

**MACRO ENVIRONMENTAL FACTORS AND THE SUCCESS
OF ISBITAALKA XOOOGGA HOSPITAL CONSTRUCTION
PROJECT IN MOGADISHU, SOMALIA**

BY

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**A DISSERTATION SUBMITTED TO THE COLLEGE OF HUMANITIES AND
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UNIVERSITY**

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DECLARATION

I Abdiladif Ali Mohamud hereby declare that this research dissertation is as a result of my personal effort and has never been presented to any Institution of Higher Education for any award.

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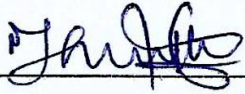
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APPROVAL

This is to certify that this research dissertation titled “*Macro Environmental factors and the success of Isbitaalka Xoogga Hospital Construction Project in Mogadishu, Somalia*” was carried out under my supervision and is now ready for submission to the College of Humanities and Social Sciences (CHSS) of Kampala International University.

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15-11-23

DR. KENNEDY OBONDI
SUPERVISOR

DEDICATION

I dedicate the work of this study and book to my parents my farther and my mother who contributed tremendously towards completion of this study.

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First and foremost, I thank the Almighty Allah for his love and grace who has given me the strength, wisdom, knowledge, protection and provision in all situations. Were it not for Allah, I would have been completely lost and therefore I always praise and say thanks. To him I give the Glory.

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ABSTRACT

The study focused on examining the macro environmental factors and the success of Isbitaalka Xoogga hospital construction project in Mogadishu, Somalia. The study objective was to; evaluate the effect of economic factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia, examining the effect of technological factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia; and examining the effect of political factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia. The study was guided by Pinto's theory of success (1986). The study employed a cross-sectional research design, this study only considered the population of 260 people, however from the population of 260 respondents, a sample size of 158 respondents was selected basing on a formula for determining Sample size by Yamane & Yamane, (2010). Findings from the study revealed that the economic factors account for project success of Isbitaalka Xoogga hospital construction projects. More so on the second objective the result indicated that technological factors alone have a positive effect on project success of Isbitaalka Xoogga hospital construction projects Mogadishu Somalia. Furthermore on the third objective indicates that political factors have a positive effect on the project success of Isbitaalka Xoogga hospital construction projects Mogadishu Somalia, Somalia. From the findings the study concluded that an exclusive set of multiple decisive factors in terms of main three criteria: Clients' requirements & objectives, project characteristics and External Environment, have been identified as being generally adequate for the procurement selection and there is a reasonable consensus on utility values for each procurement system. On the second objective the study there is not only a single theory about project management, and there are many different views about project success. Because of their nature and their temporary structure, projects are extremely vulnerable. More on the third objective the study concluded that defining the success factors and success criteria are highly important in terms of the evaluation of project success and the acquisition of successful projects. Lastly from the findings and conclusion made the study recommended that the project stakeholders should develop and leverage strategic relationship to those with power in the organizational landscape: Project manager should develop and maintain a larger leverage strategic stakeholder relationship both formal and informal. Such stakeholders should have authority, status and influence in allocating resources and making decisions which affect the project.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter introduces the background of the study, statement of the problem, and purpose of the study, objectives of the study, research questions, scope of the study, and significance of the study.

1.1 Background of the study

This section encompasses four perspectives namely historical, theoretical, conceptual and contextual perspectives.

1.1.1. Historical perspective

Global construction market is worth around US\$ 3,200 billion per year (Sohal & Cavill, 2008). Government of India has committed an outlay of INR 20,562 billion (US\$ 514 billion) for infrastructure development (Tabish & Jha, 2011). The estimated value of construction projects was US\$ 1.5 trillion in the Gulf region until September 2007 (Mitra & Tan, 2012). Malaysia planned (2011-2015) to inject an estimated RM 138 billion (US\$ 46 billion) to enhance the growth of the construction sector (Yong & Mustafa, 2012). The construction industry has multiple implications to many areas of any national economy. Contribution of construction industry to the national economy of Sri Lanka was USD 6882 millions in 2013 and USD 8846 millions in 2014 (USD 1 @ Rs.130). The construction subsector grew significantly by 20.2 percent during 2014, in comparison to 14.4 percent growth during 2013 (Central Bank of Sri Lanka/Annual Report, 2014).

The post-war-era has increasingly stimulated and attracted the government's attention as well as private (both local and foreign) sectors to invest heavily on large scale capital projects such as high-rise buildings, renovation of airports, ports, roads, highways, land reclamation, water and sanitation etc. However, locally as well as globally, construction industry faces significant challenges and difficulties, some of which are unique to the specific industry and some are context specific. Construction industry, by its nature, is a complex, high risk, high value, competitive and project oriented business. Construction project failures are increasingly reported around the globe and achieving success of construction projects is becoming extremely difficult in today's turbulent

environment. The study of project success (PS) and critical success factors (CSFs) are considered to be a means to improve the effectiveness of projects (Yong & Mustaffa, 2012; Chan et al., 2004).

Bredenoord and Lindert (2010) reported that most countries in Africa, Asia and Latin America lack adequate and decent housing for the majority of their citizens. UN-Habitat (2010) reported that the urban population is rapidly increasing, especially in the developing World, and thus national governments are challenged with the major task of providing decent accommodation for their people. For instance, UN-Habitat, (2013) reveals that the world's urban population in 2011 was 3.63 billion people, equivalent to 52.1% of the world's total population; this figure will increase to 6.25 billion people by the year 2050 and will represent 67.2% of the global population. In developing countries alone 5.12 billion people will be living in urban cities by 2050. Furthermore, UN-Habitat (2010) claims that by the year 2030 approximately 3 billion people worldwide, mostly from developing countries, will need decent housing with infrastructure and services. These statistics are alarming as they suggest that national governments, especially in developing countries, must put greater effort into providing additional housing for their increasing populations.

Additional mass housing production is needed each year to address the housing problem in developing countries. Moreover, because the majority of people in these countries are low income earners, it is essential to thoroughly address housing financing issues given its significant role in home ownership. Sivam, (2002) argues that housing financing is not well developed in most developing countries. The formal housing financing system contributes less than 20% to housing purchases, and even though the majority of people in these countries are low incomes earners, they must pay mortgages within a short period of time and at a very high interest rate. Consequently financing for housing development more often comes from informal sources of credit. For instance, in Nigeria, interest rates range between 19% and 22% per annum (FGN, 2009). Whereas in developed countries, most families own homes through mortgages that have low down payment requirements and long- term monthly repayment periods, the lack of an effective housing financing system in developing countries makes it difficult for many families to own homes. However, there is a general consensus that to ensure a sustainable urban environment, social, economic and environmental issues of the urban development must be included in the overall urban planning framework (Bredenoord and Lindert, 2010).

In Somalia, given the social context of the communities in the project area, a number of complimentary interventions are proposed in addition to the mitigation and enhancement measures to ensure the intended goals of this programme are achieved. General complimentary activities to be considered of high value include building health clinics and primary schools along parts of the corridors (African Development Bank report, 2019). According to the Environment and Social Impact Assessment (ESIA), (2020) on the Galkayo-Hobyo section severe water scarcity continues to harshly affect the local communities. Families have resorted to harvesting water from the road runoff. Providing boreholes for these communities will alleviate the suffering caused by water scarcity especially in the parts where herdsmen travel 100 km to get water. Particular areas where boreholes will be placed are between the villages of Ceelguula and Afgaduud. The justification is based on the current socio-economic situation of the communities of whom at least 70 per cent are under the age of 30 in the project area, whose priority need is the access to water for domestic and livelihood use. Currently, livestock husbandry and farming are adapted to this climatic regime, with herds being concentrated around water sources (ibid).

The prep-planning phase to the completion phase all interact with the environment. The larger the project the higher the amount of activities involved within them. These activities if not controlled could damage the environment to a big extent. Construction projects interfere with so many things within the natural environment and this is what leads to resistance when the development of a new building is initiated. The resistance first comes from the people who live close to the site (Klinger & Susong, 2006). These people will be directly affected by the building and thus they will suffer more if the building comes into existence. If the building is constructed within the urban areas, it will interfere with a number of things and these include: traffic systems, roads, business premises and visualization. Therefore, as the building is going to have impact on a number of things and people within the natural environment, it becomes important that an assessment is made on what impacts the project is likely to bring and the things that will be affected by the project (Lancaster & Plotkin, 2010). In the end a good environmental assessment report should be able to point out the salient issues and what can be done to solve such issues. If the magnitude of the problem is big chances are that the building may not be approved in the long run (Lester, 2007).

In Isbitaalka Xoogga ineffective implementation of the hospital construction supported project was also attributed to poor coordination of project activities for example, differences in strategic

orientation and working approaches existed, also other treatment centers had excess supply of drugs while in others scarcity of drugs was a common phenomenon and this affected the services provided in those centers. The following according to Hassoin, L. (2009), are the results of poor project coordination; Vision and goal not well defined, customers and end-users are not engaged during the project, lack of accountability, insufficient team skills, failure to manage risk, scope changes, communication deficit and unrealistic deadlines. Lyer & Jha (2005), also allude to this statement by stating that poor coordination adversely affects success of projects.

1.1.2 Theoretical perspective

The study was guided by Pinto's theory of success (1986) Pinto (1986) is one of the very few scholars who have been cited often in the research studies for their immense contribution to identifying the critical success factors (CSFs) in the project success. It also declared that the theories that followed Pinto's have been developed on this and are merely an extension and refinement of the topic. While project success is a commonly desired aim, Pinto and Slevin (1986) raised concern over the lack of consensus over what actually the term "project success" means. They highlighted that there exist no universally accepted parameters to measure the success of the project. Pinto and Slevin (1986) avowed that project implementation is complicated and thus for the project success, it is important to identify critical success factors that can be taken care of to enhance the project success rates.

The theory was relevant in a sense that the Presence of uncertainties in the budget, technology, and development process makes construction projects dynamic in nature. With the increase in project complexities and difficulties in building infrastructure facilities, unprecedented changes are taking place in the building construction industry (Esmaeili, Pellicer and Molenaar, 2014). The building construction industry plays a key role in the sustainable development of a country due to its association with the living style of people. However, it is plagued with problems such as lack of communication, fragmented nature of construction, and coordination issues. These problems affect the productivity and performance of the project. The success of the construction industry is based on the determination of better results compared to expectation in terms of schedule, cost, safety, and quality (Ramlee et al., 2016). There are many theories which have identified different critical success factors. Different authors relate the performance of the industry to a variety of theoretical concepts.

1.1.3 Conceptual perspective

Macro environmental factors are factors outside the projects that operate to affect the performance of the projects. The factors identified by Walker (1989) and Hughes (1989) as constituting environment of projects are political, legal, institutional, cultural, sociological, technological resources, economic, financial, and physical (infrastructure). Both studies directed attention to some factors within the environment that pose greater challenges to projects, management and organizational structure than others and suggested that these factors should form the focus for the management of the projects environment.

Gudiené et al. (2013) defined external environmental factors as those factors and the success of construction projects, which are mostly beyond the control of the management team. These factors include political, economic and social factors (Belassi and Tukel, 1996). Political factors concern political stability and government intervention in providing both incentives and enabling environments for public housing development (Chen et al., 2012). Government has an important role to play in ensuring the success of public housing in terms of infrastructure development, provision of a favourable legal framework, and guarantees to developers. Pugh (2001) argues that failure on the capability of government will affect the success of overall housing sector development. Economic factors constitute the economic environment that influences the flow of funds and affordability in financing.

Zhang (2005) identified a stable political system, favourable economic system, adequate financial market, predictable currency exchange risk, low interest rate, long-term debt financing, a favourable legal framework and government support, as critical to the success of PPP projects. Li et al., (2005) identified good governance, a favourable legal framework, governmental involvement through the provision of guarantees, available financial market, political support, a sound economic policy and a stable macro-economic environment as critical factors to the success of PPP construction projects. Other factors identified as critical success factors for construction projects include adequate funding (Hwang and Lim, 2013; Nguyen, Ogunlana and Lan, 2004), end user involvement (Nguyen, Ogunlana and Lan, 2004; Fortune and White, 2006; Ihuah, Kakulu and Eaton, 2014), good project location (Chen et al., 2012; Chua, Kog and Loh, 1999; Ihuah, Kakulu and Eaton, 2014), appropriate design (Turcotte and Geiser, 2010), accessible credit facility, Gudiené et al. (2013) and low down payment requirements (UN-Habitat, 2011).

Project-product success refers to the actual deliverability of the project and successfully providing the benefits to the many stakeholders involved with the project such as the users, customers or the project staff (Babu, 2015). Project success refers to producing quality work within the prescribed time and budget to the satisfaction of the client.

Over the last three decades a number of studies have been carried out on project success (McLeod, Doolin and MacDonell, 2012; Ika, 2009; Pinto and Slevin, 1987) nevertheless, until now, there has been no consensus among researchers regarding a standard definition of project success or standard criteria for measuring it (Baccarini, 1999; McLeod, Doolin and MacDonell, 2012). Liu and Walker (1998) assert that project success is a subject that has continuously been discussed but without significant agreement having been reached; thus the definition of project success remains vague because various stakeholders have different perceptions on its meaning, which may lead to disagreement when assessing whether a particular project is successful (De Wit, 1988). For instance, a project may be considered successful by a client, whereas an end user or contractor may perceive it as unsuccessful (Toor and Ogunlana, 2010). However, there is general agreement that project success involves both efficiency and effectiveness (Belout and Gauvreau, 2004).

Ashley, Laurie and Jaselskis (1987) defined project success as “results much better than expected or normally observed in terms of costs, schedule, quality, safety and participants satisfaction”. De Wit (1988) posits that overall project success is achieved if all of the technical performance specifications of the project have been met, and if all project team members, end users and key people in the parent organisation are highly satisfied with the outcome of the project. Earlier Pinto and Slevin (1987) argued that a project is said to be successful if it is completed on time, within budget, achieves all project goals and end users are satisfied with the project. De Wit (1988) explained that a project might be successful even though the performance of project management is poor. However, good project management can contribute to the achievement of a successful project outcome, but it cannot prevent failure.

1.1.4 Contextual perspective

Despite decades of war and conflict that have impacted significantly on the economy of Somalia, the country has taken decisive steps on the political front to rebuild itself. The decades of civil war have resulted in insecurity which has undermined the legitimacy of the State, thus creating vulnerabilities particularly among the youth. Also, a dysfunctional governance systems and

dilapidated infrastructure have continued to give rise to extreme poverty. Somalia is showing promising signs of increased stabilisation through formation of recognized state institutions, fostering a country-owned and led approach to transition from fragility. The Authorities hope that enhancing security, reinforcing institutional capabilities, and rebuilding strategic infrastructure will deliver on its socio- economic development aspirations, as defined in the country's National Development Plan (NDP) 2017-2019. The Road Infrastructure Programme is aligned to the NDP which emphasizes the need to eliminate constraints including poor infrastructure, bad governance, weak human resource capacity, and ineffective public service delivery that hinder the private sector from playing its pivotal role of enhancing growth in key sectors such as agriculture (crops and livestock), services, and natural resources (African Development Bank report, 2019).

