2. Background of the study

Construction is the process where contractors build structures that serve a particular purpose, such as residential houses, schools, hospitals, public works such as roads, bridges, water and wastewater infrastructure, dams, railways etc. In its most widely used context, construction covers the processes involved in delivering buildings, infrastructure, industrial facilities, and associated activities through to the end of their life. It typically starts with planning, financing, and design that continues until the asset is built and ready for use. Construction is a major industry throughout the world accounting for sizeable proportion of most countries Gross Domestic Product (GDP) and Gross National Product (GNP). The importance of the construction sector is not only related to its size but also to its role in the social-economic growth (Utting, 2010)

Economic growth is currently an issue of global concern as most economies are finding it difficult to create the necessary employment opportunities and achieve meaningful growth. Construction industry refers to the industrial branch of manufacturing and trade related to building, repairing, renovating, and maintaining infrastructures. The construction industry is one of the major drivers of the economic growth of developing countries. The diverse nature of the industry enables it to mobilize and effectively utilize human and material resources: draw the expertise of the various construction stakeholders and in addition a major consumer of the products of the manufacturing sector. It also plays critical roles in the development and maintenance of housing and infrastructure which promotes local employment and improves economic efficiency (Lu & Fox, 2001).

1.3.Problem statement

The construction industry encompasses a variety of activities and is a vital sector in any economy. Construction has a strong linkage with most of the other economic activities of a country. It is considered to be an important partner in economic growth and mirrors the stage of economic development. There are opposing views with regard to the relationships between construction and the economy of a country. One view is that construction causes the economy to grow as it creates physical facilities that are needed in the development of other productive activities. The opposing view holds that GDP causes the construction output growth.

Interestingly some other studies suggest a bi-directional relationship between different subsectors of the construction industry and the national economy (Aydın 2016). This paper believes that a better understanding of this lead/lag relationship requires more evidence from different countries. It is particularly necessary for developing countries because most of the previous studies used data from developed countries. This paper presents a test on the link between construction and the social economic development of urban areas (Guerrero, 2014).

1.4.Purpose of the study

The purpose of this study is to assess the impact of construction companies on social economic development of urban areas. Case study: Kanombe sector/Kicukiro district. In addition, this study is carried out in partial fulfilment of the requirements for the award of advanced diploma in construction technology.

1.5. Objective of the study

1.5.1. Main objective

The general objective of this project to assess the impact of construction companies on social economic development of urban areas. Case study: Kanombe sector/ Kicukiro district.

1.5.2. Specific objectives

This project's specific objectives were as follows:

- a) Examine Infrastructure Development
- b) Evaluate Housing Development
- c) Analyze Economic Growth
- d) Benefits of construction companies in Kanombe sector

1.6. Research questions

Based on the project's serviceability and functionality, answers to the following research questions will be offered in order to fulfil the above particular objectives.

- a) How do construction projects influence local GDP growth in urban areas?
- b) What role do construction companies play in meeting the demand for affordable housing in urban settings?
- c) How do construction investments influence GDP growth in specific urban regions?
- d) How do construction projects affect property values and the overall economic landscape of the Kanombe community?

1.7. Scope and limitations of the study

This study will be delimited in terms of space, time, content and domain. Geographically, this study will be limited to NPD Ltd, because the researcher believes that he will get relevant information concerning the topic. In addition, the study covers a time scope from 2015 to 2023, this time scope of eighty years is adequate to help the researcher to answer research questions, achieve specific objectives and come up with suitable conclusion. In terms of domain, this research will be delimited in domain of construction technology. In terms of content, this research will assess the impact of construction companies on social economic development of urban areas.

1.8. Significance of the study

This section deals with motives which pushed the researcher to choose and be interested in this topic. The study will be important to the researcher, to ULK Polytechnic Institute and to the Rwandan society in general also Government, and to the other researchers. This study will help to shift from theory to practice; above all, it will contribute to the successful completion of advanced diploma in construction technology. Thereafter it will help to improve the knowledge and skills of

researcher about the impact of construction companies on social economic development of urban areas. This study gives a clear insight into the benefits of construction companies in urban areas, the causes of social economic development of urban areas and the impact of construction companies on social economic development of urban areas. The findings and recommendations of the researcher will help in urban development and urban expansion.

1.9.Organization of the study

This work consists of five chapters. Chapter one is the general introduction and it includes background of the study, problem statement, purpose of the study, the objectives of the study, research questions, scope of the study, significance of the study and lastly the organisation of the study. The second chapter will be the literature review, which will be about the general understanding of the reviews of other researchers with the related studies. The third chapter will be the research methodology and it will focus on the methods and materials to be used in achieving the objectives of the study. The fourth chapter will be the results and discussions and it will be the most important one because it will show the presentation of the results acquired. The fifth one, which will be the last chapter, will cover the conclusion and recommendations with respect to the predefined objectives.

CHAPTER 2. LITERATURE REVIEW

2.1. Introduction

This section is the part that gives the description and explanation of the key concepts of the topic. It reviews the literature that was brought forward by different authors. (Thai-Ha, 2021) noted that researchers need to have affirmed grasp of what has been done before. This means reading and understanding other's research studies. The main objectives of this chapter are to deal with the discussion ideas and views made by different related authors.

2.2. Definition of the key concept

2.2.1. Construction

Construction is a general term meaning the art and science of forming objects, systems, or organizations. It comes from the Latin word construction (from com- "together" and struere "to pile up") and Old French construction (Das & Das, 2008). To 'construct' is a verb: the act of building, and the noun is construction: how something is built or the nature of its structure (Masengesho et al., 2021). The construction industry plays an important role in the economy, and the activities of the industry are also vital to the achievement of national socio-economic development goals of providing shelter, infrastructure and employment.

The role of construction in the national economy has been addressed by a number of researchers. According to Khan (2008), the construction sector and construction activities are considered to be one of the major sources of economic growth, development and economic activities. Construction and engineering services industry play an important role in the economic uplift and development of the country. The construction industry is also a prime source of employment generation offering job opportunities to millions of unskilled, semi-skilled and skilled work forces.

2.2.2. Construction industry

Construction industry refers to the industrial branch of manufacturing and trade related to building, repairing, renovating, and maintaining infrastructures. The construction industry is a vast and

multifaceted sector that encompasses the planning, design, financing, construction, renovation, and maintenance of buildings, infrastructure, and various civil engineering projects.

According to UKCG (2009), "the construction industry is a driver of growth in other sectors due to its heavy reliance on an extended and varied supply chain". All other sectors of the economy like manufacturing, agriculture, entertainment, transportation, education, health, sports, etc. depend on construction industry as well as the construction industry relying on them for performance. The construction industry has ability to impact on other sectors because of its nature of being infrastructure provider. There is no sector that does not depend on physical infrastructure produce by the construction industry for its production.

Oladinrin, Ogunsemi and Aje (2012) stated that "the construction industry plays an important role in the economy, and the activities of the industry are also vital to the achievement of national socioeconomic development goals of providing shelter, infrastructure and employment. It is clear that construction activities affect nearly every aspect of the economy". BIS Secretary of State Vince Cable, in September 2012, announced a review of key strategic sectors to the UK's growth and competitiveness. Construction was one of them.

