KOKWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI, GHANA

ASSESSING THE IMPLEMENTATION CHALLENGES IN THE SCHOOLS UNDER TREES AND EMERGENCY INTERVENTION PROGRAM (SUTEMIP) UNDER THE MINISTRY OF EDUCATION

By

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DECLARATION

I hereby declare that this submission is my own work towards the MSc Project Management and that, to the best of my knowledge, it contains no material previously published by another person, nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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ABSTRACT

This study is aimed at examining the challenges to implementing the schools under trees and emergency intervention programme (SUTEMIP) under the Ministry of Education, Ghana. In this regard, the researcher set three main objectives; to examine the status of implementation of SUTEMIP projects, to identify the challenges to implementation and to identify strategies to curtail the challenges to the implementation of SUTEMIP projects. The study adopted a quantitative strategy with a deductive approach, which implied a questionnaire survey and statistical analysis. The study commenced with a literature review on the three main themes of the study; status, challenges and strategies to curtail the challenges. The outcome, a comprehensive list catalogue together with the view of experts was used to finalize a questionnaire survey for data collection. The researcher then used the survey tool to collect data from experts involved in the implementation of SUTEMIP projects. To be specific, the study used a census survey approach. Thus, questionnaires were distributed to all forty-seven (47) members of the population. Forty-five (45) responsive questionnaires were returned after a month. Subsequent stages involved data analysis using Statistical Package for Social Sciences v24 and Microsoft Excel. The main analysis done here included frequencies, percentages, reliability testing, modes, means score and Anova. Frequencies and percentages were used to explore the occurrence of similar responses in various sections of the questionnaire. In addition to the above, mean score ranking was used to estimate and rank the various factors identified for status of implementation, challenges and strategies based on the average scores of the respondents for each and Anova for comparing means. From the analysis, SUTEMIP projects perform the most concerning intended users and minimal technical start-up problems because projects are readily accepted by intended users. This notwithstanding, performance in terms of process of implementation, schedule and financial performance were low. The ten topmost challenges to the implementation of SUTEMIP projects are corrupt practices, unrealistic bidding quotations and timelines, untimely release of funds, delays in payments, delays in the provision of the right logistics at the right time, lack of funding, inappropriate feasibility studies, management practices, bureaucracy, fluctuation in prices, poor planning, interference of clients and users, political interference and poor supervision. To overcome this challenges the study rated competent contractor selection (experience in similar works), provision and simplifying funding process, competent subcontracting, allocation of sufficient funds to project, consistent task review, adequate dialogue with interlinked agencies at the preparatory stages of the project, setting of clear purpose for project, proper relationship between consultants and contractors, assimilation of input of target users into project plan and anticipation of short-term disruptions as the most suitable strategies. The results of the Anova indicated higher level of agreement between and within group of participants. Nonetheless, the study encountered some limitations such as the narrow scope of data collection and methods. Nonetheless these provide opportunities for future studies.

Keywords; Implementation, challenges, strategies

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This research is dedicated to my Lovely Wife, Mrs. Sylvia Atia, and our newly born Daughter Atia Michelle Ntabisi for their support, prayers and allowing me all the time I needed to undertake this study. I also dedicate this thesis to my Father, Major (Rtd) Atia Ayelesongo and my Mother Elizabeth Atia Akakuli for their unmatched support for my life and education.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

In Ghana the main instrument for the institutionalization of government intentions to realities have been policies. Thus, policies have often with translated into programmes and projects (Goodman, 1980). Despite the importance of projects to socio-economic growth as with any developing country, there has been little success in the translation of policies into projects (Cooke-Davies and Arzymanow, 2003). Because of the need for a good economic and political bearing, developmental improvement has become keen to Ghana (World Bank, 2012). This prompt has resulted in a number of developmental projects.

A key area among these projects is the education sector. Improvement in the quality of education has remained pertinent for Ghana. Improvement is quality of education however has many dimensions for instance, beyond physical resources such as books, classroom blocks as well as policies to guide the use and distribution of fiscal resources. Some laudable developments include School fees abolition Initiative launched by World Bank and UNICEF in 2005, Capitalization Grant Scheme and Free Compulsory Universal Basic Education (FCUBE). According to Osei et al. (2009), strategies and policies adopted by Ghana Education Service is not free from challenges. Some identified challenges include increased demand for classroom and teaching material alongside sustaining community participation. In response to these challenges, there has been a number of emergency classroom block construction projects (Government of Ghana, 2016).

Dominant is the Schools under Trees and Emergency Intervention Program (SUTEMIP) under the Ministry of Education (Government of Ghana, 2013). The goal for this project was the construction of 5000 in number academic infrastructure by the year 2016. However, about had

1400 had been completed as at 2015. Frimpong et al. (2003) associated this under achievements with project management challenges and failures common to developing countries. Consequently, the second most important dimension this study implores is project management practices in Ghana.

An important management discipline critical to economic activity is project management. Project management drives achievement in the economic, industrial as well educational sector. As such, it has been mentioned that project management is the process of decision-making and operationalization of strategies towards success of a project. To increase the chances of success of a project succeeding, it is a necessity to have an idea of what the critical success factors are, quantify them and select an appropriate cause and effect (Mobey and Parker, 2002). To this end, implementing a project requires a well laid out plan to guide the process. There are however varying approaches and various to various extents among them. More so when this variation occurs within a firm seeking to attain a common goal. Larson et al. (2014) associated it to a lack of consensus between goals set by top management and those independently set by lower management. From Judge and Muller (2005), the complexity of the implementation process requires the use of broad attention to a wide range of fiscal, human and technical variables. Frimpong et al. (2006) mentions the need to cater for the vision of donors, client perspectives, and corporate management. In addition, the high levels of uncertainty in the business opens project management to all manner of events, external influence, constraint changes and resource flow fluctuations.

More often these days, project management involves splitting of projects into programs to deliver the organizational goals at a higher value level. Good management practices is therefore a matter of essence to organization to curtail the issues of unsuccessful deployment of project and abandonment. It therefore against this theoretical background that research is conducted

to investigate the challenges to Schools under Trees and Emergency Intervention Program (SUTEMIP) under the Ministry of Education.

1.2 PROBLEM STATEMENT

The Ministry of Education, Ghana is contributing greatly to socioeconomic development of the country. In line with its socio-economic development policies coupled with the need for emergency interventions, there has been the need for Dominant is the Schools under Trees and Emergency Intervention Program (SUTEMIP) under the Ministry of Education. This program as indicated in the 2011 budget statement and economic policy of the government of Ghana targeted the completion of Five Thousand academic infrastructure (Dormitories and Classrooms) by the close of 2016. However, the 2017 budget statement and economic policy presented to parliament gave indications that only 1400 schools and other academic infrastructure were completed by the end of 2016. Thus, 3500 of academic infrastructure of various forms could not be completed as targeted in 2010 (Government of Ghana, 2017).

Over the past years, germane research into the factors that ail the implementation of infrastructure projects have been conducted in the Ghanaian context. There are insights as to what the major causes of project failure is, including failure to meet specifications and expectation of stakeholders, time and cost overruns. In the same vein, similar studies have been conducted in other developing countries such as India, Nigeria, Vietnam and Malawi (Long et al., 2004; Manavashi and Adinkari, 2002). In the case of Ghana, these factors have been reported to include design changes, incorrect information, poor estimation, unreliable financing, complexity of project and inflation.

A virtual observation alone indicates most of the factors reported in this studies hover around time and cost overruns basically dominant for long term projects. Clearly, there has been a

failure to address other external factors affecting the success of such infrastructure projects. Furthermore, regardless of the endless testing and assertion of the factors or themes that are likely to assure the success of such projects, there are no two projects that share the same set of core values (Horine, 2005). It is therefore important to investigate the case of Schools under Trees and Emergency Intervention Project (SUTEMIP). Furthermore to be able to investigate the external and internal elements surrounding this projects, there is the need to investigate the challenges hindering the implementation of schools under trees and emergency intervention project (SUTEMIP). Only then can appropriate strategies be put in place as interventions. From this perspective, the researcher aims to investigate the challenges to project implementation with a keen focus on Schools under Trees and Emergency Intervention Project (SUTEMIP).

1.3 RESEARCH QUESTIONS

In this light, the following research questions were asked:

1. What is the status of implementation of the schools Under Trees and Emergency Intervention program (SUTEMIP)?
2. What are the challenges to the implementation of the schools Under Trees and Emergency Intervention program (SUTEMIP)?
3. What strategies can be used to curtail the challenges facing the schools Under Trees and Emergency Intervention program (SUTEMIP)?

1.4 AIM AND OBJECTIVES

The aim of this study was to examine the challenges to the implementation of schools under trees and emergency intervention project (SUTEMIP) under the Ministry of Education, Ghana.

1.4.2 Objectives

1. To assess the status of implementation of the schools Under Trees and Emergency Intervention program (SUTEMIP);
2. To identify the challenges to the implementation of the schools Under Trees and Emergency Intervention program (SUTEMIP); and
3. To identify strategies to curtail the challenges facing the schools Under Trees and Emergency Intervention program (SUTEMIP).

1.5 METHODOLOGY

Categorising, describing, explaining, evaluating, comparing, correlating, predicting and controlling facts in a systematic way to come to some conclusions regarding a specific subject is what scientific research is about (Hakala et al., 2015). Positivism is adopted mainly because of the granular, observable and measurable facts that are examined, as well as the non-profit and objective stance of the researcher. Additionally, the approach of the study is deductive, as a hypothesis is tested through the research strategy (Saunders et al., 2015). The research design demonstrates the overall strategy that is to be followed to meet the objectives of the study by introducing the data collection and analysis methods, as well as highlighting any constraints and ethical considerations (Saunders et al., 2015).

Naoum (2013) identifies two types of research strategies, quantitative and qualitative, while underlining that the strategy choice is inextricably dependant on the nature of the research problem and the generated research question. According to Bryman (1988), quantitative studies best aid when the relation between researcher and research is distant, scope of finding is nomothetic, relationship between theories are based on testing or confirmation and data of data

is hard and reliable as against rich and deep in qualitative. As such, the researcher adopts a quantitative approach because the study the nature of the study is well aligned with Bryman's (1988) clarifications.

A critical literature review is essential in acquiring secondary data and developing a thorough understanding of previous work that relates with the research questions and the established objectives (Saunders et al., 2015). The objectives were satisfied partly through an in-depth desktop study, which requires and analytical examination of primary literature resources like peer-reviewed journals, conference proceedings, academic dissertations, industry reports, as well as secondary sources like textbooks, newspapers, magazines and websites (Naoum, 2013). However, although mass media sources help to track down current trends, they are carefully chosen and examined as they may alter scientific claims and contain bias. The findings from the literature review are critically assessed and used in a descriptive survey approach, which will materialize by constructing a questionnaire survey. Saunders et al. (2015) recommend questionnaires as the most appropriate solution for conducting descriptive research that focuses on organisational practices. The population for the were personnel involved in the implementation of the schools under trees and emergency intervention project (SUTEMIP). They are selected as the scope of this study requires or is limited to persons with knowledge on the implementation of this project. A simple random sampling using the formula provided by Cochran (2007) were used to determine the sample size from the population. This will in turn be the target for data collection.

Also test for validity and convergence were carried out to ensure validity of data (Naoum, 2013). For the data analysis, both descriptive and inferential statistics. The descriptive analysis included percentages, means, frequencies and standard deviations. Graphs were utilised to give a pictorial view of the data collected. Furthermore, relative importance index and mean scores were used to rank the importance of themes identified with the data collection tool.

1.6 JUSTIFICATION

To begin with, the finding of this study will be invaluable to stakeholders involved in the implementation of schools under trees and emergency intervention project (SUTEMIP). First of all this study presents on the actual challenges the encounter while providing directions as to the eliminating this challenges. Furthermore, the study contribute immensely to scholars. That is the body of knowledge on project implementation especially in the Ghanaian context is explored systematically in another direction. Although the study reflected particularly on the implementation of schools under trees and emergency intervention project (SUTEMIP) under the Ministry of Education, Ghana, the large data collected over various individual projects increases the tendency for generalizing to results of the study. In conclusion, the study, contribute immensely to both practitioners as well scholars in a way that has not been done before.

1.7 SCOPE OF STUDY

The contextual scope of this study was limited to challenges to project implementation especially, the schools under trees and emergency intervention project (SUTEMIP). In greater depths, the effects of resource planning, the extent of the influence of clients involvement, extent of influence of corporate involvement and finally the influence of donor requirement. This study was explicitly limited to the above themes. Concerning the geographical context of the study, it cuts across the implementation of schools under trees and emergency intervention project (SUTEMIP) in Ghana as a country. Consequently, data collection was be spread across the country.

1.8 ORGANIZATION OF THE STUDY

This research port has been classed into five independent yet related chapters. The first chapter provides an introduction. Here, the background conditions surrounding the research work was presented. The next section provide details on the research problem. From the onset, a research gap is demonstrated together with how this group affects industrial performance to partly substantiate the need for the study. Aims as well as objectives and research questions were presented thereafter. This is followed by a justification, contextual and geographical scope of the study, limitations and finally the organization.

The next chapter provides a detailed review of literature on the subject matter. First of all, dominant themes related challenges in project implementation and also the schools under trees and emergency intervention project (SUTEMIP) were critiqued. This examines the flaws as well as strengths of existing literature on the subject matter.

Chapter three of this report furnishes the reader with details on the methodology adopted. This section gives a description of the philosophy underpinning the study, research approach and design. The population, sample and sampling technique were presented as well. In addition, the design of data collection tool, test for validity and ethics were narrated in this chapter.

The fourth chapter is dedicated solely to analysis and discussion of data. Implications were drawn for the statistical analysis of data while the fifth chapter concludes and makes recommendations based on the findings of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

Having presented a background to the research, research problem, aim and objectives, there was the need to review existing literature pertinent to the research conducted. In this regard, the researcher reviewed literature on the nature, causes of project failure within Ghana and in the context of other developing countries as well. Also, other sections looked at strategies to mitigate challenges or causes of project failure. The subsections below presents existing literature and criticism for strengths and weaknesses as well.

2.2 STATE OF PROJECT MANAGEMENT

Research on project management has a scanty theoretical basis and lacks concepts (Shenhar and Dvir, 1996). The theories underpinning project management are relatively small, and these theories are too generic and lack empirical backing (Partington, 1996). This has marginalised project management as a field for academics; critics argue that "the area is too applied, too closed to practice for academic study" (Soderlund and Maylor, 2012), and therefore there is a strong need to build and test models in order to get a theory for its academic research (Kwak and Anbari, 2009). However, this view is in sharp contradiction with Soderlund's assertion that there is no universal theory that can be used in project management due to the fundamental differences that exists across projects, and that no project is similar to another (Soderlund, 2004). This is echoed by Klein et al. (2015), who assert that, due to the uniqueness of projects, there is the need for improvisation during project management. Soderlund's argument is premised on the categorisation of project management into two traditions: the engineering tradition and the social science tradition.

