THE ROLE OF STAKEHOLDER ENGAGEMENT IN THE ADOPTION OF SOCIAL SUSTAINABILITY IN CONSTRUCTION PROJECTS IN KENYA

MOLLY RABONGO

1240

A Thesis Submitted for Award of a Master of Business Administration at Strathmore University

Strathmore Business School
Strathmore University
Nairobi, Kenya

June 2025

DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other university. To the best of my knowledge and belief, this thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

MOLLY RABONGO

1240

Signature:……

Date…….**June 2025**……

APPROVAL

This thesis for Molly Rabongo was reviewed and approved for examination by:

Prof. Simon Ndiritu

Lecturer,

Strathmore Business School

Signature…….

Date…….

ABSTRACT

The construction industry in Kenya has demonstrated laxity in the adoption of social sustainability, owing to the subjectivity of the measurement criteria, as well as lack of identifiable tangible benefits to the implementers. Stakeholders of these projects provide a vital bridge to this reluctance. The main aim of this study was to examine the role of stakeholder engagement to the adoption of social sustainability in construction projects in Kenya. The scope of the study was stakeholder aspects and their influence on the adoption of social sustainability by construction practitioners. The specific objectives were: to examine the influence of neighbourhood community aspects on the adoption of social sustainability in a construction project; to establish the influence of media aspects on the adoption of social sustainability in a construction project; to explore the influence of local government aspects on the adoption of social sustainability in a construction project; to analyse the influence of industry consultants aspects on the adoption of social sustainability in a construction project; to assess the influence of client aspects on the adoption of social sustainability in a construction project and; to examine the influence of end-user aspects on the adoption of social sustainability in a construction project. Cross-sectional research design was employed in this research, where 129 out of 200 NCA 1 contractors responded to the survey. The data collected was analyzed using SPSS software where results of descriptive and inferential statistics were generated. The study recommends strengthening of community leadership and engagement, enhancing County Government involvement and policy enforcement, leveraging industry consultants' expertise, empowering end-users through value-driven approaches and utilizing media influence effectively to promote adoption of social sustainability in construction projects.

Key Words; sustainability, construction industry, stakeholder engagement

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACRONYMS & ABBREVIATIONS

SIA Social Impact Assessment
SDG Sustainable Development Goals
BORAQS Board of Registration of Architects and Quantity Surveyors
KPDA Kenya Property Developers Association
NCA National Construction Authority

CHAPTER ONE

INTRODUCTION

Sustainable development allows for individuals, corporations and governments to assess the present consider impact of their action or inaction to future generations. Sustainability is typically approached in three categories of social, environmental and economic sustainability. Notably, social sustainability, the subject of this study, remains a lightly studied concept, with no universal definition and thus seemingly featuring last in the priority of the elements of sustainability. The criteria and dimensions of social sustainability attendant to construction projects as well as its definition is similarly not clearly covered and delineated. The context and application of the concept, the understanding of users and the construction or utilization stages of the project are currently relied on in defining social sustainability and its elements. (Bakht, 2015).

The core themes of social sustainability are centered on elements of participation of societies in governance and the development of policies, community empowerment, access by individuals and societies to basic needs, fair consideration of income and worker wages, equality of rights, access of communities to education, availability of social and health services, consideration of employee working conditions and decency of wages, social cohesion and inclusion (Mcguinn et al., 2020). The concept further analyses the engagement of an institution with its internal and external stakeholders, including, the immediate community, its employees, customers and supply chain. Elements considered are human rights considerations, health and safety, diversity and inclusion and the impact of the institution's activities on the community (Design Build Network, 2021).

Agenda 21 for Sustainable Construction in Developing Countries has defined sustainable construction as an intentional strategy towards restoring and sustaining symmetry between built and natural environments, and establishing human dwellings considerate of their dignity and encouraging equity in the economy (Du Pleissis, 2002). Measurable factors of social sustainability include its effects on aspects such as female labour-force participation rate, relative poverty, unemployment rate, literacy rate amongst others (Natsios, 1997).

Increasingly, pressure is mounting for institutions to factor in aspects of sustainability issues in operations of their businesses and their systems (Lozano, 2018). Studies have identified the common issues, performance implications and likely gain of interacting with stakeholders for sustainability (Grekova, 2016). Stakeholder interaction has thus been established as vital for organizations to access and disseminate resources and information that can be critical for innovation, to further strengthen their competitive advantage and improve their performance on sustainability aspects (Gray B. a., 2018). Stakeholder and community involvement is recognized as key to achieving an institution's targets for sustainability and aids in improving coordination within its supply chain (Ayala-Orozco, 2018).

Engagement with multiple stakeholders is considered essential in solving matters of sustainability and development of the sustainability practices of the organization. This approach facilitates a wider grasp of the elements of organisational sustainability, where stakeholder interaction is utilized to both ensure the survival of the organisation and to create a value chain and social systems that are sustainable (Bansal, 2017).

3.1 Background

Sustainable Construction, as a term, was introduced in Tampa, Florida in the United States of America, during the 1st International Conference on Sustainable Construction, held in 1994. Sustainability in the construction context was defined as creating and responsibly managing the built environment, with consideration for efficiency in resource utilization and ecological principles (Kibert CJ., 1994). At its earliest formulation, the concept of sustainable development majorly focused on environmental factors. This concept has since evolved to include both the economic and social elements of sustainability, resulting in the incorporation of these in reporting on the sustainability of construction projects. These are presently widely considered in various building assessment tools for providing information on sustainability interventions (Du Plessis, 2007).

3.1.1 Features of a Sustainable construction Project

A project is considered sustainable when it delivers in a balance and optimally, economic, social, and environmental factors of sustainability. Implementation of environmental sustainability aims to create symmetry between the built and natural environments, for the life cycle of the project. Consideration of social aspects of the development of the community, the engagement of the public, the comfort of users of the built structure, aspects of health and safety, access of the community to services as well as equality and diversity realizes the social sustainability of a built structure (Goh, 2017). The pecuniary gains from the project are considered under economic (NZ., 2010).

Social sustainability seeks and inputs recommendations of stakeholders at the different stages of construction, from inception, through to completion or demolition. Effects of the project on the community, the end-users, the education of those employed to the project as well as matters concerning health and safety are among the factors that are considered. A holistic consideration and integration of these factors into the construction process, will enhance the quality of life of users and the community as well as improve its long-term efficiency. The design and execution stages of a construction project are widely acknowledged as entailing a system that is complex and with varied actors. This engagement with stakeholders, coupled with the incorporation and adherence to social sustainability elements and factors in construction projects are the recipes towards projects that are successful technically and accepted by the communities in which they exist and seek to serve.

Sustainable construction, as a concept, is grounded upon four key strategic directions: conceptualising a long-term vision for the industry and policy; establishing desirable factor resources and conditions; establishing and fostering best practices culture and; enhancing technical competency (Wong JMW, 2010). A different study, identified that fostering stakeholder engagement requires adherence to six key steps: mapping of key stakeholder; stakeholder connection to targeted sustainability direction; prioritization of stakeholders; management of stakeholders and; the clear measurement of performance (Bal M, 2013).

The sustainability of projects is a growing concern for local governments globally. Recently practitioners in the development space have created a focus on efficient monitoring of projects and their implementation with the aim of success and eventual sustainability of these projects (Zou P., 2017). The unsustainability of construction projects has been linked, not to the technical concerns in the project, but to factors such as stakeholder involvement, the procedures for analysing and assessing project performance, resources attached, capacity of the project staff and social relationships (Al-Bahar J., 2010).

3.1.2 Application of Social Sustainability Factors in Projects

Increasingly, organisations are applying factors of social sustainability into their projects and company activities, with the anticipated effect of non-acceptance of projects where this is disregarded. A study was conducted by the California Polytechnic State University identifying unsustainable projects in Africa. An example of these was in Rwanda, by the group, Engineers without Borders, where the unsuccessful project was attributed to the Group's failure to involve and onboard the community. Another example is given of Afghanistan, where a team of engineers from the United States, handed over to the Afghans two diesel/petrol incinerators after construction, for use in a forward operating base. The Afghans, however opted out of use of the incinerators, owing to the high operational costs, opting instead for open burn pits, common used in area (Suermann, 2013).

To avert future incidence of non-involvement of stakeholder, an Architectural Design Guide, was developed for Engineering Ministries International (EMI) volunteers in East Africa. Features such as construction materials, building codes, and common building practices in the Region are taken into account (EMI, 2007). The American Society of Civil Engineers' similarly possess a Field Guide for Development Workers, focused on Environmental Engineering. The Guide, targets non-engineers working in developing countries and creates balance between principles of social sustainability and technical guidance. Featured sections in the guide include those on leveraging community participation as an approach in engineering projects, consideration of both the social setting and location of the project, the people likely to operate and manage the project, the beneficiaries and the physical structure itself (Mihelcic, 2009).

The Project Design Guidance by USAID adopts environmental, social and economic factors in the realisation of its projects. Principles that guide the Agency in its operations include; “Build-in Sustainability from the Start”, which factors aspects such as community demand and ownership of the project, avenues leveraged in building the capacity of project stakeholders and community to maintain the project; sustainability-driven strategies employed in the implementation and procurement for the project as well as environmental considerations (USAID, 2011).

A study conducted in 2018 analysed and confirmed the extent to which the Malaysian government and consultants endeavour in the management and involvement of stakeholders by keeping them well-informed on the project, building their capacity on the project by availing forums, open communication interfaces and visual representations (Newcombe, 2018). A similar observation was made in Guinea, that involving project stakeholders in the planning for, identification of, implementation and monitoring of projects increasing its chances of successful performance. Differentiating factors of stakeholders, such as influence, power, proximity are best identified through legitimate and valid stakeholder participation, which then enables the institutions to accurately manage their potential impact on the project (Magassouba, 2019).

It was established, in South Africa, that the delay in timely and scheduled completion of development projects, was attributed to failure to conduct as robust stakeholder analysis and identification. Factors of interest to stakeholders such as the project implementation design, financial resources, available expertise are considered to be critical to the capacity of the state to deliver service son time (Oke, 2016). In Kenya, a study conducted by Muhiai asserted that failure of construction projects is greatly attribute to failure to give attention to stakeholders. It is therefore paramount to establish a well formulated stakeholder management strategy (Muhiai, 2018). According to Githinji, management of stakeholders is a key strategy towards improving the uptake and delivery of projects for public good, including the consequent challenges which typically include cost overruns, delays in project completion and substandard projects (Githinji, 2020).

3.1.3 Tools for Measuring Social Sustainability

The U.S Green Building Council's(USGBC) developed a sustainability rating tool-Leadership in Energy and Environmental Design(LEED), which awards credits covering sustainability elements of environmental, economic and social aspects. Many of the LEED categories and credits, have however, been noted to be skewed towards the digital advancements and wealth of the continents of North America and Europe, as opposed to that which is available in developing countries (USGBC, 2015).

The Institute for Sustainable Infrastructure (ISI), developed Envision, for measuring achievement of sustainability factors in the development of infrastructure (ISI, 2024). The Envision tool is composed of five aspects; Resource Allocation, Quality of Life, Natural World, Leadership and Climate & Risk. The category of the quality of life focuses on elements of the involvement of community, and awards points for considerations that enhance life standards of the community, develops skills and competencies of locals, improves the community safety and public health and makes an effort to improve public spaces. The Inter-American Development Bank is presently utilizing Envision in the measurement of sustainability of community impact projects in the Caribbeans and Latin America (ENR, 2024)

Similar to Envision, is the Social Economic Environmental Design (SEED) rating system, which also leverages the triple bottom line in the certification of its projects. Examples of issues considered in this tool is, strengthening community, cultural heritage, local sourcing and community charrettes and job training. It has been noted that the existing rating systems have not critically developed the social aspect of sustainability, especially as concerning developing countries (James Pocock C. S., 2016). A new rating tool is proposed to achieve consideration of social elements of sustainability in developing countries which can be achieved solely by deliberate dialogues between the different players in the private sector, government, civil society and academia (Du Pleisses, 2007).

3.1.4 Social Sustainability in Kenya

Construction projects in Kenya have witnessed significant efforts towards environmental sustainability, products selection and use of green certified designs, including Excellence in Design for Greater Efficiencies (EDGE) (IFC, n.d.) by the International Finance Corporation (IFC) and Safari Green Building Index (AAK, 2021) by Architectural Association of Kenya (AHK). These, with a focus on designs that promote energy and water efficiency and conservation, proper waste disposal practices and promotion of circularity in the construction environment.

Strategies in governance, processes and technology towards sustainability in construction have been championed by entities such as the Kenya Green Building Society and in government through enactment of regulations and policies, acknowledging the need for incorporation of elements of sustainability in design and processes. An example of regulations featuring sustainability in design and construction is the Kenya's National Building Regulations (Building Code)2022 (NCA, 2022). Other action has included promotion of technological adaptation by players in the industry, and an audit of procurement processes to enhance transparency and a focus on life-cycle.

Nyabera (2015) observed that those projects which implement stakeholder management strategies, record successful implementation as observed in a study conducted on projects assisted by Compassion International in Mwingi Sub-County. The report recommended that organizations should consistently build the capacity of project staff on stakeholder analysis and participation for competent project implementation.

The IFC handbook on stakeholder engagement*(ibid)* encourages stakeholder management by players in emerging markets, which it believes is key in the cultivation of a proactive relationship, and offers a five-step approach to engaging stakeholders. The contents include elements on disclosure of information, participation, consultation, partnership, negotiation and communication strategies*(ibid).* Public participation is a key facet of Kenyan laws including the Constitution of Kenya (CoK), 2010 and is included in land laws, laws creating the devolved system of government and the Environmental Management and Coordination Act (EMCA), 1999 (Revised 2015).

3.1.5 Study Focus

This study will explore the relationship between consideration for and engagement of stakeholders and the the adoption of social sustainability in construction projects in Kenya. It will ascertain the key stakeholders to such projects and what factors differentiate them, which determines their sway on the adoption of social sustainability in a project. Subjects of this study are: the project neighbourhood community; local media; local government/county government; construction industry consultants, including engineers, architects, quantity surveyors; project client and; the end-users of the project. This analysis will establish factors of the stakeholder that influence adoption of sustainability, with the expected outcome of policy, programmes and interventions directed at the identified gaps, aimed at enhancing the involvement of the stakeholders in projects in their communities.

3.2 Problem statement

In developing countries, characterized by inequality, health challenges, poverty and illiteracy, the social system is rarely considered in construction project development (Essam Almahmoud, 2016). Kenya is no exception to the assumption on this reluctance to consider social issues during project conceptualization, design and implementation. It is notable, however, that owing to regulatory requirements for environmental impact assessment (EIA) in Kenya, public and private corporations are mandatorily expected to comply with factors on environmental sustainability, leading to a greater number of construction projections considering their environmental impact (Transparency International, 2020)

Through the EIA (EMCA Act, 1999) effected by National Environmental Management Authority (NEMA), there is compliance and consideration by industry stakeholders for the environmental and economic impacts of construction and sustainable development measures and practices. This however is not similar for social sustainability, owing to the subjectivity of the measurement criteria, as well as lack of identifiable tangible benefits to the implementers. Shortcomings of the concept have been identified as of two types: theoretical, with effect to its definition and understanding, and practical, concerning its operationalisation and project planning and incorporation (Boström, 2012).

For an organisation to generate sustainable value, it is vital that stakeholder interaction is strategically incorporated into the organisation's business model (Kujala, 2017). Sustainability scholars argue that sole corporate entities lack the capacity to handle complex sustainability matters. They however can achieve these through interaction with their stakeholders in the development of solutions (Clevenger M. M., 2019). Most companies have only recently considered the social effects of their operations, but the adoption is rather low.

Some of the studies conducted on sustainability in Kenya, include on factors that influence sustainability of county government funded projects (Gichuki, 2019) the comparison between awareness and adoption of sustainable construction practices in Kenya (Jacob Simwero, 2024), regulatory framework and their impact on sustainability in construction in Kenya (Njoroge, 2013)

An analysis of the existing studies as identified, indicates much research exists on the present topic with regards to the construction industry in Kenya. None, however, have examined social sustainability and the specific factors of stakeholders that determine their impact on projects. Leveraging on the identified gap in literature, this study thus seeks to explore the concept of social sustainability and the determining factors of stakeholders that influence its adoption in construction projects.

3.3 Research objectives

The main objective of this study is to establish the role of stakeholder engagement in the adoption of social sustainability in construction projects in Kenya. The focus will be on stakeholder aspects. The specific objectives are:

i. To examine the influence of neighbourhood community aspects on the adoption of social sustainability in a construction project
ii. To establish the influence of media aspects on the adoption of social sustainability in a construction project

iii. To explore the influence of local government aspects on the adoption of social sustainability in a construction project
iv. To analyse the influence of industry consultant aspects on the adoption of social sustainability in a construction project
v. To assess the influence of client aspects on the adoption of social sustainability in a construction project
vi. To examine the influence of end-user aspects on the adoption of social sustainability in a construction project

3.4 Research questions

i. What is the influence of neighbourhood-community aspects on the adoption of social sustainability in a construction project
ii. What is the influence of media aspects on the adoption of social sustainability in a construction project
iii. What is the influence of local government factors on the adoption of social sustainability in a construction project
iv. What is the influence of industry consultant aspects on the adoption of social sustainability in a construction project
v. What is the influence of project client aspects on the adoption of social sustainability in a construction project
vi. What is the influence of construction project end-user aspects on the adoption of social sustainability in a construction project

3.5 Significance of the study

Population growth in Kenya has led to an increased demand for construction projects, thereby potentially posing social risks to the immediate communities in which the projects are undertaken as well as to industry stakeholders. These social risks, coupled with the global demand for accountability by nations and companies in line with the SDGs, are the essence of this study.

This study will assess awareness by construction practitioners of social sustainability and its elements, as well as need for engaging stakeholders. It will further conduct an analysis of the factors that differentiate stakeholders and ascertain which of these influence engagement and thus adoption by construction projects of social sustainability.

Construction industry stakeholders will be guided by this study on factors, which upon consideration and implementation during the construction project cycle, will enhance the sustainability of the construction project and the resultant environment. This study will further highlight the influencing power of stakeholders, with anticipation of greater responsibility by project stakeholders, in ensuring that social sustainability elements are included and adhered to in all construction projects.

Findings from this study will influence policy development to further strengthen the existing legal provisions on stakeholder engagement. The study will unearth gaps which have resulted in failures of construction projects, due to non-adherence to the legal requirements for public participation, and the resultant social sustainability factors. For the researcher, this study will uncover areas for further research in the areas of stakeholder engagement, stakeholder aspects and social sustainability.

3.6 Scope of the study

The focus of this study is on the influence of engaging construction project stakeholders on the adoption of social sustainability in construction projects in Kenya. Specifically, it will feature differentiating aspects of stakeholders and their influence in the adoption thereof.

The unit of analysis is a construction project while the unit of observation are contractors registered by NCA under category one (1) which is the highest registration category in the NCA database, ranked by factors such as financial and assets portfolio, experience in construction works and qualifications of the company's leadership.

The regional focus of the study will be ongoing projects in Nairobi. The methodological scope will adopt factor analysis to establish factors influencing the adoption of social sustainability in construction projects. The theoretical scope of the study will cover Stakeholder Theory, Social Network Analysis Theory and Legitimacy Theory.

1.7 Chapter Summary

Chapter one makes a presentation of the concepts that will be explored in the study. It defines the concept and distinguishes the types of sustainability, among them, social sustainability. Social sustainability is defined and the need for incorporating it in the strategy of a company established. The chapter then delves into sustainable construction, defining it, its constitution features, application in construction projects, the method and tools for measuring it. It then concludes with a view of social sustainability in the Kenyan context. The chapter additionally highlights key topics in which the study will focus, and the statement of the problem necessitating the research. It captures the research objectives and questions, concluding with the significance and scopes of the study.

