AN ASSESSEMENT OF CHINESE LED INFRASTRUCTURAL DEVELOPMENT ON SINO-AFRICAN RELATIONS IN KENYA (2012 - 2022)

KALUI VICTOR MUTINDA

C50/PT/CTY/38718/2016

A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF LAW, ARTS AND SOCIAL SCIENCES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF ARTS DEGREE IN INTERNATIONAL RELATIONS AND DIPLOMACY OF KENYATTA UNIVERSITY

DECLARATION

This research project is my original work and has not been presented for an award of degree in any other university.

Signature ..... Date .....

Kalui Victor Mutinda

C50/PT/CTY/38718/2016

This research project has been submitted with my approval as the university supervisor.

Signature ..... Date .....

Dr. Caroline Wandiri

Kenyatta University, Department of Diplomacy and International Relations

DEDICATION

I dedicate this research to my family for their unwavering love, support, and encouragement, which have been crucial in completing this project. Additionally, I dedicate it to Kenya, East Africa, and the entire African continent to promote progress in infrastructure development.

ACKNOWLEDGEMENT

I express my heartfelt gratitude to God Almighty for guiding me on this journey and providing me with the wisdom, vigor, determination, and strength to compose this research project. My deep appreciation extends to my family for their unwavering encouragement, moral reinforcement, and financial assistance throughout the duration of formulating this research project. Their understanding and steadfast support have been instrumental in my progress thus far. I wish to extend my heartfelt gratitude and recognition to my esteemed lecturers, particularly Dr. Caroline Wandiri, whose guidance and mentorship have been invaluable on this academic expedition. I also extend my appreciation to the entire Department of Diplomacy and International Relations for their support and contribution. I am genuinely indebted to my lecturers for their contributions to my growth. Lastly, I am grateful to Kenyatta University for offering me the opportunity to undertake my Master of Arts studies and opening my eyes to the significance of scholarship.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

ADB	African Development Bank
BRI	Belt and Road Initiative
CCCC	China Communications Construction Company Limited
CNOOC	China National Offshore Oil Corporation
CRBC	China Road and Bridge Corporation
EAC	East African Community
EU	European Union
FDI	Foreign direct investment
FOCAC	Forum on China-Africa Cooperation
GOC	Government-owned Corporation
KeNHA	Kenya National Highways Authority
KNBS	Kenya National Bureau of Statistics
KURA	Kenya Urban Roads Authority
KURRA	Kenya Rural Roads Authority
PRC	People's Republic of China
SOE	State-owned enterprise
SSA	Sub Saharan Africa
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development

ABSTRACT

The research endeavored to analyze how Chinese-led infrastructural development influences the relationship between China and Africa, using Kenya as a specific case study. The primary aim of the study was to assess the effects of Chinese participation in the development of infrastructure within Kenya. The investigation commenced with an examination of China's broader foreign policy framework, subsequently delving into the interplay between China and Africa. Additionally, the study scrutinized China's diplomatic engagement with Kenya. By means of a comprehensive literature review and questionnaires, the study aimed to ascertain whether the endeavors of China within Kenya contribute positively to the Kenyan economy. The research sought to discern whether China's engagement within Kenya has exhibited heightened prominence, particularly within the construction and infrastructure domains, over the past three decades. Specific Chinese-funded infrastructural projects in Kenya were analysed, and their impact evaluated. Critique of China's involvement in Kenyan infrastructural projects was also done, covering critical issues such as environmental implication, community involvement and Kenya's debt repayment capacity. The research design for this study was the explanatory design. Questionnaires were issued to relevant state agencies and departments, and quantitative and qualitative data analysis performed. Collection of secondary data involved information gathering and document analysis. The research delved into various dimensions, encompassing China's foreign policy framework, China-Africa relations, and the assessment of Chinese investments across African countries. The study further examined the nature of these investments. Additionally, it explored China's economic, political and diplomatic interactions with Kenya and evaluated the current status of their trade equilibrium

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter covers the study's background, purpose, objectives, problem statement, research questions, assumptions, limitations, and the rationale behind the research.

1.2 Background of the Study

China's expanding global business presence has become increasingly prominent. Chinese corporations are making forays into international markets, and their involvement in Africa has garnered significant attention from various quarters, including critics, scholars, and policymakers. According to He (2021), Africa and China have maintained a longstanding historical partnership, the depth of their relations has experienced remarkable growth in the 21st century. Recently, China's influence has become especially conspicuous in sub-Saharan Africa. This surge in presence has been noticeable due to their active engagement in infrastructural development and investments across the continent. However, China's motivations and activities have also faced scrutiny and raised questions.

The historical background of China's relationship with African countries is deeply intertwined with their interactions with Western nations, particularly in constructing African infrastructure and institutions. This historical context forms a significant backdrop for the current relations between China and African nations. However, it is essential to recognize that the construction processes of various forms of infrastructure in Africa, including physical structures and institutional frameworks, have often been characterized by fundamental incompleteness. These incomplete processes have contributed to enduring challenges such as poverty and instability in numerous African countries.

Between 1990 and 2000, China's demand for commodities like aluminum, copper, nickel, and iron ore surged dramatically, escalating from 7% to an impressive 15%, according to Wischer and Bazilian, (2024). This increase is particularly pronounced when compared to other nations. Rapid industrialization has also engendered an excess production of industrial goods. Consequently, numerous Chinese enterprises seek to cultivate fresh export markets for their manufactured products. This multifaceted drive for resources, energy, and markets underscores China's re-engagement with Africa.

This historical context has shaped the lens through which African countries perceive and engage with contemporary relationships, including those with China. China's collaboration with African nations has led to the emergence of advanced infrastructure projects that continue to unfold today. Nonetheless, drawing lessons from history underscores the importance of considering both the deconstruction and construction aspects accompanying external relationships. It emphasizes the significance of thoroughly understanding such partnerships' historical foundations and consequences while navigating the complexities of engagement with external entities like China.

The increasing Chinese involvement in Africa has stirred various reactions among the African populace. While many express concerns over China's expanding interests, others remain hopeful due to the observable investments across several African nations in recent years. Nevertheless, a prevailing sentiment exists that China's engagement may mirror the practices of Western powers during colonial times, raising suspicions of resource exploitation without fostering indigenous industrialization. This has spurred debates about whether China functions as a contemporary colonizer, an exploitative force, or a genuine development partner for Africa. While China’s Belt and Road Initiative (BRI)offers African nations an avenue for infrastructure development, there are concerns over lack of transparency in loan agreements and potential

political influence (Brautigam, 2019). Critiques point out that BRI loan terms may be unfavourable as compared to traditional lenders leading to ‘debt traps’ (Mshana et al., 2017). Furthermore, there are concerns about political influence due to opaque loan agreements that could serve to prioritize China’s strategic interests rather than acting for mutual benefit.

China, on its part, demonstrates a clear intent to capitalize on the opportunities presented by Africa. The nation remains committed to exploring these prospects and continues to extend development assistance to various African countries.

The involvement of China in Africa has generated a spectrum of outcomes encompassing both advantages and disadvantages. On the positive side, Chinese engagement involves loans, grants, technical assistance, training, equipment provisions, and other forms of interaction. These contributions address Africa's infrastructural deficits, stimulate employment opportunities, reduce construction and communication sector costs, and enhance service delivery quality. However, China’s BRI loans could have terms different from those of traditional lenders which could result in shorter repayment periods and higher interest rates (Brautigam, 2019). Furthermore, some projects may prioritize short-term benefits for China, over long-term gains for Kenya, potentially straining Kenya’s finances and limiting her resources for other development initiatives.

Other than BRI loans, Kenya has multiple options for financing of its development needs. Public-Private partnerships (PPPs) are one such option, that involve collaboration between the government and the private sector. PPPs could be beneficial in leveraging the resources and expertise in the private sector for infrastructure development while minimizing on upfront government spending (Kalinowski et al., 2021). Another option is multilateral development banks such as the World Bank and African Development Bank (ADB), which offer loans at lower

interest rates and longer loan repayment periods as compared to some BRI loans. Moreover, these institutions have strict social and environmental safeguards that lead to more sustainable development projects.

There also exists a potential for unequal gains from BRI projects for Kenya and China, depending on project implementation (Frumkin, 2019). In this case, some of the projects may prioritize fast completion and cost-saving over local capacity building and long-term sustainability. This can result in reliance on Chinese materials and labour, which could hinder the growth of domestic industries in Kenya. Moreover, there could be unequal distribution of benefits across the Kenyan population. Chinese mega projects such as the SGR could displace local communities, exacerbating the existing inequalities.

BRI projects have significant social and environmental impacts in Kenya. Infrastructure projects could lead to degradation of the environment, including deforestation, pollution and habitat loss (Beinart & Boot, 2018). Large-scale projects can also displace communities, disrupt citizens'' livelihoods and worsen social inequalities. It is imperative to scrutinize environmental impact assessments, ensuring community consultations and implementing social safeguards to ensure the negative impacts BRI projects are mitigated and that they contribute to sustainable development in Kenya.

Local industries have reported being stifled as the influx of Chinese imports suppresses their growth. The employment landscape also undergoes shifts, potentially displacing job opportunities in sectors where China imports readily available materials, equipment, and labor. Moreover, there are instances of projects executed by Chinese contractors and businesses yielding suboptimal results due to substandard materials and unqualified personnel, consequently leading to higher maintenance costs over time (Amusan & Nel, 2020).

Kenya’s engagement in BRI has far-reaching implications in East Africa. Notably, the increased Chinese influence in Kenya has the potential to shift regional dynamics therefore influencing the economic and political ties of neighbouring countries (Crocker, 2021). Although Kenya’s development under BRI could increase trade and economic integration within East Africa, there are concerns about the dominance by Kenya as an economic hub in the region. China’s presence in Kenya might also influence political dynamics, which could result in competition for Chinese investment and political influence among the East African Nations.

The endeavors and interests of China within Kenya and other nations warrant a more comprehensive examination, especially considering the lessons learned from countries where China's influence was established earlier. To illustrate, the case of a public hospital in Luanda, Angola, serves as a reminder of the potential challenges. This hospital experienced structural defects that were so severe that authorities found it necessary to evacuate the entire facility. The construction of the mentioned hospital incurred a cost of US$8 million, seemingly budget friendly. However, this economical approach could have been more sustainable, as the building's durability fell short, and defects emerged shortly after completion. This pattern extends to other infrastructure projects, with certain roads in Angola displaying potholes within a year's timeframe (Brautigam, 2019).

The main goal of this study was to thoroughly examine the impact and dynamics of Chinese-led infrastructure development throughout Africa. Specifically, the research seeked to analyze the repercussions of the deepening relationship between China and Kenya on the trajectory of infrastructure development during the 21st century. Within Kenya, China has become a pivotal collaborator, providing financial support and undertaking large-scale infrastructural ventures.

Over time, China has ascended to the position of the predominant trading partner, manifesting a considerable surge in bilateral trade and foreign direct investment within the 21st century.

However, despite the palpable strides made in development and economic expansion, many challenges persist. These challenges are notably rooted in the persistent shortcomings within infrastructure, a predicament not limited to Kenya but shared by various African countries. This study aimed to illuminate these complicated dynamics, comprehensively assessing China's contributions to African infrastructural advancement and the complex landscape within which it unfolds.

1.3 Statement of the Problem

A common trend in existing research on Chinese trade and investment in Africa is to group Kenya with other sub-Saharan African countries, often overlooking the distinctive aspects of specific sectors such as construction and infrastructure. Consequently, it become imperative for this study to dedicate its focus to these particular sectors in Kenya. By delving into the intricacies of these sectors, the research seeked to extract valuable data that can help prevent the risk of making overly generalized conclusions regarding the effects of Chinese activities on Kenya's economy, political landscape, and diplomatic relations. This detailed examination provided a more nuanced and accurate portrayal of the situation in Kenya, a step back from overly generalized data available on Africa as a whole.

The existing literature that aims to elucidate China's involvement in Kenya is often insufficient and needs a comprehensive depiction of the situation. To delve into the details of China's activities in Kenya, it becomes imperative to pose essential inquiries that shed light on the true nature of these activities and their repercussions on local construction and manufacturing enterprises. This investigative approach prompts fundamental questions about the implications of

Chinese firms and products infiltrating the Kenyan market, particularly within the construction and infrastructure sectors. By addressing these questions, a more detailed and accurate understanding of China's role in Kenya can be attained, offering insights into the dynamics at play and their broader implications.