2.2.3. Construction company

A construction company is a business, corporation, or similar organization established to construct various structures, facility developments, property, housing, sidewalks, roads, highways, and other construction projects. In general terms, a contractor is responsible for planning, leading, executing, supervising and inspecting a building construction project (Veraart, 2018).

2.2.4. Social economic development

According to Nordhaus and Tobin (1972), Socio-economic development is the level of prosperity and quality of living standards in an economy. Socio-Economic can be measured through a variety of factors such as GDP and other indicators which reflect welfare of the population such as literacy, number of doctors, and levels of pollution etc. Socio- Economic development is usually measured in terms of Real Income, real GDP. An increase in real output and real incomes suggests people are better off and therefore there is an increase in socio-economic welfare. However, Socioeconomic development is concerned with more than just levels of income. (Masengesho et al., 2021).

2.3. The construction industry defined

According to DBIS (2013), "the construction sector is a key sector for the UK economy. The construction sector is defined as: (i) construction contracting industry; (ii) provision of construction related professional services; and (iii) construction related products and materials". The construction industry is a system containing all the practitioners including the clients, the contractors, sub-contractors and consultants, and those in the manufacture, supply and distribution of construction materials. It also includes the construction training schools.

The construction industry can be divided into three major segments. These include; Construction of building by Building Contractors, or General Contractors. These contractors build residential, industrial, commercial, and other buildings. The second category is the Heavy and Civil Engineering Construction Contractors that build sewers, roads, highways, bridges, tunnels, and other projects. Specialty Trade Contractors who perform specialized activities relating to construction such as carpentry, painting, plumbing, tiling, and mechanical and electrical works form the third segment. Those that lease heavy earth moving equipment, plant and machineries for construction purposes are also in this category.

Construction usually is done or coordinated by general contractors, who specialize in one type of construction such as residential or commercial building. They take full responsibility for the complete job, except for specified portions of the work that may be omitted from the general contract. Although general contractors may do a portion of the work with their own crews, they often subcontract most of the work to heavy construction or specialty trade contractors. Specialty trade contractors usually do the work of only one trade, such as painting, carpentry, or electrical work, or of two or more closely related trades, such as plumbing and heating. Beyond fitting their work to that of the other trades, specialty trade contractors have no responsibility for the structure as a whole. They obtain orders for their work from general contractors, architects, or property owners. Repair work is almost always done on direct order from owners, occupants, architects, or rental agents.

Construction industry is the sector of the national economy that engages in preparation of land and construction, alteration of roads and alteration of buildings, structures and facilities. The construction industry is the fourth largest contributor to Gross Domestic Product (GDP) in the Australian economy and plays a major role in determining economic growth. In chain volume terms, the construction industry accounted for 6.8% of GDP in 2008-09, compared with 7.0% in 2007-08. The industry had previously experienced seven consecutive years of growth as a proportion of GDP, since the introduction of the Goods and Services Tax (GST) in 2000-01. As at May quarter 2009 the construction industry employed 9.1% of the Australian workforce, making it Australia's fourth largest industry after banking and finance, manufacturing and health (AEI, 2010).

Construction industry in the UK consists of firms engaged in general construction and demolition; construction and repair of building; civil engineering; installation of fixtures and fittings (which includes plumbing, gas fitting, and electrical installation) and finally what is called "building completion", that is painting, glazing, plastering, tiling, etc (Standard Industrial Classification, 2007). The construction industry also includes the manufacturing, distribution and supply of construction materials and construction products.

The construction industry operates in both the private and public sectors, engaging in three broad areas of activity; residential building, non-residential building and engineering construction. Demand for, and supply of, these services is driven by economic factors including population growth and consumer confidence, changes in interest rates and inflation. Most recently, government policies affecting housing and infrastructure projects like roads, schools and hospitals have been an influence. The availability of resources, such as labour and building materials, and changes within closely linked sectors (e.g. agriculture, mining and manufacturing), also drive change in the industry.

2.4. Construction industry in Rwanda

Today, construction is one among others industries with immense positive impact on any country's economy. Construction industry contribute in the development of infrastructures such as energy, water, transport, digital communications, as well as waste disposal networks and facilities and

these facilities contribute more to the success of competitive modern economy. We can say that the quality of life of every Rwandan partly relies on the products of the country's construction industry: houses, office buildings, factories, shopping centers, hospitals, airports, refineries, roads, bridges, water service lines, etc. Products of the construction industry not only provide shelter, water and electricity but also support commerce, education, recreation, mobility and connectivity.

As industries go, construction is particularly diverse. It has various players such as property builders, property developers, material suppliers, investors and contractors. Looking at the infrastructure segment of the construction industry alone, there are strong evidence that well designed infrastructure investments have long-term economic benefits that can spur economic growth, productivity and land and home values while providing significant positive spill overs. (Energy and Infrastructure Forum, 2016)

2.5. The major factors that contribute to the urban development in Rwanda

Urban development in Rwanda is influenced by several major factors, each playing a crucial role in shaping the growth and transformation of its cities and towns. Some of these key factors include (Uwimbabazi & Lawrence, 2017):

2.5.1. Government Policies and Vision

Rwanda's Vision 2020 and Vision 2050 development plans aim to transform the country into a middle-income and eventually a high-income nation. These visions include specific urban development strategies to improve infrastructure, housing, and public services (Perez-Guzman et al., 2023).

2.5.2. Infrastructure Development

Significant investments in infrastructure such as roads, bridges, public transportation, and utilities are essential for urban development. The Kigali City Master Plan and other regional plans focus on improving connectivity and accessibility within urban areas(Thomas 2018).

2.5.3. Economic Growth

Rwanda's robust economic growth, driven by sectors like agriculture, services, and industry, fuels urbanization. As the economy expands, more people move to urban areas in search of better job opportunities and improved living standards (Ntakirutimana et al., 2019).

2.5.4. Population Growth and Urbanization

Rapid population growth and rural-to-urban migration contribute significantly to urban development. As more people migrate to cities, the demand for housing, services, and infrastructure increases, driving urban expansion(Lwasa 2019).

2.5.5. Foreign Investment and Trade

Foreign direct investment (FDI) and international trade play a pivotal role in urban development. Investments in industries, real estate, and commercial enterprises stimulate economic activities and urban growth (Ntakirutimana et al., 2019).

2.5.6. Government Initiatives and Reforms

Initiatives such as the Kigali Special Economic Zone (KSEZ) attract businesses and industries to urban areas, fostering economic development and urbanization. Land reforms and zoning regulations also facilitate planned urban development (Uwimbabazi & Lawrence, 2017).

2.5.7. Technological Advancements

The adoption of technology and innovation in urban planning and management enhances efficiency and sustainability. Smart city initiatives and digital infrastructure improve service delivery and urban living conditions (Mugabe et al., 2019).

2.5.8. Public-Private Partnerships (PPPs)

Collaborations between the government and private sector in infrastructure development, housing projects, and service provision contribute to urban development. PPPs help mobilize resources and expertise for large-scale urban projects (Nduwayezu et al., 2021).

2.5.9. Education and Skills Development

Investments in education and skills development create a knowledgeable and skilled workforce, attracting industries and businesses to urban areas. Universities and technical institutions in cities contribute to this growth(Goodfellow 2013).