CHAPTER TWO

LITERATURE REVIEW

3.1 Theoretical Review

3.1.1 Introduction

This section discusses the theoretical framework. It will focus on three theories: Social Network Analysis Theory, which studies the connection between individuals or collective actors in social processes (Hirschi, 2010); Stakeholder Theory, which demonstrates the relationships which exists between varied actors internal and external to an organization (Freeman R. E., 2004) and; legitimacy theory, which supports organisations in establishing and implementing sustainability disclosures for the communities in which they operate (Burlea, 2013). The chapter will further undertake the empirical review of the literature, the conceptual framework and establish the research gap.

3.2 Theoretical Foundation

3.2.1 Stakeholder Theory

A stakeholder, as presently understood, generated interest following the publication of Edward Freeman's work on strategic stakeholder management in 1984 (Pedrini, 2019). The stakeholder theory proposed by Freeman, pegs the survival of an organization on its anticipation and satisfaction of stakeholder expectations (Freeman R. , 1984). Stakeholders are defined as individuals or entities with influence or ability to influence the activities of an organization.

Scholars have made attempts to define the concept, map who falls within the definition and analyze how they influence an organisation's decision-making and why they are relevant to this. A starting point has been categorization of stakeholders as either internal and external to the institution (Bryson, 2004). They have further been analysed from the point of being primary or secondary stakeholders, in respect of their likely impact on an institution's decisions (Freeman R. H., 2007).

Edward Freeman developed a stakeholder engagement framework, which analysed the connection between an institution and its stakeholders. This framework focused on inter-communication between stakeholders and organizations as well as deliberate interaction with and learning from the stakeholder. (Freeman R. K., 2017). In light of works by Freeman, other scholars such as Belucci adopted a definition of stakeholder engagement which identifies deliberate strategies by the organization to facilitate stakeholder involvement (Bellucci, 2018).

Efforts by institutions to generate and sustain relationships with varies stakeholders has been termed, stakeholder integration, and involves gaining knowledge on the stakeholder, which may include stakeholder attributes and demands to establish relevance to the organization; understanding approach of the organisation towards stakeholder interaction, which may include ,communication, participation and consultation with stakeholders; and reflection on the efforts towards adaptation within the organisation and set timeliness in meeting stakeholder expectations (Plaza-Úbeda, 2010).

Justification for a stakeholder business case for sustainability, according to Schaltegger, emphasizes the need to involve all stakeholders likely to be affected by a problem to which a solution is being sought or implemented. Mapping of stakeholder needs and expectations is key to the creation of this business case, against which products and services are then developed with the involvement of the stakeholders (Schaltegger, 2019).

Among the initial challenges identified to stakeholder theory concerned the need for a reliable method of identifying stakeholders and thereby separation stakeholders from non-stakeholders (Mitchell, 1997). Freeman and Reid define stakeholders as individuals or entities capable of creating negative or positive impact on an organization objective, and who similarly may be impacted by these objectives with the ability to (Freeman R. E., 1983). For usefulness and ease of application, Mitchell et al, in support of this definition, suggest that latent stakeholders must be accounted for in the theory of stakeholder identification (Wood, 1997). Such accurate knowledge of the stakeholder aids in addressing the firms concerns including economics, partnerships, influence *(ibid).*

Fassin established a list of key stakeholders to an organization's objectives. The list included customers, employees, financiers, civil society as well as the community in which the organization operates. His subsequent stakeholder map emphasized need to consider internal stakeholders,

pressure groups and regulators in the industry of the organization's industry mandated with external control and regulation of the firm (Fassin, 2009).

Stakeholder theory, with reference to this study, highlights the dependence of the survival of organizations, to the relationship with the community in which they function. In this case, the demands and attributes of the specific stakeholders, is key to a functional working relationship and the successful delivery of a project. The underpinning concepts of stakeholder theory, reflect need for contractors developing projects, to engage persons likely to be affected by it. Leveraging the same theory, the study highlights the differentiating factors from one group of stakeholders to another, which determine their likelihood of involvement in decisions on projects within their communities.

3.2.2 Legitimacy Theory

In legitimacy theory, the society establishes social performance parameters against which the activities of an institution are assessed and measured.

An organization's legitimate status, drawn from legitimacy theory, is the strategic positioning of its daily operational activities and behaviour, in consideration of the expectations of its functional community and with the aim of achieving legality and acceptability of its activities (Guthrie, 2006). Recent studies on social and economic sustainability, according to Guthrie, are pegged on legitimacy theory, as it is the most ideal is explaining the dual concepts. Campell et al noted the broad usage of the theory in sustainability disclosures (Campbell, 2003). The theory influences the disclosure of measurable strategies that organizations can employ to legitimize their existence.

A social contract is assumed to exist between an organization and society in legitimacy theory (Deegan, 2002). The contract refers to an express or implied agreement, between a social institution or a business with the society in which it operates. The delivery of a set of conditions to these groups from which it derives power, determines its survival. The society thus has the power to revoke the contract of the organization to continue its operations where there is breach.

The activities of an institution are thus reported to the expectation of their operational society, the converse of which is sanctioning by the same society, possibly resulting in potential failure of the organization or project.

Where the actions of the institution fall short of society expectations, a legitimacy gap is created, threatening the entity's legitimacy (Lindblom, 1994). Where need for vital resources to an institution is established, strategies will be pursued to ensure the sustainability of that resource, in the form of targeted disclosures and collaborations with equally legitimate organizations (Fiedler, 2002).

3.3 Empirical Literature

This section will feature the empirical literature, and includes definitions and an analysis of social sustainability, stakeholder engagement and social issues inherent to a construction project. It will further explore who form the stakeholders in a construction project, and conclude with an elaboration of the various methods established to measure social sustainability and an exploration of sample frameworks that have been developed by various authority for stakeholder engagement.

3.3.1 Social Sustainability

Social sustainability has been defined as making considerations of; community culture, equality and inclusivity, political participation and creation of conditions in the community which encourage the achievement of these (McKenzie, 2004). In construction projects, it is influenced by elements including; stakeholders (Martins & Farias, 2019), safety (Toole & Carpenter, 2013) and community involvement (Kaminsky, 2019), highlighting social equity and sustainability of communities as key facets of the concept. While the former features considerations of equal access to services and opportunities, the later deals with social cohesion, interaction and social capital. Equal access to opportunities and resources and provision of basic human needs(physical and psychological) have further been added to literature on the dimension of social equity

Literature has shown that the coexistence of nature and society creates social issues which can be mitigated by deliberate efforts towards relationship management and conflict resolution (Griessler, 2005). The satisfaction of human physical and psychological needs, requires enabling communication and social interaction, an environment for contribution and growth, providing opportunity for participation, cultural and identity preservation and providing comfort (Chan, 2008).

Another source of social issues within projects has been identified as the interaction and engagement of the values of individuals in the community. New relationships and interactions within a community are typically created by construction projects, with this extending to the relationship between the community and nature. Management of these relationships thus have the potential to meet and mitigate challenges within the society (Price, 2009). In private projects, social sustainability encompasses aspects of ethics and social responsibilities, as well as brand recognition and appreciation as a result of the social activities of the corporation. These are jointly categorized under corporate social responsibility (Waddock, 1997).

Corporate social responsibility is viewed from four angles; commitment to ethics, an obligation to stakeholders, social obligations and managerial perspective (Maignan, 2004). The corporate values held by individual institutions have so far determined the industry's response to CSR, this further acknowledging the difficulty in monitoring and measuring its objectives. Construction projects tend to be for a short-term, which has raised questions by scholars on the possibilities for the development of CSR in the sector and to have a meaningful application. A recommendation therefore has been made for assessing the performance of an institution against social parameters instead of the business paradigm of CSR (Liu, 2011).

The purpose, benefits and impacts of projects vary with stakeholders, resulting therefore in a diversity of understanding on social elements of a project and its measurements (Pearce, 2006). A socially sustainable construction project, is one that makes considerations for establishment and acknowledgment of the needs of the project end users and the neighbourhood community. In the industry, these needs can be met through initiatives such as considerations of the health, safety and social harmony of the project and community as well as the provision of welfare (Talukhaba, 2005).

The United Kingdom (UK) has established initiatives to align construction practitioners to the social needs in and surrounding the industry. These include the Construction Skills Certification Scheme, aimed at maximizing social inclusion of local labourers in a community. This is achieved through skills development and employment opportunities for construction worker (Macfarlane R. , Using Local Labour in Construction, 2000).

3.3.2 Social Issues in a Construction Project

The social issues within construction projects vary in causes and includes the dynamic interactions of individual values within the community, legal frameworks, organizational structures (Edum-Fotwe, 2009) as well as the relationship between nature and society. These factors may be resolved through work and relationships within society (Littig, 2005).

There are four key components in the definition of social sustainability: Social design-enhances reaching of decisions by the project designers and addresses the influence of the design on the end-users of the project. Community involvement on the other hand emphasizes need to incorporate the public in decisions by public and private bodies, which are likely to affect them. Corporate social responsibility focuses on accountability of institutional activities to stakeholders likely to be influenced by its operations while safety through design ensures measures for worker safety through considerations of potential safety hazards during the design phase (Leidy E. Klotz, 2013).

3.3.3 Measuring Social Sustainability

Stakeholder management consists of steps. Scholars have identified these as the development of a stakeholder management strategy, classification of stakeholders, their identification and analysis (Cleland, 1999). Adequate communication, the ability of parties to negotiate and concede, the provision of incentives and leveraging physical meeting and workshops are attributes of proper management of stakeholders (Chinyio E. A., 2008)

Flexibility in project delivery is critical in the management of stakeholders (Li, 2011). An additional component is that of mapping and classifying stakeholders, as well as establishing their expectations with regards to the project through stakeholder analysis (Jepsen, 2009). Other significant factors established by Orlander and Landinas key to stakeholder management are; the establishment of the needs of the stakeholder; communication of the likely impact of the project on the stakeholder; identification of alternatives to the realization of the project objectives and; media management (Olander S. a., 2008). Establishing of a common goal to the stakeholders of a project and proper communication is critical to relationship management in construction projects (Jergeas, 2000)

Psychological and physical comfort, productivity and health have been studied as factors to be considered in assessing the potential of a built structure to satisfy the needs of the end-users, (Bordass, 2001). This is especially with regards to the elements of health and safety, security,

aesthetic quality, functionality and effeminacy and the functionality of the built structure (Meade L, 2010).

What entails social performance and the attendant scope remains obscure (Missimer, 2010), these aspects are equally unoperational with the dimensions of the environmental and economic. An emphasis has been made on the need for an approach to sustainability which prioritizes the interaction between stakeholders and the likely benefits to be drawn, as opposed to a focus on stakeholders as a subject for management (Freudenreich, 2019).

The Global Reporting Initiative guidelines is one of the tools utilized by corporations and organizations to measure on social aspects of a projects such as health and safety, capacity building efforts, diversity and inclusion, employment and community involvement (Lamprinidi, 2008). Reporting on sustainability in the industry involves enhancing accountability to internal and external stakeholders, through developing a measure and a disclosure of the institution's sustainability efforts towards reaching the sustainable development goal (Hemanta-Kumar, 2016). A framework, involving 12 indicators was developed by Stender and Walter. In it, social cohesion, a participatory process and access to living opportunities formed the grouping of the indicators of social sustainability (Rostamnezhad, Nasirzadeh, Khanzadi, Jarban, & Ghayoumian, 2020). A further criteria developed by Labuschagne contains thirty-one dimensions for integrating social sustainability. These are additionally classified into; internal human resources (10 criteria), external local population (12 criteria), social participation of stakeholders (4 criteria), and social activities at a regional or national level (5 criteria) (Labuschagne, 2005).

During conceptualization of a project, six categories of inputs to define social sustainability were established; considerations of the users, place context, assessment of the impact, engagement of stakeholders and management considerations. Additionally, seven enablers for implementations were identified; the community and industry in which the project exists, health and safety factors, human resource development, the stakeholder, and government. Another aspect considered by scholars is that of social factors of influence which were identified as employees, health and safety at the workplace, awareness of the public, training and skills development of employees, working conditions, participation of stakeholders in the monitoring of the project, creation of opportunities for the community of the project and guidelines to control the project (Tayeh et al., 2020).

Rodolfo Valdes-Vasquez, in his research, yielded a sustainability framework identifying six cluster elements of social sustainability and their measures, as well as fifty processes serving as units of

analysis *(appendix 1).* The six categories were the consideration of the users of the project, formation of teams, context of the place where the project is implemented, involvement of stakeholders, considerations on management, impact assessment and involvement. This calls to the analysis of the likely effects of the community in which a project exists and on its temporary and final users,and ascertaining the obligations therein established (Rodolfo Valdes-Vasquez, 2013).

A similar study on the measures of social sustainability identified thirty-six (36) social sustainability criteria, developed from a review of the Chilean public infrastructure life cycle. The conclusion from this study identified the various social sustainability factors attached to each stage of construction. At the design and demolition stages, stakeholder participation was deemed key both internal and external, as well as internal human resources considerations; at the design stage, the external local population; at the construction and operational stages, the macrosocial action of socioenvironmental activities (Sierra L. A., 2016).

An assessment of social sustainability studies highlights that the activities conducted at the inception of a project hold significant influence to the attainment of sustainability measures. Further, the various milestones of a project differ in contribution to realization of the dimensions of social sustainability.

3.3.4 Stakeholder Engagement and Social Sustainability

Lack of collaboration and inadequate stakeholder management during the project cycle, results in project failures (Akintoye, 2003). Poor identification of the project scope, insufficient project resources, community perception of the project and unforeseen policy and regulatory changes have been identified by scholars as other causes of project failure (Black, 1995). Most of the referenced causes may be attributed to lack of engagement with stakeholders.

Bowen is acknowledged by scholars as amongst the initial discussants of businessmen as “servants of society” and thus their obligation and responsibility for the likely harm the activities of their companies may cause to society (Bowen, 1953). Following the economic ideology of the free market, this notion by Bowen was countered with the sole responsibility of value creation for shareholders (Friedman, 1970). As a result of this, the opinion held on stakeholders was that of stakeholder interaction being a result of the failure of market and thereby compensating for the

negative effects of the organisation's operations. In 1980s and 1990s, there was a change in this perspective, resulting in a greater focus on the performance of the corporation, interlinking CSR and strategic stakeholder management (Lee, 2008).

The concept of CSR brought with it the acknowledgement of stakeholders as valuable contributors to sustainable value creation (Samant, 2016). The understanding in this concept is need for interaction of the organization with other organisations owing to the interconnectivity in the larger system (Clevenger M. M., 2019). A great number of scholars thus, have, advocated for a shift to an approach that encourages cooperation amongst and for mutual benefit and achievement of institutional goals. This approach to stakeholder management creates a justification for sustainability and enhances the creation of value to stakeholders (Ranängen, 2017). This approach, juxtaposed against early CSR approaches, entrenches a morally neutral practice that which can form part of the strategy of the organizational (Noland, 2010).

The project stakeholder is a key enabler for social sustainability as emphasized in the stakeholder theory. Consideration of the interest of the community during the realization of a project is critical to the prosperity of an institution and its survival in business.

3.3.5 Stakeholders in a Construction Project

These are communities within the geographical location of the project, with vested interest in it and who are likely to be impacted during the project cycle.

Attributes of stakeholders and their dispositions towards a project have been used by scholars to define stakeholders. Winch classifies stakeholders as either internal-composed of clients on both the demand and supply side of the project with a binding agreement with a client; and external-consisting of public and private sector players, as those with merely a vested interest in the project but no agreement with client (Winch G. M., 2010).

Section 106 Planning Agreement and the Community Infrastructure Levy were enacted by the Government of United Kingdom; to reduce the negative influence to local communities of development through ensuring the delivery of measurable social sustainability aspects. These include employment opportunities for the community and the provision of infrastructure (Almahmoud, 2016).

Providing job and training opportunities for the community, has been established by Macfarlane and Cook as key benefits to communities in a construction project (Cook, 2002). The Considerate Constructor's Scheme also by the U.K Government, was aimed at promoting construction activities that provide volunteer opportunities and knowledge transfer to the community, availing community engagement and public hearings as well as asserting factors of good neighbourliness composed of aspects of safety, cleanliness and respect (Herd-smith A., 2008).

Presley and Meade assert elements in construction subject to social sustainability as the actual buildings, the project development process and the surrounding built environment. They further describe construction stakeholders as industry practitioners, the user community and the neighbourhood of the project. (Presley A. a., 2010). Clients, consultants, contractors, external public and private parties have further been described by Leung and Olomolaiye as the five main groups of construction projects stakeholders (Leung, 2010).

Delay in the planning and implementation of an airport project in the U.K and a Dam project in the Kurdish region of Turkey, have both been attributed by scholars, to failure to consider the interest of stakeholders which led to the eventual failure of these projects (Winch M. G., 2010). The Heathrow Airport project, set for development on 121 hectares green belt, faced opposition from various stakeholders owing to the anticipated noise and environmental pollution from the project as well as a likely increase of traffic in the area. The Ilisu Dam proposal, never took off after its initial commencement in 1954 and an attempted revival in 2005. Opposition for the project resulted from the initial displacement of approximately 78,000 Kurdish people owing to flooding of 15 towns and 52 villages.

Significant benefit can be drawn from stakeholder management and engagement, where there is sustained involvement of these through all the stages of the project. In a study of a project conducted by Smith, stakeholder participation was conducted at inception but not later stages of the project. Major decisions having been reached at inception, this attracted criticism, leading to delay in completion, ascribed to the project failure to engage the community and local government throughout the project development process

3.3.5.1 End- User Community

User community refers to users or consumers of the built structure after completion of construction, for purposes of housing or business. This results in varied social sustainability needs for the project stakeholders, depending on the purpose for which the built structure is. The expectations of the user community, typically, is in relation to the functionality of the constructed structure and comfort of use (Presley A. a., 2010).

Examples of users of a built structure at the operational stage are customers, operators, visitors, business owners and residents, with the expected social sustainability needs as functional hygienic facilities, green spaces and environment etc. Developers in construction are expected to take into consideration the expectations of these users, and the sustainability criterions relevant to them, incorporating these through stakeholder participation, at the design stage (Chinyio E. &.-K., 2009).

A study conducted in New Delhi, India, identified factors which influence project consumers or the end-user community to desire projects that feature sustainability, which differentiates this demographic (A.K. Jat, 2019). Findings of the study established the following factors as significantly influencing customers' willingness to pay higher prices for buildings in which sustainability is factored: Influence exerted by a social community and peer group (Coulter, 2003); environmental attitude and concern is another factor which is reflected in interest from the consumer in matters pertaining to sustainability and conservation of the environment (Tan, 2012); awareness on the components of sustainability and the importance to people and planet (Chen C. H., 2012); an equally important factor is personal features such as-age, gender and educational qualifications.

3.3.5.2 The Industry Consultants (Professionals)

Consultants (project professionals): These refer to the various industry professionals in a project and may include professionals in industries affiliated with the construction industry. Architects, surveyors, contractors, interior designers, landscapers and engineers fall under this group. The interest of professionals in a construction project is to undertake their professional duties, and to deliver the expectations set by the project owner or client. Regulators, associations and umbrella bodies for professionals typically set the tone and expectations in the delivery of the works of

professionals, this is achieved through mandatory continuous professional development training, codes of conduct, mode of association and the service cost structure (Jurbe, 2014).

