COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING

FACTORS AFFECTING SUCCESS OF PUBLIC BUILDING CONSTRUCTION PROJECTS IN FITCHE TOWN AND ITS REMEDIAL MEASURES

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REASERCH THESIS SUBMITTED TO THE DEPARTMENT OF ENGINEERING AND TECHNOLOGY COLLEGE, WOLKITE UNIVRSITY, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF BSc IN CIVIL ENGINEERING

January 2025

WOLKITE, ETHIOPIA

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BSc PROGRAM

This is to certify that the research paper prepared by group one entitled ‘’FACTORS AFFECTING SUCCESS OF PUBLIC BUILDING CONSTRUCTION PROJECTS IN FITCHE TOWN, ETHIOPIA AND ITS REMEDIAL MEUSURES ’ submitted in partial fulfillment of the requirements for the degree of BSC of in Civil Engineering complies with the regulations of the wolkite University and meets the accepted standards with respect to originality and quality.

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DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or any other university and that all sources of materials used for the thesis have been fully acknowledged.

Name: _____

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CSFs: Critical Success Factors

SPSS: Statistical Package for Social Science

ABSTRACT

The problem of success in the construction industry is a global issue. Building construction project has been adopted by a wide range of organizations, industry, commerce and government to handle their many and varied undertakings. Generally, building construction projects involve many people with different skills and professions, big sum of money, limited time and resources, and unique activities to be carried out. The main objective of this study is to investigate the factor that affect success of public building construction projects and its remedial measures in Fitche Towns, Oromia, Ethiopia. This study adopted descriptive survey research and explanatory designs. The data were collected by using standard open-ended interviews and questionnaires by means of the purposive sampling method. The data were collected from primary and secondary sources. The data was analyzed using statistical package for the social sciences (SPSS) software. The majority of the workers have a work experience more than 6 years and have acquired degree are. This study revealed that the project engineer and site engineer constitute the largest number. The response for involvement of customers throughout the project shows relatively agreement but needs improvement. The majority response showed the corporation lacks the required technology in road, building and water infrastructure projects. Generally, for the public building construction projects effectively and efficiently applying important strategy is a crucial one through considering the above mentioned variables. The conclusion is drawn that reducing of cost related factors and time related factors help projects to succeed. The researcher recommended that Contractors, consultants and clients should to put their efforts on the identified key factors in relation to their magnitudes of influence.

Keywords:

Success Factors,

Public Building Projects and its remedial measures, in Fitche Town, Ethiopia

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

Construction engineering is the advanced comes in its nature as a consequence, it contains an oversized variety of parties as clients, contractors, consultants, stakeholders, shareholders, and regulators, this parties is by moving the performance of the building construction comes and factors like time factor, cost factor, quality factor, client satisfaction factor, productivity factor, health and safety factor. Building industry plays a serious role in development and achievement the goals of society. The performance of the development industry is suffering from national economies. Therefore, success is related to many factors such as time factor, cost factor, quality factor, client satisfaction factor, productivity factor, and health and safety factor (Siddharth et al., 2015).

Building construction project has been adopted by a wide range of organizations, industry, commerce and government to handle their many and varied undertakings(Lepartobiko, 2012). Generally, building construction projects involve many people with different skills and professions, big sum of money, limited time and resources, and unique activities to be carried out. Therefore, managing a construction project becomes quite complex and different than managing industries, since the former has a dynamic nature. Projects are desirable to be completed within the time frame and budgeted cost. But unfortunately, many projects take longer time to complete and consume cost more than necessary because of lack of professional skills in the area and other various factors directly and/or indirectly related with it. In most developing countries this problem is more aggravated than those developed ones; as a result, many project-sponsoring organizations are discouraged to sponsor projects in these poor countries.

One way of learning more about project management in developing country is studying the reasons for failure. The success or failure of project in developing countries depends heavily on national contexts, policies and strategies. Most of development activities have been implemented in a compartmentalized manner and in some cases even without consultation of stakeholders. Additionally, any developing economy is also influenced by international conditions and policies of other country and international organizations(DEGEFA, 2019).

The study of project success and success factors are usually considered as ways of improving the efficiency and effectiveness of projects generally. Although the concept of project success has continuously remained ambiguous in the minds of professionals within the construction industry(Saqib et al., 2008). The term "critical success factors" in the project management parlance was first used by (Rockart et al., 1982), which implies those factors that are capable of predicting the success of projects (Saqib et al., 2008). Success factor are few factors or variables that a manager should pay more attention to in other to achieve his/her stated goals. These key factors/variables can be used in planning an organization's activities and processes towards helping to improve effective communication amongst the managers.

Construction projects have problems with construction techniques and remedial measures as well as limitation of funds and time. The critical problems are inability to complete the projects

(Helen, 2016) in her study undertaken in Akure revealed that the top ten most important factors influencing the performance of construction projects are: delay in progress payment to Contractors, Client's interference during construction, Client's inability to brief the project objectives and escalation of materials prices. Other factors were Client's experience whether it is sophisticated or specialized; complexity of project; motivating skill of the project team leader; project team leader experience; Contactors commitment to ensure construction work is carry out according to arrangement as well as Client's inability to make project decision. Additionally, (Ludwig R., and Hilario B.,2020) found that lack of an skilled construction manager, poor planning/scheduling, influence on people's land alongside road construction project, poor interaction among construction parties, everyday changes in design, equipment shortage, force majeure, contract reform, delays in accomplishment of progress billing, construction materials limit, payment delay to contractors, and poor labor productivity are ten most frequent causes of delay in Road Construction Projects across 25 Developing Countries. Additionally, Ethiopian researchers (Robel, 2015) and (Werku, 2016) have identified that delay is caused by clients, consultants, designers, contractors, suppliers and the like. Therefore, the purpose of this study was to systematically examine the factors affecting the success of public building projects in Fitche Town.

1.2. Statement of the Problem

Ethiopia as a country has witnessed a substantial increase in the number of delayed projects due to in appropriate project organization structures and ineffective leadership. There is evidence that the success of the building construction in Oromia Region, Ethiopia is poor as time, cost and quality factors of projects are to the extent that over 70% of the projects initiated are likely to escalate with time with a magnitude of over 50% and over 50% of the projects likely to escalate in cost with a magnitude of over 20%**.** It was discovered that despite the high quality of training of consultants in the building industry and regulation of the industry in major urban areas, construction projects do not always meet their goals(DEGEFA, 2019). This is manifested by myriad projects that have cost overrun, delayed completion period and poor quality resulting to collapsed buildings in various parts of the country, high maintenance costs, dissatisfied clients and even buildings which are not functional. Previous studies indicated that the failure of any project is mainly related to the problems and failure in success factor compilation(Ndulu, 2006). Generally, past Ethiopian construction industry experiences show that, medium to large size projects have high failure rate. The consequences can be costly and lengthy, with the worst outcomes often leading to undesirable litigation engagements. Developing countries have higher rate of low project compilation than developed countries(Lepartobiko, 2012). However, less research has been conducted to explore what are the critical factors that affect project performance in the actual project, i.e. their occurrence, manifestation and in what ways they affect the actual project. This study tries to fill this gap, especially in the context of study area.