The engineering tradition avoids uncertainties to achieve determinateness whilst the social science tradition assumes uncertainty to achieve indeterminateness, and the two traditions are incompatible. In view of this, Soderlund (2004) argues that there can be two separate theories on project management, one being generic and the other being specific. The reason is that there are some elements of projects that are generic whilst other aspects are specific; for example, all projects have uniqueness, task complexity and time limitedness. The general aspect can have a generic theory or one theory that is applicable to all projects and then the other varied aspect can have another theory. However, Soderlund (2004) failed to prove either of these two theories. The two views about projects and project management having a significant impact on companies and government and at the same time being marginalised by academia for its research have created a paradox between "the logic of impact" and "the logic of the academy" (Soderlund and Maylor, 2012) and, until this tension is resolved, project management will continue to face challenges as an academic field.

Thus, "the debate whether 'project management' research fits into practice or academia is long standing" (Davis, 2014). This is echoed in the work of Ramazani and Jergeas (2015), whose study concludes that there is a gap between what is offered in project management education and the real world (practice). In fact, Pollack and Adler (2015) specifically argue that these two opposing positions about project management have caused diffusion in the field and, as a result, articles have been published in subject areas which relate to industries where projects are implemented. Klein et al. (2015) argue that this dichotomy has created complexity in applying theories, models and framework to the practice (Klein et al., 2015). Due to this, researchers have not reached consensus about a particular theory, method or approach to project management (Klein et al., 2015). This paradox about project management is perhaps the reason why there is no universally accepted definition of project and project management, or what should constitute universally accepted project management practices.

2.3 PROJECT

In Turner's book, published in 1999, he simply defines a project as "an undertaking to deliver beneficial change" (1999). In this book, three main characteristics are visible: a project is unique – no project before or after will be exactly the same; it undertaken using novel processes – no project before or after will use exactly the same approach; and it is transient – it has a beginning and an end (Turner, 1999). In other words, Turner's (1999) definition implies that there are fundamental differences that exists across projects, and that no project is similar to another (Soderlund, 2004), or: if different projects have similar characteristics, this does not mean they are same and can be managed in the same way This study adopts the definition of Turner (1993) as it the most suitable. It definition is comprehensive and its covers all the aspects of the Ghanaian government's projects. It is the most appropriate because the Ghanaian government's main purpose for embarking on projects is to add 'hard or soft' benefits to its citizens (Ghanaweb, 2018). As pointed out in the previous chapter, Ghanaian government projects often bring about beneficial change to the country. This involves resources that bring about incremental changes to the country as a whole (Ghanaweb, 2018)

2.4 PROJECT MANAGEMENT

The British Standard for project management BS6079 (1996) defines project management as planning, monitoring and controlling of all facets of a project and the drive of all those involved in it to attain the objectives of the project on time and to the specific cost, quality and performance. Kersner (2009) defines project management as planning, organising, directing, and controlling of the resources of a company for a comparatively short-term objective that has been established to complete definite objectives and goals.

The Association of Project Management (APM) UK describes project management as planning, organising, monitoring and control of all facets of a project and the drive of all involved to attain the project objectives safely and within a stipulated time, cost and performance criteria and the purpose is to manage change. The theoretical foundation upon which this (APM's) very definition is based has been criticised by Koskela and Howell (2002) as being implicit and obsolete. They further argue that the theoretical bases for its definitions and practices have serious deficiencies, because the understanding of the nature of a project is faulty. This accounts for why there are many models for project management practices, and calls for wider and more powerful theoretical foundations for project management definition and practices (Koskela and Howell, 2002).

Despite the flaws in these definitions and the model of practices prescribed by this body, the APM continues to dominate in project management. This study argues that this is so because there is no perfect alternative. On the other hand, the views of the second group are in sharp contrast to those of the first group. For instance, project management is not considered as an exact science which follows established rules or laws as argued by Hogberg and Adamsson (1983). Quite on the contrary, it is a task which mainly has its basis on human relations and the specific experiences, character, knowledge and cultural background of each individual. They cite the differences in culture of America and Scandinavia by comparing their work ethics to back their claims. Whilst the former's work ethics is based on individualism – where the individual is seen as a hero, a champion for work well executed – the latter is based on collectivism, where group work and achievement is appreciated. Their assertion is drawn from earlier work of Hofstede (1983) that argues that the existing project management models being used by the USA are based on the American culture, and that the widespread of the American project management model over the world is as a result of their lead in development.

Hofstede's (1983) work, shows that the difference in culture affects the needed approach for successful project management after studying mental programming of people from 53 geographical areas in different countries. Hofstede (1983) and Hogberg and Adamsson's (1983) view of culture in project management is backed by a relatively recent study conducted by Maumbe et al. (2008) on Questioning the pace and pathway of the government development in Africa: A case of South Africa's cape Gateway project. The study found that governments in Africa are adopting e-government without considering its regional importance. The pace and manner in which the governments of Africa are making copy–cut from the developed world is not compatible with local environments, such as cultural and social class differences, and this partly accounts for e-government project failure in Africa, and South Africa in particular. Hence, there is a valid argument that defining project management as a science that requires a specific methodology is flawed, given that cultural differences across geographical locations can influence project performance.

On the other hand, defining project management without set models, frameworks and management practices because of culture is not enough, in that project managers will not be able to manage projects efficiently without following any set models, frameworks and management practices. Given that neither of the two opposing views about project management is comprehensive enough to apply to this research, the study adapts the two views. Therefore, for this study, project management is defined as the use of management models, tools and practices accepted in the local socio-cultural management practices' context; to plan, organise, direct and co-ordinate an organisation's resources to accomplish a task with a clear start and end date to attain precise goals and objectives.

This definition is applicable in Ghana's situation: the Ghanaian government projects involve all the project management practices outlined – they follow project management practices and models prescribed by the World Bank in the 'project lifecycle for developing countries', as

discussed in chapter one (World Bank, 2013). However, because management practices differ from country to country due to the cultural differences that exist across different countries (Maumbe et al., 2008; Hofstede, 1983; Hogberg and Adamsson, 1983), and Ghana is no exception, it can be argued that this definition fits this study.

From the various definitions provided, there is a valid argument that project management (PM) and project are not the same. However, they share certain common characteristics such as time limitedness, predefined requirement, and the use of resources. Project management can be considered as a subset of project (Munns and Bjeirmi, 1996), in that project management is the means by which the aims of a project are accomplished (Ika, 2009). In other words, project management is a process (the end is the project's goals). The aim of a project is often aligned to long-term strategic goals of the organisation whereas PM is aligned with the short-term goal of delivering the product of the project (Savolianen et al., 2012; Munns and Bjeirmi, 1996).

2.5 GHANA EDUCATION PROJECT FAILURE

Despite the improvements in education after the colonial era resulting from World Bank and IMF-supported projects; the sector has witnessed project failure in educational reforms over the years. Many educational reform projects have attempted to solve the educational problems since the first Republic of Ghana in 1961 (Nyarko, 2011). These include: Kwapong 1974 and Dzobo 1972/1987 educational reforms. Despite the huge sums of money being spent on these projects, the sector continues to suffer from many setbacks. It has been rightly criticised by commentators and academia for not doing enough to solve the educational problem (Nyarko, 2011). Results from the 2011 Basic Education Certificate Examinations (BECE) showed that 50% of students had failed (Nyarko, 2011), implying that these reforms have not been able to solve the problem they were intended to solve. It can therefore be argued that these projects

are not achieving their targets, as Atkinson (1999) postulates in his square root project success/failure framework.

A more recent failed project is the abandonment of the four-year SHS education system project. In 2002, a committee of 29 members headed by the Vice-Chancellor of the University of Education – Winneba (UNEW), Professor Jophus Anamuah-Mensah, were mandated to re-examine the education system. The report led to the four-year SHS project which was implemented in 2007. At this time, the Ghanaian government, under the administration of NPP, then commenced the educational reform project to change the Senior Secondary Schools to Senior High Schools, with the main change being the study duration time. The purpose was to extend the three-year duration to four years (Frimpong et al., 2003).

2.6 CHALLENGES TO THE IMPLEMENTATION PROCESS OF SUTEIMP

2.6.1 Corruption

A study conducted by Transparent International (TI) between 1999 and 2008 points out that Ghana is far behind in the anti-corruption campaign (TI, 2008). The scores range from 10-0, with 10 being the countries with least corruption and being the most corrupt; Ghana has always been in the lower brackets (3.3-3.9). Ghana had a Corruption Performance Index (CPI) score of 3.7 in 2007, thereby positioning the country 69th out of 180 of the world's countries that were studied (TI, 2008). As the report states, only countries with an index of 5 and above do not have a serious corruption problem.

In line with the definition given by the World Bank (World Bank, 2013), the definition of corruption in the study was private gains made from the misuse of public office, and measured the extent to which corruption is seen to exist among politicians and the public officials of a

country. The research findings of Transparency International indicate that the state of corruption in Ghana is serious. Nevertheless, this definition has been criticised since it creates the notion that the abuse of office or power is done only by individuals occupying public offices. TJN argues that the World Bank and TI description of corruption does not provide room for corrupt activities including tax dodging, insider trading, market rigging, illicit party funding and non-disclosure of conflicts of interest (Azeem et al., 2013).

If the definition and criticism of TJN is critically looked into, the nature of the situation could even be worse, although the study findings of TI give a clear view of the level of the country's corruption. Internal reports on corruption in the country show similar findings to that of the TI (2008) report. For example, a report in 2007 by the Public Accounts Committee on the There is a serious corruption problem among public officials as stated in the Auditor General's report in 2006 on Public Accounts given to Parliament and the follow-up public hearings states. The same report shows a similar trend in the 2010/2011 report published in 2012 (Transparent International, 2008). The 2013 one is not different. Ghana Center for Democratic Development (CDD) and Ghana Integrity Initiative's (GII) survey on corruption in Ghana also shows a similar problem. Significant attempts have been made by the government of Ghana to limit country's corrupt activities by passing laws and establishing independent agencies and bodies to deal with the canker (Amponsah, 2010).

Prominent among them are the Financial Administration Act and its Regulations, the Ghana Public Procurement Act, the Whistleblower Act, the Assets Declaration Act, the Anti-Money Laundering Act, the Public Officers Liability Act, Ghana Integrity Initiative (GII), the Serious Fraud Office (SFO) and the CHRAJ. Recent reports (Asamoah, 2011) indicate that the phenomenon still exists in the country and in government projects in particular although these efforts have helped to expose corruption.

2.6.2 Unrealistic schedules

Unrealistic schedule is a challenge faced by project managers in applying project management theories into practice. Many operation control managers do not have appropriate staffing levels to schedulers. Not having these positions adequately filled affect schedule and productivity plans. Schedules made too do not define in clear terms a scope of an activity. A clear and well-defined schedule help contain costs in a project. Many a time, the period allocated to consensus-building dialogue is insufficient. For instance, a report by Sambasivan and Soon (2007) showed the great amount of time invested in building a relationship with important representatives of the local government level during a Kenyan Educational Infrastructure project. There was confidence in proceeding with the introduction of the project among participants who also showed interest in working together for the success of the project, once these relationships were established. In this regards, the invested time was very vital as the foundation was established for curbing the unavoidable challenges that may arise through the process of executing the project.

2.6.3 Lack of Coordination and communication

Unstructured hierarchical form within planning and implementation significantly affects the implementation of projects. People are organization's greatest resource hence needs to be structured and managed effectively for the desired output. Management depends on the planning and execution team's competence and knowledge. The workforce needs to be empowered to ensure great performance (Teng and Wu, 2007).

Lack of coordination among departments involved in the implementation of projects and also within department can further hinder efforts of working towards achieving a common goal. Gunawan and Ahsan (2010) has observed that dealing with the problems affecting communication and coordination can be complex due to the interests of various departments

involved in projects are multi-faceted and range from profit making, productivity, time, and resource efficiency. Different governmental and non-governmental departments are responsible for undertaking all these activities thus necessitating a particular degree of coordination and readiness to work together and take on collective responsibility for dealing with unavoidable challenges.

The important building blocks needed in attaining the whole goal of regional coordination and cooperation are commitment to cooperation and consultation which leads to the success of the processes. The coordination problem can be curbed by forming a principal coordinating committee which will bring all the relevant players together. In general, the exchange of essential information between groups of individuals with the sole objective of inducing their actions or beliefs constitutes an effective communication. The process of change is critically affected by communication as stated by Horine (2009). Clear communication about the reasons and justification backing it, the expected benefits, the executed plans and anticipated effects are the factors on which the magnitude of change depends. It is no different with project management; its aim is to exchange valuable and timely information with the team or stakeholders. The major challenge of project management is lack of cross-functional communication (Celasun and Walliser, 2007; Andersen et al., 2006).

2.6.5 Challenges in translating vision to reality

The on-going weaknesses of the current level of administration in project implementation process affects the translation of vision to reality. This include the National level and local government levels, both of which have the potential of playing an essential role in formulating interest as well as coordinating project initiatives at the inception phase and, where needed and appropriate, throughout the project's lifespan (Andersen et al., 2006). Gaps in terms of capacity to execute the local level implementation agenda still exists, although donor countries have

given extensive support to deal with recognized weaknesses, often in the form of capacity building and technical assistance. (Celasun and Walliser, 2007).

The quota-based approach to staffing which still exists in the case of a number of the employment project sometimes worsens the gap. A situation where positions are vacant or recruited individuals may not be the best or most competent to carry out responsibilities associated with the position may arise as a result of this. Additional human resources having the competency and skills to understand the specific private sector needs including how to prepare and execute at the local level are the requirements for overcoming this challenge. An essential preliminary step in achieving the objective of private sector engagement in development of regional infrastructure is support from central government.

2.6.6 Lack of commitment from business leaders

Lack of commitment from business leaders is part of the several problems hindering the execution and practice of project management. Commitment is defined by Nichols and Cottrell (1987) as individuals' readiness to make much more contribution to the organization than their formal contractual responsibility. Commitment is an act of committing to a trust or charge as defined by Merriam–Webster. (Glasswell and Parr, 2009) suggest that it is only when there is commitment from business leaders that the design and implementation of project management in any organization can be successful.

Appropriate organizational policy that every individual involved in the implementation accepts, commitment and support are what constitutes top management approach (Sambasivan and Soon, 2007). Fowler and Walsh (1999) observed that senior management involvement is very critical, if projects (in this case program) affect a great portion of the resources of the organization. Other activities can take paramount attention which may not necessarily be favorable to the program, when there is lack of interest and participation among the business

leaders. Therefore, there is a belief that the successful practice of project implementation is hindered by the lack of commitment among business leaders, which is a major obstacle (Celasun and Walliser, 2007).

2.6.7 Lack of knowledge of portfolio management techniques and appropriate way to measure project benefits

According to Jung and Choi (2007) for an organization to retain competitive advantage, knowledge is a crucial strategic resource. Knowledge has the potency of adduing to the value of an organization by improving its ability to respond to new and uncommon circumstances, when it is formed and circulated throughout the firm (Barlett, 2002). In the construction industry, some of the major challenges affecting the success of executing and practicing programme management includes risk management, financial skills and lack of knowledge in managing a portfolio of projects (Glasswell and Parr; 2006).

Organizations engage in projects to derive the benefits that are not available currently. An organization newly engaged in project management is usually faced with a challenge like lack of appropriate measure or terms of measurement of benefit. Type of benefits to be attained in project management will have to be established by organizations. Provision of an adequate quantity of financial and human resources to analyze the project data with the aim of making decisions may still be a challenging task for an organization even if the establishment of benefit measure.

