



PROFESSIONAL PROJECT MANAGEMENT PRACTICES AND ITS CONSTRAINTS IN DEVELOPING AFRICAN COUNTRIES: A LITERATURE REVIEW

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Abstract: The lack of Professional Project Management Practices (PPMP) particularly in developing countries has led to low productivity and poor quality of work. Though professional project management is an evolving discipline, the application of effective construction project management techniques in many developing countries still constitute a serious challenge. This research therefore seeks to ascertain, through literature, factors affecting the professional project management practice in developing African countries. The study identified lack of knowledge, high bureaucratic, political, and economic constraints, leadership, and organisation culture, misunderstanding of the PM concepts, and lack of appropriate software as the emerging constraints to the development of professional project management practices. Finally, PPMP require a broad knowledge base and skills. The need for organizational learning and more rigorous training for managers and staff are thereby recommended.

Keywords: Professional Project Management Practices, Developing African Countries, Project Management

1. Introduction

Project management practices have of recent become a topical issue in the construction industry disciplines. According to Barriere (2003) project management practices have become a universal tool for

optimal performance for any professional organizations. Ibbs (2002) Identified professional project management practices as the skills and science of planning, designing, and managing activities throughout the project lifecycle processes.

Professional project management concept has been found to be in practice before the Second World War. Its emergence can be traced back to the early fifties, when it was implemented on a large scale project (Peters 1981). According to Smithers and Walker (2000) and Oyedele (2009), its integration into the construction industry has been very gradual with the industry being the major benefactor.

Abbasi *et al.*, (2000) asserted that the state of project management practices in developing African countries is still in its early phase of development. While Sukhoo (2004) was of the opinion that this is partially due to the fact that developing countries are faced with shortage of skilled staff, difficult economic and social conditions, weak political institutions, deeply rooted cultural and religious beliefs. All these identified factors have negative impacts on the development of various disciplines including project management practices. This paper takes a critical look at professional project management concept (PPMC) in the construction industry using earlier studies across the globe to ascertain constraints affecting its implementation in developing

Africa countries.

2. Professional Project Management Concept (PPMC) in the Construction Industry

The construction industry has realized that its goal to continuously improve its performance and ability to deliver better quality services and innovative products can only be achieved through proper understanding of the dynamic role of its main resources namely materials, human and plant. Hence, the emerging growth of the Professional Project Management Concept in construction is now a universal phenomenon (Wilkinson, 2001; Ahadzie and Amoah-Mensah, 2010). The first concept which started in the United States of America (USA) in early 1950s and later Western Europe in early 1960s is now practiced throughout the world. As a result of the complexities of project and shrinking war time labour supply after World War II, there was a demand for new organisational structure in the construction field. Edum-fotwe (2000) indicated that from the 1990s, the business climate in the construction industry have experienced unprecedented dynamics as organisation responds to increasing competition within a stagnant or declining demand for more PMs.

Currently, evidence of the practices is seen in the expanding growth which is reflected in the international nature of the membership of the Project Management Institute (PMI), USA and the International Project Management Association (IPMA), Europe (Austin, 2000). In developing countries as well, as evidence of the recognition, the PPMC is manifested in the rising numbers of educational institutions offering construction project management courses and papers recently published on the subject matter (Abassi, and Al-Mharmah,2000; Ahadzie *et al.*, 2008). Admittedly, PPMC is still evolving in developing countries but researchers and practitioners are strongly convinced that the concept has come to stay as a most conceivable approach for the achieving improved performance in management of construction projects (Abassi, and Al-Mharmah 2000; Odusami *et al.*,2003; Ahadzie and Amoah-Mensah,2010).

3. Construction Project Management

Construction Project Management (CPM) has been defined by so many authorities and researchers in literatures. In recent times, it is frequently

used in reference to site or construction management rather than taking a holistic view of project from conceptual stage to its ultimate completion and maintenance stages. Walker (2002), re-emphasized by Farrell (2008) defines CPM as the planning, co-ordination and control of a project from conception to completion (including commissioning) on behalf of a client requiring the identification of the client's objectives in terms of utility, function, quality, time and cost, and the establishment of relationships between resources, integrating, monitoring and controlling the contributors to the project and their output, and evaluating and selecting alternatives in pursuit of the client's satisfaction with the project outcome.

In the words of De Wit, (1988) project management is the process by which the project manager plans and controls tasks or activities within the project and harnesses the resources available such as people, material, time, money, information, knowledge, equipment and space to achieve set goals, standards and objectives. Due to this diverse and complex nature of the project system, Goodwin, (1993) suggests project integration as

one of the key functions of the project manager. These functions require a broad base of knowledge and skills which encompasses a set of objectives to be accomplished by implementing a series of operations subject to resource constraints. There are potential conflicts between the stated objectives with regard to scope, cost, time and quality, and the constraints imposed on human, material and financial resources (Hendrickson and Tung, 1998).

The chartered institute of the Builders (CIOB) (2003) describes the project management as emergent professional discipline which separates the management function of a project from the design and execution's functions and defines project management as the overall planning, coordination and control of a project from inception to completion aimed at meeting a client's requirements in order to produce a functionally and financially viable project that will be completed on time within authorized cost and to the required quality standard. Royal Institute of British Architect (RIBA) (2000) describe CPM as a process of harmonising the functions of planning, communicating, monitoring and controlling in order to meet the

project's overall objective as defined by the scope, time, cost, quality and client satisfaction. The debate about the precise and clear definition of the construction project management is still on going with new definition now edging towards stakeholder satisfaction requirements.