The Road Infrastructure Programme aims to improve management of the road sector at the national level and improve transport connectivity for road users in the targeted road corridors for rehabilitation while reinforcing the capacities of federal and regional institutions that manage road infrastructure. The programme entails: (i) rehabilitation and surface dressing of 82km (BeledWeyne-Kalabeyr 22km; and Dhusamareb-Qaradhi 60km) of the existing 327km, 7.3m wide BeledWeyne-Galkayo paved road; (ii) rehabilitation and surface dressing of 85 km (Galkayo-Faratoyo) of the existing 240km, 7.3m wide Galkayo-Garowe paved road; (iii) rehabilitation and construction of the existing 80km, 7.3m wide Luuq, Ganane-Dolow earth road to gravel road standard; and (iv) new construction of 100 km, 7.3m wide Galkayo-Elgula (part of 241km Galkayo-Hobyo feeder road) to compacted gravel standard and Feasibility study, environmental and social impact assessment and detailed engineering design of 280km Lowyaddo-Farddaha-Borama road Environment and Social Impact Assessment (ESIA), (2020).

In addition, this programme includes technical assistance and capacity building activities which will result in reinforced policies, laws and regulations, institutions, and ability to guide planning, design, building, maintenance and monitoring of roads, and deliver road transportation services that are gender-responsive, environmental friendly, and climate resilient at federal and regional levels. The programme, with estimated cost of EUR59.940million, will be implemented in the states of Puntland, Jubaland, Galmudug, Hirshabelle, South West and Somaliland, over a 55-month period, from 2019 to 2023, including the defects liability period. The programme will significantly

benefit Somalia in targeted sub-regions of Jubaland, Puntland, Galmudug, Hirshabelle and Somali land by enhancing the incomes of those living in proximity to the construction sites.

The Somali transport sector has suffered from a lack of maintenance of infrastructure, leading to its near disappearance (especially roads), weakening of institutions hence the need to repair, rebuild, and re-create institutional frameworks. Restoring and enhancing connectivity is vital for both economic revitalization and political integration. The total length of the primary/main roads is 4,124 km, of which 2,860 km are paved and 1,264 km are unpaved or a gravel surface. The condition of the paved roads can be classified as poor since more than 90% of the roads that have deteriorated are beyond their design life. The total length of secondary, feeder and coastal roads is about 7,310 km. These roads are mostly a gravel or earthen surface and in very poor condition. These translate to extended journey times and much higher costs of public and private transport, leading to high fares and operating costs resulting in higher cost of goods and services.

In this regard, urgent intervention to improve travel times and reduce vehicle operating costs among other economic benefits is highly required. Sections of the roads proposed for repairs in this project are in very poor conditions and difficult to traverse, leading to lack of economic growth through poor access, and high vehicle operating costs. The FGS is determined to repair poor infrastructure in the FMS to drive economic growth, thus providing many peace dividends through visibility and improved conditions for the population in the regions. Through the NDP 2017-19, the FGS recognises the importance of infrastructure in attracting investment and developing a competitive and prosperous private sector led economy.

1.2 Statement of the problem

Success of construction projects is based on costs, time and execution of the projects in the needed timeframe. Many construction projects have failed or been abandoned. Abandonment and failed projects which are more predominant in the public sector litter every corner of the country (Ali, et al., 2019). As a result of these failed projects, a monumental economic loss is incurred in terms of heavy costs, periodic waste of resources, Wastage of resources overtime, and projects that metamorphose into bottomless pits gulping scarce resources with no concrete completion time in sight (Babu, 2015). Currently in Mogadishu, the construction industry generally has poor cost and schedule performance. For instance Isbitaalka Xoogga hospital construction project has been marred with cost overruns (Choge & Muturi, 2014). The failure in the project stems from poor

scope definition, poor estimating and development of a budget based on incomplete data. The project was supposed to be completed between 2014-2021, unfortunately it was not completed as planned and its now in the final stage in 2023. The overall estimated project cost (net of taxes) is \$48.495 million (EUR59.940 million) which is made up of \$38.796 million (80%) in foreign cost and \$9.699million (20%) in local cost. The continued project failure could be a result of a number of factors including limited human resource capacity as evidenced by the presence of project managers, who lack the basic project management skills, technical construction skills, low education levels, inexperience and poor planning skills. Though a number of factors are responsible for unsuccessful projects (Marren, 2016). There has not been any empirical study to attest to the occurrence, the environment factors in Somalia coupled with economic, political and technological factors that could be responsible for the unsuccessful projects (Ali, Mohamed and Ali, 2019). It's incumbent to this that researcher intended to investigate a study on macro-economic factors and the success of construction projects in Mogadishu Somalia.

1.3 Purpose of the study

The purpose of the study was to examine the macro environmental factors and the success of Isbitaalka Xoogga hospital construction project in Mogadishu, Somalia.

1.4 Specific objectives

The specific objectives of the study are as follows;

- i. Evaluate the effect of economic factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia.
- ii. Examine the effect of technological factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia; and
- iii. Examine the effect of political factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia.

1.5 Research questions

- i. What are the effects of economic factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia?
- ii. What are the effects of technological factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia?
- iii. What are the effects of political factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia?

1.6 Research hypothesis

H₀₁: There is no significant relationship between economic factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia.

H₀₂: There is no significant relationship between technological factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia.

H₀₃: There is no significant relationship between political factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia.

1.7 Scope of the study

1.7.1 Geographical scope

The study was carried out in Mogadishu Somalia this was because Mogadishu city is growing fast and international investment is flourishing despite the war. Outside the city boundaries, there are numerous Internally Displaced People's camps (IDP's). Implementation of the city plan is not limited to the current municipal boundary but incorporates the rapid growth in the outskirts through new infrastructure investments. The plan should give clear investment opportunities to the international community.

1.7.2 Content scope

The study focused on examining effects of economic factors on success of Isbitaalka Xoogga hospital construction projects, effects of technological factors on success of Isbitaalka Xoogga hospital construction projects and on the effects of political factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia. In addition, there was increasing pressure being mounted on the construction industry to take environmental considerations into the daily decision making processes of construction projects. Why this is the case is because construction projects are being blamed for the large amounts of energy consumption, wastage of water and natural resources and pollution of the natural environment.

1.7.3 Time scope

The study further focused on a period of 5 years from 2017 to 2022, while reviewing the economic factors, technological factors and political factors. The period of 5 years was practical in a sense that it examined how macro environmental factors affect the success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia. The actual study lasted for a period of 4 months preferably from August, 2022 to November 2022.

1.8 Significance of the study

Policy makers: The study results will equip experts in this department on the economic, technological and political challenges affecting the success of construction projects. Also the policy makers will be guided on the approaches in addressing the challenges.

Construction Companies: The study recommend approaches of solving economic, technological and political challenges affecting the success of construction projects in Mogadishu Somalia and elsewhere in the world. The findings will avail measures safeguards specialist to ensure effective management of environmental and social concerns throughout the project cycle from the planning, detailed design, implementation, and monitoring and evaluation.

Academicians: The results of the study will guide academicians on the economic, technological and political challenges affecting the success of construction projects. In addition,

recommendations from the study will help academician in the future when they happen to come across the factors and the success of construction projects

Researcher: The study strengthened capacity of the researcher in research skills and application of data collection methodologies, data analysis and interpretation and report writing. The researcher will utilize the skills to guide development in understanding the factors and the success of construction of projects and its related solutions or measures.

1.9 Justification of the study

The success of the projects in Mogadishu Somalia has continued to be low, the state of the construction projects continue to underperform since they are done exceeding the timeline and budget, the execution of the projects in the desired specifications also continue to be low. It's based on this that the researcher anticipate an interplay of macro-environmental factors that affect the success of construction projects in Mogadishu Somalia. Furthermore we cannot determine unilaterally which factors affect the success of Isbitaalka Xoogga hospital construction project since the project is still going on and we do not fully understand the mechanisms, if research is to be undertaken (Ali, *et al.*, 2019). Nonetheless, the data shows that those responsible for devising and implementing policy; lack adequate arguments to support the idea that define the factors that would necessarily improve the success of construction projects, since so far the data reveals no causal relationship between the two. Therefore, if this study was carried out, it would provide strategies for closing the gaps on the macro environmental factors influencing the success of construction projects.

1.10 Operational definitions of key terms

Macro Environment factors: there are broader factors that can affect a business. Examples of these factors include demographic, ecological, political, economic, socio-cultural, and technological factors.

Construction of Projects; is the organised process of constructing, renovating, refurbishing, etc. a building, structure or infrastructure.

Success factors; as any circumstances, fact or influence that contributes to the success or failure of a project. In addition, success factors are those factors that contribute to successful project outcomes (Lim and Mohamed, 1999).

Government policy; government policy is an institutionalized proposal or a decided set of elements like laws, regulations, guidelines, and actions to solve or address relevant and real-world problems, guided by a conception and often implemented by programs. The implementation of government policy is known as public administration. Government policy can be considered to be the sum of a government's direct and indirect activities and has been conceptualized in a variety of ways (Peters, 2018).

Regulatory impact. A regulatory impact analysis or regulatory impact assessment (RIA) is a document created before a new government regulation is introduced. RIAs are produced in many countries, although their scope, content, role and influence on policy making vary. The role of an RIA is to provide a detailed and systematic appraisal of the potential impacts of a new regulation in order to assess whether the regulation is likely to achieve the desired objectives (Reyes, et al., 2015).

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents the related literature that has been explored and studied both theoretically and empirically on the macro environmental factors and the success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia and elsewhere in the worlds. This was done in line with the specific objectives of the study in order to identify the knowledgeable gaps. It was important to note that the greatest part of the existing literature on the works of other scholars, opinions, suggestions who have written about the topic of the study or those who have addressed similar issues as those of the variable that were available in the study.

2.1 Theoretical review

This study was underpinned on Pinto's theory of success (1986) who was concerned over the lack of consensus over what actually the term "project success" means. They highlighted that there exist no universally accepted parameters to measure the success of the project. He further added that project implementation is complicated and thus for the project success, it is important to identify critical success factors that can be taken care of to enhance the project success rates.

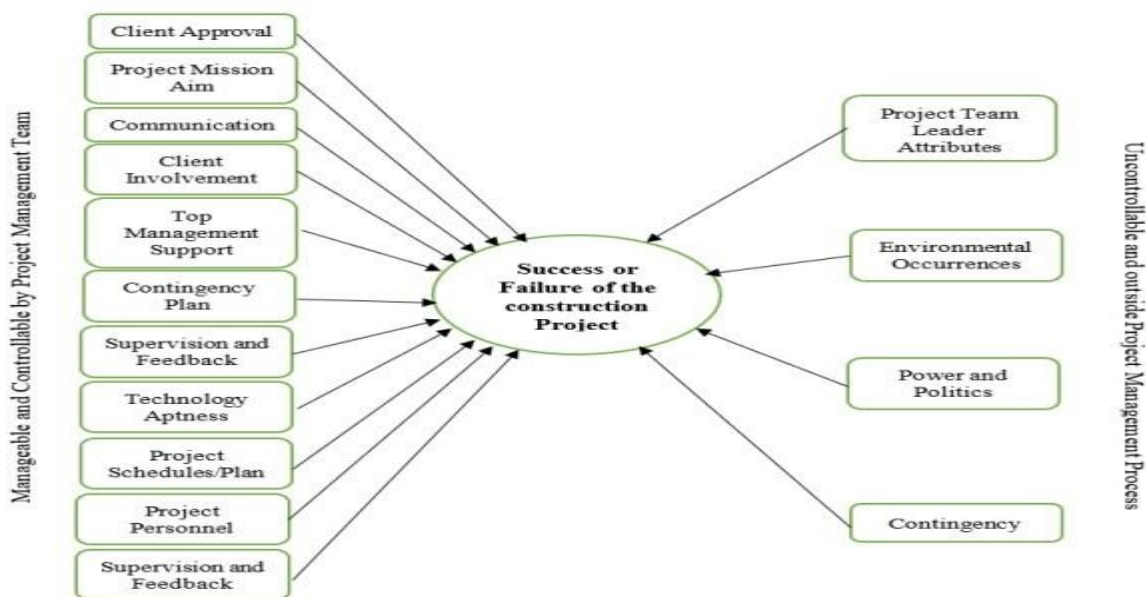


Figure 2.1: Pinto's theory of success for construction projects

Wang, (2013) claim that Pinto and Slevin (1986) were the pioneers to put forward a scientific basis for project success. They established ten critical success factors which are often considered as the key predictors of the project success. These CSFs are: client approval, aim of the project mission, communication, involvement of the client, top management support, enough contingency plans in place, appropriate supervision and feedback, the aptness of the technology, project schedules/plan and, Project personnel (Wang, 2013).

Ika, (2009) elaborated further on this by adding that these ten critical success factors are more or less manageable or controllable by the project management team. Pinto and Slevin (1986) thus extended their theory and added four elements outside the project management process and largely uncontrollable. These are: attributes of the project team leader, environmental occurrences, power and politics and, contingency.

According to Tavana, (2017), Pinto's theory emphasizes the importance of considering the project environment, which includes macro-environmental factors. In the case of the Isbitaalka Xoogga Hospital project, you can analyze how external factors such as political stability, economic conditions, legal regulations, and cultural aspects in Somalia might impact the project's success. Understanding these macro-environmental factors is crucial in assessing potential risks and opportunities.

One of the key success factors in Pinto's theory is effective stakeholder engagement. Analyze how macro-environmental factors influence the attitudes and behaviors of various stakeholders, such as government bodies, local communities, and international organizations. The socio-political and economic environment in Mogadishu may have a significant impact on stakeholder support and cooperation (Belassi and Tukel, 1996)

Pinto's theory also underscores the importance of project strategy and planning. Consider how macro-environmental factors like infrastructure development, availability of skilled labor, and access to resources can affect the hospital construction project's planning and execution. Challenges or opportunities related to these factors can significantly influence the project's success. (Kureshi, 2013).

Macro-environmental factors often introduce risks to construction projects. Use Pinto's theory to assess the potential risks associated with the hospital project in Mogadishu. These risks could include political instability, economic volatility, security concerns, and local cultural practices that might impact construction methods or schedules.

