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**SOCIAL DIMENSION OF SUSTAINABILITY INTEGRATION INTO
CONSTRUCTION PROJECT MANAGEMENT PRACTICES: GHANAIAAN
PROJECT MANAGERS' VIEW**

BY

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ABSTRACT

The call for sustainable development has increased the awareness of the construction industry to support the sustainable development agenda by including social considerations throughout the entire construction project life cycle: planning, design, construction, operation, and deconstruction. This study discovered ways of integrating social sustainability into project management practices in Ghana. In pursuing this aim, three objectives were set out. These includes, identification of areas of impact of social sustainability on the practices of construction project management, identification of the critical success factors to integration of social sustainability into project management practices and identification of the difficulties associated with social sustainability integration into project management practices. A quantitative research method was used for the study. A structured survey was developed to collect primary data from project / site managers in Accra Metropolis. The sampling technique used for the study is a convenient sampling technique. The study reveals that all the areas under project management practices are very important for the incorporating social sustainability. However, among the areas, recognition of the context of the project was rated high followed by identification of stakeholders through to project handover which was rated last. Also, with the critical success factors top management support, competent project team, adequate project planning were very critical for the integration of social sustainability into project management practices. More importantly, it is interesting to see that, external factors like, lack of government supports, lack of the effective coordination between key players and issue of time are still key obstacles to promoting industrial innovations toward social sustainable developments.

Keywords: sustainable development, social considerations, project management, stakeholder, communication.

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DEDICATION

I humbly dedicate this project to Almighty God, for helping me through this research and also for giving me the strength to produce this project. Dedication of this project also goes to the three women in my life Emma Akpatsa, Felicia Yayra Bonney and Olivia Mamle Kwame for their enormous support and prayers.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

One of the key industries in Ghana is the construction industry. This industry offers both opportunities and challenges (Choudhry and Iqbal, 2012). The Ghanaian construction industry presents many investment chances which includes; dams, highways, power plants, irrigation and hydraulic engineering, oil and gas installations; Industrial construction such as oil refineries, petrochemical plants, production plants; Construction such as schools, hospitals, universities, commercial towers, government buildings, warehouses, fitness and recreation centers; and residential buildings such as single-family homes, residential buildings, skyscrapers and condos serves as a heavy engineering. Lately, the industry has seen tremendous development of project projects in terms of project scope and technology level (Wang et al., 2013). However, it is argued that construction plays a key role in the implementation of sustainability in the society and organizations, and also program and project managers can contribute significantly to ensuring sustainable management practices (Silvius et al., 2017). Economic, environmental and social problems have become complex, bridging innovation to organizations to change and engage in new activities (Pope et al., 2004). In fact, there is an increasing interest in the application of project management practices and in the certification of professionals in this field, supported by knowledge inventories provided by the Institute (PMI, Project Management Institute, 2013) and the Association (IPMA, 2013). The practices to influence positive integration of sustainability dimensions into

projects depends on Project management principles (Bocchini et al., 2013, Silvius et al., 2017).

Sustainable development, as defined in the Brundtland Comproject report, is development that meet the needs of the present without compromising the ability of future generations to meet their own needs (World Comproject on Environment and Development, 1987). Elkington, (1998) asserted that the wider sustainable development concept have been focused on the inculcation of three well known dimensions: economy, environment and social sustainability, known as the Triple Bottom Line (TBL). In construction, the sustainable development of a construction project incorporates the essential principles of sustainability in terms of society, the environment and economic conditions through the various stages of a construction project (Valentin and Bogus, 2013). Environmental and social aspects of sustainability are difficult to integrate into construction works (Sánchez, 2015). Shenhar and Dvir (2007) point out that the focus of civil engineering and management emphasizes the creation of infrastructures based on economic considerations. In project management, attention is clearly shifting from immediate project goals or traditional project management to broader project benefits (Kivilä et al., 2017) and value dimensions that are more versatile (Martinsuo and Killen, 2014). While the economic and environmental dimensions of sustainability in academics and industry practices are becoming increasingly important (Økland, 2015, Dumrak, et al., 2017), social sustainability remains an ambiguous concept (Valdes-Vasquez and Klotz, 2010). According to Valentin and Bogus (2013), a project or activity is socially

unsustainable when the social structures and / or behaviors required to support them either do not exist or collapse because of the project or activity.

Herd-Smith and Fewings (2008) describe social sustainability mainly as the commitment of workers, local communities, customers and the supply chain to ensure that the needs of present and future communities' and populations are met (Herd-Smith and Fewings, 2008). Social sustainability promotes the concepts of respect, awareness, diversity, vitality and accountability to the workforce and society by keeping them healthy and protected from harm in the various stages of a project (Abdel-Raheem and Ramsbottom, 2016). The dimensions of sustainability therefore describe the social dimension as the intangible benefits of sustainability. Without the inclusion of the social dimension in the development of an infrastructure, there will be short-term and long-term adverse effects that determine the outcomes of the project (Sierra et al., 2015). According to Bakht and El-Diraby (2015), in the medium term, the infrastructural development dynamics are linked to the growing involvement of different actors and their interactions with new risks that call into question the achievement of the project outcome when rapid social treatment is not anticipated. This dynamic generally dominates other potential risks, such as the technical and economic complexity of the project (Alarcón et al., 2010). In the long term, inappropriate consideration of the social dimension aspect can have adverse effects that can endanger the quality of intragenerative life (Lehmann et al., 2013).

The project management knowledge body guide defines a project as a temporary project undertaken to create a unique product, service, or result (PMI, 2013). Project Management is defines as "the application of knowledge, skills, tools, and techniques to project activities to meet project requirements (PMI, 2013), which comes into play when

the three dimensions of sustainability receive the necessary attention (Marcelino-Sádaba et al., 2015) Against this background, this study attempts to find ways to integrate social sustainable practices into the project management practices in Ghana.

1.2 Problem Statement

Sustainability issues in the provision of construction projects have come to the fore, and the gap between project management and sustainability is still in place (Carvalho and Rabechini, 2017). This topic has received more attention from experts and scientists (Silvius and Schipper, 2014); nevertheless, project management is still a challenge (Martens and Carvalho, 2017). Elkington, (1998) asserted that the sustainability concept is fused to social, economic and ecological dimensions and their contexts and forms the well-known triple bottom line. Singh et al., (2012) posited that, these triple bottom line should be included in the project management principles. Regardless, environmental and social sustainability have a high level of difficulty integrating into construction projects (Sánchez, 2015). While the environmental and economic dimensions of sustainability have become increasingly important in academics and industry practices (Økland, 2015, Dumrak, et al., 2017), social sustainability remains an ambiguous concept in project management functions (Valdes-Vasquez and Klotz, 2010). The context of a project is considered to enable a sustainable project management in terms of the organization's strategy. Not only that but typically in relation to society as a whole context. Several reference guides project management area, including the Project Management Body's Project Management Body (PMBOK) Guide (PMI, 2013), which is organized into ten knowledge areas, but no potential identifies societal interest as an influencing factor

(Silvius and Schipper, 2014; Martens and Carvalho, 2016). Similarly, project managers in developing countries, where Ghana is no exception, are reluctant to adopt the sustainability concept in the management of projects (Abidin and Pasquire, 2007). This is due to the socio-cultural characteristics of developing countries (Banihashemi et al., 2017). Therefore to assist project managers, context-specific Critical Success Factors (CSFs) should be elaborated to help project managers as they play a major roles to enable smooth integration process of sustainability into project management practice (Martens and Carvalho, 2017). Accordingly, understanding CSFs in the context of sustainability is a prerequisite for integrating social sustainability practices into project management for projects in Ghana. Against this background, this study seeks to find ways to integrate social sustainability into project management in principle in Ghana.

1.3 Research questions

The research questions used to facilitate the study are:

1. What are the areas of impact of social sustainability on the practices of construction project management?
2. What are the critical success factors to integration of social sustainability into project management practices?
3. What are the difficulties associated with social sustainability integration into project management practices?

1.4 Aim and Objectives

1.4.1 Aim

The aim of the study is to discover ways of integrating social sustainability into project management practices in Ghana.

1.4.2 Objectives

To satisfy the above stated research aim the following objectives were set:

1. To identify areas of impact of social sustainability on the practices of construction project management;
2. To identify the critical success factors to integration of social sustainability into project management practices;
3. To identify the difficulties associated with social sustainability integration into project management practices; and

1.5 Research Scope

Contextually, the study focuses on project managers in Ghana and is tailored to explore ways in which social sustainability can be integrated into project management practices in Ghana. The geographical study specifically targeted project / site managers in the Greater Accra region, more specifically Accra Metropolis and Kumasi Metropolis. These metropolises were chosen because there are more construction companies there and many construction companies in these cities are looking for green pastures, because the demand for residential buildings and other structures and the other economic benefits increase.