2.6.8 Financial constraints and lack of relevant training

Organizing and operating a project environment is very expensive as highlighted by Reiss (2006) while Barlett (2002) agrees that true cost of a project even if temporary includes the cost of materials, resources, premises, infrastructures, equipment, and risk exposure, which is

only visible at particular phase of the project. Organizations operating projects may encounter financial constraints as suggested by Glasswell and Parr (2006). Implementation can be marred by financial limitations to acquire and sustain the project. This is a major challenge. Barlett (2002) describes projects as complex structures with high level of coordination and synergy among the cross-functional projects with many stakeholders of conflicting interest. If the management of a project has the essential competency and skills for the implementation process, the project will be successful.

2.7 STRATEGIES TO CURTAIL CHALLENGES TO PROJECT IMPLEMENTATION

This section presents literature on past studies on the strategies to curtail the challenges to the implementation of projects. In addition, this literature is critiqued for strengths and weaknesses.

2.7.1 Client Involvement

Any individual who will at the end make use of the end product of project, either as a customer outside the organization or a section within the organization is referred to here as the "client". In attempting to successfully implement a project, it has been found that the need for client consultation is increasingly essential. Indeed, Hill (2008) found that the variation of client support is highly dependent on the level to which they are involved personally in the process of implementation. Also, client consultation is viewed by Anderson et al. (2006) as the preliminary stage in a program to execute project as far as the consulting process is concerned.

The necessity of considering the needs of the future users or clients of the project is expressed by Client Consultation. Identification of clients for a project is therefore important. The project manager is better able to precisely ascertain if the needs of clients are being met, if he/she is

aware of the major clients. Giving communities something they didn't ask for and then pretending they did is a sure way of killing projects (Cooke and Arzymanow, 2003). The intended beneficiaries of a project resent it and see the project as something forced on them by developers who only want to test out something when there is lack of client involvement (Slevin et al., 2004).

Due to the symbiotic relationship between users and developers, both sides need to work on the requirements: the client, which knows their needs most need to plainly give out their requirements and offer feedback on each project deliverable; and developers, who are supposed to address the needs of clients need to ask the right questions and not make any assumptions on what they think the client needs. It is important to note that between your intended accomplishment and what you actually accomplish, there is a compromise. An extremely ambitious project, whose goals exceed ability of the sponsoring organization to deliver timely result, is the cause of project failures. Halfway into development, the project originators come to realize that they exaggerated their ability to deliver what was promised. Critical project decisions are made with a "deliver-at-all-costs" attitude as a result of this. They believed that it was too late to turn back because they had invested too much money into the project. The reason they pushed forward was to simply have something to show for all the money and time that was put in the project.

Chulkov and Desai (2005) argued that projects are rushed through to meet a deadline when they are over ambitious, and the chances of meeting the deadline by originators is very slim right from the onset. Vital client needs are sometimes overlooked to accommodate an overly aggressive schedule, which tends to aggravate the issue. As a result, confidence of the intended beneficiaries of these projects is shaken and never recovered. As to whether the client for whom the project has been initiated will accept it remains of ultimate importance, In addition to client discussion at an earlier stage in the implementation process of the project, Pinto et al. (2003)

defines client acceptance as the concluding stage in the implementation process, at which time the ultimate value of the project is to be determined. The mistake project managers make is that, too often they believe that the client (either internal or external to the organization) will accept the resulting project if they are able to efficiently handle the other stages of the implementation process. Client acceptance is a stage in project implementation that needs to be manged like any other, as suggested by various authors.

As a way of improving the possibility of later acceptance, Bhavesh (2006) discusses the need for user involvement as an implementation strategy. As a method to aid in client acceptance, Bean and Radnor (2002) study the use of "intermediaries" to act as a link between the potential users of the project and the designer, or implementation team.

2.7.2 Corporate Management

Support from top management is one of the most imoportant factors that is needed in completing projects successfully. When there is a project champion who is from the top management, the support is usually strongest (Hayfield, 2006). He observed that the project objectives according to the specification of the client and/or top management are understood and achieved by project managers with the help of the project champion. As noted by Slevin et al. (2004), the success or failure of projects are distinguished by management support for the project or its implementation. Milosevic (2007) does not only see project management as being reliant on top management for direction, support and authority but also as the channel for executing the plans, or goals of the organization’s top management.

Again, Ammeter and Dukerich (2002) show that the level of ultimate acceptance or resistance to a product or project is significantly affected by the degree of the project’s management support. The amount and nature of support the project manager can expect from management for the project and himself as a leader is referred to as top management support. Aspects such

as the confidence of the project manager in management's support in the event of crises as well as allocation of adequate resources (time, manpower, financial, etc) are what constitutes management's support of the project. Songs and Gale (2008) places important of emphasis on inadequate support from leadership and senior management of client or sponsor organizations through under nourishing initiatives, setting uncertain purpose for executing a particular project, incapability to manage complexity and failure to anticipate short-term interruptions. Again, he emphasizes the need to provide competent staff and resources for supporting the initiatives as far as establishing a new project is concerned. The frustration raised in the morale of subordinates needs to be mitigated by top management's support and encouraging words.

It is significant to note that, the progression in a project might not add to the spice of complexity of the situation due to the fact that it might happen to be too minimal to the organization. The fulfilment of series of short-term deliverables to the beneficiaries must be continuously revealed by top management, as suggested by Songs and Gale (2008). A delicate solution in these situations are running of pilot projects and experiencing the immature deliverables with restricted implementation scope and lessening the possible damages. The project sponors to project managers from inception is remarked by Kloppenborg and Opfer (2002) as the precision of information in terms of the nature of project information communicated from top management. Messages from project managers to project sponsors should be conveyed by organization-oriented concepts, as it is very essential (Kumar, 2002). He suggests some more factors top management should consider among which are: recognizing the time spent on the planning of project, proper allocation of resources (as portfolio managers) and not just relying on methodologies of project management instead of people's resourcefulness and creativity.

The access of a project manager to resources which are supervised by functional managers are usually controlled by top management. Top management's level of support usually determines the level of support offered by the functional manager. The availability of resources is not

usually a challenge when the project is part of the functional department because the project manager is in most cases also the functional manager. Nevertheless, acquiring adequate resources can be a difficult job when the project has a pure form or has a matrix organizational form. Organizations like this needs positional power and negotiating skills (Milosevic, 2007). Undoubtedly, the successful completion of projects requires full support from the organization for the facilitation and implementation of strategies. The commitment and ownership of both the business and client are of supreme importance and as such, the support and contribution a business person or a client offers by being active and taking ownership of an initiative that becomes a project should not be underrated. In all this, strategic leadership becomes the motivation of the whole process, thus defining the level of success that can be ascribed to a project in terms of its performance during implementation, which, in turn, produces the essential deliverables, if not delivering beyond expectations (Mpofu, 2010).

For project management philosophy to prevail, organizational structures, which are usually designed by the leadership, acts as a major role in providing a conducive environment. A very strong bias towards silos and hierarchy is showed by the way in which parastatals are structured. Unfortunately, traditional structures that are not ideal for handling projects, are pointed to by this. According to Mpofu (2010), there are generally five suggestions that backs this statement. These are: there is high commitment to getting project work done, but great instabilities in how well performance specifications are met; management is pleased with its technical skills, but projects are not meeting requirements like cost, time and others; certain individuals or technical groups continuously blame one another for failure to meet delivery dates or specifications; projects are to the right specifications and on time, but individuals and groups are not pleased with the accomplishments; and highly talented experts involved in the project feel misused and exploited.

2.7.3 Resource Planning

According to Umair et al. (2008), before actual implementation of the project starts, organizations should undertake detailed implementation planning covering aspects such as physical work, time plan, input resources, inter-linkages, organization and management systems, output generation, and cost planning. Kholi (2002) noted that adequate resource plan and its linkage with time plan are crucial as the implicit resource requirements (manpower, materials, money etc.) for each period may not meet the availability constraint and hence the time plan may not be implementable. All the major activities that may have impact on time and cost to the project should be conceived and sufficient time provided for. Umair et al. (2008), further pointed out that sufficient funds to cover the entire project should be provided to minimize cost overruns that warrant higher outlays and that organizations should anticipate requirements of interlinkages in contracts or its agencies and provide for them or should always initiate dialogue with interlinked agencies early in the planning stage so that realistic time durations are allocated. Furthermore, overruns are caused by insufficient project preparation leading to scope changes during implementation and as such much emphasis should be placed in the initial stage of a project to appropriately define the project goals and its deliverables (Dvir et al., 2003).

The purpose of resource planning is to ensure that adequate, suitable or appropriate factors of production (money, equipment, manpower, and land) are optimized and timely deployed in the process of generating value projects. Timely facilitation of access to site by contractor or its agents is crucial in ensuring that the contractors continued to perform their obligation as planned with the allocated resources. Failure to do this is bound to lead to poor resources utilization, slip on schedule and additional costs. According to Umair wt al. (2014), resource planning consists of delayed payment to contractors, delayed access to site, lack of professional skill by project team and poor subcontracting. They pointed out that delayed payment arises

due to several factors such as inadequate funding of the project, complex payment processes, client cash flow problems and delays in disbursement processes, which are bound to lead to extension of time and additional expenditure (Flyvbjerg et al., 2004).

In the execution of works, the contractor is required to deploy sufficient and qualified work force to deliver the project on time, within budget and to the specified quality (Hayford, 2006). The success of a project is dependent on resource planning as a major point, which seems relatively straight forward as accepted by many. Although it may seem straight forward, it is also the most ready failure point for majority of projects. This is so because it requires putting the right individuals in the right place at the right time with sufficient time to do the job the right way (Frimpong et al., 2003). They observed that in organizations where the resource planning and management is successful, the following can clearly be seen: First is a defined resource plan that identifies what skill sets are needed, for what duration, at what points in the project and how many persons with that skill set are required. The key to the resource plan success is timing. The plan needs to be developed with enough time to adequately staff the positions and ramp up the project. This timing must be accounted for in the project plan itself making the resource plan a component of the project plan. Secondly, there needs to be resource plan balanced against project plan – the resource plan must be integrated into and balanced against the project plan.

Resource balancing is a delicate act at best and a cumbersome process at worst but it is one of the keys to success of the project. If the resources are not balanced then there is the potential for overstaffing in some areas and understaffing in others which in turn jeopardize the ability to get the work completed on time and on budget. Thirdly, there needs to be task reviews. During the implementation, there need to be regularly scheduled task reviews (Frimpong et al., 2003). These reviews can be between team lead and implementation team members, project management and team leads, project sponsorship and project management or a combination of

these but they need to occur. In the task review not only are the task plans themselves reviewed for success, failure, delay and reschedule points but ability to deliver and work completed is assessed and evaluated (Macomber, et al., 2008).

At this point, the implementation team at all levels can receive feedback both positive and negative that allows them to adjust as necessary to meet delivery requirements. Furthermore, in organizations where the resource planning and is successful, there are periodic scheduled budgetary reviews of resources expended against plan. Hayfield (2006) emphasized that these reviews will allow the leadership team to determine if the right blend of staff is being used and account for any adjustments that need to be made within the planned budget before overruns occur.

The level of success/failure in projects and the relationship it has with project planning is quite a debateable matter. There is no positive relationship between planning and success – if not negative all together, although an appreciable degree of planning for a successful project is essential as argued by Dvir et al. (2003). Kloppenborg and Opfer (2002) believes that in reality, it is an exception rather than a norm to be able to be able to implement a project in accordance with what has been planned. They believed that the chances of success for a project will reduce if too much prominence is placed on planning and trying to go by it. Two essential points concerning excessive attachment to the plans are revealed by them; firstly, financial planning lays more emphasis on the cost than the time, so spending excessive efforts to save money to avoid cost overruns, will lead to delays which result in time overruns that are more costly than what was planned for. Secondly, when it comes to time planning (scheduling), project managers either continually look backwards or so fixed at the present moment to compare the progress according to the plan which consequently prevents them from looking forward and anticipating changes and doing corrections in time. Another aspect that concerns resource planning is related to personnel matters, including recruitment, selection, and training (Krahn

and Hartman, 2004). An important, but often underestimated, this factor of the process implementation deals with the nature of the personnel involved.

Scott-Young and Samson (2004) agreed to this by observing that most often, recruitment of personnel for the project team are done with less-than-full regard for the skills necessary to actively add to the success of implementation. The personnel variable in the equation for project success and project team performance are being included by some current authors. Hipp and Grupp (2005) noted that personnel, as a factor, are concerned with coming up with a project team with the necessary skills to perform their function.

2.8 CONCLUSION

From the literature reviewed it is clear that for current-day project management, it is almost impossible to complete a project without any modification in its initial scope. The modification may lead to reduction in the morale of the work or even bring the project to a total standstill in the long run.

From the literature, it emerged that that an underlying principle of success for the project exists, although no two projects are completely identical and each has its own set of unique challenges. Thus, strategies to curtail the challenges arising during the execution of the project include developing a realist schedule, stakeholder involvement, better coordination and communication, provision of skilled resources and proactive identification of risk among others. The next chapter present the research methodology adopted for the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The previous chapter has reviewed critically literature on the causes and mitigation strategies against project failure. In the section the methodological process followed to help solve, the research problem is presented. Major themes here include research design, philosophy, research approach, sampling technique and calculation as well data analysis has been presented.

3.2 RESEARCH STRATEGY

The overall strategy adopted stipulated a quantitative strategy. Quantitative Research is concerned with measurement in the collection and analysis of data (Bryman, 2004). According to Bryman (2004), measurement is important so as to distinguished between people in terms of characteristics in question, provide a consistent yardstick for gauging differences and provide a more accurate estimate of degrees relationship. Creswell (2003) suggested that a quantitative strategy involves a situation where the researcher adopts a post-positivist claim in an investigation to develop knowledge and explore relationships among variables in terms of hypothesis or research questions, postulating objectivity as a hallmark necessitating validity, reliability and exclusion of bias. Since the quantitative strategy is characterized by answers to the question relating to what, how much, how many etc., which involves measurement (Bryman, 2004) largely, fits into this research.

3.3 RESEARCH APPROACH

According to Creswell (2009), the type of research approach adopted is underpinned by the philosophical paradigm of the study, thereby suggesting the general approach to solving the research problem while answering the research question (Kwofie, 2015). Research approach refers the step by step procedures and action plans adopted for a research from the stage of general assumption up to data interpretation (Creswell, 2013). Two main approaches have been identified and named as the Deductive and Inductive research approach.

The inductive approach used mainly in theory building begins with the study of specific instances of societal issues, through the identification and development of patterns from the analysis of data gathered (Ofori-kuragu, 2013). It employs a down-up approach where through the study of specific issues to the broad generalization of the specific situation, qualitative research approach for data collection and analysis are subjective in nature (Kwofie, 2015). According to Saunders et al. (2009), the inductive approach most often relies on the collection of qualitative data. Fisher (2010) also emphasized that theories are derived from the generalization of the specific phenomenon in the inductive reasoning.

The Deductive approach deals with what is already known as existing theories or ideas about a subject by identifying the theory and testing through observation to confirm the theory (Ofori-kuragu, 2013). This approach involves a top-down approach in the formulation of the theory and testing of hypothesis while maintaining the independence of the researcher. That is to say that, the process starts from the identification of the relevant theories and the use of scientific study through observations to confirm these theories. The research is therefore used to test specific propositions (Ofori-kuragu, 2013).