2.5.10. Sustainability and Environmental Considerations

Rwanda's commitment to environmental sustainability influences urban development. Initiatives like green building standards, renewable energy projects, and sustainable waste management practices shape eco-friendly urban growth(Fischel 2015).

2.5.11. Regional Integration and Trade

Rwanda's strategic location within the East African Community (EAC) and its active participation in regional trade agreements enhance urban development. Improved trade and transport links with neighboring countries boost economic activities in urban centers (Mugisha et al., 2024).

2.5.12. Tourism Development

Tourism is a key driver of urban development, particularly in cities like Kigali, which serve as gateways to national parks and other tourist attractions. Investments in tourism infrastructure, such as hotels and recreational facilities, stimulate urban growth(Fischel 2015).

2.6. Benefits of construction companies in urban areas

In summary, the benefits of constriction companies in urban areas were the job creation, improved infrastructure, housing development, social cohesion, reduction in urban puberty, Community Development Programs and community development,

2.6.1. Job Creation and Economic Upliftment

Construction companies provide employment to large numbers of both skilled and unskilled workers, directly improving the livelihoods of many families. With more jobs, household incomes rise, leading to better living standards in urban areas.

2.6.2. Improved Infrastructure and Access to Services

The construction of schools, hospitals, and public utilities (water supply, sanitation) improves access to essential services. This results in better educational opportunities, healthcare, and overall quality of life for urban residents.

2.6.3. Housing Development

Through the construction of residential buildings, construction companies help reduce housing shortages, providing more affordable housing options. This leads to improved living conditions, particularly for low- and middle-income families.

2.6.4. Social Cohesion

Well-planned urban projects create inclusive communities with amenities such as parks, community centers, and recreational areas. These promote social interaction, community engagement, and a sense of belonging.

2.6.5. Reduction in Urban Poverty

By improving access to jobs and essential services, construction companies can play a role in reducing poverty levels in urban areas. This contributes to more equitable social development.

2.6.6. Community Development Programs

Some construction companies engage in corporate social responsibility (CSR) initiatives that benefit the local communities, such as building schools, healthcare centers, or providing vocational training for youth, which promotes long-term social development.

2.7. Impact of construction companies on social economic development of urban areas

2.7.1. Urbanization and Economic Growth

Rwanda's well-planned zoning policies, particularly in Kigali, have made the city an attractive destination for both local and foreign investment. The clear delineation of commercial, industrial, and residential zones has created an environment conducive to business development, leading to increased economic activity and job creation(Twagirayezu 2022).

Zoning policies have supported the growth of specific economic hubs within cities. For example, designated commercial and industrial zones have encouraged the clustering of businesses, leading to the development of vibrant economic districts that contribute significantly to the national GDP(Nkubito 2016).

2.7.2. Housing market dynamics

Zoning policies in Rwanda have influenced the housing market by determining the density and types of housing that can be built in various areas(Twagirayezu 2022). While this has led to the development of high-end residential zones in urban centers, it has also contributed to a shortage of affordable housing, particularly in Kigali, where land prices are high (Nyiransabimana et al., 2019). The government has been working to address this through initiatives like inclusionary zoning, which requires developers to include affordable housing units in new projects. Zoning

policies have played a role in reducing the prevalence of informal settlements by promoting planned urban development. However, the challenge remains in providing adequate low-cost housing to meet the needs of the growing urban population, particularly for lower-income groups (Manirakiza et al., 2019).

2.7.3. Improved Infrastructure and Public Services

Zoning policies have facilitated the systematic development of infrastructure such as roads, water supply, and electricity in line with planned urban growth. This has improved access to essential services for many urban residents and supported overall economic productivity. By zoning for public spaces and facilities, such as schools, hospitals, and parks, Rwanda has been able to enhance the quality of life for its urban population. These amenities are strategically located to serve various residential zones, contributing to social well-being and community cohesion (Paul & Meyer, 2011).

2.7.4. Mixed-Use Development and Affordable Housing Initiatives

Zoning policies that promote mixed-use developments have had a positive impact on social equity by creating diverse neighborhoods where people of different socio-economic backgrounds can live, work, and interact (Nkubito & Baiden-Amissah, 2019). This approach has helped reduce social segregation and promote more inclusive communities(Madon 2016). Although the challenge of affordable housing persists, zoning policies have enabled the implementation of initiatives aimed at increasing access to housing for low-income households. These initiatives are crucial for ensuring that urbanization benefits are more equitably distributed across the population(Booth 2015).

2.7.5. Portfolio and technology choice of road investments matters for employment

The short-term employment impacts of the construction sector and infrastructure investment differ significantly depending on the approach and technologies chosen to implement the investment. As the findings have shown, labor-intensive feeder roads can create up to five times as many direct jobs and 2.5 times as many total jobs. Given the structure and nature of the Rwandan rural labor market (high underemployment, and low productivity), an attractive policy option is that, in all

rural areas, approaches and technologies that require higher labor inputs are used as often as possible to maximize the employment outcomes of construction sector and infrastructure investments. Therefore, the policy goal in the National Feeder Roads Strategy to use labor intensive methods is important and should be supported. Since the government is the main investor in this area, and thus procures contractors, it can design these roads and structure the contracts in such a way that ensures the more use of labor-intensive methods.

2.7.6. Opportunity to create employment and reduce underemployment through employment in the construction sector

Investment in infrastructure provides a good opportunity to boost employment in both the short and medium term as the different multiplier analyses have shown that it creates employment both in the construction sector as well as related sectors in both the short and medium term. With regards to creating employment in the short-term, the implementation of the National Feeder Roads Strategy provides an important opportunity to create employment for both underemployed and unemployed rural workers.

According to EICV 3 data, around 48 percent of people aged 15 to 64 were underemployed and were seeking additional work in 2010/11. These workers usually have few options for wage employment outside the agriculture sector where both wages and productivity tend to be very low. Shifting these workers to the construction sector, even if only on a temporary basis, would increase their productivity. Such employment will also provide these workers with an opportunity to develop a specific set of skills in the construction sector. This can be further maximized through establishing a specific skills training framework. In this context, both the construction sector and labor-intensive feeder road investment programs can play an important role in reducing underemployment through increasing the total number hours worked in the overall economy in the short-term. Furthermore, the findings form the local multiplier analysis, show that in the medium-term a growing construction sector has an even greater multiplier effect, with an additional three jobs created for every sustained job in the construction sector.

2.7.7. Promotion of investments in roads to reduce poverty and support structural transformation

Road investments also provide a foundation for future employment growth and poverty reduction. This is especially important in countries like Rwanda, where the infrastructure gap is the greatest, and employment needs are growing. As findings in the study on the impacts of access to road on employment and poverty have shown, better access to roads entails a smaller probability to be extremely poor or poor. This also correlates to a smaller probability to be in subsistence farming and a higher probability to be in wage employment. In this regards, road investment seems to support structural transformation of the Rwandan economy. The study also showed that over the period analysed, poverty declines faster among the households with improved road access as compared to those whose road access did not improve over the years. Therefore, it is important to design road infrastructure investments as integral elements of poverty reduction strategies especially in rural areas. Emphasis should be given to both increasing the current road density and upgrading the road standard.