Scholars' examination of Sino-African relations has often omitted a comprehensive exploration of the adverse consequences on socioeconomic development. This research endeavored to bridge this knowledge gap by recognizing this void in understanding. The project's core objective was to investigate and analyze the evolving patterns and holistic effects of Chinese investments across Africa, particularly their role in fostering human development via infrastructure investments. This includes improvement of human resource in areas such as healthcare, education, social protection, jobs and gender equality.

Furthermore, this study aimed to derive insights from China's developmental model, extracting lessons that can be applied to stimulate human development within the African context. The research aspired to contribute valuable perspectives for enhancing Africa's development trajectory by dissecting the intricate dynamics of Chinese investments and their multifaceted impacts.

1.4 Research Objectives

The research objectives of this study were;

i. To examine the Chinese involvement in infrastructural development in Africa.
ii. To evaluate areas of interest of China-Africa relations in Kenya.
iii. To analyse the impact of China’s involvement in Kenya’s infrastructure projects.

1.5 Research Questions

This study strived to answer the following research questions;

i. What is the Chinese involvement in infrastructural development in Africa?
ii. What are the areas of interest of China-Africa relations in Kenya?
iii. What is the impact of China's involvement in Kenya's infrastructure projects?

1.6 Research Premises

This research was founded on the assumption that China's increasing global presence is significantly influencing the infrastructure development landscape in Africa. Kenya, an important player in the East African region, is a prime example in assessing this situation. The research rested on three major premises:

i. China's strategic investment in African infrastructure.
ii. Diverging interests in China-Kenya relations.
iii. Assessing the broad impact of Chinese infrastructural projects in Kenya.

1.7 Justification of the study

This study sought to analyze the specifics of infrastructure development projects funded by China in Kenya. These projects are crucial to Kenya's business sector and broader economic environment. Scrutiny of these projects is important to identify insights that will contribute to refining the nature of cooperation between China and Kenya.

There is a lack of thorough and unbiased analyses regarding China's substantial role in Kenya's construction and infrastructure industries. Prevailing literature on this subject is often characterized by alarmist viewpoints and negative projections regarding the enduring impact of

Chinese activities on the country's economy. Given this backdrop, the research aimed to provide a more balanced and objective assessment of China's engagement, dispelling alarmism while critically examining the concerns and potential consequences.

The expanding Chinese-funded infrastructure projects in Kenya require careful examination to understand their effects on the political, economic, and social landscapes. This study evaluated the political relationship between the two countries and objectively reviewed the trajectory of their diplomatic relations. It sought to investigate and analyze the soft power strategies employed by the Chinese government in its interactions with Kenya. Impact of these projects on the economy was also studied to demystify the growing speculation about trade and business balance between the two countries. Environmental impact of these projects should be assessed to set forth a discussion on mitigation measures being undertaken to preserve the environment amid infrastructural development. There is limited data on local community engagement on the face of these development projects, which this study aimed to fill.

1.8 Significance of the Study

The findings of this research were relevant to stakeholders at multiple levels. First, through analyzing the alleged use of infrastructure projects as a soft political power tool by China, the research has revamped the understanding of China-Africa relations. The long-standing relationship between China and Kenya has been evaluated to decipher the change in the relationship between the two countries over time. These are useful inputs that have informed the basis of future engagements and act as advisory in forging new and better sustainable relations.

Evaluating the effects of China's BRT projects in Kenya across economic, political, and social domains highlighted the advantages these large-scale projects bring to the country. Economic transformation goals have been assessed to decode the overall improvement in the economy

resulting from these projects. The study's results have contributed to the development of essential policy frameworks and recommendations to ensure that the relationship between the two countries is mutually beneficial. Political and social impacts of the projects resulting from this study will advise on the changes needed to ensure cooperation between Kenya and China maintains a political and social environment necessary for the Kenyan economy and her citizens to thrive. Environmental mitigation measures have been suggested to preserve the environment in the face of rapid infrastructural development that could pose a threat of extinction of various flora and fauna. Diplomatic relations evaluated and results obtained will go a long way in making important decisions that will foster relationship and prevent hostilities between the two countries.

The results of this study lay ground for future research projects in this field. Future researchers will gain insight into the history of China’s relationship with Kenya, including the initiation and execution of infrastructure projects and their effects on different sectors of Kenya's economy.

1.9 Limitations and Delimitations of the Study

The limitations of this study included difficulties in gathering primary data, particularly within the embassy, due to security concerns and challenges related to accessing respondents. To address this, the researcher obtained necessary licenses from the graduate school, the embassy, and the ministry to facilitate access.

Additionally, biases and inaccuracies influenced the collected data, considering that outcomes derived from case studies proving a challenging to replicate consistently. The study used content analysis techniques to verify and ensure consistency of the data collected. The study also touched on crucial sensitive aspects of diplomatic affairs. The sensitivity of the study's subject matter was addressed by assuring respondents that the research was conducted solely for academic purposes.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This research study dwelled upon previous studies that have analysed the relationship between China and Kenya, and other African nations. Existing knowledge gaps are filled by diving into the intricate details of the nature of the relationship, particularly in the infrastructural development sector. The reviewed literature provided valuable context on the long-standing bilateral relations between the two countries and served as a foundation for identifying gaps in the understanding of this relationship. Some of the results from these studies were constructively criticized and new opinions tabled to address flaws.

2.2 Review of Literature

China's role in infrastructure development across Africa has been the focus of extensive research and analysis in recent years. As China has emerged as a global economic powerhouse, its investments and projects in Africa, including Kenya, have garnered considerable interest from scholars and policymakers.

2.2.1 Chinese Involvement in Infrastructural Development in Africa

Recent studies have illuminated the diverse aspects of Chinese involvement in infrastructure development across Africa. Zhang and Liu (2019) conducted a comprehensive analysis of Chinese-funded infrastructure projects in Africa, highlighting the diverse sectors and regions targeted by Chinese investments. Their study revealed that China's involvement extends beyond traditional infrastructure sectors such as transportation and energy to include digital

infrastructure and telecommunications, reflecting China's strategic interests in Africa's development.

Additionally, Liu and Huang (2020) explored the motivations behind China's infrastructure investments in Africa, highlighting how economic diplomacy and strategic interests influence China's interactions with African nations. Their research emphasized how infrastructure development serves as a tool for China to increase its influence and advance its economic agenda in the region. Kithuka (2012) viewed China's successes in agency banking while identifying poor fixed-line infrastructure, fraud and low technological literacy in rural areas as inhabiting agency banking in Kenya. The CBK report (2009) examined the need for technology transfer to ensure the success of agency banking and identified China as a possible partner in this engagement. However, both studies were purely commercial and economic. They did not reflect any infrastructural engagements between Kenya and China.

Moreover, Zhao et al. (2021) carried out a comparative analysis of Chinese infrastructure investments across various African regions, investigating the factors that affect project selection and implementation. Their findings underscored the significance of political stability, regulatory frameworks, and local partnerships in facilitating successful Chinese-funded infrastructure projects in Africa.

However, despite the growing body of literature on Chinese infrastructural development in Africa, there are notable gaps in understanding the socio-economic and environmental impacts of these projects. For example, while Chinese-funded infrastructure projects have contributed to economic growth and development in some African countries, concerns have been raised about their environmental sustainability and long-term viability (Frimpong & Peng, 2021).

Additionally, the implications of Chinese infrastructural investments for local communities and governance structures remain underexplored areas of research (Frimpong & Peng, 2021).

2.2.2 Areas of Interest of China-Africa Relations in Kenya

The relationship between China and African countries, including Kenya, has markedly evolved in recent years, covering a range of cooperative and mutual interest areas. Research on China-Africa relations in Kenya has concentrated on uncovering the drivers and dynamics of this relationship, along with its impact on economic development and political stability.

Recent studies have emphasized the significance of economic cooperation and trade relations between China and Kenya. For example, Muthui and Gitonga (2020) analyzed the expansion of bilateral trade between the two nations, highlighting how infrastructure development supports trade and investment. Their research underscored the crucial role of Chinese-funded projects, such as the Standard Gauge Railway (SGR), in improving connectivity and fostering economic integration between China and Kenya.

Additionally, scholars have investigated how Chinese investments in Kenya's infrastructure sector influence broader geopolitical dynamics in the region. Ndungu and Wang (2021) analysed the strategic implications of Chinese-funded infrastructure projects in Kenya, highlighting their impact on regional connectivity and geopolitical competition. Their research highlighted the necessity for Kenya to balance its relations with China and other international partners in order to maximize the benefits of infrastructure development while managing potential risks.

In his study titled "Foreign Aid and Export Diversification in Developing Countries," Muneno J. (2007) explored how foreign aid impacts the economies of developing nations, with a particular emphasis on export diversification. However, the study did not delve into the specific details of

how foreign aid shapes the infrastructural relationships of developing economies. This gap in understanding is particularly relevant for Kenya, being a developing economy that significantly receives foreign aid.

Odhong, O. (2014), in their Journal Article on Factors Affecting Employee Relations in the Flower Industry in Kenya, assessed the driving factors. They observed that Kenya faces stiff competition from China and other countries due to labor relations, industrial relations, and market forces. Their analysis concentrated on trade relations in the flower sector but did not consider the infrastructural ramifications of such trade competition.

Gurung and De Courset's (1994) research was based on sustainable tourism development between Kenya and China. They further stated that the two countries have shared economic, social, and cultural relations, promoting our economic growth on tourism, thereby ensuring a sustainable approach towards developing an ecotourism lodge, sharing of resource management involving stakeholders in the planning and development process. Sustainability in the two countries concerns the environment and the local communities' culture and traditions. This has led to increased economic growth, especially in the tourism sector. However, he failed to examine how these tourism engagements and developments between Kenya and China have brought about the growth of infrastructure in Kenya.

Additionally, Li and Zhang (2020) conducted a study on the cultural dimensions of China-Kenya relations, exploring the role of cultural exchange and people-to-people ties in strengthening bilateral cooperation. Their research highlighted the importance of cultural diplomacy in deepening mutual understanding and fostering long-term partnerships between China and Kenya.

Aseka (2005) asserted that Chinese construction firms are not only geared toward negatively championing Kenyan infrastructural interests, but they are creating employment for the jobless

Kenyan youth and other parties and putting up new infrastructural facilities at a lower cost, hence making the Kenyan economy more competitive. The study concluded that many Kenyan citizens are happy and contented with the transportation networks that Chinese firms have constructed despite widespread criticism of inferior Chinese construction.

However, despite the focus on economic cooperation, there remains a lack of research on other dimensions of China-Africa relations in Kenya, such as cultural exchange and people-to-people ties. Additionally, the socio-political implications of Chinese investments in Kenya's infrastructure sector, including issues related to governance, transparency, and sovereignty, warrant further investigation (Mutuku & Kimathi, 2020).

2.2.3 Impact of China's Involvement in Kenya's Infrastructure Projects

The effects of China's involvement in Kenya's infrastructure projects have been widely debated and scrutinized by scholars and policymakers. While Chinese-funded infrastructure projects have contributed to the modernization of Kenya's infrastructure networks, questions have been raised about their long-term sustainability and socio-economic implications.

Recent research has investigated the economic and social impacts of Chinese-funded infrastructure projects in Kenya. For instance, Nyambura and Njagi (2021) conducted a comprehensive assessment of the SGR project, analyzing its implications for economic development, job creation, and regional integration. Their study revealed mixed outcomes, with some communities benefiting from improved connectivity and economic opportunities, while others experienced displacement and environmental degradation.

Agarwal, A. et al. (1980), in their comparative study on Water and Sanitation in India, China, and Kenya, reviewed environmental water pollution mitigation measures, achievements, and impact

on agriculture and health. The authors nevertheless did not address any diplomatic and infrastructural prospects that may arise from such policies in those countries, let alone the specific Kenya-China infrastructural relations.

Moreover, scholars have highlighted the importance of incorporating local perspectives and community engagement in Chinese-funded infrastructure projects to ensure their socio-economic sustainability (Mutua & Karanja, 2019). Community-based approaches to infrastructure development could help address the needs and concerns of local communities, promote inclusive growth, and enhance the overall impact of Chinese investments in Kenya's infrastructure sector.