Pinto's theory also emphasizes the need for project teams to adapt to changing circumstances. In a complex macro-environment like Somalia, adaptability and flexibility in project management become crucial. Evaluate how the project team can adjust its strategies and plans to mitigate the impact of macro-environmental changes (Kureshi, 2013)

In addition Kureshi, (2013), notes that the theory promotes the idea of continuous performance measurement and feedback. Establish metrics to monitor the impact of macro-environmental factors on the project's success. Regularly assess the hospital construction project's progress in the context of changing macro-environmental conditions and make necessary adjustments.

Pinto's theory recognizes the importance of collaboration and partnerships. Analyze how the project can benefit from partnerships with local and international organizations, and how the macro-environment influences these collaborations. Cooperation with relevant stakeholders can help address challenges posed by the macro-environment (Wang, 2013).

Pinto's theory of success for construction projects provides a valuable framework for assessing the macro-environmental factors that may affect the success of the Isbitaalka Xoogga Hospital construction project in Mogadishu, Somalia. By considering these factors and aligning strategies accordingly, project stakeholders can better navigate the challenges and opportunities presented by the broader external environment.

2.2 Conceptual framework

A conceptual framework showing the relationship between macro-environmental factors and success of construction projects

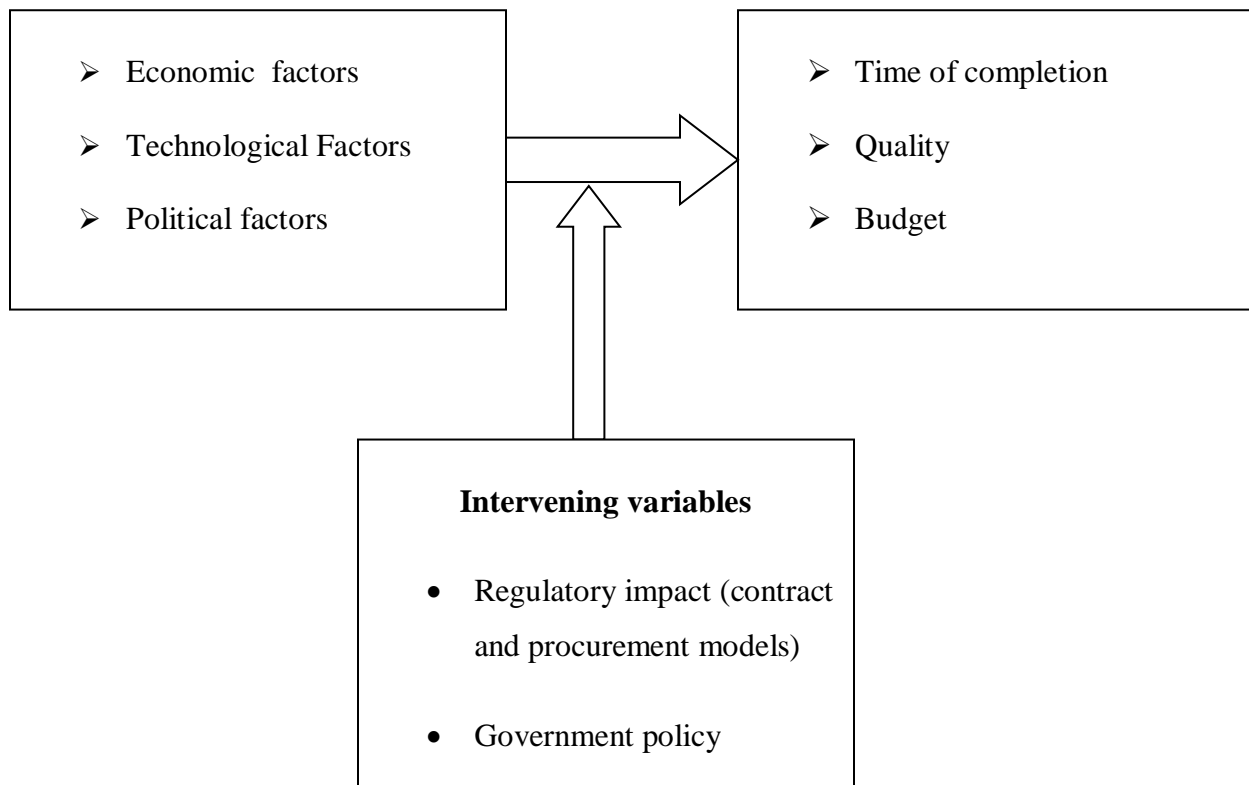
Figure 2.2: Showing the Conceptual framework

Independent Variable

Dependent Variable

Macro-Environmental Factors

Success of construction projects



Source; Researchers conceptualization, (2022)

A conceptual framework in figure 2.3 illustrates that macro-environmental affect the success of construction projects, the independent variable (macro-economic factors) was conceptualized/ broken into small constructs such financial factors, inflation Factors, political economic factors Success of construction projects (dependent variable) was conceptualized in terms of completing a project within the specified time and costs, quality products and project completion. However both were intervened with regulatory impact (contract and procurement models) and government policy.

2.3 Related literature

The related literature review was presented objective by objective. In this section, literature from various scholars was reviewed on the major variables of the study which include;

2.3.1 Concept of macro environment factors

According to Armstrong, (2012), macro environment refers to the external forces within an economy. Macro environment factors like inflation, fiscal policy, monetary policy, consumer spending, GDP, and employment rates considerably affect business operations. Governments and institutions strategize policies based on these factors. Macro environment factors impact decision-making, strategies, and growth of a business. But, at the same time, the management cannot control these economic and non-economic factors. For long-term sustainability, businesses try to predict macro-environmental factors. Based on macro analyses, businesses prepare for future threats and opportunities.

Costa, (1995) asserts that the macro environment reflects a country's economic behavior and future projects based on macroeconomic factors political gains, financial literacy, social impact, and economic balance. Therefore, businesses try to understand and analyze the external environment and its impact. The external environment has an indirect impact on financial markets (Jeffs, 2008). This is not evident immediately but can result in huge losses later on in the absence of a strategic move. On the other hand, a favorable environment presents a variety of profitable opportunities. The economic development of a country depends on these macro-environment factors. For instance, the US is comparatively a small population, but people's spending patterns are extravagant. This is due to increased wages and better facilities. As a result, the US population plays a macro role in economic growth (Nixon, 2010).

2.3.1.1 Macro environment factors

Demographic forces: Different market segments are typically impacted by common demographic forces, including country/region; age; ethnicity; education level; household lifestyle; cultural characteristics and movements.

Economic factors: The economic environment can impact both the organisation's production and the consumer's decision-making process.

Natural/physical forces: The Earth's renewal of its natural resources such as forests, agricultural products, marine products, etc. must be taken into account. There are also natural non-renewable resources such as oil, coal, minerals, etc. that may also impact the organisation's production.

Technological factors: The skills and knowledge applied to the production, and the technology and materials needed for the production of products and services can also impact the smooth running of the business and must be considered.

Political and legal forces: Sound marketing decisions should always take into account political and/or legal developments relating to the organisation and its markets.

Social and cultural forces: The impact the products and services your organisations brings to market have on society must be considered. Any elements of the production process or any products/services that are harmful to society should be eliminated to show your organisation is taking social responsibility. A recent example of this is the environment and how many sectors are being forced to review their products and services in order to become more environmentally friendly (Albright, 2008).

2.4. Success of construction projects

Lim and Mohamed (1999) divide the concept of project success into the macro and micro viewpoints. The macro viewpoint concerns the achievement of the original project goals, which can only be known after the project's completion at the operational stage. The criteria for measuring project success at the macro viewpoint are completion on time, client satisfaction, end user satisfaction and stakeholder satisfaction. Conversely, the micro viewpoint of project success concerns project management success, i.e., achievement at the construction phase. The criteria for measuring project success at the micro point of view are completion on time, within budget, to the specified quality standard and safety. This means that the micro viewpoint concerns project success over a short period, while the macro viewpoint of project success concerns project success over a long period.

Furthermore Ahadzie, et al., (2008) identify 15 critical success criteria for mass housing projects, which they classified into four components as follows: environmental impact, customer satisfaction, overall cost and time, and quality. Sanvido et al., (1992) proposed the following

criteria for measuring project success, depending on a particular stakeholder's perspectives (client, end user, contractor or consultant). The criteria are project completed on budget, on schedule and to specified quality; client satisfaction; end user satisfaction; pleasing aesthetics; product marketability; safety; and minimal or no claims or conflicts. Based on the literature review carried out above, this study used the following criteria to measure the success of public housing projects: project completed on time, project completed within budget, project completed to specified quality standard, client satisfaction, end user satisfaction, project team member satisfaction, project completed with low accident rate, minimal or no legal claims or proceedings, environmental impact of the housing project, aesthetic appearance of the housing units and meeting the project's goals.

Project success is an abstract concept and determining whether a project is successful is subjective and extremely complex (Parfitt & Sanvido, 1993; Chan, 2002). Oxford Advance Learners' Dictionary defines "success" as "the fact that you have achieved something that you want and have been trying to do or get". Therefore, the PS could be defined as the fact that a project has achieved the objectives or goals of a particular project. However, often when defining PS, it includes project success criteria/measures (PSC). Pinto & Slevin, (1988) suggested that PS should have two major components: issues dealing with project itself (time, cost, performance) and issues dealing with the client (use, satisfaction, effectiveness).

The concept of success in a construction project according to some researchers is corresponding to efficiency and effectiveness measures (Brudney & England, 1982; De Wit, 1988; Pinto & Slevin, 1988; Pinto & Slevin, 1989; Smith, 1998; Belout, 1998; Atkinson, 1999; Crawford & Bryce, 2003, as cited in Takim & Adnan, 2008). Efficiency measurers deal with time, budget and specifications; effectiveness measurers refer to achievement of project objectives, user satisfaction and the use of the project (Takim & Adnan, 2008). Moreover, it could be seen that different usage of these key concepts/words are dependent on when it is measured and on which criteria being used.

2.4.1. Project success criteria (PSC)

Project success criteria mean the measure by which success or failure of a project will be judged (De Wit, 1988; Cooke-Davies, 2002). Traditionally, time, cost and specifications which are often referred to as Iron-triangle or/and Triple-constraints in literature are used as PSC. But PSC have

evolved drastically in the past decades. For examples: Pinto & Slevin, (1988) included client's satisfaction, use and effectiveness in addition to time, cost and performance. Shenhar et al., (2001) take a holistic view of project success stating that there are "four major distinct success dimensions: (1) project efficiency (2) impact on the customer (3) direct business and organizational success, and (4) preparing for the future". Therefore, in literature, project success criteria have been used in various ways depending on their objectives and type of projects. Important point to note is that there is no general agreement over and PSC are still being evolved.

2.4.2. Success factors (SFs) and critical success factors (CSFs)

Han et al. (2012) define SFs as factors that influence, constitute as well as determine the success of a project. SFs are those inputs to the management system that lead directly or indirectly to the success of the project (De Wit, 1988; Cooke-Davies, 2002). SFs are further classified under two main categories, one being hard, and objective, tangible and measurable while the other soft, subjective, intangible and less measurable (Erling & Arne, 2000; Chan et al., 2004; Erling et al., 2006). According to Sanvido et al., (1992) the concept of project success factors was first introduced by Rubin & Seeling (1976) but the term CSFs in the context of project management was first used by Rockart (1982).

Rockart (1982) defines CSFs as those relatively small numbers of truly important matters where a particular industry should focus her attention in order to achieve success. According to Yong & Mustaffa (2012) CSFs represent "factors" which are "critical" to the "success" of the industry concerned. CSFs are those factors which are necessary for the project participants to achieve their goals in a project (Sanvido et al., 1992; Tiong, 1992 and Cooke-Davies, 2002). It has been agreed that CSFs are vital for managers to improve their organization in the sense that it will indicate that the progress is being made in particular areas. It should be acknowledged that the contribution made by Pinto and his colleagues to this area.

Slevin & Pinto (1986) proposed a model with ten generic CSFs which is known as Project Implementation Profile (PIP). Further in 1988, they proposed a more general measure of PS and in the same year (1988a) tested the importance of PIP to PS. The changes in the importance of project CSFs across four stages in the project life cycle were investigated by Pinto & Prescott (1988). In 1990, they investigated the role of a set of project planning and tactical factors across

the stages of the project life cycle. Pinto & Mantel (1990) further contributed by studying the patterns of causes of project failure depending on three contingency variables.

Muller & Jugdev (2012) discussed the impact of seminal contributions by Pinto, et al.,. However, it was noted that their studies/sample have included a mixture of different types of projects (projects from different industries) such as construction, information technology, research and development and manufacturing etc. Therefore, their findings have become too general and broad posing a question of the applicability on specific construction projects. CSFs will certainly differ from country to country depending on their respective operating environment, policies and legal constraint. Hence, they are not a standard set of measurement or key indicators, which can be applied to all industry (Yong & Musttaffa, 2012).

Chan et al. (2004) did a thorough literature review related to CSFs in seven major management journals and identified 44 SFs. Belout & Gauvreau (2004) re-tested in a field study, the theoretical model used by Pinto and Prescott and developed by Slevin and Pinto in order to further investigate the impact of the life cycle stage, type and structure of a project on the relationship between the CSFs and PS. Takim & Adnan (2008) identified 29 factors (project success effectiveness measures) and assessed their level of success criticality to the Malaysian construction projects. In addition to direct studies on PSFs/CSFs, studies on causes/reasons for project delay/failure, causes for cost overrun, project management's issues, bottlenecks and challenges could also be considered as valuable inputs to identifying CSFs in construction project context. For an example, time extension is a very serious and chronic problem in construction projects (Kazaz & Ulubeyli, 2009, as cited in Kazaz et al., 2012) and "time" is very important PSC. Failure factors are exact opposite of the success factors (Gunasekera, 2009).

Odeh & Battaineh (2002) identified 28 causes of project delay in the construction industry in Jordan. In Sri Lanka, no research or, if at all only minimal research, has been done in relation to project management and its contribution to the success of construction projects (Gunasekera, 2009). However, various attempts have been made by different researchers to determine CSFs in construction projects in other countries. A number of variables influencing PS have been proposed. Some variables are common to more than one list, but there is no general agreement on the variables (Chan et al., 2004). Yong & Musttaffa (2012) further suggests that CSFs could be grouped

under different categories depending on the evaluation dimension that the researchers are looking at.