2.7.8. Prioritization of roads construction to improve labor market access and rural workers income

Another finding relates to the importance of roads in enhancing access to the labor market. It was found that even rural roads appear to support better access to salaried work and to the overall labor market, and this means that even in non-urban areas, roads play an important labor market function. This is an important finding as traditionally the economic value of nonurban roads is mainly evaluated based on their role in facilitating access to (agricultural) commodity markets. By neglecting the improved access to labor markets, the importance of rural roads is generally underestimated, which may in turn lead to the lower levels of financing allocated to rural roads. This finding supports the National Feeder Roads Strategy, which commits to a higher level of financing to rural roads.

Furthermore, the extra income provided to the farmers employed on these feeder roads for construction and maintenance will make it easier for them to purchase improved seeds and fertilizers and increase the production of their farms. The findings from the employment impact assessment of construction subsectors study showed that between 80 to 85 percent of jobs created investments in labour-intensive feeder roads would be for unskilled rural workers who are generally also active in agriculture.

2.7.9. Policy option to improve women and youth employment

Rural women represent a significant proportion of active population in Rwanda and greatly contribute to subsistence agricultural production. However, they have less access to productive employment opportunities and resources than men. As it was indicated in the construction subsectors study, up to 25 per cent of the newly created employment opportunities in the construction sector would be for women workers. Thus, promoting public investment in this sector could be a policy option to generate more employment opportunities for women workers.

The increasing number of young people joining the labor force with limited employment opportunities has also heightened the need to focus on youth employment in Rwanda. In this regard, the study found that, for new jobs triggered by investments in the construction sector, between 7 percent and 10 percent of the jobs would be for young people who are either unemployed or underemployed in the labor market. However measures to increase this percentage should be considered so that the sector can attract even more youth.

CHAPTER 3. MATERIALS AND METHODS

3.1. Introduction

This chapter describes in depth the research methodology that was used for data collection to be able to address research questions. Also the chapter explains the sources of data collection and sampling techniques that were used to get the sample. This chapter describes the presentation of the case study area, research design, as well as data processing and analysis techniques.

3.2. Description of the study area.

Kanombe sector is one of the 10 administrative sectors that make up the Kicukiro District. Kanombe sector has 4 cells (Kabeza, Karama, Rubirizi, and Busanza). Kanombe Sector has 72,346 Population [2022] – Census with 3,146 /km² Population Density [2022] and it has 23.00 km² Area.

3.3. Location of study area.

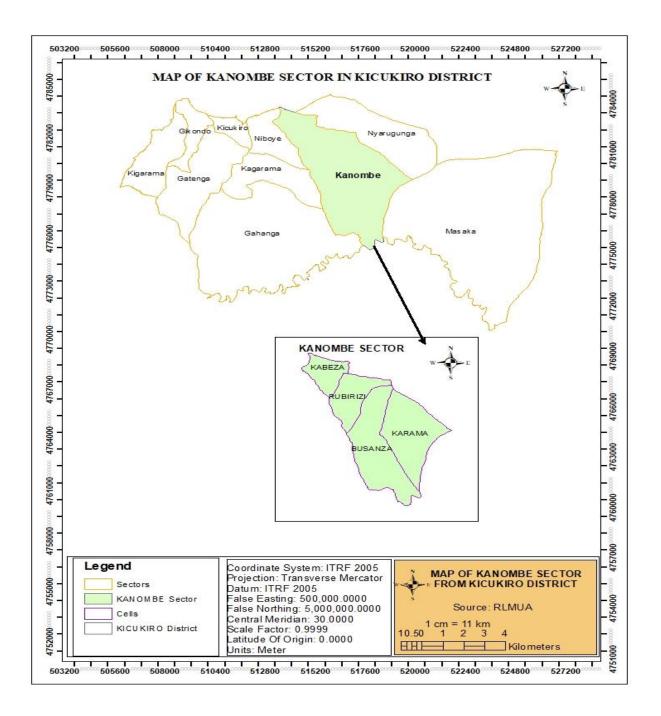


Figure 3.1: Map of the study area

3.4. Research design

A research design is a broad plan that states objectives of research project and provides the guidelines to realize those objectives. It is a plan of how a research project is conducted(Berg 2009). This study will use descriptive research design, descriptive research design is a method of collecting data by interviewing or administering a questionnaire to a sample of individuals, it helps to depict the respondents correctly and it also enhances detailed description of the problem under the study(Creswell and Plano-Clark 2007).

The purpose of this method is to describe "what exists" with respect to situational variables i.e. it looks at relationship between independent and dependent variables. However, the study used quantitative research to gain better knowledge and understanding of the results. The quantitative research approach makes use of statistics and numbers which are mostly presented in figures. Hence, quantitative design is appropriate for this study as it enabled the researcher to quantify the impact of construction companies on social economic development of urban areas. Case study: Kanombe sector/ Kicukiro district.

3.5. Study population

The study population is a set of people, services, elements and events, group of things or households that are being investigated or that a research is concerned(Morrison 2010). The population size for this study was 100 people composed by 20 Architects and 35 Quantity surveyors, 10 Project managers, 10 Foremen, 10 Project Engineers and 10 Land surveyors, 1 Engineer at sector level, 3 Engineers at district level and 1 Engineer at Rwanda Housing Authority.

3.6. Sampling techniques and sample size

This section highlights sampling techniques used to pick the sample from a larger population and simple size used in this study

3.6.1. Sampling technique

Sampling techniques provides a range of methods that help to reduce the amount of data to be collected by considering only data from subgroup rather than all possible case elements (Saunders, et al., 2016). Sampling technique is the methodology that is used to select the sample from a larger population(Berg 2009). For the purpose of this study, respondents will be selected using purposive sampling technique. Purposive sampling, also known as judgmental, selective, or subjective sampling, is a form of non-probability sampling in which researchers rely on their own judgment when choosing members of the population to participate in their surveys.

In this research, purposive sampling was used because the researcher targeted only the 20 Architects and 35 Quantity surveyors, 10 Project managers, 10 Foremen, 10 Project Engineers and 10 Land surveyors, 1 Engineer at sector level, 3 Engineers at district level and 1 Engineer at Rwanda Housing Authority on the active construction sites in Kanombe sector.

3.6.2. Sample size

Sample size is a subset of the entire population identified. This comprises of certain members selected from the total population. A sample size is a small group of cases drawn from and used to represent the large group or whole population under investigation. The study will consider the architects and quantity surveyors on active construction sites and will be selected purposively where every people in population taken, has equal chance of being selected as respondent. The sample size of this study was composed by 100 respondents composed by 20 Architects and 35 Quantity surveyors, 10 Project managers, 10 Foremen, 10 Project Engineers and 10 Land surveyors, 1 Engineer at sector level, 3 Engineers at district level and 1 Engineer at Rwanda Housing Authority.