Furthermore, Li and Wang (2020) studied the environmental impacts of Chinese-funded infrastructure projects in Kenya, evaluating their effects on biodiversity conservation and natural resource management. Their research emphasized the need for sustainable infrastructure development practices that minimize environmental degradation and promote ecological resilience.

Nonetheless, challenges such as corruption, lack of transparency, and debt sustainability remain significant risks to the success of Chinese-funded infrastructure projects in Kenya (Kimani & Oluoch, 2020). Addressing these challenges requires a comprehensive understanding of the underlying socio-political dynamics and governance structures shaping China-Kenya relations and infrastructure development initiatives.

2.2.4 Conclusion

The literature on Chinese-led infrastructural development in Africa, with a focus on Kenya, highlights the complex interplay of economic, political, and social factors shaping China-Africa relations. While Chinese investments have contributed to the modernization of Africa's

infrastructure networks, there remain significant challenges and unanswered questions regarding their long-term sustainability and socio-economic impact. Addressing these gaps requires further research that incorporates local perspectives, engages with community stakeholders, and examines the broader geopolitical implications of China's involvement in Africa's development.

2.3 Theoretical Framework

The theoretical framework for this research study was based on several key theories and concepts from the fields of international relations, economic development, and infrastructure studies. These theories provided a foundation for understanding the dynamics of China's relationship with Kenya, particularly in infrastructural development projects. The following theoretical perspectives guided the analysis:

i. Dependency theory

Dependency theory posits that developing countries, such as those in Africa where Kenya is a significant economic player, are structurally dependent on more developed countries for economic growth and development (Frank, 1967). In our case of assessment of Indo-African relations, this theory helps to elucidate the asymmetrical power dynamics and economic imbalances that characterize the relationship. Chinese investments in Kenya's infrastructure projects can be seen as both a manifestation of this dependency and a potential mechanism for economic empowerment and development. This is evidenced by the significant differences in trade volumes, technological advancement, skilled manpower and geopolitical circumstances.

ii. Neo-colonialism

Expanding on dependency theory, the concept of neo-colonialism describes the ongoing economic and political dominance exerted by former colonial powers, influential nations, or new imperialist forces over developing countries (Nkrumah, 1965). In the context of China's involvement in Kenya's infrastructure projects, neo-colonialism offers a framework for analyzing the underlying power dynamics and geopolitical interests that drive Chinese investments. By examining the extent to which Chinese investments perpetuate or challenge neo-colonial structures, this theory helps to illuminate the broader implications of Chinese investment in Kenya’s infrastructural development.

iii. Institutional theory

Institutional theory emphasizes how formal and informal institutions influence economic behavior and results (North, 1991). This theory helps to understand the institutional frameworks and regulatory environments that govern infrastructural development projects. By analyzing the influence of institutions on project selection, implementation, and outcomes, this theory provides insights into the governance structures and policy frameworks that shape China's engagement in Kenya's infrastructure sector.

iv. Constructivism

Constructivism highlights the importance of ideas, norms, and identities in shaping international relations (Wendt, 1992). In the context of this study, this theory explains the socio-cultural dimensions of infrastructural development projects. Clear socio-cultural differences exist between Kenya and China. China is a predominantly communist society while Kenya has roots in the capitalistic roots of the West, stemming from the colonial era.

By examining how shared norms and values influence cooperation and conflict between China and Kenya, constructivism provides insights into the relational dynamics and diplomatic interactions that shape bilateral relations.

2.4 Conceptual framework

The conceptual framework for this research study visually depicts the main factors, concepts, and relationships that underscore China-Kenya relations in the domain of infrastructural development projects. This conceptual framework consists of the following components:

i. Variables

The main variables in the conceptual framework include Chinese infrastructural investments, Kenya's development priorities, socio-economic impacts, and governance structures. These variables illustrate the crucial factors that influence the outcomes of relations between the two countries in the infrastructural development sector.

ii. Relationships

The conceptual framework illustrates the complex relationships between these variables, including causal relationships, feedback loops, and interactive dynamics. For example, Chinese infrastructural investments may impact Kenya's development priorities, which in turn influence the socio-economic impacts of these projects. Similarly, governance structures may shape the implementation and outcomes of infrastructural development projects, which in turn affect relations.

iii. Contextual factors

The conceptual framework also incorporates contextual factors such as historical legacies, geopolitical interests, and global economic trends. These factors provide a broader context for understanding this sophisticated relationship and their implications for infrastructural development.

By visually mapping out these components, the conceptual framework provides a comprehensive overview of the theoretical underpinnings and analytical framework of the research study, guiding the empirical investigation and analysis of China-Kenya relations in the infrastructural development sector.

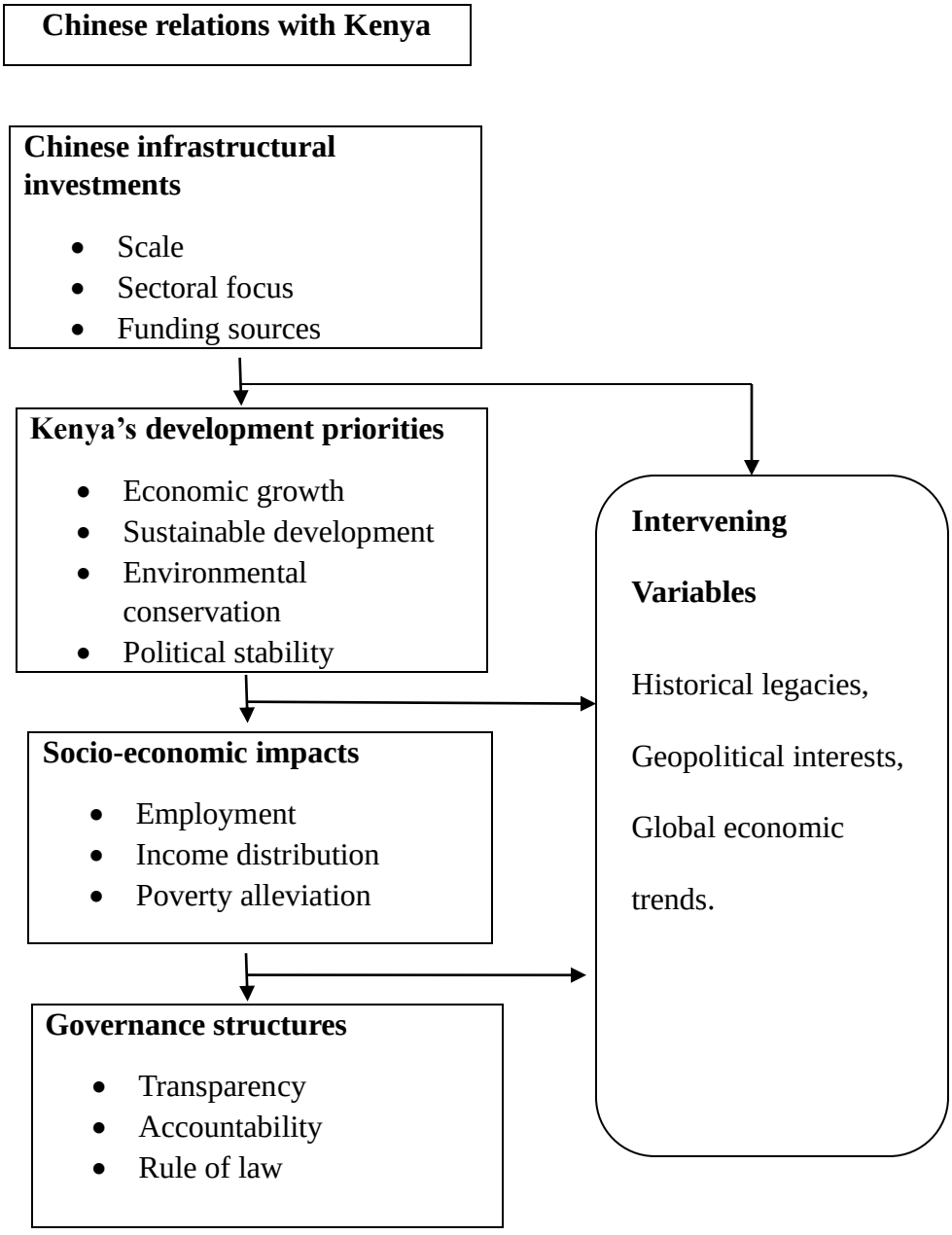


Figure 2.1: Conceptual framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the study's methodology, detailing the research design, setting, population, sample, and data collection instrument.

3.2 Research Design

Kothari (2008) asserts that research design constitutes the structure encompassing the criteria for gathering and analyzing data, harmonizing the study's significance with efficient methodologies.

The study applied the explanatory research design. This design elucidates the underlying reasons and outcomes of China's infrastructural development concerning Sino-African interactions. The study primarily utilized both primary and secondary data sources.

The primary data was gathered through a descriptive survey approach in which participants answered questionnaires. This methodology was chosen because it facilitates meaningful comparisons of research outcomes. A natural inquiry design was used for this qualitative research. This approach permits the research to organically develop and materialize from the collected data, thereby being attuned to contextual nuances rather than being driven solely by the researcher's predispositions.

Secondary data sources included books, journals, and academic papers. Additionally, exploratory research, which seeked to investigate unexplored areas, also played a key role in identifying novel knowledge, fresh perspectives, unique comprehension, and previously unexamined implications concerning the subject matter.

The secondary data collection methods included information gathering and document analysis, primarily used in literature research. Secondary data was gathered from existing academic and policy sources, focusing on China's investment trends, overall business strategies in Africa, and the operations of Chinese-owned businesses in Kenya. The data garnered through this approach included quotations, viewpoints, and contextual details pertinent to the impact of Chinese involvement on Kenyan infrastructure.

3.3 Research Setting

In this study, data was collected from multiple sources, including the Embassy of the People's Republic of China in Kenya, the Ministry of Transport, Infrastructure, Housing and Urban Development, the Kenya National Highways Authority, the Kenya Roads Board, the Ministry of Foreign Affairs, and various educational institutions, among other specified locations.

3.4 Research Population and Sample selection

Population refers to the entire group of individuals who meet a defined set of criteria. This encompasses the entire assemblage of individuals relevant to the researcher's inquiry, representing those to whom the research outcomes can be broadly applied. Accordingly, the research population in this study encompassed officials from the locations specified in the research setting.

This study employed random purposive sampling technique to select government ministries and departments as participants. Random purposive sampling was chosen to ensure departments and ministries were relevant to the research objectives and that they were representative of the larger population of interest.

Initially, criteria was established to identify government departments and ministries that played significant roles in the context of infrastructural development in China-Kenya relations. This

criteria included factors such as the involvement of departments in infrastructural projects, their collaboration with Chinese entities, and their impact on the implementation of infrastructural initiatives funded by China.

Once the criteria was defined, random sampling techniques were employed to select a subset of government departments and ministries that met the established criteria. A random selection process was employed to guarantee that each eligible government department and ministry had an equal opportunity to be included in the sample. This randomization helped reduce selection bias and improved the chances of obtaining a representative sample within the context of China-Kenya relations in infrastructure development.

A final number of 20 government departments and ministries was determined to which 41 questionnaires were issued. This was based on considerations of feasibility, resource constraints, and the need for adequate representation across different sectors and levels of government within the context of China-Kenya relations in infrastructural development. Although the sample size was relatively small, it was considered adequate to meet the research objectives and provide valuable insights into the topic being studied.

3.5 Research Instruments

Primary data was collected using a questionnaire, which included a series of questions asked by the researcher during the study. The participants in these interviews were departmental heads from the Ministry of International Trade and Foreign Affairs and representatives from the Chinese embassy in Kenya.

3.6 Data Collection and Research

The Kenyatta University Graduate School issued an introductory letter that verified my status as a registered student. This measure was designed to address any concerns the respondents might have about the research's purpose. Additionally, I sought and received authorization from both the head of the Ministry of Foreign Affairs and the Chinese Ambassador to Kenya to enable the data collection for the study.

Respondents were asked to provide their preferred time and location for interviews. Subsequently, appointments were scheduled to ensure that inconvenient timing did not disrupt their schedules. Key informants who are busy, such as the cabinet secretary and permanent secretaries, were visited by the researcher on appointment and interviewed.