This research assessed factors that affecting the success of public building construction projects in Fitche Town in order to assist owners, consultants and contractors to overcome cost, time, and quality and leadership problem and to improve factors of their construction projects.

While a body of research exists that identifies major causes of project delay and further literature identifies a range of success factors, no research was found to exist which illustrated the success factors for the performance of construction projects in Ethiopia, and how knowledge of this may allow the delivery of more successful projects. Constructions projects are frequently influenced by success factors', which can help project parties, reach their desired goals with greater efficiency. These gaps in the research have motivated the current study. Therefore, this study is helpful to identify many success factors that influence project success and to find out the factors

that contribute a lot for successful performance of projects in the public building construction with emphasis to public building constructions found in Fitche Town.

1.3. Research Question

- What were the major success factors for public sector construction project delivery in Fitche Town?
- What were ranks of identified success factors in orders of their importance?

1.4. Objectives of the Study

1.4.1. General Objective

The general objective of this study is to identify the factor that affect success of public building construction projects in Fitche Town.

Specific Objectives

The Specific objectives of this research are:

- To identify success factors for public sector building construction projects
- To rank the identified success factors in orders of their importance
- Reviews the success of projects against already established success criteria

1.5. Significance of the Study

The aim of this research is to identifying the critical factors affecting the success of construction projects and its remedial measures in Fitche Town. The outcome of this research is helpful in real- time monitoring of on-going construction projects and decision making for timely minimization of losses. Moreover would be helpful for the contractors to become attentive of the critical factors that needed to be given importance for the success of a project and to prepare competitive construction strategy. Project controls are an area with a growing body of knowledge, this research makes an effort to contribute towards the body of knowledge with a particular emphasis on construction practices being currently implemented. Even though the research focuses on construction projects, the findings and the outcome could be relevant to practitioners in other industries with particular emphasis on the various stages involved in project controls. Moreover, the study is beneficial to project managers, consultants, personnel who may involve in such construction project by identifying which factors determine the success or failure

of the project. Also, the results of the study will have great importance in assisting construction project companies to identify which success factors are critical in construction projects. The findings of the study also help the policy makers, planners, researcher, as an input for further investigation.

1.6. Scope of the Study

The researcher used descriptive research design and quantitative research method and linear regression analysis. Questionnaire and document review was used for the study. Fitche town was considered for the study. The study was focused on public building projects which were under construction during data collection for the sake of getting relevant information.

1.7. Organization of the Thesis

This thesis was organized into five chapters. The first chapter was the introductory part of the study which consists of background of the research, statement of the problem, research question, objectives, significance, scope and limitation of the study. The second chapter deals with related review of literature relevant to this study. The third chapter discusses the research methodology. The collected data from the subject of the study were carefully analyzed and interpreted under the

fourth chapter. The fifth chapter presents summary, conclusions and recommendations on the findings of the study. Reference and appendix which included questionnaire were also be part of this study paper.

CHAPTER TWO

2. LITERATURE REVIEW

2.1. Background of Construction Projects

A project is defined as a temporary endeavor (that has definite beginning and end time) undertaken following specific cycle of Initiation, Definition, Planning, Execution and Close to create a unique product, service, or result through novel organization and coordination of human, material and financial resources. A project has a defined scope, is constrained by limited resource (time, budget), involves many people with different skill and, usually progressively elaborated throughout its life cycle. It is a sequence of unique, complex, and connected activities that have one goal or purpose and that must be completed by a specific time, within budget, and according to specification. In general, a project is a unique, well-defined effort to produce specified results within a set timeframe, at a given cost, in a multifunctional environment and under special management. Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements(Burke, 2013).

Construction is an act or a process of constructing. It consists of a series of actions to produce either a new set of buildings and infrastructure or may involve alterations in the existing buildings and infrastructure (Radosavljevic & Bennett, 2012). Construction projects can be considered as the largest business in the world. Growth during this industry, in reality, is an indicator of the economic conditions of a country. Since, most construction comes exhibit value overruns, time extensions, and conflicts among parties and dereliction in the safety and quality sector. Design to control practical information for reaching the project objectives is a significant component of project management. The project management is the planning, organizing, directing, and controlling of company resources to achieve specific goals and objectives. In the project management which are cost, time and performance are the main objects, but in the construction project management its cost, time and quality which did not change fundamentally. Therefore, in the construction industry management is one of the most important factors affecting the performance of works.

2.2. Construction Management and Performance

In the construction industry, Success of construction projects depends mainly on the good performance in the projects. Inappropriately managed the estimation and coming up with, scheduling, value management, and budget management, resource allocation, collaboration package, communication, quality management, and documentation or administration system and quality of field data is that the essential issue influencing the performance of the public-funded construction comes(Onjure & Wanyoike, 2016). The essential factors influencing the success of comes are known and unremarkably associated with the subsequent areas: project (e.g. clear goal, realistic schedule, adequate funds, resources, size, complexity), project manager and leadership (e.g. leadership, management of changes, effective conflict resolution, communication), project team members (e.g. communication, technical background, qualified team), organization (e.g. high management support, responsibility and authority chart) and external setting (client, technological setting, political setting, social setting, physical environment) (Lamprou & Vagiona, 2018).

The factor affecting of the performance of construction project that is agreed by the owners, consultants, and contractors in Libya are escalation of material prices; availability of resources as planned through project duration; average delay thanks to closures and materials shortage; convenience of personals with high expertise and qualification; quality of equipment and raw materials in project; and leadership skills for project manager(Ali Elhaniash & Stevović, 2016).

2.3. Factor Affecting of success in Construction Projects

A several of studies have been conducted in regard to delays in construction projects for decades with scholars advancing various factors and groups of factors that contribute to causing delays. Available literature reviewed indicate categorization of the various factors in groups of up to eleven(Arditi et al., 1985). Categories of consultant-related, contractor - related, design-related, equipment-related, externality - related, labour-related, material-related, owner-related, project-related, engineer-related and human-behaviour related among others.(Doloi et al., 2012)

2.3.1. Cost Factor

The cost has been addressed by many researchers as a very important success criterion, whereas, budget plan and proper cost estimation has been mentioned as prominent success factors. As

suggested by the experts, the four areas that are highly relevant to project cost control are interim payments, variation orders, cost and prolongation claims, and final account forecasts(Ahadzie et al., 2008).

2.3.2. Time Factor

Time or schedule as one of the most important project success criteria for any project. Time has been self-addressed as a criterion by that to gauge a project's degree of success(Cleland & Gareis, 2006). It is conjointly been mentioned as an element, which may facilitate the opposite factors/criteria be met. It is found in this study that the definition of “Time” is of great importance. "Time" as the date when a project is most likely to end can be criteria, but "Time" as a manageable component might be considered as a factor.

2.3.3. Quality Factor

Quality management method as a project success issue that facilitates the success of alternative criteria and factors(Al-Shaaby & Almessabi, 2018).