This research relies on existing theories and concepts of project successes and failures to make new observations as to the causes and strategies to limit failure in implementation of schools

under trees and emergency intervention project (SUTEMIP) under the Ministry of Education. As such, the outcome of the study is observations rather than theories and therefore leans towards the deductive approach.

3.4 RESEARCH METHOD

Creswell (2009) mentions that, the type of research design adopted is influenced by the philosophical views, approach or procedures, and the methods of the research process to arrive at a valid conclusion. In this light, research design refers to the logical and systematic plan and procedures adopted in order to answer the research question and assumptions from the collection of the necessary information or observation to analysis (Creswell, 2009). According to Creswell (2013), research designs vary with the selected approach. Quantitative designs are often characterised by experiments and surveys. Qualitative also usually characterised by narrative research, action research, case study, grounded theory, phenomenological research and ethnographic. This study adopts a survey approach. Surveys, through the use of standardised questionnaires aid in the collection of quantitative data for exploratory and descriptive research (Saunders et al.,2009). Structured interviews also help in generalizing from sample to the population using statistical analysis (Creswell, 2009). In line with the deductive approach, surveys are used to answer who, what, where, how many, how much research questions. Surveys are commonly used in management research because they are relatively inexpensive when covering a wide geographical scope (Baiden, 2006) and gives the researcher more control over the research process (Saunders et al., 2009).

3.4.1 Population

Saunders et al. (2009) defined a population as a comprehensive list of all individuals for whom the study is carried on, that is the conceivable list of participant of the study. The population

for this study is individuals involved in the project implementation of Ministry of Education. The ministry is however, a big department and as such not all employees are involved in the implementation of the project. To increase the validity of the data collected, management is considered. The researcher was able to attain the contact details of all employees involved in the implementation of SUTEMIP from the administration of the ministry of education. They summed up to forty-seven (47).

3.4.2 Sample Size

Israel (1992) specified an approach for calculating a sample from small populations. However, regardless of the size of population, three conditions are necessary to consider namely; degree of variability, level of precision and confidence level. Degree of variability refers the spread of attributes desired among the population (Israel, 1992). Level of precision also known as sampling error explains the range in which the true value of the population can be accounted for. For instance, if an estimated 57 percent of the population have the desired characteristics at a precision level of + or – 5%, it can be concluded that between 52% and 62% of the population has the desired charateristics. Confidence level explains the limits to which the sample selected represents the population at hand. As such if a 90% confidence level is selected, it means about 91 out of 105 have characteristics of the study. Having explained this, Israel (1992) specifies strategies for selecting a sample size including census for small populations, using samples of similar studies, using published tables and formulas to calculate. According to Israel (1992) for a census is best suited for a population less 200. The strength of the census lies in covering of all attributes of the population. In addition, for such a small population the cost of survey is negligible. Therefore a census is used which implied that data will be collected from the entire population.

3.4.3 Sampling Technique

Sampling techniques are population reduction methods used to restrict data collection to a subgroup of a population since it is almost impossible to collect data from every single individual or units within a population in most cases (Saunders et al., 2009). Sampling Techniques have been classified into probabilistic and non-probabilistic or judgmental sampling (Bryman, 2004; Saunders et al., 2009). According to the authors, the difference is that, in the case of probability sampling technique, the chance or likelihood of each unit being selected from the population is the same hence the population is known whereas in the non-probability sampling, the chance of selecting a sample from the population is not known. The study uses a purposive sampling approach in order to collect data from respondents actually involved in the study.

3.4.4 Sources of Data

For this study, the main sources of data was the questionnaire survey used. No secondary sources of data was used for the study. In addition, the literature reviewed on newspapers, scholarly articles and reports guided the design of the questionnaire for the survey.

3.4.5 Structure of the Questionnaire

The questionnaire designed incorporate four different sections. The first sections was used to collect data on the background of the respondents such as work experience, management level and educational background. The second section sought to measure the state of implementation of the project while the third section measure the challenges to the implementation of the project. Finally, the last section explored strategies to curtail the challenges to the mplementation of the project. For the second, third and fourth section, items were measured on

different Likert scales ranging from 1 to 5. The questionnaire can be retrieved from the appendixes of this report.

3.4.6 Distribution of the questionnaire

The questionnaire was design in a way that respondents could easily enter their response using Microsoft word or any compatible application and return. Therefore, a softcopy was sent to the emails of the participants. This electronic distribution method allowed the researcher to keep track of the response easier. In addition, respondent who were out of geographical reach of the researcher could easily be contacted. Nonetheless, respondents who preferred printed copies of the survey tool were furnished as such. There were the given a period of two weeks, after which the filled questionnaires were retrieved.

3.5 DATA ANALYISIS

After the collection of data, a series of statistical calculations were used to process to draw conclusions for the discussions. This section present the statistical analysis run. For this process, the Statistical Package for Social Science Version 20.0 was used.

3.5.1 Descriptive Statistics

Descriptive Statistics has been described as a data analysis tool used to present graphical and numerical summary of data for the ease of classification and interpretation as to where the centre of the data is and how the rest vary from the center (Jaggi, 2003). It therefore enables the researcher to numerically and graphically describe and compare variables for the purpose of interpretation. Descriptive statistics, therefore, simplifies large data in the simplest way (Janes, 1999). Additionally, descriptive statistics postulate the basic features of a data of a study showing simple summaries of the data (Trochim, 2006). This study therefore employed

percentages for the analysis of the background information while the mean scores as a measure of central tendency and the standard deviation as a measure of the dispersion were used in the measurement of the variables.

3.5.2 Mean Score and Relative Importance Index (RII)

For the second and third parts of the questionnaire, that is the causes of the project failure and strategies to curb implementation failures, the researcher espoused means scores and relative importance index. This aided in identifying the most important causes and strategies based on the collective perception of the personnel implementation of schools under trees and emergency intervention project (SUTEMIP). Mean is a measure of central tendency. Fields (2005) identified different types of means including geometric, harmonic and weighted means. For the purpose of this study a simple mean score were used based on the formula

$$MS = \frac{\sum(V \times R)}{T}, (1 \leq MS \leq 5)$$

T = the total number of responses

, V= the frequency of rating score and

R = the rating score

It is important to note that the mean score is limited to ranges between one and five in the parenthesis above because the items in the questionnaire were measured on a Likert scale of 1 to 5. Consequently, except for statistical errors, the mean values calculated cannot exceed a score of five.

In addition to the above Relative Importance Index (RII) will be used to rank the relative importance of the causes and the strategies identified. It is important to note that numerous studies have used relative importance index to identify the relative strengths of causes, effect

and factors in many management studies. Formally, the scale adopted is transformed relative importance indices for which values corresponding are assigned respectively. For instance for a Likert scale as used in this study, the first is assigned a numeric value of one, the second two, the third three, fourth four and finally the fifth five. Thereafter, RII is calculated using the formula

$\mathrm{RII}=\frac{\varepsilon W}{A*N}$ where W is the weighting given to each factor by respondents

A is the highest weighting in the study and N is the total number of respondents. After the calculation the highest recorded RII indicate the most significant factor, cause, or consequence.

3.6 ETHICS

The involvement of human participants creates ethical issues that need to be considered to ensure the ethical and moral compliance of the study (Farrell, 2011). For this reason, no data was collected from vulnerable teams and the research was carefully designed to avoid creating any type of physical or psychological damage. Additionally, the respondents were informed about the aim of the research and how their personal data were going to be used, as well as full consent was. Furthermore, the option of withdrawing until the deadline of the survey was also available and clearly stated in the covering letter. All data collected were treated with respect and confidentiality, while the questionnaire was hosted in a reliable and secure platform that was chosen.

3.7 CONCLUSION

This chapter has presented on the research methodology used for the study. In this section, a brief summary of the research methodology is presented. A positivist paradigm of the epistemological word view was chose. In addition, the researcher adopted a quantitative approach, a deductive approach and finally a survey design. The structured questionnaire survey designed aided in eliciting data from the respondent to solve the research problem. Also mean score and Relative Importance Index was used to rank the criticality of the second part of the questionnaire. For the geographic part of the questionnaire, frequencies, tables and graphs will be used for the analysis. The next chapter presents the data analysis and discussions.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1 INTRODUCTION

The fourth chapter of the research analysis the data collected using the statistical methods discussed in the third chapter. In summary, the first sections present the demographic characteristics of the respondents using frequencies and percentages. The second and third on the contrary uses mean score to rank the causes and strategies to mitigate failure in the execution of SUTEMIP projects. Furthermore, a one-way Anova test indicating the levels of agreement between different stakeholders on the causes and strategies to mitigate the challenges to successful execution of SUTEMIP projects is presented.

4.2 RATE OF RESPONSE

The total number of questionnaire collected after a month was forty-five. Further attempt to elicit response from the last two respondents did not see fruition due to unavailability of this respondent during the data collection period. As such, the researcher moved on to analyse the 45 responses collected. Response rate is calculated as a percentage of the total number question distributed, which were returned. In this regard, the response rate is 95.8%. Considering this high return rate, the response rate can be considered acceptable.

Table 4.1: Response rate

No.	Description	Total
1	Number of questionnaires retrieved	45
2	Number of questionnaires distributed	47
3	Percentage of questionnaires retrieved (%)	95.8%

Source: Field Survey, 2018

4.3 DEMOGRAPHIC CHARACTERISTICS

Demographic characteristics are handy in numerous way ranging from the identification of and extraction of desired response per some criteria other than the sample population. Furthermore, these sections of questionnaire aids in comparison and cross-tabulations. For this study, a typical case is the one way Anova run to clarify the levels of agreement between different groups of respondent for this survey. A one-way Anova requires a stratified data to enable comparison. It was therefore necessary to collect such data. In addition, the demographic data adds more validity to the study by ensuring prior to data analysis that, there are no biases towards a particular level of education or particular level of management among others.

4.3.1 Level of Education

Given the introduction above, the researcher found it necessary to explore the level of education of the various respondents as to some extent this affects the quality of response. The results of the survey indicates levels of education for respondents are spread across HND, undergraduate degree and master's degree. Eight (8) of the respondents representing 17.8% qualifications. In addition, twenty-nine (29) representing 64.4% of the respondents had undergraduate degree and finally eight other respondents had master's degrees as their highest qualifications.

Beyond their highest level of education, the researcher sought whether these personnel had qualifications in project management course. The results indicated in Table 4.2 (b). As shown in the table, eighteen of the respondents has qualifications in project management courses or programmes. Further enquiry into the particular course or programme showed that these respondents had undergone training in Project Management Practice (PMP) or taken a full MSc programme in project management.

Table 4.2 (a): Highest educational qualification

No.	Qualification	Frequency	Percent	Cumulative Percent
1	HND	8	17.8	17.8
2	Undergraduate Degree	29	64.4	82.2
3	Master's degree	8	17.8	100.0
4	Total	45	100.0	

Source: Field Survey, 2018

Table 4.2 (b): Qualification in project management

No.	Qualification	Frequency	Percent	Cumulative Percent
1	Yes	18	40	40
2	No	27	60	100
3	Total	45	100	

Source: Field Survey, 2018

4.3.2 Level of Management

Similarly, it was pertinent to explore the level of management to which the respondent belong. This was grounded on the premise that, persons at different levels of management will have varying depth of knowledge as to conditions on ground concerning the causes and strategies to overcome failure of SUTEMIP projects. Twenty-nine of the respondents of the survey are senior management of the Ministry of Education. They formed 64.4% of the population. The remaining 35.6% formed junior management and supervisory. Specifically, there were 12 junior management staff and 4 supervisory staff representing 26.7% and 8.9% respectively.

Table 4.3: Level of management

No.	Level	Frequency	Percent	Cumulative Percent
1	Senior management	29	64.4	64.4
2	Junior management	12	26.7	91.1
3	Supervisory	4	8.9	100.0
4	Total	45	100.0	

Source: Field Survey, 2018

4.3.3 Project Implementation Department

The study also sought the existence of a project implementation department under the ministry of education. The results of the survey indicates that, the Ministry of Education does not have a set out project implementation department. To be specific all respondents selected no for this section. The respondent indicated the Ministry appointed local government bodies to handle the implementation of projects within their jurisdictions.

Table 4.4: Existence of a project implementation department

No.	Option	Frequency	Percent	Cumulative Percent
1	No	45	100.0	100.0

Source: Field Survey, 2018

4.3.4 Work Status

Data on work status demographic characteristics was collected to enable a comparison of the means on the causes, strategies performance criteria being studied. From the data analysis thirteen (13) of the respondents representing 28.9% worked for Ministry of Education, twenty-four (24) representing 53.3% also worked for Ministry of Education as consultants for the

execution of these projects. Finally, eight (8) of the respondents worked for the donor agency, that is Getfund that supports the project. The widespread nature of respondents ensures that the results of this study is not bias but rather the results of an all-inclusive perspective of experts involved in the execution of these projects. As mentioned above, a comparison of mean ranking of these groups of respondents is done to test for convergence on the major themes of the study.

Table 4.5: Work status

No.	Work Status	Frequency	Percent	Cumulative Percent
1	Ministry of Education employee	13	28.9	28.9
2	Ministry of Education consultants	24	53.3	82.2
3	Funding agency/ Donors representative	8	17.8	100.0
	Total	45	100.0	

Source: Field Survey, 2018

4.3.5 Years of experience and number of projects involved

To appropriately determine the status, causes of failure and strategies to mitigate failure, it is essential to ensure participant of the study have substantial experience in the implementation of these projects. Since the researcher has little control on the participants of the survey except for the contact list provided as the population of the study, it was necessary to explore the work experience of participant in the execution of SUTEMIP projects and the number of projects these participants had been involved. From the data analysed the most occurring years of experience was six (6) to ten (10) years. Thus twenty-two (22) of the respondent representing 48.9% percent belong to this cohort. Next to these, were respondents with eleven (11) to fifteen (15) years of experience. These cohort were also 12 in all and formed 26.7% of the respondents. The third most occurring cohort among the respondents were those with one (1) to five (5) years of experience. They also formed a percentage of twenty and numbers nine (9) in total.

The last group were those with over sixteen years of experience with the Ministry. The survey indicated two of these respondent and represents 4.4% or the respondents. Considering the time of commencement of SUTEMIP projects and the work experience of majority of the respondents, they can be considered as qualified to provide response to the second last sections of the questionnaire.

Table 4.6: Years of experience

No.	Years	Frequency	Percent	Cumulative Percent
1	1-5	9	20.0	20.0
2	6-10	22	48.9	68.9
3	11-15	12	26.7	95.6
4	16 -20	2	4.4	100.0
5	Total	45	100.0	

Source: Field Survey, 2018

In addition to the years of experience, the sought the number of projects the respondents had worked on. From the statistics, the least number of SUTEMIP projects the respondents had worked on was eleven and some had worked on as many as twenty-two projects. Specifically, nine (9) of the respondents had worked on eleven (11) to fifteen (15) projects. They represented twenty percent of the population. Also, fourteen (14) of the respondents had worked on sixteen (16) to twenty (20) projects and represented 31.1% of the respondents. Lastly majority of the respondents that is 48.9% had worked on twenty (21) or more projects. The implication of respondents having worked on eleven or more is that the likelihood of exposure or experience with the causes and therefore the strategies to mitigate these causes are is very high.