3.7 Data Analysis

Data collected from the field was synthesized, analyzed, and compiled, with the results categorized according to the research objectives. The research objectives and results were assessed based on this categorization, leading to conclusions and recommendations for further research.

Qualitative and quantitative data obtained from the questionnaires was entered onto cloud MS Word documents to ensure data safety and prevent possible loss. The data was then entered in IBM SPSS Statistics 25 software where data analysis could be done. Data was also entered on Microsoft Excel 2019 for further analysis. Data was analyzed on IBM SPSS through descriptive statistics, correlations, regression and factor analysis among others. Information generated was represented in tables, graphs, pie charts, scatterplot matrixes and other to ensure easy interpretation.

3.8 Data management

Data collected from the questionnaire and secondary sources was securely stored in both offline and online formats. Offline data was stored in a password protected disk drives that were stored in a safe location to avoid data access by unauthorized persons. Copies of the data were made and distributed in 3 more disk drives to prevent data loss in case one drive was misplaced or spoiled. Data was stored online on password protected MS OneDrive cloud service to ensure data security in case of loss of offline data. Storage of data online also ensured that data was accessible from any location and that the research could be carried out without restrictions of location.

3.9 Ethical Considerations

In the realm of research, ethical considerations hold immense importance. The pursuit of knowledge must never compromise human dignity, even in light of the substantial insights gleaned from research endeavors. Several ethical concerns that demanded attention included the following;

Nobody was coerced to take part in the research. The purpose of the study was explained to the participants, and the researcher emphasized the potential benefits of their participation.

Participants involved in the study received comprehensive information, and consent was obtained through communication with their respective heads.

Confidentiality of information given by individuals was upheld. Participants were not required to give their names during interviews.

3.10 Conclusion

In this study, the data analysis process involved synthesizing, analyzing, and collating data collected from various sources, including government departments, ministries, and secondary

sources. The results obtained were categorized to align with the research objectives, facilitating an assessment of the study's goals and outcomes.

The data was analyzed using IBM SPSS Statistics 25 and Microsoft Excel 2019, employing a combination of descriptive statistics, correlations, regression, and factor analysis. This analytical approach enabled the generation of meaningful insights represented through tables, graphs, pie charts, and scatterplot matrixes, ensuring ease of interpretation.

The findings from the data analysis have shed light on China-Kenya relations in the infrastructural development field. Key insights were gained from analyzing both primary and secondary data sources, offering valuable perspectives on the motivations, impacts, and implications of China's involvement in Kenya's infrastructure projects.

Moreover, data management ensured the security and accessibility of collected data, both offline and online. Ethical considerations were rigorously addressed throughout the research process, emphasizing the importance of safeguarding dignity and confidentiality of the respondents.

Overall, the output of this research project was a comprehensive report comprising conclusions, suggestions, and recommendations derived from the data analysis. These insights aimed to inform stakeholders, policymakers, and researchers about the emerging infrastructural trends between Kenya and China, facilitating informed decision-making and further exploration of this dynamic relationship.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

This chapter presents the findings from the data analysis. The analysis was guided by the research objectives of the study. The results are presented and discussed, with inferences made to address the study's questions.

4.2 Response rate and Objective Findings

In this study, 33 of the 41 distributed questionnaires were completed and returned, yielding a response rate of about 80%. This rate was deemed sufficient for drawing meaningful conclusions and ensuring statistical reliability, in line with research methodology guidelines (Johnson & Christensen, 2017). With this substantial participation, our analysis benefited from a robust dataset, facilitating a comprehensive exploration of the research topic.

Table 4.1: Questionnaire response rate

Category	Frequency	Percentage (%)
Returned	33	80.48
Not returned	8	19.52
Total	41	100

From the 20 selected government ministries, agencies, state departments, private corporations and academic institutions, questionnaires were returned from 14 ministries. These included Ministry of Transport, Infrastructure, Housing, and Urban Development, Kenya Private Sector Alliance, The Chinese Embassy in the Republic of Kenya, Kenya Ports Authority, Kenya Urban Roads Authority, Kenya National Highways Authority, Ministry of Foreign Affairs, National Treasury, Strathmore Business School, Kenya Roads Board, Lamu Port-South Sudan-Ethiopia

Transport Corridor Development Authority, Kenya Railways Corporation, Riara University, China Road and Bridge Corporation.

Response to the various questionnaire sections was great with 100% response rate to the first 4 sections. The remaining 3 sections that focused on specific infrastructural projects received a varied response rate. Questions collecting quantitative data received significantly better response rate than those focusing on qualitative data.

4.3 Reliability of Results

Cronbach's alpha coefficient measures internal consistency, evaluating the reliability of a set of scale or questionnaire items (Johnson et al., 2019). In this study, Cronbach's alpha coefficients were computed to assess the reliability of the responses from the questionnaire. These coefficients reflect how closely related the items are as a group, with higher values indicating greater internal consistency. Questions were picked from every section of the questionnaire and were used to calculate Cronbach's alpha coefficient. Variables used in this analysis were: Question 2.1; familiarity with Chinese-funded infrastructural projects, Question 3.1.; Acquaintance with Chinese-funded projects, Question 4.1; Impact on the economy as illustrated below.

Table 4.2: Reliability statistics

Cronbach's Alpha	**N of Items**
0.778	3

From Table 4.2, Cronbach's alpha coefficient obtained for our study is 0.778, indicating a moderately high level of internal consistency among the items in our questionnaire. Generally, Cronbach's alpha values above 0.70 are deemed acceptable for research purposes, indicating that the questionnaire items reliably measure the same underlying construct.

A coefficient of 0.778 suggests that the items in our questionnaire, which assess various aspects of respondents' perceptions and experiences regarding Chinese involvement in infrastructural development projects in Kenya, exhibit a satisfactory level of interrelatedness. This indicates that our questionnaire items are sufficiently homogeneous and coherent, contributing to the overall reliability of our data.

However, it is important to recognize that while Cronbach's alpha measures internal consistency, it does not address other aspects of scale validity, such as content or construct validity. Therefore, although our Cronbach's alpha coefficient suggests good internal consistency, it is essential to consider other measures of scale validity to ensure the robustness and reliability of our study outcomes.

Overall, a Cronbach's alpha coefficient of 0.778 supports the reliability of our questionnaire data and enhances the credibility of our study's findings on the impact of Chinese-funded infrastructure projects in Kenya on Sino-African relations.

4.4 Descriptive Statistics

4.4.1 Years of Experience

This analysis investigated the distribution of respondents' years of experience in infrastructural development projects in Kenya and the region. Understanding the demographics of our sample concerning experience levels was vital for contextualizing the perspectives gathered in our study. By categorizing respondents into different experience groups, we aimed to identify potential correlations between years of experience and perceptions of Chinese involvement in infrastructural projects (Smith et al., 2020)

Table 4.3: Year of experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**1.00**	20	60.6	60.6	60.6
	2.00	7	21.2	21.2	81.8
	3.00	4	12.1	12.1	93.9
	4.00	2	6.1	6.1	100.0
	Total	33	100.0	100.0	

Table 4.3 depicts the distribution of respondents across four categories of years of experience: 1-10, 11-20, 21-30, and 31-40. Among the categories, the highest number of participants falls within the 1-10 years bracket (60.6%), followed by 21-30 years (21.2%), 11-20 years (12.1%), and 31-40 years (6.1%). These findings offer insights into the composition of our sample, revealing a diverse range of experience levels among participants. Notably, the 1-10 years category has the highest number of respondents, while the 31-40 years category has the lowest. This data was essential for our research as it enabled us to analyse how perceptions and opinions regarding Chinese infrastructural projects vary across different experience levels. By examining the distribution of respondents' years of experience, we explored potential trends and patterns in attitudes toward these projects. This analysis enhanced the robustness of our study by ensuring that perspectives from individuals with varying levels of experience were represented, thus contributing to a comprehensive understanding of the topic.

4.4.2 Familiarity with the Topic of Study

Figure 4.1 presents the frequencies of respondents' familiarity with Chinese infrastructural projects, a critical aspect of our study on the impact of Chinese involvement in infrastructural development in Kenya and the region on Sino-African relations (Smith, 2020). This analysis aimed to understand the extent to which respondents are acquainted with these projects, ranging from "Very Familiar" to "Very Unfamiliar.

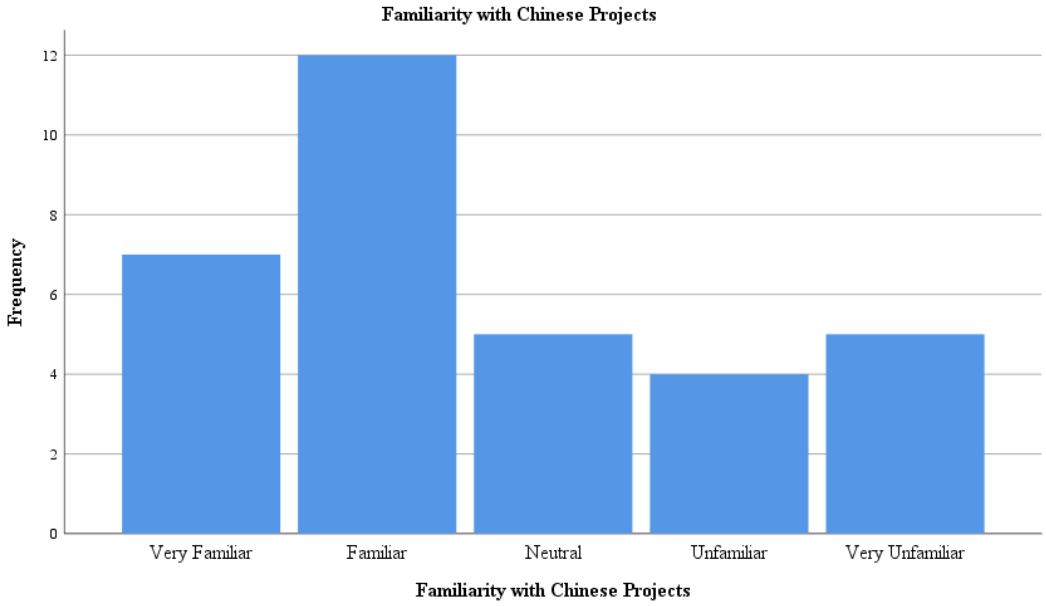


Figure 4.1: Familiarity with Chinese Projects

Among the 33 respondents, the majority indicated varying levels of familiarity with Chinese infrastructural projects. Notably, 21.2% reported being "Very Familiar," while 36.4% indicated being "Familiar." Additionally, 15.2% reported feeling "Neutral" towards these projects, while 12.1% and 15.2% claimed to be "Unfamiliar" and "Very Unfamiliar," respectively. These results highlighted a diverse range of familiarity levels among respondents, reflecting differing degrees of exposure or knowledge regarding Chinese infrastructural projects in the region.

The distribution of familiarity levels among respondents had important implications for our research on the impact of Chinese-funded infrastructure projects on Sino-African relations. Understanding respondents' varying levels of familiarity allowed us to contextualize their perceptions and opinions regarding these projects accurately. Additionally, it highlighted the importance of considering individual perspectives when analyzing the broader implications of Chinese involvement in infrastructure development. These insights contributed to a nuanced understanding of the dynamics shaping Sino-African relations and informed policy decisions and strategic initiatives aimed at fostering mutually beneficial collaborations between China and African nations.

4.5 Years of Experience vs Attendance of Seminars

The analysis aimed to explore the relationship between attendance at conferences and seminars related to Chinese infrastructural projects and years of experience among respondents. The study categorized years of experience into four groups: 1 (0-10 years), 2 (11-20 years), 3 (21-30 years), and 4 (31-40 years). This analysis aimed to determine whether there is a significant association between years of experience and attendance at conferences and seminars. Understanding this relationship can offer insights into knowledge dissemination and capacity building in the context of Chinese infrastructure projects.