Factors differentiating professionals in the industry, and likely to determine their adoption of sustainability have been identified as fifty six(56) variables, summarized into four key areas; human factors, industry, environmental and political. Of the identified variables, five(5) prominently featured as cross-cutting. These are; limited knowledge and awareness on matters pertaining to sustainability; additional costs for implementing the change; the impact of the prevailing economic conditions; incompatibility of the change process with the company culture; existence of applicable laws and regulations on sustainability and the extent of enforcement (Okoye, 2021)

3.3.5.3 Neighbourhood community

The *Neighbourhood community*, exists in the same geographic location as the construction project. The community consists of actual physical neighbours to the project as well as passers-by that use the surrounding paths and roads.

The core objective of involving the local community in a project is that of allowing to participate in decisions related to their physical environment, likely to affect them. Studies have shown that the social and cultural matters relevant to a specific community, as well as power dynamics are factors likely to affect the participation of one community verses another (Begum, 2015).

The United Nation's interest in the concept of community participation was formalized in several UN reports, such as Popular Participation in Development (1971) and in Decision Making for Development (1975). One of the significant outcomes of Rio Earth Summit was Agenda21. This Agenda reiterated need for the involvement of local communities in development projects (Masudur, 2016), making it a major requirement in the realization of sustainable development (Lafferty, 2013).

In a study conducted on a project at the Coast of Kenya, findings demonstrated evidence that the level of involvement of communities in development initiatives, is dependent on aspects of their gender and educational level. A recommendation from the study thus was for consideration of

gender and educational level attributes to stimulate sufficient participation of communities in development programmes (Faridah Hassan, 2019)

Other literature have shown that the level and extent of community participation in development projects can be influenced by the community's demographic and socio-economic factors (Bauma, 2000). In a different study supporting this line of thought, the researcher describes various attributes of individuals in a community, such as; knowledge and skill, cultural beliefs, employment, literacy, gender, education, social and political marginalization as aspects key to influencing participation in community decisions (Plummer, 2002)

In support of the foregoing, another researcher similarly reached the conclusion that community levels of income and housing categories have a positive influence to community participation in development projects (Awortwi, 2012). Other factors such as the governing legal system, the community's social norms, the distribution of income, the administrative procedures and rules and the legal system all have an influence on whether a community participates in decisions of impact to the community (Dorsner, 2004)

3.3.5.4 Clients

The client, whether private or public, is the owner of the project, resulting in the responsibility of establishing the scope and milestones of the project. The determinants of successful delivery of a project to a private client, involves the realization of the individual or the corporate strategy pertaining to it, as well as the efficient utilization of budgeted resources. A public client on the other hand, aims at ensuring proper utilization of public resources and the realization of the public interest for which the project is initiated (Presley A. a., 2010).

Distinguishing factors of a project client results in the decision to adopt sustainability in a construction project or otherwise. Some of the factors highlighted in literature are: client perception and preference (Aghimien, 2019); the existing laws and regulations in the region of development (Davies, 2017); culture of the client (Abisuga, 2014);economic value for incorporating sustainability and return on investment (Aghimien D. A., 2018);awareness and

knowledge on sustainable construction practices (Elforgani, 2012);existing industry trends (Esezobor, 2016) and; interest of the client on matters sustainability (Darko, 2017)

3.3.5.5 Local Government

Governments are counted among stakeholders in a construction project, as they impact institutions and individuals through regulations and policies. Authorities of the government ensure compliance of projects with construction policies and regulations (Moloney, 2006). Governments majorly contribute to a country's economy as employers, policy makers, and regulators and have a primary role in the prevention of negative construction effects such as work-related injuries and death, and a further role in promoting, legislating and enforcing health and safety standards by construction businesses (Australia, 2006). Local governments in Kenya are differentiated by several key characteristics, primarily stemming from the devolved system of governance introduced by the Constitution of Kenya 2010 and operationalized by the County Governments Act, 2012. The Fourth Schedule of the Constitution highlights these functions and responsibilities.

Several factors differentiate local governments and influence their decision to both involve stakeholders in community development and enforce the adoption of sustainability in their areas of jurisdiction. A visionary leadership, committed to sustainability and stakeholder participation, can influence the adoption of this in construction projects developed in their areas of jurisdiction (Naciti, 2019). A government culture that supports sustainability can encourage developments that adopt these in projects. This cultural aspect is key in distinguishing local governments (Husted, 2017).

An equally significant distinguishing factor for local governments is the availability of regulations and policies on sustainability and avenues for enforcement of implementation. This is key to both stakeholder engagement and adoption of sustainability by developers (Bowen K. J.-H., 2017). Another key factor is the outlook of the community on sustainability which influences adoption by the local governments and enforcement of inclusion in projects (Alsayegh, Abdul Rahman, & Homayoun, 2020). Lastly, an active group of stakeholders influences the directions of local governments on key issues of governance. Involvement of the community in matters of

sustainability is a critical influence on the decision to adopt sustainability in the local governments strategies and policies as well as enforce adoption by industry players (Amran, 2013)

3.3.5.6 Media

The media has a strong influence within society, in view of its influence in information exchange, and is thus considered a key stakeholder for institutions (Deephouse, 2000). The role of the media is in setting agenda in the society and influencing the view of society concerning the activities of an institution, while conversely communicating to the firm the expectations of the society of it (Chen, 1991).

Media shapes the reputation of an institution to society, through influencing by analysis and assessment, the public's perception of the extent to which the firm realizes set standards and codes as well as regulations and policies concerning its industry and trade (Greenwood R. e., 2005). The media makes a key stakeholder to institutions owing to its ability to influence how the institution is viewed in light of its grassroots presence (Neuman, 1992). This makes the management of media key to the attainment of an institution's social and financial objectives (Starik, 1994).

A study conducted on media houses from Austria, Germany and Switzerland, identified ten building blocks and distinguishing attributes for media companies and their success (Sommer, 2016). Design, one of the attributes, distinguishes media houses and defines their presentation of content. The selected choice in presentation of content, the structure, layout and consistency are variables that both differentiate media houses and determine their success (Blömeke, 2007). Quality of content is another distinguishing factor (Cummins, 2011)

Elements of institutional environmental orientation is a key differentiator of institutions in the media business. This, coupled with consideration for the locality in which the institution functions is a success factor (Kim, 2009). The amount and quality of human resource skills and motivation in an institution can be another source for competitive advantage (Bleis, 1996). Also included in this is qualifications and specialized knowledge (Büsching, 2011). Equally significant as an aspect of a media house, is reach. The extent of distribution is a determinant of success (Hennig-Thurau, 2012). The external image of the media house is another distinguishing aspect and a determinant

of success, and covers both the general coverage of the media house as well as critical reviews from the public (Simonton, 2009). The leadership of an institution distinguishes one media house from another. Differentiating aspects include the reach of the leaderships social networks, age and educational background (Tschörtner, 2008).

3.3.6 Framework for Stakeholder Engagement

Tools and techniques have been developed by scholars to measure the engagement of stakeholders in construction projects (Joseph, 2014).

Yang identified, input of information, decision making, precondition factor, sustainable support and stakeholder estimation as five key factors to the successful management of stakeholders (Yang J. S., 2011). A further factor, action and evaluation, was included in a later framework- Systematic framework for stakeholder management in construction- developed by Yang and Shen (Shen, 2014). A tool developed by Bourne- the stakeholder management cycle for identifying, visualising and mapping stakeholder influence on projects- (Bourne, 2005), envisages five steps in the management cycle of stakeholders; identification, prioritization, visualization, engagement and monitoring of outcome.

The engagement of stakeholders and input of their comments on public projects was incorporated by El-Gohary et al., in their public-private partnerships(infrastructure) model, with the aim of these influencing the final project design. It focused on; actors, process, resources, constraints and products (El-Gohary, 2006).

3.4 Summary of the Literature and Literature gap

Table 0.1: Summary of literature and literature gap

Author	Topic	Findings	Gap	Filling the gap
Almahmoud & Doloi (2015)	Assessment of social sustainability in construction projects using social network analysis	The findings suggested that the degree of satisfying the needs of diverse stakeholders is highly significant in achieving social	The study was limited to social network analysis which is not predictive in its nature	This study will employ regression analysis which is a predictive model to ascertain the strength of each factor of social sustainability.

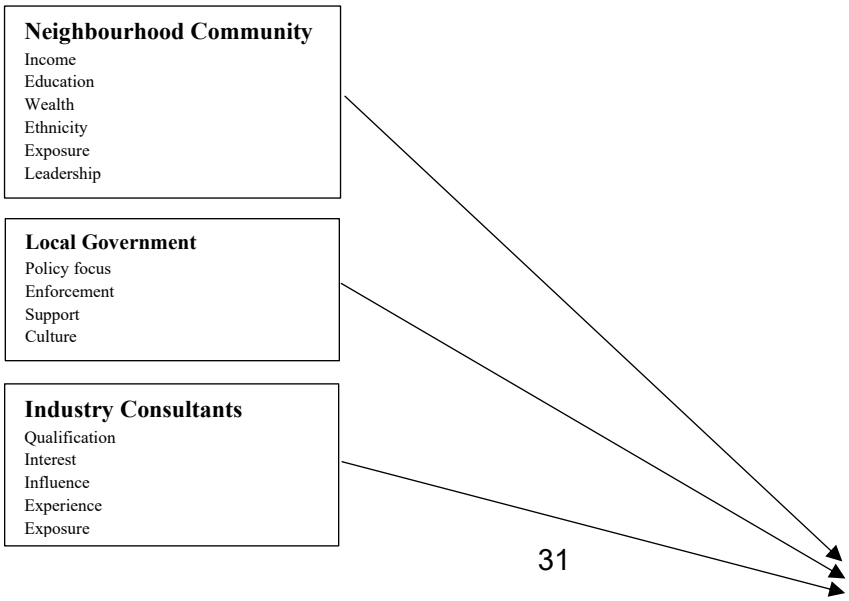
		sustainability performance of projects		
Zuo et al (2014)	Social Sustainability in Construction – An Explorative Study. International Journal of Construction Management	There is a reasonable level of willingness from industry practitioners to take social sustainability issues into their projects	The study focused only on the willingness of practitioners rather than the holistic view of other parameters in construction industry.	Apart from the stakeholders, this study will also focus on the community perceptions, legal factors and organizational factors.
Mirzakhani et al., (2021)	Factors affecting social sustainability in the historical city centers of Iran_ Journal of Urbanism_ International Research on Placemaking and Urban Sustainability	seven significant factors which proved most relevant: security/safety, accessibility, equity, participation, quality of life, solidarity and income	The study was a case study of a particular city and gave a general view of sustainability with no focus on construction industry.	This study will focus on the construction industry in Kenya
Wang et al (2012)	Capacity to sustain sustainability: A study of U.S. cities	sustainability is strongly associated with managerial capacity, which includes establishing sustainable goals, incorporating goals in operations, and developing supportive infrastructure	The study gave a general view of sustainability with no focus on construction industry, and only concentrated on capacity of an organization.	Apart from the organizational factors, this study will also focus on the community perceptions, legal factors and stakeholders.

Malvestiti et al (2021)	Absorptive capacity as feedback on the sustainability of organizations	observing and understanding the absorptive capacity is a fundamental instrument that ensure organizational social sustainability	The study gave a general view of sustainability with no focus on construction industry, and only concentrated on capacity of an organization.	Apart from the organizational factors, this study will also focus on the community perceptions, legal factors and stakeholders.
Thiauru, (2020)	Organizational factors influencing sustainability of county-funded development projects a case of Meru youth service project, Meru County, Kenya	resource allocation had the greatest influence on social sustainability in construction projects, followed by capacity building, then leadership style. Project communication had the least influence on sustainability	The study was a case of one county and only focused on organizational factors influencing social sustainability	Apart from the organizational factors, this study will also focus on the community perceptions, legal factors and stakeholders in Kenya as whole
López Jiménez et al. (2021)	Self-regulation of sustainability as a manifestation of corporate social responsibility	self-regulation as a business instrument for promoting social sustainability	The study gave a general view of social sustainability with no focus on construction industry. It also focused on one factor which is regulations.	This study will fill this by not only studying regulations but also bringing in other factors such as organizational factors, stakeholder and socio-cultural factors in construction industry

3.5 Conceptual Framework

The conceptual framework in this study is defined as follows: The dependent variable is the level of adoption of social sustainability in construction industry. The variable has several surrogates including employment creation, health and safety, provision of services among others. On the other hand, independent variable is stakeholder engagement which has several surrogates such as neighborhood characteristic, government intervention, and aspects of industry consultants, clients, end-users, media and interest groups among others.

Stakeholder Aspects for Social Sustainability in a Construction Project



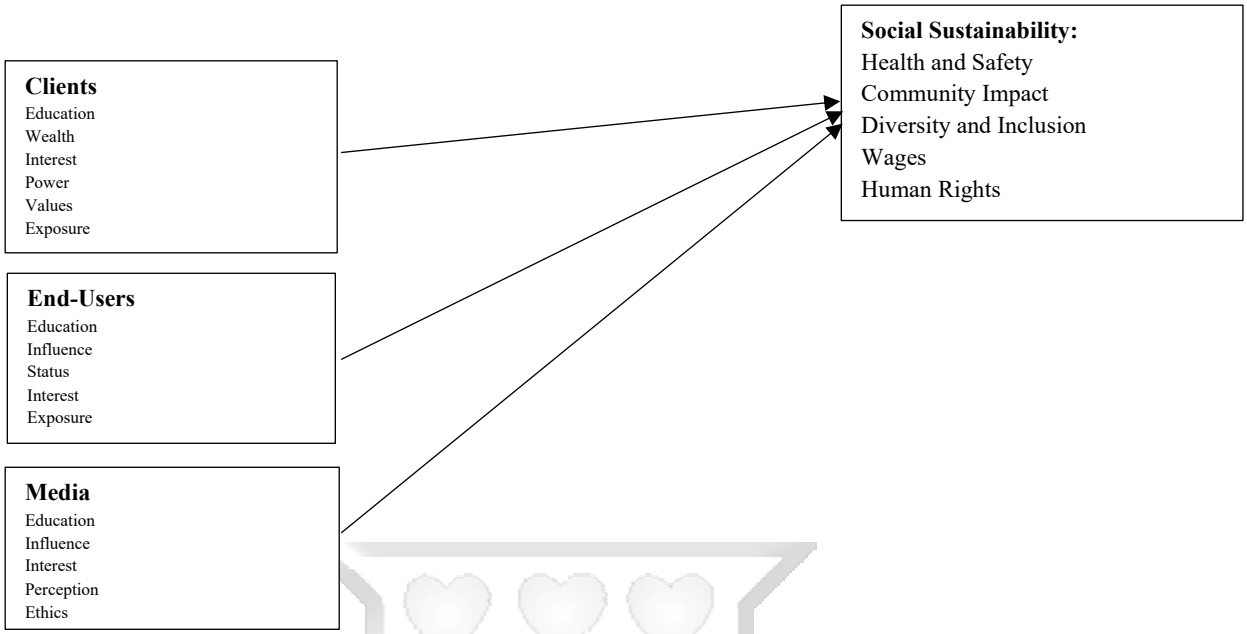


Figure 0.1: Conceptual framework

Source: Author

3.0 Conceptual Definition and Operationalization of Variables

Table 0.2: Conceptual and operation definition of variables

variable	Definition	Measures	Scale of measurement	Supporting literature
Social sustainability	Adoption of social sustainability	• No. of reported incidences on health and safety • No. of jobs created • Ration of women to men engaged • No. of PWD engaged in project • No. of public participation meetings • No. of reported incidences of human rights violation • Wage compression ratio	Numbers	Rostamnezhad & Thaheem, 2022 Tayeh et al (2020)
Stakeholder engagement	• Impact of neighbourhood Community		5-point Linkert scale Nominal scale Ratio scale	Valdes-Vasquez & Klotz (2013) Rostamnezhad & Thaheem (2022)

	• Influence of Governement • Impact of industry consultabnts • Interests of Clients • Influence of end-users • Impact of interest groups			Tayeh et al (2020)

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

The methodology adopted identified, selected, process, and analyze information about the topic under study. This section will highlight the study methodology, with a focus on the research philosophy and design, the population of the study and the technique for sampling variables and themes, instruments for data collection and the applicable procedure, as well as validity and reliability tests.

3.2 Research Philosophy

Positivism was employed in this study. The philosophy was anchored in the belief that observable proofs and phenomena were the ideal source of knowledge (Park, 2020). The evidence obtained was then measured and analyzed. This philosophy was ideal for this study as it, based on the data collected, measured and analyzed the extent of stakeholder engagement in projects in Kenya and the attendant influence on the adoption of social sustainability practices. This philosophy aligned with the study's aim to investigate the relationships between stakeholder involvement and

sustainability outcomes without the influence of subjective interpretation. Through the use of surveys and quantitative tools, the research was able to test hypotheses and derive conclusions based on observable patterns. This approach enhanced objectivity, replicability, and generalizability of the findings across the construction sector.

3.3 Research Design

Descriptive cross-sectional research design was employed in this research. The design involves the collection and analysis of data drawn at a specific time, from a population (Setia, 2016). The design was essential in describing and identifying the role of stakeholder engagement in the adoption of social sustainability in construction projects in Kenya.

3.4 Population

The unit of observation was contractor as defined by the National Construction Authority Act No. 41 0f 2011. The population of focus was 200 contractors registered by NCA in class one (1) of NCA class of works. The determinant of award of this class of works, is influenced by factors including; the construction company's financial and assets portfolio, experience in construction works, qualifications and number of employees. This ranks them the highest level of registration as per the NCA assessment criteria. The unit of analysis shall be construction projects in Nairobi County.

The study employed census approach to collect data. The census approach involves data collection from all members of the group under observation (Drechsler, 2010) . The size of the population in this study was 200. The approach will be suitable for this study since the size of the population is not large. Additionally, the use of census minimized the chances of sampling errors and increase accuracy and precision in the study findings.

3.5 Sampling Design

Given the manageable population size of 200, the study employed a census approach, collecting data from all eligible contractors in the target group. The census method minimizes sampling error and enhances the accuracy and reliability of the results (Drechsler, 2010). All 200 contractors were considered respondents, selected based on their strategic role and decision-making authority in project implementation, stakeholder engagement, and adoption of social sustainability practices.

3.6 Data collection

The collection of data for this study involved the integration of quantitative and qualitative data collection approaches to achieve the research questions. Quantitative data was collected using semi-structured questionnaires (appendix 4). The collection of data for this study primarily utilized a quantitative approach. A semi-structured questionnaire (Appendix 4) was administered to 200 contractors to obtain data relevant to the research objectives. The questionnaire consisted predominantly of closed-ended questions designed to generate numerical data suitable for statistical analysis. In addition, a few open-ended items were included to provide respondents with the opportunity to elaborate on certain responses. These open-ended questions intended to enrich the quantitative findings by capturing context or clarification where necessary, but not to form the basis for qualitative analysis. The use of a questionnaire ensures consistency in data collection across the full population under study.

3.7 Questionnaire Administration

The questionnaires were physically distributed to all 200 contractors identified in the study population. Printed copies were delivered directly to the contractors' offices or project sites by the research team. To facilitate response, arrangements was made for either on-site completion or scheduled collection of the filled questionnaires at a later agreed-upon time.

Each questionnaire was accompanied by a cover letter explaining the purpose of the study, ensuring confidentiality, voluntary participation, and providing instructions for completion. The physical distribution approach was expected to improve response rates, allow for any clarification needed by respondents, and ensure comprehensive coverage of the target population.

3.8 Data Analysis and Presentation

Analysis of the data was conducted using SPSS Version 26. The software organized the collected data through coding and numbering of variables. Descriptive and inferential statistics was used to analyze the data, with descriptive statistics providing summary of the quantitative variables. The summary contained the measures of central tendency and variation. Inferential statistics tested hypothesis of the possible relationship between the variables. This was conducted using regression analysis. Multiple linear regression model established significant factors that influence adoption of social sustainability. The multiple linear regression model is specified as follows:

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \varepsilon_i$$

Where;

Y is the adoption of social sustainability in construction industry. This variable will be measured on a Linkert scale and then converted to a continuous variable for the purpose of linear regression.

X_1 is the neighbourhood community

X_2 is Local Government

X_3 is industry consultants

X_4 is clients

X_5 is end-users

X_6 is media

β_i is the average change in Y per unit increase in X_i while controlling for the other variables.

ε_i is the error term

Table 0.1:Operationalization of the Framework

Hypothesis	**Independent**	**Test**	**Model**
H_{01}: Neighbourhood community has no significant influence on level of adoption of social sustainability	Neighbourhood community	Simple regression, reject if p>0.05 or otherwise accept	$Y = \alpha + \beta 1X1$
H_{02}: Local Government has no significant influence on level of adoption of social sustainability	Local Government	Simple regression, reject if p>0.05 or otherwise accept	$Y = \alpha + \beta 2X2$
H_{03}: Industry consultants has no significant influence on level of adoption of social sustainability	Industry consultants	Simple regression, reject if p>0.05 or otherwise accept	$Y = \alpha + \beta 3X3$

H_{04}: Client has no significant influence on level of adoption of social sustainability	Client	Simple regression, reject if p>0.05 or otherwise accept	$Y = \alpha + \beta 4X4$
H_{05}: End Users have no significant influence on level of adoption of social sustainability	End-Users	Simple regression, reject if p>0.05 or otherwise accept	$Y = \alpha + \beta 5X5$
H_{06}: Media has no significant influence on level of adoption of social sustainability	Media	Simple regression, reject if p>0.05 or otherwise accept	$Y = \alpha + \beta 5X5$

3.9 Variable Transformation

Before embarking on regression analysis, variable transformation was conducted for the dependent and independent variables. Considering both dependent and independent variables had sub variables, it was therefore not possible to conduct regression analysis in their original format. Therefore, there was need to compute a single value for each of the dependent and independent variable. This was achieved through the use of weighted means which was done using SPSS under the data transformation option. SPSS employees the following formula to compute the weighted means. The weighted means are averages computed by multiplying the weights associated with given outcomes and calculating the sums of the products. In our case, the products were the factors within the variables, while the weights were comprised the values in the Linkert scale (1,2,3,4 and 5). The outcomes comprised of the frequencies associated with each scale. The example below is extracted for the questionnaire under project client aspect.

The weighted means will be computed computed as follows;

$$Weighted\ Mean_{Overall} = \frac{\sum X_i * W_i}{\sum W_i}$$

Where X_i is the score (1,2,3,4,5) and,

W_i is the number of responses for each score.

This technique has widely been used by various authors. For instance, Tayeh Abu (2020) while assessing the factors affecting sustainability performance during the Construction Stage from Building Projects-Consultants' Perspective, he used the weighted means to compute the relative importance index for economic sustainability variables.

3.10 Research Quality

To maintain the reliability and credibility of the study tool, a pilot was conducted at 50 construction sites. Validity is the degree to which the instrument will accurately measure the constructs in question (Yue, 2016). In this study, validity was attempted to be enhanced by developing questionnaire items based on theoretical constructs and marrying them closely to the study objectives. During the construction of the instrument, consultation was done with experts to make certain that the items were sufficient and representative of the concepts being studied.

Reliability which indicates the degree of the same measurement at different times and by different observers (Drost, 2011) was calculated through the application of Cronbach's alpha. This coefficient of internal consistency was also used to measure the trustworthiness and consistency over time of the scales used in the questionnaire. The results showed that the instrument was reliable as the computed Cronbach's alpha values were above the cutoff value of .70. The confirmation of test reliability was grounded on the framework of clearly stated concepts and uniform instructions followed in conducting the research.

3.11 Ethical and Legal Consideration

Consideration for ethics in research ensures that respondents are protected from potential harm during the conduct of the study (Mason, 2019). The researcher, when conducting this study, undertook measures to protect the respondents: First, the anonymity and confidentiality of the research data was protected at all stages of the process. The respondents were informed of the background and purpose behind the research. The respondents were selected to participate in this

study without coercion. A permit to conduct research was obtained from NACOSTI. Obtaining a research permit from NACOSTI demonstrates adherence to Kenya's legal framework governing research activities. This approval safeguards the integrity of the study and affirms that it was conducted within authorized ethical and legal boundaries. Finally, the researcher included Strathmore University Ethics review report.

3.12 Chapter Summary

In summary, the chapter outlined a clear guide on the steps taken to conduct the study starting from the philosophical basis of positivism to the study design, population, and sampling strategy. A census was done of 200 NCA Class 1 contractors in Nairobi County by means of structured questionnaires for thorough and statistically credible evaluation. Reliability and validity were confirmed through pilot testing. Regression analysis was undertaken to test the influence of six stakeholders on the adoption of social sustainability alongside of hypothesized six stakeholder groups. Ethical anonymity, consent and legal authority by NACOSTI permit ensured compliance which safeguard the study from bias adding on the credibility on the methods employed.

CHAPTER FOUR

PRESENTATION OF FINDINGS

4.1 Introduction

This chapter presents the study findings and organizes them according to the specific objectives. It contains the response rate, descriptive statistics, diagnostic test and regression analysis of the study variables. Additionally, an interpretation of the analyzed data is provided.

4.2 Response Rate

The response rate was computed on the questionnaires issued to the respondents, against those duly completed and returned. 200 questionnaires were issued to the respondents, wherein 129 were returned and filled correctly. The number reflected 65% response rate.

Table 0.1: Response Rate

Questionnaires	Number	Percentage

Total Issued Questionnaire	200	100
Total returned Questionnaires	129	64.5
Response Rate		**64.5**

4.3 Demographic Information

4.3.1 Respondent's Gender

The distribution of respondents based on gender revealed that 70% were male while 30% were female.

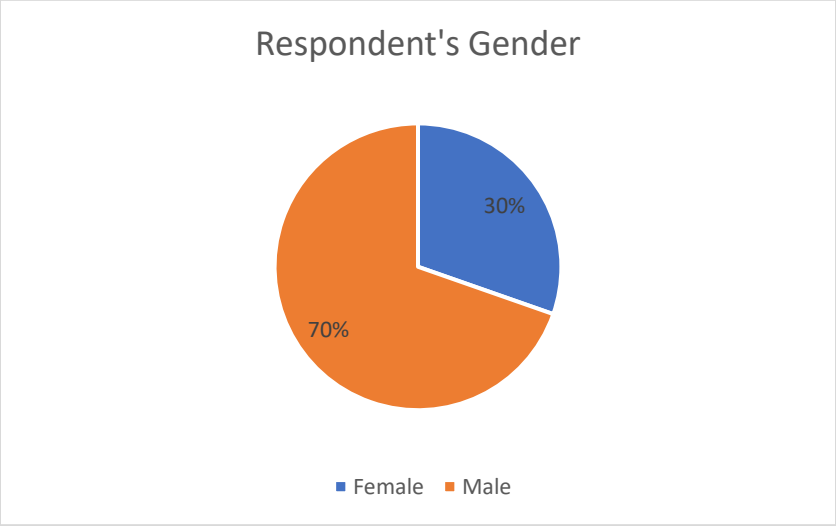


Figure 4.1: Respondent Gender

4.3.2 Age Distribution

The average age of the respondents was 39 years (SD=8.46). The eldest respondent was 64 years, while the youngest, 23 years. The use of mean and standard deviation is appropriate in this context because age is a continuous variable, and these statistical measures effectively summarize the central tendency (mean) and the spread or dispersion (standard deviation) of the data. This helps to describe not just the average age but also how varied the respondents' ages were around the average. Presenting the minimum and maximum further complements this summary by showing the full range of ages represented in the sample.

Table 0.2: Summary of Age

	Minimum	Maximum	Mean	Std. Deviation
Age	23	64	39.78	7.727

Figure 0.1: Respondent's Age Group

4.3.3 Years of professional experience in construction

An analysis of years of professional experience of the respondents revealed that the average years of experience in the construction industry was 13 years (SD=7.104). The minimum years of experience was two (2) while the maximum was 40 years. Based on categorization, 21% of the respondents indicated they had between 7-11 years of experience. The years of professional experience in construction was captured as continuous variable hence the relevant for analyzing mean and standard deviation.

Table 0.3: Summary of Years of Professional Experience

	Minimum	Maximum	Mean	Std. Deviation
years of professional experience in construction	2	40	13.05	7.104

Figure 0.2: Respondent's Professional Experience

4.3.4 Number of construction projects supervised or involved

Based on the findings, the average number of supervised projects by the respondents was 18 projects (SD=25.98). The least projects supervised was one while the maximum projects supervised was 100.

Table 0.4: Summary of number of constructions project

	N	Minimum	Maximum	Mean	Std. Deviation
Number of construction projects supervised or involved	128	1	100	18.08	25.980

4.4 Descriptive Statistics

4.4.1 Stakeholder Engagement and Management

The study examined the level of agreement regarding factors for effective stakeholder engagement and management in construction projects. The findings revealed that "Identifying and understanding stakeholders' areas of interest," was the top ranked factor (M=4.35, SD=1.046).

The second ranked factor was "Carefully identifying and listing the project stakeholders" (M 4.32, SD = 0.961), and "Identifying and analyzing possible conflicts and coalitions among stakeholders" was ranked third. (M= 4.31, SD = 0.989). Other factors, such as formulating a clear project mission, predicting stakeholders' potential influence, ensuring a flexible project organization, and appropriately classifying stakeholders, also recorded high mean scores.

Table 0.5: Stakeholder Engagement and Management

Factors	Minimum	Maximum	Mean	Std. Deviation	Rank
Identifying and understanding stakeholders' areas of interests in the project will enable effective stakeholder management	1	5	4.35	1.046	1
Carefully identifying and listing the project stakeholders will enable effective stakeholder management	1	5	4.32	0.961	2
Identifying and analyzing possible conflicts and coalitions among stakeholders will enable effective stakeholder management	1	5	4.31	0.989	3
	1	5	4.24	1.042	4

Clearly formulating a construction project mission will enable effective stakeholder management					
Predicting stakeholders' potential influence on the project will enable effective stakeholder management	1	5	4.08	1.032	5
Ensuring flexible project organisation will enable effective stakeholder management	1	5	4.05	1.097	6
Appropriately classifying stakeholders according to their attributes/characteristics (Power, legitimacy, urgency, proximity, level of interest, etc) will enable effective stakeholder management	1	5	4.04	1.146	7
Predicting stakeholders' potential influence on each other will enable effective stakeholder management	1	5	3.99	1.035	8
Predicting and mapping stakeholders' behaviours (supportive, opposition, neutral, etc) will enable effective stakeholder management	1	5	3.94	1.165	9

4.4.2 Elements of Social Sustainability

The study further assessed the adoption of social sustainability elements in construction projects. The descriptive analysis ranked "Communication of the deliverables and intended project outcomes with each stakeholder group" as the highly adopted component of social sustainability (M=4.07, SD=0.984).

The analysis ranked "Assessment of the planning and zoning decisions of organizations/institutions with jurisdiction over the proposed project area" as the second most adopted component of social sustainability in a construction project (M= 3.99, SD = 1.044). This was followed by "Adoption of designs that increase the wellness and productivity of the final users" (M = 3.96, SD = 0.962). Notably, factors such as the analysis of the project's impact on cultural resources and monitoring corruption had lower mean scores, suggesting less frequent adoption.

Table 0.6: Elements of Social Sustainability

Factors	Minimum	Maximum	Mean	Std. Deviation	Rank
Communication of the deliverables and intended project outcomes with each stakeholder group	1	5	4.07	0.984	1
Assessment of the planning and zoning decisions of organizations/institutions with jurisdiction over the proposed project area	1	5	3.99	1.044	2
Adoption of designs that increase the wellness and productivity of the final users	1	5	3.96	0.962	3
Provision of a plan to minimize disruption caused by the construction process (e.g., traffic congestion, dust, and noise)	1	5	3.96	1.008	4
Establishment of a plan to evaluate progress on zero harm or zero accident targets for the project	1	5	3.92	0.988	5
Maintenance and/or restoration of natural habitat important to the final users and the surrounding community	1	5	3.92	1.156	6
Establishment requirements to assess the impact of the project on the health and safety of the final users	1	5	3.91	1.027	7
Inclusion of human interaction (connectivity) considerations for the final users in the project design	1	5	3.91	1.111	8
Provision of a plan to minimize disruption	1	5	3.9	1.057	9

caused by the construction process (e.g., traffic congestion, dust, and noise)					
Creation of design features that instill pride in ownership of the users and the surrounding community	1	5	3.9	1.048	10
Analysis of the impact of the project location on access to public transit, biking opportunities, safe walking routes, and green spaces	1	5	3.79	1.171	11
Conducting a health impact assessment	1	5	3.76	1.195	12
Development of a plan for ongoing evaluation of the impact of the project on surrounding communities once it is in operation	1	5	3.76	1.247	13
Conducting of a social life cycle analysis of construction products and materials that considers workforce safety and health	1	5	3.68	1.275	14
Designs that consider the job skills of the women, young people, unemployed, disadvantaged and ethnic minority groups in the area	1	5	3.64	1.154	15
Analysis of new/additional community infrastructure needs resulting from the project	1	5	3.63	1.178	16
Monitoring and respond to incidents of corruption	1	5	3.58	1.292	17
Performance of an asset-based design analysis of	1	5	3.56	1.229	18

the surrounding community so that design solutions can convert social liabilities into assets					
Analysis of the effect of the project on cultural, historical, and archaeological resources	1	5	3.53	1.329	19

4.4.3 Neighborhood Community

The study examined the extent to which neighborhood community factors influence the implementation of social sustainability in a construction project. Among the factors, "the leadership of the neighborhood" was ranked first (M=3.98, SD=1.013), followed by "The wealth status of the neighborhood" (M=3.73, SD = 1.074).

Other factors, such as "Exposure to global trends and international focus" and "Education level of the neighborhood members," were rated slightly lower but were still perceived as influential. On the contrary, "Dominant ethnicity of the community" had the lowest score (M=2.96, SD = 1.244), suggesting that respondents considered the predominant ethnicity to be less influential in shaping social sustainability initiatives within construction projects in the neighborhood.

Table 0.7: Neighbourhood Community

Factor	Minimum	Maximum	Mean	Std. Deviation	Rank
The Leadership of the neighborhood	1	5	3.98	1.013	1
The wealth status of the neighborhood	1	5	3.74	1.206	2
Average Income of the neighborhood	1	5	3.73	1.074	3
Exposure to global trends and international focus	1	5	3.66	1.143	4
	1	5	3.65	1.137	5

Education level of the neighborhood members					
Dominant ethnicity of the community	1	5	2.96	1.244	6

4.4.4 Local Government factors

The study examined the extent to which local government factors influence the implementation of social sustainability in a construction project. The findings revealed "Enforcement of policies and regulations" as the highest ranking factor in regard to controlling the implementation of social sustainability in a project (M=4.27, SD=0.92). "Policy direction and agenda" was ranked second (M= 4.17, SD = 0.929), while "Influence of the government" was ranked third (M= 4.11, SD = 0.894). "Support for local and global initiatives" recorded a slightly lower mean. (M= 3.98 (SD = 0.88) suggesting that despite support for initiatives being critical, it may not be considered as influential. Lastly, "Government and country culture" received the lowest mean score of 3.82 (SD = 1.015), suggesting that stakeholders perceive government and country culture as less influential factors in the implementation of social sustainability initiatives.

Table 0.8: Local Government factors

Factor	Minimum	Maximum	Mean	Std. Deviation	Rank
Enforcement of policies and regulations	1	5	4.27	0.92	1
Policy direction and agenda	1	5	4.17	0.929	2
Influence of the government	1	5	4.11	0.894	3
Support for local and global initiatives	1	5	3.98	0.88	4
Government and country culture	1	5	3.82	1.015	5

4.4.5 Project Client

The findings revealed that "Personal values" and "Personal interests of the client" are the highly ranked factors in their influence on the implementation of social sustainability in a project. Both factors scored a mean of 4.3 and a standard deviation of 0.815 and 0.858, respectively. Additionally, "Exposure to global trends and international focus" was ranked third (M=4.18, SD = 0.979), suggesting that clients' awareness of global trends significantly affects sustainability implementation. "Power and influence" (M 4.12, SD = 1.011) and "Wealth and status of the client" (M = 4.02, SD = 1.022) were also considered to have a substantial influence. Finally, "Educational level" was ranked lowest (M= 3.98, SD = 0.968), indicating their low impact on social sustainability implementation.

Table 0.9: Project Client

Factor	Minimum	Maximum	Mean	Std. Deviation	Rank
Personal values	1	5	4.3	0.815	1
Personal interests of the client	1	5	4.3	0.858	2
Exposure to global trends and international focus	1	5	4.18	0.979	3
Power and influence	1	5	4.12	1.011	4
Wealth and status of the client	1	5	4.02	1.022	5
Educational level	1	5	3.98	0.968	6

4.4.6 Industry Consultants/Professionals

The study findings indicated that "Professional experience" (M=4.47, SD=0.905) was the most ranked factor influencing the implementation of social sustainability in a project. "Exposure to global trends and international focus" ranked second, scoring a mean of 4.39 (SD = 1.01); the third-ranked factor was "Influence in the project," recording a mean of 4.18 (SD = 1.077). The

factor with the lowest influence on the implementation of social sustainability in a project was "Individual interests" (M=3.77, SD=1.022).

Table 0.10: Industry Consultants/Professionals

Factor	Minimum	Maximum	Mean	Std. Deviation	Rank
Professional experience	1	5	4.47	0.905	1
Exposure to global trends and international focus	1	5	4.39	1.01	2
Educational Qualifications	1	5	4.23	0.88	3
Influence in the project	1	5	4.18	1.077	4
Individual interests	1	5	3.77	1.022	5

4.4.7 End-users

The study analyzed the influence of end-user factors on the implementation of social sustainability in a project. The findings revealed that "Personal values" factors were ranked highest with a score of 3.9 (SD=1.048), followed by "Exposure to global trends and focus areas" factors (M=3.72, SD=1.109), which signifies a moderate influence. Notably, "Individual/corporate interests" recorded the lowest mean (M=3.53, SD=1.178), indicating that the factor had the least impact on the implementation of social sustainability in a project.

Table 0.11: End-Users

Factor	Minimum	Maximum	Mean	Std. Deviation	Rank
Personal Values	1	5	3.9	1.048	1
Power and influence	1	5	3.76	1.076	2
Power and influence	1	5	3.74	1.097	3

Exposure to global trends and focus areas	1	5	3.72	1.109	4
Individual/corporate interests	1	5	3.53	1.178	5

4.4.8 Media

The study further ranked media factors influencing the implementation of social sustainability in a project. "Power and influence" were ranked the highest (M=3.69, SD=1.082). The second most ranked factor was "Exposure to global trends and international focus," recording a mean score of 3.6 (SD=1.119). The aspect of "Ethics" was ranked third (M= 3.55, SD = 1.236), followed by "Perceptions" (M= 3.52, SD = 1.162), with both signifying moderate influence on the implementation of social sustainability in a project. Finally, "Individual interests and agenda" received the lowest mean score of 3.42 (SD = 1.167), inferring the least influential media factor on the implementation of social sustainability in a project.

Table 0.12: Media

Factors	Minimum	Maximum	Mean	Std. Deviation	Rank
Power and Influence	1	5	3.69	1.082	1
Exposure to global trends and international focus	1	5	3.6	1.119	2
Ethics	1	5	3.55	1.236	3
Perceptions	1	5	3.52	1.162	4
Individual Interests and agenda	1	5	3.42	1.167	5

4.4.9 Level of Social Sustainability

The level of social sustainability was analyzed by ranking its determinants. “Communication of the deliverables and intended project outcomes with each stakeholder group” was ranked first recording an average score of 4.07 (SD=0.984). The second top most ranked factor was “Assessment of the planning and zoning decisions of organizations/institutions with jurisdiction over the proposed project area” with a mean score of 3.99 (SD=1.04). Notably, “Performance of an asset-based design analysis of the surrounding community so that design solutions can convert social liabilities into assets” and “Analysis of the effect of the project on cultural, historical, and archaeological resources” were lowly ranked factors recording a mean of 3.56 (SD=1.23) and 3.53 (SD=1.33) respectively.

Table 0.13: Level of Social Sustainability

Factor	Minimum	Maximum	Mean	Std. Deviation	Rank
Communication of the deliverables and intended project outcomes with each stakeholder group	1	5	4.07	0.984	1
Assessment of the planning and zoning decisions of organizations/institutions with jurisdiction over the proposed project area	1	5	3.99	1.044	2
Adoption of designs that increase the wellness and productivity of the final users	1	5	3.96	0.962	3
Provision of a plan to minimize disruption caused by the construction process (e.g., traffic congestion, dust, and noise)	1	5	3.96	1.008	4
Establishment of a plan to evaluate progress on zero harm or zero accident targets for the project	1	5	3.92	0.988	5
Maintenance and/or restoration of natural habitat important to the final users and the surrounding community	1	5	3.92	1.156	6
Establishment requirements to assess the impact of the project on the health and safety of the final users	1	5	3.91	1.027	7
Inclusion of human interaction (connectivity) considerations for the final users in the project design	1	5	3.91	1.111	8
Provision of a plan to minimize disruption caused by the construction process (e.g., traffic congestion, dust, and noise)	1	5	3.9	1.057	9

Creation of design features that instill pride in ownership of the users and the surrounding community	1	5	3.9	1.048	10
Analysis of the impact of the project location on access to public transit, biking opportunities, safe walking routes, and green spaces	1	5	3.79	1.171	11
Conducting a health impact assessment	1	5	3.76	1.195	12
Development of a plan for ongoing evaluation of the impact of the project on surrounding communities once it is in operation	1	5	3.76	1.247	13
Conducting of a social life cycle analysis of construction products and materials that considers workforce safety and health	1	5	3.68	1.275	14
Designs that consider the job skills of the women, young people, unemployed, disadvantaged and ethnic minority groups in the area	1	5	3.64	1.154	15
Analysis of new/additional community infrastructure needs resulting from the project	1	5	3.63	1.178	16
Monitoring and respond to incidents of corruption	1	5	3.58	1.292	17
Performance of an asset-based design analysis of the surrounding community so that design solutions can convert social liabilities into assets.	1	5	3.56	1.229	18
Analysis of the effect of the project on cultural, historical, and archaeological resources	1	5	3.53	1.329	19

4.4.10 Overall Descriptive Statistics

An analysis of the descriptive statistics revealed generally high levels of stakeholder engagement and adoption of social sustainability practices in construction projects. The mean score for the level of adoption was 3.81 (SD = 0.92), indicating a relatively high overall adoption. Among the stakeholders, the Project Client (M = 4.15, SD = 0.73) and Industry Consultants (M = 4.15, SD = 0.78) were rated highest in terms of their engagement, followed closely by the Local Government (M = 4.07, SD = 0.73). Conversely, Media recorded the lowest mean score (M = 3.56, SD = 1.02), suggesting less frequent involvement in promoting social sustainability. Other stakeholders such

as End Users (M = 3.73, SD = 0.92), Interest Groups (M = 3.72, SD = 0.90), and the Neighbourhood Community (M = 3.62, SD = 0.81) also showed moderate engagement levels.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Level_of_adoption	112	1.00	5.00	3.8092	.91560
Neighbourhood_Community	112	1.00	5.00	3.6220	.80941
Local_Government	112	1.00	5.00	4.0696	.73409
Project_Client	112	1.00	5.00	4.1503	.72802
Industry_Consultants	112	1.00	5.00	4.1467	.78284
End_User	112	1.00	5.00	3.7304	.91817
Media	112	1.00	5.00	3.5554	1.02182
Interest_Groups	112	1.00	5.00	3.7161	.90270
Valid N (listwise)	112				

4.6 Diagnostic Test

4.6.1 Normality Assumptions

The normality test was examined using Shapiro Wilk test and histograms. This test was conducted on enhanced level of social sustainability which is the dependent variable. The hypothesis for the test was formulated as follows;

H_0: Data is normally distributed

Ha: Data is not normally distributed.

The p-value generated from the Shapiro Wilk test was 0.12 which is greater than 0.05. Therefore, the null hypothesis is not rejected. This means that distribution of level of social sustainability is normally distributed.

Table 0.14: Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Level of Adoption of Social Sustainability	.115	92	.400	.965	92	.120

a. Lilliefors Significance Correction

The histogram supports the Shapiro Wilk findings as the distribution of level of social sustainability is fairly symmetrical.

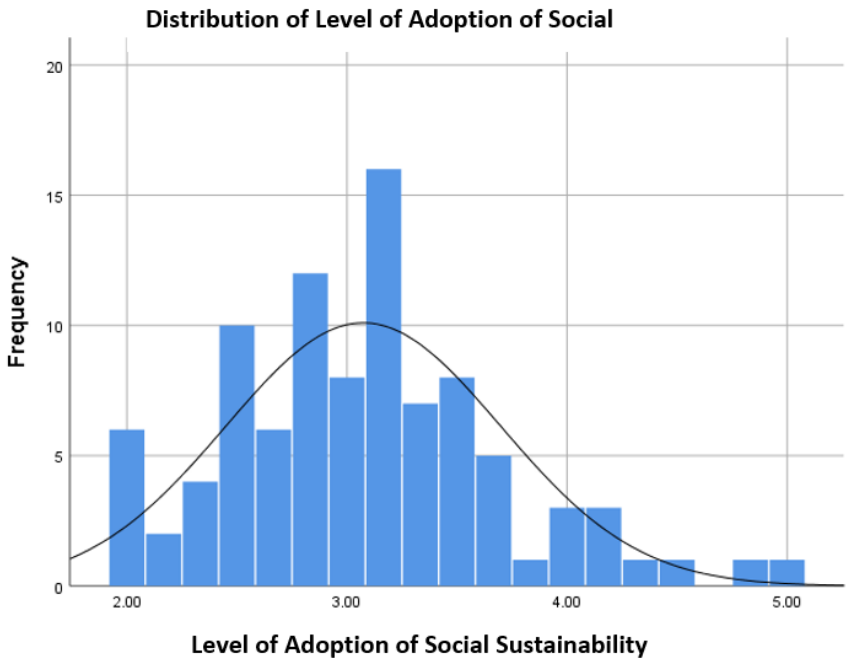


Figure 0.3: Distribution of Level of Adoption of Social Sustainability

4.6.2 Linearity Assumptions

Linearity assumption was conducted using correlation analysis. The aim of the test was to reveal whether the dependent variable was linearly associated with the independent variables. The relationship between level of adoption of social sustainability and neighborhood community generated a positive moderate association (r=0.319). There was a linear relationship between local government and level of adoption of social sustainability with both variables exhibiting a moderate association (r=0.303). Additionally, project client and level of adoption of social sustainability had positive linear relationship (r=0.268). The relationship between level of adoption of social sustainability and industry consultants recorded a positive linear association (r=0.35). A positive linear association was present between level of adoption of social sustainability and end users

(r=0.393). Finally, level of adoption of social sustainability and media had a positive linear relationship (0.375).

Table 0.15: Correlation Matrix

	Level of adoption	*Neighborhood Community*	*Local Government*	*Project Client*	*Industry Consultants*	*End-users*	*Media*
Level of adoption	1						
Neighborhood Community	0.318965144	1					
Local Government	0.303265948	0.4004372 78	1				
Project Client	0.268710 87	0.2723133 16	0.322444 749	1			
Industry Consultants	0.350165 703	0.2515212 76	0.362296 297	0.571811 661	1		
End User	0.393033 803	0.4356908 63	0.346759 354	0.374157 78	0.491022 218	1	
Media	0.375356 885	0.4421847 86	0.388510 785	0.326121 031	0.353049 029	0.58662 837	1

4.6.3 Multicollinearity Assumptions

The multicollinearity test was assessed to confirm whether the independent variables were correlated. Based on the findings, neighbourhood community had a VIF value of 1.418 while local government recorded a VIF value of 1.390. Project client and industry consultants recorded a VIF values of 1.574 and 1.763 respectively. Additionally, end user and media had a VIF value of 2.024 and 2.110 respectively. Finally interest groups recorded a VIF value of 2.228. Overall, all the independent variables recorded VIF values of less than 5 signifying no cases of multicollinearity in the data.

Table 0.16: Multicollinearity

Variables	**Collinearity Statistics**

	Tolerance	VIF
Neighbourhood_Community	.705	1.418
Local_Government	.719	1.390
Project_Client	.635	1.574
Industry_Consultants	.567	1.763
End_User	.494	2.024
Media	.474	2.110

4.7 Regression Analysis

4.7.1 The influence of neighborhood community aspects on the adoption of social sustainability in a construction project

The influence of neighborhood community aspects on the adoption of social sustainability in a construction project was assessed using linear regression. The model summary table shows that the R-squared is 0.10 which suggest that 10% of variability or change in the level of adoption os social sustainability is influenced by neighborhood community.

Table 4.17: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.319[a]	.102	.094	.87164

a. Predictors: (Constant), Neighbourhood_Community

The ANOVA table shows the significance of the linear regression model. Based on the model, neighborhood community is good predictor of the level of adoption social sustainability, $F(1, 110) = 12.478$, $p<0.01$.

Table 4.18: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.480	1	9.480	12.478	.001[b]
	Residual	83.573	110	.760		
	Total	93.053	111			

a. Dependent Variable: Level_of_adoption
b. Predictors: (Constant), Neighbourhood_Community

The coefficient table shows the significance of neighborhood community on level of adoption social sustainability. The variable has a p-value of .001 which implies it has a significant influence on level of adoption social sustainability. The coefficient value is 0.361 which infers that a positive change in neighborhood community aspect by a unit results to increase in level of adoption of social sustainability by 0.361.

Table 4.19: Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.501	.379		6.595	.000
	Neighbourhood_Community	.361	.102	.319	3.532	.001

a. Dependent Variable: Level_of_adoption

4.7.2 The influence of media aspects on the adoption of social sustainability in a construction project

The influence of media aspects on the adoption of social sustainability in a construction project was assessed using linear regression. The model summary table shows that the R-squared is 0.141 which suggest that 14.1% of variability or change in the level of adoption of social sustainability is influenced by media aspects.

Table 4.20: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.376[a]	.141	.133	.85241

a. Predictors: (Constant), Media

The ANOVA table shows the significance of the linear regression model. Based on the model, media aspects is good predictor of the level of adoption social sustainability, $F(1, 110) = 18.065$, $p<0.01$.

Table 4.21: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.126	1	13.126	18.065	.000[b]
	Residual	79.927	110	.727		
	Total	93.053	111			

a. Dependent Variable: Level_of_adoption
b. Predictors: (Constant), Media

The coefficient table shows the significance of media aspect on level of adoption social sustainability. The variable has a p-value of .000 which is less than 0.05. This means that media aspect has a significant influence on level of adoption social sustainability. The coefficient value is 0.337 which infers that a positive change in media aspect by a unit results to increase in level of adoption of social sustainability by 0.337.

Table 4.22: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.613	.293		8.923	.000
	Media	.337	.079	.376	4.250	.000

a. Dependent Variable: Level_of_adoption

4.7.3 The influence of local government aspects on the adoption of social sustainability in a construction project

The influence of local government on the adoption of social sustainability in a construction project was assessed using linear regression. The model summary table shows that the R-squared is 0.069 which suggest that 6.9% of variability or change in the level of adoption of social sustainability is influenced by local government.

Table 4.23: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.263[a]	.069	.061	.88725

a. Predictors: (Constant), Local_Government

The ANOVA table shows the significance of the linear regression model. Based on the model, local government is good predictor of the level of adoption social sustainability, F(1, 110) =8.205, p=0.005.

Table 4.24: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.459	1	6.459	8.205	.005[b]
	Residual	86.594	110	.787		
	Total	93.053	111			

a. Dependent Variable: Level_of_adoption
b. Predictors: (Constant), Local_Government

The coefficient table shows the significance of local government on level of adoption social sustainability. The variable has a p-value of .000 which is less than 0.05. This means that local government aspect has a significant influence on level of adoption social sustainability. The

coefficient value is 0.329 which infers that a positive change in local government aspect by a unit results to increase in level of adoption of social sustainability by 0.337.

Table 4.25: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.472	.474		5.211	.000
	Local_Government	.329	.115	.263	2.865	.005

a. Dependent Variable: Level_of_adoption

4.7.4 The influence of industry consultants' aspects on the adoption of social sustainability in a construction project

The influence of industry consultants on the adoption of social sustainability in a construction project was assessed using linear regression. The model summary table shows that the R-squared is 0.123 which suggest that 12.3% of variability or change in the level of adoption of social sustainability is influenced by industry consultants.

Table 4.26: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.350[a]	.123	.115	.86142

a. Predictors: (Constant), Industry_Consultants

The ANOVA table shows the significance of the linear regression model. Based on the model, industry consultants are good predictor of the level of adoption social sustainability, F (1, 110) =15.402, p<0.01.

Table 4.27: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.429	1	11.429	15.402	.000[b]

	Residual	81.624	110	.742
	Total	93.053	111	

a. Dependent Variable: Level_of_adoption

b. Predictors: (Constant), Industry_Consultants

The coefficient table shows the significance of industry consultants on level of adoption social sustainability. The variable has a p-value of .000 which is less than 0.05. This means that industry consultants aspect has a significant influence on level of adoption social sustainability. The coefficient value is 0.410 which infers that a positive change in industry consultant's aspect by a unit results to increase in level of adoption of social sustainability by 0.410.

Table 4.28: Coefficients

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.109	.441		4.787	.000
	Industry_Consultants	.410	.104	.350	3.925	.000

a. Dependent Variable: Level_of_adoption

4.7.5 The influence of client aspects on the adoption of social sustainability in a construction project

The influence of client aspects on the adoption of social sustainability in a construction project was assessed using linear regression. The model summary table shows that the R-squared is 0.029 which indicates that 2.9% of variability or change in the level of adoption of social sustainability is influenced by client aspects.

Table 4.29: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.169[a]	.029	.020	.90653

a. Predictors: (Constant), Project_Client

The ANOVA table shows the significance of the linear regression model. Based on the model, project client aspects are good predictor of the level of adoption social sustainability, F (1, 111) =3.232, p<0.005.

Table 4.30: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.656	1	2.656	3.232	.005[b]
	Residual	90.397	110	.822		
	Total	93.053	111			

a. Dependent Variable: Level_of_adoption
b. Predictors: (Constant), Project_Client

The coefficient table shows the significance of project client aspects on level of adoption social sustainability. The variable has a p-value of .005 which is less than 0.05. This means that project client aspect has a significant influence on level of adoption social sustainability. The coefficient value is 0.212 which infers that a positive change in project client aspect by a unit results to increase in level of adoption of social sustainability by 0.212.

Table 4.31: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.927	.498		5.879	.000
	Project_Client	.212	.118	.169	1.798	.005

a. Dependent Variable: Level_of_adoption

4.7.6 The influence of end-user aspects on the adoption of social sustainability in a construction project

The influence end-user aspect on the adoption of social sustainability in a construction project was assessed using linear regression. The model summary table shows that the R-squared is 0.155 which suggest that 15.5% of variability or change in the level of adoption of social sustainability is influenced by end user aspect.

Table 4.34: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.393[a]	.155	.147	.84567

a. Predictors: (Constant), End_User

The ANOVA table shows the significance of the linear regression model. Based on the model, end user aspect is a good predictor of the level of adoption social sustainability, F (1, 110) =20.116, p<0.01.

Table 4.35: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.386	1	14.386	20.116	.000[b]
	Residual	78.667	110	.715		
	Total	93.053	111			

a. Dependent Variable: Level_of_adoption
b. Predictors: (Constant), End_User

The coefficient table shows the significance of end user aspects on level of adoption social sustainability. The variable has a p-value of .000 which is less than 0.05. This means that end user aspect has a significant influence on level of adoption social sustainability. The coefficient value is 0.392 which infers that a positive change in industry consultant's aspect by a unit results to increase in level of adoption of social sustainability by 0.393.

Table 4.36: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.347	.336		6.989	.000
	End_User	.392	.087	.393	4.485	.000

a. Dependent Variable: Level_of_adoption

4.7.7 The overall influence of Neighborhood Community, Local Government, Project Client, Industry Consultants, End User and Media on the Level of Adoption of Social Sustainability

The overall model assessed the influence of all independent variables on dependent variable. The model summary generated an R-squared value of 0.243 which indicate that 24.3% of variability in the level of adoption of social sustainability is explained by of neighborhood community, local government, project client, industry consultants, end user and media.

Table 4.37: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.493[a]	.243	.192	.82279

a. Predictors: (Constant), Interest_Groups, Project_Client, Neighbourhood_Community, Local_Government, Industry_Consultants, End_User, Media

The ANOVA results shows that the predictor variables are significant predictors of level of adoption of social sustainability in a construction project, $F(6, 110)=4.779$, $p<0.01$.

Table 4.38: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.647	6	3.235	4.779	.000[b]
	Residual	70.406	104	.677		
	Total	93.053	110			

a. Dependent Variable: Level_of_adoption
b. Predictors: (Constant), Interest_Groups, Project_Client, Neighbourhood_Community, Local_Government, Industry_Consultants, End_User, Media

The coefficient table shows the significance of neighborhood community, Local Government Project Client, Industry Consultants, End-users and Media on level of adoption social sustainability. The coefficient value for neighborhood community is 0.361 which infers that a positive change in neighborhood community aspect by a unit results to increase in level of adoption of social sustainability by 0.361. Regarding local government, the generated coefficient value was 0.329 inferring that a unit change in the aspect of local government results to increase in the level of social sustainability by 0.329. The project client aspect recorded a coefficient value of 0.212 which imply that a unit change in project client aspect results to increase in the level of adoption of social sustainability by 0.212. Industry consultant had a coefficient value of 0.410 indicating that a unit increase in the aspect of industry consultants leads to increase in the level of adoption of social sustainability by 0.410. The end-user aspect had a coefficient value of 0.392 implying that increase in end-user aspect by a unit results to increase in the level of adoption of social sustainability by 0.392. Finally, media recorded a coefficient value of 0.337 indicating that increase in media aspect by a unit results to increase in the level of adoption of social sustainability by 0.337. The overall model based on the coefficient values is as follows;

Level of adoption of social sustainability = 1.423+0.361 (Neighborhood Community) + 0.329 (Local Government) + 0.212 (Project Client) + 0.410 (Industry Consultants) + 0.392 (End Users) + 0.337 (Media)

Table 4.39: Coefficients

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

		B	Std. Error	Beta		
1	(Constant)	1.423	.578		2.464	.015
	Neighbourhood_Community	.361	.102	.319	3.532	.001
	Local_Government	.329	.115	.263	2.865	.005
	Project_Client	.212	.118	.169	1.798	.075
	Industry_Consultants	.410	.104	.350	3.925	.000
	End_User	.392	.087	.393	4.485	.000
	Media	.337	.079	.376	4.250	.000

a. Dependent Variable: Level_of_adoption of social sustainability

CHAPTER FIVE

DICUSSIONS, SUMMARY FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the study findings, which are guided by the research objectives. It also provides the discussions of the findings, conclusion and recommendations. Additionally, the chapter highlights the implications and recommends possible areas for future research.

5.3 Summary of Findings

The study aimed to establish the role of stakeholder aspects in the adoption of social sustainability in construction projects in Kenya. The influence of each stakeholder on the adoption of social sustainability was addressed using regression analysis. The regression model revealed that 24.3% of the variability in the level of adoption of social sustainability is explained by the neighborhood community, local government, project clients, industry consultants, end users, and media.

The influence of neighborhood community aspects on the adoption of social sustainability in a construction project was found to be statistically significant. The variable was found to explain that 10% of variability or change in the level of adoption of social sustainability is influenced by the neighborhood community. A shift in the neighborhood community aspect by a unit results in

an increase in the level of adoption of social sustainability by 0.36. The aspect of community leadership was noted to have the most significant influence on the adoption of social sustainability.

Moreover, the influence of local government aspects on the adoption of social sustainability in a construction project was found to be statistically significant. The variable was found to explain 6.9% of variability or change in the level of adoption of social sustainability. A change in the local government aspect by a unit results in an increase in the level of adoption of social sustainability by 0.337. Among aspects of local government, enforcement of policies and regulations was ranked the highest in influencing the implementation of social sustainability in a project.

Additionally, the influence of industry consultant aspects on the adoption of social sustainability in a construction project was found to be statistically significant. Industry consultants were found to explain 12.3% of the variability in the level of social sustainability adoption. Further, a change in the industry consultant's aspect by a unit results in an increase in the level of social sustainability adoption by 0.410. The consultant experience level was noted to have a more significant influence on the adoption of social sustainability practices in a construction project.

The influence of project client aspects on the adoption of social sustainability in a construction project was found to be statistically significant. The variable explains 2.9% of the change in the level of adoption of social sustainability. Further, a change in the project client aspect by a unit results in an increase in the level of adoption of social sustainability by 0.212. The client values were observed to have a more significant influence on the adoption of social sustainability practices in construction projects.

Regression analysis further revealed that end-user aspects positively influenced the level of adoption of social sustainability. The study showed that the end user aspect influences 15.5% of change in the level of adoption of social sustainability. A change in the industry consultant's aspect by a unit results in an increase in the level of adoption of social sustainability by 0.393. Notably, end user personal values were ranked the highest factor in influencing the adoption of social sustainability practices in a construction project.

Finally, the influence of media aspects on the adoption of social sustainability in a construction project was found to be statistically significant. The media aspect explained 14.1% of the variability in the level of adoption of social sustainability. A change in the media aspect by a unit

results in an increase in the level of adoption of social sustainability by 0.337. The highly ranked factor under the media aspect was power and influence. The factor possessed a more significant impact on the adoption of social sustainability practices.

5.2 Discussions

This study set out to examine the role of stakeholder engagement in the adoption of social sustainability in construction projects in Kenya, guided by six specific objectives. The analysis employed a regression model, which revealed that stakeholder factors collectively explained 24.3% of the variance in the level of adoption of social sustainability practices. The discussion below is structured according to each of the study's specific objectives.

5.2.1 Objective 1: To examine the influence of neighborhood community aspects on the adoption of social sustainability in a construction project.

The findings demonstrated that neighbourhood community characteristics significantly influenced the adoption of social sustainability in construction projects. Factors such as the average income of residents, education levels, neighborhood leadership, and exposure to global practices were positively correlated with social sustainability efforts. Notably, leadership within the community emerged as the most influential factor. This suggests that when communities are well-organized and have proactive leaders, they can effectively advocate for the integration of socially sustainable practices in local projects. These results support Martiskainen (2016), who highlighted the role of community leaders in driving sustainable grassroots innovations and influencing project outcomes through collective organization and advocacy.

5.2.2 Objective 2: To establish the influence of media aspects on the adoption of social sustainability in a construction project.

The study found that media-related factors also exerted a statistically significant influence on the adoption of social sustainability. Specifically, media perceptions, ethical standards, interests, and most importantly, the influence and power of specific media outlets were strong predictors of adoption levels. This indicates that media can act as a catalyst for change by shaping public discourse, educating stakeholders, and applying pressure on project developers to uphold socially responsible standards. Therefore, media influence is not passive but actively contributes to the accountability and transparency expected in socially sustainable construction (Bitektine & Haack, 2015).

5.2.3 Objective 3: To explore the influence of local government aspects on the adoption of social sustainability in a construction project.

Local government involvement was also statistically significant in predicting the adoption of social sustainability. Key aspects included policy formulation, enforcement of relevant regulations, and support for sustainability-driven initiatives. Among these, regulatory enforcement ranked the highest, emphasizing that the success of social sustainability efforts heavily relies on effective implementation and monitoring of standards by local authorities. These findings align with the work of Tyler et al. (2023), who noted that strict regulatory oversight plays a pivotal role in ensuring compliance and maintaining environmentally and socially responsible practices in the construction sector.

5.2.4 Objective 4: To analyse the influence of industry consultant aspects on the adoption of social sustainability in a construction project.

The contribution of industry consultants, such as architects, engineers, and sustainability experts, was also found to be significant. The study revealed that consultants' academic qualifications, interest in sustainability, and professional experience all impacted the integration of social sustainability into construction processes. Professional experience was ranked highest, suggesting that seasoned consultants bring valuable insights and best practices that influence sustainable decision-making. This highlights the need to engage experienced professionals who can guide project teams toward socially conscious and community-sensitive project outcomes (Ahn et al., 2013).

5.2.5 Objective 5: To assess the influence of client aspects on the adoption of social sustainability in a construction project

Clients who initiate and fund construction projects were shown to have a significant influence on sustainability adoption. The study identified key client attributes including educational background, social status, exposure to international norms, power and influence, and most notably, personal values. Personal values were ranked the most influential, indicating that socially aware clients are more likely to demand and support sustainable practices in project planning and execution. This supports Rickaby (2020), who argued that individual values and moral convictions often guide decisions related to sustainability, shaping how stakeholders engage with socially responsible goals.

5.4.6 Objective 6: To examine the influence of end-user aspects on the adoption of social sustainability in a construction project

Finally, the role of end users, those who ultimately inhabit or use the constructed environment—was shown to be significant. Similar to project clients, personal values among end users were the most influential factor. This suggests that when future users of a building or facility value social sustainability, their expectations and feedback can shape how a project is designed and delivered. Their influence is particularly important in ensuring that buildings meet not only technical and economic standards but also social and community needs, thus reinforcing the user-centered design principles that underlie socially sustainable development (Goh et al., 2020).

5.4 Conclusions of the Study

This study assessed the influence of various stakeholder groups on the level of adoption of social sustainability in construction projects. The regression model demonstrated that neighborhood community, local government, project client, industry consultants, end users, and media collectively explained 24.3% of the variability in the adoption of social sustainability. The following conclusions are drawn based on each specific objective:

5.4.1 Objective 1: To examine the influence of neighborhood community aspects on the adoption of social sustainability in a construction project

The study found that neighborhood community characteristics, such as average income, education level, wealth status, and leadership, positively influenced the adoption of social sustainability. These findings suggest that more empowered and educated communities are more likely to support and influence sustainable construction practices.

5.4.2 Objective 2: To establish the influence of media aspects on the adoption of social sustainability in a construction project

Media influence was found to be statistically significant in shaping sustainability outcomes. Media perceptions, public interest, and ethical practices contribute to how construction projects are perceived and managed, ultimately affecting the integration of social sustainability measures.

5.4.3 Objective 3: To explore the influence of local government aspects on the adoption of social sustainability in a construction project

The study showed that local government plays a crucial role in promoting social sustainability through policy direction, regulatory enforcement, and alignment with regional and global sustainability initiatives. Strong local governance structures can facilitate the implementation of socially sustainable practices in construction.

5.4.4 Objective 4: To analyse the influence of industry consultant aspects on the adoption of social sustainability in a construction project

Industry consultants were found to significantly impact social sustainability outcomes. Their qualifications, professional experience, level of interest, and commitment to sustainability directly influence the extent to which these practices are embedded in construction projects.

5.4.5 Objective 5: To assess the influence of client aspects on the adoption of social sustainability in a construction project

Client-related factors such as educational level, wealth and status, exposure to global trends, and personal values, affect the project's direction and sustainability outcomes. Clients who are informed and value sustainability tend to drive projects that prioritize social responsibility.

5.4.6 Objective 6: To examine the influence of end-user aspects on the adoption of social sustainability in a construction project

End users were also shown to have a positive influence. Their power, influence, awareness of global trends, and personal preferences contribute to the integration of social sustainability considerations, particularly when their needs and expectations are addressed early in the project lifecycle.

5.5 Recommendations

5.5.1 Policy Recommendations

To strengthen social sustainability practices in construction projects, policymakers should prioritize the inclusion of social sustainability requirements in local government regulations. County governments, in particular, should be encouraged to set specific social sustainability criteria for construction projects. These regulations can include requirements for community engagement, environmental protection, and the promotion of local economic growth. Collaboration with national regulatory bodies such as the National Construction Authority (NCA) and National Environment Management Authority (NEMA) can ensure uniformity in enforcement across regions. Additionally, the integration of social sustainability standards in national and county development plans would enhance their visibility and enforcement.

5.5.2 Managerial Recommendations

Construction project managers should prioritize stakeholder engagement at all stages of project planning and execution. Developing strong partnerships with neighborhood community leaders, local government officials, consultants, and other stakeholders is essential for ensuring the adoption of social sustainability elements. Managers should establish clear communication channels and regularly engage with these stakeholders to address their concerns, integrate their

ideas, and ensure alignment with sustainability goals. Furthermore, capacity building for consultants and project clients on social sustainability issues should be a part of professional development programs to help them understand and implement sustainable practices in their work.

5.5.3 Theoretical Contributions

The findings of this study contribute to the growing body of literature on stakeholder engagement and its role in promoting social sustainability in construction projects. The study emphasizes the importance of both formal and informal stakeholders in the adoption of sustainability practices, challenging traditional views that prioritize only the developer and client. The theoretical framework developed in this study provides a broader understanding of the factors influencing social sustainability, offering new insights into the roles of community leaders, local government, media, and consultants in shaping sustainable practices.

5.6 Study Limitations

This study faced several limitations. Firstly, the focus on a specific geographic region (Nairobi County) may limit the generalizability of the findings to other regions in Kenya or different countries. Additionally, the study relied on the self-reported data from respondents, which may have been subject to biases such as social desirability bias. Another limitation is the cross-sectional nature of the study, which provides a snapshot in time but does not capture the long-term effects of stakeholder engagement on the adoption of social sustainability. Lastly, the study's reliance on quantitative methods may have overlooked important qualitative factors that influence stakeholder behavior and perceptions, such as cultural and social dynamics.

5.7 Suggestion for Further Research

The study mainly addressed the research objective using quantitative data. Further research using a qualitative research design is needed. This study can be conducted using focus group discussions and interview schedules to determine stakeholders' views regarding their influence on the adoption of social sustainability practices in a construction project.

Additionally, future research could explore the role of cultural, social, and economic factors in shaping stakeholders' attitudes toward social sustainability. By examining how cultural norms, local values, and socioeconomic status influence stakeholder engagement and decision-making processes, researchers could develop a more comprehensive framework for understanding the complex dynamics at play in the adoption of sustainability practices in construction.

Another avenue for further research would be to investigate the long-term impact of stakeholder involvement on the sustainability outcomes of construction projects. This could include longitudinal studies that track the success and sustainability of projects over time, examining how early-stage engagement influences not only the implementation of social sustainability practices but also their enduring impact on communities and environments.

5.8 Chapter Summary

The chapter offered a review, conclusion, and recommendations based on the findings of the study. The study established that neighborhood communities, local governments, project clients, industry consultants, end users, and media had a significant impact on the level of adoption of social sustainability. The study recommends that construction projects consider leveraging industry consultants, engaging end-users, utilizing media channels, addressing community concerns, collaborating with project clients, and collaborating with local government to enhance the adoption of social sustainability.

REFERENCES

A.K. Jat, P. (2019). Consumer Acceptance to Green Building Concept for Sustainable Construction in India. *International Journal of Advance Research, Ideas & Innovations in Technology*.

AAK, K. (2021, November). *Safari Green Building*. Retrieved from Safari Green Building: https://safarigreenbuilding.org

Abidin, N. (2009). Sustainable construction in Malaysia-Developers' Awareness. *Science, Engineering and Technology*, 53:807-14.

Abisuga, A. O. (2014). Organizational factors affecting the usage of sustainable building materials in the Nigerian construction industry. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)*, 113-119.

Aghimien, D. A. (2018). Barriers to sustainable construction practices in the Zambian construction industry. *Proceedings of the International Conference on Industrial Engineering and Operations Managemen*, (pp. 2383-2392). Paris.

Aghimien, D. A. (2019). Microscoping the challenges of sustainable construction in developing countries. *Journal of Engineering, Design and Technology*, 1110-1128.

Akintoye, A. H. (2003). Achieving best value in private finance initiative project procurement. *Construction Management and Economics*, 461 – 470.

Al-Bahar J., C. K. (2010). Systematic risk managementapproach for construction projects. *ASCE Journal of Construction Engineering & Management*, 533-545.

Almahmoud, E. a. (2016). Assessment of Social Sustainability in Construction Projects Using Social Network Analysis. *Journal of International Business Research and Marketing Volume 2, Issue 1,*.

Alsayegh, M., Abdul Rahman, R., & Homayoun, S. (2020). *Corporate Economic, Environmental, and Social Sustainability Performance Transformation through ESG Disclosure. Sustainability*. Retrieved from https://doi.org/10.3390/su12093910

Ametepey O, A. C. (2015). Barriers to Successful Implementation of Sustainable Construction in the Ghanaian Construction Industry. *Procedia Manufacturing*, 3:1682-9.

Amran, A. L. (2013). The Influence of Governance Structure and Strategic Corporate Social Responsibility Toward Sustainability Reporting Quality. *Business Strategy and the Environment*, 217–235.

Anand, S. a. (2000). Human development and economic sustainability. *World Development*, 2029-2049.

Australia, G. (2006). *Guidance on Occupational H&S in Government Procurement.* .

Awortwi, N. (2012). The Riddle of Community Development: Factors Influencing Participation and Management in Twenty-Nine African and Latin American Communities. *Community Development Journal*, 89-104.

Ayala-Orozco, B. R.-F.-F. (2018). Challenges and strategies in place-based multi-stakeholder collaboration for sustainability: Learning from experiences in the Global South. *Sustainability (Switzerland)*, Vol. 10 No. 9.

Büsching, T. H. (2011). Erfolgsfaktoren des Managements von Onlineprojekten: Empirische Belege und Empfehlungen. *MedienWirtschaft*, 14–21.

Bakht, M. a.-D. (2015). Synthesis of decision-making research in construction. *Construction Engineering Management*, 1943-7862.

Bal M, B. D. (2013). Stakeholder Engagement: Achieving Sustainability in the Construction Sector. *Sustainability*, 695-710.

Bansal, P. a. (2017). Similar but not the same: Differentiating corporate sustainability from corporate responsibility. *Academy of Management Annals*, Vol. 11 No. 1, pp. 105–149.

Bauma, F. R. (2000). Epidemiology of Participation: An Australian Community Study. *Journal of Epidemiology and Community Healt*, 414-423.

Begum, H. (2015). Improving access to housing for low-income communities in Dhaka: From rhetoric to reality in community participation. *PhD Thesis, School of Civil Engineering and Built Environment, Science and Engineering Faculty*.

Bellucci, M. a. (2018). *Stakeholder Engagement and Sustainability Reporting.* Milton: Routledge.

Blömeke, E. C. (2007). Status quo der betriebswirtschaftlichen Erfolgsfaktorenforschung bei Büchern: Eine kritische Analyse der empirischen Literatur. . *Medien & Kommunikationswissenschaft*, 412–441.

Black, K. (1995). Causes of project failure: a survey of professional engineers. *PM Network*, 21-24.

Bleis, T. (1996). Erfolgsfaktoren neuer Zeitschriften: Empirische betriebswirtschaftliche Untersuchung zur Entwicklung und Markteinführung von Publikumstiteln. *Medien Skripten*.

Bordass, B. a. (2001). Assessing building performance in use 4: the probe occupant surveys and their implications. *Building Research & Information, Vol. 29 No. 2*, 129-143.

Boström, M. (2012). A Missing Pillar? Challenges in Theorizing and Practicing Social Sustainability: Introduction to the Special Issue. *Sustainability: Science, Practice, & Policy*, 3–14.

Bourne, L. (2005). Project relationship management and the stakeholder circle. *Doctoral thesis,Graduate School of Business, Melbourne, RMIT University*.

Bowen, H. (1953). *Social Responsibilities of the Business Man.* New York: Harper and Brothers.

Bowen, K. J.-H. (2017). Implementing the "Sustainable Development Goals": towards addressing three key governance challenges—collective action, trade-offs, and accountability. *Current Opinion in Environmental Sustainability*, 90–96.

Bramley, G. D. (2009). "Social sustainability and urban form: evidence from five British cities". *Environment and Planning A, Vol. 41 No. 9*, 2125-2142.

Bryson, J. (2004). What to do when stakeholders matter. Stakeholder identification and analysis techniques. *Public Management Review*, Vol. 6 No. 1, pp. 21–53.

Burlea Şchiopoiu A., P. I. (2013). Encyclopedia of Corporate Social Responsibility. *Legitimacy Theory*, 1579-1584.

Burlea, S. A. (2013). Legitimacy Theory. *Encyclopedia of Corporate Social Responsibility*, 1579-1584.

Campbell, D. C. (2003). Voluntary social reporting in three FTSE sectors: A comment on perception and legitimacy. *Accounting, Auditing and Accountability Journal*, 558-81.

Chan & Lee, E. a. (2008). Critical factors for improving social sustainability of urban renewal projects. *Social Indicators Research, Vol. 85 No. 2*, 243-256.

Chan, E. a. (2008). Critical factors for improving social sustainability of urban renewal projects. *Social Indicators Research, Vol. 85 No. 2,*, 243-256.

Chen, C. .. (1991). The construction of leadership images in the popular press: the case of Donald Burr and People Express. *Administrative Science Quarterly*, 521-551.

Chen, C. H. (2012). Green-aware workload scheduling in geographically distributed data centers. *Cloud Computing Technology and Science (CloudCom), 2012 IEEE 4th International Conference*, (pp. 82-89).

Chinyio, E. &.-K. (2009). *Construction Stakeholder Management.* Oxford: Wiley-Blackwell.

Chinyio, E. A. (2008). Practical approaches for engaging stakeholders: findings from the UK. *Construction Management and Economics*, 591-599.

Cleland, D. I. (1999). *Project Management Strategic Design and Implementation.* New York: McGraw-Hill.

Clevenger, M. M. (2019). Stakeholder Management and Corporate Social Responsibility (CSR). *Business and Corporation Engagement with Higher Education*, 67-81.

Clevenger, M. M. (2019). Stakeholder Management and Corporate Social Responsibility (CSR). *Business and Corporation Engagement with Higher Education*, pp. 67–81.

Colantonio, A. a. (2011). *Urban Regeneration and Social Sustainability: Best Practice from European Cities.* Chichester: Wiley-Blackwell.

Cook, M. M. (2002). Achieving Community Benefits Through Contracts. *The Policy Press*.

Coulter, R. P. (2003). Rethinking the origins of involvement and brand commitment: Insights from postsocialist central Europe. *Journal of consumer research*, 151-169.

Cummins, R. G. (2011). How production value impacts perceived technical quality, credibility, and economic value of video news. *Journalism & Mass Communication Quarterly*, 737–752.

Darko, A. C. (2017). Review of barriers to green building adoption. *Sustainable Development*, 167-179.

Davies, O. D. (2017). Barriers to implementation of sustainable construction techniques. *MAYFEB Journal of Environmental Science*, 1-9.

Deegan, C. (2002). The Legitimizing Effect of Social and Environmental Disclosures- A Theoretical Foundation. *Accounting, Auditing and Accountability Journal*, 282-311.

Deephouse, D. (2000). Media reputation as a strategic resource: an integration of mass communication and resource based theories. *Journal of Management*, 1091-1112.

Dillard, J. a. (2008). *Understanding the Social Dimension of Sustainability.* New York: Routledge.

Dillard, J. D. (2009). *Understanding the Social Dimension of Sustainability.* New York: Routledge.

Dorsner, C. (2004). Social Exclusion and Participation in Community Development Projects: Evidence from Senegal. *Policy and Administration*, 366-382.

Drechsler, J. &. (2010). Sampling with synthesis: A new approach for releasing public use census microdata. *Journal of the American Statistical Association*, 1347-1357.

Drost, E. (2011). Validity and reliability in social science research. *Education Research and Perspectives*, 105-124.

Du Pleisses, C. (2007). Sustainable Construction in Developing Countries. *Construction Management and Economics*, 67-76.

Du Pleissis, C. e. (2002). *Agenda 21 for Sustainable Construction in Developing Countries.* Council for Scientific and Industrial Research Report.

Du Plessis, C. (2007). A strategic framework for sustainable construction in developing countries. *Construction Management and Economics*, 67-76.

Edum-Fotwe, F. a. (2009). A social ontology for appraising sustainability of construction projects and developments. *International Journal of Project Management*, 313-322.

Ehrgott, M., Reimann, F., Kaufmann, L., & Carter, C. (2010). Social Sustainability in Selecting Emerging Economy Suppliers. *Journal of Business Ethics*, 99–119.

Elforgani, M. R. (2012). The influence of clients' qualities on green design performance of building projects in Malaysia-descriptive study. *American Journal of Applied Sciences*, 1668-1677.

El-Gohary. (2006).

EMCA Act, N. 8. (1999). *Environmental Management & Coordination Act No. 8 of 1999.* Kenya Gazette.

EMI. (2007). *Architectural Design Guide, EMI East Africa, 2007.*

ENR. (2024). ENR, Envision Infrastructure Tool Digs In. *Engineering News Record*, 10-13.

Esezobor, E. (2016). Sustainability and construction: A study of the transition to sustainable construction practices in Nigeria. Birmingham City, UK: Birmingham City University.

Essam Almahmoud, H. K. (2016). Assessment of Social Sustainability in Construction Projects Using Social Network Analysis. *Journal of International Business Research and Marketing, 2*(1).

Faridah Hassan, H. O. (2019). Assessing the Influence of Demographic Factors on Community Participation in a Demand Driven Development Project: The Case of Hazina Ya Maendeleo Ya Pwani Approach in Coastal Kenya. *Open Journal of Social Sciences*, 209-224.

Fassin, Y. (2009). The stakeholder model refined. *Journal of Business Ethics*, 113–135.

Fiedler, T. a. (2002). Environmental Collaborations within the Building and Construction Industry: A Consideration of the Motivations to Collaborate. *Proceedings of the Critical Perspectives on Accounting Conference.* New York.

Freeman, R. (1984). *Strategic Management: Stakeholder Approach.* Boston: Pitman.

Freeman, R. E. (1983). Stockholders and stakeholders: A new perspective on corporate governance. *California Management Review*, 93-94.

Freeman, R. E. (2004). Stakeholder theory and "the Corporate Objective Revisited". *Organization Science*, 364-369.

Freeman, R. H. (2007). *Managing for Stakeholders. Survival, Reputation, and Success.* New Haven: Yale University Press.

Freeman, R. K. (2017). Stakeholder Engagement: Clinical Research Cases. In R. K. Freeman, *Stakeholder Engagement: Practicing the Ideas of Stakeholder Theory* (pp. 1–12). Zurich: Springer.

Freudenreich, B. L.-F. (2019). A stakeholder theory perspective on business models: Value creation for sustainability. *Journal of Business Ethics*, pp. 1–16.

Friedman, M. (1970, September). The Social Responsibility of Business Is to Increase Its Profits. *New York Times Magazine*.

Gamson, W. .. (1992). Media images and the social construction of reality. *Annual Review of Sociology*, 373 393.

Gichuki, M. (2019). *Factors Influencing Sustainability of County Government Funded Construction Projects in Laikipia County, Kenya.* Nairobi: University of Nairobi.

Githinji, C. N. (2020). Influence of stakeholder's involvement on project performance. A case study of Kenya Ferry Services. *The Strategic Journal of Business & Change Management*, 738–756.

Goh, C. (2017). Towards an Integrated Approach for Assessing Triple Bottom Line in the Built Environment. *SB-LAB 2017.* Green Lines Institute.

Gray, B. a. (2018). *Collaborating for Our Future. Multistakeholder Partnerships for Solving Complex Problems.* Oxford: Oxford University Press.

Gray, R. K. (1995). Constructing a research database of social and environmental reporting by UK companies. *Accounting, Auditing and Accountability Journal*, 78-101.

Greenwood, M. (2007). Stakeholder engagement: Beyond the myth of social responsibility. *Journal of Business Ethics*, Vol. 74 No. 4, pp. 315–327.

Greenwood, R. e. (2005). Reputation, diversification, and organizational explanations of performance in professional service firms. *Organization Science*, 661-673.

Grekova, K. C. (2016). How environmental collaboration with suppliers and customers influences firm performance: Evidence from Dutch food and beverage processors. *Journal of Cleaner Production*, Vol. 112, pp. 1861–1871.

Griessler, E. a. (2005). Social sustainability: a catchword between political pragmatism and social theory. *International Journal of Sustainable Development*, 65-79.

Guthrie, J. C. (2006). Legitimacy theory: A story of reporting social and environmental matters within the australian food and beverage industry. *SSRN*, 1-35.

Hörisch, J. F. (2014). *Applying Stakeholder Theory in Sustainability Management. Organization & Environment.* Retrieved from https://doi.org/10.1177/1086026614535786

Harris, J. a. (2001). *A Survey of Sustainable Development, Social and Economic Dimensions.* USA: Island Press.

Hemanta-Kumar, D. A. (2016). Assessment of Social Sustainability in Construction Projects Using Social Network Analysis. *Journal of International Business Research and Marketing Volume 2, Issue 1*.

Hennig-Thurau, T. M. (2012). The relationship between reviewer judgments and motion picture success: re-analysis and extension. *Journal of Cultural Economics*, 249–283.

Herd-smith A., a. F. (2008). *The implementation of social sustainability in regeneration projects: Myth or reality?* Dublin: The Construction and Building Research Conference of the Royal Institution of Chartered Surveyors,.

Herd-smith, A. a. (2008). The implementation of social sustainability in regeneration projects: Myth or reality? *The Construction and Building Research Conference of the Royal Institution of Chartered Surveyors.* Dublin: RCIS.

Hill, R. a. (1997). Sustainable construction: principles and a framework for attainment. *Construction Management and Economics, Vol. 15 No. 3*, 223-239.

Hirschi, C. (2010). Introduction: Applications of Social Network Analysis. *6th Conference on Applications of Social Network Analysis* (pp. 2-3). Zurich: Procedia Social and Behavioral Sciences.

Husted, B. W.-F. (2017). The impact of sustainability governance, country stakeholder orientation, and country risk on environmental, social, and governance performance. *Journal of Cleaner Production*, 93–102.

IFC. (n.d.). *Edge Buildings*. Retrieved from EDGE-Excellence in Design for Greater Efficiencies: edgebuildings.com

ISI, I. f. (2024). Retrieved from https://www.sustainableinfrastructure.org/

Jacob Simwero, P. A. (2024). Comparing Between the Awareness and Adoption of Sustainable Construction Practices in Kenya . *East African Journal of Engineering*, 247-261.

James Pocock, C. S. (2016). Improving Socially Sustainable Design and Construction in Developing Countries. *Procedia Engineering*, 288 – 295.

James Pocock, C. S. (2016). Improving Socially Sustainable Design and Construction in Developing Countries. *Procedia Engineering*, 288 – 295.

Jepsen, A. L. (2009). Stakeholder analysis in projects: challenges in using current guidelines in the real world. *International Journal of Project Management*, 335 – 345.

Jergeas, G. W. (2000). Stakeholder management on construction projects. *AACE International Transactions*, 1–5.

Joseph, M. J. (2014). *Stakeholder Managment in Construction projects: A life-cycle based framework.* Retrieved from Heriot Watt University: https://www.ros.hw.ac.uk/handle/10399/2877

Jurbe, J. M. (2014, October). *Stakeholder management in construction projects: a life cycle based framework (Doctoral dissertation, Heriot-Watt University)*. Retrieved from Heriot Watt Univeristy: https://www.ros.hw.ac.uk/handle/10399/2877

Kaminsky, J. (2019). The global influence of national cultural values on construction permitting. *Construction Management & Economics*, 89–100.

KENHA, K. N. (2018). *Stakeholder Engagement Plan (SEP) for the Mombasa-Mariakani Road.* Nairobi: Kenya National Highways Authority.

Keninvest. (2021). *Economic Overview*. Retrieved from Kenya Investment Authority: http://www.invest.go.ke/kenyas-economy/

KEPSA. (2024, January). Leveraging ESG Practices in Businesses. *Kenya Business Channel*.

Kibert CJ. (1994). Sustainable Construction: Proceedings of the First International Conference of CIB TG 16, November 6-9, 1994, Tampa, Florida, USA:. Tampa: University of Florida.

Kim, S. (2009). Cinema demand in Korea. *Journal of Media Economics*, 36–56.

KNBS. (2020). *Economic Survey 2019.* Nairobi: KNBS.

KPMG. (2016). *Integrating the Sustainable Development Goals into Safaricom's Corporate Strategy.* Retrieved from KPMG: https://assets.kpmg/content/dam/kpmg/pdf/2016/07/za-safaricom-case-study.pdf

Kuhn, T. (2008). A Communicative Theory of the Firm: Developing an Alternative Perspective on Intra organizational Power and Stakeholder Relationships. *Organizational Studies*, 1227-1254.

Kujala, J. a. (2017). Stakeholder Engagement: Clinical Research Cases. In *Value-Creating Stakeholder Relationships in the Context of CSR* (pp. 63–85). Zurich: Springer.

Labuschagne, C. B. (2005). Assessing the sustainability performance of industries. *Journal of Clean Production*, 373–385.

Lafferty, W. M. (2013). *From the Earth Summit to Local Agenda 21: working towards sustainable development.* Routledge.

Lamprinidi, S. a. (2008). *A snapshot of sustainability reporting in the construction and real estate sector.* Retrieved from Global Reporting: www.globalreporting.org/NR/rdonlyres/13865428-9EAC-4EB0-A8E3-A31AA2F5C38C/3470/CRESSReport

Landorf, C. (2011). "Evaluating social sustainability in historic urban environments". *International Journal of Heritage Studies, Vol. 17 No. 5*, 463-477.

Laumann, E. O. (1976). *Networks of Collective Action: A Perspective on Community Influence Systems.* New York: Academic Press.

Lawrence, R. (2005). Human ecology and its applications for sustainability research. *Handbook of sustainability research* , 121–145.

Lawrence, R. J. (2021). Overcoming Barriers to Implementing Sustainable Development Goals: Human Ecology Matters. *Human Ecology Review*, 95-115. Retrieved from Research Gate.

Leaman, A. a. (2001). Assessing building performance in use 4: the probe occupant surveys and their implications. *Building Research & Information, Vol. 29 No. 2*, 129-143.

Lee, M. (2008). A review of the theories of corporate social responsibility: Its evolutionary path and the road ahead. *International Journal of Management Reviews*, Vol. 10 No. 1, pp. 53–73.

Leidy E. Klotz, R. V.-V. (2013). Social Sustainability Considerations during Planning and Design: Framework of Processes for Construction Projects. *Journal of Construction Engineering and Management*.

Leonardo, S. A. (2016). Social Sustainability in the Lifecycle of Chilean Public Infrastructure. *Journal of Construction Engineering and Management*.

Leung, M. a. (2010). *Risk and construction stakeholder management.* London: John Wiley & Sons Ltd.

Li, Y. L. (2011). Hierarchical structuring success factors of project stakeholder management in construction organizations. *African Journal of Business Management*, 9705 – 9713.

Lindblom, C. (1994). The Implications of Organizational Legitimacy for Corporate Social Performance and Disclosure. *Critical Perspectives on Accounting Conference.* New York.

Linton, C. F. (2004). *The Development of Social Network Analysiis.* North Charlestone: BookSurge LLC.

Littig, B. a. (2005). Social sustainability: a catchword between political pragmatism and social theory. *International Journal of Sustainable Development*, 65-79.

Liu, A. F. (2011). The role of corporate citizenship values in promoting corporate social performance: towards a conceptual model and a research agenda. *Construction Management and Economics, Vol. 29 No. 2*, 173-183.

Lorna Chepkemoi Kirui, D. O. (2024). Project Management Practices & Sustainability of Building Projects in Kenya: A Case Study of Construction Firms in Nairobi County. *African Journal of Emerging Issues*.

Lozano, R. (2018). Proposing a definition and a framework of organisational sustainability: A review of efforts and a survey of approaches to change. *Sustainability*, Vol. 10 No. 4, p. 1157.

Macfarlane, R. (2000). *Using Local Labour in Construction.* Bristol: The Policy Press.

Macfarlane, R. (2000). Using Local Labour in Construction. *The Policy Press*.

Macfarlane, R. a. (2002). Achieving Community Benefits Through Contracts. *The Policy Press*.

Magassouba, S. M. (2019). Influence of Stakeholders Involvement on Development Project Performance in Guinea. *International Journal of Academic Research in Business and Social Sciences,*, 1111-1120.

Maignan, I. a. (2004). Corporate social responsibility and marketing: an integrative framework. *Journal of the Academy of Marketing Science, Vol. 32 No. 1,*, 3-19.

Martins, A., & Farias, J. (2019). Inclusive sustainability within favela upgrading and incremental housing: The case of Rocinha in Rio. *Sustainable Development*, 205–213.

Martiskainen, M. (2016). *The role of Community Leadership in the development of grassroots innovations.* Retrieved from SSRN Electronic Journal: https://doi.org/10.2139/ssrn.2792056

Mason, M. C. (2019). Changing modalities in international development and research in education: Conceptual and ethical issues. *International Journal of Educational Development*.

Masudur, R. (2016). Community Participation in Development Projects in a Low Income Community. *Jahangirmagar University Planning Review*, 65-76.

McKenzie, S. (2004). *"Social sustainability: towards some definitions".* Magill, Hawke Research Centre, University of South Australia.

Meade L, P. A. (2010). Benchmarking for sustainability: an application to the sustainable construction industry. *Benchmarking: An International Journal, Vol. 17 No. 3*, 435-451.

Mihelcic, e. a. (2009). *Field Guide to Environmental Engineering for Development Workers.* American Society of Civil Engineers.

Missimer, M. R. (2010). Exploring the possibility of a systematic and generic approach to social sustainability. *Journal of Cleaner Production*, 1107-1112.

Mitchell, R. K. (1997). Toward a Theory of Stakeholder Identification and Salience : Defining the Principle of Who and What Really Counts. *The Academy of Management Review*, 22(4), 853–886.

Mohajan, H. K. (2017). Two Criteria for Good Measurements in Research: Validity and Reliability. *Annals of Spiru Haret University, Economic Series*, 59-82.

Mohsen, T. D. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*.

Moloney, K. (2006). *Rethinking Public Relations: PR Propaganda and Democracy.* London: Routledge.

Molwus, J. J. (2014). *Stakeholder Management in Construction Projects: A life Cycle Based Framework.* Edinburgh.

Muhiai, M. N. (2018). *Factors Influencing Stakeholders Management in Effective Implementation of Water Projects in Kiambu County , Kenya.* Nairobi.

Naciti, V. (2019). Corporate governance and board of directors: the effect of a board composition on firm sustainability performance. *Journal of Cleaner Production*.

Natsios, A. (1997). NGOs and the Humanitarian Impulse, Some Have It Right. *Ethics and International Affairs*, 133-136.

NCA. (2022). The National Building Code 2022. Nairobi, Kenya.

NESC. (2007). *Kenya's Vision 2030.* Nairobi: Government of Kenya.

Neuman, W. .. (1992). *Common Knowledge: News and the Construction of Political Meaning.* Chicago: University of Chicago Press.

Newcombe, R. (2018). From client to project stakeholders: a stakeholder mapping approach. *Construction Management and Economics*, 841 – 848.

Njoroge, P. C. (2013, August). *University of Nairobi School of Built Environment*. Retrieved from University of Nairobi School of Built Environment: https://built-environment.uonbi.ac.ke/sites/default/files/cae/builtenviron/builtenviron/PETER%20CHEGE%20NJOROGE%20B50-72313-2008.pdf

Noland, J. a. (2010). Stakeholder engagement, discourse ethics and strategic management. *International Journal of Management Reviews*, Vol. 12 No. 1, pp. 39–49.

NZ., A. (2010). Investigating the awareness and application of sustainable construction concept by Malaysian developers. *Habitat International*, 34:421-6.

Oke, A. E. (2016). Performance of Construction Projects in South Africa : Perceptions of Consultants and Contractors. *Proceedings of the DII-2016 Conference on Infrastructure Development and Investment Strategies for Africa: Achieving Solutions for Renewable Energy and Sustainable Development.*

Okoye, P. U. (2021). Factors Influencing Professionals and Contractors' Resistance Behaviours towards Sustainable Construction Practices in Nigeria. *European Journal of Sustainable Development Research*.

Olander, S. (2007). Stakeholder impact analysis in construction project management. *Construction Management and Economics*, 277-287.

Olander, S. a. (2008). A comparative studies of factors affecting the external stakeholder management process. *Construction Management and Economics*, 553.

Park, Y. S. (2020). The positivism paradigm of research. *Academic Medicine*, 690–694 .

Pearce, D. (2006). Is the construction sector sustainable?: definitions and reflections. *Building Research and Information, Vol. 34 No. 3*, 201-207.

Pedrini, M. a. (2019). Stakeholder management: a systematic literature review. *Corporate Governance (Bingley)*, Vol. 19 No. 1, pp. 44–59.

Plaza-Úbeda, J. d.-J.-M. (2010). Measuring stakeholder integration: Knowledge, interaction and adaptational behavior dimensions. *Journal of Business Ethics*, Vol. 93 No. 3, pp. 419–442.

Plummer, J. (2002). *Municipalities and Community Participation: A Sourcebook for Capacity Building.* London: Earthscan.

Presley, A. a. (2010). Benchmarking for sustainability: an application to the sustainable construction industry. *Benchmarking: An International Journal, Vol. 17 No. 3*, 435-451.

Presley, A. a. (2010). Benchmarking for Sustainability: An Application to the Sustainable Construction Industry. *Benchmarking: An International Journal*, 435-451.

Presley, A. a. (2010). Benchmarking for Sustainability: An Application to the Sustainable Construction Industry. *Benchmarking: An International Journal* , 435-451.

Price, A. a.-F. (2009). A social ontology for appraising sustainability of construction projects and developments. *International Journal of Project Management, Vol. 27 No. 4*, 313-322.

R. Sangori, V. K. (2020). The Role of policies, Regulations and Standards: Towards Sustainability in Kenya's Building Environment. *IOP Conference Series: Earth & Environmental Science.* Thessaloniki: IOP Publishing Ltd.

Ranängen, H. (2017). Stakeholder management theory meets CSR practice in Swedish mining. *Mineral Economics*, Vol. 30 No. 1, pp. 15–29.

Rickaby, M. A. (2020). Conceptualizing the relationship between personal values and sustainability—a TMO case study. *Administrative Sciences*.

Rodolfo Valdes-Vasquez, L. E. (2013). Social Sustainability Considerations during Planning and Design: Framework of Processes for Construction Projects. *Journal of Construction Engineering and Management*.

Rostamnezhad, M., Nasirzadeh, F., Khanzadi, M., Jarban, M., & Ghayoumian, M. (2020). Modelling social sustainability in construction projects by integrating system dynamics and fuzzy-DEMATEL method: A case study of highway project. *Engineering, Construction & Architectural Management*, 1595–1618.

Rowley, T. (1997). Moving beyond dyadic ties: A network theory of stakeholder influences. *Academic Management Review*, 887–910.

Samant, S. a. (2016). A selected literature review on the changing role of stakeholders as value creators. *World Journal of Science, Technology and Sustainable Development*, Vol. 13 No. 2, pp. 100–119.

SCB. (2019). *Sustainability Summary.* Nairobi: Standard Chartered Bank.

Schaltegger, S. H. (2019). Business cases for sustainability: A stakeholder theory perspective. *Organization and Environment*, Vol. 32 No. 3, pp. 191–212.

SEED. (2024). *SEED, Welcome to SEED, Social Economic Environmental Design*. Retrieved from https://seednetwork.org/

Setia, M. (2016). Methodology series module 3: Cross-sectional studies. *Indian Journal of Dermatology*, 261.

Shen, G. Q. (2014). Framework for stakeholder management in construction projects. *Journal of Management in Engineering*.

Shocker, A. S. (1973). An approach to developing societal preferences in developing corporate action strategies. *California Management Review*, 97-105.

Sierra, L. A. (2016). Social sustainability in the lifecycle of chilean public infrastructure. *Journal of Construction Engineering and Management*.

Sierra, L. A.-S. (2018). Bayesian network method for decision-making about the social sustainability of infrastructure projects. *Journal of Cleaner Production*, 521-534.

Simonton, D. K. (2009). Cinematic success criteria and their predictors: The art and business of the film industry. *Psychology & Marketing*, 400–420.

Sjostrom C, B. W. (1999). CIB Agenda 21 for sustainable construction: why, how and what. *Building Research & information*, 348-354.

Smith, J. a. (2004). Stakeholder management during project inception: strategic needs analysis. *Journal of Architectural Engineering*, 22–33.

Sommer, v. R. (2016). Success factors of media product brands.

Spoto, A. (2006). Social Network Analysis: A brief theoretical review and further perspectives in the study of Information Technology. *PsychNology Journal*, Volume 4, Number 1, pp. 53 – 86.

Starik, M. (1994). The Toronto conference: reflections on stakeholder theory. *Business & Society*, 82-131.

Suchman, M. (1995). Managing Legitimacy: Strategic and Institutional Approaches. *Academy of Management Review*, 571-610.

Suermann, P. P. (2013). Evaluating U.S. Air Force Construction in Afghanistan: Lessons Learned for Future Austere Construction. *Seventh International Conference on Construction in the 21st Century (CITC-VII),.* Bangkok.

Svendsen, A. a. (2005). Convening stakeholder networks: a new way of thinking, being and engaging. *Journal of Corporate Citizens*, 91–104.

Takim, 2. (2009). The Management of Stakeholders' Needs and Expectations in the Development of Construction Projects in Malaysia. *Modern Applied Science*, 167-175.

Takim, R. (2009). The Management of Stakeholders' Needs and Expectations in the Development of Construction Projects in Malaysia. *Modern Applied Science*, 167-175.

Talukhaba, A. N. (2005). Implementation of socio-economic sustainability in construction projects at the planning stage in developing countries. *SB13 South Africa conference.* Johannesburg: SB13 South Africa conference.

Tan, T. (2012). Predicting homebuyers' intentions of inhabiting eco-friendly homes: The case of a developing country. *Environmental Science, Sociology*.

Tayeh Abu, A. (2020). Factors Affecting Sustinability Performance During Stage in Building Projects-Consultants' Perspective. *The Open Construction and Building Technology* .

Thomson, D. S.-W. (2003). Managing value and quality in design. *Building Research & Information*, 334-345.

Toole, T., & Carpenter, G. (2013). Prevention through Design as a Path toward Social Sustainability. *Journal of Architectural Engineering*, 168–173.

Transparency International, K. (2020). *Environmental Impact Assessment Process in Kenya.* Transparency International.

Tschörtner, A. (2008). Erfahrung und Erfolg im Zeitschriftenverlag: Die Bedeutung der Wissensressourcen von Verlagsleitern für die erfolgreiche Etablierung neuer Zeitschriften. *Reihe Medien-Skripten*.

Turner, J. (2006). Towards a theory of project management: the nature of the functions of project management. *Int J Project Manag*, 277–279.

Tyler, B. B. (2023). Environmental practice adoption in smes: The effects of firm proactive orientation and regulatory pressure. *Journal of Small Business Management*.

USAID. (2011). *Project Design Guidance, United States Agency for International Development, 2011.* USAID.

USGBC, U. G. (2015). *USGBC, U.S. Green Building Council LEED homepage*. Retrieved from http://www.usgbc.org/leed

Valdes-Vasquez, R., & Klotz, L. (2013). Social Sustainability Considerations during Planning and Design: Framework of Processes for Construction Projects. *Journal of Construction Engineering Management*, 80–89.

Vallance, S. P. (2011). What Is Social Sustainability? A Clarification of Concepts. *Geoforum*, 342–348.

Vanclay, F. (2003). International principles for social impact assessment. *Impact Assessment and Project Appraisal*, 5–11.

Waddock, S. a. (1997). The corporate social performance-financial performance link. *Strategic Management Journal, Vol. 8 No. 4*, 303-319.

WCED, W. C. (1987). *Our Common Future.* Oxford: Oxford University Press.

Weingaertner, C. a. (2014). Exploring Social Sustainability: Learning from Perspectives on Urban Development and Companies and Products. *Sustainable Development*, 122-133.

Wellman, B. (1988). *Structural Analysis: From Method and Metaphor to Theory and Substance.* New York: Cambridge University Press.

Winch, G. M. (2010). *Managing Construction projects: an information processing approach.* West Sussex: Wiley-Blackwell.

Winch, M. G. (2010). *Managing Construction projects: an information processing approach.* West Sussex: Wiley-Blackwell.

Wong JMW, N. S. (2010). Strategic planning for the sustainable development of the construction industry in Hong Kong. *Habitat International*, 34:256-63.

Wood, D. &. (1997). Toward a Theory of Stakeholder Identification and Salience : Defining the Principle of Who and What Really Counts. *The Academy of Management Review*, 853–886.

Yang, J. S. (2009). Exploring critical success factors for stakeholder management in construction projects. *Journal of civil engineering and management*, 337-348.

Yang, J. S. (2011). Stakeholder management in construction: An empirical study to address research gaps in previous studies. *International Journal of Project Management*, 900-910.

Yang, R. J. (2014). Framework for stakeholder management in construction projects. *Journal of Management in Engineering*.

Yonsera, U. (n.d.). *Coursera*. Retrieved from Coursera.org: https://www.coursera.org/lecture/sustainable-development-ban-ki-moon/summary-JvkbC

Yue, L. (2016, November 28). *How to Determine the Validity and Reliability of an Instrument*. Retrieved from Discovery Centre for Evaluation, Research & Professional Learning: https://sites.miamioh.edu/discovery-center/2016/11/how-to-determine-the-validity-and-reliability-of-an-instrument/

Zou P., Z. G. (2017). Understanding the key risks in construction projects in China.

APPENDICES

3.13 Appendix 1: Social Sustainability Attributes

No	Types of project	Social sustainability attributes	Example of references
1.	Building / housing	Life cycle assessment, stakeholder-based assessment, society, worker, occupants, local community, cultural value, satisfaction, safety and health labour practices, human rights, indoor climate, accessibility to living opportunities, depreciation rate, working hours, community education, building quality, socioeconomic growth	(Lang & Yang, 2019; Liu & Qian, 2019; Stender & Walter, 2019; Surbeck & Hilger, 2014; Wang, Zhang, & Lu, 2018)
2.	Construction (general)	Cultural heritage, employment, health and safety, training, effects on users, comfort, professional ethics, accessibility, usability, aesthetic degradation, responding to the needs of specific groups, improved quality of daily life, effective public participation, social flexibility, government support and market orientation, company age, staff strength, human rights, regulation.	(Almahmoud & Doloi, 2015; Bamgbade et al., 2017; Montalbán-Domingo et al., 2019; Valdes-Vasquez & Klotz, 2013)
3.	Infrastructure projects (Road, highway, railway)	Stakeholder engagement, impact, communication, satisfaction network, liveability health & comfort, social justice, public opinion, fair and equitable, respecting human safety, security and health, cultural heritage.	(Doloi, 2012, 2018; Sierra et al., 2017)
4.	Other projects (Renewal Projects, Offshore wind power farms, Sanitation Organizations)	Stakeholder engagement, sense of community, cultural heritage, health and safety, local preference / social value, professional ethics, public participation training, social capital, emotion experience, life satisfaction, cleanliness, convenience, financial contribution, pollution, modernity knowledge, costs.	(Montalbán-Domingo et al., 2019; Toole & Carpenter, 2013; Yildiz et al., 2019; Zou et al., 2018)

3.14 Appendix 2: Questionnaire

INFLUENCE OF STAKEHOLDER ENGAGEMENT IN PROMOTING SOCIAL SUSTAINABILITY OF CONSTRUCTION PROJECTS IN KENYA

QUESTIONNAIRE

The purpose of this questionnaire is to obtain information that will facilitate this exercise. Your contribution towards achieving this goal will be highly appreciated. The objectives for this exercise are as outlined below:

General Aim of the Research

The goal of this study is to the "role of stakeholder engagement in the adoption of social sustainability in construction projects in Kenya"

The information collected from this questionnaire will be CONFIDENTIAL and used ONLY for the purposes mentioned above.

SECTION A: BACKGROUNDINFORMATION

Please tick [√] where appropriate

1. Gender

   ○ Male ○ Female

2. Please state you age:……

3. Please indicate your years of professional experience in construction:…….

4. Please indicate your highest educational qualification

   ○ KCPE
   ○ KCSE
   ○ Certificate
   ○ Diploma
   ○ Degree
   ○ Masters
   ○ PHD

5. Please state the number of ongoing construction projects you are presently undertaking: ……..

SECTION B: INVESTIGATING CRITICAL SUCCESS FACTORS FOR STAKEHOLDER ENGAGEMENT IN CONSTRUCTION PROJECTS

Please indicate your level of agreement with the following statements about stakeholder engagement and management

Factors	Very low extent	Low extent	Moderate	Great extent	Very great extent
	1	2	3	4	5
1. Clearly formulating a construction project mission will enable effective stakeholder management					
2. Carefully identifying and listing the project stakeholders will enable effective stakeholder management					
3. Ensuring flexible project organisation will enable effective stakeholder management					
4. Identifying and understanding stakeholders' areas of interests in the project will enable effective stakeholder management					
5. Appropriately classifying stakeholders according to their attributes/characteristics (Power, legitimacy, urgency, proximity, level of interest, etc) will enable effective stakeholder management					
6. Predicting and mapping stakeholders' behaviours (supportive, opposition, neutral, etc) will enable effective stakeholder management					
7. Predicting stakeholders' potential influence on each other will enable effective stakeholder management					

8. Predicting stakeholders' potential influence on the project will enable effective stakeholder management					
9. Identifying and analysing possible conflicts and coalitions among stakeholders will enable effective stakeholder management					

SECTION C: ESTABLISHING ELEMENTS OF SOCIAL SUSTAINABILITY IN A CONSTRUCTION PROJECT

On a scale of 1-5, kindly rate the level of adoption of the following elements of social sustainability in **your current** construction project(s)

Factors	Very low extent	Low extent	Moderate	Great extent	Very great extent
	1	2	3	4	5
1. Adoption of designs that increase the wellness and productivity of the final users					
2. Establishment of a plan to evaluate progress on zero harm or zero accident targets for the project					
3. Establishment requirements to assess the impact of the project on the health and safety of the final users					
4. Provision of a plan to minimize disruption caused by the construction process (e.g., traffic congestion, dust, and noise)					
5. Provision of a plan to minimize disruption caused by the construction process (e.g., traffic congestion, dust, and noise)					
6. Communication of the deliverables and intended project outcomes with each stakeholder group					
7. Designs that consider the job skills of the women, young people, unemployed,					

disadvantaged and ethnic minority groups in the area						
8. Monitoring and respond to incidents of corruption						
9. Conducting of a social life cycle analysis of construction products and materials that considers workforce safety and health						
10. Conducting a health impact assessment						
11. Analysis of the effect of the project on cultural, historical, and archaeological resources						
12. Analysis of new/additional community infrastructure needs resulting from the project						
13. Analysis of the impact of the project location on access to public transit, biking opportunities, safe walking routes, and green spaces						
14. Creation of design features that instill pride in ownership of the users and the surrounding community						
15. Inclusion of human interaction (connectivity) considerations for the final users in the project design						
16. Performance of an asset-based design analysis of the surrounding community so that design solutions can convert social liabilities into assets						
17. Assessment of the planning and zoning decisions of organizations/institutions with jurisdiction over the proposed project area						
18. Development of a plan for ongoing evaluation of the impact of the project on surrounding communities once it is in operation						
19. Maintenance and/or restoration of natural habitat important to the final users and the surrounding community						

SECTION D: INVESTIGATING ELEMENTS INFLUENCING SPECIFIC STAKEHOLDERS OF A CONSTRUCTION PROJECT

1) Neighbourhood Community

On a scale of 1-5, kindly rate the extent to which the following factors of a neighbourhood Community can influence your implementation of social sustainability in a construction project

Factors	Very low extent	Low extent	Moderate	Great extent	Very great extent
	1	2	3	4	5
a. Average Income of the neighbourhood					
b. Education level of the neighbourhood members					
c. The Leadership of the neighbourhood					
d. The wealth status of the neighbourhood					
e. Dominant ethnicity of the community					
f. Exposure to global trends and international focus					

2. Local Government factors

On a scale of 1-5, kindly rate the extent to which the following factors of a government can influence your implementation of social sustainability in a project

Factors	Very low extent	Low extent	Moderate	Great extent	Very great extent
	1	2	3	4	5
a. Policy direction and agenda					
b. Enforcement of policies and regulations					

c. Support for local and global initiatives					
d. Government and country culture					
e. Influence of the government					

3. Project Client

On a scale of 1-5, kindly rate the extent to which the following factors of a project client can influence your implementation of social sustainability in a project

Factors	Very low extent	Low extent	Moderate	Great extent	Very great extent
	1	2	3	4	5
a. Educational level					
b. Wealth and status of the client					
c. Exposure to global trends and international focus					
d. Power and influence					
e. Personal values					
g. Personal interests of the client					

4. Industry Consultants/Professionals

On a scale of 1-5, kindly rate the extent to which the following factors on an industry consultant can influence your implementation of social sustainability in a project

Factors	Very low extent	Low extent	Moderate	Great extent	Very great extent
	1	2	3	4	5
a. Educational Qualifications					
b. Individual interests					
c. Influence in the project					
d. Professional experience					
e. Exposure to global trends and international focus					

5. End-users

On a scale of 1-5, kindly rate the extent to which the following factors on the end-users of a project can influence your implementation of social sustainability in a project

Factors	Very low extent	Low extent	Moderate	Great extent	Very great extent
	1	2	3	4	5
a. Power and influence					
b. Exposure to global trends and focus areas					
c. Power and influence					
f. Personal Values					
h. Individual/corporate interests					

6. Media

On a scale of 1-5, kindly rate the extent to which the following factors on media that can influence your implementation of social sustainability in a project

Factors	Very low extent	Low extent	Moderate	Great extent	Very great extent
	1	2	3	4	5
a. Power and Influence					
b. Exposure to global trends and international focus					
c. Perceptions					
d. Individual Interests and agenda					
e. Ethics					

7. Interest Groups

On a scale of 1-5, kindly rate the extent to which the following factors of interest groups can influence your implementation of social sustainability in a project

Factors	Very low extent	Low extent	Moderate	Great extent	Very great extent
	1	2	3	4	5
a. Power and Influence					
b. Exposure to global trends and international focus					
f. Perceptions					
g. Individual Interests and agenda					
h. Ethics					

SECTION E: CURRENT PRACTICE OF STAKEHOLDER MANAGEMENT IN CONSTRUCTION

Please answer the questions in this section based on your experience with a recently completed project.

1. Type of client for the project
   Please choose **only one** of the following:

○ Public

○ Private

○ Public and private

2. Did you have a stakeholder management plan for the project?
   Please choose **only one** of the following:

○ Yes

○ No

3. If **Yes**, please indicate the percentage of project cost that was dedicated towards stakeholder management
   Please write your answer below:
   ……

4. Please select the person charged with the overall responsibility of stakeholder management on the project?

   ○ Project Client/Developer
   ○ Contractor
   ○ Engineer
   ○ Architect
   ○ Quantity Surveyor
   ○ Other/Specify:……

5. Was/were there any noticeable change(s) in the interest/disposition of stakeholders towards the project as the project progressed?

○ Yes
○ No
○ Not Applicable

6. If **Yes** which of the following influenced the change of the stakeholders' interest/dispositions towards the project
   Please select as many as applicable among the following:

○ Change in project mission
○ Perceived non involvement
○ Loss of confidence and trust in the project team
○ Loss of confidence and trust in the project
○ Gaining confidence and trust in the project
○ Acquisition of information previously not available to them
○ Other/Specify:…….

7. How did you monitor and track the changes in stakeholders' interest/disposition towards the project?
   Please choose all that apply:

○ Feedback mechanism
○ Early warning signs
○ Check list
○ Other/Specify:……

8. What challenges does the construction industry face in adopting social sustainability practices?
   ……
   ……
   ……
   ……

9. In your opinion, how can adoption of social sustainability be enhanced in construction sector?
   ……
   ……
   ……
   ……

THANK YOU

Appendix 3: Ethical Clearance Release Letter

Strathmore UNIVERSITY

21st May 2024

Molly Rabongo

1240

molly.rabongo@strathmore.edu

Dear Molly,

RE: The Role of Stakeholder Engagement in The Adoption of Social Sustainability in Construction Projects in Kenya

This is to inform you that the Office of Graduate Studies on 20th May 2024 received your acknowledgement of breach in ethical processes given that you have already collected data and proceeded to write the Thesis prior to obtaining Ethical clearance. The ethics approval process is ONLY done before any collection of primary or secondary data.

This is a letter for you to proceed with the next steps of your academic requirements.

Please be advised, that in future, all research proposals should be submitted to the SU-ISERC through the RHInnO Ethics platform: https://strathmoreuniversity.rhinno.net/login

Disclaimer: *1) This is not in any way an ethical approval letter. 2) Should there be any legal implications/actions emanating from the research in terms of any ethical violations, you will be personally liable.*

Yours sincerely,

Dr. Bernard Shibwabo
Director of Graduate Studies

Ole Sangale Rd, Madaraka Estate. PO Box 59857-00200, Nairobi, Kenya. Tel +254 (0)703 034000
Email admissions@strathmore.edu www.strathmore.edu