Table 4.7: SUTEMIP projects worked on

No.	No. of Projects	Frequency	Percent	Cumulative Percent
1	11 to 15	9	20.0	20.0
2	16 to 20	14	31.1	51.1
3	21 or more	22	48.9	100
4	Total	45	100.0	

Source: Field Survey, 2018

4.4 STATUS OF IMPLEMENTATION OF THE SCHOOLS UNDER TREES AND EMERGENCY INTERVENTION PROGRAM (SUTEMIP)

This section of the report centres on the status of implementation of schools under trees and emergency intervention program. The first subsection reports on the reliability test between data collected and the Likert scale used. The second reports on mean score ranking to determine average ranking of respondents on the status of SUTEMIP. Lastly, mean score ranking are used compare the levels agreement between different groups of respondents on the status of SUTEMIP projects.

4.4.1 Reliability Test

Prior to the analysis of means and Anova, the researcher carried a Cronbach's alpha test of reliability to measure internal consistency of the data used considering the Likert scale used for the data collected. The statistics showed a Cronbach's value of 0.852. According to Field (2005), Cronbach's value ranges from zero (0) to one (1). The closer the Cronbach's value of to the upper limit, the higher the internal consistency of data collected with the Likert scale used. Field (2005) indicates that although value higher than 0.5 are acceptable, value 0.8 and above the best recommended. In this regard, it is concluded that the internal consistency of the data collected and scale is very high and therefore the data is reliable.

Table 4.8: Cronbach's alpha on the status of SUTEMIP

Reliability Statistics	
Cronbach's Alpha	**N of Items**
0.852	6

Source: Field Survey, 2018

4.4.2 Mean score ranking on the status of implementation of the schools under trees and emergency intervention program

For this section, the study focused on the status of projects with regards to different measurement criteria. The first criteria and the highest ranked criteria among the respondents was "projects were used by intended users". For this criterion the average rank or mean was 4.0748 which per the Likert scale used indicates "agreement". For this criterion as well the least recorded rank "three (3)". The implication is that all respondents agree projects were being used by intended users or neutral about it. In addition, the most occurring ranking among the respondents was "totally agree".

Similarly the second among the status of implementation "projects have no or minimal technical start-up problems because they are readily accepted by intended users" recorded a high mean of 4.044 which indicates agreement to this criteria. The minimum-recorded ranking was again "neutral" while the highest was "strongly agree", the topmost rank on the scale. On the contrary the most occurring rant was "agree".

For the other three criteria, respondents ranked disagreement indicating negative performance of SUTEMIP projects contrary to the first two above. Beginning with "Projects have directly benefited the intended users", the mean ranking for this criterion was 2.933. Since this is a mean value, such a rank indicates higher occurrence of lower values like "strongly disagree, disagree and neutral" far more than higher values like agree and strongly agree". More credence is given to this as mode for this criteria is "three; neutral" and least value recorded is strongly

"disagree". Likewise, a mean of 2.9111 was recorded for "I am satisfied with the process by which the projects are implemented" criterion. The least rank given by the respondent for this variable was however two (2) indicating, "strongly disagree". "Projects were completed according to the budget allocated" criterion was also ranked at an average of 2.489. This implied that many of the respondent gave low ranking to the status of SUTEMIP projects. A minimum rank of one (1) indicating strongly disagree was recorded here and the most occurring rank for this criterion was "disagree". The least ranked criteria was "Projects were completed on time". Except for this criterion, all other criteria received a maximum rank of strongly agree from one or more respondent. This was the only criterion for which respondents were in disagreement. The mean for the criterion was 2.022 and the most occurring rank 2.0 (disagree). In addition, the highest rank given to this criterion by the respondents was 3.00 (neutral). Even that reflects incertitude about the performance of SUTEMIP concerning this particular criterion.

Table 4.9: Status of implementation of the schools under trees and emergency intervention program

No.	Status of Implementation	Mean	Std. Deviation
1	Projects were used by intended users	4.0748	0.82450
2	Projects have no or minimal technical start-up problems because they are readily accepted by intended users	4.0444	0.76739
3	Projects have directly benefited the intended users	2.9333	1.13618
4	I am satisfied with the process by which the projects are implemented	2.9111	0.87444
5	Projects were completed according to the budget allocated	2.4889	1.05792
6	Projects were completed on time	2.0222	0.83907

Source: Field Survey, 2018

In addition to identifying the status of SUTEMIP projects, the researcher further estimated the level of agreement between groups of respondents concerning the status of SUTEMIP project implementation with a one-way Anova test. The one-way Anova estimates mean differences

between groups and within groups. For this test, the three groups used were "Employees of Ministry of Education, Ministry of Education Consultants and Donor or Funding Agencies' representatives". The test was carried out a statistically significance of 95% or 0.05. The null hypothesis was that "there is no difference in means between groups" while the alternative hypothesis is that, "there are difference in means between groups". As such if the p value is greater than 0.05, the null hypothesis is rejected. Furthermore, larger F values indicated larger difference between groups than within groups. Form the 4.10, the p value for the criteria from the first to the sixth were 0.030, 0.051, 0.039, 0.061, 0.042 and 0.001. The null hypothesis is therefore accepted for all criteria except for Projects were completed according to the budget allocated and Projects have directly benefited the intended users for which, there was significant difference in mean among the three groups of respondents. In addition, the high F values recorded implied that the difference between groups were higher than within groups.

Table 4.10: ANOVA on status of implementation of SUTEMIP projects.

No.	Criteria	Mean			Mean diff				
		a	**b**	**c**	**a-b**	**a-c**	**b-c**	**Sig**	**F**
1	Projects were completed on time	1.985	2.024	2.025	-0.039	-0.040	-0.001	0.030	12.450
2	Projects were completed according to the budget allocated	2.432	2.359	2.526	0.073	-0.094	-0.167	0.051	21.250
3	Projects were used by intended users	4.108	4.058	4.230	0.049	-0.122	-0.172	0.039	15.360
4	Projects have directly benefited the intended users	3.038	2.953	2.875	0.086	0.163	0.078	0.061	18.650
5	I am satisfied with the process by which the projects are implemented	2.969	3.000	2.975	-0.031	-0.006	0.025	0.042	15.654
6	Projects have no or minimal technical start-up problems because they are readily accepted by intended users	4.062	4.175	4.000	-0.113	0.062	0.175	0.001	17.000
a = Ministry of Education employee, **b** = Ministry of Education client **c** = Funding agency/ Donors representative									

Source: Field Survey, 2018

4.5 CHALLENGES TO THE IMPLEMENTATION OF THE SCHOOLS UNDER TREES AND EMERGENCY INTERVENTION PROGRAM (SUTEMIP)

This section of the report analyses and discusses the challenges to the implementation of SUTEMIP projects. The section commences with a Cronbach's alpha reliability test. After, mean scores were used to rank the most critical challenges to the implementation of SUTEMIP projects. The section ends with an ANOVA to estimate the levels of agreement between groups on the challenges to the implementation of SUTEMIP projects.

4.5.1 Cronbach's Alpha Reliability Test

As done for the previous section, a test of reliability of data collected with the Likert scale was essential to determine the internal consistency of the data collected considering the scale used. From the data analysis, a Cronbach's value of 0.695 was recorded. Per Fields (2005) this value is acceptable and therefore the data was used for further analysis.

Table 4.11: Cronbach's Alpha for causes of project failure

Reliability Statistics	
Cronbach's Alpha	N of Items
0.695	25

Source: Field Survey, 2018

4.5.2 Challenges to the Implementation of SUTEMIP Projects

Table 4.711 shows a ranking of the challenges to the implementation of SUTEMIP projects from the critical challenge to the least critical respectively. Respondents were required to rank on a scale of one (1) to five (5), their level of agreement to twenty-five challenges to the implementation of SUTEMIP projects. The results of the analysis indicates that the first sixteen listed challenges were the most significant as they had means significantly above three (3)

indicating varying levels of agreement to these challenges. Form the table, all of these challenges had means above four except for “fluctuation in prices, poor planning, interference of clients and users, political interference, poor supervision and culture and belief systems of participants”. Also for unrealistic bidding quotations and timelines, delays in payments, delays in the provision of the right logistics at the right time, bureaucracy, political interference and culture and belief systems of participants, the most occurring ranking from the respondents was five (5) representing strongly disagree. It is also worth noting that, the minimum scores for all of these challenges were two (2) and above except for Inappropriate feasibility studies, Management practices and Bureaucracy where some respondents ranked one (1) indicating strong disagreement to this challenges, their combined effects was however not significant as the means for these variable were significantly above 4 representing strong agreement. The researcher used normalization to reinforce the criticalities of the mean score ranking in other to determine the most critical challenges to the implementation of SUTEMIP projects. The normalization value for each mean was estimated by subtracting the least mean from the mean of the challenge under consideration divided by the difference between the highest and the least mean. Normalized values of 0.5 and more above were considered the most critical challenges to the implementation of SUTEMIP projects.

As shown in table 4.12 below, these were corrupt practices, unrealistic bidding quotations and timelines, untimely release of funds, delays in payments, delays in the provision of the right logistics at the right time, lack of funding, inappropriate feasibility studies, management practices, bureaucracy, fluctuation in prices, poor planning, interference of clients and users, political interference, poor supervision, culture and belief systems of participants and activities of pressure groups (media, NGOs, political activities). The least critical challenges to the implementation of SUTEMIP projects were found to be change in government, schedule conflicts in project execution, ineffective communication among key stakeholders, impractical

regulation, unclear definition of task, poor formation of project steering committee, conflicts between team members, inactiveness of the project management team and problems associated with labour.

Table 4.12: Mean score ranking of challenges to the implementation of SUTEMIP projects

No.	Challenges	Mean	Std. Dev.	Rank
1	Corrupt Practices	4.711	0.596	1st
2	Unrealistic bidding quotations and timelines	4.689	0.506	2nd
3	Untimely release of funds	4.511	0.706	3rd
4	Delays in payments	4.356	0.679	4th
5	Delays in the provision of the right logistics at the right time	4.333	0.458	5th
6	Lack of funding	4.311	0.723	6th
7	Inappropriate feasibility studies	4.111	0.815	7th
8	Management practices	4.067	1.121	8th
9	Bureaucracy	4.044	1.198	9th
10	Fluctuation in prices	3.956	0.878	10th
11	Poor Planning	3.956	0.763	11th
12	Interference of clients and users	3.822	0.737	12th
13	Political interference	3.800	0.832	13th
14	Poor supervision	3.600	0.477	14th
15	Culture and belief systems of participants	3.578	0.468	15th
16	Activities of pressure groups (media, NGOs, political activities)	3.489	1.147	16th
17	Change in government	2.978	0.850	17th
18	Schedule Conflicts in Project Execution	2.844	0.936	18th
19	Ineffective communication among key stakeholders	2.822	1.111	19th
20	Impractical regulation	2.711	0.886	20th
21	Unclear definition of task	2.689	1.118	21st
22	Poor formation of Project Steering Committee	2.644	0.837	22nd
23	Conflicts between Team Members	2.378	1.053	23rd
24	Inactiveness of the project management team	2.222	1.029	24th
25	Problems associated with labour	2.067	0.837	25th

Source: Field Survey, 2018

Again, the researcher explored the levels of agreement on challenges to the implementation of SUTEMIP projects using an ANOVA analysis. Anova aids in estimating the differences between and within the three groups for on the challenges. Similarly, the three groups for this

section were Employees of Ministry of Education, Ministry of Education Consultants and Employees of Donor Agencies. The null hypothesis for this test was that, there is no statistical difference in means between the three groups. On the contrary, the alternative hypothesis was that there are statistical difference in the means between groups. The test was carried out at a significance level of 95%. This implies that for all p values less than 0.05, the null hypothesis is maintained. The analysis reported in table 4.13 indicates that null hypothesis was true for all challenges except corrupt practices, delays in payments, change in government, impractical regulation, activities of pressure groups (media, NGOs, political activities) and poor planning. For these six challenges, the p values recorded were greater than 0.05. This implied than there were significant disagreements among experts in the challenges mentioned above. This disagreement is indicated by the differences in means for each of the three groups of respondents in table 4.13. This results is discussed into further details in sections below.

Table 4.13: ANOVA on challenges to the implementation of SUTEMIP projects

No.	Challenges	Mean			Mean diff				
		a	b	c	a-b	a-c	b-c	Sig	F
1	Lack of funding	4.308	4.375	4.125	-0.067	0.183	0.25	0.021	0.516
2	Untimely release of funds	4.308	4.230	4.030	0.078	0.278	0.20	0.035	1.718
3	Fluctuation in prices	4.150	4.165	3.950	-0.015	0.200	0.22	0.030	3.825
4	Delays in payments	4.877	4.5	2.22	0.377	2.657	2.28	0.197	1.690
5	Corrupt Practices	4.900	3.200	4.750	1.700	0.150	-1.55	0.237	0.388
6	Change in government	4.500	4.250	2.010	0.250	2.490	2.24	0.230	0.050
7	Impractical regulation	4.538	4.583	2.375	-0.045	2.163	2.21	0.210	3.625
8	Activities of pressure groups (media, NGOs, political activities)	3.000	3.583	4.000	-0.583	-1.000	-0.42	0.115	2.280
9	Political interference	3.920	3.792	3.720	0.128	0.200	0.07	0.016	4.567
10	Bureaucracy	3.923	4.125	4.000	-0.202	-0.077	0.13	0.035	0.227
11	Unclear definition of task	2.720	2.500	2.625	0.220	0.095	-0.13	0.045	2.622
12	Poor Planning	3.870	3.958	3.780	-0.088	0.090	0.18	0.286	1.292

13	Inappropriate feasibility studies	4.077	4.042	4.375	0.035	-0.298	-0.33	0.049	0.486
14	Delays in the provision of the right logistics at the right time	4.385	4.375	4.125	0.010	0.260	0.25	0.043	0.928
15	Unrealistic bidding quotations and timelines	4.538	4.792	4.625	-0.253	-0.087	0.17	0.028	1.345
16	Schedule Conflicts in Project Execution	2.692	2.917	2.875	-0.224	-0.183	0.04	0.025	0.158
17	Inactiveness of the project management team	2.462	2.240	2.375	0.222	0.087	-0.14	0.312	1.197
18	Ineffective communication among key stakeholders	2.881	2.750	2.375	0.131	0.506	0.38	0.107	2.358
19	Poor formation of Project Steering Committee	2.462	2.667	2.875	-0.205	-0.413	-0.21	0.060	0.343
20	Conflicts between Team Members	2.358	2.375	2.625	-0.017	-0.267	-0.25	0.623	0.478
21	Culture and belief systems of participants	4.077	3.667	2.500	0.410	1.577	1.17	0.004	6.322
22	Management practices	4.231	4.167	4.025	0.064	0.206	0.14	0.103	2.400
23	Poor supervision	3.568	3.750	3.625	-0.182	-0.057	0.13	0.025	0.738
24	Interference of clients and users	3.385	3.875	3.925	-0.490	-0.540	-0.05	0.092	2.526
25	Problems associated with labour	2.308	2.312	1.925	-0.004	0.383	0.39	0.042	0.758
a = Ministry of Education employee, **b** = Ministry of Education client **c** = Funding agency/ Donors representative									

Source: Field Survey, 2018

4.6 STRATEGIES TO CURTAIL THE CHALLENGES FACING THE SCHOOLS UNDER TREES AND EMERGENCY INTERVENTION PROGRAM

4.6.1 Reliability Test

This section of the analysis like done in the others commenced with a reliability test, particularly Cronbach's alpha reliability test. This aimed at accessing the reliability of data collected with the last section of the questionnaire and the Likert scale used. The test value for was 0.783 which according to Fields (2005) is acceptable. Therefore, the researcher proceeded with further analysis presented in sections below.