Table 3.1: Description of simple size

Study population	Sample size	Data collection tool	Sampling technique
Architects	20	Questionnaire and interview	Purposive sampling
Quantity surveyors	10	Questionnaire and interview	Purposive sampling
Project managers	10	Questionnaire and interview	Purposive sampling
Project managers	10	Questionnaire and interview	Purposive sampling
Foremen	10	Questionnaire and interview	Purposive sampling
Foremen	10	Questionnaire and interview	Purposive sampling
Project Engineers	10	Questionnaire and interview	Purposive sampling
Land surveyors	10	Questionnaire and interview	Purposive sampling
Engineer at sector level	1	Questionnaire and interview	Purposive sampling
Engineers at district level	3	Questionnaire and interview	Purposive sampling
Engineer at Rwanda Housing Authority	1	Questionnaire and interview	Purposive sampling
Total	100	100	

3.7. Source of data collection

This study used both primary and secondary data as sources of desired information for the study. Primary data were gathered by using questionnaire and interview and secondary data were gathered by using documentary review. These data were presented in the following section:

3.7.1. Primary data

Primary data comes straight from the people a researcher is researching from and is therefore the most direct kind of information a researcher can collect. The primary data is said to be the first hand observation and investigation. During the study, the researcher collected primary data through self-administered questionnaires and interview from people on the active construction sites.

3.7.2. Secondary data

Secondary source of data involves information gotten from already conducted research work that relates to the study(Cooper and Schindler 2001). Therefore, during this study the researchers will obtain secondary data from books; reports; journals and electronic-published, maps, Google map, Ortho-photos sources. A number of documents available in ULK Polytechnic Institute main library, in the active construction sites, on the internet, Kanombe sector reports; thesis and dissertations relating to the subject material will be consulted for the purpose of obtaining secondary information.

3.8. Data collection techniques

In collecting data of this study, questionnaire, interview and documentation techniques were used in order to get information from respondents. Computer via internet will help to collect some information related to literature review. Smart phone was used to take pictures for further analysis during interpretation of data.

3.8.1. Questionnaire technique

Questionnaire is a set of questions which are asked to get information from a respondent. It is a set of questions prepared by the researcher to be distributed to a particular sample(Morrison 2010). A questionnaire was designed and pre-tested before the researcher submits it to the selected respondents. A questionnaire was designed and pre-tested before the researchers submit it to the selected respondents. The questionnaires comprised both close-ended and open ended questions. The researchers will use information obtained via questionnaires in order to make an efficient analysis. In the present study, the researcher submitted the questionnaires to the architects, quantity surveyors, engineer at Kanombe sector level, engineers at district level and engineer at Rwanda Housing Authority in order to get the data related to the benefits of construction companies in Kanombe sector, the major factors that contribute to the social economic development in Kanombe sector.

3.8.2. Documentary review

The documentation is research tool which focuses on the systematic searching from any written documents which are relevant to the field of the research. With this method, various written documents containing information related to the topic under study will be reviewed. Among those documents include dissertations from ULK Polytechnic Institute main library, the active construction sites, Kanombe Sector and Rwanda Housing Authority reports, journals and other important documents relevant to the benefits of construction companies in Kanombe sector, the major factors that contribute to the social economic development in Kanombe sector.

3.8.3. Interview technique

The interview can be defined as face-to-face conversation between an interviewer and the respondent, conducted for the purpose of obtaining information(Orodho and Kombo 2002). The researcher made a set of questions known as interviews guide to be asked to the architects, quantity surveyors, engineer at Kanombe sector level, engineers at district level and engineer at Rwanda

Housing Authority in order to collect information related to the benefits of construction companies in Kanombe sector, the major factors that contribute to the social economic development in Kanombe sector and the impact of construction companies on social economic development of Kanombe sector. The interviews were conducted on site by site.

3.9. Data processing and analysis

Collected data were sorted, edited, coded and tabulated for analysis. During this process, the data collected were transformed into meaningful information for easy interpretation and understanding. Hence, the data were analyzed by arranging and organizing them properly so as to be easily interpreted. The following steps were used in data processing and analysis.

3.9.1. Data processing

Data processing is generally the collection and manipulation of items of data in order to produce meaningful information. This research project will process data through editing, coding and tabulation in order to gather quality information to be used in this research project.

3.9.1.1. Editing

Editing refers to the process where errors in complicated answers are identified and eliminated whenever possible (Robson, 2002). Editing will be used to check completeness, accuracy, uniformity and comprehensive of data collected. The major aim of editing will be to discover mistakes made during the field study, to monitor accuracy and find out whether there are some unfilled spaces in questionnaire guide.

3.9.1.2. Coding

Coding is a process of summarizing data by classifying different responses, which was made into categories for easy interpretation and analysis (Kakooza, 1996). The purpose of coding in surveys is to classify questions into meaningful categories so as to bring out their essential patterns. In

coding the questions numbers were used. This will be used in this study to summarize data by classifying the different respondents into categories for easy treatment.

3.9.1.3. Tabulation

Tabulation is a simple process of counting the number of observations that are classified into certain categories. Tabulation consisted of putting the data into some kind of statistical tables such as percentages occurrence of the responses to particular question and their calculated percentages will be done by the researcher in order to present findings in a clear way.

3.9.2. Data analysis

The act of testing hypotheses stated in this research, the descriptive statistic will be used in order to find out the relationship between the impact of variables of the subject stated as independent variable and dependable variable. There is also an application of value judgments in the interpretation of a variety of responses or observations as qualitative measures in data analysis. Discussion and observations are complemented based on value given in the study as an addendum to analyzing quantitatively. The Microsoft excel will be used to determine frequencies in order to discover the degree of occurrence to each variable. The study will be analyzed by using inferential statistics using Pearson correlation to determine relationship between variables. Tables were used to present findings.

CHAPTER 4: RESULTS AND DISCUSSIONS 4.0. Introduction

This chapter presents the results obtained from questionnaires and explains the results obtained from the fieldwork. It consists of the following: social demographic data of the respondents, the benefits of construction companies in Kanombe sector, the major factors that contribute to the social economic development in Kanombe sector and the impact of construction companies on social economic development of Kanombe sector.

4.1 Social demography of the respondents

This subsection presents the social demographic data of the respondents by age, sex, level of education and employment status, in fact that respondents have given precise information, SPSS version 25.0 was used for analysis and the results are displayed in tables, and bar graph.

4.1.1. Identification of surveyed respondents by Age

Figure 2 is a bar graph that depicts the age of the respondents. It was observed that; 40% respondents were at the range of 21 to 35 years of age, 30% respondents were at the range of 36 to 49 years of age, 25% respondents were at the range of 50 to 63 years of age and 5% respondents were at the range over 63 years old.