2.4.3. Critical success factors (CSFs)

De Silva et al. (2008) identified 46 challenges/issues faced by the construction industry of Sri Lanka and grouped those under 10 major categories. Furthermore, 13 main motivators which could be used to improve the performance of the construction industry were identified. Among these motivators, some sub factors were more important than others. However, they have used a relatively small sample. On the other hand, consultants, project managers and other staff who have real experience in day-to-day project operation have not been included.

Gunasekera (2009) identified 30 critical success factors which affect construction project success in the context of Sri Lanka and proposed compensatory model for industry to increase project success. He has focused on controllable factors but not only by contractor but also client, consultant and an independent project manager. Though very important HR related factors have been identified he has not considered the relationship of these factors to project success and organizational success but he has grouped these factors under three traditional criteria: Time, Cost and Quality. Further, he has not considered moderating or mediating factors in this study. However, due to rapid changes happening, especially after the war, more contemporary studies are needed in these areas in Sri Lankan context success factors for public construction projects in India have been identified and categorized under 5 project success criteria by (Tabish & Jha, 2011).

Kazaz et al., (2012) determined the most predominant 10 causes of time overruns in construction projects in Turkey and grouped them under 7 key factors. Further, they emphasize that considering the current construction atmosphere in Turkey in this respect, 40% of top rated factors belong to “financial factors”, while 30% of them are of “labour based factors”, 20% are of “managerial factors” and 10% are of “project-based factors”. Though they have elicited perception of project managers and site managers, other important players were not included for the sample.

Yong and Mustaffa (2012) identified 15 factors that are critical to construction project success in Malaysia and grouped under seven key headings. But sample is very small and not representative. However, the results suggest a strong consistency in perception between respondents in recognizing the significance of human related factors such as competence, commitment,

communication and cooperation towards the success of a construction project. They further recommended that more emphasis should be given on improving the human related factors in order to ensure the successful implementation of a construction project in future. Furthermore, it is stressed herein that in order to improve project success and industry, it is needed to look into industry specific strategies and research to be carried out within the local context and business operating environment reasons for project delay were identified by Mitra & Tan (2012) through a case study in a specific construction project in Saudi Arabia. They grouped reasons for project delay in the region under four main factors. But there is a big question about the ability of generalization of the findings due to a single case study.

Furthermore, it is mentioned that the main causes of delay in project completion are mainly using of inferior tools and methods as well as having inexperienced staff in critical project coordination positions. Chen (2012) analyzed the longitudinal data of 121 capital projects and findings were that the scope, quality, team, communication, risk, and change variables not only significantly affect project success, but have a strong, stable, discriminatory power to predict project success and failure. However, Chan focused on the project-initiation and planning phases and he acknowledged the need of future research to develop the findings reported here into more sophisticated models for predicting project success.

Garbharran et al., (2012) identified 18 critical success factors in construction industry in South Africa and grouped according to four COMs model: comfort, competence, communication and commitment. The findings suggest that both project managers and contractors strongly support the critical success factors as significant in achieving project success. The findings also show no significant differences between project managers and contractors on the biographical variables of gender, age, tenure in the industry and sector (public and private), and their perceptions of critical success factors. But it was noted that the sample included only independent project managers and contractors. It was not given who represented the contractor. However, consultants and project management staff have been excluded from the sample.

Gunathilaka et al., (2013) presented a conceptual paper. 21 CSFs and 9 PSCs were identified. Further they stress that significantly less attention has concentrated on investigating relative importance of PSF. Accordingly, PSFs and PSC are much talked about and written about, however their relative importance and relationships are hardly backed by empirical evidence. Further they

conclude that the interest appear to be in identifying PSFs and PSC, rather than identifying which are important and in what ways or how PSFs actually influence PSC and to what degree.

Gudienė et al., (2013) presented a conceptual model with 71 factors for construction projects in Lithuania. It has described 7 major groups of factors. 20 factors causing the failure of construction projects in Vietnam were identified by Nguyen & Chileshe (2013) through a research and out of them top-ten factors were classified into 4 categories. This research established that, despite the all-round renovation process undertaken in Vietnam, the construction industry is still plagued by the same critical factors as identified from eight studies spanning a period of eight years from 2004-2012. The major critical factors were associated with knowledge and technical issues. Moreover, the result obviously proves that the biggest problem leading Vietnam construction projects to failure are issues associated to project management elements. They have gone beyond other researches mentioned above in term of composite (lecturers of universities, managers, consultants, designers and site supervisors) however their sample size was relatively small to represent variance of perceptions.

Alias et al., (2014) identified 5 variables of project success through a literature review and it has specifically focused on project execution phase. Zidane et al., (2015) identified 9 delay factors in the Norwegian construction industry through a qualitative study but with a fairly large sample. “Management and coordination”, “quality issues and errors”, “administration and bureaucracy”, “decision issues” and “waiting” were the top five delay factors. The first two were important to all parties, the other three were more important for contractors and subcontractors, less to the clients and sponsors.

2.5 Gaps in the literature

The reviewed literature clearly shows that scholars and development practitioners affirm the success of any project depends on the macro environmental factors. The accomplishment of the key project deliverables within the specified time frame can be seen as a key indicator for the success of the project. However, this is not the only way in which project managers can be able to measure project success (Lester, 2007). Project success is dependent on key factors within the environment that directly impact on the project. It is possible that the project manager might have set key performance indicators to measure the success of the project and by the end of the project; these might not have been achieved upon evaluation. The problem is usually that many of the risks

of the project may not have been addressed and thus lead to failure of the project (Han, et al., 2012).

In addition, success in construction projects is not a simple matter. Project managers especially those working on large projects; admit that working on a large construction project is not a simple task. It means that the environment is totally supportive of the structure and that the structure has a minimal impact on the environment (Himes, 2008). There is no way a construction project will begin and fail to experience resistance from the environment. The reason being that, each and every project has its own impacts on the people around it and the natural and built environment. The effects depend on the nature of the project itself and the magnitude of activities that take place during the project (Han, et al., 2012).

Similarly, success of the construction project may be looked at in terms of the traditional quantifiable metrics which are easy to establish. It becomes difficult in other circumstances to measure project success based on the level of quality as this is usually more subjective. The environment affects the quality of the project because the success of the project depends on how the risks factors in the environment were treated (Morton & Ross, 2008). Quality will definitely be affected if the risk factors were not identified earlier and dealt with. Thus, the environment will affect how people will view the construction project even if the key performance indicators were met and the project was a success in the eyes of the project manager.

Success in construction projects thus encompasses many things including the activities in the physical environment and how they were carried out and what impacts they had on the people and the physical environment itself (Tang, et al., 2005). Despite the huge consumption of energy and the release of greenhouse gases, there are many strategies that can be employed by project managers in the construction of buildings in order to reduce the green-house emissions. The mitigation efforts have led to the development of two common concepts in the construction industry: lean philosophy and green buildings (Gordon, 2001).

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the methodology that was used during the study. It involved the research design, study population, sample size and selection, sampling techniques, data collection methods, Data collection instruments, procedure of data collection, Reliability and validity of instruments, Data analysis plus measurement of variables.

3.1 Research design

The study used a mixed methods research design to examine macro environmental factors and the success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia. Mixed methods research design provides a valuable bridge between two largely separate and sometimes antagonistic groups, both of whom need effective research partnerships. While using this mixed methods design, the study took place at a single point in time. Data was collected using self-report surveys and interview guide. As regards to this Amin (2005) argued that qualitative method helps in giving detailed information, while quantitative design involves the collection of numerical data, which gives facts on a given phenomenon. Further, quantitative methods were used because it enabled descriptive data to be presented using charts and tables.

3.2 Research approach

The study adopted a mixed methods approach where quantitative and qualitative approaches shall be adopted based on correlations and regressions and narratives transcribed from the interview guide. Using both help covered more areas, while using only one approach was defective (Patton, 2015).

The collection and analysis of data made use of quantitative and qualitative approaches. The quantitative analysis helped to determine the effect between the study variables while the qualitative analysis provided a more comprehensive understanding of the way the relationships manifest (Fassinger & Morrow, 2023).

Qualitative approach enabled the researcher capture the respondents' attitudes, behaviours and experiences regarding the phenomenon under study (Katamba & Nsubuga, 2014). Quantitative

approach such as survey enabled the researcher gather large scale data, in a relatively shorter time frame (Hancock & Algozzine, 2015).

Quantitative research is generally associated with the positivist/post positivist paradigm. It usually involved collecting and converting data into numerical form so that statistical calculations were made and conclusions drawn (Corbin & Strauss, 2018). Quantitative approach using tools such as questionnaires and interview guides enabled the researcher gather large scale data, in a relatively shorter time frame (Creswell, 2017). The study further employed a triangulation of both of these approaches in order to efficiently put to use the collected data. These research approaches are appropriate for this study as they can assist in establishing the effect the macro environmental factors on the success of Isbitaalka Xoogga hospital construction project in Mogadishu, Somalia.

3.3 Study Population

The target population is the population to which the researcher ultimately wants to generalize the results (Amin, 2015). According to the Mogadishu Population 2022 (Demographics, Maps, Graphs), the population of Mogadishu Somalia is 2,497,463, with the growth rate of 4.59%. Therefore this study only considered the population of 260 people.

3.4 Sample Size

This refers to the number of items being selected from the universe to constitute a sample Kothari, (2014). However from the population of 260 respondents, a sample size of 158 respondents was selected basing on a formula for determining Sample size by Yamane & Yamane, (2010). Respondents included; Directors and chief executive officers, Construction Project managers, construction project staff, and Project beneficiaries with knowledge about the topic of study.

The Sloven's formula (1978) was used to determine the minimum sample size. Formula was illustrated below-

$$n = \frac{N}{1 + N(e)^2} = \frac{260}{1 + 0.65} = 158$$

Where

n - Sample size

N - Population size

e - Level of precision

3.5 Sampling Selection Techniques and Procedure

The study used both simple random sampling and purposive sampling procedures. Purposive sampling was used to select different activities in the area of investigation in order to get first-hand information from the key informants. Simple random sampling was used because respondents had equal chances of being selected. Krejcie & Morgan table of 1970 was used to determine sample size from a given population. This was done by defining the population, choosing your sample size, listing the population, assigning numbers to the units, finding random numbers and selecting your sample size. The sampling process was guided by table below;

Table 3.1: Sampling Procedures

SN	Category	Target Population	Sample Size	Sampling procedure
1	Directors & CEO's construction Project	5	5	Purposive sampling
2	Construction Project managers	10	10	Purposive sampling
3	Construction Project staff	45	40	Random sampling
4	Project beneficiaries	200	103	Random sampling
	Grand Total	260	158	

Source: Construction Project report, (2020)

3.6. Data sources

The study used primary data collection methods to collect relevant data to the study. Primary data was collected from the respondents through interviews, and self-administered questionnaire. Primary data are important in answering questions about this study topic. Data collection methods were considered in such a way so that relevant information was collected as much as possible with little inconvenience to respondents.

3.7 Data collection methods

Data was collected from primary and secondary sources. Primary data was collected by the researcher that reflects the individual view points of the participants by administering

questionnaires and respondent's interviews, using structured interview schedules. Researchers collected the data themselves, using questionnaires, Interviews and Focus group discussion (FGD) (Research Directory, 2014).

3.7.1 Questionnaires

A questionnaire survey is a means of data collection in which a set of questions on a form are submitted to a number of people to collect statistical information (Amin, 2005). A questionnaire is a well-established tool within social science research for seeking information on participant's social attributes, present and past conduct, standards of conduct or attitudes and their beliefs and reasons for action with respect to the topic under investigation (Bird, 2009). It mainly consists of a list of questions with clear instructions and space for answers. The questionnaires used were closed as these target mainly respondents that are literate. Kothari (2004) argues that a questionnaire is valuable because it is free from bias of the interviewer since answers are in the respondent's own words and it is the most suitable means of collecting data from a large sample (Onen, 2010).

3.7.2 In-depth Interview method

According to Bailey (1994), an interview is an instance of social interaction between two individuals, the interviewer and the respondent. The interviewer used an interview guide as the instrument which allowed for an in-depth examination of the key informant on issues related to inventory management and performance of utility organizations. Interviews enabled the interviewer to establish good rapport with the respondents, allowing the interviewer to observe, discuss and listen as well as permitting complex questions to be asked. Respondents gave their views on the challenges they go through during inventory management and performance of utility organizations. Interviews are friendly fact finding conversation formulated in question form Barifajjo, et al (2010). According to Corrie (2007) key informant interviews are in- depth interviews with people who know what is going on in the organization and community as well. Interviews are key in any research study because they are enriched with information and tell what is happening at the time of narration, present, past and future time (Mugenda & Mugenda, 2003).

3.8 Data Collection instruments

3.7.1 Questionnaires

The main instrument of data collection was questionnaires to collect data from 143 respondents that being the construction Project staff and Project beneficiaries. According to Sotirios & Sarantakos, (2015), a questionnaire is a method of survey data collection in which information is gathered through oral or written questionnaires. The questions involved respondent groups regarding macro environment factors and the success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia. This method was ideal because it was cost saving compared with a face-to-face questionnaire delivered on site, over the phone, or by post, there are no labour, paper, printing, phone or postage expenses to worry about with the online questionnaire, making it a much more cost-efficient approach.

3.7.2 Key informant interview guide

The researcher also used interview guide to collect data from 15 respondents that being the Directors & CEO's construction Project and construction Project managers. The researcher further interviewed the respondents on a few responses that required further clarifications. The questions for the interview were both open-ended and closed. The open-ended questions gave chance to more discussions, while the closed questions were asked for particular responses. The interview method helped to collect additional views from respondents on the theme of the study.

3.8 Validity and reliability of instruments

3.8.1. Validity

Validity refers to the degree to which results obtained from analysis of the data actually represents the phenomenon under study. The validity of the research instrument was determined by pre testing. Mugenda and Mugenda, (2015) assert that pre testing ensures clarity and accuracy of results so that data collected gives meaningful, reliable results representing variable in the study. Pre-testing helped to estimate the time needed to take, to fill the questionnaires, pre-testing was done by administering to ten (10) respondents within the study population but outside the sample. Questionnaires were scrutinized by five colleagues at the University for their Peer Opinion on content and accuracy. Results from the field and opinion of colleagues helped to identify gaps and make modifications to the instruments where necessary. The supervisor also was notified accordingly.

The formula that was used to calculate the validity of the instrument was;

$$CVI = \frac{\text{Number of Items considered valid}}{\text{Number of items on the draft questionnaire and the interview guide}}$$

The initial draft had questions of which will be found relevant under study to the phenomenon as follows:

$$CVI = \frac{\text{Number of items considered valid}}{\text{Number of items on the draft questionnaire}}$$

This made a CVI of 0.886 which complied with the recommended minimum CVI of 0.7 as in accordance with Amin (2005). All questions deemed not valid was edited or dropped accordingly per the recommendation of the experts. Consequently, 8 (eight) questions that were deemed invalid were dropped.