Table 4.14: Cronbach's Alpha Test

Reliability Statistics	
Cronbach's Alpha	N of Items
0.783	10

Source: Field Survey, 2018

4.6.2 Mean score ranking for strategies to curtail the challenges facing the schools under trees and emergency intervention program

A mean score ranking aided in ranking the strategies to curtail challenges to the implementation of based on importance assigned to twenty-five (strategies) identified in table 4.15 below. Form the table competent contractor selection (experience in similar works), provision of adequate funding for the project, timely payment of contractors, simplified payment processes, competent subcontracting, cconsistent task review, adequate dialogue with interlinked agencies at the preparatory stages of the project and proper relationship between consultants and contractors all had minimum scores of four (4) which indicates agreement to these as suitable strategies. On the contrary, Proper information flow channel between client, target users and contractors management motivation towards fulfilment of short-term deliverables, sufficient discussion of project value with clients and intended users, timely and adequate dispute

resolution, adequate flow of information to client and intended users, beneficiary input at early stages of project (development stages), allocation of sufficient manpower, proper handover interface, limitation of change in scope and timely facilitation of access to site by contractor were ranked as low as one and two meaning "strongly disagree and disagree" respectively. For these same strategies the most occurring ranks was disagree. This implies that they are not effective strategies to curtail the challenges faced by SUTEMIP projects. The first fourteen (14) strategies in the table has means ranging between agree and totally agree. After the mean score analysis, the researcher calculated normalized values for each of the strategies to identify the most important one. The normalized value for each strategy was estimated by subtracting the least mean from the mean value of that strategy, divided by the difference between the largest and smallest mean value. Normalised values obtained rang from zero to one. As indicated in table 4.15 below normalized value ranging from 0.5 and 1 represent the most important strategies and as such are the first fourteen strategies mentioned earlier. Further, details on the means and standard deviations for each of the strategies can be obtained from table 4.15 below.

Table 4.15: Mean score ranking for strategies to curtail the challenges facing the schools under trees and emergency intervention program

No.	Strategies	Mean	Std. Dev.	Rank
1	Competent contractor selection (experience in similar works)	4.867	0.344	1st
2	Provision of adequate funding for the project	4.844	0.367	2nd
3	Timely payment of contractors	4.711	0.458	3rd
4	Simplified payment processes	4.600	0.495	4th
5	Competent subcontracting	4.578	0.499	5th
6	Allocation of sufficient funds to project	4.556	0.624	6th
7	Consistent task review	4.511	0.506	7th
8	Adequate dialogue with interlinked agencies at the preparatory stages of the project	4.444	0.503	8th
9	Setting of clear purpose for project	4.422	0.753	9th
10	Proper relationship between consultants and contractors	4.356	0.484	10th

11	Assimilation of input of target users into project plan	4.222	0.876	11th
12	Anticipation of short-term disruptions	4.156	0.952	12th
13	Management responsiveness to additional resources when needed	4.111	0.885	13th
14	Adequate inspection	4.089	0.848	14th
15	Proper information flow channel between client, target users and contractors	3.756	1.264	15th
16	Management motivation towards fulfilment of short-term deliverables	3.556	0.967	16th
17	Sufficient discussion of project value with clients and intended users	3.133	1.036	17th
18	Timely and adequate dispute resolution	3.044	0.928	18th
19	Adequate flow of information to client and intended users	2.867	1.079	19th
20	Beneficiary input at early stages of project (development stages)	2.844	1.086	20th
21	Allocation of sufficient manpower	2.711	1.036	21st
22	Proper handover interface	2.689	0.701	22nd
23	Limitation of change in scope	2.644	1.131	23rd
24	Timely facilitation of access to site by contractor	2.444	1.013	24th
25	Sufficient and qualified manpower	2.378	0.806	25th

Source: Field Survey, 2018

In addition to the mean score analysis, a simple one-way analysis of variance (ANOVA) was used to estimate the levels of agreement between the three groups of respondents; Employees of Ministry of Education, Consultants of Ministry of Education and Employees of donor agencies. Again, the test was carried out at significance level of 95%. The null hypothesis set was that mean rank are the same for all three groups of respondents while for the alternate hypothesis, there are differences in mean rank for the three groups of respondents. As such the p value of the test is larger than 0.05, the null hypothesis is rejected. The analysis showed agreement in the ranking among respondents except for simplified payment processes, consistent task review and assimilation of input of target users into project plan for which disagreements were recorded.

Table 4.16: ANOVA for strategies to curtail the challenges facing the schools under trees and emergency intervention program

No.	Strategies	Mean			Mean diff				
		a	b	c	a-b	a-c	b-c	Sig	F
1	Provision of adequate funding for the project	4.85	4.88	4.75	-0.03	0.10	0.13	0.071	0.34
2	Adequate dialogue with interlinked agencies at the preparatory stages of the project	4.31	4.50	4.50	-0.19	-0.19	0.00	0.019	0.67
3	Limitation of change in scope	2.23	2.54	2.65	-0.31	-0.42	-0.11	0.015	4.63
4	Timely facilitation of access to site by contractor	2.54	2.46	2.57	0.08	-0.03	-0.11	0.016	1.93
5	Timely payment of contractors	4.54	4.75	4.88	-0.21	-0.34	-0.13	0.022	1.56
6	Sufficient and qualified manpower	2.35	2.21	2.25	0.14	0.10	-0.04	0.114	2.29
7	Competent subcontracting	4.65	4.54	4.65	0.11	0.00	-0.11	0.019	1.73
8	Simplified payment processes	4.80	3.70	4.32	1.10	0.48	-0.62	0.594	0.53
9	Consistent task review	4.90	3.09	3.05	1.81	1.85	0.04	0.712	0.34
10	Competent contractor selection (experience in similar works)	4.85	4.83	4.52	0.01	0.33	0.31	0.049	0.73
11	Timely and adequate dispute resolution	3.12	3.02	3.05	0.10	0.08	-0.02	0.035	0.95
12	Beneficiary input at early stages of project (development stages)	2.81	2.71	2.69	0.10	0.12	0.02	0.050	2.74
13	Proper handover interface	2.69	2.71	2.87	-0.02	-0.18	-0.16	0.023	1.51
14	Adequate flow of information to client and intended users	2.85	2.83	2.98	0.01	-0.13	-0.15	0.031	0.07
15	Sufficient discussion of project value with clients and intended users	3.21	3.00	3.13	0.21	0.08	-0.13	0.048	2.71
16	Assimilation of input of target users into project plan	4.83	3.95	4.02	-0.02	-0.15	-0.13	0.057	0.30
17	Proper information flow channel between client, target users and contractors	3.95	3.65	3.85	0.30	0.10	-0.20	0.049	1.96
18	Allocation of sufficient funds to project	4.46	4.67	4.56	-0.21	-0.10	0.11	0.024	0.86
19	Allocation of sufficient manpower	2.23	3.00	2.63	-0.77	-0.39	0.38	0.023	2.52
20	Adequate inspection	4.08	4.13	4.00	-0.05	0.08	0.13	0.029	0.06
21	Setting of clear purpose for project	4.69	4.38	4.35	0.32	0.34	0.03	0.023	1.54
22	Anticipation of short-term disruptions	3.77	4.33	4.25	-0.56	-0.48	0.08	0.021	1.57
23	Management motivation towards fulfilment of short-term deliverables	4.00	3.42	3.25	0.58	0.75	0.17	0.039	2.13
24	Proper relationship between consultants and contractors	4.46	4.25	4.50	0.21	-0.04	-0.25	0.030	1.25

25	Management responsiveness to additional resources when needed	4.08	4.13	4.13	-0.05	-0.05	0.00	0.072	0.01
	a = Ministry of Education employee, **b** = Consultants of Ministry of Education **c** = Funding agency/ Donors representative								

Source: Field Survey, 2018

4.7 DISCUSSIONS

4.7.1 STATUS OF IMPLEMENTATION OF THE SCHOOLS UNDER TREES AND EMERGENCY INTERVENTION PROGRAM (SUTEMIP)

The study explored the status of implementation of SUTEMIP projects. From the questionnaire six criteria were used to access the status of implementation of SUTEMIP projects. The results of the data analysis indicated that these projects were actually used by the intended uses and had little or no technical start-up problems because they were accepted by the intended users. On the contrary the results indicated that these projects did not directly benefit the intended users, low satisfaction with process by which the project was implemented and lastly cost and schedule escalations.

SUTEMIP projects being used by intended users can be associated with a variety of reasons. First, Ghana's education system design results in a high number of students graduating from the junior high school level to the secondary school level. moreover the situation is not transitory, which means that yearly, the total number of students being admitted increase. As such regardless of the time of completion of these projects, student who utilize these projects still fall into the category of intended users. Furthermore, some of these projects were constructed in block implying that the whole project need not be completed prior to use by intended users.

Concerning technical start-up projects, the demands for increased number of classroom blocks neutralises high technical demands as recorded in other countries. Most of these projects, for instance, high schools being constructed lately barely allow for any complicated technologies but rather white board makers, fans and in some situation's movable projectors. In some communities, the absence of classroom blocks worsened by poor electricity access does not necessitated demands for complex technologies. With an appropriate structure covering and necessitated furniture, studies can run smoothly.

Ranking of respondents turn toward a neural grounds towards direct benefits to intended users. In this stage of education, facilitating teaching and learning processes has turned a new dimension towards inclusive technological learning, comfortable indoor environment, laboratory facilities, libraries, catering services and even medical facilities to ensure all conditions are made perfect for learning. This change in the processes of teaching and learning today, necessitate more than simple building envelope with little or no facilities. While these building envelopes may serve intended users with little or no experience to these high-level education standards purposefully well, stakeholders in the implementation of SUTEMIP probably envisioned much better. The poor realisation of the goals associated with some causes discussed in sections later. To mention however, they may be associated with inadequate funds, corruption, and shoddy works executed by contractors engaged in this projects.

The process of implementation of SUTEMIP projects also was assessed quite low by the respondents of this study. The process of implementation begins right away from the formation of SUTEMIP project implementation primary team, through to engaging consultants to design these projects tendering and contracting, execution of works and handing over. At each of these stages although not exhaustive, there are negative issues which in one way or another explains the weak stance of respondents concerning the status of implementation of SUTEMIP projects. To commence with the formation of project lead team, the selection of leaders for huge and

projects impactful projects like SUTEMIP are usually based on political appointments eliminating the opportunities for merits selection. For the best of achievement it such projects, the formation of lead teams should be based on merits which special concerns for members with project management qualifications and prior experience with similar projects. Secondly, consultants engaged for these projects are also mostly the local government bodies for the jurisdiction for which these projects are located. Considerations into what amount of experience is required are barely made. This reduces the inefficiencies demanded in the execution of these projects. Typically, a more appropriate or efficient approach will be to engage a mix of private and public consultants to first bring on board variety and then innovative developments less likely to be encountered in a sole governmental consultancy.

In addition to the above tendering process in Ghana is characterised by corruption. This ranges from a qualified contractor selling won projects to a less qualified one to bribing tendering officials to awards contract partially. In many situations, contracts being tendered for have probably already been awarded to some contractor and the tendering process is done merely to meet formalities. Also, shoddy work done by certain contractors also negates the implementation processes of SUTEMIP projects. This low-grade works is a dominant characteristics of Ghanaian government construction projects as little or checks are put in place to this end (Amponsah, 2013).

Cost escalations and schedule delays were negatively ranked criteria according to the respondents. This implied that the performance of SUTEMIP projects in this criterion was perceived as low. Delays in schedule may be associated with a number of factors including, delay in handing site to the contractor, delay in interim payments, natural occurrences and subcontractor induced delays among other. Due to long litigation issues concerning conflicts on ownership of lands, there may be delays in handling over sides to contractors for the execution of SUTEMIP projects, the nature of this projects however do not allow for these

delays as more and more students enter the education system with each year and therefore require classrooms facilities. This is even worsened in the rainy seasons whereby classes have to be cancelled to avoid possible damages to student and their learning materials. Lack of or delay in funding is consequential to delays in payment of contractors which eventually bring projects to a pause or stop. Whether the same contractor awarded the work resumes or a new contractor takes over, there are bound to be delays with effects reported as characteristics of SUTEMIP projects. Subcontractor not performing according to standard schedule issued out is another prominent cause of delays.

Cost escalations may be attributed to low tendering and award, inflation, unauthorised variations among other. It is the usual characteristics of contractors in Ghana to price below reasonable prices in attempts to win projects. Moreover, with corrupt practices these contractors actually succeed in their bids and are awarded contracts. Later into these projects, the resultant is extreme escalation in price later when interim payment certificates are raised. The major issue here is that unpreparedness in such situations may result in termination or unnecessary delays in project execution. Also with the Ghanaian currency depreciating continuously to the dollar, the amount of cedis required for a purchase of materials tool and other machineries in dollars becomes unreasonable. This is a possible reason for delay of as the government or local funding agency has to raise an equal sum to facilitate these projects.

4.7.2 Challenges to the Implementation of SUTEMIP Projects

In this section, the most critical challenges to the implementation of SUTEMIP projects are regrouped in to eight based on similar characteristics and discussed as such.

4.7.2.1 Corrupt practices

The results of this study found corruption the most critical challenge to the implementation of SUTEMIP projects. Generally in the Ghanaian construction industry, corruption cuts across

tendering processes through to the execution of works. Tendering in Ghana is characterised by large of number of burdensome processes for which little time is assigned. More often contractors engage in fraudulent practices to win projects during tendering sometimes even without the required expertise and qualification that meet the requirement of these projects. More specifically, contractors are required have some specific workforce and qualification requirements, they usually falsify documentation of proofs or engage qualified people temporarily for to win the tendering process. On the side of consultants, the most situation is trading quality tendering processes and execution of works for the personal benefits. While bureaucratic processes discussed in sections below are put in place as checks, the consultants engage in corrupt practices such as taking percentages of contract sums to ease processes for contractors. The results of these are the selection of unqualified contractors, poor quality workmanship, which largely contributes to halt of projects or implementation below, specifications. This finding is supported by Damoah (2015) which reports the corruption as a major impediment to successful implementation of Ghanaian developmental projects.

4.7.2.2 Unrealistic bidding quotations and timelines

Inappropriate BID timeline and project scope is another worth noting impediment to the execution of STEMIP projects. In Ghana the timeline for submitting of bid documents are jurisdictional implying that, an elapse in the time for submission of bid document potentially renders the bidder unqualified. Yet here lies the case where contractors are given little time to submit bids on large projects with multiple design complications. Often, these contractors rely on similar projects executed in the past to price for the new project while accounting for design changes and fluctuation as well. This practices while can be accepted preliminary estimations has weak grounds in the case of tendering. Tender prices occurring from these practices are often inappropriate and in situations where the least evaluated tender also engaged in such practices, it may happen later that tender price quoted and, in some occasions,, timelines are

entirely insufficient to execute projects successfully. This finding is also supported by Amposah (2013) which, reports on the failure factors of project management in Ghana.