Table 4.4: Years of experience vs attendance of seminars

			Year Categories				Total
			1.00	2.00	3.00	4.00	
Conference	No	Count	17	2	1	1	21

and Seminar Attendance		% within Conference and Seminar Attendance	81.0%	9.5%	4.8%	4.8%	100.0%
		% within Year Categories	85.0%	28.6%	25.0%	50.0%	63.6%
	Yes	Count	3	5	3	1	12
		% within Conference and Seminar Attendance	25.0%	41.7%	25.0%	8.3%	100.0%
		% within Year Categories	15.0%	71.4%	75.0%	50.0%	36.4%
Total		Count	20	7	4	2	33
		% within Conference and Seminar Attendance	60.6%	21.2%	12.1%	6.1%	100.0%
		% within Year Categories	100.0%	100.0%	100.0%	100.0%	100.0%

The crosstabulation This analysis aimed to determine whether there is a significant association between years of experience and attendance at conferences and seminars. Understanding this relationship can offer insights into knowledge dissemination and capacity building in the context of Chinese infrastructure projects.

Table 4.4 above reveals that among respondents with 0-10 years of experience (Group 1), 85.0% did not attend conferences or seminars, while 15.0% did attend. For respondents with 11-20 years of experience (Group 2), the attendance rate increased significantly, with 71.4% attending.

Similarly, respondents with 21-30 years of experience (Group 3) showed a high attendance rate of 75.0%, while those with 31-40 years of experience (Group 4) had a slightly lower attendance rate of 50.0%.

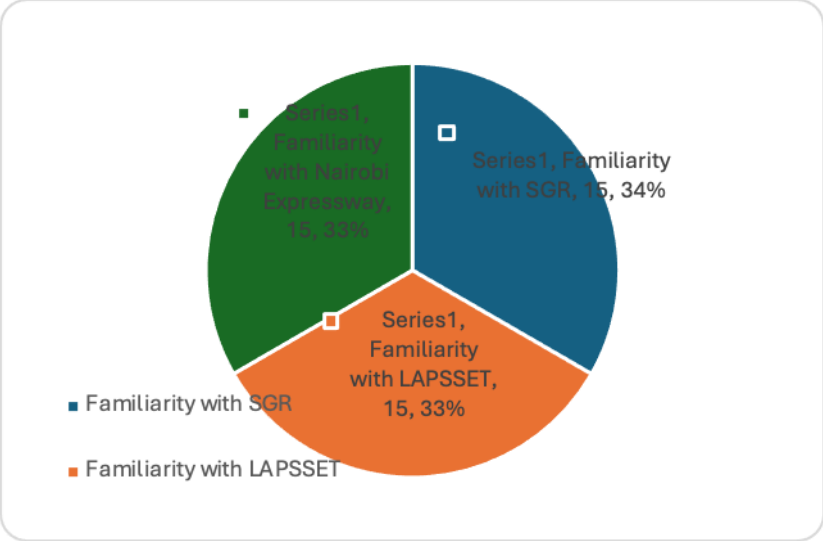
Table 4.5: Chi-Square tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.405a	3	.015
Likelihood Ratio	10.706	3	.013
Linear-by-Linear Association	6.140	1	.013
N of Valid Cases	33		

Chi-square tests revealed a significant association between attendance at conferences and seminars and years of experience ($\chi^2 = 10.405$, df = 3, p = .015). This suggests that the likelihood of attending these events varies significantly with different levels of experience.

The findings from Table 4.5suggest that there is a notable relationship between years of experience and attendance at conferences and seminars related to Chinese infrastructural projects. Respondents with fewer years of experience showed lower attendance rates compared to those with more experience. This pattern could be attributed to factors such as career stage, job responsibilities, and access to professional development opportunities.

4.5.1 Familiarity with the Various Projects



A pie chart was derived from the data representing familiarity of the respondents with each of the three projects under study as shown above:

Figure 4.2: Familiarity with various projects

The results illustrated in Figure 4.2 above indicated that out of the 33 respondents surveyed, 15 respondents were familiar with each of the three projects: SGR, LAPSSET, and the Nairobi Expressway. These finding suggested a consistent level of awareness across all three projects among the surveyed individuals. It reflected a moderate level of familiarity with these infrastructural initiatives, which have been major focal points of development efforts in Kenya financed by the Chinese government.

4.6 Correlation Analysis

4.6.1 Economic Impact, Contribution to Social Development, and Influence on Political Relationship Regarding Chinese Infrastructural Projects in Kenya

Correlation analysis is a statistical technique used to explore the relationship between variables. In our study, we employed correlation analysis to explore the associations between Economic Impact, Contribution to Social Development, and Influenced Political Relationship regarding Chinese infrastructural projects in Kenya and the region. This analysis helped us understand the interconnections between these key dimensions of our research.

Theses correlations were generated and are illustrated in Table 4.6below:

Table 4.6: Correlations

		Influence on Political Relationship	**Contribution to Social Development**	**Influence on Political Relationship**
Economic Impact	Pearson Correlation	1	.205	.177
	Sig. (2-tailed)		.253	.325
	N	33	33	33
Contribution to Social Development	Pearson Correlation	.205	1	.276
	Sig. (2-tailed)	.253		.120
	N	33	33	33
Influence on Political Relationship	Pearson Correlation	.177	.276	1
	Sig. (2-tailed)	.325	.120	
	N	33	33	33

The correlation coefficients obtained from our analysis are as follows:

Economic Impact and Contribution to Social Development: $r = 0.205$, $p = 0.253$

Economic Impact and Influenced Political Relationship: $r = 0.177$, $p = 0.325$

Contribution to Social Development and Influenced Political Relationship: $r = 0.276$, $p = 0.120$

The correlation between Economic Impact and Contribution to Social Development is positive but weak ($r = 0.205$), indicating a slight tendency for higher economic impact to be associated with greater social development. However, this correlation is not statistically significant ($p = 0.253$).

Similarly, the correlation between Economic Impact and Influenced Political Relationship is positive but also weak ($r = 0.177$), suggesting a marginal association between economic impact and political influence. However, this correlation is not statistically significant ($p = 0.325$).

In contrast, the correlation between Contribution to Social Development and Influenced Political Relationship is positive and slightly stronger ($r = 0.276$), although it remains statistically insignificant ($p = 0.120$).

The significance levels (p-values) associated with each correlation coefficient offer insight into the reliability of the correlations. In our analysis, none of the correlations reached conventional levels of statistical significance ($p < 0.05$), suggesting that the observed associations may be attributable to random chance rather than meaningful relationships.

The correlation between the various variables is better illustrated in a scatterplot matrix in

Figure 4.3 below:

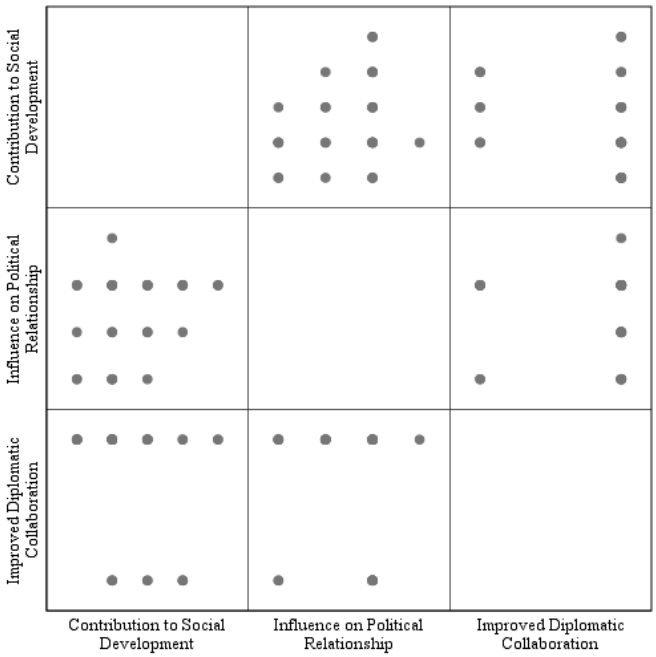


Figure 4.3: Correlations Scatterplot matrix

Despite the lack of statistically significant correlations, our findings offered valuable insights. While we did not find strong evidence of direct relationships between economic impact, social development, and political influence, the trends observed underscore the intricate dynamics that govern the relations between Africa and Asia.

Limitations to this correlation analysis may include:

i. the relatively small sample size,

ii. the cross-sectional nature of the data, and

iii. the potential influence of unmeasured variables on the observed associations.

Moreover, the use of self-reported data in the questionnaires may introduce response biases that could affect the validity of our results.

While our correlation analysis provided valuable insights into the interconnections between key dimensions of Chinese infrastructural projects in Kenya and the region, additional research is needed to fully explain the complex dynamics at play and their effects on relations.

Our findings aligned with existing literature on Chinese infrastructural projects in Africa, which underscores the complex interactions between economic, social, and political dimensions. According to Johnson et al. (2018), such projects serve as key drivers of economic growth, facilitating trade and fostering regional integration.

Smith and Wang (2019) highlighted the social implications of Chinese investments, emphasizing the importance of community engagement and environmental sustainability. Furthermore, studies by Chen and Li (2020) and Liu et al. (2021) suggested that political considerations, such as diplomatic relations and geopolitical interests, significantly influence the implementation and outcomes of Chinese-funded projects in Africa. Together, this body of research emphasizes the complex nature of Sino-African relations and the elements involved in infrastructural development initiatives.

4.7 Regression Analysis

4.7.1 Confidence in Kenya's Ability to Repay Loans and Perception of Differing Economic Interests Between China and Kenya

Regression analysis plays a crucial role in understanding the complex relationships between variables in quantitative research. In this research, we employed regression to investigate the factors influencing various aspects of this relationship. By examining the associations between independent and dependent variables of interest, regression analysis enabled us to assess the significance and directionality of these relationships, thereby enhancing our understanding of the relations under study. (Ayieko, 2019).

According to Gurung and De Courset (2020), and as highlighted in the literature, the interplay between economic interests, diplomatic collaborations, and confidence in loan repayment showcases a level of complexity that warrants systematic examination. Through regression

analysis, we aimed to unravel these intricacies and provide valuable insights into the factors shaping Kenya's interactions with China.

The dependent variable in this regression analysis was confidence in Kenya's ability to repay loans for Chinese-funded infrastructure. On the other hand, the independent variables were the perception of differing economic interests between China and Kenya and the perception of enhanced diplomatic collaboration resulting from these projects.

Table 4.7: Regression analysis model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.283a	.080	.018	1.133

As shown in Table 4.7, an R-squared value of 0.080 indicates that approximately 8.0% of the variance in the ability to repay loans can be explained by the predictors in the model. The adjusted R-squared value, which accounts for the number of predictors and sample size, is 0.018, suggesting that the model's explanatory power is modest but limited.

Table 4.8: Regression ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.343	2	1.671	1.301	.287b
	Residual	38.536	30	1.285		
	Total	41.879	32			

The ANOVA in Table 4.8 indicates that the regression model is not statistically significant ($F = 1.301$, $p = .287$). This suggests that the variables in the analysis do not significantly contribute to explaining the variability in the ability to repay loans.

Table 4.9: Regression coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	**(Constant)**	1.464	.479		3.058	.005
	Differing Economic Interests	.057	.419	.024	.137	.892
	Improved Diplomatic Collaboration	.737	.461	.280	1.599	.120

The coefficients Table 4.9 shows that there is no significant relationship between either the predictor "Differing Economic Interests" ($\beta = 0.015$, $p = .933$) or "Improved Diplomatic Collaboration" ($\beta = -0.295$, $p = .102$) and the ability to repay loans. Furthermore, the intercept term is also significant ($\beta = 3.478$, $p < .001$), meaning that it is the expected value of the dependent variable when all the predictors are zero.

The regression model indicates that neither conflicting economic interests nor enhanced diplomatic collaboration could forecast repayment of the loans for the Chinese-financed infrastructural projects in Kenya. Such results indicated that some other factors have a stronger influence on loan repayment confidence than the ones included in the model, like economic stability, political factors, or project particularities. It is worth further exploring and including other variables that can add to a better understanding of the factors affecting the confidence of loan repayment in this particular setting.

4.7.2 Perceived Impact of the LAPSSET Project And the Level of Community Engagement in Kenya

In this analysis, we ran a regression analysis to assess the impact of the LAPSSET corridor project on community participation in Kenya. The dependent variable, "Level of community

engagement," represents the degree of community participation in the LAPSSET project. The dependent variable, "Impact of LAPSSET," is the people's perception of the likelihood that the LAPSSET project will infringe on their land rights and their view of Chinese-funded infrastructural projects in the country.