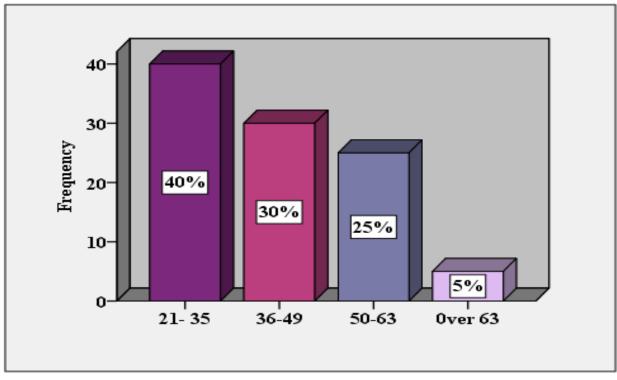
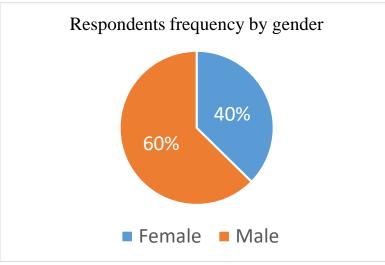


Figure 4.1: Age by respondents

4.1.2. Identification of surveyed respondents by gender

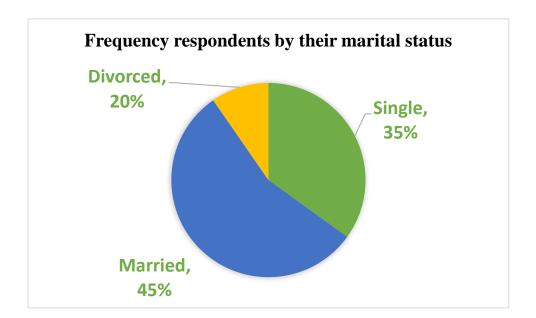


The figure 3 shows the identification of surveyed respondents by gender.

Figure 4.1: **Respondents by gender**

Figure 3.1. presents the respondents by gender. The surveyed respondents under this study were given equal opportunity where both male and female participated actively in providing responses. There was enough freedom to the respondents in answering the research questions. 40% of respondents were female, while 60 % of respondents were male. The researcher surveyed the respondents according to their gender in order to make comparison between male and female participation in this survey. The results show that a large number were male with 60% of respondents, because the questions asked were not gender sensitive. The difference in number between man and women doesn't have any significance.

4.1.3. Identification of surveyed respondents by marital status



The figure 4 shows the identification of surveyed respondents by marital status

Figure 2.1: Respondents by marital status

Figure 4.1. illustrate respondents by marital status. In this study, 20% of respondents were divorced, and 45% of respondents were married, while 35% of respondents were still single. The researcher surveyed respondents in relation to their marital status in order to investigate the level land investment among different marital status. The results show that the married peoples invest

in land at high level than single and divorced ones. This is because most of single people are interested in real estate investment for business or other reasons.

4.1.4. Level of education

Table 2 depicts the level of education of the respondents. It was observed that; 45% respondents have bachelor's level of education, 30% respondents have secondary level of education, 20% have master's degree and 5% have PhD.

Table 4.1: level of education of	of the respondents
----------------------------------	--------------------

Level of educa	ation	Frequency	Percent
	Secondary level	30	30
	Bachelor degree	45	45
	Masters	20	20
	PhD	5	5
	Total	100	100

4.1.5. Occupation based on job position of the respondents

Table 4.2: Respondents by Occupation or job position

Study population	Sample size	Percentage	
Architects	20	20	
Quantity surveyors	10	10	
Project managers	10	10	
Project managers	10	10	

Foremen	10	10
Project Engineers	10	10
Land surveyors	10	10
Engineer at sector level	1	1
Engineers at district level	3	3
Engineer at Rwanda Housing Authority	1	1
Total	100	100

Source: Primary data, September 2024

4.2. Presentation of the major findings

This section deals with the presentation, interpretation and discussion of the real results from respondents interviewed face-to-face including the data collected through questionnaire for respondents' view related to the benefits of construction companies in Kanombe sector, the major factors that contribute to the social economic development in Kanombe sector and the impact of construction companies on social economic development of Kanombe sector.

4.2.1. Benefits of construction companies in Kanombe sector

The surveyed respondents were asked on the benefits of construction companies in Kanombe sector. The findings shown that the benefits of constriction companies in urban areas were the job creation, improved infrastructure, housing development, social cohesion, reduction in urban puberty, Community Development Programs and community development.

	Agreed	Agreed		Undecided		Disagreed	
Statements	Freq.	%	Freq.	%	Freq.	%	
Job creation and economic upliftment	100	100	0	100	0	0	
ImprovedInfrastructureandAccess to Services	50	25	0	25	0	0	
Housing Development	50	15	0	0	0	0	
Social Cohesion	100	50	0	50	0	0	
Reduction in Urban Poverty	50	30	0	20	0	0	
Community Development Programs	100	55	0	35	0	0	

Table 2: Benefits of	construction	companies in	Kanombe sector

Based on the data collection through questionnaire and interview from the respondents of the project, all respondents were agree 100% with the researcher that the benefits of constriction companies in urban areas were the job creation, improved infrastructure, housing development, social cohesion, reduction in urban puberty, Community Development Programs and community development.

4.2.1.1.Job Creation and Economic Upliftment

Construction companies provide employment to large numbers of both skilled and unskilled workers, directly improving the livelihoods of many families. With more jobs, household incomes rise, leading to better living standards in urban areas.

4.2.1.2.Improved Infrastructure and Access to Services

The construction of schools, hospitals, and public utilities (water supply, sanitation) improves access to essential services. This results in better educational opportunities, healthcare, and overall quality of life for urban residents.

4.2.1.3. Housing Development

Through the construction of residential buildings, construction companies help reduce housing shortages, providing more affordable housing options. This leads to improved living conditions, particularly for low- and middle-income families.

4.2.1.4.Social Cohesion

Well-planned urban projects create inclusive communities with amenities such as parks, community centers, and recreational areas. These promote social interaction, community engagement, and a sense of belonging.

4.2.1.5.Reduction in Urban Poverty

By improving access to jobs and essential services, construction companies can play a role in reducing poverty levels in urban areas. This contributes to more equitable social development.

4.2.1.6.Community Development Programs

Some construction companies engage in corporate social responsibility (CSR) initiatives that benefit the local communities, such as building schools, healthcare centers, or providing vocational training for youth, which promotes long-term social development.

4.2.2. Major factors that contribute to the social economic development in Kanombe sector.

The surveyed respondents were asked on the major factors that contribute to the urban development in Kicukiro sector. The findings shown that the major factors that contribute to the urban development in Kicukiro sector are Government policies and vision, population growth and urbanization, foreign investment and trade, public private partnerships, tourism development and regional integration and trade. Here is their view on the question:

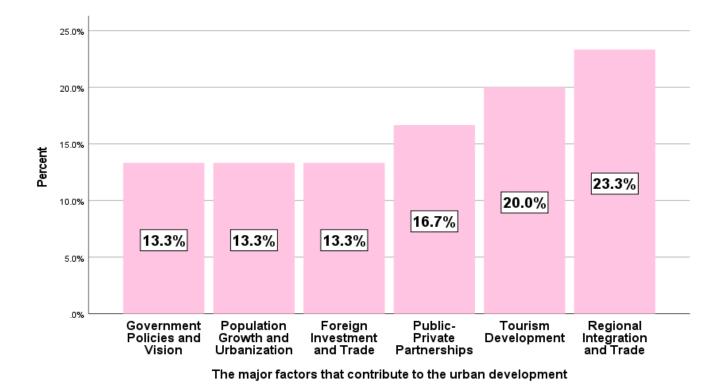


Figure 4.1: The major factors that contribute to the social economic of Kicukiro sector

The figure 4.1 represents that 13.3% of respondents reported that government policies and vision contribute to urban development since in Kicukiro sector, government policies on urban planning and development plays a crucial role. Rwanda's vision for urbanization, such as the Vision 2050 plan, aims to develop secondary cities like Kicukiro sector into economic hubs, aligning with national goals. 13.3% of respondents reported that population growth and urbanization contribute to urban development since Kicukiro sector faces rapid population growth. This factor necessitates efficient urban planning to accommodate the growing population while ensuring sustainable urban development.13.3% of respondents reported that foreign investment and trade contribute to urban development since encouraging foreign investment encouraged economic development in Kicukiro sector by attracting businesses that boost local employment and infrastructure.