3.8.2 Reliability

Reliability is the degree to which an assessment tool produces stable and consistent results. The reliability of the questionnaire was tested by using the Cronbach's alpha coefficient. Cronbach's Alpha coefficient was used to measure reliability of the instruments.

Cronbach's alpha was also used to determine the reliability of the instruments. A Cronbach's alpha value of 0.70 and above was considered to be the criteria for demonstrating internal consistency of new scale and established scales respectively. The questionnaire was pre tested using ten (10) respondents in Mogadishu Somalia but this number was not part of the sample size in the study and the reliability results was computed using the Statistical Package for Social Scientists (SPSS).

The formula for Cronbach's Alpha used was as follows-

$$\text{Cronbach's alpha} = \left[\frac{n}{n-1} \right] \left[\frac{SD^2 - \sum \text{Variance}}{SD^2} \right]$$

where: n = Number of items on the test

SD = The Standard Deviation for the set of test scores, and

$\sum \text{Variance}$ = Summation of the variances of the scores for each of individual item on the test.

3.9 Measurement of variables

The variables of the study were measured using the five Likert scale. Different variables were measured at different levels detailed as 1=strongly disagree, 2=Disagree, 3=Not Sure, 4= strongly agree and 5 = agree. Likert scales used fixed choice response formats and were designed to measure attitudes or opinions of respondents

The variables were measured at nominal and ordinal scale. The nominal scale measurement was used in the first part of the questionnaire (demographics) which comprised items with some common set such as sex, age, marital status, designation and level of education of respondents. According to Mugenda and Mugenda (1999), nominal scales are assigned only for purposes of identification but do not allow comparisons of the variable being measured.

Table 3.2: Mean range interpretation table

Mean Range	Response Mode	Interpretation
3.26-4.00	Strongly agree	Very high
2.51-3.25	Agree	High
1.76-2.50	Disagree	Low
1.00-1.75	Strongly disagree	Very low

3.10 Research procedures

The researcher sought to get a letter of introduction from the faculty. Permission was sought by the researcher from the respondents to be sampled in to allow for the relevant data to be collected. The researcher kept confidential of all respondents while presenting the findings.

3.11 Data analysis

The quantitative data involved information from the questionnaires only. Data from the field was too raw for proper interpretation. The raw data obtained from questionnaires was cleaned, sorted and coded. The coded data was entered into the Computer, checked and statistically analyzed using the Statistical Package for Social Scientists (SPSS) software package to generate descriptive

and inferential statistics Descriptive analysis was applied to describe the primary variable and associated indicator items related to the study objectives. The frequency tables for bio data were generated while regression analysis for all the objectives was also generated.

3.12 Ethical considerations

It was important during the process of research for the researcher to make respondents to understand that participation was voluntary and that participants were free to refuse to answer any question and to withdraw from participation any time they are chosen.

Another important consideration, involved getting the informed consent of those going to be met during the research process, which involved interviews and observations on issues that were delicate to some respondents. The researcher undertook to bear this seriously in mind.

Accuracy and honesty during the research process was very important for academic research to proceed. A researcher treated a research project with utmost care, in that there was no temptation to cheat and generate research results, since it jeopardizes the conception of the research.

3.13 Limitations of the study

The researcher encountered some hindrances. These included some uncooperative respondents; some respondents didn't have the time and commitment to fill the questionnaires this was because they were busy with their daily works. To mitigate this, the researcher asked the respondents during their free time and then the researcher administer the questionnaires to the respondents during their free time.

Also, the researcher dropped the questionnaire for the respondents to fill in during their free time and collect them later. Some of the Isbitaalka Xoogga hospital construction project staff felt victimized by their seniors for giving sensitive information about the construction project macro environmental factors. To address this challenge, the Isbitaalka Xoogga hospital construction project staff was assured by the researcher that the study was for academic purposes only and that no form of identification was required from them during the data collection exercise.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

This chapter presents and discusses the research results in line with the objectives of the study whereby the raw data in form of questionnaires was edited and interpreted which ensured uniformity, legibility and consistency. The data-filled questionnaires were copied and analyzed by tallying and tabling in frequency polygons while identifying how often certain responses occurred and later evaluation was done. The information was then recorded in terms of percentages, tables, figures and charts. Also, interview results were coded on frequency tables which were calculated in terms of percentages and presented in this study as illustrated below.

4.2 The response rate

The response rate of a survey is a measure of how many people approached, 'sampled' actually completed the survey (expressed as a percentage from 0% to 100%). It is usually assumed that the higher the response rate, the more likely the results are representative of the population, provided the sampling is appropriate in the first place and that people who don't respond are roughly the same in their opinions as the people who do respond (Am J Eval, 2008).

$$\text{Response rate} = \frac{\text{total number of tools received}}{\text{Total number of tools given out}} \times 100 = \frac{142 \times 100}{158} = 89.8\%$$

Response rate (also known as completion rate or return rate) refers to the number of people who answered the survey divided by the number of people in the sample. It is expressed in the form of percentages (AAPOR, 2008). In this study, all the 158 questionnaires were distributed to respondents and 141 questionnaires were returned, giving a response rate of 89.8%, respondents included; (5) Directors & CEO's construction Project, (10) Construction Project managers, (40) Construction Project staff and (103) Project beneficiaries. This implied that the sample was representative of the actual population and could therefore be generalized and relied on, as observed by Sekaran (2003).

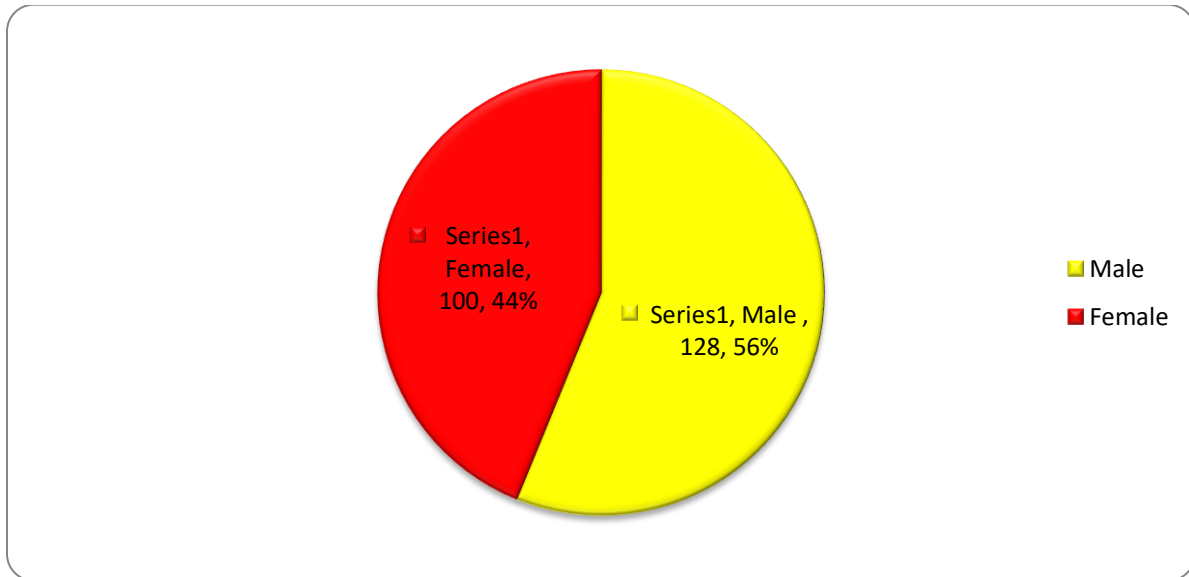
4.3 Background characteristics of the respondents

The background information of the respondents was important because they comprised of both sexes but of different marital statuses and age groups from various settings. This was intended in

order to get a variety of views and unbiased responses which made the study a reality. The findings are shown in the figures below;

4.3.1 Classification of respondents by gender

Figure 4.1: below illustrates the summary statistics on the gender of the respondents

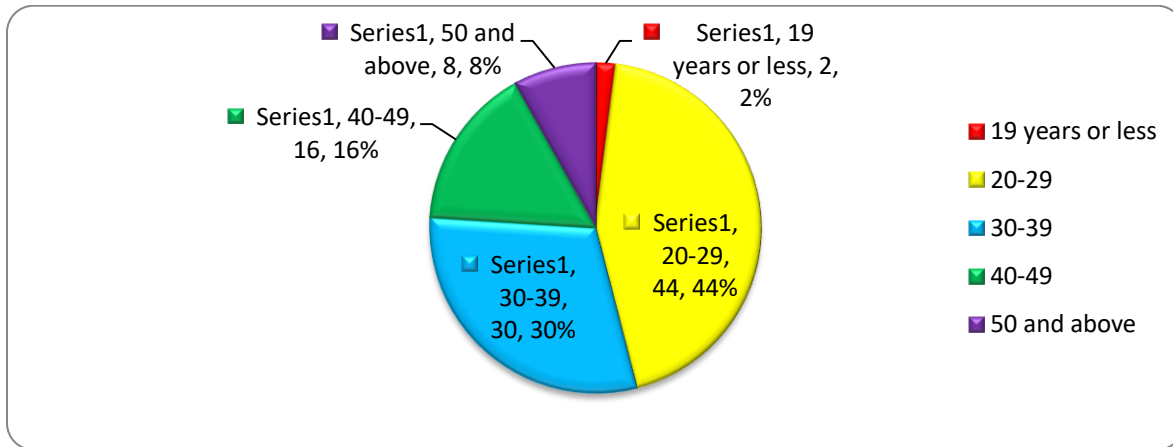


Source; Primary data (2022)

The above findings show that; males greatly participated in the study as represented by 56% whereas 44% of the respondents were females; implying Isbitaalka Xoogga hospital construction project had more male employees compared to female and the big numbers of male in the project also was drawn to the fact that the nature of activities at this project site required men who are physically strong for the dues at hand. For instance rolling iron bars, spreading of heavy concrete at the site, pushing wheelbarrows among other which are heavier duties when it comes to women hence the reason why men were more than women at Isbitaalka Xoogga hospital construction project in Mogadishu Somalia. In addition, when assessing the macro environmental factors and the success of a project like Isbitaalka Xoogga hospital construction project, both genders are part and partials. Therefore it was vital to consider gender in as far as this study was concerned.

4.3.2 Classification of respondents by age

Figure 4.2: below displays the summary of statistics on age of respondents.



Source; Primary data (2022)

From the figure above; the biggest percentage of the respondents represented by 44% was found to be 20-29 years these were followed by 30% of the respondents who were in the age bracket of 30-39 years, then 16% of the respondents were between 40-49 years and lastly but not the least were 2% of respondents who were 19 years or less and lastly were 8% of respondents who were 50 years and above. The age group (20-29) comprises of the biggest percentage which reflect a likely high number of youthful group of respondents since much of the work at Isbitaalka Xoogga hospital construction project needed young men who are strong and to was not to surprise that majority of respondents in study belonged to the age group of between (20-29) years.

4.3.3 Classification of respondents by marital Status

Table 4.1: below presents the summary statistics of the respondent's marital status.

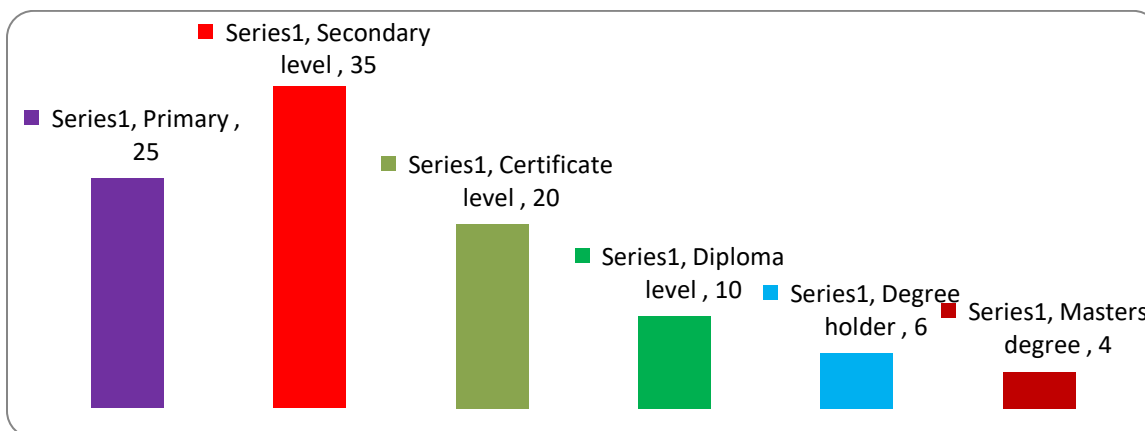
Marital status	Frequency	Percentage (%)
Single	70	46
Married	60	39
Separated	15	10
Widow	7	5
Total	152	100

Source; Primary data (2022)

An assessment of the respondents' marital status was as follows; the biggest percentage of the respondents were found single represented by 46% where as 39 % of the interviewees were found married, 10% of respondents had separated with their partners and lastly 5% of the respondents were widowed. The result implies that majority being single, they were youth men and women who possessed the current skills and knowledge on as far macro environmental factors and the success of Isbitaalka Xoogga hospital construction project was concerned. In addition, in this study the researcher disaggregated respondents by marital status because normally under marital status respondents tend to have different motives and opinions based on their status.

4.3.4 Respondents level of education

Figure 4.3: below illustrates summary statistics on respondent's level of education



Source; Primary data (2022)

In the figure 4.3 above, shows the biggest percentage of respondents were secondary levels constituting 35% of the respondents, followed by 25% as primary school levels whereas 20% of the respondents had attained their certificates in different professional of awards 10% of the respondents were diplomas holders, 6% degree holders and 4% of respondents had masters degrees. The results showing majority having attained secondary education implies they were able to read and write and come under the category of beneficiaries and casual work of Isbitaalka Xoogga hospital construction project. In addition these respondents possessed the knowledge to understand and interpret the questions which researchers asked them.