2.3.4. Client Satisfaction Factor

Several studies have identified owner related delay factors to cause schedule delays. For instance study conducted in Nigeria concluded that Clients’ cash flow problems, variation orders and slow decision making were critical factors for building projects(Aibinu & Odeyinka, 2006). In a separate study, revealed that lack of incentive for contractors for early finish and slow decisions from owners were critical(Doloi et al., 2012).another study conducted in Saudi Arabia identified lack of finance to complete the works and slow decision making by the owner as having greatest impacts to delays(Al-Khalil & Al-Ghafly, 1999). According to study conducted in Turkey, it were identified delay in payments to contractor and frequent change orders had the greatest effect(Arditi et al., 1985). Another study conducted in Saudi Arabia recognized the owner related delay factors as; delay in progress payments by owner, delay to furnish and deliver the site to the contractor by the owner, change orders by owner during construction, late in revising and approving design documents by owner, delay in approving shop drawings and sample materials, poor communication and coordination by owner and other parties, slowness in decision making process by owner, conflicts between joint-ownership of the project, unavailability of incentives for contractor for finishing ahead of schedule and suspension of work by owner(Assaf & Al-Hejji, 2006).

It is worthwhile to note that stakeholders' satisfaction is sometimes paraphrased as satisfying stakeholders' needs or meeting stakeholders' expectations. Major contribution to unsuccessful projects is the lack of understanding or defining project and product scope at the start of the project. A properly defined and managed scope leads to delivering a quality product, in a controlled cost and within specified schedules to the stakeholders(Mirza et al., 2013).

2.3.5. Productivity Factor

Inconvenience of materials, late payment of salaries and wages, suitability/adequacy of plant and instrumentation, superior incompetence, and lack of workforce skills, at the highest five most vital factors striking on labor productivity in Zimbabwe(Chigara & Moyo, 2014). An adequate work coming up with the economical resource procurable systems, timeouts payment of salaries and continuous skilled development for employees, area unit amongst the counseled intervention methods to enhance on-the-scene labor productivity

2.4. Empirical Review

This part of literature review was discussed related articles and journals to the topic under study. In 2011 Ogwueleka defines the success factors are as inputs to management system which can lead

directly or indirectly to project success. It tries to investigate the critical success factors influencing

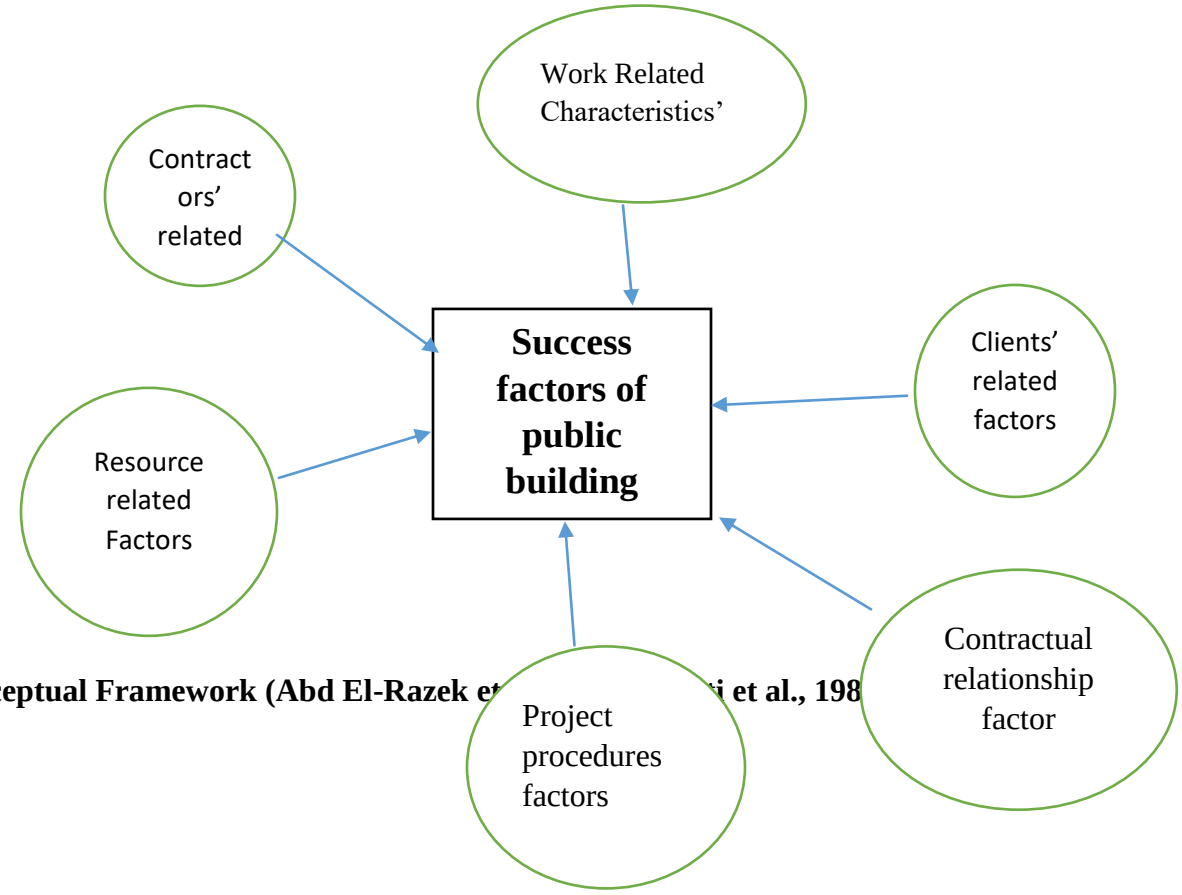
success public building project in Ethiopia. Fourteen success factors were selected from the literature for the research with sample size of different professionals. The data obtained from the questionnaire are analyzed using frequency and severity

(Enshassi et al., 2009) in his thesis on factors affecting the performance of construction projects in the Gaza Strip, found out that the most important factors agreed by the owners, consultants and contractors were: average delay because of closure and materials shortage, availability of resources as planned through project duration, leadership skills for project manager, escalation of material prices, availability of personals with high experience and qualification and quality of equipment and raw materials in project. Study carried out in Vietnam on factors affecting construction project outcomes discovered that major enablers that lead to project

success are foreign experts' involvement in the project, government officials inspecting the project and very close supervision when new construction techniques are employed.

2.5. Conceptual Framework

This research work focuses on the assessment of factors that affecting success of public building Projects. The following picture depicts the overall conceptual framework so as to demonstrate the relationship between dependent and independent variables.



Conceptual Framework (Abd El-Razek et i et al., 198

CHAPTER THREE

3. METHODOLOGY OF THE STUDY

3.1. Description of the study Area

The Fitche town is located 112 km north of Addis Ababa, the capital city of Ethiopia, on the asphalt road connecting Addis Ababa to Gojam. It is located between 9°05' and 10°23'N latitude and 37°57' and 39°28'E longitude. The zone has 16 rural districts, three administrative towns (Fitche,Gabra Guracha and Chancho), 18 towns, and 267 rural and 24 urban kebeles. Its altitude ranges from about less than 1000m to over 3540m. Its annual rainfall is from 600 - 2000mm. Fitche Town has total population of 12, 5000. The average minimum temperature is 10°C and the maximum temperature is 32°C(Wondrade et al., 2014). Various public building is constructed in Fitche Town every year. Currently there are three schools, three-health post, four shallow well to serve 18750 people, one deep well to serve 20000 people.