1.6 Methodology

A quantitative research method was used for the study. A structured survey was developed to collect primary data from project / site managers in Accra Metropolis. The sampling technique used for the study is a convenient sampling technique. The researcher adopted this technique to directly address contractors who would readily provide the primary data required. A timeframe of no more than two weeks was allowed for the collection of primary data, while secondary data from both published and unpublished sources was collected over the entire period of the study. In analysing the quantitative data collected during the questionnaire survey descriptive statistics was used

1.7 Significance of the Study

Practically, the results of the study will provide valuable information on ways of integrating social sustainability into project management practices, which in effect will help project managers to deliver sustainable construction for the benefit of country as well as the world. More importantly, knowledge is dispersed and context specific, therefore, ways of integrating social sustainability into project management practices constitute valuable source of knowledge. Thus, the study would contribute to available literature in the field of construction project management.

1.8 Thesis Structure

The work has five (5) chapters. The first chapter dealt with background, problem formulation, research methods, and importance of research, research objective, research questions, research goals and scope of research. The second chapter includes the

appropriate literature review, which brings clarity in the areas of impact of social sustainability on the practices of construction project management, factors that are critical for the combination of social sustainability in project management practices, difficulties in integrating sustainable social project management practice areas of development for practice etc. The third chapter identified and brought together the methodology of research. The fourth chapter reported on the results of the data and the discussion of the results. Finally, details of the summary of results, conclusions and recommendations were presented in the fifth chapter

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This section deals with the previous literature on social sustainability. The building industry has created the preparedness that the industry needs to guide the vision of sustainability development, taking into account social aspects in the course of the lifecycle of the development challenge. A certainly sustainable development project have to now not only include social issues for the given up users, however additionally considerations such as the impact of the project on the surrounding neighborhood and the safety, health and teaching of the workforce. Integrating these concerns will enhance both the long-term project performance and the extremely good of existence of the human beings affected through the project. The definition of social sustainability that guides the lookup study considers this thought to be a set of procedures for enhancing the health, safety, and well-being of present and future generations (Mihelcic et al., 2003; Herd-Smith and Fewings 2008, Dillard et al. 2009). Previous lookup has supplied some indications for these considerations. Examples of previous warning symptoms encompass stakeholder satisfaction, site visitors' delays, noise levels, indoor air fantastic and the education of deprived human beings (Trinius and Chevalier, 2005, Gilchrist and Allouche, 2005, Surahyo and El-Diraby, 2009). In addressing the subject matter of sustainability, components of administration (strategies, communication, goals, integration, teamwork) are regularly encountered, on the other hand task administration is not often explicitly named, perhaps due to lack of knowledge, perhaps due to the reality that every disciplines are constantly however find out there or perchance a mixture of

both. On the different hand, sustainability and environmental factors are now no longer frequently or systematically viewed in most massive challenge management frameworks such as PMBoK, ICB, ISO 21500: 2012 and Prince (Brones et al., 2014). In this section, greater activity is paid to literature with the aid of identifying areas of social sustainability have an impact on on constructing challenge administration practices, figuring out necessary success elements for integrating social sustainability into task management practices, and identifying the challenges associated with integrating social sustainability into management practices.

2.2 CONCEPT OF SUSTAINABILITY

To emphasize genuinely the thinking of sustainability, it is prudent to apprehend what Sustainable Development (SD) means. The SD concept is a development that meets the needs of the current except compromising the needs of future generations (WCED, 1987). Therefore, the thinking of social sustainability in the industry has different interpretations depending on the standpoint of the actor. Social sustainability, in turn, refers to the graph perspectives needed to make sure the inclusion of under-represented organizations (eg. access for the elderly and the disabled). For example, evidence-based sketch is presently being used to better apprehend human conduct thru scientific clarification (Hamilton 2003, Brandt et al., 2010). Understanding social sustainability procedures could be multiplied by way of involving experts in the improvement of a well-known framework, which is a fundamental first step in elevating focus of this trouble in building projects. As the thought of social sustainability evolves, this is an important time to define the social sustainability techniques that ought to be integrated into the planning and layout section of development projects.

2.3 SOCIAL SUSTAINABILITY IN CONSTRUCTION PROJECT

Social sustainability practices have advanced over time in the Ghanaian construction industry. The traditional technique of building has been abandoned as a result of the increasing benefits of sustainability. Obviously, the contribution of the construction industry to degradation of ecosystems, to change in climate, and several dependent issues requires a shift towards sustainability principles and marketing approaches to manage the environmental impact of construction projects (Seebode et al., 2012).

Social sustainability have been described with the aid of researchers as the commitment of locals, employees, and communities (Herd-Smith and Fewings 2008). The social sustainability concept is still advancing; it has turn out to be fundamental to outline the social sustainability procedures that ought to be fused in the course of the planning and diagram phase of construction projects. One factor of view includes the contrast of the effect of building on where consumers live, work, play and participate in social exercises (Burdge, 2004). The professionals in the neighborhood brings up that in spite of the reality that these social blessings are no longer handy to developers, they are in a similar way as vital as monetary and ecological blessings (Hammond and Peterson, 2007, Hammer, 2009). One of the viewpoint of social sustainability in development relates to the application of corporate social duty practices (Lamprinidi and Ringland 2008), which think about how the employer can meet the desires of stakeholders affected via their operations (Kolk 2003, Olander and Ladin 2005, Mathur et al 2008). Other elements that need to be viewed are the impact on users such as the team of workers and suppliers based on the analysis of the social life cycle of merchandise and materials (Benoit and Mazijn 2009). This evaluation should predict the performance of the development project

in terms of time, price and neighborhood perceptions. In addition, Baumgartner and Ebner (2010) show the concept of Corporate Sustainability (CS) in relation to the surroundings of companies. It emphasised that SD, when adopted by means of construction companies, is known as CS and sustainable pillars also include pillars or dimensions: economy, surroundings and social issues.

2.4 PROJECT MANAGEMENT DEFINITION AND PRACTICES

The Project Management Book (Institute) for the purpose of this study defines a project as a temporary undertaken to create a unique product, service, or result (Project Management Institute, 2008). Project management is defined as the application of knowledge, skills and techniques to carry out projects effectively and efficiently (PMI, 2013). According to Carvalho and Rabechini (2011), project management is a field of knowledge that derives the management discipline and has made significant scientific advances over the past ten years. According to a broader perspective carried out with the aid of Krishnan and Ulrich (2001), project management is one of the three areas of selection making in product improvement (the different two areas being products method and planning and product development). Goffin (2010) emphasized the advantages of project management for the implementation of innovation: the implementation of a notion for innovation must be a unique journey that need to be handled as a project: a finite project with its very own goals and sources and past all its very own leadership, The profitable implementation of an innovation starts with precise project management, which is now regarded as expert discipline.

2.4.1 The Link between Sustainability on Project Management Practices

Bringing sustainable issues into project management requires a clear appreciation of the extraordinary lifecycles of project and its interactions. Labuschagne and Brent (2005) recommends to consider the asset/method life cycle and the product lifecycle, whilst assessing sustainability problems in the manufacturing sector. In order to analyze social sustainability in project management, it is necessary to recognize the tensions between stakeholder agencies and conflicting desires in the construction industry (Carvalho and Rabechini, 2011).

Bringing social sustainable issues into project management requires a clear understanding of the different lifecycles of a project and its interactions. Labuschagne and Brent (2005) propose to look at the project lifecycle, the asset / process life cycle and the product lifecycle, while assessing sustainability issues in the manufacturing sector. In order to analyze social sustainability in project management, it is necessary to understand the tensions between the various stakeholder groups and conflicting goals in the construction industry (Carvalho and Rabechini, 2011).

2.4.2 Social Sustainability Impact on Project Management Practices

Social sustainability has an important influence on project management practices. According to Khalili and Dücker (2013), social sustainability emphasizes a pattern of growing a well-built environment through cautious application of construction tactics and services, thereby increasing universal effectivity and decreasing dangers to people and the environment. This developing attention to sustainability in project administration is encouraging but also offers some challenges as the thought of sustainability is understood

instinctively (Briassoulis, 2001). Often, social sustainability effects require that these factors not only be taken into account during the layout and construction process, but also that the community's stakeholders should take advantage of their unique views (Valdes-Vasquez and Klotz, 2011). Social aspects of the social assignment that have an effect on the occupants of a new constructing consist of the extent to which the building is reachable to people with physical disabilities, available to mass transit systems, helps commuting with the aid of bicycle and presents adequate parking.

2.5 AREAS OF IMPACT OF SUSTAINABILITY ON PROJECT MANAGEMENT PRACTICES

Social sustainability has many impact on the management of a project as many key social factors need to be incorporated. Initiate - Schedule - Execute - Control - Close). The Eid study has examined many views on integrating sustainability aspects in project management. Many publications including Maltzman and Shirley (2010), Silvius et al. (2012), Tharp (2013) and others have published works on sustainability impact on project management.

2.5.1 Recognition of the project context

The recognition of a project context is the starting point considering all aspects of project management. The integration of social aspects of sustainability into project management requires more comprehensive contemplation of the project context (Silvius et al., 2012, Tharp, 2013). The sustainability dimensions "short and long term" as well as "local and global" have a special influence on the context of the project. In the global business

environment, projects are impacting geo-economic problems as the project team is situated places such as India or China and can be suppliers or customers around the world. It is clear that the globalizing business world also includes globalized projects and project management.

2.5.2 Identification of stakeholders

The dimension of sustainability, especially the ideas of "balancing or harmonizing social, environmental and financial interests", "every short and long term" and "locally and globally", could potentially increase the diversity of promoters (Eskerod and Huemann, 2013, Tharp, 2013). Common "sustainability actors" can be environmental companies, human rights groups, non-governmental organizations, etc. (Silvius et al., 2012). PRINCE2 mentions the identity of the participants in certain techniques of the preparation of the mandate (Office of Government Trade, 2009). Again, there can be no special recognition from capable stakeholders representing the environmental and / or social factors of the initiatives.

2.5.3 Project specifications and requirements

The blending of sustainability standards will affect the specifications and needs of the overall project, overall performance and the quality criteria (Eid, 2009, Maltzman and Shirley, 2010, Taylor, 2010). Within the scope of today's task, the need for administration is in the foreground and essentially refers to the needs of the client, client or client of the projectary work (Silvius, 2013). The wishes or games of other stakeholders are taken into account as far as they possibly affect the needs of the sponsor (Eskerod and Huemann, 2013). The mix of job-order sustainability shows that content, perceived output / consistency, and world-class criteria are based primarily on a holistic approach to the

challenge (Gareis et al., 2013), such as sustainability views including "financial, environmental, and social," rapid "long-term, close and worldwide, and developed together with a large group of stakeholders (Eskerod and Huemann, 2013).

2.5.4 Business case

This includes the prices and income of the commercial organization. The influence of the sustainability ideas on the substantive material of the project should also be taken into account within the argumentation of the task (Silvius and Schipper, 2012). In assessing the price, benefits and economic application of the project, an extension to non-financial factors such as social or environmental components may also be considered (Gareis et al., 2011, 2013). Taking into account the concept of project-management sustainability, the business corporation case of a task addresses the threefold foundation of economic, social and environmental benefits. The financing contrast is based in particular on a multi-standard technique of quantitative and qualitative standards (Silvius and Schipper, 2012).

2.5.5 Dimensions of project success

The combination of sustainability means that the definition and belief of challenge achievement takes into account the "triple backside line" of the monetary, social and environmental blessings so one can be mentioned inside the short and long term business case. This means that the success of the project might be assessed on the premise of the lifestyles cycle of the challenge and its results (Craddock, 2013, Pade et al., 2008). The current standards for task management reflect a narrower belief of the assignment's fulfillment. The PMBOK tenet mentions that "the achievement of the project have to be measured to finish the project within the limits of scale, time, price, nice, assets and

hazard" (project control Institute, 2013). And even though the success of projects is most customarily defined in a greater holistic angle (Thomas and Fernandez, 2007), this broader set of criteria does not mirror the way tasks are managed. The constraint variables necessarily emphasize the monetary angle of the project (Silvius et al., 2012). PRINCE2 mentions six project performance variables. Those variables do not explicitly point out the sustainability elements, however they may be included in the quality and performance characteristics of the overall performance variables.

2.5.6 Selection and organization of the project team

Any other sphere of effect of sustainability is the project agency and the control of the project crew. In particular, the social components of sustainability, which includes identical opportunity and personal development, may be applied in the course of the task group (Tharp, 2013). PRINCE2 devotes a lot attention to the management and development of the project group. It mentions the pastime "layout and hire the project control crew" however no reference is made in later levels

2.5.7 Project sequence and schedule

Sustainable project management also implies performing the project as efficiently as possible, minimising waste. Waste can occur in substances, however additionally in unused sources or waiting times (maltzman & shirley, 2010). Taylor (2010) acknowledges the possibilities for thinking about sustainability in project planning, planning and sequencing. He demanding situations project managers to think past "what's normally finished" and gives numerous examples, along with one. Offsite manufacturing as opposed to on vicinity. This offers potential sustainability benefits: much less waste,

lower transport prices, better use of assets, possibilities to boom paintings capacity, opportunities to create jobs in poorer areas, mass production advantages, and so on.

2.5.8 Procurement

It is not just the materials used but also the processes concerned with procurement and the selection of suppliers that provide a logical opportunity to integrate considerations of sustainability, for example, appreciating the sustainability performance of potential suppliers in supplier selection (taylor, 2010), as well as preventing bribery and now not moral behavior inside the supplier procurement (tharp, 2013), both by using the members inside the task or enterprise and by using ability providers or authorities. The present day standards of assignment control logically consist of strategies related to the procurement and choice of suppliers. However, none of those standards comprise any indications of sustainability factors in these tactics (silvius, 2013).

2.5.9 Risk identification and management

Risk control, such as threat mitigation, is a well-known concept in project control. The project management standards define a threat as an insecure occasion or series of events that, in the event that they occur, could have an effect on the fulfillment of the desires (workplace of presidency trade, 2010). However, searching at this definition from a sustainability perspective, some questions may additionally stand up. By way of incorporating the sustainability idea into project control, the assessment of potential dangers must evolve (winnall, 2013). Logically, hazard identification additionally includes environmental and social risks, and these risks ought to be assessed in line with the lifecycle technique to the project's assets, procedures, overall performance, and affects (silvius et al., 2012). The attention of sustainability in risk identity and manage

does no longer handiest observe to the type of dangers taken into consideration. It also method that dangers are taken from the distinct factors of view and pastimes of all stakeholders, not simply the promoter. This additionally indicates that stakeholders in sustainable assignment control are worried within the identification, evaluation and control of risks (silvius, 2013).

2.5.10 Involvement of stakeholders

Several authors stress the importance of involving stakeholders in projects. This principle has a logical effect on stakeholder management and communication processes in project management. However, the intention behind "participation" goes beyond identifying certain processes. Stakeholder engagement is not so much a specific process as an attitude that carries out all project management processes. The PMBOK manual recognizes that stakeholders can be actively concerned in the project (assignment control institute, 2013), but stakeholders-related methods suggest a stakeholder attitude as external actors. Sustainable project management could involve proactively concerning stakeholders inside the project

Activities along with defining requirements, comparing expenses and advantages, challenge making plans and making plans, figuring out and assessing dangers, troubleshooting, and project reporting.

2.5.11 Project Reports

Because the assignment progress reviews logically follow the definition of scope, purpose, crucial achievement factors, business case, and many others. The project reporting tactics also are prompted via the inclusion of sustainability components (perrini

and tancati, 2006). The modern requirements of project control do no longer explicitly talk over with the reporting of sustainability aspects (silvius, 2013).

2.5.12 Project transfer

Pade et al. (2008) and silvius et al. (2012) emphasized the importance of ultimate approaches for extra sustainable allocation of final results. The completion tactic usually involves getting involved in the permanent agency. The success of this transfer and the reputation of the project outcome are key elements of the sustainability of a challenge. Failed or unaccepted tasks can hardly be considered sustainable given the waste of resources, substances and strength.

2.5.13 Organizational learning

One last area of sustainability is the diploma the organization learns from. Sustainability also means minimizing waste. Companies must therefore learn from their initiatives so as not to waste power, resources and materials for successful tasks (eid 2009, silvius et al., 2012). The pmbok guide mentions "historical statistics and lessons learned" as part of the firm's "company expert base" (Project management institute, 2013). However, there is no explicit indication in this segment of gaining knowledge or understanding of the organization's control to increase the company's potential to carry out project projects.

2.6 CRITICAL SUCCESS FACTORS FOR INTEGRATION OF SOCIAL SUSTAINABILITY INTO PROJECT MANAGEMENT PRACTICES

Every project improvement corporation need to attempt to attain effectiveness as the world is targeted on opposition and the pleasant exercise method to commercial enterprise case components of a successful implementation. It additionally calls for the project improvement company to position the corporate techniques of its project management fashion into motion; beneath these occasions, baccarini (2003) has cautioned that its miles important for an organization that tasks succeed. It have to be stated that certain elements that were critical to the combination of social sustainability into the challenge's fulfillment are vital even before project improvement starts. On this experience, the essential achievement elements are the ones situations or evidences that would beautify the achievement of project development (abu bakar et al., 2009).

The crucial task administration success elements have been first investigated through Rubin and Seeling (1967). Their study concluded that technical performance is a measure of the success of improvement tasks and that the trip of the project development supervisor has had minimal have an impact on on the return on development; the measurement of the earlier managed challenge have to now not have an effect on the performance of the managers. Avots (1969) argued that the improvement director's incorrect choice; unplanned project termination and unsupportive pinnacle management were the most important reasons for the failure of improvement projects. Baker et al. (1983) cautioned using perceived overall performance rather than cost, time, and overall performance as a measure of project success. Hughes (1986) argued that the inappropriate attention of a management device by rewarding wrongdoings and missing

verbal exchange of task dreams had been the most important motives for the failure of a improvement project such as development projects of settlements. A similar philosophy, Chan et al. (2002) argued that the success factors of assignment management are: challenge team commitments; the competences of the contractor; Risk and legal responsibility assessments; Customer skills; the desires of quit users; and restrictions imposed through cease users. This research find out about proposes a listing of the listed quintessential success elements that combine social sustainability into project management. This is shown in Table 2.1.

Table 2.1: Critical factors to help integrate social sustainability into project management

Number	Critical Factors	Reference
1		
1	Project understanding	Pinto and Slevin (1987, 1989), Belassi and Tukel (1996), Baccarini (1999, 2003), Andersen and Jessen (2006), Khang and Moe (2008)
2	Top management support	Pinto and Slevin (1987), Belassi and Tukel (1996),
3	Information/communication	Pinto and Slevin (1987), Andersen and Jessen (2006)
4	Client involvement/participation	Pinto and Slevin (1987), Andersen and Jessen (2006)
5	Competent project team	Pinto and Slevin (1987), Andersen and Jessen (2006)
6	Project manager/leader authority	Pinto and Slevin (1987), Khang and Moe (2008)
7	Realistic cost and time estimate	Pinto and Slevin (1987), Andersen and Jessen (2006),
8	Adequate project control	Pinto and Slevin (1987), Andersen and Jessen (2006),
9	Problem solving ability	Pinto and Slevin (1987), Hyva`ri (2006)
10	Project risk management	Pinto and Slevin (1987), Baccarini (2003)
11	Adequate resources for project	Pinto and Slevin (1987), Khang and Moe (2008)
12	Adequate project planning	Pinto and Slevin (1987), Khang and Moe (2008)
13	Project monitoring recital and feedback	Cooke-Davis, (2002), Mu`ller and Turner (2007)
14	Project project/common goal	Pinto and Slevin (1987), Andersen and Jessen (2006),
15	Project ownership	Mu`ller and Turner (2007), Khang and Moe (2008)

Source: Abu Baker et al. (2009)

Several critical success factors currently influence the social sustainability into construction project management. These critical factors also enhance social sustainability in the construction project management. These are also shown by Table 2.2, including the authors involved.

Table 2.2: Critical factors for integrating social sustainability into construction project management in Nigeria

Number	Critical Factors	Reference
1	Land issues	FMLHUD (2011), Olotuah and Bobadoye (2009), Aluko (2012), Jiboye (2011), Ibem and Amole (2011), Oyebanji et al. (2011), Ajanlekoko (2001)
2	Effective housing policy implementation	FMLHUD (2011), Olotuah and Bobadoye (2009), Aluko (2012), Jiboye (2011), Ibem and Amole (2011), Oyebanji et al. (2011), Ajanlekoko (2001)
3	Housing project ownership	FMLHUD (2011), Olotuah and Bobadoye (2009), Aluko (2012), Jiboye (2011), Ibem and Amole (2011), Oyebanji et al. (2011), Ajanlekoko (2001)
4	Project team composition	FMLHUD (2011), Olotuah and Bobadoye (2009), Ibem and Amole (2011), Ajanlekoko (2001)
5	Weather condition	FMLHUD (2011), Olotuah and Bobadoye (2009), Oyebanji et al. (2011)
6	Cultural difference	FMLHUD (2011), Olotuah and Bobadoye (2009)
7	End users involvement and other issues	FMLHUD (2011), Olotuah and Bobadoye (2009), Jiboye (2011), Ibem and Amole (2011), Oyebanji et al. (2011), Ajanlekoko (2001)
8	Project site condition	FMLHUD (2011), Ajanlekoko (2001)
9	Top management support	FMLHUD (2011), Olotuah and Bobadoye (2009), Aluko (2012), Jiboye (2011), Ibem and Amole (2011), Oyebanji et al. (2011), Ajanlekoko (2001)
10	Adequate project fund and resources	FMLHUD (2011), Olotuah and Bobadoye (2009), Aluko (2012), Jiboye (2011), Ibem and Amole (2011), Oyebanji et al. (2011), Ajanlekoko (2001)
11	Project team competency	FMLHUD (2011), Olotuah and Bobadoye (2009), Jiboye (2011), Ibem and Amole (2011), Oyebanji et al. (2011), Ajanlekoko (2001)
12	Project leader stability	FMLHUD (2011), Olotuah and Bobadoye (2009), Ibem and Amole (2011), Oyebanji et al. (2011), Ajanlekoko (2001)
13	Realist project cost and time estimates	FMLHUD (2011), Olotuah and Bobadoye (2009), Jiboye (2011), Ibem and Amole (2011), Oyebanji et al. (2011), Ajanlekoko (2001)
14	Local building materials and increasing cost	FMLHUD (2011), Aluko (2012), Jiboye (2011), Ibem and Amole (2011), Oyebanji et al. (2011), Ajanlekoko (2001)
15	Adequate project planning	FMLHUD (2011), Olotuah and Bobadoye (2009), Oyebanji et al. (2011), Ajanlekoko (2001)
16	Adequate project monitoring and feedback	FMLHUD (2011), Olotuah and Bobadoye (2009), Jiboye (2011), Oyebanji et al. (2011), Ajanlekoko (2001)

17	Project information and communication	FMLHUD (2011), Olotuah and Bobadoye (2009), Jiboye (2011), Ibem and Amole (2011), Ajanlekoko (2001)
18	Project project/common goal	FMLHUD (2011), Olotuah and Bobadoye (2009), Jiboye (2011), Oyebanji et al. (2011), Ajanlekoko (2001)
19	Project risk management	FMLHUD (2011), Ajanlekoko (2001)

Source: Abu Baker et al. (2009)

2.7 DIFFICULTIES ASSOCIATED WITH SOCIAL SUSTAINABILITY

INTEGRATION INTO PROJECT MANAGEMENT PRACTICES

The difficulty to agree on a common approach to project prioritization, impediments caused by existing organization processes and systems, unavailability of system that provide timely data to measure success, immaturity of project management processes and inadequacy of projects to justify project management practices. It is important that the difficulties preventing the social integration into project management's practices must be minimized or mitigated. Through a comprehensive literature review, this research study was able to identify some factors that cause difficulty in integrating social sustainability into project management practices.

2.7.1 External barriers

General socioeconomic, cultural and regional considerations play an imperative function project management and sustainable developments. As a sustainable project, the imperfect local or country wide environmental laws, policies and constructing codes have been identified as one important barrier to the improvement of sustainable development (Heeres et al., 2004; Samari et al., 2013). Taking China as an example, although China initiated EIPs in 2001 and developed EIP standards in 2006, regulatory and bureaucratic

issues are nevertheless key boundaries to merchandising industrial innovations toward sustainable tendencies (Matus et al., 2012). From a stakeholder's perspective, these imperfections imply workable extra charges or a project delay in the future development. Thus, a one cease enabling system was once encouraged (Stewart, 2007).

2.7.2 Clients related barriers

The lack of viable clients' attention and demand has been recognized as one of the significant barriers to integrating social sustainability into project management practices (Samari et al., 2013; Zhang et al., 2011). In addition, the perceived excessive charges in contrast with conventional buildings, which are mainly brought on through extraordinary design, construction and maintenance, has become the most frequent barrier to the adoption of inexperienced structures (Hwang and Tan, 2012; Kim et al., 2014; Zhang et al., 2011). For an example, Davis Langdon (2007) stated that the have an effect on on the development cost ranged from 3% to 5% for a Five Star rating, and greater than 5% for a Six Star non-iconic sketch solutions in Australia. Tudor et al. (2007) additionally indicated that the higher transaction prices had been one dilemma of EIPs in the establishment of the integration of social sustainability with project management practices.

2.7.3 Project team difficulties

Due to the upward thrust of sustainable construction, there is an increasing need for expert workers. Matus et al. (2012) pointed out that the lack of a technical body of workers and research funding have been boundaries inside China to promoting sustainable industrial developments. Zhu et al. (2014) identified that the lack of human resources for EIP management was once one of the top three inside barriers in China.

Samari et al. (2013) additionally recognized that the lack of professionals used to be one of the top six widespread barriers to the sustainable development in Malaysia. In addition, Zhang et al. (2011) indicated that the technical difficulties at some stage in the building procedure and the unfamiliarities with sustainable technologies resulted in delays in the diagram and construction procedure that might assist to integrate social sustainability into challenge administration practices

2.7.4 Consultant barriers

The concepts and ideas of EIPs want to be bought to the industry and the public so as for them to completely interact and be lively contributors. For example, the preceding studies in Australia showed that the confined expertise of the concepts and a dislike of the concept, mainly if it is involved co-place with diverse groups or being in near proximity to residential or business

Homes, had confined fulfillment (tudor et al., 2007). Therefore, the advertising and promoting by means of specialists are important for a successful integration of social sustainability into project control.

2.7.5 Contractors barriers

The shortage of communications and interests amongst project team participants is recognized as a widespread barrier to the social sustainability integration into task control practices (hwang and tan, 2012). For that reason, the cooperation among all of the primary players worried could make a contribution to reducing the excessive transaction costs (tudor et al., 2007). Further, construction contractors play a important role inside the documentation required for the social sustainability integration into project control practices. Contractors often refuse or fail to put up the sustainable associated documents

because of several issues and constraints together with the elevated expenses of substances, lacking specifications inside the bill of quantities and the lack of awareness the combination process (rao and pavan, 2013).

2.7.6 Project barriers

Zhu et al., (2014) had it that, significant barriers in many countries such as China are attributed to Technology related barriers. It has been established that some exchanges are important for social sustainability, while others are economically dangerous and some are technically unfeasible (Heeres et al., 2004). Also, the EIPs becomes difficult in achieving sustainability due to the complexity of some technologies (Heeres et al., 2004). Lack of proven benefits to entice potential investors is another barrier to sustainability. Van Hemel and Cramer (2002) posited that “no clear environmental benefits” was noted in the work undertaken to be one of the barriers to sustainability.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter expounds on the processes executed to achieve the aim and objectives of the project. The next level in the study after identifying the research question and review of literature is selecting the methodology that is most appropriate in addressing the issues in the research (Blumberg et al., 2005). Collis and Hussey, (2013) has emphasized that design process from hypothetical testing to data collection and data analysis is the overall approach to research methodology, therefore methodology employs the tactics of discovery how to go about finding out what we believe is true (Christou *et al.*, 2008). This chapter focus on the framework of the study, research design instrument, data collection and data analysis.

3.2 PHILOSOPHICAL POINT OF THE RESEARCH

Various factors influence the philosophical disposition of any research. These philosophical patterns have to examine as to the research instrument to employ for the research (Christou et al, 2008). These philosophical patterns are defined as an approach to viewing natural phenomena that comprises a set of philosophical assumptions that guide one's tactics to inquiry (Polit and Beck, 2004). Research philosophy entails development of knowledge and the characteristics of that knowledge. Accordingly, philosophical paradigms such as ontology, epistemology, axiology and methodology assumptions need to be accessed in detail since the shape the choice of the research

(Christou et al, 2008). Focal concerns for social research is on ontological and epistemological stand points of view and are discussed below.

Ontology refers to what constitutes the 'real' world and understanding its existence which is sovereign to our knowledge (Marsh and Stoker, 2002). Fitzgerald and Howcroft (1998) states that ontology has two positions thus relativist and realist positions. Realist believe that outside world consists of pre-existing hard and tangible structures and these structures exist independently of one's capacity to acquire knowledge. Realist position is practical and not abstract or idealist views. The relativist tailors to multiple existence of realities by an individual's mind construct (Fitzgerald and Howcroft, 1998). The realist position is adopted for the knowing the factor and requirements for organizing a procurement unit and its influencing factors.

Epistemology refers to valid knowledge constituents and how these can be achieved. This position can be either positivist (objective) or interpretivist (subjective) as referred by Streubert and Carpenter (1999). Positivist are of the view that the social world exists as an external entity and its attributes objectively accessed with scientific methods rather than being concluded subjectively through intuitive activities (Easterby-Smith et al, 2008; Saunders et al, 2012). Positivists claim that the facts can be presented independently of the observer so that research is totally objective and accurate (Fellows and Liu, 2008).

Interpretivist position holds the ideology that a person's reality is deduced from observations, perceptions and modified by socialization is likely to be different from the other person (Fellows and Liu, 2008). This position believes that people description of reality is based on the language they understand (subjective) and not what exist

objectively. Interpretivist do not obviate the objectivity of reality rather their assertion is that reality cannot be understood outside the spheres of culture and values. According to Creswell (2007), in interpretative research the opinions of participants are mostly depended on for the situation under study. At the epistemological level the positivist position is employed for the research to understand what factors was considered in setting up the procurement unit and this will enable the researcher appreciate the considerations and influences in setting up the procurement unit.

Positivism adopts a clear quantitative approach to investigating phenomena (Creswell, 2009; Greener, 2008). Positivist argue that this research based on this approach can be “value free and objective” rather than subjective and value-laden (Greener, 2008).

3.3 RESEARCH STRATEGY

Considering the philosophical position of this study thus positivist on one hand, and the nature of the problem identified in literature as well as the pilot interview on the other hand, survey strategy emerges as more appropriate. Creswell (2005) defined a survey research as an orderly gathering of information for the purpose of understanding and/or predicting some aspect of the behaviour of the population of interest. Surveys are classified under longitudinal and cross-sectional studies. Survey was appropriate for this study because of the following reasons: i) it allows researcher to solicit for data about situations, practices or views at a particular time frame through questionnaires or interviews; ii) it also permits a researcher to study more variables at one time; iii) survey allows the use of quantitative analytical techniques to draw conclusions. Furthermore, survey is the strategy that responds suitably to all the research questions which are of the type of what, who, what, where, how much and how many (Saunders, et al., 2012). The

use of Likert scales which are popular methods of collecting information for surveys was employed. Further, the researcher gathered information from respondents through posting some of the questionnaires, emails, and face to face method of data which is the case of a survey research strategy.

3.4 RESEARCH DESIGN

Saunders et al. (2012) define research design as the general plan of providing mounting answers to the research questions as well as the collection and analysis of the data. Thus, it explains the overall plan of the research. Burns and Grove (2003) added that, it is the general process of project the research. Through a well formulated research design, researchers are able to gain maximum control over several thwarting factors that undermines the validity of the study. According to Creswell and Clark (2017), selecting appropriate research design is based on the nature of research problem or issue being addressed, the experience of the researcher, and the respondents for the study. Two types of research designs are advanced: Descriptive Research Design and Correlational Research Design. Descriptive research design is designed to give a clear picture of a situation as it naturally happens (Burns and Grove, 2003). Thus, situations are usually described using descriptive research design. Profile of persons, situations or events are the basic object of measurement in descriptive research. It is also employed for the justification of current practices, make judgement and to develop theories. This also deals with clarification of the existence of a relationship that exist between two or more aspects of a situation or phenomenon as well as forecast future happenings. This is mostly considered by research questions or hypothesis which specifies the direction and nature of the relationship between the variable being examined. Correlational research design

comes in where there is the need to possibly investigate the relationships among variables without trying to influence those variables. However, the degree of relationship between the variables is of much concern. Correlational study deals with measuring two variables and then determining the degree of relationship that exist between them (Christensen et al. 2011). Generally, correlational research design is incorporated into quantitative research methods, and effective in enabling us accomplish research objectives of description and prediction (Christensen et al. 2011). Further, correlational research design normally involves multiple variables that helps to improve the researcher's ability to make predictions. The study employed a descriptive research design to justify the current practices, make judgement and to develop theories. This also deals with clarification of the existence of a relationship that exist between two or more aspects of a situation or phenomenon as well as forecast future happenings.

3.5 RESEARCH METHOD

The research method adopted for this study was purely quantitative method, to address the research questions. This strategy provides a quantitative or numeric description of trends, attitudes, or opinion of a population by studying a sample of that population (Creswell, 2009). This study adopted a quantitative research design to examine the objectives. The following are justifications why quantitative research was adopted for this research, gathers accurate data plus study relations between facts as well as relations in agreement with theory, this was done using many data gathering performances as well as analytical methods. Preceding to the prompting of the initial study, a wide-ranging collected works review was embarked on. The literature review shielded extensively on matters constructing rounds in the discipline; particularly a broad synopsis of the

Ghanaian construction industry as well as areas of impact of social sustainability on the practices of construction project management, numerous meanings in the discipline and modern works on the critical success factors to integration of social sustainability into project management practices, difficulties associated with social sustainability integration into project management practices and suggest areas of development for practice.

3.6 DATA SOURCES

The researcher employed primary sources of data. The main purpose of the study is to gather info that can be analyzed, to enable interpretation, and aided the investigator to grow unique information such as eye witness accounts, and personal observations.

3.7 POPULATION AND SAMPLING SIZE

The population of this study was project/construction managers working in construction companies with classification of D1K1 and D2K2 in the Accra Metropolis in the Greater Accra Region of Ghana. The number of registered D1K1 and D2K2 building contractors based on the Ministry of Works and Housing in the Accra Metropolis is 152 as at 2017 in the Greater Accra Region. The focus on these classifications of companies is as a result of the fact that, they undertake very large/huge public projects which normally attract public interest, and in many cases demonstrate satisfactory performance in incorporating corporate social responsibility performance in their project plan (Kuada and Hinson, 2012).

3.7.1 Sample Size Determination

It is argued that, it is effectively difficult to exam every member of a population. This means that, it is impracticable to reach every member of a population when gathering

data. In order to obtain a sample, the Kish Formula was used to determine the sample size. Kish Formula states that:

$$n = \frac{n'}{\left(1 + \frac{n'}{N}\right)}$$

$$n' = \frac{s^2}{v^2}$$

Where

v = the standard error of sampling distribution = 0.05

s^2 = the maximum standard deviation of the population

Total error = 0.10 at a confidence interval of 95%

$$s^2 = p(1 - p) \text{ where } p = 0.50$$

$$= 0.50(1 - 0.50)$$

$$= 0.25$$

p = the proportion of the population elements that belong to the defined region.

$$n' = \frac{s^2}{v^2}$$

$$= \frac{0.25}{0.05^2} = 100$$

$$N = 152$$

Therefore

$$n = \frac{100}{\left(1 + \frac{100}{152}\right)} = \frac{100}{(1 + 0.65789)} = 60.32 \approx 60$$

This sample size formula provided the minimum number of questionnaires that were to be administered. The sample size was found to be Sixty (60) D1K1 and D2K2 construction firms. The sampling technique used for the study is a convenient sampling

technique. The technique is adopted to directly address contractors who would readily provide the primary data required. For every firm that was visited, one person was administered with questionnaire. Project/construction managers were the targeted respondents for the study. However, priority was given to project managers in the sense that, in Ghana, construction managers are sometimes seen as project managers.

3.8 Questionnaire Design and Development

The questionnaire was designed to be respondent-friendly in order to facilitate the involvement of a lot and in consequence maximize the response rate. The questionnaire was designed using plain language devoid of 'technical' words, except where used it was explained to the respondents. Aside the plain language, the questionnaire was deliberately designed to include close-ended questions. The layout and format of the questionnaire were carefully considered as they impact on the response rate. Instructions were given at the beginning of every major part for filling the questionnaire. The questionnaire was in two main sections, Parts A and B. The Part A focused primarily on the demographics of the respondents and as such requested the background information of the respondents. Studies have demonstrated the significance of demographic variables or background information, particularly in quantitative studies.

The Part B was anchored on the research objectives and as such was based on the literature review in regards to the areas of impact of social sustainability on the practices of construction project management, the critical success factors to integration of social sustainability into project management practices, difficulties associated with social

sustainability integration into project management practices and areas of development for practice.

3.9 Data Analysis

The completed questionnaires were edited to ensure completeness, consistency and readability. Once the data had been checked, they were arranged in a format that enabled easy analysis. The retrieved questionnaire was aggregated into larger units and were processed and entered into the Statistical Packages for Social Sciences (SPSS version 21). The SPSS software was employed to organize the survey findings and to cross-tabulate the relationships between the variables. To elucidate the discussion in this discipline, the data obtained was presented graphically and in tabular form. Successively, the results are analyzed statistically using Relative Importance Index (RII) to determine the severity. The RII value indicates the relative significance or importance of one factor compared to other variables in the same category. The RII is calculated using the formula:

$$\text{Relative Importance Index (RII)} = \frac{\sum W}{AN}$$

Where, W = weights given to each factor by the respondents and ranges from 1 to 5, where '1' is very low and '5' is very high.

A = the highest weight (i.e. 5 in this study)

N = the total number of respondents

Mean Score Ranking (MSR) was also used to compare sample mean to the known population.

3.10 Ethical Consideration

The study will consider some broad ethical areas including voluntary participation, informed consent, confidentiality and anonymity. The participants from whom the data will be gathered for this study will not be coerced or put under any form of pressure to participate in the study. Informed consent stating who the researcher is, what the study is all about and the desired outcomes and potential risk for being part of the study will be taken from participants either in written or verbally. To ensure anonymity, the identity of participants will not be required neither will any clue be given in the presentation of the results to reveal the identity of any participant. This was to ensure the confidentiality of each participant.

3.10.1 Reliability and Validity

Validity refers to the degree which a test or an instrument measures or performs the assignment it's meant for. For qualitative study i.e., semi-structured interviews no set standards exist for evaluating the validity or authenticity of conclusions but there is the urgency of careful consideration to evidence and methods on which conclusions are based in this research. Criteria for assessing individual information can be based on three (Becker, 1958):

- How creditable the informant is?
- Were the statements made in response to the researchers or were they spontaneous
- How does the presence or absence of the researcher or the researcher's informant influence the actions and statements of the other groups?

All these criteria will be carefully considered and observed for the interview process to help validate the data collected. The information that are gathered will be transcribed and returned to the respondents for concurrent confirmation on the accuracy and precision of the content gathered

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF RESULTS

4.1 INTRODUCTION

This section analyses the findings of the study, displays the results and discusses the main research objectives. The first section describes the sample characteristics and descriptive statistics. The succeeding sections present results and discussion of the main research findings. It discusses the respondent's views on ways of integrating social sustainability into project management practices in Ghana, areas of impact of social sustainability on the practices of construction project management, the critical success factors to integration of social sustainability into project management practices, the difficulties associated with social sustainability integration into project management practices and suggest areas of development for practice. The analysis saw the adoption of simple descriptive statistics like, percentages, and the relative importance index and mean score ranking. The results have been presented in tables and interpreted accordingly.

Using convenient sampling and distributing one (1) questionnaire per each firm, out of the 60 questionnaires distributed, 52 questionnaires representing 87% were completed and retrieved. Subsequently, considering the deletion of outliers and missing values due to incomplete data, it was noted that all the 52 completed questionnaires were considered valid for the analysis. The analysis of the results is based on these number of questionnaires retrieved and consequently formed the bases of the findings of this research. The high response rate of 87% can be attributed to the fact that questionnaires were administered personally to respondents and successive follow-ups thereafter

4.2 DESCRIPTIVE STATISTICS (DEMOGRAPHIC DATA)

4.2.1 Current Position in the Firm

Approximately, 17% were project managers (N = 9), and 60% were construction managers (N = 31). 23% were in the category of assistant project and construction managers (N = 12). The respondent position is vital to ensure some degree of reliability of the data. The high representation of project managers and construction managers, was inevitable as these professionals are very key and usually engage in the construction activities and applies the project management practices on construction sites. This makes them credible and reliable source of information which is needed for this study.

Table 4.1: Current Position

Item	Frequency	Percentage (%)
Project Manager	9	17%
Construction Manager	31	60%
Others	12	23%
Total	52	100%

Source: Field Survey, 2018

4.2.2 Years of Experience in the Organization

Roughly, 10% of the respondents showed that they been in their organization for less than 5 years; different group of approximately 25% have varied experience of 6 to 10 years in the organization. 40% of the respondents' have also been in the organization for

between 11 to 15 years and 25% have worked for over 16 years. Majority of the respondents have construction experience which is vital in this case to give some degree of reliability to the data given. The length of experience in the organization of operation is vital to contribute to crucial information on the ways of integrating social sustainability into project management practices.

Tale 4.2: Years of Experience in the Organization

Item	Frequency	Percentage (%)
Less than 5 years	5	10%
6 to 10 years	13	25%
11 to 15 years	21	40%
Above 16 years	13	25%
Total	52	100%

Source: Field Survey, 2018

4.2.3 Years of Experience in the Construction Industry

The intention of this question was to identify the level of experience of the respondents in the construction industry as a whole since how long they have been in the construction industry will affect the quality of the response given. From the table, bulk of the respondents have been in the building industry for more than 6 years representing 90% (N = 31+40+19). Approximately, 10% indicated level of Less than 5 years' practice in the building industry. Accordingly, it can be deducted that, they have had a lot of experience in the Ghanaian construction industry and for that matter are capable of giving in-depth information on the issues under discussion. And the balances of a variety of

levels of experience will therefore enable a generalized and realistic view as far as this research is concerned.

Table 4.3: Working Experience in the Construction Industry

Item	Frequency	Percentage (%)
Less than 5 years	5	10%
6 to 10 years	16	31%
11 to 15 years	21	40%
Above 16 years	10	19%
Total	52	100%

Source: Field Survey, 2018

4.2.4 Educational Level

As indicated in the table below, the education dynamics of all respondents talk to could be described as efficient. From the table below, 10% (N = 5) of the respondent have completed Higher National Diploma (HND), 54% (N = 28) are holding a Bachelor Degree, 31% (N = 16) were holding a master degree and 6% (N = 3) were Doctors. Generally, all the respondents are highly educated. This was interesting for the study, due to the fact that, with these academic inclined, it is easy for the respondents to understand the question posed. Thus, could offer relatively informed responses. The results characterize the perception of respondents with a higher degree of intellectual dimensions as well as the quality of the findings.

Table 4.4: Educational Level

Item	Frequency	Percentage (%)
Higher National Diploma (HND)	5	10%
Bachelor Degree	28	54%
MBA/MSc/MPhil	16	31%
PhD	3	6%
Total	52	100%

Source: Field Survey, 2018

4.2.5 Level of Understanding of the Concept of Sustainability

From the table below, it is clearly seen that, majority of the respondents are well versed with the concept of sustainability representing approximately 82% (N = 38+27+17). This clearly indicates that respondents are in a better position to give valid responses.

Table 4.5: Understanding of the Concept of Sustainability

Item	Frequency	Percentage (%)
Very Low	3	6%
Low	6	12%
Moderate	20	38%
High	14	27%
Very High	9	17%
Total	52	100%

Source: Field Survey, 2018

4.2.6 Level of Understanding of the Concept of Social Sustainability

With the key focus of the study discovering ways of integrating social sustainability into project management practices, respondent's level of understanding of social sustainability is key to this study. Nearly all of respondents are well versed with the concept of social sustainability representing approximately 82% (N = 38+27+17).

Table 4.6: Understanding of the Concept of Social Sustainability

Item	Frequency	Percentage (%)
Very Low	3	6%
Low	6	12%
Moderate	20	38%
High	14	27%
Very High	9	17%
Total	52	100%

Source: Field Survey, 2018

4.3 ANALYSIS AND DISCUSSIONS

4.3.1 Social Sustainability impact on the Practices of Construction Project

Management

In determining the areas of impact of social sustainability on the practices of construction project management, fifteen (15) areas were identified from literature and respondents were asked to rate them according to their level of influence of each area that social sustainability can be integrated into project management practices on a five-point Likert

scale items. The adopted scale read as follows, 5= *strongly agree*; 4=*agree*; 3=*neutral*; 2=*disagree*; 1= *strongly disagree*

In analyzing the results of the level of influence of each area that social sustainability can be integrated into project management practices mean score ranking with standard deviation calculation was used. From the table below, it is interesting that all the factors are significant for social sustainability integration into project management practices as they all had a mean score value greater than 3.50 with standard deviation less than 1.000. However, considering the areas in order of priority, recognition of the context of the project appeared first with a mean and standard deviation value of 4.38 and 0.739 respectively. As noted by Tharp (2013) the beginning for all aspects of a project and its management is the recognition of the context of the project. Integrating the dimensions of sustainability in project management inevitably implies a broader consideration of the context of the project. Identification of stakeholders as rated second with a mean and standard deviation of 4.31 and 0.689 respectively. The identification of stakeholders in every project is seen as an initial stage activity of every project ((Office of Government Commerce, 2009). Silvius et al. (2012) added that typical ‘sustainability stakeholders’ may be environmental protection pressure groups, human rights groups, non-governmental organizations, etc. Stakeholder involvement appeared third, followed by the selection and organization of project team, project communication, project specifications and requirements, through to project handover which appeared last but displayed a significant mean score and standard deviation (*see table 4.7*). A number of studies have indicated the relevance of stakeholder involvement in any project (Winnall, 2013; Khalfan, 2006; Silvius et al., 2012; Taylor, 2010), as this principle logically

impacts the stakeholder management and the communication processes in project management. The PMBOK Guide recognises that stakeholders can be actively involved in the project (Project Management Institute, 2013), however, the processes related to stakeholders imply a perspective of stakeholders as external actors. Sustainable project management would imply involving stakeholders proactively in project activities, such as the definition of requirements, assessment of costs and benefits, project planning and scheduling, identification and assessment of risks, handling of issues, and project reporting.

More importantly, following the principle of transparency and accountability, incorporating social sustainability into project management processes and practices would imply proactive and open communication about the project, that would also cover both short-term and long-term (Khalfan, 2006; Silvius et al.,2012; Taylor, 2010). The current standards for project management reflect a more reactive approach to project communications, by focusing on the information and communication needs of the stakeholders and emphasizing that the project manager should provide “only the information that is needed”.

Table 4.7: Areas of Impact on the Practices of Construction Project Management

No.	Areas of Project Management Practice	Mean Score	Standard Deviation	Ranking
1	Recognition of the context of the project	4.38	0.739	1 st
2	Identification of Stakeholders	4.31	0.689	2 nd
3	Stakeholder involvement	4.29	0.900	3 rd
4	Selection and organization of project team	4.25	0.703	4 th
5	Project Communication	4.21	0.612	5 th
6	Project specifications and requirements	4.33	0.878	6 th
7	Dimensions of project success	4.24	0.964	7 th
8	Project sequencing and schedule	4.35	0.588	8 th
9	Risk identification and management	4.33	0.665	9 th
10	Organizational learning	4.19	0.477	10 th
11	Business case	4.11	0.665	11 th
12	Procurement	4.01	0.834	12 th
13	Materials used	3.98	0.575	13 th
14	Project reporting	3.93	0.846	14 th
15	Project handover	3.54	0.395	15 th

Source: Field Survey, 2018

4.3.2 Integration of Social Sustainability into Project Management Practices

From Table 4.8 below, using relative importance index to determine the critical success factors, top management support was rated first with a mean score and RII value of 4.68 and 0.809 respectively. Followed by competent project team with a mean and RII value of 4.57 and 0.800 respectively. Adequate project planning, project understanding, client involvement/participation, project project/common goal and information/communication followed in order of importance with a mean and RII value greater than 4.00 and 0.700 respectively. Abu Baker et al. (2009) emphasized that these critical success factors enhance social sustainability in construction project management. Baccarini (2003) suggested that for an organization, it is crucial for projects to be successful. It should be recognized that certain factors that are critical to integrating social sustainability into the project development success before the beginning of the project development. Also,

project team composition, end users involvement and other issues, project manager/leader authority, project risk management, adequate project control and adequate resources for project all obtained a mean and an RII value greater than 3.50 and 0.600 respectively. A study by Winnall (2013) points out that project risk management, including risk mitigation, is a well-known concept in project management. Logically, in the identification of project risk, both environmental and social risks will also be considered, and, following the life cycle approach, these risks need to be assessed for the project's resources, processes, deliverables and effects (Silvius et al., 2012). Considering sustainability in project risk management does not only apply to the kind of risks considered. It also implies that risks are considered from the different points of view and interests of all stakeholders, not just the project sponsor. This also suggests that in sustainable project management, the stakeholders are participating in the identification, assessment and management of risks (Silvius, 2013). From the table below, the factors that was rated low by respondents are local building materials and increasing cost and project ownership with a mean and an RII value of 3.00, 3.00 and 0.538, 0.541 respectively. Therefore, the findings of the study are consistent with studies by Olotuah and Bobadoye (2009); Ibem and Amole (2011) and Andersen and Jessen (2006).

Table 4.8: Integration of Social Sustainability into Project Management Practices

No.	Critical Success Factors	Mean Score	RII	Ranking
1	Top management support	4.68	0.809	1 st
2	Competent project team	4.57	0.800	2 nd
3	Adequate project planning	4.55	0.791	3 rd
4	Project understanding	4.31	0.790	4 th
5	Client involvement/participation	4.29	0.783	5 th
6	Project project/common goal	4.22	0.774	6 th
7	Information/communication	4.14	0.772	7 th
8	Project team composition	4.00	0.761	8 th
9	End users involvement and other issues	3.96	0.757	9 th
10	Project manager/leader authority	3.91	0.750	10 th
11	Project risk management	3.83	0.739	11 th
12	Adequate project control	3.74	0.661	12 th
13	Adequate resources for project	3.55	0.624	13 th
14	Realistic cost and time estimate	3.21	0.611	14 th
15	Problem solving ability	3.19	0.600	15 th
16	Project monitoring recital and feedback	3.11	0.574	16 th
17	Local building materials and increasing cost	3.00	0.538	17 th
18	Project ownership	3.00	0.541	18 th

Source: Field Survey, 2018

4.3.3 Difficulties of Social Sustainability Integration into Project Management

It is important that the difficulties preventing the social integration into project management practices must be minimized or mitigated. Through a comprehensive literature review, this research study was able to identify some factors that cause difficulty in integrating social sustainability into project management practices. In analyzing the challenging factors, the relative importance index was employed. From

table 4.9 below, lack of government supports appeared first with a mean and an RII value of 4.55 and 0.811 respectively. Generally, as indicated by Samari et al. (2013) this factor is an external factor that plays a vital role in project management and sustainable development. As a sustainable project, the imperfect local or national environmental laws, regulations and building codes have been identified as one important barrier to the development of sustainable construction (Heeres et al., 2004; Samari et al., 2013). Closely, lack of the effective coordination between key players was rated second with a mean and an RII value of 4.51 and 0.745 respectively. Followed by the issue of time and imperfect government regulations with a mean and an RII value of 4.50, 4.34 and 0.732, 0.722 respectively. Regulatory and bureaucratic issues are still key obstacles to promoting industrial innovations toward sustainable developments (Matus et al., 2012). From a stakeholder's perspective, these imperfections imply potential extra costs or a project delay in the future development. Thus, a one stop permitting process was recommended (Stewart, 2007). Variance in project delivery compared to conventional parks leading to a higher risk level was rated fifth with a mean and an RII value of 4.28 and 0.719 respectively. The perceived high costs compared with conventional buildings, which are mostly caused by special design, construction and maintenance, has become the most common barrier to the adoption of sustainability in general (Hwang and Tan, 2012; Kim et al., 2014; Zhang et al., 2011). The next factors are adjustment of functions and changing roles of parks, lack of marketing and promotion, lack of proven benefits to entice potential investors, lack of potential clients' awareness and demand and perceived higher initial capital costs with a mean and an RII values greater than 3.50 and 0.600 respectively. Of all the factors, factor with the lowest mean and an RII value is unequal

distribution of advantages between developers and tenants. The findings are consistent with studies like, Tudor et al. (2007); Davis Langdon (2007); Zhu et al. (2014) etc.

Table 4.9: Difficulties of Social Sustainability Integration into project Management

No.	Difficulties	Mean Score	RII	Ranking
1	Lack of government supports	4.55	0.811	1 st
2	Lack of the effective coordination between key players	4.51	0.745	2 nd
3	The issue of time	4.50	0.732	3 rd
4	Imperfect government regulations	4.34	0.722	4 th
5	Variance in project delivery compared to conventional parks leading to a higher risk level	4.28	0.719	5 th
6	Adjustment of functions and changing roles of parks	4.11	0.700	6 th
7	Lack of marketing and promotion	4.02	0.698	7 th
8	Lack of proven benefits to entice potential investors	3.95	0.687	8 th
9	Lack of potential clients' awareness and demand	3.82	0.682	9 th
10	Perceived higher initial capital costs	3.73	0.657	10 th
11	Uncertain trade-off between environmental and financial benefits	3.21	0.542	11 th
12	Variance in site practices compared to conventional parks leading to a higher risk level	3.12	0.533	12 th
13	Unequal distribution of advantages between developers and tenants	3.05	0.521	13 th

Source: Field Survey, 2018

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 INTRODUCTION

The summary of the key research findings tailored to the proposed research aim and objectives are presented in this chapter. The conclusion, relevance and contributions of this study are also underlined in this chapter. Further, limitations of the research and suggestions for future research directions are provided as well.

5.2 SUMMARY OF FINDINGS

The main aim of the study was to discover ways of integrating social sustainability into project management practices in Ghana. In pursuing this aim, three objectives were set out. The achievement of each of the three research objectives is set out in the following subsections.

5.2.1 Identification of areas of impact of social sustainability on the practices of construction project management

The study reveals that, of all the areas under project management practices are very important for incorporating social sustainability. However, among the areas, recognition of the context of the project was rated high followed by identification of stakeholders, stakeholder involvement through to project handover which was rated last. More so, it appears that considering social sustainability implies, a shift of scope in the management of projects and from delivering requested results, to taking responsibility for sustainable development in organizations and society.

5.2.2 Identification of the critical success factors to integration of social sustainability into project management practices

The study showed that, top management support, competent project team, adequate project planning, project understanding, client involvement/participation, project project/common goal and information/communication are very critical for the integration of social sustainability into project management practices. It is crucial for projects to be successful. Thus, It should be recognized that certain factors that are critical to integrating social sustainability into the project development success before the beginning of the project development. Also, project team composition, end users involvement and other issues, project manager/leader authority, project risk management, adequate project control and adequate resources for project all obtained a mean and an RII value greater than 3.50 and 0.600 respectively.

5.2.3 Identification of the difficulties associated with social sustainability integration into project management practices

From the study, it is interesting to see that, external factors like, lack of government supports, lack of the effective coordination between key players, issue of time and imperfect government regulations are still key obstacles to promoting industrial innovations toward social sustainable developments. From a stakeholder's perspective, these imperfections imply potential extra costs or a project delay in the future development.

5.3 CONCLUSION

This study discovered ways of integrating social sustainability into project management practices in Ghana. In pursuing this aim, three objectives were set out. These includes, identification of areas of impact of social sustainability on the practices of construction project management, identification of the critical success factors to integration of social sustainability into project management practices and identification of the difficulties associated with social sustainability integration into project management practices. The study reveals that all the areas under project management practices are very important for the incorporating social sustainability. However, among the areas, recognition of the context of the project was rated high followed by identification of stakeholders, stakeholder involvement through to project handover which was rated last. Also, with the critical success factors top management support, competent project team, adequate project planning, project understanding, client involvement/participation, project project/common goal and information/communication were very critical for the integration of social sustainability into project management practices. More importantly, it is interesting to see that, external factors like, lack of government supports, lack of the effective coordination between key players, issue of time and imperfect government regulations are still key obstacles to promoting industrial innovations toward social sustainable developments.

5.4 RECOMMENDATIONS

In view of the findings of this research, the following recommendations are therefore prescribed to support the integration of social sustainability into project management practices.

- ✚ There is the need to facilitate training to all stakeholders on ways of incorporating sustainability into project management practices. For that matter, the practices and standards of project management can be developed further to address the role projects play in creating sustainable development.
- ✚ As considering sustainability implies a mind shift for project managers from delivering requested results, to taking responsibility for sustainable development in organizations and society, it is an increasing need for all project stakeholders to balance the interests of each other through a systematic participatory approach.
- ✚ Further, government policies and regulation pertaining to environmental law, building codes etc. should consider the sustainable development practices.

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APPENDIX

QUESTIONNAIRE SURVEY

Topic

Social dimension of sustainability integration into construction project management practices: Ghanaian project managers' views

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
KUMASI**

COLLEGE OF ART AND BUILT ENVIRONMENT

Department of Building Technology

(MSc. Project Management IDL)

Dear Sir/Madam

Many thanks for your participation. This questionnaire survey aims to discover ways of integrating social sustainability into project management practices in Ghana. Please fill in the questionnaire using the instructions, which will only take you about 10 to 15 minutes. Please be noted that all the information you provide will be treat as anonymous and will only be used for academic purpose only. Thank you again for your valuable time. If you have any queries, please feel free to contact:

RICHARD SELORM BONNEY

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Email: selormbonney@gmail.com

Section A: Background Information

Q1. Please state your position in your firm

.....

Q2. Please indicate how long have you been working in your organization.

- Less than 5 years
- 6 to 10 years
- 11 to 15 years
- Above 16 years

Q3. Please indicate how long have you been working in construction industry.

- Less than 5 years
- 6 to 10 years
- 11 to 15 years
- Above 16 years

Q4. Educational Level

- Higher National Diploma (HND)
- Bachelor Degree
- MBA/MSc/MPhil
- PhD
- Other (please specify)

Q5. What is your level of understanding of the concept of sustainability?

- Very low
- Low
- Moderate
- High
- Very High

Q6. What is your level of understanding of the concept of social sustainability?

- Very low
- Low
- Moderate
- High
- Very High

Section B: Considering main objectives

Q7. AREAS OF IMPACT OF SOCIAL SUSTAINABILITY ON THE PRACTICES OF CONSTRUCTION PROJECT MANAGEMENT

Please indicate the level of influences of each area that social sustainability can be integrated into project management practices by ticking the appropriate boxes.

5= strongly agree; 4=agree; 3=neutral; 2=disagree; 1= strongly disagree

NO.	AREAS OF PROJECT MANAGEMENT PRACTICE	levels of influence				
		1	2	3	4	5
1	Recognition of the context of the project					
2	Identification of Stakeholders					
3	Project specifications and requirements					
4	Business case					
5	Dimensions of project success					
6	Selection and organization of project team					
7	Project sequencing and schedule					
8	Materials used					
9	Procurement					
10	Risk identification and management					
11	Stakeholder involvement					
12	Project Communication					
13	Project reporting					
14	Project handover					
15	Organizational learning					
	Others (please specify)					
16						
17						
18						

Q8. CRITICAL SUCCESS FACTORS TO INTEGRATION OF SOCIAL SUSTAINABILITY INTO PROJECT MANAGEMENT PRACTICES

Please kindly rate on the scale the level of significance of the following critical success factors (CSF) to integration of social sustainability into project management practices.

1-Not very Significant, 2-Not Significant, 3-Moderately Significant, 4-Significant, 5-Very Significant

NO.	CRITICAL SUCCESS FACTORS (CSFs)	levels of influence				
		1	2	3	4	5
1	Project understanding					
2	Top management support					
3	Information/communication					
4	Client involvement/participation					
5	Competent project team					
6	Project manager/leader authority					
7	Realistic cost and time estimate					
8	Adequate project control					
9	Problem solving ability					
10	Project risk management					
11	Adequate resources for project					
12	Adequate project planning					
13	Project monitoring recital and feedback					
14	Project mission/common goal					
15	Project ownership					
16	Project team composition					
17	End users involvement and other issues					
18	Local building materials and increasing cost					
	Others (please specify)					
19						
20						
21						

**Q9. DIFFICULTIES ASSOCIATED WITH SOCIAL SUSTAINABILITY
INTEGRATION INTO PROJECT MANAGEMENT PRACTICES**

Please indicate the level of influences of each factor by ticking the appropriate boxes.

5= strongly agree; 4=agree; 3=neutral; 2=disagree; 1= strongly disagree

NO.	DIFFICULTIES	levels of influence				
		1	2	3	4	5
1	Imperfect government regulations					
2	Adjustment of functions and changing roles of parks					
3	Lack of government supports					
4	The issue of time					
5	Perceived higher initial capital costs					
6	Lack of potential clients' awareness and demand					
7	Variance in project delivery compared to conventional parks leading to a higher risk level					
8	Variance in site practices compared to conventional parks leading to a higher risk level					
9	Unequal distribution of advantages between developers and tenants					
10	Uncertain trade-off between environmental and financial benefits					
11	Lack of marketing and promotion					
12	Lack of the effective coordination between key players					
13	Lack of proven benefits to entice potential investors					
	Others (please specify)					
14						
15						
16						

THANK YOU!