As Rwanda becomes a more attractive destination for foreign investors, Kicukiro sector could benefit from this trend. 16.7% of respondents reported that public-private partnerships contribute to urban development because Collaboration between the government and private sector accelerates development in Kicukiro sector. This can include projects like infrastructure development, housing, and services, which are essential for urban growth. 20.0% of respondents reported that Tourism Development contribute to urban development of Kicukiro sector because of its proximity to key tourist attractions (e.g., Volcanoes National Park) made tourism a significant factor in its urban development. Regional Integration and Trade - 23.3% of respondents reported that regional integration and trade contribute to urban development in Kicukiro sector since Kicukiro sector improved trade links and integration with neighboring regions stimulates local economies and make Kicukiro sector a more prominent player in regional trade networks.

Obtained results are like those of other researches like who stated that significant investments in infrastructure such as roads, bridges, public transportation, and utilities are essential for urban development. The Kigali City Master Plan and other regional plans focus on improving connectivity and accessibility within urban areas.

4.2.3. Impact of construction companies on social economic development of Kanombe sector

The surveyed respondents were asked on the impact of construction companies on social economic development of Kanombe sector. The findings shown that the impact of construction companies on social economic development of Kanombe sector were Urbanization and Economic Growth, Housing market dynamics, Improved Infrastructure and Public Services, Mixed-Use Development and Affordable Housing Initiatives, Portfolio and technology choice of road investments matters for employment, Opportunity to create employment and reduce underemployment through employment in the construction sector, Promotion of investments in roads to reduce poverty and support structural transformation, Prioritization of roads construction to improve labour market access and rural workers income , Policy option to improve women and youth employment, Enhanced housing quality, Environmental sustainability, Promotion of social equity, Improved standard of living and Housing development. The following frequencies and percentages were found according to the results from the field among the respondents of the study.

Statements	Agreed		Undecided		Disagreed	
	Freq.	%	Freq.	%	Freq.	%
Urbanization and economic growth	50	100	33	0	27	0
Housing market dynamics	50	100	29	0	21	0
Improved Infrastructure and Public Services	50	100	29	0	22	0
Mixed-Use Development and Affordable Housing Initiatives	50	33	22	0	27	0
Portfolio and technology choice of road investments matters for employment	50	35	15	0	22	0
Opportunity to create employment and reduce underemployment through employment in the construction sector	100	40	22	0	20	0
Promotion of investments in roads to reduce poverty and support structural transformation	100	32	22	0	19	0
Prioritization of roads construction to improve labour market access and rural workers income	100	30	29	0	33	0
Policy option to improve women and youth employment	100	29	22	0	27	0
Enhanced housing quality	30	100	0	0	0	0
Environmental sustainability	30	29	15	0	0	0
Promotion of social equity	30	15	20	0	0	0

Table 3: Impacts of design errors on initial cost of construction Project

Improved standard of living	100	100	0	0	0	0
Housing development	100	100	0	0	0	0

Based on the data collection through questionnaire and interview from the respondents of the project, all respondents were agree 100% with the researcher that the impact of construction companies on social economic development of Kanombe sector are Urbanization and Economic Growth, Housing market dynamics, Improved Infrastructure and Public Services, Mixed-Use Development and Affordable Housing Initiatives, Portfolio and technology choice of road investments matters for employment, Opportunity to create employment and reduce underemployment through employment in the construction sector, Promotion of investments in roads to reduce poverty and support structural transformation, Prioritization of roads construction to improve labour market access and rural workers income, Policy option to improve women and youth employment, Enhanced housing quality, Environmental sustainability, Promotion of social equity, Improved standard of living and Housing development.

CHAPTER 5. CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

The main objective of this study was to assess the impact of construction companies on social

economic development of urban areas. Case study: Kanombe sector/ Kicukiro district. The specific objectives were to examine the benefits of construction companies in Kanombe sector, to identify the major factors that contribute to the social economic development in Kanombe sector and to examine the impact of construction companies on social economic development of Kanombe sector. The questionnaire survey conducted in the 100 respondents from the active construction companies in Kanombe sector. Collected data were analyzed by tables and ranked using SPSS software. Based on the findings, it is concluded that the the benefits of constriction companies in urban areas were the job creation, improved infrastructure, housing development, social cohesion, reduction in urban puberty, Community Development Programs and community development. The results showed that the major factors that contribute to the social economic development in Kicukiro sector are government policies and vision, population growth and urbanization, foreign investment and trade, public private partnerships, tourism development and regional integration and trade. The results show that The findings shown that the impact of construction companies on social economic development of Kanombe sector were Urbanization and Economic Growth, Housing market dynamics, Improved Infrastructure and Public Services, Mixed-Use Development and Affordable Housing Initiatives, Portfolio and technology choice of road investments matters for employment, Opportunity to create employment and reduce underemployment through employment in the construction sector, Promotion of investments in roads to reduce poverty and support structural transformation, Prioritization of roads construction to improve labour market access and rural workers income, Policy option to improve women and youth employment, Enhanced housing quality, Environmental sustainability, Promotion of social equity, Improved standard of living and Housing development.

5.2. Recommendations

Taking into consideration the policy objectives of improving the wellbeing of the Rwandan population by reducing unemployment, underemployment and poverty, shifting employment from farm to more productive non-farm jobs, improving the country's international connectivity, and improving access to commodity and labor markets it is recommended that:

- The government sustains and if possible gradually increases its investments in transport infrastructure in the national budget process for the coming years to not only improve access, but also support and sustain job creation in the construction and related sectors.
- The government continues to play its important role in developing the construction sector, as it is a sector that is directly influenced by government through its public investments in infrastructure. Ensuring a steady stream of work and boosting investment in periods when private investment declines will have positive effects for the construction sector, and the related sectors by encouraging private construction enterprises to invest in increasing productivity, individuals to develop relevant skills, and entrepreneurs to start construction companies. As this is a sector with a relatively low barrier to entry, it has the potential to nurture small enterprises.
- The government further increases the use of labor-intensive methods in implementing the National Feeder Road Policy and Strategy, as this would provide an opportunity for reducing unemployment and unskilled underemployment in rural areas and creating off-farm jobs
- Improved access to the labor market and the apparent effect of roads to support a shift out of subsistence agriculture into wage employment are included as criteria for making decisions on investments in road and transport infrastructure.
- Given the potential for the spatial based analysis to understand more thoroughly the long-term effects of road infrastructure on employment and economic and social wellbeing, it is recommended that the government as well as the ILO continue to develop the GIS based analysis of the effects of road investments further.