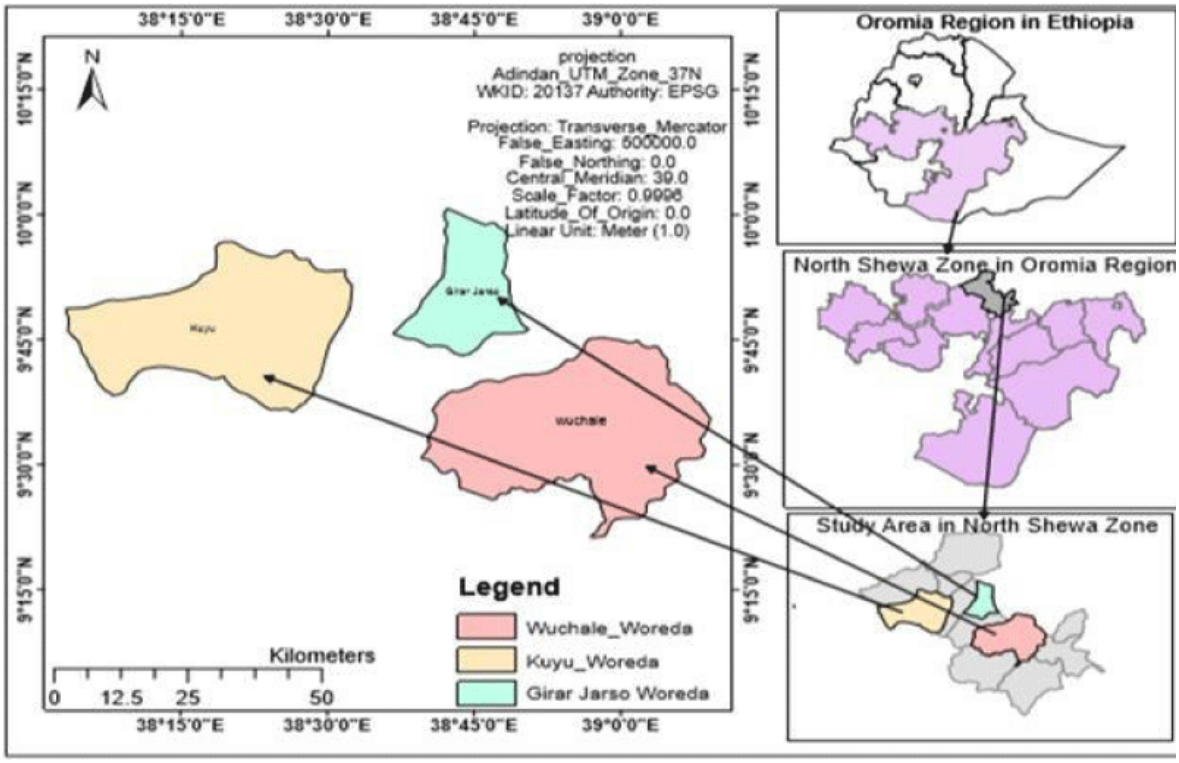


Figure 3. 1: location map of study area

3.2. The Research Design

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with in procedure. In fact, the research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, investigation and analysis of data (Kothari C.R, 2004). This study adopted descriptive survey research and explanatory designs. A descriptive study design was used, the major purpose of descriptive research was description of the state of affairs as it exists at present. Then this study described and critically assessed the factor affecting the success of public building projects in Fitche town. Totally 50 sample respondents were selected.

Purposive or judgmental sampling enables to use judgment to select cases that will best enable to answer the research questions and to meet the research objectives (Saunders,et al, 2009). The researcher believed that taking the project management team and engineering professionals as a respondent would provide the necessary information regarding project management practice, success and failure story of the projects.

3.3. Research Approaches

Quantitative and qualitative research approaches were used in this research. In quantitative research, samples of a population were studied (observed or questioned) to establish its characteristics, in short, a quantitative approach attempts to produce “real answers” from “hard data”. Therefore, in this research, both approaches were used.

3.4. Sources of Data

There were two types of research data source primary and secondary data source. The primary data was used in this study and collected through a questionnaire survey. The secondary data was used in this research and obtained from the organization project and construction report papers. A questionnaire was designed from literature review of various factors affecting performance of construction projects and from secondary data sources to identify the most important factors that affect construction projects success in Fitche town.

3.5. Target Population

The population of the study comprised of the stakeholders involved in public building projects; as owners, contractors, clients, workers who were involved in construction projects during study time considered.

3.6. Sampling Strategy and Techniques

For this study the critical factors that determine the successful performance of public building projects were identified from the projects undertaken by Fitche Town. All building, schools and water infrastructure projects are the population of the study. Currently there are three schools, three-health post, four shallow in Fitche Town. Out of employees of management team and engineering professionals of the project, 5 respondents were selected by using purposive sampling technique from each project.

3.6.1. Data Sampling

The data were collected by using standard open-ended interviews and questionnaires. The sample size for this study determined purposive sampling method for quantitative aspects. The data was collected from primary and secondary sources. Primary sources using standard open- ended interviews and questioners. Secondary sources from bid documents, and project completion report and etc.

3.6.2. Data collection

The data were collected from primary and secondary sources. Primary sources using standard open- ended interviews and self-administered questioners. Secondary sources from bid documents and project completion report and etc

3.7. Instrument Development

A questionnaire was designed from literature review of various factors affecting success of building projects and from secondary data sources to identify the most important factors that influence building projects implementing. The questionnaires were divided into three sections: Part A which seeks to establish general details of the respondent, Part B which contained factors affecting performance of construction projects grouped into seven includes: project

characteristics related factors, labor and material related factors, contractual relationship, project procedures, external environment, clients' related factors and contractors' related factors and Part C which contained respondents judgment on overall performance of the executed construction projects in lieu of the above factors

3.8. Reliability and Validity of the Instrument

Reliability estimates the consistency of the measurements or more simply, the degree of uniformity of the results obtained from repeated measurements. For this purpose, the quality of data was measured, evaluated and guaranteed using appropriate techniques. The data quality was assured and measured through internal validity instrument in to correct research instruments application for accurately measuring the variables during the data collection procedures. Besides, data consistency was checked using reliability test (Cronbach's Alpha methods). According to Sekaran (2010), reliability less than 0.6 are considered to be poor, those in the 0.7 range, acceptable, and those above 0.8 are good. The closer the reliability coefficient gets to 1.0, the better.

Validity is the degree to which the sample of the test item represent the content that is designed to measure. The research adopted content validity that refers to the extent to which a measuring instrument provides adequate coverage of the topic under study. To ensure content validity, the instruments was reviewed to enabling the content to address the purpose and avoided ambiguity. This ensured that all respondents understood the content on the questionnaire.

Table3. 1: Reliability analysis for success factors under study.