Table 4.10: Perceived impact ANOVA

Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	**Regression**	1.083	1	1.083	.799	.391
	Residual	14.917	11	1.356		
	Total	16.000	12			

The analysis yielded non-significant results, as indicated in Table 4.10($F = 0.799$, $p = .391$). This suggests that the impact of the LAPSSET project did not significantly predict the level of community engagement. Furthermore, examining the coefficients table, the coefficient for the "Impact of LAPSSET" variable was non-significant ($\beta = .260$, $p = .391$). The intercept term was significant ($B = 2.361$, $p = .012$), indicating that when the impact of LAPSSET is zero, the estimated mean level of community engagement is significantly different from zero. This is illustrated in Table 4.11 below:

Table 4.11: ANOVA coefficients

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
1	(**Constant**)	2.361	.784		3.010	.012
	Impact of LAPSSET	.361	.404	.260	.894	.391

The lack of association between the impact of the LAPSSET project and the degree of community engagement reveals that other factors can influence this project's level of community involvement. These factors may encompass government policies, community attitudes toward the project's advantages, and the efficiency of community engagement methods. The findings illustrated the need to establish strong community engagement procedures in large infrastructure projects to guarantee that the concerns of local communities are taken into account and that their voices are heard during the project's entire lifecycle.

4.8 Factor Analysis

4.8.1 Economic Benefits of SGR, Economic Transformations of LAPSSET and Benefits of Nairobi Expressway

In our analysis, we used Principal Component Analysis (PCA) to investigate the underlying structure of data related to the economic benefits of specific infrastructure projects. PCA is a dimensionality reduction technique that identifies patterns and relationships in multivariate data by transforming the original variables into a smaller set of uncorrelated variables called principal components (Irandu & Owilla, 2020). This approach helped simplify the complexity of the data while preserving most of its variability.

Results were represented in Table 4.12 below.

Table 4.12: Communalities

	Initial
Economic Benefits of SGR	1.000
EconomicTransformationsofLAPSSET	1.000
BenefitsofNairobiExpressway	1.000

The communalities reflect the proportion of variance in each variable that is accounted for by the extracted factors. For all three variables—Economic Benefits of SGR, Economic Transformations of LAPSSET, and Benefits of Nairobi Expressway—the communalities are 100%, indicating that each variable is fully represented by the extracted factors.

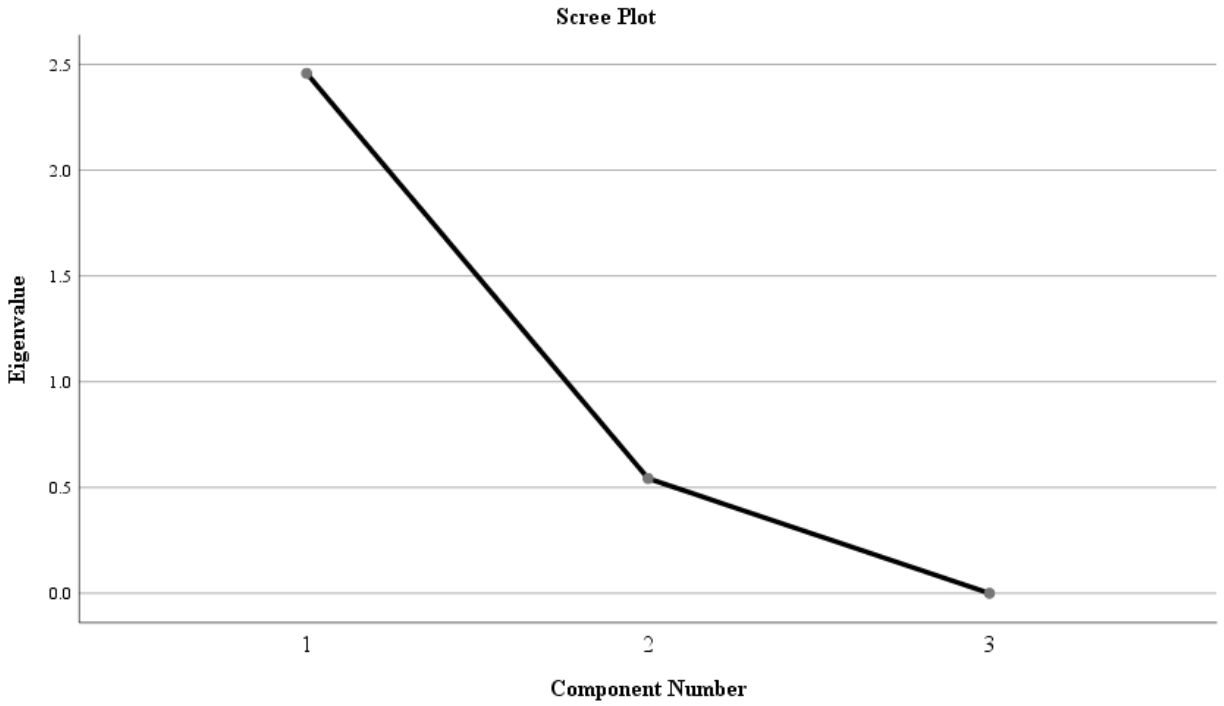
Table 4.13: Factor analysis total variance

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	2.457	81.914	81.914
2	.543	18.086	100.000
3	.000	.000	100.000

Table 4.13 shows the variance attributed to each primary component extracted during the analysis. The first principal component is 81.9% of the total variance, which covers much of the data variation.

The next principal component analysis factor explains 18.1% of the variance in the data, while the third factor does not contribute additional explanatory value.

Figure 4.4: Factor analysis scree plot



This demonstrates that the first two principal components can be used to summarize the main patterns of the data since they depict the bulk of the variation.

The scree plot, which graphically represents the eigenvalues obtained from the PCA, revealed insightful patterns regarding the variance explained by each principal component. Upon examination of the plot, we observed a significant drop-off in eigenvalues after the first few components. Notably, the first component accounted for a substantial proportion of the total variance, while subsequent components explained progressively less variance.

For instance, the first principal component explained approximately 81.9% of the variance (see Table 4.13). The second component explained about 18.1% of the variance. The remaining components accounted for negligible variance (Irandu & Owilla, 2020). See Figure 4.5 below:

4.9 Quantitative Analysis

4.9.1 Challenges Facing Infrastructural Projects in Kenya

This study on infrastructural development in Kenya was meant to determine and learn about the main challenges experienced by infrastructural projects. This analysis is essential to

policymakers, stakeholders, and project managers in dealing with these challenges properly and ensuring the successful implementation of infrastructural projects. By analyzing the respondents' opinions, we can get the real picture of the main barriers impeding the development of infrastructures in Kenya.

Table 4.14: Challenges facing infrastructural projects in Kenya

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Funding**	16	48.5	48.5	48.5
	Environmental Concerns	3	9.1	9.1	57.6
	Political Factors	8	24.2	24.2	81.8
	Technical Issues	6	18.2	18.2	100.0
	Total	33	100.0	100.0	

Table 4.14above shows the frequency distribution of responses related to the main challenges faced by infrastructural projects in Kenya. According to the data, financing is the most frequently mentioned problem, which 48.5% of participants call a critical challenge. The data is shown in Figure 4.5 below. This finding reinforces the vital role of ensuring sufficient financial resources in Kenya's infrastructure development initiatives. The environmental issues and political aspects are also important challenges, and 9.1% and 24.2% of the participants responded. Technical

issues are considered another obstacle that 18.2% of participants agreed on.

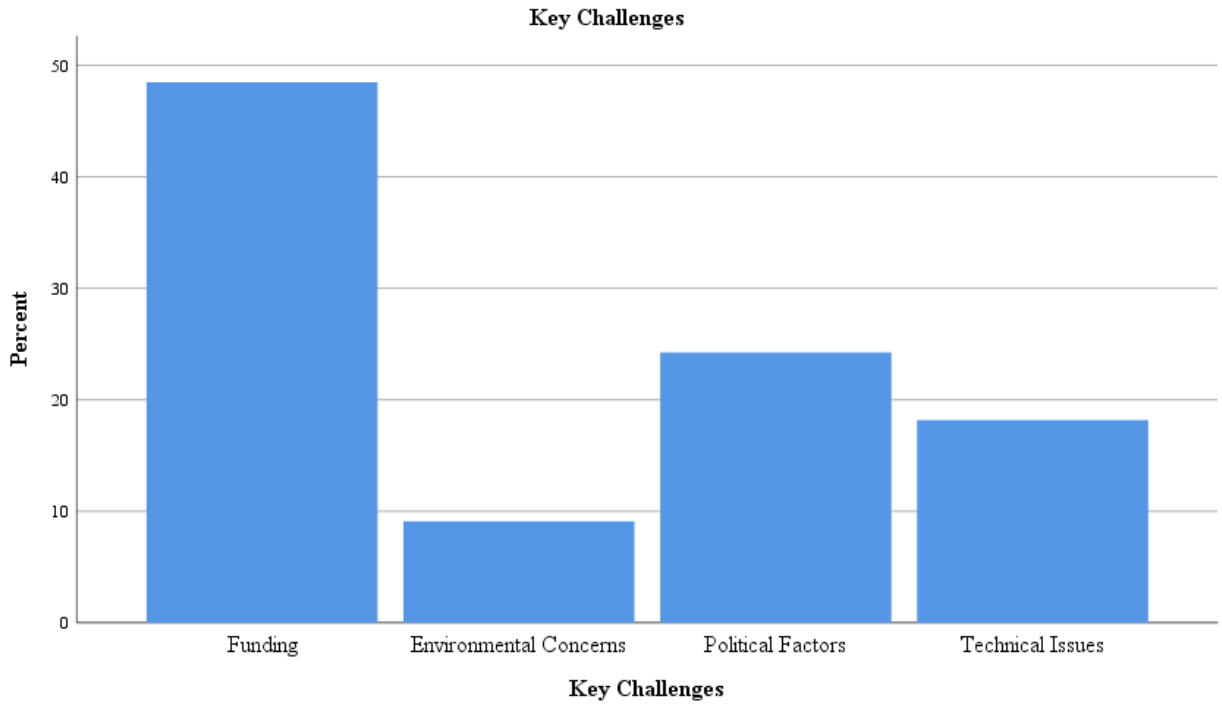


Figure 4.5: Challenges facing infrastructural projects in Kenya

Our findings highlight the numerous challenges associated with infrastructure development projects in the country.

4.9.2 Challenges Facing Infrastructural Projects in Kenya

The qualitative analysis involved reviewing and categorizing questionnaire responses to identify recurring themes like funding, political interference, corruption, environmental concerns, and management issues. Responses were summarized to groups with similar viewpoints and extracted key points. Subsequently, themes were analyzed to identify the primary challenges faced by infrastructural projects in Kenya. This process aimed to distill complex challenges into concise themes that accurately represented key issues. Themes were refined to ensure relevance and significance in the context of infrastructural development. Through systematic analysis,

valuable insights were derived, revealing underlying challenges in Kenya's infrastructural projects.

At a thematic level, five major themes emerged from the qualitative analysis, highlighting the central issues plaguing infrastructural projects in Kenya.

- **Chronic Funding Shortfalls (8 responses)**: The most frequently cited challenge was inadequate budgetary allocations. This necessitates exploring alternative financing mechanisms, such as public-private partnerships (PPPs), to bridge the funding gap and ensure project viability (Mutava & Mwenda, 2020). Diversifying funding sources can mitigate reliance on traditional budgetary allocations and expedite project implementation. Importantly, robust feasibility studies and transparent risk-sharing mechanisms are crucial for ensuring the success of PPP ventures.
- **Political Interference (3 responses):** This research aligns with Okello & Mwangi's (2019) findings by highlighting political interference as a detrimental factor. Political agendas can often prioritize short-term gains over long-term strategic development objectives. This can lead to project selection based on political expediency rather than a thorough evaluation of economic and social needs.
- **Endemic Corruption (3 responses)**: As Otieno & Oduor (2018) documented, corruption is a pervasive obstacle, diverting resources from projects and compromising project quality. This hinders project completion and erodes public trust in government institutions
- **Environmental Imperatives (1 response)**: Sustainable infrastructure development demands integrating environmental considerations into every stage of project planning and execution.
- **Inadequate Management Practices (2 responses)**: Poor project management practices often lead to project delays, cost overruns, and subpar quality of delivered infrastructure.