REFERENCES

- Arade, O. S., & Birajdar, P. B. V. (2021). Effective Strategies to Reduce the Impact of Skilled Labour Shortage in Construction Industry in Pune Region (India). June, 4520–4524.
- Bilau, A. A., Ajagbe, M. A., Kigbu, H. . H., & Sholanke, A. B. (2015). Review of Shortage of Skilled Craftsmen in Small and Medium Construction Firms in Nigeria. *Journal of Environment and Earth Science*, 5(15), 98–110. https://www.iiste.org/Journals/index.php/JEES/article/view/25188

- Boyce, A., Odoko, A., Ealefoh, D. E., Haruna, S., & Okechukwu, O. (2018). the Role the Construction Industry Plays in Economic Growth. *Journal of Environmental Sciences and Resources Management*, 10(2), 92–98.
- Des, I., Et, S., & Kigali, D. E. T. D. E. (2012). KIGALI INSTITUTE OF SCIENCE AND TECHNOLOGY Analysing the causes and Impacts of disputes in the Rwanda Road Construction Sector and determining ways of Reducing or addressing such disputes.
- Directorate, R. (2005). *Guidelines for Road Design*, *Construction*, *Maintenance and Supervision* Volume I: Designing Section 1: Road Designing. I.
- Erol, I., & Unal, U. (2015). Role of Construction Sector in Economic Growth: New Evidence from Turkey. MPRA Munich Personal RePEc Archive, 1, 1–32. https://mpra.ub.unimuenchen.de/id/eprint/68263
- Guerrero, L. A. (2014). A construction waste generation model for developing countries. PhD Thesis. (Vol. 1, Issue 2014). https://doi.org/10.6100/IR770952
- Gurav, K. H., Munde, T. B., & Naik, P. S. (2022). Evaluating Overall Importance of Waste Management in Construction Industry. 12(1), 1–12.
- Gutti, M. B. (2018). A Feasibility Study on Waste Utilization in Construction and Review of Waste Generation.
- Ikebude, C. (2016). Feasibility Study on Solid Waste Management in Port Harcourt Metropolis: Causes, Effect and Possible Solutions. *Nigerian Journal of Technology*, 36(1), 276–281. https://doi.org/10.4314/njt.v36i1.33
- Informa-, M. A., & Efficiency, O. (2023). IMPACT OF ACCOUNTING INFORMATION SYSTEM ON PERFORMANCE OF Article history : Keywords : Operational Efficiency ; Construction Enterprises ; Today , with the continuous development of science and technology , the most advanced technology has been applied to. 1–13.
- Journals, I. R. E. (2019). A Material Management in Construction Project Using Inventory Management System. 3(5), 52–58.
- Khode, S. H. (2019). Research Case Study for Types, Causes, Preventive Measures and Advanced Rectification Techniques of Cracks in Concrete Structures (Today Is the Biggest Challenges

/ Problems All Over World'S in 21 St Century). *International Research Journal of Engineering and Technology*, 6(7), 1712–1737. www.irjet.net

- Lu, Y., & Fox, P. (2001). The construction industry in twenty-first century: its image, employment prospects and skill requirements. *Sectoral Activities Programme Working Paper*, 1–68. h
- Masengesho, E., Umubyeyi, N., Bigirimana, T., Kundwa, M. J., Hakuzweyezu, T., Niyirora, R., Ntakiyimana, C., & Ineza, N. (2021). Impact of Maintenance Operations in Buildings Performance, Kigali Commercial Buildings Case Study. *International Journal of Civil Engineering, Construction and Estate Management*, 9(1), 1–20.
- Professor, A. (2018). Study on Causes & Control of Cracks In A Structure Mulla Fayaz Department of Civil Engineering. 4(12). www.ijsart.com
- Shruthi, H. G., & Sitaram, N. (2017). *Constructional Waste Utilization A Review*. 27(2). https://doi.org/10.21647/ICCTEST/2017/49095
- Thai-Ha, L. (2021). Microfinance and Social Development: A Selective Literature Review. *Asian* Development Outlook 2021: Financing a Green and Inclusive Recovery.
- Utting, P. (2010). The risks of skills shortage in construction. *Proceedings 5th Built Environment Conference*, 18–20(7), 263–275. http://www.irbnet.de/daten/iconda/CIB_DC22755.pdf
- Veraart, F. (2018). Building Materials and Construction: Constructing a Quality of Life. https://doi.org/10.1007/978-3-319-76696-6

APPENDICES

Appendix 1: Structure of questionnaires for respondents

Field questionnaire for respondents

I, **RUGWIRO Fabrice**, as finalist student at ULK Polytechnic Institute, department of Civil engineering and construction option. I am conducting a research entitled **"THE IMPACT OF CONSTRUCTION COMPANIES ON SOCIAL ECONOMIC DEVELOPMENT OF URBAN AREAS"**. Thus, this questionnaire will help to collect basis data for the research. This survey questionnaire has purely academic goals, and any information provided is confidential and will be utilized exclusively for the study. It would be greatly appreciated for offering me few minutes from your time for responding the following questions.

Section A: Biographical information of participants

Answering each question please put a tick on the right answer.

- 1) Kindly indicate your gender.
 - O Female
 - O Male
- 3) Kindly indicate your age group.
 - O 18-30 Years
 - O 31 -40 Years
 - O 41-50 Years
 - O 51-60 Years
 - O Above 60 Years
- 4) Indicate your Level of Education
 - O Secondary school
 - O University level
 - O Masters
- 5) Indicate your job position

Architects	
Quantity surveyors	
Project managers	
Project managers	
Foremen	
Foremen	
Project Engineers	
Land surveyors	

Engineer at sector level	
Engineers at district level	
Engineer at Rwanda Housing Authority	

Section B: Open questions

Please tick the most appropriate

1. What are the benefits of construction companies in Kanombe sector?

Job creation and economic upliftment	
Improved Infrastructure and Access to Services	
Housing Development	
Social Cohesion	
Reduction in Urban Poverty	
Community Development Programs	

2. What are the major factors that contribute to the social economic development in Kanombe sector?

Government policies and vision	
Population growth and urbanization	
Foreign investment and trade	
Public private partnerships	
Tourism development and regional integration and trade	

3. What are the impact of construction companies on social economic development of Kanombe sector?

Urbanization and Economic Growth	
Housing market dynamics	
Improved Infrastructure and Public Services	
Mixed-Use Development and Affordable Housing Initiatives	
Portfolio and technology choice of road investments matters for employment	
Opportunity to create employment and reduce underemployment through employment in the construction sector	
Promotion of investments in roads to reduce poverty and support structural transformation	
Prioritization of roads construction to improve labour market access and rural workers income	
Policy option to improve women and youth employment	
Enhanced housing quality	
Environmental sustainability	
Promotion of social equity	
Improved standard of living	
Housing development	
Improved Infrastructure and Public Services	
Mixed-Use Development and Affordable Housing Initiatives	
Portfolio and technology choice of road investments matters for employment	
Opportunity to create employment and reduce underemployment through employment in the construction sector	
Promotion of investments in roads to reduce poverty and support structural transformation	

Prioritization of roads construction to improve labour market access and rural workers income	
Policy option to improve women and youth employment	
Enhanced housing quality	
Environmental sustainability	
Promotion of social equity	
Improved standard of living	
Housing development	
Urbanization and Economic Growth	
Housing market dynamics	
Improved Infrastructure and Public Services	
Mixed-Use Development and Affordable Housing Initiatives	

Thank you!