4.3.5: Respondent's designation

Table 4.2: below illustrates summary statistics on the respondent's designation

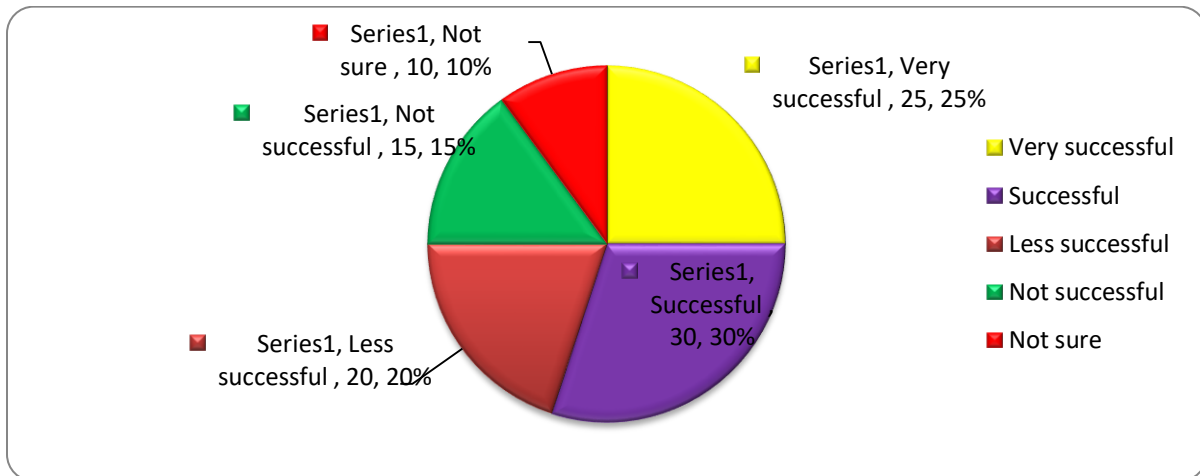
Occupation	Frequency	Percentage (%)
Beneficiaries	60	40
Project staff/workers	40	26.3
Project managers	27	17.7
CEO	25	16
Total	152	100

Source; Primary data (2022)

According to table above, majority of the respondents represented by 40% were Isbitaalka Xoogga hospital construction project beneficiaries, followed by 26.3% who were project staff/workers, whereas 17.7% of the respondents indicated project managers, and lastly 16% of the respondents are chief executive officers of Isbitaalka Xoogga hospital construction project. From the result, majority being project beneficiaries had much interest in Isbitaalka Xoogga hospital construction project because they know it's helpful when completed successfully to their health status in Mogadishu Somalia in a sense that various diseases would be treated from the facility without going to other hospitals.

4.3.6: Respondents the success of Isbitaalka Xoogga hospital construction project in Mogadishu Somalia

Figure 4.4: below illustrates summary statistics of respondent’s views towards the success of Isbitaalka Xoogga hospital construction project in Mogadishu Somalia



Source; Primary data (2022)

Numerous responses were put forward when respondents were asked to rate the success of Isbitaalka Xoogga hospital construction project in Mogadishu Somalia, their responses were as follows; majority of the respondents represented by 30% indicated that the project was successful, followed by 25% of respondents who similarly indicated that the project was very successful, where as surprisingly 20% of respondents revealed to the researcher that the project was less successful lastly but not the least, 15% of respondents said the project was not successful at all and lastly 10% of respondents indicated that they were not sure whether the project was successful or not successful.

4.4 Section One: Effect of economic factors on success of Isbitaalka Xoogga hospital construction projects Mogadishu Somalia

In this section the researcher draws on the first objective of the study which was to establish the effect of economic factors on success of Isbitaalka Xoogga hospital construction projects Mogadishu Somalia. The items were rated on the 5 point likert scale ranging between strongly disagree, disagree, not sure, agree and strongly agree. The findings are shown in table 4.3 below

Table 4.3: Frequencies of the effect of economic factors on success of Isbitaalka Xoogga hospital construction projects Mogadishu Somalia

	Item	Strongly disagree	Disagree	Neither agree nor disagree	Strongly agree	Agree	Mean	Std. Dev
		N (%)	N (%)	N (%)	N (%)	N (%)		
1.	Economic factors enables the provision of sufficient resources as and when required	10 (7)	13 (9)	15 (10)	70 (41)	50 (30)	2.45	1.23
2.	Economic factors enables good Project resource planning and controlling	4 (3)	6 (4)	8 (6)	80 (51)	60 (36)	2.74	1.01
3.	Economic factors facilitates the use of efficient project-specific technology	32 (10)	10 (7)	15 (15)	50 (32)	60 (36)	2.65	1.10
4.	Good financial accountability and management enables success of projects	25 (16)	23 (15)	20 (13)	50 (30)	40 (26)	3.45	1.32
5.	Economic factors effects of the exchange rate on acquisition of resources	10 (7)	13 (9)	10 (7)	75 (48)	50 (32)	1.33	0.71
6.	Economic factors enables efficient/timely procurement of materials and equipments	6 (4)	7 (5)	5 (4)	90 (57)	50 (30)	1.33	.719
	Total mean						1.88	

Source: Primary data (2022)

Economic factors and sufficient resources

Construction is conceived as an economic activity that focuses only on the last stage of the construction process which is the physical work carried out on the production site. From this

perspective, all services such as project management, planning and design as well as the offsite manufacture and supply of building materials are included. From the results in table above, respondents strongly agreed that economic factors enable the provision of sufficient resources as and when required (45%) strongly agreed and 32% agreed to the statement.

“In the developing countries like Somalia, financial aids for the major construction projects largely come from the government or international agencies. This is because an infrastructural construction project is often capital-intensive, and due to its public good characteristics, is not directly seen to be feasible from the viewpoint of individual private investors” (Director/ CEO interview, 2022).

Economic factors enable good Project resource planning

Firms in the construction industry have always had to confront economic cycles and developing strategies to address the resulting effects on them. In fact, economic recessions have huge effects on the construction industry, more so than most other industries. The biggest percentage strongly agreed that economic factors enable good Project resource planning and controlling as revealed by; (51%) and those who agreed were 38%. As one of the construction managers had this to say;

“Contractors’ financial concerns can be different across the construction phases and the technology employed. The initial stages of mobilization require a large amount of cash, especially for contractors using the equipment-intensive construction technology to purchase the equipment” (Isbitaalka Xoogga hospital construction manager interview, 2022).

Economic factors and technology used

The intensity of equipment used in construction projects depends on construction technology. Construction technology reflects the level of mechanization used in the method of construction. The use of construction technology can vary across projects. This is because there is a certain degree of technological flexibility for the same construction work. For the same construction work, designers and contractors can choose between the two construction methods. Results accounting for how economic factors facilitate the use of efficient project-specific technology were as follows (36% strongly agreed, 32% agreed and 15% were not sure). As one of the construction CEO had this to say;

“The choice of the contractor depends on the constraints of time and budget. If time is of the essence, then the highly mechanized method may be used. However, if the total cost of using plant and equipment plus wages for technical personnel and semi-skilled workers is much higher than the total labour cost of minimally-trained unskilled workers used in the fully manual method, the latter may be used when the budget is limited. In developed countries like Somalia where labour has become more costly compared to other inputs, the use of equipment-intensive technology has been more common than in developing countries where the cost of plant and equipment is high and labour is still cheap and abundant” (CEO construction interview, 2022).

Financial accountability and success of project

Bringing together planning, budgeting, accounting, financial reporting, internal control, auditing, procurement, disbursement and the physical performance of the projects with the aim of managing project resources properly and achieving the project’s objectives. Field responses on whether good financial accountability and management enables success of projects were as follows (30% strongly agreed and 26% agreed). One of the construction project managers revealed;

“Sound project financial management provides essential information needed by those who manage, implement and supervise projects, including government oversight agencies and financing institutions; the comfort needed by the donor community that funds have been used efficiently and for the purposes intended; and a deterrent to fraud and corruption, since it provides internal controls and the ability to quickly identify unusual occurrences and deviations” (Isbitaalka Xoogga hospital construction manager interview, 2022).

Economic factors and acquisition of resources

The construction industry is equally operational in all three economic sectors. The procurement of natural resources falls in the primary sector, manufacturing building components in the secondary and the tertiary sector includes the many consultation services it offers. While the process of construction officially begins at excavation, the preceding steps are taken in advance, requiring both time and capital. Recessions in the economy can often sink prices of properties. From the study results on how economic factors effects of the exchange rate on acquisition of resources responses were as follows (48% strongly agreed and 32% agreed). One of the CEO’s had this to say;

“The prices of building materials, equipment and labour are likely to follow the downward trend in such a scenario and balance the construction costs. Hence, the ability to absorb certain fluctuations in the economy makes the construction industry relatively steady on the overall front. The government policies can leverage the construction industry to stabilize employment in a volatile market by boosting labour creation during low-demand spells. Similarly, in times of market saturation, large-scale projects may be postponed to maintain the balance” (Isbitaalka Xoogga hospital construction CEO interview, 2022).

4.5 Section Two: Technological factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia.

This section describes how technological factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia. The items were rated on the 5-point likert scale ranging between strongly disagree, disagree, not sure, agree and strongly agree. The findings are shown in table 4.4 below:

Table 4.4: Frequencies of on how technological factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia.

	Item	Strongly disagree	Disagree	Neither agree nor disagree	Strongly agree	Agree	Mean	Std. Dev
		N (%)	N (%)	N (%)	N (%)	N (%)		
1.	Technology enables productivity enhancement of the communication between project participants	6 (4)	10 (7)	12 (8)	70 (45)	60 (36)	2.35	1.12
2.	Technology ensures reduction in project delays	6 (4)	7 (5)	5 (4)	80 (51)	60 (36)	2.45	.452
3.	Technology ensures heightened awareness of project issues among all parties	72 (44)	62 (40)	6 (4)	10 (7)	8 (5)	3.2	1.11
4.	Technology ease of access to and retrieval of project information	10 (7)	14 (8)	8 (5)	45 (28)	81(52)	1.43	0.72
5.	Technology avoiding delays due to the timely arrival of updated drawings and documents	15 (9)	16 (10)	5 (4)	55 (34)	67 (43)	2.45	00.1
	Total mean						2.376	

Source: *Primary data (2022)*

Technology enables productivity in construction projects

The construction industry is one of the slowest to adopt new technologies, which has created a large gap between construction companies that have embraced technology and those that have not. Technology is revolutionizing the construction industry by increasing productivity and efficiency. Construction firms are using technology to increase their profitability, streamline processes, reduce project risks, and improve safety for their workers. Results in table 4.5 above indicate that; 45% of respondents strongly agreed that; technology enables productivity enhancement of the communication between project participants 38% agreed. Key informant interviews from the construction manager;

“The construction industry has been slow to adopt new technologies for a variety of reasons, Construction work can be dangerous and workers are hesitant to use new tools or equipment that might put them at risk. Construction companies are often very small businesses with limited resources, so they may not be able to afford the latest technology. Construction work can be time-consuming, so it’s difficult for workers to learn how to operate new tools” (Isbitaalka Xoogga hospital construction interview, 2022).

Technology ensures reduction in project delays

Technological innovations in project management for construction, Internet of Things connected sites and equipment, autonomous machines, among other things, have all helped improve construction planning and scheduling, dealing with issues and solving problems that arise, and more. In regards to the study results responses on how technology ensures reduction in project delays majority of responses who strongly agreed (50%) and 38% agreed that

“Technology can help deal with construction delays, make construction projects more efficient, and even improve the overall safety and well-being of the workers, engineers, and project managers. At the end of the day, the heart and soul of any construction project are its people. However, administrative processes necessary in any construction project can be quite tedious, which is why these days, more and more companies are turning to advanced HR technology and outsourcing solutions” (Isbitaalka Xoogga hospital construction CEO interview, 2022).

Technology ensures heightened awareness of project issues

As project professionals, we seem to constantly be bombarded with yet another challenge. We are confronted with new technologies, more competitive markets, open-ended requirements, reorganizations and downsizing, limited funding, and many other concerns. With the complexity of our projects, the use of virtual teams for so much of our work, and the emphasis on speed and innovation, there is no time available for rework. Whereas views on whether there was technology ensures heightened awareness of project issues among all parties was as follows (28% strongly agreed and 52% agreed) from the interview guide.

“Tools and applications used by ICT give as an important contribution for profit in the execution of a project. These technologies are analyzed from the main factors assessed for both success and failure of a project, among which lack of collaborative work from the project team and others involved can be evidenced, as well as their interactions and the way each individual tackles and meets their functions. In a competitive environment, highlighting that collaborative work, performed through the use and appropriation of information and communication technology is fundamental, increasing not only the sense of belonging to the execution of a project, but the application of better practices, built out of mistakes and experiences from the team members” (Isbitaalka Xoogga hospital construction CEO interview, 2022).

Technology eases of access to project information

Building Information Modeling (BIM) has helped construction companies provide details about a construction project in a 3D model. Builders can now access information about the many aspects of a computer-aided designs in real-time. For that reason, construction workers always need to have a computer to access the 3D model at all construction. Results from the fields indicated that technology ease of access to and retrieval of project information as represented in the following; (strongly agreed was 34%, those who agreed were 43%). As oral views from construction manager;

“Project management software helps construction companies ensure that all operations in a construction site move as planned. The tool makes it easy to organize the various aspects of a building project. One good thing about project management software is that it helps contractors manage the time and resources available to complete any project” (Isbitaalka Xoogga hospital construction CEO interview, 2022).

Technology avoiding delays in construction projects

It is critical for the project manager to understand how project delays creep up while managing projects. Only then they could prevent them from happening or deal with them when they inadvertently occur. Results from the study on whether technology avoiding delays due to the timely arrival of updated drawings and documents and responses were as follows (58% strongly agreed and 31% agreed). Oral interviews from the construction manager;

“Unexpected scope changes can happen during construction projects. If the owner changes their mind about a crucial area, the rest of the project can experience major setbacks. While many of these changes are out of your control, you can encourage the project owner to have a clear vision of the project scope before your crew begins working. If changes do need to be made, make sure realistic timelines are established”. (Isbitaalka Xoogga hospital construction manager interview, 2022).

4.6 Section Three: Effect of political factors on success of Xoogga hospital construction projects in Mogadishu Somalia.

This section of the study was to find out the effect of political factors on success of Xoogga hospital construction projects in Mogadishu Somalia. The items were rated on the 5 point likert scale ranging between strongly disagree, disagree, not sure, agree and strongly agree.