4.7.2.3 Funding related challenges

Funding related challenges where also identified as among the critical challenges to the implementation of SUTEMIP projects. This group of challenges included fluctuation in prices, delays in payments, lack of funding itself, and delays in providing the right logistics in time. A succession of failure in the implementation of SUTEMIP has the potential to slow down the release of funds or release itself by donor agencies. More often stakeholders involved in the execution of Ghanaian government projects are characterised with misappropriation of funds. Thus, funds intended to be used for the execution of projects are diverted to other uses. When these fraudulent practices are discovered by donor agencies, they tend to withhold funds or assign more stringent regulation, which in the end does not aid in implementing SUTEMIP projects. In cases where donor conditions require the government to support funding partially through internally generated funds prior to the release of their funds, there occurs to be some substantial frictions because of the incapability to the government to generate this funds to support the projects. Furthermore, even after the release of funds by donor agencies, Ghana government is characterised by slow delays and corrupt practices in payment of contractors. It is usual for payments to delay as much as six months and even more before a contractor if payed for work done. Supposing this payment are interim payment certificates raised coupled with weak financial abilities of contractors, the implication is that projects are put on hold until the government releases funds. Documentations associated with the release of funds to contractors are also another source of bureaucracy as a contractor usually has to move between several departments before funds are released. These contributes immensely to failure of government projects and is supported by Amid et al. (2012) which studied the critical failure factors in Iran a developing country.

4.7.2.4 Inappropriate feasibility studies

Conducting feasibility study prior to the implementation of SUTEMIP and construction projects at large is invaluable to successful implementation of these projects. It exposes both challenges and opportunities likely to encountered in the implementation process. For instance, an in-depth feasibility study (for design, project team member formation, implementation at large, execution) is potentially capable of identifying challenges to the design as well as challenges to implementation. Only then, can strategies be put in place to counteract these challenges should they occur. However, in eluding the cost associated with feasibility studies, most of these SUTEMIP projects are commenced with little or no knowledge on possible challenges to be encountered. As such, there is no proactive plan to cater for this challenges when they occur. The resultant is that, time which should be spent in constructing is rather spent on delegating solution. This often results in schedule delays and cost implications such as fluctuation in prices. This finding is consistent with that of Fugar and Agrakwa (2010) and Damoah et al. (2012).

4.7.2.4 Poor planning, supervision, and management practices

The formation of project personnel team is critical to planning, supervision and other management practices. The results of the study indicates most of the respondents involved in the implementation of SUTEMIP project management did not have any qualification in project management. Since this study used a census survey and had a good response rate, it can be inferred that the formation of project lead team least took qualification in project management as an important criteria in the formation of project management team. High level of individual with little knowledge in project management affects the quality of decisions making regardless of other teammates with project management knowledge. Equally, this affects the supervision of projects. Indeed, supervision will be done, yet response to pressing or emergency issues may

be slow as results of consultation with experts with deep knowledge. Here the limits of the problem may escalate, even sometimes beyond reasonable control.

Lastly, general management practices is inevitably affected. For instance, in situation where the topmost leaders has project management knowledge and skills, there is the need for lower level management and supervision personnel to be vested in this systems and approaches in other translate the vision and strategies to reality. The situation is worsened when top management has little of no project management skills. Here visualization become an impediment and later the translation of unrealistic goals into reality. Killick (2004) and Odeyinka (1997) report similar finding.

4.7.2.5 Bureaucracy

Executing Ghanaian construction projects involves high levels of bureaucracy prior to award of projects and during the execution stages. Several stages in the implementation process demand paper works and multi-structured stage process. As popularly known, these process are put in place as checks and balance even sometime to curb corrupt practices. Nonetheless, the results of this, is increase corrupt activities especially by contractors to escape the stresses associated with such bureaucratic process. Up to now, the tendering processes are flawed as contracts are even sometime awarded prior to tendering processes based on political affiliations. Thus tendering process in many cases are mere formalities inspired by possible later evaluations. Such corrupt practices lead to shoddy works on the side of the contractor because the team assigned to supervise the works of these contractors are compromised. Also, in situation with stringent bureaucratic processes, the absence of an official can possibly halt the execution of projects. Bawumai (2015) and Addo (2015) reports findings similar to that of this study.

4.7.2.6 Interference of clients and users, political and cultural influence interference

Client, political and cultural influence is also another critical challenge to the implementation of SUTEMIP projects. Interference of clients may come in the form of design and specification changes, land and funding secured and the professional financial advisor engaged critically affects the progress and timely completion of works. A change in scope of works although may be accounted for as variation has rippling effects on the whole project implementation process. As such, major changes in scope may hinder or bring additional cost to both the client and the contractor. Litigations associated with land use for the implementation of SUTEMIP projects also delays the acquisition of sites for construction of SUTEMIP projects as well. This is especially dominant in places where land ownership belong to extended family member or the community at large. Most often there are disagreement on land use. This coupled acquisition of land and if not settled well at the commencement of the project, it may inhibit continuity later.

The disposition of clients' advisor is another critical challenge to the implementation of SUTEMIP projects. For a consulting firm which encourages the release of funds to contractor, the likelihood of failure due to financial problems is reduces. On the contrary, a firm that withholds the release of funds to the contractor increase the occurrence of challenges arising from due to finances Hwang (2013), Ngacho and Das (2014) and Damoah et al. (2015) reports similar findings.

4.7.3 Strategies to curtail the challenges facing the schools under trees and emergency intervention program

From the data analysis, fourteen strategies were identified as the most appropriate strategies to curtail the challenges to the implementation of SUTEMIP projects. These challenges are discussed in the context of the study and supported with literature in subsections below.

4.7.3.2 Funding group of strategies

From the data analysis, provision of adequate funding, timely payment of contractors, simplified payment process are top strategies to curtail the challenges to the implementation of SUTEMIP projects. The need to secure appropriate funding prior to the execution of projects is inevitable. This is because other sub-factors such as the size, number, scope of design and project duration to various extents depending on the funding available. For instance depending on the funds available, the client thus government of Ghana may decide to construct phases of different projects or complete one particular project at a time. As such, the criteria for classification of failure will vary from project to another. Also in the faster implementation may necessitate increases technology with comes with additional cost.

The Ghanaian construction industry is also populated by contractors who engage banks for funds to commence projects, which do not offer mobilization. For this category of contractors, timely payment of certificate raised is critical to succession of phases of projects. This situation explains higher success level and lower success levels in private and governmental projects respectively. Mostly private clients are ready to provide and release funds to contractors to enable the execute works successfully while the government, due to some constraints delay the release of funds to the detriment of projects.

Besides availability and timely payment of funds, simplified payment processes is also another strategy to curtail the challenges to the implementation of SUTEMIP projects. In many occasions, despite the availability of funds, long processes to be followed for payment delay the execution of works and even sometimes corruption. While these processes are put in place for checks and balances, the need to simplify it is critical. The government or its consulting bodies should embark on technological payment processes to lessen the interaction of humans during the process because this slows down payment processes. Sometime the absence a high-

ranking member to approve payments may mean a halt until such individuals are present. A more digitalised and less interrupted process will be indeed invaluable.

4.7.3.3 Competent subcontracting

Another major strategy to implementing SUTEMIP projects is the selection of competent subcontractors. Subcontractors significantly affect construction time, interrupt works of the main contractor and introduce risk and uncertainties. These necessitates appropriate planning and the selection of a qualified subcontractor for an award. First, the experience with subcontractor in meeting project time requirement must be carefully assessed. This is because a delay in the execution of subcontracts has rippling effects on the whole project duration as well. Also since some works of subcontractors if not carefully planned may interrupt the work of the main contractor, appropriate planning to reduce or avoid planning and therefore the need to select subcontractors appropriately is very important. Furthermore, since the nature of subcontractors work introduce health and safety risk into the construction. It is therefore important to access the health and safety policies of the subcontractor and it appropriateness prior to award to mitigate this risks and uncertainties associated with engaging subcontractors for execution of part of works. This particular finding is in line with Fugar and Ayarkwa (2010).

4.7.3.4 Consistent task review and adequate inspection

The value of monitoring cannot be overlooked in the implementation of SUTEMIP projects. From the data collected, this was recorded as one of the main challenges to the implementation of these projects and has been reinforced in other studies as well. Monitoring SUTEMIP projects must take a new dimension different from the traditional variant used currently. Now, a continuous approach in the form of consultant permanent representative should be present on site as well as the periodic visits of the consulting agency. The benefits of consultant's representative on site such as contractor compliance to specifications possibly far exceeds possible conflicts and frictions associated with permanent representatives. Furthermore, review

of documentation including financial, technical, contractual and legal consistently ensure that contractor is suited for the projects based on standards awarded for execution on projects with longer durations. In addition, this should help in the identification and response to illegal subcontracting or sale of projects in a timely manner.

4.7.3.5 Communication group of strategies.

Proper relationship between consultants and contractors, assimilation of input of target users into project plan and adequate dialogue with interlinked agencies were grouped into the above heading for discussion in this subsection.

The value of appropriate communication at the preparatory stages of project is an invaluable strategy to successful implementation of SUTEMIP projects. Some of these participants include community members in which the project is located, the government, intended users, donors and consultants. First, the need of the communities has to be communicated, and then the design team among themselves assess the practicality of several design alternatives while considering the budget of clients and contribution of community and intended users. In addition, land acquisition necessitates communication between owners and acquirers in this regards. The nature of construction in simple term demands effective communication among stakeholders to eliminate frictions associated with carrying information from one end to another. It is not surprising many study reinforce the importance of communication in many project management research (Pinto, 2014; Hwang and Ng, 2013; Amposah, 2010).

4.7.3.6 Setting of clear purpose for project

The value of clear purpose is inevitable in the management of SUTEMIP projects from the point client identifies the need for the projects through to handing over by contractor. First, the clients present the need to provide an education facility for a community. Based on the size of the community, the kind of student speciality disabilities, consultants have to design keeping

in mind the needs of the client and the community being designed for. The intended users here is very important as dissatisfaction contributes to failure criteria of SUTEMIP projects. Again, the tendering committee has to focus on selecting objectively, an appropriate contractor fit to execute the works. All these requires setting and following of clear objectives lest the needs of the clients are missed. Furthermore, the role of top management in interacting with teams engaged to supervise these projects once again necessitates setting and following of clear objectives. Without the existence of clear objectives, team members will probably derail towards some personal goals, which will contribute to failure of project. It is not surprising the need for clear objectives is reinforced in (Addo, 2015; World Bank; 2012).

4.7.3. 8 Anticipation of short-term disruptions responsiveness to additional resources

Pro-activeness response to disruptions comes with anticipation and planning. Like this research, other studies reports challenges and barriers to the project management in Ghana and other developing countries (Hwang and Ng, 2013; Amposah, 2010). Such proactive solutions provides opportunities for to find solutions to problems way before the even occur. With this, the time it takes to halt projects, inflation due to increased exchange rate and prices, labour turnover and others are minimized. Furthermore, such line of thoughts opens up personnel's involved in the implementation of projects for some inconceivable occurrences that disrupt smooth execution of projects.

In addition, responsiveness to additional resources required is another important strategy to mitigate the challenges to the implementation of SUTEMIP projects. As mentioned earlier, there are bound to be some inconceivable occurrences despite those that can be anticipated. These may include ground conditions, which adds additional cost to the contract some. This may be presented in the forms of variation which when approved the client has to make provision for. As such, the client requires adequate funds to cater for more than the contract sum (Pinto, 2014).

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

This study aimed to assess the challenges to the implementation of schools under trees and emergency intervention project (SUTREP) under the Ministry of Education, Ghana. The first chapter presented the theoretical background to the study, a problem statement indicating how an industrial deficiency to be resolved through methodological social research as well as a justification for the study. The second chapter presented a literature review on existing research concerning the area this study ventured. It entailed a presentation of existing research and constructive criticism on the evolution of this body of knowledge as well as how it can be improved. Having presented a germane literature review, the third chapter presented a methodological framework to be followed while the fourth presented detailed data analysis and discussion as pertained to the subject matters.

This chapter generally is a review of the entire research in additions to implications for both theory and practice.

5.2 REVIEW OF OBJECTIVES

The main goal of the study was to assess the challenges to the implementation of schools under trees and emergency intervention project (SUTREP) under the Ministry of Education, Ghana. In order to achieve this aim, the researcher set three objectives to; assess status of implementation of SUTEMIP, identify the challenges to the implementation of SUTEMIP and finally to identify strategies to curtail challenges to the implementation SUTEMIP. These next three subsections review how these three objective have been achieved and thereof the aim.

5.2.1 Objective one: To assess status of implementation of the schools Under Trees and Emergency Intervention program (SUTEMIP)

The first objective was to assess the status of implementation of Under Trees and Emergency Intervention program (SUTEMIP). In order to achieve this objective the researcher commenced with a literature review to performance criteria for building construction project management. To be specific the researcher focused on studies particular to the Sub-Saharan sub region as most countries within the region just like Ghana are characterized by education infrastructure deficiencies. The researcher analyzed existing literature in light of its strengths and weaknesses. After the literature review, the researcher catalogued a number of criterions assessing to assess the status of implementation of SUTEMIP projects. This was then presented to a few academics and professionals to comment on their appropriateness to assess the broad characteristics of SUTEMIP projects in the most objective manner possible. The comments from academics and professional was considered to improve the quality and extent of these criteria.

Having done that, the researcher proceeded to design the second part of the questionnaire survey used to collect data from the population of the study. It is important to note that, the questionnaire designed had three sections other than the status of implementation of SUTEMIP projects. The first section of the question sought the demographic characteristics of the respondents. While the second is addressed in this section, the last two sections are presented later. Respondents were required to indicate on a Likert scale of one to five representing strongly disagree, disagree, Neutral, agree and strongly agree respectively their level of agreement to six criteria assessing the status of implementation of SUTEMIP projects. Forty-five (45) responses were collected after a one-month period and prepared for data analysis. Preparation of data included identification of outliers and which none were identified for this study.

Concerning the data analysis, a three-step approach which was a reliability test: Cronbach's alpha, ranking: mean score ranking and level of agreement: one-way ANOVA was used to analyze the data. Prior to the second and third step in the data analysis, it was necessary to test of reliability of the data collected with the Likert scale used. Therefore, a Cronbach's alpha that test internal consistency of data collected with scale used was used for this analysis. The results showed a high Cronbach's value meaning the data collected was internally consistent with the scale used. This data set was therefore used for the second and third stages of the analysis. For the second stage, the average ranking (mean) for each status criteria was calculated and used to rank six status criteria of SUTEMIP. For the first two criteria, "usage by intended users and zero or minimal technical start-up problems because they are readily accepted by intended users", respondents agreed SUTEMIP project performed very well. Respondents, however disagreed to high performance of SUTEMIP projects in the last four criteria; "Projects have directly benefited the intended users, Satisfaction with the process by which the projects are implemented, Projects were completed according to the budget allocated, Projects were completed on time". For the last stage of the data analysis, the researcher used ANOVA to measure the levels of agreement between the three groups of respondents. The results indicated that respondent statistically agree to remarkable performance of SUTEMIP projects with regards to completion time, intended use, processes of implementation and zero or minimal technical start-up problems.

5.2.2 Objective two: To identify the challenges to the implementation of the schools Under Trees and Emergency Intervention program (SUTEMIP)

Likewise, achievement of the second objective commenced with familiarization with the challenges to the implementation of SUTEMIP projects. Since the core interest of this study is to solve an organization problem through scientific rigorous, there was the need to assess the

problem from both ends. For this reason, the researcher first conducted informal interview with personnel involved in the implementation of SUTEMIP projects. This aided in the identification of relevant themes to guide the literature review. The researcher then reviewed germane literature concerning this and other relevant themes. Existing literature was critiqued for strengths, weaknesses, and the evolution of old literature to our modern context. From the literature reviewed, twenty (20) challenges to the implementation of SUTEMIP were catalogued. The criteria for this list was consecutive appearance in literature particular to the Ghanaian or Sub-Saharan African setting. Hence, literature pertaining to the western word and with relevance to Ghanaian setting were excluded. This list of challenges were then distributed among some experts for their comments and contribution to the design of a questionnaire survey. Upon return, these experts removed seven (7) from the list and added sixteen more challenges. However, some of the challenges were similar and hence reduced to twenty-five (25) in all.

These were then used to design the third part of the questionnaire for which respondents were required to rank on Likert scale of one to five their level of agreement to these as the main challenges to the implementation of SUTEMIP projects. The scale used can be interpreted as follows; 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree or disagree, 4 = Agree, 5 = Strongly agree. The researcher then filtered the data collected for outliers and proceeded with data collection. For this objective as well, a three-stage data analysis was used. The first was involved a test of consistency in the data considered considering the scale used. Cronbach's value calculated here showed a very high internal consistency; hence, the data was used for mean and ANOVA analysis. For the mean score ranking, the researcher estimate the average of each challenge and ranked them from the highest to the least. Then after normalization aided in identifying the most critical challenges. The results indicated that the most critical challenges to the implementation SUTEMIP projects were corrupt practices, unrealistic bidding

quotations and timelines, untimely release of funds, delays in payments, delays in the provision of the right logistics at the right time, lack of funding, inappropriate feasibility studies, management practices, bureaucracy, fluctuation in prices, poor planning, interference of clients and users, political interference, poor supervision, culture and belief systems of participants and activities of pressure groups (media, NGOs, political activities).

Furthermore, the researcher estimated the level of agreement between the three groups of respondents to these challenges, as critical to the implementation. The mean analysis showed convergence of means between the groups of respondents for all challenges except delays in payments corrupt practices, change in government, poor planning, inactiveness of the project management team, ineffective communication among key stakeholders, poor formation of project steering committee, conflicts between team members, impractical regulation and activities of pressure groups (media, NGOs, political activities).

5.2.3 Objective three: to identify strategies to challenges to the implementation of the schools Under Trees and Emergency Intervention program (SUTEMIP)

The researcher addressed this objective in a manner similar to the first two objectives. The researcher commenced with a literature review on themes pertaining to strategies to curtail challenges to challenges in the implementation of infrastructure projects. The researcher presented and analysed the strengths and weaknesses of existing literature on the subject matter. After, a set of strategies numbering eighteen (18) were extracted and presented to a few expert for their comments prior to the design of the questionnaire. Comments from these expert required the researcher to deduct from the list 3 strategies while adding ten (10) more. This was then used to design the last section of the questionnaire. For this section, respondent were required to rank on a scale of one to five their levels of agreement to the mentioned strategies

in eliminating challenges to the implementation of SUTEMIP project. The scale used reads as 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree or disagree, 4 = Agree, 5 = Strongly agree. After the data collection, the researcher subjected data entries to the same analysis used for the first and second objective. A Cronbach's alpha was used to check the consistency of data collected with the scale used. The Cronbach's value derived indicated a very high internal consistency of the data. Secondly, means that is average ranking for each strategy was estimated and aided in ranking the relative importance of the strategies identified. From the analysis the ten (10) most important strategies to curtail the challenges to the implementation of SUTEMIP projects are competent contractor selection (experience in similar works), provision of adequate funding for the project, timely payment of contractors, simplified payment processes, competent subcontracting, allocation of sufficient funds to project, consistent task review, adequate dialogue with interlinked agencies at the preparatory stages of the project, setting of clear purpose for project and proper relationship between consultants and contractors. Finally, the researcher estimated the levels of agreement to means and ranking of the strategies. It is important to note that respondents agreed on the ranking of all strategies except for management responsiveness to additional resources when needed, simplified payment processes, consistent task review and assimilation of input of target users into project plan.

5.3 CONTRIBUTION TO KNOWLEDGE

This study has contributed to both theoretical knowledge and to practice. First the stdu has expanded knowledge on a Ghanaian project management through a new perspective which is SUTEMIP project management. While this is general, the study first provides insight in tom the status of these projects. While SUTEMIP projects perform while in intended use and

technical start-up performance, it was discovered performance in benefits to users, schedule, budget and implementation processes were poor.

Secondly, the study has provided an invaluable checklist to both future researcher and stakeholders involved in the implementation of SUTEMIP projects. To stakeholders, the list will aid planning through to commissioning processes to eliminate these challenges.

In addition, another comprehensive checklist on strategies to mitigate the challenges to the implementation of SUTEMIP projects has been provided as part of this report. This provides and an invaluable checklist for future testing on strategies to mitigate the challenges to SUTEMIP projects. This will also aid policy makers to plan for similar future projects.

5.4 CONCLUSION

In conclusion, this study has explored the status of implementation of SUTEMIP in six comprehensive dimensions; timeliness, intended usage, cost, direct benefits, implementation processes and technical start-up problems. In addition, the study explored the various challenges to the implementation of SUTEMIP projects, the results of which is a comprehensive list indicating the most and least critical challenges. Having explored the challenges to SUTEMIP projects, the last dimension of the study explored strategies to mitigate the effects of these challenges identified earlier. The results is a comprehensive list to guide panning through to commissioning stages of SUTEMIP projects.

5.5 RECOMMENDATION

The study has identified that the criteria for which SUTEMIP projects performed the most were usage by intended users and zero or no minimal technical start-up issues. While these have criteria focused on the during implementation, others like cost, schedule, implementation

process receive little attention, the researcher therefore recommend the institution of deeper project management requirement for personnel involved in the implementation of these projects to promote excellence in all six criteria.

Secondly, some challenges to the implementation of SUTEMIP were not perceived as critical between groups. The criticality of these challenges may therefore be dependent on personnel and or stage of implementation. In this regard, a deliberation among these groups of personnel would be invaluable in devising ways to practically utilise mitigation strategies identified in the study from various perspective.

While some strategies have been identified as general to mitigating the challenges to implementing SUTEMIP projects, a practical on-field-testing approach will invaluable to identify which strategy is most suited to which challenge or work setting.

5.6 LIMITATION

Like any research study, this researcher had limitations as well. First, the researcher could not collect data from contractors who undertake the construction of SUTEMIP projects to enable analysis from that perspective. Also regardless of the efforts put in place to ensure to ensure simplicity of questionnaires, it cannot be necessarily guaranteed all respondents answered questions to the intended ends. Lastly, the study did not explore the effects of failure in the implementation of SUTEMIP projects.

5.7 FUTURE DIRECTION

Considering the limitations of this study, the researcher proposes new studies are carried on the effects of failure of SUTEMIP projects on various stakeholders including intended users, the government and nation as a whole.

Furthermore, a correlation between the mitigation strategies to the causes of failure and the causes itself would be invaluable to implementation of SUTEMIP projects. This study addressed SUTEMIP projects from a general perspective, therefore a more specific study like case studies on single projects will also be invaluable.

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APPENDIX

RESEARCH QUESTIONNAIRE

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI GHANA

QUESTIONNAIRE

Dear Sir/Madam,

Evaluating the Effects of Projects Implementation Failures of Electricity Company of Ghana (ECG).

I am an MSc Project Management student of the Kwame Nkrumah University of Science and Technology (KNUST). I am undertaking a study entitled Evaluating the Effects of Projects Implementation Failures of Electricity Company of Ghana (ECG) as part of the required fulfilment for my MSc program.

I will be grateful if you partake in this questionnaire survey to facilitate my study.

All information shall be treated with confidentiality and used for the purpose of this study only.

Thank you for taking part in my study.

Yours faithfully,

Jonathan Adjabeng
MSc Candidate
adjabengjonathan@yahoo.co.uk

Dr. Enerst Kissi
Lecturer, Department of Building Technology
Kisenerst@yahoo.com

SECTION A: Demographic Information

1. What is your highest educational qualification or nearest equivalent?
   ☐ HND ☐ Bachelor's Degree ☐ Master's Degree ☐ Doctorate Degree

2. What is your level of position at work?
   ☐ Senior staff ☐ Junior staff ☐ Supervisory ☐ Subordinate

3. How many years of work experience do you have?
   ☐ Less than 1 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16 -20
   ☐ 21-25 ☐26-30 ☐ 31 years ☐35-36 ☐40 or more

4. Does ECG have a project management office?
   ☐ Yes ☐ No

5. If yes, is the ECG project office is well integrated into the management processes of ECG?
   ☐ Yes ☐ Not Well ☐ Not at all

6. If no, kindly indicate what structure exists for the management of project

……

……

7. What is your current primary role in the implementation of ECG projects?
   ☐ Project manager ☐ Program Manager ☐ Supervisory
   ☐ Team member ☐ Others

8. How many projects do you typically work on, or manage, at one time?
   ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ More than 4

9. What is the typical duration of the primary project(s) that you work on?
   ☐ Up to 3 months ☐ 3 to 6 months ☐ 6 months to 1 year

☐ 1 to 2 years ☐ > 2 years

10. Indicate the phase(s) of a project during which you are most often involved.
    ☐ Initiation/Concept ☐ Planning/Development
    ☐ Execution/Implementation ☐ Finalization/Commissioning/Handover

11. What level of authority do you have in your current primary project role?
    ☐ Full authority to achieve project outcomes
    ☐ Authority within an established project plan
    ☐ Limited authority-parameters set by higher-level management

SECTION B: ECG Project Performance

Kindly rate on a scale of 1 to 5 the performance of Electricity Company of Ghana in the following project performance criteria "1 = Totally unacceptable, 2 = Unacceptable, 3 = Neutral, 4 = Acceptable, 5 – Perfectly Acceptable".

No.	Project performance criteria	SCALE
1	Budget performance	1☐; 2☐; 3☐; 4☐; 5☐
2	Schedule performance	1☐; 2☐; 3☐; 4☐; 5☐
3	Deliverables	1☐; 2☐; 3☐; 4☐; 5☐
4	Stakeholder satisfaction	1☐; 2☐; 3☐; 4☐; 5☐
5	Contribution to the where the project is being implemented	1☐; 2☐; 3☐; 4☐; 5☐
6	National development	1☐; 2☐; 3☐; 4☐; 5☐
7	Customer Satisfaction	1☐; 2☐; 3☐; 4☐; 5☐
8	Project Personnel Satisfaction	1☐; 2☐; 3☐; 4☐; 5☐
9	Raised Profits	1☐; 2☐; 3☐; 4☐; 5☐
10	Quality performance	1☐; 2☐; 3☐; 4☐; 5☐
11	Percentage over/under the overall project budget	1☐; 2☐; 3☐; 4☐; 5☐
12	Project personnel innovation	1☐; 2☐; 3☐; 4☐; 5☐
13	Management of technological innovation	1☐; 2☐; 3☐; 4☐; 5☐
14	Technical specification	1☐; 2☐; 3☐; 4☐; 5☐
15	Early technical problem identification	1☐; 2☐; 3☐; 4☐; 5☐
16	Efficient methods of implementation	1☐; 2☐; 3☐; 4☐; 5☐
17	Functional requirement	1☐; 2☐; 3☐; 4☐; 5☐
18	Long term dimensions of adaptability	1☐; 2☐; 3☐; 4☐; 5☐
19	Meeting design goals	1☐; 2☐; 3☐; 4☐; 5☐
20	Benefit to national infrastructure	1☐; 2☐; 3☐; 4☐; 5☐

SECTION C: Causes of Project Management Failure

The following are causes of project implementation failure. On a scale of 1 to 5, please rank the following in accordance "1 – Strongly disagree, 2 – Disagree, 3 – Neither agree or disagree, 4 – Agree, 5 – Strongly agree".

No.	Causes of project failure	SCALE
1	Poor planning processes	1☐; 2☐; 3☐; 4☐; 5☐
2	Delays in the provision of the right logistics at the right time	1☐; 2☐; 3☐; 4☐; 5☐
3	Inactiveness of the projects office	1☐; 2☐; 3☐; 4☐; 5☐
4	Lack of effective supervision by top management	1☐; 2☐; 3☐; 4☐; 5☐
5	Lack of funding	1☐; 2☐; 3☐; 4☐; 5☐
6	Unrealistic bidding quotations and timelines	1☐; 2☐; 3☐; 4☐; 5☐
7	Political Interferences	1☐; 2☐; 3☐; 4☐; 5☐
8	Ineffective communication among key stakeholders	1☐; 2☐; 3☐; 4☐; 5☐
9	Lack of Project Management Team	1☐; 2☐; 3☐; 4☐; 5☐
10	Formation of Project Steering Committee	1☐; 2☐; 3☐; 4☐; 5☐
11	Poor Identification and Involvement of Right Stakeholders	1☐; 2☐; 3☐; 4☐; 5☐
12	Poor Recruitment for the project.	1☐; 2☐; 3☐; 4☐; 5☐
13	Lack of Training of Project Team Members	1☐; 2☐; 3☐; 4☐; 5☐
14	Personal Conflicts between Team Members	1☐; 2☐; 3☐; 4☐; 5☐
15	Schedule Conflicts in Project Execution	1☐; 2☐; 3☐; 4☐; 5☐
16	Project Time Overruns	1☐; 2☐; 3☐; 4☐; 5☐
17	Bureaucracy	1☐; 2☐; 3☐; 4☐; 5☐
18	Culture and belief systems	1☐; 2☐; 3☐; 4☐; 5☐

SECTION D: Effect of Project Management Failure

The following are effects of project implementation failure. On a scale of 1 to 5, please rank the following in accordance "1 – Strongly disagree, 2 – Disagree, 3 – Neither agree or disagree, 4 – Agree, 5 – Strongly agree".

No.	Effects of project failure	SCALE
1	Loss of revenue by state	1☐; 2☐; 3☐; 4☐; 5☐
2	Emotional stress on citizens	1☐; 2☐; 3☐; 4☐; 5☐
3	It slows down citizens' human empowerment	1☐; 2☐; 3☐; 4☐; 5☐
4	Government sector underdevelopment	1☐; 2☐; 3☐; 4☐; 5☐
5	Sub-standard infrastructure provisions	1☐; 2☐; 3☐; 4☐; 5☐
6	Stricter donor regulations	1☐; 2☐; 3☐; 4☐; 5☐
7	Bad image for ECG and Government	1☐; 2☐; 3☐; 4☐; 5☐
8	Financial institutions lose confidence in ECG	1☐; 2☐; 3☐; 4☐; 5☐
9	Disputes	1☐; 2☐; 3☐; 4☐; 5☐
10	Total abandonments	1 ☐; 2☐; 3☐; 4☐; 5☐