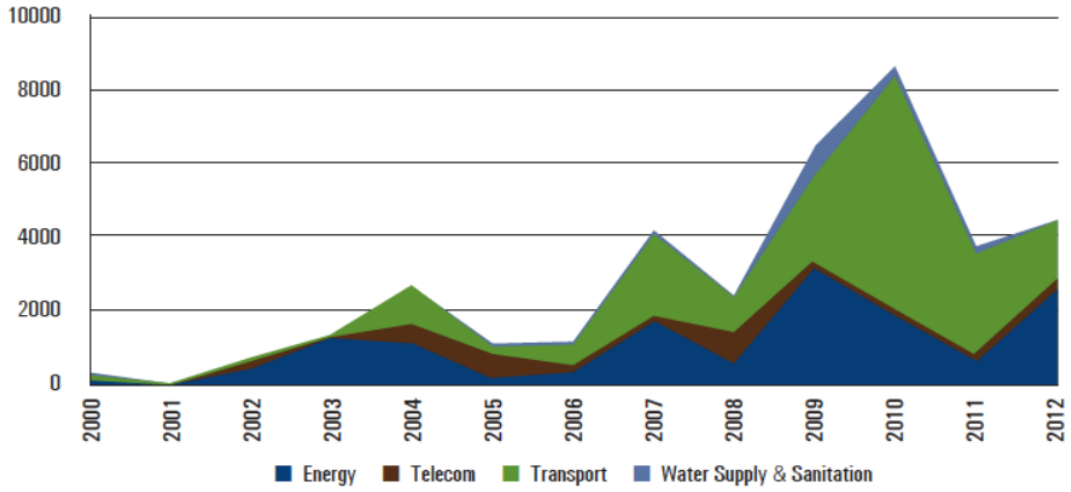
4.10 Secondary Data Review

This section of the essay discusses the growing Chinese involvement in infrastructural development projects in Africa, as drawn from secondary data. It explores the historical context of this engagement, the features of the Chinese involvement, and the multidimensional impacts of these inputs on the African societies and their economies.

4.10.1 Historical Context of Chinese Involvement in Infrastructural Development in Africa

The foundation of China’s relationship with Africa in infrastructure development can be largely traced back to the Cold War era. One notable example is the construction of the Tanzania-Zambia Railway (TAZARA), completed in 1976, which was part of China's support for socialist governments during the 1960s and 1970s (Knsetter, 2019). After the economic liberalization in the late seventies, China began to seek Africa as a resource and market. This fresh economic pragmatism and non-interference policy allowed the flourishing of cooperation between various African governments.

The period of the early 2000s, in itself, was crucial. African raw materials were the "coal" that heated China's economic growth. Such a move and a cautious urge to diversify the source



offoreign reserves caused an increased flow of Chinese official funding in African infrastructural projects.

Figure 4.6: Chinese loan commitments to Africa

As shown inFigure 4.6, this pattern is typical. Starting in 2000, we will see a fast increase in Chinese loan commitments to Africa. They will have reached over $80 billion in 2016 as Brautigam (2019) has scored. Sectors invested in include Telecom, Energy, Transport, and Water Supply &Sanitisation. Most notable is the increase in transport (infrastructural projects) investment between 2010-2011 to a peak of $8000 million (Gutman et al.,2015).

Table 4.15: Distribution of China's trade with Africa (2010-2020)

Country	% of China's Total Trade with Africa (2010)	% of China's Total Trade with Africa (2020)
South Africa	25.2	20.4
Angola	18.1	14.3
Nigeria	11.7	12.1
DR Congo	4.2	5.8
Kenya	3.8	4.1

Table 4.15 summarizes the distribution of China's trade with the top 5 African countries in the period 2010 to 2020. South Africa was China's largest trading partner in Africa in both 2010 (25.2% of total China-Africa trade) and 2020 (20.4% of total China-Africa trade), although its share has decreased slightly. Angola follows as a significant trading partner, though its share has also dipped slightly from 18.1% in 2010 to 14.3% in 2020. Nigeria and Kenya have maintained a relatively steady share of China's total trade with Africa, hovering around 12% and 4% respectively. The Democratic Republic of Congo (DRC) has seen a modest increase in its trade importance to China, rising from 4.2% in 2010 to 5.8% in 2020.

4.10.2 Nature of Chinese Involvement in Infrastructural Development in Africa

In contrast to the usual Western source of such projects, China's implication in African infrastructure construction follows several unique models. Here are some key characteristics:

i. **Focus on Hard Infrastructure**: Chinese investments are comparable to mainstream projects like roads, railways, ports, and power plants (Brautigam & Gallagher, 2005). This is in tandem with the continent's vital requirement for a well-laid-out physical network to enable trade and economic development.

ii. **State-driven Approach**: Chinese finance typically flows through state-owned banks, such as the Bank of China and the Export-Import Bank of China (Exim Bank). This gives the Chinese government a free hand to adopt these ventures to retain hold of resources and oblige Chinese businesses.

iii. **Loan-for-Resource Deals**: Most Chinese loans feature the underlying asset as a guarantee to get back the loan with a high-interest rate. This approach raises questions about the possible debt obligations and the people's well-being, which can result in the exploitation of the countries' resources in Africa.

iv. **Technology Transfer**: Capacity building and technology transfer are the main activities undertaken by limited Chinese projects – namely, the training of the local labor force.

4.10.3 Impact of Chinese Involvement in Infrastructural Development in Africa

The impact of China's involvement in the infrastructure development of Africa is complex in many ways. Here is a breakdown of some key areas:

Economic Impact

i. **Growth**: The development of the infrastructure can result in the growth of economic activities by reducing transportation costs, freeing trade, and loosening foreign investments. In 2017, the World Bank carried out a study highlighting the development of China-backed infrastructure projects, which could raise the steady growth of Africa's GDP by 2 percent points in 2030 (Brautigam & Gallagher, 2005).

ii. **Debt**: Big loans are a source of concern for countries like some African ones because of mounting debts. According to the findings of the China Africa Research Initiative, the African region presented a debt position of approximately $143 billion vis-a-vis China by December 2017 (Brautigam, 2019). Hence, prudent management of these loans is indispensable to attain free debt.

Social Impact

i. **Job Creation**: Hiring people for various activities during the construction and operation of infrastructure maintains job avenues. Nevertheless, the level of local employment is determined by the complex operational requirements and a pool of suitable skilled employees in the recipient country.

ii. **Displacement and Environmental Concerns**: Large-scale projects may cause the displacement of local communities and raise environmental issues. It is crucial to balance the development of infrastructural projects with social and ecological concerns.

iii. **Political Impact**

iv. **Debt and Leverage**: We have high levels of debt that can bind China to influence the recipient countries' political decisions. Transparency in loan agreements and responsibility borrowing are essential to contain the risks.

v. **Governance**: A double-edged sword allows China's infrastructure projects to negatively or positively affect governance in the surrounding states. Projects sometimes may lead to corrupt practices and abuse of office, so establishing reliable oversight mechanisms is crucial. On the other hand, successful infrastructure development can also ensure the preservation of government authority and public trust.

vi. **Resource Security**: The availability of resources is a significant factor for China when making infrastructure investments in Africa. This can lead to closer ties between China and African countries rich in natural resources.

4.10.4 Convergence and Divergence in China-Africa National Interests

China's expanding economic and political presence in Africa creates a complex interplay of converging and diverging national interests. This section analyzes key areas of alignment and misalignment between China and African countries. Areas of convergence include:

i. **Infrastructure Development:** A shared interest in infrastructure development is a major point of convergence. African nations require significant investment in roads, railways, ports, and power grids to unlock economic potential and improve living standards. With its expertise and capital, China seeks new markets while securing access to resources crucial for its growth (Brautigam, 2019).

ii. **Economic Growth and Trade:** China and Africa seek economic growth and increased trade. China offers competitive financing and a vast consumer market for African resources and goods. African countries benefit from foreign direct investment (FDI) and technology transfer, which can drive economic diversification and job creation (Brautigam & Gallagher, 2005).

iii. **Non-interference Policy:** China's non-interference policy in African internal affairs aligns with many African governments' concerns about Western interventionism. This approach gives African leaders more autonomy in managing their countries (Mshana & Lindberg, 2017).

Areas of Divergence

i. **Debt Sustainability:** Large-scale Chinese loans raise concerns about debt sustainability in some African countries. Inappropriate debt management can lead to a situation where a significant portion of export earnings is used for debt servicing, limiting resources available for domestic development priorities (World Bank, 2018)

ii. **Resource Exploitation:** While China's focus on resource extraction fuels African economies in the short term, concerns exist about long-term environmental degradation and the depletion of finite resources. Sustainable resource management practices are crucial for long-term benefits.

iii. **Labor Practices:** Using Chinese labor in some infrastructure projects can create tensions, as African countries seek to maximize job creation for their citizens. Skills transfer programs can help mitigate this issue.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

China is involved in a myriad of infrastructural development projects in Africa. Countries such as Kenya, South Africa, Angola, Nigeria and DR Congo have attracted a significant amount of investment by China in the infrastructural development sector. In the period 2000-2012, most of the infrastructural development has gone to transport, including roads, railways and bridges. Other sectors that have benefited from Chinese involvement include energy, telecommunications, and water supply and sanitation.

In Kenya, Chinese investment in infrastructural projects has been evident in the construction of three mega projects: The Nairobi Expressway, Lamu Port-South Sudan-Ethiopia Transport Corridor, and the Standard Gauge Railway. The transport sector is especially crucial in Kenya because of the country's rapid economic growth and the need to efficiently move people and goods across different regions. This has required substantial investment by the government through infrastructure bonds, loans from the African Development Bank, and the World Bank. However, Chinese loans have comprised a significant portion of this investment, making it important to assess their benefits and long-term sustainability. Other sectors in Kenya that have benefited from Chinese investment include energy, telecommunications, and water.

However, hurdles have been experienced in the development of these projects. Issues such as political interference, technical issues, community engagement and environmental degradation concerns have come out as key challenges facing infrastructural projects. Concerns about Kenya

being trapped in debt by China have also presented a challenge to the longstanding relationship between the two countries.

Investment projects funded by Chinese investment in Kenya have had a significant impact on the economy and have positively influenced the political and social environment in the country. In the wake of construction of these projects, significant economic growth has been experienced, with Kenya moving up to an upper middle-class country. Job creation, improved regional connectivity, and increased trade have been attributed to improved infrastructure.

5.2 Recommendations

There is a need for the expansion of Chinese funded investment in Africa beyond the traditional infrastructural development. As a growing economy, Africa needs investment in various sectors beyond infrastructure, including energy, telecommunications, and education. Additionally, other African countries that have previously been left out of infrastructural development need to be aided in order to compete with the other significantly developing nations in the continent.

Diversifying funding sources for infrastructural projects beyond Chinese loans could reduce Kenya's dependency on China and alleviate the concern of debt-trapping. Alternative financing mechanisms such as public-private partnerships, bonds, and multilateral development banks could form an important step in moving away from overdependence on Chinese funding.

Continuous monitoring and evaluation of infrastructural projects, especially those depending on external funding, is essential to evaluate their impact in the economy, the society and on the environment. This ensures sustainable development all-round the economy and prevents potential negative impact of infrastructure development Environmental mitigation measures need to the put in place to avoid destruction of nature even as the projects are put up.

Depoliticizing the projects decision making process and making sure that project selection is based on in-depth economic and technical evaluation as opposed to short-term political considerations ensures that political interference does not affect project effectiveness and transparency.

REFERENCES

Amusan, T., & Nel, P. (2023). The limits of mutual benefit: A neo-mercantilist perspective on China's economic relations with Nigeria. *South African Journal of International Affairs*, *30*(1), 121-152.

Andiva, Y. M. (2017). The Impact of Chinese Led Infrastructural Development on Sino-african Relations: The Case of Kenya (Doctoral dissertation, University of Nairobi).

Ayodele, T., &Sotola, O. (2014). China in Africa: An evaluation of Chinese investment. Initiative for Public Policy Analysis, 1-20.

Beinart, W., & Boot, E. (2018). The Costs of Collateral Damage: China's Belt and Road Initiative in the Global South. Foreign Affairs, 97(3), 102-111.