The findings are shown in table below:

Table 4.5: Frequencies of the effect of political factors on success of Xoogga hospital construction projects in Mogadishu Somalia

	Item	Strongly disagree	Disagree	Neither agree nor disagree	Strongly agree	Agree	Mean	Std. Dev
		N (%)	N (%)	N (%)	N (%)	N (%)		
1.	Good leadership is the heartbeat of any progressive development	8 (5)	20 (12)	0 (0)	80 (50)	50 (33)	1.78	1.39
2.	Nations with great leaders have made tremendous developmental projects	8 (5)	13 (8)	0 (0)	92 (56)	50 (31)	3.92	0.91
3.	Servant leaders provide oversight to projects in their regions	7 (4)	10 (6)	5 (3)	65 (43)	71 (44)	2.23	1.11
4.	Legislators have a great interest in how monies are spent on projects in their area of representation	10 (7)	12 (8)	0 (0)	95 (60)	42 (25)	2.00	1.00
5.	Political stakeholder mapping is an important aspect in the development of a region	8 (5)	20 (12)	0 (0)	100 (63)	30 (20)	1.95	1.05
6.	Community participation gives the public the opportunity to learn and gives them an opportunity to view projects development in different perspective	8 (5)	18 (11)	20 (12)	50 (31)	62 (41)	4.14	0.67
7.	There is need for governments to undertake political stakeholder mapping in all community projects	8 (5)	9 (6)	0 (0)	60 (37)	81 (52)	4.00	0.76
	Total mean						2.86	

Source; Primary data (2022)

Good leadership and construction project

Leadership is a critical component of construction projects. Construction managers are responsible for ensuring that their project is completed on time, within budget, and to the required standard. Results in table 4.6 above indicate that; 50% of respondents strongly agreed that good leadership is the heartbeat of any progressive development, 31% agreed. While oral results from one of the managers at Isbitaalka Xoogga hospital construction had this to say;

“The construction manager must act as a leader throughout the life of the construction project. Acting as a leader enables the construction manager to plan, monitor, and control the progress of a project very effectively. The need for leadership ability in a construction manager depends on the tasks, teams, organizational environment, manager’s abilities, project resources, available time, and budget” (Isbitaalka Xoogga hospital construction manager interview, 2022).

Nations with great leaders have made development projects

Leaders advance their mission by working in the trenches within their communities. They are involved, connected, participating, collaborating, and deeply integrated in the work of their organization. From the results in field, whether nations with great leaders have made tremendous developmental projects indicated that majority of respondents strongly agreed (58%), and 31% also agreed with the view. Results were backed by one of the key staff member who had this to say;

“Leaders from developing countries like Somalia are hungry for professional development as it relates to leadership and talent development. Depending on the organizations they lead and the number of teams they oversee, these leaders have not often had the benefit of focused learning around leading and leadership and talent management. While some have been exposed to quality examples of leaders and managers through their ongoing education, many are looking for sustainable processes and tools that will help support their own leadership learning and the cultivation and development of those who serve in their organizations” Isbitaalka Xoogga hospital construction staff interview, 2022).

Servant leaders provide oversight to projects

Servant leadership is a philosophy where a leader is a servant first. Servant leaders aspire to serve their team and the organization first ahead of personal objectives. It is a selfless leadership style where a leader possesses a natural feeling to serve for the greater good. From the study results as regards to whether servant leaders provide oversight to projects in their regions indicated that; 60% of respondents strongly agreed.

“Servant leadership leads employees to put an optimal effort in achieving the objectives of the organization as they feel included and valued. Servant leadership is centered on the fundamental desire to be of service to others. Leaders put away their self-serving actions to assume servant hood to the team and the organization” Isbitaalka Xoogga hospital construction staff interview, 2022).

Results from the field in relation legislators have a great interest in how monies are spent on projects in their area of representation indicated that respondents strongly agreed (63%) and (18%) agreed to the statement. From the same table above, effect of political factors on success of Xoogga hospital construction projects in Mogadishu Somalia received weight mean of 2.86.

4.7 Hypothesis testing

Pearson Correlations were derived by assessing the degree of variations in the independent variable (macro environmental factors) and the dependent variable (success of construction projects) vary.

4.7.1 Hypothesis one testing (effect of economic factors on project success of Isbitaalka Xoogga hospital construction projects Mogadishu Somalia)

Table 4.6: Shows Hypothesis one testing (effect of Economic factors on project success of Isbitaalka Xoogga hospital construction projects Mogadishu Somalia).

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.105 ^a	.070	.050	.25099
a. Predictors: (Constant), Economic factors				

ANOVA ^b						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.000	1	.000	.000	.992 ^a
	Residual	.315	5	.063		
	Total	.315	6			
a. Predictors: (Constant), Economic factors						
b. Dependent Variable project success of Isbitaalka Xoogga hospital construction project						

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.662	1.063		2.505	.054
	Economic factors	-.004	.385	-.005	-.011	.992
a. Dependent Variable: project success of Isbitaalka Xoogga hospital construction project						

Source Field data, 2022.

The results in table 4.6 above are a regression analysis of the effect of Economic factors project success of Isbitaalka Xoogga hospital construction project. The findings reveal the adjusted R square of 0.05; this implies that Economic factors accounts for project success of Isbitaalka

Xoogga hospital construction projects by 5%. This means that the rest of the factors affect the project success of Isbitaalka Xoogga hospital construction project by 95%. The R Square also implies a low effect of Economic factors on overall project success of Isbitaalka Xoogga hospital construction project.

Analysis of variance was also performed where findings suggested that there was no significance in the effect due to the significant differences found. The insignificant value for the test was computed outside the acceptable range since it was at .992^a. It implies that Economic factors do not significantly affect the project success of Isbitaalka Xoogga hospital construction project

The t statistics for the variable (Economic factors) was also outside the acceptable range to support their relevance in the model, Economic factors as the independent variable had a calculated t value of .011 significance of .992. The p value for the beta of this variable also suggests the same as it was found to be above 0.05. The researcher therefore accepts the null hypothesis and concludes that no significant effect existed between Economic factors and project success of Isbitaalka Xoogga hospital construction project

4.7.2 Hypothesis two testing (Effect of technological factors on project success of Isbitaalka Xoogga hospital construction projects Mogadishu Somalia)

Table 4.7: Shows the Hypothesis two testing (Effect of Technological factors on project success of Isbitaalka Xoogga hospital construction projects Mogadishu Somalia)

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.667 ^a	.445	.334	.18705	
a. Predictors: (Constant), Technological factors					

ANOVA ^b						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.140	1	.140	4.003	.040 ^a
	Residual	.175	5	.035		
	Total	.315	6			
a. Predictors: (Constant), Technological factors						
b. Dependent Variable: Project success of Isbitaalka Xoogga hospital construction project						

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.459	1.097		.418	.693
	Risk assessment	.837	.418	.667	2.001	.040
a. Dependent Variable: Project success of Isbitaalka Xoogga hospital construction project						

Source Field data, 2022.

The adjusted R-Squared coefficient was computed to be at .334. This table indicates that Technological factors alone have a 33.4% e Effect of Technological factors on project success of Isbitaalka Xoogga hospital construction projects Mogadishu Somalia. This also means that the rest of the 66.6% is influenced by other factors other than Technological factors. The R-Squared coefficient denotes a considerably low amount of influence that Technological factors has on Project success.

Analysis of variance was also performed where findings suggested that there was some significance in the effect. The p value for the test was computed within an acceptable range since it was at 0.04. This is enough evidence to suggest that Technological factors do have a significant effect project success of Isbitaalka Xoogga hospital construction project Mogadishu, Somalia.

The t statistics for the variable was also within the acceptable range to support their relevance in the model, Technological factors as the independent variable had a calculated t value of 2.001. This implies that it has a predictive potential on Project success. The p value for the beta of this variable also suggests the same as it was found to be below 0.05. Therefore the null hypothesis is rejected and the researcher argues that Technological factors have a significant effect on the performance of Isbitaalka Xoogga hospital construction project.

4.7.3 Hypothesis three testing (Effect of political factors and project success of Isbitaalka Xoogga hospital construction projects Mogadishu Somalia)

Table 4.8: Shows Hypothesis three testing (Effect of Political factors and project success of Isbitaalka Xoogga hospital construction projects Mogadishu Somalia)

Model Summary						
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	
1	.128 ^a	.036	.020		.24892	
a. Predictors: (Constant), Political factors						
ANOVA ^b						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.005	1	.005	.084	.784 ^a
	Residual	.310	5	.062		
	Total	.315	6			
a. Predictors: (Constant), Political factors						
b. Dependent Variable: Project success of Isbitaalka Xoogga hospital construction project						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.013	1.259		2.393	.062
	Political factors	-.137	.473	-.128	.289	.784
a. Dependent Variable: Project success of Isbitaalka Xoogga hospital construction project						

Source Field data, 2022.

The adjusted R-Squared coefficient was computed to be at .020. This figure indicates that Political factors alone have a 2% effect on the project success of Isbitaalka Xoogga hospital construction projects Mogadishu Somalia, Somalia. This also means that the rest of the 98.0% is influenced by other factors other than Political factors. The R-Squared coefficient denotes a considerably very low amount of influence that Political factors has on Project success.

Analysis of variance was also performed where findings suggested that there was some significance in the effect. The p value for the test was computed outside the acceptable range since it was at .784^a. This is enough evidence to suggest that Political factors do not have a significant effect on the project success of Isbitaalka Xoogga hospital construction project Mogadishu, Somalia.

The t statistics for the variable was also within the acceptable range to support their relevance in the model, Political factors as the independent variable had a calculated t value of .289. This implies that that it has no significant predictive potential on Project success. Therefore the null hypothesis is accepted and the researcher argues that there was no significant effect between Political factors and Project success of Isbitaalka Xoogga hospital construction project.

CHAPTER FIVE

DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter mainly deals with summary, discussion of findings, conclusion and recommendations related to the effect of economic factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia, the effect of technological factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia; and the effect of political factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia.

5.1 Discussion of the findings

5.1.1 Bio-data

From the field findings, it was found out that males greatly participated in the study as represented by 56% whereas 44% of the respondents were females; implying Isbitaalka Xoogga hospital construction project had more male employees compared to female and the big numbers of male in the project also was drawn to the fact that the nature of activities at this project site required men who are physically strong for the dues at hand.

Further findings revealed that the biggest percentage of the respondents represented by 44% was found to be 20-29 years these were followed by 30% of the respondents who were in the age bracket of 30-39 years, then 16% of the respondents were between 40-49 years and lastly but not the least were 2% of respondents who were 19 years or less and lastly were 8% of respondents who were 50 years and above.

The field study, the biggest percentage of the respondents were found single represented by 46% where as 39 % of the interviewees were found married, 10% of respondents had separated with their partners and lastly 5% of the respondents were widowed. The biggest percentage of respondents were secondary levers constituting 35% of the respondents, followed by 25% as primary school levers whereas 20% of the respondents had attained their certificates in different professional of awards 10% of the respondents were diplomas holders, 6% degree holders and 4% of respondents had masters degrees.

Result in the field revealed that majority of the respondents represented by 40% were Isbitaalka Xoogga hospital construction project beneficiaries, followed by 26.3% who were project staff/workers, whereas 17.7% of the respondents indicated project managers, and lastly 16% of the respondents are chief executive officers of Isbitaalka Xoogga hospital construction project. The majority of the respondents represented by 30% indicated that the project was successful, followed by 25% of respondents who similarly indicated that the project was very successful, whereas surprisingly 20% of respondents revealed to the researcher that the project was less successful lastly but not the least, 15% of respondents said the project was not successful at all and lastly 10% of respondents indicated that they were not sure whether the project was successful or not successful.

The results from this study revealed that, there is significant relationship between economic factor and Isbitaalka Xoogga hospital construction project was accepted. The result is consistent with that of UN-Habitat (2011) and Chen et al. (2012), who emphasise the importance of economic factor on project success. Measures of economic factor include a stable economic environment, accessible credit facilities, low interest rate, a long-term loan repayment period and a low down payment requirement. Thus, the government should ensure a stable economic environment to encourage the private sector to invest in public housing projects, as many investors will not participate in uncertain economic conditions.

Li et al. (2005) noted that a stable economic environment plays an important role in determining the success of Isbitaalka Xoogga hospital construction project. Accessibility of long-term loans at low interest rates is essential in most developing countries like Somalia, as the majority of their populations are low income earners who cannot save money for homes. Therefore they rely on available credit to own decent housing.

From the findings of this study it can be argued that social factor and economic factor can strongly influence product success because appropriate design and good location (social factor) have a strong impact on end users' satisfaction and general well-being. Similarly, an effective financial system (economic factor) is essential with regard to flow of incomes and affordability of the completed housing units. Conversely, it can be asserted that social factor and political factor can affect project management success. For instance, the complexity of design and bad location (social factor) can have a strong impact on the success of project management. In addition, because public

housing projects are usually funded or subsidised with public funds, an unstable political environment (frequent changes of government) can affect the project implementation, which may lead to delays in completion and cost overruns. Thus these three factors should be given adequate attention in the formulation and implementation of housing policies in developing countries. Future research should examine the interrelationship between these factors.

5.1.2 Effect of economic factors on success of Isbitaalka Xoogga hospital construction projects Mogadishu Somalia

From the field findings, it was found out that economic factors enable the provision of sufficient resources. The findings were in line with Costa, Jorge (1995) asserts that the macro environment reflects a country's economic behavior and future projects based on macroeconomic factors political gains, financial literacy, social impact, and economic balance. Therefore, businesses try to understand and analyze the external environment and its impact.

Further findings revealed that economic factors enable good Project resource planning and controlling. On the same note, the external environment has an indirect impact on financial markets (Jeffs, C. 2008). This is not evident immediately but can result in huge losses later on in the absence of a strategic move. On the other hand, a favorable environment presents a variety of profitable opportunities. The economic development of a country depends on these macro-environment factors. For instance, the US is comparatively a small population, but people's spending patterns are extravagant.

From the filled question, it was found out that accounting for how economic factors facilitate the use of efficient project-specific technology. Findings were similar with Garbharran et al. (2012) identified 18 critical success factors in construction industry in South Africa and grouped according to four COMs model: comfort, competence, communication and commitment. The findings suggest that both project managers and contractors strongly support the critical success factors as significant in achieving project success. The findings also show no significant differences between project managers and contractors on the biographical variables of gender, age, tenure in the industry and sector (public and private), and their perceptions of critical success factors. But it was noted that the sample included only independent project managers and contractors. It was not given who represented the contractor. However, consultants and project management staff have been excluded from the sample.

5.1.3 Effects of technological factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia.

From the field findings, it was found out that technology enables productivity enhancement of the communication between project participants. In the same way, The data from the conducted research indicate that the respondents, experts in the field of IT project management in Serbia, apply different technologies in their activities. More precisely, in the statements of the examined experts, it was identified that more than 82 different software tools are used in IT project management activities in Serbia, as well as that the number of 82 tools is not final because the respondents emphasize that they use more than the listed tools. The suitability of the identified tools for application in project management activities was also supported by research conducted by (Chadli et al., 2016). Specifically, some of the tools identified by (Chadli et al., 2016), have also been identified in the practice of IT project management in Serbia.