S/no	Success factors	No. items	Cronbach 's alpha
1	Overall Project goals/objectives	15	0.732
2	Customer /end users of the project / satisfaction	15	0.804
3	Safety and health	15	0.77
4	Technical task\competency	15	0.77
5	Top management support	15	0.74
6	Project planning and scheduling	15	0.80
7	Resources	15	0.71

8	Favorable working condition	15	0.87
9	Monitoring, evaluation, and feedback	15	0.72
10	Communication	15	0.76
11	Client support	15	0.78
12	Consultant	15	0.80
13	Project manager competency	15	0.77
14	Team management	15	0.89

3.9. Data Analysis

The success factors were categorized into two. One category includes factors which help to assess whether the project management profession as a whole viewed the adequate description of the factors which lead to project success. Second category is factors which help to benchmark the extent to which the factors are in place in the delivery of current projects. The importance rating for each factor was scored on a scale of 1 to 10 with 1 having the lowest importance and 10 the highest. The data was analyzed using statistical package for the social sciences (SPSS) software. Statistical analysis was conducted including descriptive analysis. The criticality index for each factor will be determined based on (Table 2) (Saqib et al., 2008).

Table3. 2: show Criticality Assessment Criteria

Mean Factor Score Range	**Criticality Index**	**Criticality Level**
1.0 – 2.5	1	Least significant towards project success
>2.5 – 5.0	2	Mildly significant towards project Success
>5.0 – 7.5	3	Moderately significant towards project Success
>7.5 – 10.0	4	Most significant towards project success

After analysis for success factors (with respect to their mean criticality indices), they were ranked in descending order of critical.

CHAPTER FOUR

4. RESULTS AND DISCUSSIONS

4.1. Introduction

This chapter deals with presentation, analysis and interpretation of data obtained through questionnaire, interview and document review. The results of the study are presented in the form of figures and tables by using Statistical Package for Social Science Version 26 (SPSS 26). The data was obtained from progress report of the projects, client and consultant progress report of projects and from interview of clients, consultant and contractor representatives. The questionnaires were distributed for 50 participants.

4.2. Characteristics of Sample Respondents

Description of the characteristic of the target population gives some basic information about the sample population involved in the study. Thus, the following tables contains about the general and educational characteristics of respondents in the study area.

Table4. 1 Socio-Demographic Characteristics' Of Respondents

Variable		Frequency	Percent	Valid Percent	Cumulative Percent
Age	20-29	14	28	28	28
	30-39	23	46	46	74
	40-49	10	20	20	94
	>50	3	6	6	100
	Total	50	100	100	
sex	Male	43	86	86	86
	Female	7	14	14	100
	Total	50	100	100	
Level of education	Diploma	21	42	42	42
	BSc/BA	24	48	48	90
	MA/MSc and above	5	10	10	100
	Total	50	100	100	

Source: Author's Survey, 2024

As shown in the above table out of the total 50 respondents, 43(86%) were male and 7(14%) were female. This implies that the number of male respondents were greater than females' respondents who participated in the study. The basic cause of this is the participation or involvement of females as of engineering professionals and in the management team of projects is small as compared to males. Regarding age of respondents out of the total 50 respondents, most of them were found between 30-39 age range, were as least were above 50 years.

With respect to educational level, respondents who have acquired degree are 24 (48%), at Master's level are 5 (10%), and Diploma holder are 21 (42%). This shows that the majority of The respondents are degrees.The academic qualification of the respondents indicating that the respondents are well qualified to understand and respond to the factors and issues under study. In addition, this indicates the corporation obtains qualified personnel. As a result, there shall be a good opportunity for the project to utilize the qualification of its staff to the realization of its objectives.

Table 4. 2 work Related Characteristics' Of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Work experience	less than 5	13	26	26	26
	6-10 year	24	48	48	74
	11-15 years	10	20	20	94
	above 15 years	3	6	6	100
	Total	50	100	100	
Area of experience	more of building	15	30	30	30
	more of water infrastructure	16	32	32	32
	road infrastructure	13	26	26	26
	design work	4	8	8	8
	other(specify)	2	4	4	4
	Total	50	100	100	100
Working position	project manager	8	16	16	16
	HR manager	4	8	8	24
	Project engineer	14	28	28	52
	site engineer	12	24	24	76

	Supportive staff	2	4	4	80
	office engineer	5	10	10	90
	other project personnel	3	6	6	96
	engineer staff at the sector	1	2	2	98
	supportive staff at the sector	1	2	2	100
	Total	50	98	100	

Source: Author's Survey, 2024

In terms of work experience of respondents 13(26%) have below 5 years of experience. However, the majority 14(48%) have a work experience more than 6 years. As a result, it can be inferred that the projects have experienced staff that easily mention the problems of project performance and suggest possible solutions to overcome the problems.

The current working positions of the respondents' shows that the project engineer and site engineer constitute the largest number 14(28%) and 12(24%) respectively. This shows that the sample respondents are from different occupational level can better understand the performance of projects.

4.3. Factors affecting success of public building projects

To get opinion of project staffs and concerned bodies of projects about the factors for effective success of public building projects fourteen factors are identified from different literature and were forwarded to respondents. The analysis of response of respondents presented as follows

table4. 3: Knowledge of overall Project goals (objectives)

S/no	Statements	Mean	SD
1	Overall Project goals and objectives are clear	3.08	0.966
2	Roles and responsibilities of stakeholders are clearly defined	3.22	0.910
3	Project goals were attainable with in the time frame	3.36	1.005
	Grand mean and standard deviation	**3.11**	**0.778**

Source: Author's Survey, 2024

As presented in the table 3 the mean and standard deviation scores of the respondents for most items under knowledge of project goal ranges from (3.08 and 0.966) up to (3.36 and 1.00).

From which, for the second two variables the mean scores are more than the grand mean of 3.11, showing agreement by more participants. This implies the time estimate during goal setting were unrealistic.

Table4. 4: Customer (end users of the project) satisfaction

S/no	Statements	Mean	SD
1	Customers were clearly defined	3.36	1.025
2	Customer were adequately involved throughout the project	3.18	0.941
3	Customers are satisfied in the performance of the project	2.46	0.997
4	The customer requirement clearly communicated before the project began	2.18	1.024
	Grand mean and standard deviation	**3.22**	**0.790**

Source: Author's Survey, 2024

To assess customer satisfaction four variables are included in the study. As presented on the table 4 the grand mean and standard deviation is 3.22 and 0.790 respectively. Most of respondents show agreement in defining of customer. The response for Involvement of customers throughout the project shows relatively agreement but needs improvement. However, satisfaction of customers on the performance of the projects and communication of customer requirement before the project began response shows disagreement. This is because the mean and standard deviation of both variables are below the grand mean of 3.22.

table4. 5: Safety and health management

S/no	Statements	Mean	SD
1	The project risks related to Safety and health are clearly identified in the project plan	2.94	.096
2	The identified project risk of Safety and health is clearly communicated among all the project teams	2.94	.935
3	Risk mitigation plan is prepared and communicated among project Staff	3.16	1.017
4	All the safety materials /personal protective equipment's/ are fully	3.20	1.088

	available for the concerned project staff		
5	All safety policy, directives and other working procedures or manuals are in place	3.14	1.010
6	Safety engineering department and experts are available on the Project	2.94	1.018
	Grand mean and standard deviation	**3.05**	**0.731**

Source: Author's Survey, 2024

Health and safety processes play a vital role in minimizing the number of risks on a construction site and, as such they should be implemented from the start. Having proper health and safety measures in place and making sure the workforce is aware of these measures enables: -

Risks associated with the working condition can be reduced significantly. If it is not properly, managed business could lose a significant amount of person-hours and productivity, which can affect the profitability of the company. Significantly reduces the chances of risk occurrence and having effect on the business productivity. At the same time keeping the working team happy and healthy. It also improves the productivity and quality of the product. Therefore, Proper management of workers Safety and health plays important role for successful performance of projects.

To assess the practice of proper safety and health management at projects six variables are included in the questioner. The grand mean and standard deviations are 3.05 & 0.731 respectively. Out of six variables, three variables (All safety policy, directives and other working procedures or manuals are in place, the identified project risk of safety and health is clearly communicated among all the project teams, and risk mitigation plan is prepared) scores mean and standard deviation greater than the grand mean. This shows relatively good practice. However, the mean score of the rest three variables are below the grand mean. This indicates there is poor performance in making personal protective equipment's, poor or lack of legal documents, and not assigning of safety engineers at project site. Since the corporation the largest public construction companies need to have the legal documents of health and safety.

Table 4. 6: Technical Task (Competency)

S/no	Statements	Mean	SD
1	The required technology is available in the project/corporation	2.98	1.00
2	The project manager has sufficient experience, technical knowledge and skill	3.16	0.969
3	The other project personnel's have enough knowledge to operate with the existing technology	3.26	1.139
	Grand mean and standard deviation	**3.12**	**.859**

Source: Author's Survey, 2024

To assess the practice of technical competency three variables were included in the study. The technical competency. Grand mean and standard deviation are 3.12 and 0.859. The mean for availability of the required technology in the project (corporation) is 2.38, which is below the grand mean shows poor in possessing the required technology that is necessary for effective performance of projects. Whereas of the other two variables are greater than the grand mean shows better performance.

The majority response shows the corporation lacks the required technology in road, building and water infrastructure projects. To fill this gap the corporation uses rental mechanism to solve the shortage of construction machinery and equipment. The management of rental machinery and equipment by itself a headache and is one of the sources of rental customers dissatisfaction and hindering the better performance of projects.

Table 4. 7 Top Management Support

S/no	Statements	Mean	SD
1	top management supports the project with commitment and encouragement	3.30	1.035
2	The top management assigned strong, clearly identified the project Leadership	3.40	1.010
3	Strong Project Monitoring and feedback given by top management	3.40	.857
4	Top management's enthusiastic support to the project manager (PM) and project team at site	3.18	1.119
5	Delegating authority to project manager by top management	3.36	1.083
	Grand mean and standard deviation	**3.32**	**.758**

Source: Author's Survey, 2024

To assess the support of top management to projects five variables are be part of the study. The grand mean is 3.32. Out of five variables, two variables score the mean value less than the grand mean. This implies poor Project Monitoring and feedback giving practice & poor enthusiastic support to the project manager (PM) and project team at site. However, the mean score of the rest three variables are greater than the grand mean shows better top management support.

According to the interview especially with the road and water sector top management representative assures that monitoring and evaluation of project is not satisfactory and not regularly done. To undertake continuous and periodic project monitoring, the issues, which were raised by projects in the past monitoring time, have to be solved before the next monitoring. But solving of project problems' (issues) was poor at the head office. This did not encourage to regularly monitoring projects. The practice of giving feedback regularly is also poor. This is not encouraging to monitor projects without solving the problems of projects. The supporting problems of the head office basically were poor supplies of resource, and finance. The resources are mainly factory materials, construction equipment's, and machineries.

Table4. 8: Project Planning and Scheduling

S/no	Statements	Mean	SD
1	The project plan consists of clear work item with budget	3.54	.994
2	The plan included methods and frequency of communication among stakeholders and other personnel	3.52	.974
3	The project plan incorporates monitoring and evaluation activity	3.44	1.013
4	The project has realistic time schedules that is achievable	3.33	1.015
	Grand mean and standard deviation	**3.45**	**.749**

Source: Author's Survey, 2024

Planning and scheduling practice of the construction projects were part of the study. The assessment shows the grand mean is 3.45. The response for the practice of project plan consists of clear work item with budget shows positive response.

Table4. 9: Resources Management

S/No	Statements	Mean	SD
1	All the required resources are available on time	3.16	1.131
2	There is availability of skilled personnel	3.04	.968
3	The project deploys sufficient resource planning to obtain adequately skilled resource for the job	3.13	.926
4	The procurement process is efficient to deliver the material or service on time	3.26	1.157
	Grand Mean and Standard Deviation	**3.14**	**.863**

Source: Author's Survey, 2024

Project resource management is the processes of planning the resources necessary to meet the objectives of the projects, and to satisfy the clients' requirement. Without proper resource management, projects can fail behind schedule, or can become unprofitable. The objective here is to ensure the adequate and timely supply of resources and at the same time maximizing the

utilization of resources between projects. With regard to these four variables are included to assess resource management practice of the corporation/projects. The analysis shows the grand mean of 3.13, which shows good performance of resource management.

Table4. 10: Favorable Working Condition

S/no	Statements	Mean	SD
1	Favorable climatic condition at the site	3.14	1.195
2	Favorable social environment	3.14	1.107
3	Favorable political and economic environment	3.10	1.147
4	Favorable camping accommodation for employees	3.26	1.065
	Grand mean and standard deviation	**3.16**	**.829**

Source: Author's Survey, 2024

For the sake of this study four factors assessed are favorable climatic condition at the site, favorable social environment, favorable political and economic environment and favorable camping accommodation for employees. As shown on the above table the grand mean is 3.16. The mean score of one variables Favorable camping accommodation for employees are slightly above the grand mean. However the mean score for favorable social, political, climatic condition at the site and economic environment (3.14& 3.10) are below the grand mean.

Table4. 11: Monitoring, Evaluation and Feedback

S/no	Statements	Mean	SD
1	There is a regular and careful progress (time, scope, and cost) monitoring and review throughout the project	3.92	.804
2	There is a necessary report on the project performance relative toestablished objectives (e.g., budgets, cost, and quality)	3.32	1.115
3	Corporation gives periodic feedback on project performance & takes corrective action.	3.52	.974
	Grand mean and standard deviation	**3.36**	**.937**

Source: Author's Survey, 2024

Monitoring is the day-to-day management task of collecting and reviewing information that reveals how an operation is proceeding and what aspects of it, if any, need correcting. It is a continuing function that uses the systematic collection of data on specified indicators to inform management and the main stakeholders of an ongoing projects operation of the extent of progress and achievement of results in the use of allocated resources and budgets. Evaluation is the systematic and objective assessment of an on-going or completed projects operation, its design, implementation and results. The aim is to determine the relevance and fulfillment of objectives, as well as efficiency, effectiveness, Impact (overall Goal) and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons into management decision-making. Three variables are included to assess the practice of monitoring and evaluation. As shown on the table below the grand mean is 3.36. The reporting of project performance mean score is 3.32 below the grand mean implies poor reporting practice.

Table4. 12: Communication Management

S/no	Statements	Mean	SD
1	The communication plan is in place in the project/corporation	3.22	.932
2	There is effective communication between project stakeholders, team, and personnel	3.22	.954
3	There is a clear and easy channel of communication	3.46	1.014
	Grand mean and standard deviation	**3.30**	**.732**

Source: Author's Survey, 2024

Project Communication Management Are the processes that are required to ensure timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring, and the ultimate disposition of project information. Importance of Communications Management are the project manager should effectively and efficiently communicate with stakeholders, managing communications is very vital for any project and a failure in communication can have a negative impact on the project. Project managers spend most of their

time (about 90%) communicating with team members and other project stakeholders internal or external to the organization. To assess management of communication three variables are included in the questioner. The grand mean is 3.30. The clear and easy channel of communication are greater than the grand mean.

Table4. 13: client Support

S/no	Statements	Mean	SD
1	There is periodic project Monitoring, evaluation and feedback by Client	3.32	.999
2	Clients solved any compensation issues	3.32	1.019
3	Client support the project by assigning representative at the project site	3.24	.981
4	Client interference in the project work is Supportive	3.28	.882
	Grand mean and standard deviation	**3.29**	**.746**

Source: Author's Survey, 2024

A client is anyone who has construction work carried out for them. A close relationship between client and contractor is important for any construction project success. A good working relationship should be based on trust and understanding between all parties and if managed correctly beneficial to both parties. Client relationship not managed appropriately it can have a detrimental effect on the relationship and costing both time and money.

Client's project monitoring, evaluation and giving feedback to contractor initiate contractor to be more focused on the project work. As shown on the table below the grand mean is 3.29.

Table4. 14: Consultant

S/no	Statements	Mean	SD
1	The project has detailed feasibility study that is realistic to the project situation	3.46	.885
2	Consultant Submit complete design & specification	3.36	1.002
3	Consultant Solve any design & other consultant related problems on time	3.14	1.030
4	Consultant estimate of contract schedule & work volume is realistic	3.34	1.042
5	Consultant staff is fully authorized to solve problems on the project site	3.46	.994
	Grand mean and standard deviation	**3.34**	**.724**

Source: Author's Survey, 2024

Feasibility studies are preliminary studies undertaken in the very early stage of project. The purpose is to establish whether the project is viable, identify feasible option, etc. The assessment carried by consultant companies and the client decide whether to proceed to the next stage. Five consultants' related factors are included in the study. The grand mean is 2.36.

In the interview with the consultant of water project, the time given to undertake detailed feasibility study was not enough and we were forced to prepare a feasibility study that was not fully describe the project. This is the source of design problem also. However, in the road and building projects the problem is minimal. The reason mentioned for this problem were initially projects were initiated as a fast track projects by political leaders (water projects) and in building projects the problem is basically clients and consultants own problem.

Table4. 15: Project Management

S/no	Statements	Mean	SD
1	PM has strong Coordinating ability and mutual relationship with his team members, client, consultants and subcontractor	3.46	.994
2	Project manager's has authority to take financial decision, selecting key team members, etc	3.40	.948
3	PM is Effective in monitoring and giving Feedback	3.32	.978
4	PM Coordinating ability and mutual relationship of with top management is strong	3.46	.908
5	Project manager's has good technical Capability	3.18	1.082
6	PM delegate authority to various members of his team	3.22	1.130
7	Developing and maintaining a short and informal line of communication among project team	3.32	1.058
	Grand mean and standard deviation	3.33	.684

Source: Author's Survey, 2024

In this study, I have tried to get information regarding the reasons why project manager leaves a project. It is recommendable managing projects by one competent project manager from initiation up to closing of project. Rather when one project manager leaves a project, the replacement of the new project manager is costly for contractors. In terms of this the rotation or leaving of project manager is common in public building project.

To assess the competency of project manager seven variables are included in this study. The grand mean is 3.33. PM has strong Coordinating ability and mutual relationship with his team members, client, consultants and subcontractor, Project manager's has authority to take financial decision, selecting key team members, etc, PM Coordinating ability and mutual relationship of with top management is strong have the mean score greater than the grand mean. This shows the corporation has project managers with good competency.

Table4. 16: Team Management

S/no	Statements	Mean	SD
1	There is a culture of team work in the project/corporation	3.22	1.075
2	team members understand the strength and weakness of the teams	3.24	1.021
3	team members regularly give feedback to each other	3.18	.962
4	team members have effective meetings which are well facilitated	3.12	1.003
5	Turnover of key personnel is low in the project / organization	3.96	.915
6	The practice of overtime payment and other benefit package is attractive	3.42	0.901
	Grand mean and standard deviation	**3.15**	**.687**

Source: Author's Survey, 2024

What sets project teams apart is that a group of people, who may never have worked together before, have to come together quickly and effectively in order to achieve a task which nobody has done before. The novelty, uniqueness, risk, and transience are all inherent features of projects. Because the team is novel, it has no perceived identity, and no set of values or norms to work to. The assessments of team management in the projects were studied by incorporating six factors related to team management. The grand mean is 3.15. Out of six variables one variables (team members have effective meetings which are well facilitated) scores mean value less than the grand mean. Regarding turnover of key personnel, the response shows how the problem is chronic. According to the report of human resource department the turnover data for the last 3 and half years indicates the problem.

CHAPTER FIVE

5. SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. Summary

This section forwards the conclusions of the research based on the major findings stated in the previous chapter data analysis and discussion. Brief conclusions are summarized to the findings and finally helpful recommendation for the research problems will be forwarded.

5.2. Conclusion

The aim of this study was to identify and evaluate the factors success of public building construction project in Fitche Town. An exploration of the identified factors was achieved through an interrelationship between variables using the mean, standard deviation.

The major finding of this study shows that the trend or tendency of using construction project management in the project/ corporation is poor. Most of the response indicates the application of project management science is lagging behind in the organization. To be competent in this dynamic market the implementation of project management for these public building projects is not negotiable. Generally, for the public building construction projects effectively and efficiently applying important strategy is a crucial one through considering the above-mentioned variables. The conclusion is drawn that reducing of cost related factors and time related factors help projects to succeed.

5.3. Recommendation

To exist in this dynamic construction market and to compete with the local and foreign contractors the corporation has to implement the project management in its all construction sectors. The main problem observed in this study shows that in the corporation lack of proper project management leads to poor implementation of the integration management and poor alignment of different function. Really applying the contract document and regular periodic progressive three-party joint meeting at project site with the project team and at higher official levels at the head office level should solve the problem of consultant. All project stakeholders should work together and ensure that all disputes are mitigated during the construction period so as to avoid prolonging the planned executing time during the litigation process. The success factors found to be most influential in this study could be utilized in future work which examines

different situations and environments. One could relate this study's ideas with a focus specifically on the projects that experience significant ranking the success factors for the construction process. The researcher recommended that Contractors, consultants and clients should to put their efforts on the identified key factors in relation to their magnitudes of influence. Additionally the researcher recommend Considerations on the ongoing external environment especially political instability, through different assistances to contractors will improve the success of projects also sufficient supply of materials on time and in quantity will improve project success. It is recommended that the methodology used in this research should be applied to other town, thereby increasing the data available for future comparisons of different success factors.

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APPENDIX

Questionnaire

Dear Respondents,

My name is ----------and I am currently working on a research study on factors affecting the success of public building construction projects in the Fitche Town , in fulfillment for my BSC in Civil Engineering study in WOLKITE University. The information you provide is used for research purpose only, and will be kept confidential at all levels. Considering your experience in project works, your participation in this survey will significantly contribute to the accuracy and usefulness of the research outcome. I appreciate taking your time to complete the survey. I kindly request you to remember that the quality of this work is completely dependent up on your frank opinions. Please consider each statement carefully before you give it an evaluation. If you have any query, please do not hesitate to contact me. I am available at your convenience through Tel. +----------

Part I: Demographic data/ Respondent Profile

Please put tick mark (√) on your choice(s)

1. Please indicate your gender: Male_____ Female_____
2. Age of respondents (year):_____
3. Level of education: Certificate____ Diploma____ BA/BSC____MA/MSC
4. Job title_____
5. Work Experience: Less than 5_____ 6-10 years____ 11-15 years____ Over 15 years____
6. Your area of experience A) more of building B) more of water infrastructure C) road infrastructure D) design works E) others (please specify)
7. Would you specify the project currently you worked on?_____
8. Occupational level

A. project manager G) other project personnel
B. human resource manager H) leader staff at the sector/corporation
C. project engineer I) engineering staff at the sector/corporation
D. site engineer J) supportive staff at the sector/corporation
E. supportive staff K) others (please specify

F. office engineer

9. Organization

   A. Contractor B) Consultant C) Client D) Other

General information

1. Are there any success criteria that established among three parties/contractor, client, and consultant in the project?

   A) Yes B) No

2. For the above question if your answer is yes would you mention success criteria of the project----------

3. How many project managers are involved in this project from the time of commencement? ----------

4. Is there any project managers who leave this project? A) Yes B) No

5. For the above question if your answer is yes would you mention the reason why project manager leave the project----------

6. Is there any hazard that occurred in the execution of the project? A) Yes B) No

7. For the above question if your answer is yes would you mention the fatalities by loss of life and property damage in kind and monetary terms /the time period is up to the end of Ethiopian fiscal year 2016 E.C/-----

Part III: General Success Factors of Project Management

1. Do you know the goal of your project /organization/ you are currently working? **A) Yes B) No**

2. For the above question if your answer is yes please specify the goal of the project----------

3. How do you know the goal of the project?

   a. From project charter

   b. From contract document

   c. From joint meeting of contractor, consultant and client

   d. From media

   e. From other sources ----------(please specify the source)

Part IV

Based on literature review a list of critical success factors (CSFs) that could impact on the
successful performance of public building projects are summarized as follows. Please you are
expected to indicate your opinion on the degree of relevance /importance of each of the CSFs on the scale 1 up to 5.

To what extend do you think the following factors are critical to successful Project completion.

(5= Strongly Agree, 4= Agree, 3= Neutral, 2= Disagree, 1=Strongly Disagree)

1. Overall Project goals/objectives

s/no	Project goals/objectives	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
1	Overall Project goals and objectives are					
2	clear Roles and responsibilities of stakeholders are clearly defined					
3	Project goals were attainable with in the time Frame					

2. Customer /end users of the project / satisfaction

s/no	Customer satisfaction	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

4	Customers were clearly defined					
5	Customer were adequately involved throughout the project					
6	Customers are satisfied in the performance of the project					
7	The customer requirement clearly communicated before the project began					

3.Safety and health

s/no	Safety and health	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
8	The project risks related to Safety and health are clearly identified in the project plan					
9	The identified project risk of Safety and health is clearly communicated among all the project teams					
10	Risk mitigation plan is prepared and communicated among project staff					
11	All the safety					

	materials /personal protective equipment's/ are fully available for the concerned project staff					
12	All safety policy, directives and other working procedures or manuals are in place					
13	Safety engineering department and experts are available on the project					

4.Technical task\competency

s/no	Technical task/competency					
14	The required technology is available in the project/corporation					
15	The project manager has sufficient experience, technical knowledge and skill					
16	The other project personnel's have enough knowledge to					

	operate with the existing technology					

5.Top management support

s/no	Top management					
17	top management supports the project with commitment and encouragement					
18	The top management assigned strong, clearly identified the project leadership					
19	Strong Project Monitoring and feedback given by top management					
20	Top management's enthusiastic support to the project manager (PM) and project team at site					
21	Delegating authority to project manager by top management					

6. Project planning and scheduling

s/no	Project planning and scheduling					
22	The project plan consists of clear work item with budget					
23	The plan included methods and frequency of communication among stakeholders and other personnel					
24	The project plan incorporates monitoring and evaluation activity					
25	The project has realistic time schedules that is achievable					

Resources

s/no	Resources					
26	All the required resources are available on time					
27	There is availability of skilled personnel					
28	The project deploys sufficient resource planning to obtain adequately skilled resource for the job					
29	The procurement process is efficient to					

	deliver the material or service on time					

Favorable working condition

s/no	Favorable working condition					
30	Favorable climatic condition at the site					
31	Favorable social environment					
32	Favorable political and economic Environment					
33	Favorable camping accommodation for Employees					

Monitoring, evaluation and feedback

s/no	monitoring, evaluation and feedback					
34	There is a regular and careful progress (time, scope, and cost) monitoring and review throughout the project					
35	There is a necessary report					

	on the project performance relative to established objectives (e.g., budgets, cost, and quality)					
36	Corporation gives periodic feedback on project performance & takes corrective action.					

Communication

s/no	Communication					
37	The communication plan is in place in the project/corporation					
38	There is effective communication between project stakeholders, team, and personnel					
39	There is a clear and easy channel of Communication					

Client Support

s/no	Client Support					
40	There is periodic					

	project Monitoring, evaluation and feedback by client					
41	Clients solved any compensation issues of the project					
42	Client support the project by assigning representative at the project site					
43	Client interference in the project work is Supportive					

Consultant

s/no	Consultant					
44	The project has detailed feasibility study that is realistic to the project situation					
45	Consultant Submit					

	complete design & Specification					
46	Consultant Solve any design & other consultant related problems on time					
47	Consultant estimate of contract schedule & work volume is realistic					
48	Consultant staff is fully authorized to solve problems on the project site					

Project manager competency

s/no	Project manager competency					
49	PM has strong Coordinating ability and mutual relationship with his team members, client, consultants and subcontractor					
50	Project manager's has authority to take financial decision, selecting key team members, etc					
51	PM is Effective in					

	monitoring and giving Feedback					
52	PM Coordinating ability and mutual relationship of with top management is strong					
53	Project manager's has good technical Capability					
54	PM delegate authority to various members of his team					
55	Developing and maintaining a short and informal line of communication among project team					

Team Management

s/no	Team					
56	There is a culture of team work in the project/corporation					
57	team members understand the strength and weakness of the teams					
58	team members regularly give feedback to each other					
59	team members have effective meetings which are well facilitated					

60	Turnover of key personnel is low in the project / organization					
61	The practice of overtime payment and other benefit package is attractive					

Would you please mention any other success factors that are considered to be crucial for the success of your project that are not included in this questioner----------
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THANK YOU