Brautigam, D. (2009) The Dragons Gift – The Real Story of China in Africa, Oxford University Press Beriwan Dadvar, China's role in African infrastructure development – Cooperation orExploitation? http://lup.lub.lu.se/luur/download?func=downloadFile&recordOId=8891061&fileOId=8891062

Brautigam, D. (2019). The Myth of China's Free Lunch in Africa. Oxford University Press.

Broadman, H. G. (2006). Africa's silk road: China and India's new economic frontier. World Bank Publications.

Chen, D., & Li, X. (2020). Political considerations in Chinese-funded projects in Africa: Diplomatic relations and geopolitical interests. Global Policy Analysis, 35(2), 211-228.

Chome, N. (2020). Local Transformations of LAPSSET (pp. 33-42). Boydell & Brewer.

Corking, L. Burke, C. Davies, M. (2008) China's Role on the Development of Africa's Infrastructure

Crocker, C. A. (2021). The Belt and Road Initiative and Africa's Economic Transformation. Journal of Modern African Studies, 59(2), 221-242.

Eisenman, J. (2012). China–Africa trade patterns: causes and consequences. Journal of Contemporary China, 21(77), 793-810.

Foster, V. (2009). Building bridges: China's growing role as infrastructure financier for Sub-Saharan Africa (Vol. 5). World Bank Publications.

Frank, A. G. (1967). Capitalism and underdevelopment in Latin America: Historical studies of Chile and Brazil. Monthly Review Press.

Frimpong, K., & Peng, M. W. (2021). Chinese infrastructural development in Africa: Implications for sustainable development. *Sustainability*, *13*(2), 1-20.

Frumkin, J. (2019). China and the Helping Hand: Economic Development and the Hidden Costs of Power. Oxford University Press.

Gil, M. M. (2015). Something new out of Africa? Chinese, US and EU strategies for the continent.

Hanusch, M. (2012). African perspectives on China–Africa: Modelling popular perceptions and their economic and political determinants. Oxford Development Studies, 40(4), 492-516.Bossard, "China's role in Financing African Infrastructure"

Haroz, D. (2011). China in Africa – Symbiosis or Exploitation? The Flecther Forum of World Affairs

He, W. (2021). The Shared Future of a China–Africa Community: Ideological Implications and Implementation. In *The Changing World and Africa* (pp. 355-379). Singapore: Springer Nature Singapore.

Irandu, E. M., & Owilla, H. H. (2020). The economic implications of belt and road initiative in the development of railway transport infrastructure in Africa: The case of the standard gauge railway in Kenya. The African Review, 47(2), 457-480.

Johnson, A., et al. (2018). The impact of Chinese infrastructural projects in Africa: Economic, social, and political dimensions. Journal of African Studies, 14(3), 345-362.

Johnson, R. B., & Christensen, L. (2019). Educational research: Quantitative, qualitative, and mixed approaches. Sage publications.

Kalinowski, J., Tullock, M., & Wang, Y. (2021). The Belt and Road Initiative: A Critical Review. World Development, 140, 105392.

Kaplinsky RD, McCormick D, Morris M (2007). The Impact of China on Sub Saharan Africa

Keohane, R. O. (2005). After hegemony: Cooperation and discord in the world political economy. Princeton university press.

Kimani, M., & Oluoch, P. (2020). Assessing the socio-economic impact of Chinese infrastructure investments in Kenya. *African Development Review, 32*(1), 45-63.

Krueger, A. O. (2006). The world economy at the start of the 21st century. Remarks at the Annual Gilbert Lecture. Rochester University, New York.

Li, Q., & Wang, X. (2020). Cultural dimensions of China-Kenya relations: Implications for bilateral cooperation. *Journal of African Studies, 25*(4), 567-586.

Li, Y., & Zhang, H. (2020). Environmental impacts of Chinese-funded infrastructure projects in Kenya: Challenges and opportunities. *Environmental Science & Policy, 25*(3), 45-62.

Liu, Y., & Huang, Y. (2020). China's infrastructural investments in Africa: Motivations and implications. *Journal of Contemporary African Studies, 38*(4), 567-586.

Liu, Y., et al. (2021). The influence of political factors on Chinese infrastructural projects in Africa. Journal of Global Affairs, 28(1), 45-60.

McLeary, P. (2007). A different kind of great game: Are China and United States heading for a showdown over Africa?

Moyo, D., (2009). Dead Aid: why Aid is Not Working and How There is Another Way for Africa. Penguin books Ltd.

Mulwa, R. (2019). When urban green spaces meet infrastructure development in Kenya: A case of the Nairobi Expressway. East African Law Journal, 66.

Mutava, A., & Mwenda, J. (2020). Understanding the Funding Constraints in Infrastructure Development: A Case Study of Kenya. Journal of Infrastructure Development, 28(3), 45-58.

Muthui, S., & Gitonga, R. (2020). The role of infrastructure development in enhancing China-K enya trade relations. International Journal

Mutua, J., & Karanja, F. (2019). Community engagement in Chinese-funded infrastructure p rojects: Lessons from Kenya. *Development Southern Africa, 36*(6), 789-803.

Nkrumah, K. (1965). Neo-colonialism: The last stage of imperialism. Thomas Nelson & Sons.

North, D. C. (1991). Institutions. Journal of Economic Perspectives, 5(1), 97-112.

Okello, P., & Mwangi, S. (2019). Political Interference in Infrastructure Projects: Implications for Development in Kenya. International Journal of Development Studies, 17(2), 78-92.

Onjalla, J., (2008). A Scoping Study on China – Africa Economic Relations: The Case of Kenya. African Economic Research Consortium (AERC), Nairobi, Kenya (5th March 2008).

Otieno, F., & Oduor, J. (2018). The Nexus between Corruption and Infrastructure Development: Evidence from Kenya. Corruption Studies Quarterly, 6(4), 112-127.

Rigo, M. (2014). The Africa Policy of the People's Republic of China and its impaction Nigeria and Zambia. WydawnictwoUniwersytetuŁódzkiego.

Rotberg, R., (2008). China into Africa: Trade, Aid and Influence. Brookings Institution Press, Washington,

Smith, B., & Wang, C. (2019). Social implications of Chinese investments in Africa: Community engagement and environmental sustainability. International Development Quarterly, 22(4), 567-581.

Wendt, A. (1992). Anarchy is what states make of it: The social construction of power politics. International Organization, 46(2), 391-425.

WISCHER, G., & BAZILIAN, M. (2024). The Rise of Great Mineral Powers. *Journal of Indo-Pacific Affairs*, *7*(2).

Zafar, A. (2007). The growing relationship between China and Sub-Saharan Africa: macroeconomic, trade, investment and aid links. The World Bank Research Observer, Advance Access

Zepeda, E., Chemingui, M., Bchir, H., Karingi, S., Onyango, C., & Wanjala, B. (2009). The impact of the Doha Round on Kenya. Washington, DC: Carnegie Endowment for International Peace.

☐ Moderately

☐ Neutral

☐ Minimally

☐ Not at All

4.3. In your view, how have Chinese infrastructural projects influenced the political relationship between China and Kenya?

☐ Strongly Positive

☐ Positive

☐ Neutral

☐ Negative

☐ Strongly Negative

4.4. Do you believe there are areas where the economic interests of China and Kenya differ?

☐ Yes

☐ No

4.5. Have Chinese infrastructural projects led to an improved diplomatic collaboration between China and Kenya?

☐ Yes

☐ No

4.6. How confident are you in Kenya's ability to effectively repay loans that have financed Chinese-funded infrastructural projects? Why do you think so?

☐ Very Confident

☐ Confident

☐ Neutral

☐ Not Very Confident

☐ Not Confident at All

Section 5: Specific Projects

The Chinese government has been the main financier of Kenya’s key infrastructural projects in the period 2012-2022. Three of these are The Standard Gauge Railway (SGR), The Lamu Port-South Sudan-Ethiopia Transport (LAPSSET) and The Nairobi Expressway. Please give your

responses only in projects you are familiar with and have confidence to accurately respond to questions about.

5.1. The Standard Gauge Railway (SGR)

5.1.1. Are you familiar with the Standard Gauge Railway project?

☐ Yes

☐ No

5.1.2. What **ONE** specific economic benefit do you associate with the Standard Gauge Railway (SGR) project?

☐ Significant Cost Reduction

☐ Improved Regional Connectivity

☐ Job Creation

☐ Environmental Benefits

5.1.3. How satisfied are you with the environmental and social mitigation measures, (e.g. wildlife conservation, noise and vibration reduction, reforestation, conservation of biodiversity and community engagement), undertaken for the SGR?

☐ Very Satisfied

☐ Satisfied

☐ Neutral

☐ Dissatisfied

☐ Very Dissatisfied

5.1.4. Do you believe the SGR was a viable economic investment by the government of Kenya at the time of its inception? Why?

☐ Yes

☐ No

_____

_____

5.1.5. On a scale of 1 to 5, how would you rate the transparency of the SGR financing arrangements and how it has affected the overall perception of the project among Kenyans?

(Not Transparent at All) (Very Transparent)

1☐ 2☐ 3☐ 4☐ 5☐

☐ High Potential

☐ Neutral

☐ Low Potential

☐ Very Low Potential

5.2.6. Has the LAPSSET project led to a strengthened economic partnership between China and Kenya?

☐ Yes

☐ No

5.3. The Nairobi Expressway

5.3.1. Are you familiar with The Nairobi Expressway project?

☐ Yes

☐ No

5.3.2. What, in your opinion, is the **ONE** main benefit of the Nairobi Expressway project?

☐ High Efficiency

☐ Reduced Travel Time

☐ Environmental Concerns

☐ Social Disruptions

5.3.3. How frequently do you use the Nairobi Expressway, and what is your overall satisfaction with the toll system?

☐ Frequently and Satisfied

☐ Occasionally and Satisfied

☐ Neutral

☐ Occasionally and Dissatisfied

☐ Frequently and Dissatisfied

5.3.4. On a scale of 1 to 5, how would you rate the efficiency of the Nairobi Expressway in reducing travel time?

(Not Efficient at All) (Highly Efficient)

1☐ 2☐ 3☐ 4☐ 5☐

5.3.5. How well do you think the Nairobi Expressway integrates with existing transportation infrastructure?

- ☐ Very Well
- ☐ Well
- ☐ Neutral
- ☐ Poorly
- ☐ Very Poorly

5.3.6. Please provide your insights on the overall impact of the Chinese-funded Nairobi Expressway on the Kenyan economy, and how you think this affects the relationship between the two countries

_____
_____
_____

Appendix II: Research Authorization by Kenyatta University

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 4150

Internal Memo

FROM: Executive Dean, Graduate School

DATE: 20th February, 2024

TO: Kalui Victor Mutinda
C/o Security, Diplomacy & Peace Studies

REF: C50/PT/CTY/38718/2016

SUBJECT: APPROVAL OF RESEARCH PROJECT PROPOSAL

This is to inform you that Graduate School Board at its meeting of 14th February, 2024 approved your Research Project Proposal for the M.A Degree Entitled, **"Assessing Chinese Led Infrastructural Development on Sino-African Relations: The Case of Kenya (2012-2022)."**

You may now proceed with your Data Collection, Subject to Clearance with Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking and progress report Forms per semester. The Forms are available at the University's Website under Graduate School webpage downloads.

Also, please ensure that you publish article(s) from your project before submitting it to Graduate School for examination as per the Commission for University Education and Kenyatta University guidelines.

Thank you.

JACKSON LUVUSI
FOR: EXECUTIVE DEAN, GRADUATE SCHOOL

c.c. Chairman, Department of Security, Diplomacy and Peace Studies.

Supervisors:

1. Dr. Caroline Wandiri
   C/o Dept. of Security, Diplomacy & Peace Studies
   Kenyatta University

JL/mo

Appendix III: Research Permit by NACOSTI

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **800780**

Date of Issue: **13/March/2024**

RESEARCH LICENSE

This is to Certify that Mr.. VICTOR MUTINDA KALUI of Kenyatta University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: ASSESSING CHINESE LED INFRASTRUCTURAL DEVELOPMENT ON SINO-AFRICAN RELATIONS; THE CASE OF KENYA (2012 - 2022) for the period ending : 13/March/2025.

License No: **NACOSTI/P/24/33669**

800780

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions