August 2022

Pages: 73 -

Volume 6 | Issue 8

# The Success of Project Oriented Organization in Technical Capacity Perspective and Performance of Ghana Government Construction Projects

Ebenezer Essilfie-Baiden (PhD) | David Ackah (PhD)

African University College of Communication | Business University Costa Rica (UNEM)

Email: drackah@ipmp.edu.gh | essilfiebaiden@gmail.com

#### **Abstract**

The research carried out in the construction industry are predominantly capital intensive and require a substantial level of leadership and management capabilities or skills, amongst the coordination/organization of diverse professionals and labor force. According to the Chartered Institute of Building (2002), the fundamental roles of project managers within the construction industry include that of coordination of experts or technocrats who are expected to use their knowledge and expertise towards the attainment of specific project goals. In Ghana, the construction industry is cognizant of many challenges facing the country and the industry in particular. The industry in collaboration with the government and academia have been making conscious efforts to minimize, if not eradicate the challenges, most of which are related to poor management. The study focused on the erstwhile Bank for Housing and Construction, which is one of the banks owned by Government with the intention to provide support for private housing schemes and industrial construction activities in Ghana. The research conducted by the authors revealed that the bank initially achieved some level of success in terms of financing projects. The level of success however declined due to several challenges the core of which being contractor's lack of managerial and technical capability which subsequently led to the liquidation of the bank. Several other construction projects financed by the government have faced similar challenges of below-par successes. However, very few researches have been conducted with focus on projectoriented organizations from the perspective of technical capacity, organization structure and leadership in ascertaining the success rates of construction projects financed by the Governments of Ghana. This research therefore, seeks to bridge the gap in knowledge by investigating project management success for project-oriented business organizations from the perspective of technical capacity, organization structure and leadership in the performance of construction projects financed by Ghana Government in Greater Accra Region using Henry Fayol model. The researchers have observed during the few interviews conducted that several projects financed by the Government of Ghana in the construction sector of the Greater Accra region have either being abandoned or left uncompleted. This phenomenon according to some interviewees have caused major financial losses to the state as project managers are rarely held accountable for project failures. The researcher therefore recommends that further research should be conducted in the Greater Accra region to measure the success rates of projects financed by the Government. The future researches should focus on effective means to discontinue the failure-chain of Government sponsored projects. In addition, Government should commit resources into educating stakeholders of state sponsored projects on the Fayol's principles of management and its importance to project success.

Keywords: Project Oriented Organization, Technical Capacity Perspective, Performance of Ghana Government Construction Projects, Public Sector Project Management, Social Interventions Programmes, Project Management for Development, Government of Ghana Project.

#### 1.0 INTRODUCTION

Project management according to the International Project Management Association, ICB (2006), involves planning, organization, monitoring and control of all aspects of project, with emphasis on achieving project goals within time, scope, budget and performance criteria. The definition of project management according to ICB focused on project performance with emphasis on three project success factors; time, cost and quality. In addition, the Project Management Institute, PMI (2013) mentioned that projects are temporary in nature and as a result, its success is measured using scope, time, cost, quality,

August 2022

Pages: 73 -

Volume 6 | Issue 8

resources and risk. The three fundamental factors (scope, cost and time) form the "iron triangle" in project management. The iron triangle had been the main tool used in assessing project success. The triangle focuses on the delivery stage of the project thus ignoring other stages of the project cycle. It is worth noting that other stakeholders such as customers, sponsors are also important in measuring project success although these stages are omitted in the iron triangle. In order to achieve project success, it is important to clearly define and review the different components of success. Researchers have made numerous attempts to conceptualize project-based and project-oriented organizations.

Hobday (2000), designed a model for project-based organizations on innovation of complex product systems. Such systems according to Whitley (2006), are characterized by specific goals and objectives. In a similar vein, Hobday (2000) stated that a project-based organization is one that is able to cope with emerging properties in production and respond accordingly to the changing demands of clients. The author continues to state that a project-based organization is one that is effective and able to integrate various kinds of knowledge and skills and at the same time dealing with project risks and uncertainties. The major feature about Hobday's concept is the fact that complex product systems are offered to a single client by a network of contractors. Other researchers have focused on project-oriented organizations, that is several organizations that deliver to many different clients, and provide a host of projects concurrently (Turner & Keegan, 2001).

The term "project-oriented organization" was first used by Gareis (1989) to describe organizations that deliver to many different clients. Gareis and Huemann (2000) gave a defining for a project-oriented organization as one that defines 'management by projects' as its main organizational strategy and applies temporary organizations for the performance of complex processes and also has a specific permanent organization structure to provide integrative functions. The authors further opined that the more different project types a project-oriented organization holds in its project portfolio, the more differentiated it becomes and the higher its management complexity. A project-oriented organization is perceived to foster organizational differentiation and division of management responsibilities, goal orientation and personnel development.

#### 1.1 Background Of Study

Over the years, organizations in several fields of endeavor have been using projects to achieve goals and objectives. As a result, the concept of project success has increasingly been considered by organizations as a means of measuring performance. The concept of success is handled in most researches with emphasis on project success and project management success (Cooke-Davies, 2002; Shenhar & Dvir, 2007; Serrador & Turner, 2015). Whiles project success deals with the achievement of the overall goals of the project, project management success entails the fundamental objectives such as cost, time and quality performance (Cooke-Davies, 2002;). The focus of this research is on project management success for project-oriented business organizations. Project management according to the International Project Management Association, ICB (2006), involves planning, organization, monitoring and control of all aspects of project, with emphasis on achieving project goals within time, scope, budget and performance criteria.

The definition of project management according to ICB focused on project performance with emphasis on three project success factors; time, cost and quality. In addition, the Project Management Institute, PMI (2013) mentioned that projects are temporary in nature and as a result, its success is measured using scope, time, cost, quality, resources and risk. The three fundamental factors (scope, cost and time) form the "iron triangle" in project management. The iron triangle had been the main tool used in assessing project success. The triangle focuses on the delivery stage of the project thus ignoring other stages of the project cycle. It is worth noting that other stakeholders such as customers, sponsors are also important in measuring project success although these stages are omitted in the iron triangle. In order to achieve project success, it is important to clearly define and review the different components of success.

Researchers have made numerous attempts to conceptualize project-based and project oriented organizations. Hobday (2000), designed a model for project-based organizations on innovation of complex product systems. Such systems according to Whitley (2006), are characterized by specific goals and

August 2022

Pages: 73 -

Volume 6 | Issue 8

objectives. In a similar vein, Hobday (2000) stated that a project-based organization is one that is able to cope with emerging properties in production and respond accordingly to the changing demands of clients.

The author continues to state that a project-based organization is one that is effective and able to integrate various kinds of knowledge and skills and at the same time dealing with project risks and uncertainties. The major feature about Hobday's concept is the fact that complex product systems are offered to a single client by a network of contractors. Other researchers have focused on project-oriented organizations, that is several organizations that deliver to many different clients, and provide a host of projects concurrently (Turner & Keegan, 2001). The term "project-oriented organization" was first used by Gareis (1989) to describe organizations that deliver to many different clients. Gareis and Huemann (2000) gave a defining for a project-oriented organization as one that defines 'management by projects' as its main organizational strategy and applies temporary organizations for the performance of complex processes and also has a specific permanent organization structure to provide integrative functions. The authors further opined that the more different project types a project-oriented organization holds in its project portfolio, the more differentiated it becomes and the higher its management complexity. A project-oriented organization is perceived to foster organizational differentiation and division of management responsibilities, goal orientation and personnel development.

Recently, Huemann (2015) gave an overview of the theoretical foundations and features of a project-oriented organization in her book on human resource management. The goal of the project-oriented organization is to appropriately guide the organization to undertake the right projects, use the right project managers and staff, use project results in a sustainable manner, and achieve the objective of all project stakeholders. Morris and Geraldi (2011) stated that both lower level and upper-level management should be focused on creating conditions to foster and enhance the successful implementation of projects in the parent organization in particular and the external environment.

According to Gemunden et al. (2017), the traditional task in project management is to properly manage individual projects such that the project process is properly planned and organized and the project team members well motivated. The authors explained the linkage between these tasks by explaining the distinction between the three levels of managing projects. The first level involves the managing of singular projects referred to as project management, which is a temporary, task-specific but different solutions for different project types (Shenhar, 2001). The second level involves the management of project landscapes, often referred to as project portfolio management or multi-project management, which is a permanent and a broader task, and often focus on developing, motivating the human resource persons and establishing a career system for project managers. The third level, which is the leadership of project-oriented organization focuses on the institutionalization of knowledge management practices for systematic collective learning. It is important that all the three tasks are aligned, integrated and well managed. The three tasks can be summarized into structures, people and values, which form the underlying models of project-oriented organizations.

# 2.0 LITERATURE REVIEW

Projects are carried out in various fields either by public entities, private entities or both. Projects are undertaken in different sectors of an economy to meet a specific need. Usually, the expectations from such projects are well defined. As a result, there is a need for projects to be properly managed. The end results of a well-managed project must be a success. A well-managed project usually yields good results. Projects with good management provides a form of guarantee to managers which ensures that project goals and business goals are moving in the same direction. It ensures accountability as managers provide a form of control, motivation, quality, insight, inspiration and coaching to the project team in order to produce the best outcomes. Just like the manufacturing, business, health, education and sporting services, projects are also carried out in the construction field. According to Kashiwaga et al. (2012) and Hai & Watanabe (2014), a number of problems have been highlighted with the performance of construction projects. These factors affect the success of the project. These include poor quality of final work, over estimation of budgets, inability to meet deadline, unsafe construction and displeasure on the part of the client.

Projects aim at meeting a specific need at a certain period of time. However, the benefits for which these projects are executed usually are not realized. Research findings on completed projects indicated

August 2022

Pages: 73 -

Volume 6 | Issue 8

that a large number of projects far exceeds the budget and allocated time hence decreasing the profits gained. The Standish Group conducted research in 1988 and findings showed that only 26 percent of projects started were successfully completed. White (2006) further stated that the probability that an Information Technology (IT) project will meet the expectations of the project participants is only 65% and only 18% of IT projects are implemented within the planned cost, 30% are also terminated before completion due to the high cost associated with them. Other authors asserted that countless number of factors cause projects to fail. They identified the following: poor description of project objectives, poor scheduling of projects, excessive uncontrolled change, inadequate resources, poor control, ineffective communication, poor description of participants' responsibilities, absence of top management support, neglecting clients and concentrating on technical solutions, etc (Young, 2000; White, 2006; The Standish Group in Young & Jordan, 2008).

## 2.1 Project-Oriented Business

According to Gareis and Huemann (2000), a project-oriented organization is a body whose organizational strategy is based on project management, handles a collection of projects, has distinct and stable organizations to carry out integrative roles, maintains a clear management culture and also uses transitional organization for completing complex processes and a set of concepts or patterns, theories, postulates, standards and research methods to contribute meaningful to an organization. Usually, a project-oriented organization is expected to adopt differentiation in an organization and decentralization of management duties, maintain quality assurance during projects, clearly define projects, be goal-oriented and develop capabilities of personnel and finally facilitate organizational learning through project management.

The roles of project-oriented organizations are to direct the organization in the right manner so as to ensure that the correct projects are undertaken under the influence of experienced project managers and staff, outcomes are utilized wisely and also produce objectives that are valuable to all stakeholders involved. Morris and Geraldi (2011) asserted that top and middle managers are dedicated to providing conditions that will back up and facilitate projects within the organization and its environment. Tasks performed by these managers can be linked to managing projects at three stages. These are:

- 1. Single project management called Project management
- 2. Project landscapes management called Project portfolio management/ multi-project management
- 3. Project-oriented organization leadership

Shenhar (2001) stated that single project management is usually short-lived and distinct but requires selection of various solutions of different project types whereas multi-project management are stable and comprehensive. It views the assigning of human resource as a prearrangement. Emphasis is not placed on human resource improvement and motivation especially for project managers in project portfolio management but rather in multi-project management. Furthermore, with a learning project-oriented organization, structures are designed to impart knowledge for efficient and cooperative learning. Thus, structure establishment and addressing the problems faced by the project team are two essential elements of any project-oriented organization. Project-oriented organizations are managed by values.

Most projects are run concurrently and as a result, multi-projects require maximum coordination and control. This enables proper alignment of expected goal, minimize risk, ensure effective collaboration between different projects, adjust to possible changes, prevent overload and provide enough resources for project completion. This is a requirement for project portfolio management. There are five main organizational types, however, 'adhocracy' can be linked to project-oriented organizations (Mintzberg, 1983). Mintzberg (1983) stated that there are two types of adhocracies namely operating and administrative adhocracy. Operating adhocracy uses project works to resolve issues for clients outside the organization whilst administrative adhocracy focuses on clients within the organization.

Project-oriented organizations require people who are willing to carry out projects. The project team can even acquire more knowledge on challenging assignments as team members exchange ideas. According to Muller (2015), in an organization-wide learning, it is obligatory for team members to carry out direct responsibilities and knowledge sharing tasks by dividing time and effort between these two

August 2022

Pages: 73 -

Volume 6 | Issue 8

tasks. Contrary to this, strong limitations to learning within and between projects include time pressures, delay and centralization of database, intranets, etc.

# 2.2 Determinants of Project Success

Projects are gradually rising in different sectors. This constant increase therefore demands more personnel to be actively involved hence strengthening relationships and regularity of contacts. Therefore, there is a need for proper definition of roles, responsibilities, competencies and relationships between project participants. Generally, construction projects remain labour intensive (Langford et al., 1995) and demand huge sums of money some degree of leadership and management skills, directing of various experts and employees. However, Katz et al. (2000) stressed that the workforce in the construction industry strongly influence their success or failure. in Chartered Institute of Building (2002) revealed that within the construction industry, a project manager's duty is to organize and direct technocrats to give out their maximum best in order to accomplish the set objectives or goals. The main roles and responsibilities of the project managers within the construction industry are the coordination of technocrats to put up their best to achieve the project goals (Chartered Institute of Building, 2002). The success or failure of a construction project depends greatly on a number of factors. There is however, a need for project managers to realize and explore these factors to know the level of influence of these factors on overall performance of construction projects.

Fortune and White (2006) stated that the factors that affect the success of a project can be grouped into five main categories. These are project management mechanisms, project related factors, external environment, methods of procurement and project culture. Kougoulos (2000) also asserted that the success of a construction project depends on two major factors, particularly administrative and technology-based factors. Conversely, these factors indicated as determinants of a project's success varies from one construction project to the other due to variation in projects as well as dynamics in the environment. This implies that for every industry, the success factors differ. Kougoulos (2000) added that an obligation of a project manager is to possess a detailed information on the feasibility study report, maintain a good relationship with all project team members and stakeholders and finally hold a form of guarantee that all projects initiated are successfully implemented within the allocated time, budget and quality in order to meet customer needs.

Baccarini (2019) was of the view that the effect of projects after they have been completed and hand over to end users must be considered as a contributory factor to project success. Baccarini (1999) clearly distinguished project management success from product success. According to him, when a project meets the fundamental requirements, processes in project management and satisfy the expectations of the stakeholders, then project success is achieved. However, product success entails strategy of the owner, satisfaction derived by users, productivity and market share. Thus, with project success, measurement is against the common goal set for the project whilst project management success is measured by using variables such as budget, time and performance. Key performance indicators for the success of construction projects can be categorized into objective and subjective measures (Chan & Chan, 2004). Objective measures focus of factors such as budget, time, safety and setting. Subject measures also emphasize on the value, purpose and the satisfaction derived by various project participants. Even though these authors linked the performance indicators to success criteria, the indicators were restricted to only two levels specifically operational and tactical levels. The stages of a project are excluded.

According to Project Management Institute (2017), construction projects are usually in phases and also require some form of specialization. Due to this, project team managers in construction projects that are complicated are changes at different phases. This means that at a particular point in time, a specific activity is carried out in the construction industry. All tasks are completed within a given time frame thereby paving way for the next phase in construction works. There are macro and micro factors to performance (Lim and Mohammed, 1999). These authors were of the view that micro factors can be mapped out from the implementation stage where project managers demand continuously for high quality, cost effective and timely projects. The other factors which is the macro factors covers fulfillment and approval of end users of a project and stakeholders. This is based on the completion of projects on timely basis and also the satisfaction which will be gained from that particular project.

August 2022

Pages: 73 -

Volume 6 | Issue 8

Elattar (2019) designed a framework to measure the success of construction projects. He postulated three main principles for project success. The criteria used was based on the perception of the owners of the project, the project designers and project contractors. With the success criteria based on project owner's opinion, elements such as agenda, cost, intended purpose, outcome projected, quality, aesthetic value, return on investment, marketability and decreased irritation. Happy customer, quality architectural product, meeting of design fee and project goal, skilled staff fulfillment, meeting budget and plan, marketable products/ process, reduced difficulties in construction, absence of liability claims, acceptability of project by the public, client payment and well-defined nature of work make up the perception of the project designers. The third category is the contractor's perception. It encompasses meeting project schedule, return, budget, quality specifications, absence of claims, anticipations of all actors, customer satisfaction, effective uninterrupted communication and no disclosures during the entire project.

The three dimensions of project success precisely time, budget and quality are not satisfactory enough for measuring project management success (Thomsett, 2002). This indicates that the three dimensions cannot be the only factors that affect the success of a project. Quality of the process of project management, leadership performance and satisfaction derived as a result of meeting the expectations of stakeholders must also be factored into the determinants of project success. Due to this, the traditional triangle (cost-time-quality) has been expanded by the introduction of performance of processes of management. Findings from 159 research and development projects carried out by Pinto and Slevin (1989) to explore the factors that affect the success of such projects revealed that success factors vary throughout the project's life cycle. The main phases of a project are initiating, planning, implementation and closing. During each phase, entirely new set of factors affect the success of a project. As a result, Pinto and Slevin (1989) pinpointed project mission, support from top managers, detailed outline of duties, structure of tasks, meetings with clients, project team members' selection, availability of technology and skills to complete technical activities and tasks, acceptance by clients, processing of trading final product, monitoring, control, reaction during execution stage, communication amongst various stakeholders, and willingness to tackle unforeseen contingencies and deviation of project from expected plans as factors necessary for project success.

Different industries carry out projects. However, every project is distinctive which also highlights the factors that affects its success. Moreover, critical factors that affect a particular industry can hardly be transferred to other industries (Yang, Shen & Ho, 2009). The uniqueness of projects therefore means that projects vary from each other even when they both possess some common elements. Projects can be executed successfully if success criteria and success factors are clearly defined and thoroughly reviewed. According to Wateridge (1995), success factors are a requirement for designing the criteria. These success factors can be categorized into four groups: project related factors, factors related to project managers and team members, organization related factors and those related to external environment (Belassi and Tukel, 1996).

They further stated that due to the diverse nature of projects, all critical factors likely to affect project success cannot be easily identified. One of the factors that affect the success of project implementation is project culture. It forms an integral part of organizational culture (Skarabot, 1998) and it is the common attitude to projects in every organisation. Project are carried out within business environment but not in isolation. The business environment must correspond to the requirements of good project management. Cleland (1999) stated that the culture affects all phases of a project. Project culture involve proper management support at all ranks and the gap between project and line management is important. Organizational policies, rules, procedures and strategies are embedded in project culture. They are the principles and philosophies of project work in an organization (Cleland, 1999). The methodology for the project goes beyond the theoretical framework. The methodology adopted must be documented and converted into world-class methodology which will help corporate culture executes the methodology. Business organizations have cooperative cultures where the whole organization supports a single methodology.

August 2022

Pages: 73 -

Volume 6 | Issue 8

## 2.3 The Ghanaian Construction Industry

The construction industry in Ghana is a very important for investment. According to MoFEP and Ghana Statistical Services (2007), the construction sector contributed 1.0% and 11.0% to Gross Domestic Product growth and growth in industry respectively in the 2008 budget. This sector employed about 2.3% of the total population in Ghana in 2002 and also contributed 10.6 billion USD to national GDP in 2005 (MoFEP and Ghana Statistical Services, 2007; the World Bank, 2007). This sector promotes economic growth and national development. This industry varies with technology, availability of resources and national budget. The complexity and dynamism of this sector can be linked to increased uncertainties. Dansoh (2004) stated that firms within the construction industry work with continuously changing environment which results from unstable political climate, volatility in economic environment and a highly competitive market. A perception held by Gilham and Ebohon (2004) indicated that as a result of colonial rule, this sector uses massively imposed or inherited system. These systems, structures and practices result from colonial rule.

# 2.4 Organizational Culture

Organizational culture greatly influences work climate and successively drives businesses. It is evident in the way responsibilities are carried out, objectives are established and how people are steered towards the accomplishment of goals. The culture of an organization affects decision making and reactions of people to opportunities and threats. It goes a long way to affect how people are selected to accomplish tasks thereby affecting organizational performance and decision making. Culture is embedded in people and it influences conduct of people. According to Moore (2002), different philosophies and methods used in carrying out work in an organization can be termed as organizational culture. The fundamentals of organisational culture are numerous. This includes a set of ethics, philosophies, conventions, common understandings, beliefs, attitudes, behaviours, thinking, norms and traditions of the people in the organization (Davidson, 2000; Yazici, 2009) and also ethnic cultures (Lewis, 1995). Turner and Simister (2000) stated that culture denotes an attitude of a person which results from one's professional, class, religious, educational, gender, age and other backgrounds and the person's ability to learn and transmit knowledge. Eskerod & Skriver (2007) were of the view that organizational culture can be defined by three levels: artefacts, espoused values, and basic, underlying assumptions.

## 2.5 Project Management Measures

Performance measurement involves consistent gathering, recording and reporting of data about the materials, efficiency and success of construction projects. Currently, systematic methods of performance measurement adopted by the construction sector has significantly affected government sectors, building and engineering related services, private entities and other stakeholders. Performance of construction projects are measured by two models which are the Integrated Performance Index (Pillai, 2002) and Key Performance Indicators (Egan, 1998).

## 2.6 Integrated Performance Index

Pillai et al. (2002) developed the Integrated Performance Index to measure the performance of research and development.

Key Performance Indicators (KPIs): On the other hand, Key Performance Indicators are used by the construction industry in UK. This form of performance measurement is a reaction to a report by Egan (1998). It has ten factors upon which performance of projects can be measured; seven project performance indicators and three company performance indicators. The project performance indicators are construction budget, construction time, cost design and construction, time design and construction defects, client satisfaction with respect to the product and the service. Safety, profitability and productivity make up the company's performance indicators. Every industry adopts and uses a specific system of Key Performance Indicator necessary for the growth of an institution. Usually, KPIs are used in evaluating the performance of projects. Out of the ten parameters used for measuring project performance in the construction industry, the most significant indicators are cost (budget), quality and time. Some researchers such as Cserháti, & Szabó (2014) and Cox et al. (2003) asserted that the construction performance indicators must include safety. Other researchers also proposed that aside the use of

August 2022

Pages: 73 -

Volume 6 | Issue 8

measurable benefits as a means of measuring performance, effectiveness of contractors in areas of profitability, productivity of labour and level of expertise/experience must also be considered (Chan & Chan, 2004; Liu et al, 2006; Wong et al., 2008).

#### 3.0 RESEARCH METHODOLOGY

The aim of this chapter is to present the methodology adopted to the tackle the research questions raised. It provides the research design and methods used to investigate project management success for project oriented business organizations from the perspective of technical capacity, organization structure and leadership in the performance of construction projects financed by the Ghana Government in the Greater Accra Region using Henry Fayol Model. The chapter further covers the ethical principles for research, sample size, results, questionnaires and the interviews conducted in gathering data for analysis.

## 3.1 Research Design

The researcher found out that most modern research works which are relevant to the study do not specifically fit into either quantitative or qualitative method of research. As a result, the researcher used a combination of qualitative and quantitative methods generally referred to as the mixed model approach by the following researchers; Thomas (2003) and Law & McLeod (2004). The mixed model approach is considered in modern research as complementary (Thomas, 2003). The researcher adopted both explorative and descriptive research design in order to describe the nature of construction projects carried out in Ghana and exploring the level of success of project-oriented businesses financed by the Government of Ghana. The researcher made use of both primary and secondary data in order to achieve the project objectives and comprehensively answer the research questions raised. The primary data was collected through self-administered questionnaires to experts in the construction sector who are believed to have appreciable knowledge of project management success and its related disciplines.

#### 3.2 Ethical Considerations

The set of norms and standards that guides the behaviour of an individual towards others is referred to as ethics. The objective of ethic in research is to make sure that participants involved in the research are not exposed to any harm in the course of conducting the research. In the event that the research is likely to cause harm to the participants, the researcher has to give prior notice by seeking the consent of the participants. This research was carried out with the principles of ethics in mind. As a result, the study encouraged a voluntary participation of the respondents in the course of the data collection. The participants were given ample time to respond to the questions and the interview questions. The participants were given the opportunity to withdraw or desist from providing any information during the data collection exercise. The study ensured that all information provided by the respondents were kept confidential and all respondents kept anonymous. Moreover, the researcher took time to explain the significance of the study to the participants before they provide any information. The participants were accorded the necessary respect during the data collection exercise. The researcher thrived on honesty and also ensured that any information taken from secondary sources or literature have been duly cited with references provided at the appendix column.

## 3.3 Research Methods

The researcher adopted used two techniques for gathering data from respondents in the Greater Accra Region for the study. The two techniques used are semi-structured interviews and questionnaire survey. The interview data collected from the respondents was transcribed, categorized and cross-checked with other secondary data using the process of triangulation.

Samples: The researcher adopted purposive sampling technique to gather data from participants across the Greater Accra Region who have appreciable knowledge of the construction sector in Ghana. The participants/respondents of the research include directors of project management, project managers, consultants, project team members who have been involved in construction projects in the sub-region. The researcher considered a sample size of 150 respondents with appreciable knowledge in projects financed by the Government of Ghana.

August 2022

Pages: 73 -

Volume 6 | Issue 8

Results: The researcher distributed 150 questionnaires to project directors, project managers, project team members and consultants involved in construction projects in the Accra Metropolis. The respondents were given ample time to respond to the questionnaires in their convenience. The researcher made follow ups to until the completed questionnaires were collected. A total of 125 completed questionnaires were returned, giving a response rate of 83.3%, which is sufficient to assume normality.

Questionnaires: The researcher used questionnaire as the main data collection instrument for this research. The guestionnaire was divided into four sections. The first section covers the demographic characteristics of the respondents including gender, age category, grade or rank, level of education, years of experience in the construction sub-sector, and their job title. The first section further covers questions pertaining to the number of projects the respondents have actively participated in the previous year. The second section has questions relating to the size and duration of the projects covered by the participants. This section further asked the respondents to identify the least/most important performance criteria for judging success in their project using a 5-point Likert scale where 1-not important and 5-most important. The performance criteria have factors from literature such as project schedule, budget, technical success, quality success, meeting commercial parameters, client satisfaction, achieving the project goal and project team satisfaction. The section further sought to identify who control the risk in projects and whether the respondents' organization have defined project management at portfolio, program and project levels. The third section covers questions on organizational structure and leadership. Under this section, there are questions on the nature of the respondents' organization, and whether project managers, project board, portfolio manager and/or section managers are in charge of making decisions in case of deviation during project implementation. The section also presented some characteristics of an effective project manager and the respondents were asked to ranked the level of importance those characteristics to their organization using a 5-point Likert scale. The leadership gualities include; leadership by example, visionary, technically competent, decisive, a good communicator, good motivator, being supportive of team members, being able to stand up to upper management when necessary and the ability to encourage new ideas. The fourth section of the questionnaire relates to questions on Henri Fayol's principles of management. The respondents were requested to rank the level of implementation of Fayol's principles of management in any Government sponsored project they were involved in as project team member/leader/consultant.

Interviews: The researcher also conducted brief interviews with some consultants and project leaders who have an appreciable knowledge of construction projects in the Greater Accra sub-region. The interviewees were asked to give an overview of the construction sector in Ghana. The interviewees were to describe the performance of construction projects financed by the Government of Ghana and how they describe the success of the projects executed. The interviewer further asked questions on Henri Fayol's principles of management and its relevance to the construction sub-sector of Ghana.

# 4.0 DATA ANALYSIS

The data used in the study is mainly primary data collected from professionals in the construction sub-sector of the country. The data collected was collated and checked for completeness and clarity of information. The completed questionnaires were coded in the Statistical Package for Social Sciences (SPSS) version 23 for further analysis. The researcher used descriptive statistics in form of frequency tables, mean, standard deviation among others to present the data analyzed.

#### 4.1 Context O=of Research Sites

The researcher collected data by means of questionnaires and face-to-face interview sessions with respondents who have appreciable knowledge in construction projects undertaken in Ghana. The researcher considered project team members, leaders and consultants with years of experience handling projects especially the ones financed by the Government of Ghana. The research was limited to the Greater Accra sub-region which is the region with the highest infrastructure development in the country. For ease of data collection in the Greater Accra region, the researcher distributed the questionnaires manually and followed up until all the completed research instruments were collected. The researcher purposefully selected the following areas within the Greater Accra region for the study.

August 2022

Pages: 73 -

Volume 6 | Issue 8

Table 4.1 Data Collection Distribution Pattern

Distribution Pattern	No. of Questionnaires Distributed	No. of Questionnaires received
Accra Metropolitan Area	95	76
Tema Metropolis	55	49
Total	150	125

Source: Field Survey, 2019

## 4.2 Analysis of the Questionnaires

Table 4.2 Demographic Characteristics

Variable	Frequency	Percent (%)
Gender		
Male	88	70.4
Female	37	29.6
Total	125	100.0
Age Category		
20-24 years	13	10.4
25-29 years	13	10.4
30-34 years	51	40.8
35-39 years	36	28.8
40-44 years	12	9.6
Total	125	100.0
Level of Education	NENT 8	
Doctorate	24	19.2
Master's degree	50	40.0
Bachelor's degree	38	30.4
Diploma	13 0	10.4
Total	125	100.0
Years of Project Experience	*	
Less than 5 years	26	20.8
Between 5 and 10 years	63	50.4
Between 10 and 15 years	24	19.2
Above 15 years	12	9.6
Total	125	100.0
Job Title		
Project Management Director	12	9.6
Project Manager	38	30.4
Project/team member	38	30.4
Consultant	37	29.6
Total	125	100.0

Source: Field Survey (2019)

The demographic characteristics of the respondents who participated in the research are presented in Table 4.2. The demographic characteristics include gender, age category, level of education, years of experience in handling projects as either a member or team lead, and the respondents' job title. The results revealed that the majority of the respondents are males representing 70.4% of the responses. The females made up of 29.6% of the total responses. This is a clear indication that the projects in the construction subsector of Ghana are predominantly handled by males.

The result further illustrates the age category to which the participants belong. Majority of the respondents representing 40.8% of the total responses belong to 30-34 years' age category. This is closely followed by 35-39 years' age category which has 28.8% of the total responses. Also, respondents who belong to 20-24 years and 25-29 years' category have 10.4% each of the total responses. The least age

August 2022

Pages: 73 -

Volume 6 | Issue 8

category for the responses collated is the 40-44 years' group which records only 9.6% of the responses. The majority of the respondents belonging to 30-34 age category is an indication that most of the respondents are young and active project team leaders or members who are perceived to have good knowledge of the construction projects financed by the Government of Ghana.

Moreover, the findings reveal that all the participants from whom the data has been collected have at least an academic diploma. Majority of the respondents have a second degree (Master's degree) and are therefore believed to have knowledge of Fayols principles of management and the extent of its application in the construction sector. Aside the 40% of the respondents who have master's degree, 30.4% of the respondents also have bachelor's degree. Also, quite a number of the respondents representing 19.2% of the responses either have a doctorate degree or are currently pursuing a doctor of philosophy. The least percentage of the respondents accounting for 10.4% of the respondents have diploma qualification. In summary, the researcher collected data from participants with very good academic qualification or background.

The years of working experience in the construction sector by the participants have also been displayed in the demographics. The majority of the respondents have had between 5- and 10-years working experience in project-oriented organizations. Also, 19.2% and 20.8% of the respondents have 10 - 15 years' project experience and less than 5years project working experience respectively. A section of the respondents representing 9.6% of the total responses have more than 15 years' experience in project-oriented organizations. The researcher targeted, project management directors (9.6%), project managers (30.4%), project team members (30.4%) and consultants who made up 29.6% of the total responses received.

#### 4.3 Conclusions from Questionnaires

#### 4.3.1 Project Performance Criteria and Project Success

The first objective of the study is to identify and examine the factors that lead to the successful execution of construction projects financed by the Government of Ghana. In order to achieve this objective, the researcher gathered data on the description of projects undertaken by the respondents either as project team leads or members.

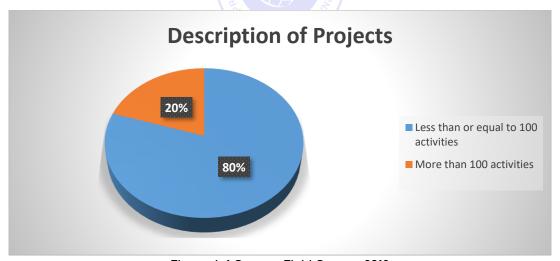


Figure 4. 1 Source: Field Survey, 2019

The focus of the research is on project-oriented business organizations. In order to have a comprehensive and exhaustive research, the research asked the respondents to identify the nature of projects undertaken in their various organizations. The emphasis here is on the number of activities undertaken by the respondents' organization. The results displaced in Figure 4.1 shows that majority of the project organizations in the Greater Accra sub-region have less than and/or equal to 100 project activities in a given time.

August 2022

Pages: 73 -

Volume 6 | Issue 8

The respondents were asked to identify and rank the performance criteria for judging the success of projects in their organization. The respondents ranked the performance criteria for judging the success of projects using a 5-point Likert scale from least important to most the important. The highest ranked project performance criteria which is the achievement of project quality has a mean 4.40 and standard deviation of 0.492. This second highest ranked project performance criteria which is the ability of the organizations to meet commercial parameters has a mean of 4.39 and a standard deviation of 0.671. The third highest ranked project performance criteria are the ability of the organizations to complete projects according to time schedule. Project team satisfaction was ranked by the respondents as the fourth highest performance criteria for judging projects. Similarly, technical success, client/customer satisfaction, and budget have been ranked 5th, 6th and 7th respectively. Interestingly, the least ranked project performance criteria according to the respondents is the achievement of project goals with a mean of 4.21 and standard deviation of 0.755.

Project Performance Criteria	Mean	Std. Deviation	Rank
Quality success	4.40	0.492	1 <sup>st</sup>
Meeting commercial parameters	4.39	0.671	2 <sup>nd</sup>
On schedule	4.30	0.783	3 <sup>rd</sup>
Project team satisfaction	4.30	0.648	4 <sup>th</sup>
Technical Success	4.30	0.638	5 <sup>th</sup>
Client/customer satisfaction	4.30	0.462	6 <sup>th</sup>
On budget	4.30	0.458	7 <sup>th</sup>
Achieving project goal	4.21	0.755	8 <sup>th</sup>

Source: Field Survey, 2019

## 4.4 Analysis of the Interviews

## 4.4.1 Organizational Structure and Leadership

The researcher sought to understand the structure of the respondents' organization and leadership. The respondents were asked to identify the structure of their organization from five different options. The project organization structures include functional organizational, functional matrix, balanced matrix, project matrix and project team.



Figure 4.2 Organizational Structure

According to the results in Fig 4.2, the majority of the respondents representing 40.8% belong to functional organizations. In a functional organization, projects are divided into various segments and the individuals and groups are assigned pertinent functions. In the functional organizations, projects are being

August 2022

Pages: 73 -

Volume 6 | Issue 8

handled or coordinated by top level or functional managers. In addition, the results reveal that 20.8% of the respondents belong to organizations that have functional matrix structures. In a functional matrix, managers of projects are officially assigned to projects across different functional areas. Project managers under this organizational structure are given limited authority over other workers involved in the project.

The respondents representing 19.2% of the total responses identified their organizations as project structured teams. Project teams have managers who are in charge of the whole team. The team is tasked with various functions on full-time basis. Furthermore, 9.6% each of the respondents belong to balanced and project matrix organizations. In a project matrix structure, the project managers are given the task of planning, directing, and overseeing projects and are held accountable for the completion or accomplishment of the project. The functions of the project manager in a project matrix structure is limited to assigning personnel as required and giving expert advice when necessary. A balanced matrix on the other hand, ensures that project managers are given the task to oversee the entire project and interacting with functional managers on equal basis. The planning and directing of projects are done jointly by the project managers and functional managers in a balanced matrix organization.



Figure 4.3 Leadership Structure

The respondents were also tasked to indicate the leadership structure adopted in their organizations. In case of deviation during the implementation of projects, 61% of the respondents mentioned that project managers make critical decisions in the interest of the organization. Moreover, 30% of the respondents said decisions are made by project boards in the event of deviations during project implementation. Also, 9% of the respondents mentioned that portfolio boards are responsible for making critical decisions in the event of deviations during project implementation.

#### 4.4.2 Conclusions from Interview

The research further seeks to identify the characteristics of an effective project leader. To achieve this objective, the respondents were asked to identify and rank the level of importance of the attributes of an effective leader to their respective organizations using a 5-point Likert scale from least importance to most important. The results are presented in Table 4.4 indicating the mean, standard deviations and rankings.

Table 4.4 Characteristics of an Effective Project Leader

Characteristics of an Effective Project Leader	Mean	Standard Deviation	Rank	
Visionary	4.61	0.490	1 <sup>st</sup>	
Leadership by example	4.60	0.492	2 <sup>nd</sup>	
Encourage new ideas	4.20	0.402	3 <sup>rd</sup>	
A good communicator	4.20	0.402	4 <sup>th</sup>	
Supportive of team members	4.09	0.707	5 <sup>th</sup>	
Technically competent	4.09	0.707	6 <sup>th</sup>	

https://damaacademia.com/pmsj/	August 2022	Pages: 73 -		Volume 6   Issue 8	
Decisive		4.09	0.707	<b>7</b> <sup>th</sup>	
Good motivator		4.09	0.707	8 <sup>th</sup>	
Stands up to management when ne	cessary	3.99	0.641	9 <sup>th</sup>	

Source: Field Survey, 2019

Among the nine characteristics of an effective project leader identified by the respondents, the highest ranked attribute is leader with a vision, which has a mean of 4.61 and a standard deviation of 0.490. The second highest ranked characteristic is the leader who leads by example. The leadership by example attribute of the project leader has a mean of 4.60 and a standard deviation of 0.492. The third and fourth ranked characteristic is the leader who is encourages new ideas and is good at communication respectively. The least ranked attribute of an effective leader according to the respondents is someone who stands up to management when necessary. This has a mean of 3.99 and a standard deviation of 0.641.

# 4.5 Application of Fayol's Principles of Management

The third objective of the study is to critically analyze the extent of the application of Henry Fayols's principles of management in the construction sector in the Greater Accra region. The aim is to ascertain the level of implementation of the principles to the projects financed by the Government of Ghana. The respondents ranked the application of the 14 principles using a scale of `1-5 where 1 is the very low and 5 is very high.

Table 4.5 Henri Fayols Principles of Management

Henri Fayol's Principles		Standard Deviation	Rank
Order	4.10	0.536	1 <sup>st</sup>
Authority	4.01	0.788	2 <sup>nd</sup>
Discipline	3.90	0.949	3 <sup>rd</sup>
Scalar chain	3.80	0.751	4 <sup>th</sup>
Subordination of individual interest to general interest		0.765	5 <sup>th</sup>
Initiative	3.79	0.408	6 <sup>th</sup>
Stability of personnel	3.78	0.876	<b>7</b> <sup>th</sup>
Unity of command	3.78	0.604	8 <sup>th</sup>
Equity	3.70	0.462	9 <sup>th</sup>
Unity of direction	3.60	0.813	10 <sup>th</sup>
Team spirit	3.60	0.492	11 <sup>th</sup>
Division of work	3.50	0.679	12 <sup>th</sup>
Centralization/decentralization	3.49	0.502	13 <sup>th</sup>
Remuneration to employees	3.41	0.493	14 <sup>th</sup>

Source: Field Survey, 2019

The results in Table 4.5 reveals that among the 14 principles of management by Henri Fayol, the principle of order is highly practiced in construction projects financed by the Government of Ghana. The principle of order has a mean of 4.10 and a standard deviation of 0.536. The principle of order according to Fayol is that the right people should be given the right jobs. The second highest is the principle of authority which has a mean of 4.01 and standard deviation of 0.788. This principle states that authority and responsibility should be parallel. This means that once a person is assigned a specific task or given a contract, he or she is held accountable for the success or failure of the project/contract.

The third highest principle ranked by the respondents is that of discipline, which has a mean of 3.90 and standard deviation of 0.949. The principle of discipline according to Henri Fayol entails being obedient and having respect for authority as well as abiding by established rules. The fourth highest principle is scalar chain which has a mean of 3.80 and standard deviation of 0.751. The scalar chain principle of Henri Fayol is similar to the top-down approach of decision exercising authority.

This means that authority moves from the leaders at the top to the those at the bottom line of command but in a straight line. The fifth and sixth highest ranked principles are that of subordination of the interest of individuals to that of a group and the principle of initiative. These two principles both have a mean of 3.79 and standard deviations of 0.765 and 0.408 respectively. The principle of subordination

August 2022

Pages: 73 -

Volume 6 | Issue 8

according to Fayol is that the interest of the organization should precede any individual interest at all cost. The principle of initiative on the other hand encourages employees to express their thoughts without any form of intimidation or discrimination by those at the top level of management.

Furthermore, the results revealed that the 7<sup>th</sup> and 8<sup>th</sup> ranked principles are the stability of personnel and unity of command, both having a mean of 3.78 but standard deviations of 0.876 and 0.604 respectively. The principle of stability according to Henri Fayol implies that organizations have a higher chance of growing faster when its employees are stable at the job and vice versa. The unity of command principle on the other hand requires that the employees should be answerable to one particular supervisor or superior at a point in time.

The 9<sup>th</sup> highest principle is equity which has a mean of 3.70 and standard deviation of 0.462. According to Henri Fayol, the principle of equity recommends that all employees should be given equal treatment at all times. The 10<sup>th</sup> and 11<sup>th</sup> ranked principles are unity of direction and team spirit respectively. The unity of direction principle according to Henri Fayol stipulates that the organization should aim towards a common goal and move in a common direction. Team spirit principle on the other hand emphasizes on team work. According to Fayol, a unified organization stands a better chance of achieving results and vice versa. The least ranked principles are division of work, centralization/decentralization and remuneration to employees.

#### 5.0 RESEARCH CONCLUSION

The projects carried out in the construction sector in Ghana are predominantly capital intensive and requires substantial level of leadership and management capabilities. There are several challenges facing the construction sector in the country. The construction industry in collaboration with academic and government have made conscious efforts to minimize the challenges in the sector. One of the prominent challenges facing the construction sector in Ghana is the issue of poor management or mismanagement of resources. Several studies conducted identified several challenges faced by contractors in Ghana (Eyiah & Cook, 2003). The challenges range from the lack of managerial and technical capabilities of contractors in the sector leading to below-par performances or successes. There have been very few articles in Ghana that focused on project-oriented business organizations financed by the Government of Ghana.

To bridge these gaps, this research sought to primarily investigate project management success for project-oriented business organizations from the perspective of technical capacity, organization structure and leadership in the performance of construction projects financed by the Government of Ghana in the Greater Accra region using Henry Fayol model. The secondary objectives of the study include; identifying the factors that lead to the successful execution of construction projects financed by the Government of Ghana, identifying the characteristics of an effective project leader in charge of government funded projects. Last but not least, the research sought to critically analyze the application of Henry Fayol's principles of management in the construction sector in the Greater Accra region. The literature used in the research covered topics such as the overview of projects, project-oriented businesses organizations, determinants of project success, organizational culture, leadership and leadership styles, the Ghanaian construction sector, Fayol's principles of management etc.

The researchers used both primary and secondary data for the analysis. The main data (primary data) was collected using structured questionnaires. The questionnaires were structured into several sections including background information, project success, organization structure and leadership and the application of Fayol's principles of management. The researcher ensured that the ethical principles of research had been adopted throughout the research. A response rate of 83.3% was sufficient for the researcher to assume normality and make statistical inferences from the data analyzed. The researcher conducted brief interviews to support the data collected using the questionnaires. The analysis was done using the Statistical Package for Social Sciences (SPSS) and Microsoft excel for the presentation of the findings.

The study was centered on the Accra Metropolitan Area and Tema Metropolis of the Greater Accra region. The findings revealed that 20% of the organizations have handled more than 100 project activities whiles the other 80% have handled less than 100 project activities. The research further identified the criteria used by most organizations to measure project performance in the Greater Accra region. The

August 2022

Pages: 73 -

Volume 6 | Issue 8

most ranked project performance criteria are quality success, meeting commercial parameters, schedule, project team satisfaction, technical success, client/customer satisfaction, budget and achievement of project goals arranged from the highest to the lowest. Furthermore, the research looked at the nature of the respondents' organization structure and leadership. In terms of organizational structure, the respondents identified functional organizations, functional matrix, balanced matrix, project matrix and project team. The most identified organizational structure in the Greater Accra region are functional organizations, functional matrix and project team. The other two structures, balanced matrix and project matrix are rarely practiced. In terms of leadership structure, the respondents were asked to identify who makes critical decisions in case of deviation during project implementation.

Another objective of the research is to identify the characteristics of an effective project leader. The aim is to find out the qualities of leaders who handle projects financed by the Government of Ghana in the Greater Accra region. The respondents identified and ranked various characteristics of an effective project leader using a 5-point Likert scale. The most effective characteristics include being visionary, leading by example, encouraging new ideas, a good communicator, supportive of team members, technical competence, decisive, good at motivating team members, and also stands up to management when necessary. The three highest ranked characteristics of an effective project leader are visionary, leading by example and encouragement of new ideas.

The third objective of the research was to critically analyze the extent of the application of Henry Fayol's principles of management in the construction sector of the Greater Accra region. The research identified the fourteen principles of management according to Fayol and the results revealed order, authority and discipline as the three highest principles practiced in the construction sector in the Greater Accra region.

## 5.1 Findings and Discoveries

The researcher upon using Henry Fayol model found out that most organizations in the Greater Accra region do not prioritize team spirit, division of work, centralization, and remuneration to employees. The research discovered that the above principles which are vital to the success of projects financed by the Government of Ghana are the least of the 14 principles of Fayol practiced in the Greater region.

#### 5.2 Limitations

The research was constrained by time and financial resources such that the researcher was unable to reach out to all the stakeholders in the construction sector in the Greater Accra region. Another major limitation of the study was the failure of some participants to turn up for the scheduled interviews even upon consistent reminders given by the researcher. Also, the scope of the Greater Accra region and the sparse distribution of stakeholders in the construction sector made it difficult to get back all the questionnaires distributed.

#### 5.3 Recommendations

The researcher has observed during the few interviews conducted that several projects financed by the Government of Ghana in the construction sector of the Greater Accra region have either being abandoned or left uncompleted. This phenomenon according to some interviewees have caused major financial losses to the state as project managers are rarely held accountable for project failures. The researcher therefore recommends that further research should be conducted in the Greater Accra region to measure the success rates of projects financed by the Government. The future researches should focus on effective means to discontinue the failure-chain of Government sponsored projects. In addition, Government should commit resources into educating stakeholders of state sponsored projects on the Fayol's principles of management and its importance to project success.

# 5.4 Further Study and Research

The researcher recommends that further studies should be conducted by PhD students in Ghana on the project management success of project-oriented business organizations using other relevant models. The focus of the future researches should be in the construction sector where Government

August 2022

Pages: 73 -

Volume 6 | Issue 8

spends millions of dollars. In addition, comparative studies should be conducted in other regions in Ghana to ascertain project management success using Henry Fayols Model.

# 5.5 Conclusions

The research successfully accomplished the main objectives of the study which include identifying factors that lead to the successful execution of construction projects financed by the Government of Ghana, identifying the characteristics of an effective project leader who manages government sponsored projects and the application of Henry Fayol's principles of management in the construction sector of Ghana. However, the researcher recommends that more studies should be conducted on project-oriented business organizations in the Greater Accra region using other relevant models.

#### **REFERENCES**

Ackah, D., (2020). "The Impact of the World COVID-19 Pandemic on Project Financing" Project Management Scientific Journal, Volume 4, Issue 4, pp.01-13

Ackah, D., (2020). "The Financial Implication on the Global COVID 19 Pandemic on African Countries" Finance & Management Engineering Journal of Africa (FMEJ), Volume 2, Issue 4, pp.05-17.

Ackah, D., (2020). "Roots of Project Failure and Abandonment in Developing Countries" Project Management Scientific Journal, Volume 4, Issue 4, pp.45-61.

Ackah, D., (2020). "Foundations of Project Letdown and Neglect in Ghana" Project Management Scientific Journal, Volume 4, Issue 4, pp.32-44.

Ackah, D., (2020). "Effects of Project Failure and Abandonment" Project Management Scientific Journal, Volume 4, Issue 4, pp.14-31.

Ackah, D., (2020). "Causes and Negative Effect of Abandonment Projects in Ghana" Dama Academic Scholarly Journal of Researchers (DASJR), Volume 5, Issue 4, pp.14-25.

Ackah, D., (2020). "The Influences on Ghanaian Government Project Failure" Dama Academic Scholarly Journal of Researchers (DASJR), Volume 5, Issue 4, pp.26-36.

Ackah, D., (2020). "The Distinction between Project Failure and Project Management Failure" Dama Academic Scholarly Journal of Researchers (DASJR), Volume 5, Issue 4, pp.01-13.

Armstrong, M. (2003) A Handbook of Human Resource Management Practice. 9<sup>th</sup> Edition. London and Sterling, VA: Kogan Page.

Baccarini, D. (1999) The logical framework method for defining project success', Project Management Journal, 30(4), pp. 25-32

Bass, B. M. (1990). Handbook of leadership (3rd ed.). New York: Free Press

Belassi, W., and Tukel, O.I., (1996) A new framework for determining critical project

Success/Failure factors in Projects, International Journal of Project Management. 14 (3),

141-151. Crossref

Berkowitz, L. and Daniels, L. (1963). The Journal of Abnormal and Social Psychology, Vol 66(5)

Blackburn, R., & Rosen, B. (1993). Total quality and human resources management: Lessons

learned from Baldrige award winning companies. The Academy of Management

Executives, 7 (3), 49-66

Boyt, T., Lusch, R., and Mejza, M. (2005). "Theoretical Model of the Antecedents and

consequences of organizational, workgroup and Professional esprit de Corps'. European Management Journal, 23(6): 682-701

Brandon, D.M. (1998). Implementing Earned Value Easily and Effectively. *Project Management Journal*, 29 (2), 11-18

August 2022

Pages: 73 -

Volume 6 | Issue 8

Burke, R. (1999). Project management: planning and control techniques, 3rd ed. Capetown: Promatec Int.

Burke, R. (2003). *Project management: planning and control techniques.* Chichester: John Wiley & Sons.

Burns, T., & Stalker, G. M. (1961). The management of innovation. Oxford, United Kingdom: Oxford University Press.

Cameron and Whetten (1983)

Carvalho, M.M.D.; Patah, L.A.; Bido, D.D.S. Project management and its effects on project success: Cross-country and cross-industry comparisons. Int. J. Proj. Manag. 2015, 33, 1509–1522.

Cleland, D. I. (1999). *Project management: strategic design and implementation*. (3th ed.) New York: McGraw-Hill.

Chandler, A. D. (1990). Chapters in the history of the industrial enterprise. Strategy and Structure Journal, 120, 21-26.

Chandrasekhar, A. (1999). Ambient temperature: a factor affecting performance. International Journal of Social Economics

Chan, A.P.C.; Chan, A.P.L. Key performance indicators for measuring construction success. Benchmarking 2004, 11, 203–221. [CrossRef]

Chartered Institute of Building (2002) Code of practice for project management for construction and development (3rd Ed.) Blackwell Publishing

Child, J. (1977) Organization: A guide to problems and practice. London: Harper and Row.

Chuad, K. B., Tummula, V.M. R. s& Nkasu, M. M. (1995). Project Management structures in

Hong Kong industries. *Internal Journal of Project Management*, 13(4), 253-257

Cox, R.F.; Issa, R.R.A.; Ahrens, D. Management's perception of key performance indicators for construction. J. Constr. Eng. Manag. 2003, 129, 142–151.

Cross, R. L. (2015). Leveraging intellect in a small business: Designing an infrastructure to support today's knowledge worker. Journal of Small Business Strategy, 8(1), 15-34.

Cserháti, G.; Szabó, L. The relationship between success criteria and success factors in organisational event projects. Int. J. Proj. Manag. 2014, 32, 613-624.

Dansoh, A. (2004) Strategic Planning Practices of Construction Firms in Ghana. Construction Management and Economics 23, 163-168.

Drucker, P. (1954). The practice of management. New York: Harper & Row.

Drucker, P. F. (1989) The Practice of Management. Heinemann Professional.

Egan, J. Rethinking Construction; Department of the Environment, Transport and the Regions HMSO: London, UK, 1998

Elattar, S.M.S. (2009) towards developing an improved methodology for evaluating performance and achieving success in construction projects. Scientific Research and Essay, 4, 549–554.

Eskerod, P., Skriver, H. J. (2007). Organizational Culture Restraining In-House Knowledge Transfer Between Project Managers - A Case Study. *Project Management Journal*. 38 (1), pp. 110-122.

Fayol, H. (1949). General and industrial management (C. Storrs, Trans.). London: Sir Isaac Pitman & Sons.

Fayol, H. (1916). Administration industrielle et générale; prévoyance, organisation, commandement, coordination, controle. Paris: H. Dunod& E. Pinat.

Feldman, R.S. (1985). Social Psychology: Theories, Research, and Applications. McGraw Hill Book Company.

Forsyth, D. R. (2010, 2006). Group Dynamics. Belmont: Wadsworth, Cengage Learning.

Fortune, J.; White, D. Framing of project critical success factors by a systems model. Int. J. Proj. Manag. 2006, 24, 53–65.

Fox, T. I. & Spence, W. J. (1998). Tools of the Trade: A Survey of Project Management Tools. *Project Management Journal*, 29(3), 20-27

French, J. and Raven, B. (1959). The Bases of Social Power. In Studies in Social Power, D.

Cartwright, Ed., pp. 150-167. Ann Arbor, MI: Institute for Social Research. Social

August 2022

Pages: 73 -

Volume 6 | Issue 8

Psychology, 38, 1921-1944.

Gareis, R., Huemann, M., 2000. Project management competences in the project-oriented organisation. In: Turner, J.R., Simister, S.J. (Eds.), The Gower Handbook of Project Management. Gower, Aldershot, pp. 709–721.

Gilham, A. and Ebohon, J. (2004) Governance and Accountability - Who sets the standards for the built environment? Sustainable Settlements in South Africa 2004[SB004].

Gouldner, A. (1960). The norm of reciprocity: A preliminary statement. American Sociological Review, 47, 73–80

Hage, J. (1980). Theories of organizations: Form, process, and transformation. Oxford, United Kingdom: John Wiley & Sons.

Hai, N.L. &Watanabe, T. The status quo and perspective for improvement of public works procurement performance in Vietnam. J. Adv. Perform. Inf. Value 2014, 6, 22-39.

Homburg, C., Workman, J. P. Jr., and Jensen, O. (2002). A configurational perspective on key account management. Journal of Marketing, 66, 38-60

Kashiwagi, D.; Kashiwagi, J.; Smithwick, J.; Kashiwagi, I.; Kashiwagi, A. The source of degradation of the construction industry performance. J. Adv. Perform. Inf. Value 2012, 4, 206–222.

Katz, J., Aldrich, H., Welbourne, T. M., and William, P. M. (2000) Guest Editors Comments Special Issues on HRM and the SME: Toward a New Synthesis Entrepreneurship Theory and Practice.