Further findings reveal that technology ensures reduction in project delays. Similarly to note, Since the general application of technologies does not include the application of Industry 4.0 technology, the question arises to what extent experts in the field of IT project management in Serbia apply modern technologies such as: cloud, Internet of Things and artificial intelligence. Accordingly, it was initially analyzed how many respondents apply these technologies in general in the mentioned activities, and then to what extent they apply them. Based on the analysis, it was established that a large number of the respondents apply cloud technologies, while for artificial intelligence and IoT technologies this is not the case in practice.

It was also found out that technology ensures heightened awareness of project issues among all parties. Findings were in light with Cloud technologies are recognized as technologies the use of which has a positive impact on all aspects of project management viewed through success factors. One of the biggest positive impacts of these technologies was recognized from the aspect of consulting with clients during project activities and communication with stakeholders. However, an even greater positive impact of these technologies was recognized from the aspect of project scheduling and project monitoring. Such results are not unexpected given that numerous studies

5.1.4 Effect of political factors on success of Xoogga hospital construction projects in Mogadishu Somalia.

It was found out that good leadership is the heartbeat of any progressive development. Similarly, Several studies have identified the competence associated with project managers. Rees, Turner, and Tampoe (1996) identified six characteristics of effective project managers and asserted that effective managers often had above average intelligence and good problem solving ability. These characteristics are similar to Intelligence Quotient (IQ) that Dulewicz and Higgs (2005) call a part of their leadership competence. Other characteristics identified by Rees and his colleagues are behavioral or motivational characteristics, such as competence and characteristics based on skills, for example communication. Andersen et al. (1987) recognize the importance of the individual characteristics of the project manager when selecting a project manager such as creative capacity. This view is similar to that of Hogan (2002) who found that the personality of a leader is a determinant of effectiveness.

In addition, it was found out that servant leaders provide oversight to projects in their regions. Pinto and Trailer (1998) recognized the characteristics of an effective project leader: credibility, problem solving, creativity, ambiguity pressure, flexible management style, and effective communication. They also identify the skills needed for project managers: technical skills, administrative skills (making plans, budgets, etc.) and leadership skills (vision, set examples). These skills would create a good project manager, however, again, Pinto and the Trailer (1998) did not explicitly link those characteristics and skills to the success of the project.

5.2 Conclusion

In conclusion, Isbitaalka Xoogga hospital construction project depends on the influence of several macro environmental factors, some of which are within the control of project management teams while others are not. The aim of this paper was to establish the effects of economic, technological factors and political factors on the success of Isbitaalka Xoogga hospital construction project in Somalia.

5.2.1 Effect of economic factors on success of Isbitaalka Xoogga hospital construction projects Mogadishu Somalia

An exclusive set of multiple decisive factors in terms of main three criteria: Clients' requirements & objectives, project characteristics and External Environment, have been identified as being

generally adequate for the procurement selection and there is a reasonable consensus on utility values for each procurement system. This study has used Delphi technique to ensure that the consensus is reached for the utility values provided by the panel of experts/practitioners from the industry. The synthesis of the outcome of the survey demonstrates intensely that there is a significant improvement in the consistency of the utility values over the successive Delphi rounds.

5.2.2 Effects of technological factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia.

There is not only a single theory about project management, and there are many different views about project success. Because of their nature and their temporary structure, projects are extremely vulnerable. There can be many factors such as time and cost management or there could be some external factors like political difficulties or weather conditions. All these factors can be a reason for the success or they might cause the failure. Widespread acceptance is; the completion of a project within planned time, within projected cost, with expected quality and the acceptance of the product by the owner, provides the project success. On the other hand, some authors point out that, if the product which is obtained at the end of the project is not successful, successful acquisition of the project's basic objectives like time, cost, and quality is not important.

5.2.3 Effect of political factors on success of Xoogga hospital construction projects in Mogadishu Somalia.

Defining the success factors and success criteria are highly important in terms of the evaluation of project success and the acquisition of successful projects. But to define a mutual objective for all stakeholders is the most important thing. The identified variables categorized under six clusters of economic, construction technology, political, legal, social and cultural and physical factors, had been quantitatively analyzed and evaluated and their significant relationship with time and cost overruns had also been statistically established.

5.3 Recommendations

Based on the findings of the study, the following recommendations were made:

5.3.1 Effect of economic factors on success of Isbitaalka Xoogga hospital construction projects Mogadishu Somalia

The project stakeholders should develop and leverage strategic relationship to those with power in the organizational landscape: Project manager should develop and maintain a larger leverage strategic stakeholder relationship both formal and informal. Such stakeholders should have authority, status and influence in allocating resources and making decisions which affect the project. Maximum leverage requires that relationship be based upon a strong rapport and that the relationship has visibility.

Furthermore government should emphasize development of a project status: power belong not only individuals but also to communities of practice, department, business unit, review boards, steering communities, work centres etc. within organizations. Commitment to change and empowered decision maker permit the project to execute effectively.

5.3.2 Effects of technological factors on success of Isbitaalka Xoogga hospital construction projects in Mogadishu Somalia.

Need for the development of manager competence, influence and status: project managers must develop exceptional skills as bargaining, negotiating and influencing as well as developing networks of those who can assist.

There is need for manager project boundaries and complexities to minimize the bargaining effort: problem solving, bargaining and negotiating are a reality of the project life. When excessive or ineffective they can derail projects. Clear project boundaries; goals and scope, quality budgets, timelines and risk profile plus adopting a small scope approach can minimize risks, efforts, conflict and the consequent problem solving and bargaining required. A project manager should ensure commitment to these by those in power, re-commitment whenever change arises and visibility of these.

5.3.3 Effect of political factors on success of Xoogga hospital construction projects in Mogadishu Somalia.

Political stakeholder mapping should be taken seriously before commencement of any public project so that the people are able to know their rights, roles and responsibilities

The government of Somalia should empower oversight bodies that are not necessarily constituted of politicians to caution halting of projects during election.

Tendering process should be transparent

Hospital construction projects contracts to be withdrawn from contractors who are not able to complete projects within the stipulated period of time.

Government should allocate more funds for completion of the Isbitaalka Xoogga Hospital Construction Project.

5.4 Contribution to the knowledge

Most of the existing literature affirms the success of any project depends on the macro environmental factors. The accomplishment of the key project deliverables within the specified time frame can be seen as a key indicator for the success of the project. However very little scholarly attention has been dedicated to the contributions of project success. This study has contributed to knowledge by examining the contributions of project success to macro environmental factors provision in Mogadishu, Somalia. The study principally found that project management contributes to macro environmental factors in Mogadishu through Economic factors, Technological Factors and Political factors. Also, project success of the construction project may be looked at in terms of the traditional quantifiable metrics which are easy to establish. It becomes difficult in other circumstances to measure project success based on the level of quality as this is usually more subjective, however this study also takes advantage of their proximity to the extensive networks to monitor and document the behaviour of implementing parties whilst prescribing national and international action against ‘spoilers’ of macro environment efforts.

5.5 Areas of Further Research

It is proposed that future research be undertaken to replicate the study, to ensure that the ideas studies and methods employed are valid. The researcher suggests further clarification of project leaders at all levels of management and investigation into the perceived importance of managerial competencies placed on project success factors by different project leaders. It is proposed that project leaders for empirical work will be categorized, to be analyzed into groups of senior management, project core team and project recipient. This thesis recommends future work to examine success factors in depth to develop appropriate data collection and analysis methods for measuring managerial perceptions of project success for empirical research.

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APPENDICES

APPENDIX I: QUESTIONNAIRE FOR THE CONSTRUCTION PROJECT STAFF AND PROJECT BENEFICIARIES IN MOGADISHU SOMALIA

Dear Respondent,

I am .., a student of Kampala International University pursuing Master degree of in project planning and management of Kampala international university. I am collecting data on **macro environmental factors and the success of construction projects in Mogadishu Somalia**. Therefore; you have been identified as a key person to give accurate data about the study. The study is purely academic and all data provided shall be treated with confidentiality. Kindly spare a few minutes to answer the questions and provide the valuable information following the directions in the questionnaire.

SECTION A: BACKGROUND INFORMATION (Tick on the most appropriate)

1. Please indicate your gender

Male Female

2. What is your age?

19yrs or less	20-29yrs	30-39yrs	40-49yrs	50yrs and above
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3. Marital status: Single Married Widow Widower

4. What is your level of education attained?

None	Primary level	Secondary level	Certificate	Bachelor Degree	Master's degree

5. What is your designation?

CEO Project manager Project staff Community leader

6. How would you rate the success of construction project in Mogadishu Somalia?

Very successful Successful Less successful Not successful Not sure

INSTRUCTIONS

Indicate the extent to which you agree and disagree with the statements on the items in each of the section by ticking (√) the appropriate number listed in the tables.

Strongly Agree (SA)	Agree (A)	Undecided	Disagree (D)	Strongly Disagree (SD)
1	2	3	4	5

SECTION B:

A	Effect of economic factors on success of construction projects Mogadishu Somalia	SA	A	U	D	SD
A1	Economic factors enables the provision of sufficient resources as and when required					
A2	Economic factors enables good Project resource planning and controlling					
A3	Economic factors the use of efficient project-specific technology					
A4	Good financial accountability and management enables success of projects					

A5	Economic factors effects of the exchange rate on acquisition of resources					
A6	Economic factors enables efficient/timely procurement of materials and equipments					
A7	Economic factors enables good forecasting of work plan/ estimation project duration					
A8	Economic factors enables monitoring and Evaluation can lead to timely implementation of projects					
A9	Economic factors enables the right project organization structure					

What other factors do you think affect the success of projects in Mogadishu Somalia?

.....

.....

.....

.....

13. In your opinion, what do you think should be done to enhance success of construction projects in Mogadishu Somalia?

.....

.....

.....

SECTION C:

B	Technological factors on success of construction projects in Mogadishu Somalia.	SA	A	U	D	SD
B1	Technology enables productivity enhancement of the communication between project participants					
B2	Technology ensures reduction in project delays,					
B3	Technology ensures heightened awareness of project issues among all parties					
B4	Technology ease of access to and retrieval of project information					
B5	Technology avoiding delays due to the timely arrival of updated drawings and documents					
B6	Technology ensures reduction of visits to sites and travelling time to meetings					
B7	Technology ensures avoiding drawing mistakes					
B8	Technology enables the sharing and exchanging project information					
B9	Technology ensures automating repetitive routine processes					

SECTION D

No.	Effect of political factors on success of construction projects in Mogadishu Somalia	SA	A	U	D	SD
C1	Good leadership is the heartbeat of any progressive development					
C2	Nations with great leaders have made tremendous developmental projects					
C3	Servant leaders provide oversight to projects in their regions					
C4	Legislators have a great interest in how monies are spent on projects in their area of representation					
C5	Political stakeholder mapping is an important aspect in the development of a region					
C6	Community participation gives the public the opportunity to learn and gives them an opportunity to view projects development in different perspective					
C7	There is need for governments to undertake political stakeholder mapping in all community projects					

THANK YOU VERY MUCH FOR YOUR COOPERATION

APPENDIX II: KEY INFORMANTGUIDE FOR DIRECTORS & CEO'S CONSTRUCTION PROJECT AND CONSTRUCTION PROJECT MANAGERS

I am .., a student of Kampala International University pursuing Master degree of in project planning and management of Kampala international university. I am collecting data on *macro environmental factors and the success of construction projects in Mogadishu Somalia*. Therefore; you have been identified as a key person to give accurate data about the study. The study is purely academic and all data provided shall be treated with confidentiality. Kindly spare a few minutes to answer the questions and provide the valuable information following the directions+ in the questionnaire.

1. What's your gender?
2. What is your age?
3. What's your marital status?
4. What is your level of education attained?
5. What is your designation?
6. How would you rate the success of construction project in Mogadishu Somalia?

EFFECT OF ECONOMIC FACTORS ON SUCCESS OF CONSTRUCTION PROJECTS MOGADISHU SOMALIA

1. What's your view on economic factors enabling the provision of sufficient resources as and when required?
2. Could you please comment on the economic factors enabling the use of efficient project-specific technology?
3. What's your view on economic factors enables good Project resource planning and controlling
4. How good financial accountability and management enables success of projects
5. How goes economic factors effects of the exchange rate on acquisition of resources

6. How does an economic factor enable efficient/timely procurement of materials and equipments
7. How economic factor does enable good forecasting of work plan/ estimation project duration
8. How economic factors enable the right project organization structure
9. How economic factors enable monitoring and Evaluation can lead to timely implementation of projects

TECHNOLOGICAL FACTORS ON SUCCESS OF CONSTRUCTION PROJECTS IN MOGADISHU SOMALIA

1. How technology reduce project delays,
2. How technology enable productivity enhancement of the communication between project participants
3. How technology ease of access to and retrieval of project information
4. How technology ensure heightened awareness of project issues among all parties
5. How technology avoids delays due to the timely arrival of updated drawings and documents
6. How technology ensure reduction of visits to sites and travelling time to meetings
7. How technology ensure avoiding drawing mistakes
8. How technology enable the sharing and exchanging project information
9. How technology ensure automating repetitive routine processes

EFFECT OF POLITICAL FACTORS ON SUCCESS OF CONSTRUCTION PROJECTS IN MOGADISHU SOMALIA

1. How is good leadership a heartbeat of any progressive development?
2. How nations with great leaders are have made tremendous developmental projects
3. How servant leaders provide oversight to projects in their regions

4. How legislators have a great interest in how monies are spent on projects in their area of representation
5. How political stakeholder mapping is an important aspect in the development of a region
6. How community participation gives the public the opportunity to learn and gives them an opportunity to view projects development in different perspective

THANK YOU VERY MUCH FOR YOUR COOPERATION

APPENDIX III: BUDGET ESTIMATE

The study costs will total up to Ushs 1, 260, 000/=

ITEM	COST PER UNIT	TOTAL COST (UGX)
Library	50,000	50,000
Transport	200,000	600,000
Communication	50,000	50,000
Photocopy	100,000	100,000
Printing	150,000	150,000
Binding	50,000	50,000
Internet	50,000	50,000
Miscellaneous	200,000	200,000
Total		1,260,000

APPENDIX IV: WORK PLAN 2023

ACTIVITY	TIME IN MONTHS				
	JUNE	JULY	AUGT	SEPT	OCT
Proposal writing	■				
Questionnaire design		■			
Data collection				■	■
Coding and analysis					
Submission					

APPENDIX V: SAMPLE SIZE(S) REQUIRED FOR THE GIVEN POPULATION SIZES

(N)

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	266	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	10000	384

SOURCE: Krejice and Morgan (1970), Determining sample size for research activities, Educational and psychological measurement, 30,608, sage publications.