The definitions from the above also give a clear indication that Project Management (PM) is about giving a responsibility of managing a project from inception to completion to one individual with a requisite knowledge in that field. This further indicate that PM is a scenario where an independent entity, be it an individual or a consortium, is appointed besides the design team to take responsibility for the management of design and construction of a project from conception to completion (Ahadzie and Amoah-Mensah, 2010).

Hence, it is understandable that in a context of great uncertainty and on-going competition, all projects will impose different challenges particularly on those involved in managing the project. The project manager is responsible for planning, organising and controlling the project. In order to deliver a

successful project, project manager and his team have to clearly understand what factors and criteria in the project needs to be managed. Thus, to become a successful project manager who is responsible in managing the successful project, he or she needs to possess an appropriate level of knowledge and skills. By possessing such knowledge on project management techniques, project managers would be able to plan and execute their construction projects to maximize the chances of the project to become successful. This paper therefore determines the factors constraining development of professional project management practices in construction industry as its principal focus.

4. Professional Project Management Practice in Developing African Countries

The growth of Professional Project Management Practice (PPMP) in developing African countries remains a bigger challenge for most practitioners and researchers. The current state of project management practices in developing African countries remain very critical due to the advancement of technology, the increasing complexity of projects and the scarcity of human capital

(Crawford *et al.*, 2006). According to Birkhead, *et al.*, (2000) there have been urgent needs for the development of project management practices in developing countries due to the changing nature and emergence of new technologies and the relaxation of trade regulations, which have resulted in a highly competitive marketplace. Despite the urgent need most construction organizations in developing countries have no requisite experience and are small, which make it difficult for them to compete effectively and efficiently with their develop counter parts (Adnan *et al.*, 2006).

It should be noted that, PPMP present a mechanism for development in areas like finance, engineering, aerospace and construction. On the other hand, it is believed that Project Management (PM) practice in developing and emerging economies is complicated and unpredictable for such changes that PM practice comes with (Andersen *et al.*, 2002). In addition, Nwachukwu, *et al.*, (2010) indicated that the rate at which building construction projects fail, or are abandoned and the collapse of buildings, some even under construction, is retrogressive in a developing economy. The answer to project

success, failure, abandonment, and collapse of building construction lies in efficient project management. Efficient project management is very important especially in the building construction industry, which ranks very high among other economic sectors in terms of inter-sector linkages (Godwin, 1993).

It is against this background that Odusami *et al.*, (2003), observed that, in Nigeria, the majority of project managers (PMs) learn their trade experientially on the job, and there is no single professional body to regulate their practice for current and future development. In another development, Ghana has a number of Universities and Polytechnics that offer mainstream construction management courses from which potential PMs can aspire to gain formal training normally up to HND, BSc. MSc and lately PhD. levels, but in professional practice, there is no institutional framework that can help PMs assess and review their current and future skills requirements. Furthermore, countries like South Africa and Zimbabwe, have well established project management institutions offering varieties of courses, researches and industrial services. Asserting to this fact,

Project management institute in Zimbabwe has indicated that project management practices is indeed a neglected dossier for Zimbabwe's economic recovery prescription that can no longer be left lying on the idle shelves (*See www.pmiz.com*).

In related development, others have suggested that there is also a growing awareness for effective project management practices in developing economy which should provide a potentially rigorous concept towards improving project performance (Kartam *et al.*, 2000; Ahadzie, 2007; Kuruoglu and Ergen, 2000; Abassi and Al-Mharmah, 2000). Thus, the effective performance of the PM is a critical factor towards understanding and improving the related managerial practices required (Goodwin, 1993). Developing countries are therefore called to draw lessons from the developed countries to ensure that project management practice concepts are employed to the latter. Following this, Ofori, (2007) indicated that in developing measures for effective adaptation of these concepts, the following approach should be nurtured, which includes gate keeping in identifying the new developments, adaptation of the new concepts or procedures to

suit the circumstances of the countries and monitoring of the results of the application of these measures. On the other hand, Loo, (2002) identified the following areas for improvement in project management practices for developing countries namely: technical areas, improve scope management, improve budget management, implement standard project management practices, integrate project control measure, organizational learning, project reviews and audits, effective resource planning, training for managers and staff, empower teams and effective planning.

Others have also contended that, one efficient technique used in improving and developing the capabilities of construction professionals is training in both developed and developing countries. Muya *et al.*, (2003) emphasised that appropriate training can only be developed if training needs are carefully identified; this requires interested parties to understand and anticipate the skills needed for them. Farrell and Gale (2003) strongly recommended mandatory attendance at training programs for novice and mature project managers before they are allowed to take charge of construction sites (Enshassi *et al.*,2009). In other to achieve the

ultimate aim of the training of these professionals Bresnahan (2000) and Ogunsemi (2008) identifies the current training needs of a competent project manager as the basis for the requisite knowledge and skills needed in project management. The training needs are classified into three broad areas such as technical training: time, cost, quality, risk, procurement and project integration management; business and financial training: accounting principles and practices, financial management, business process analysts and financial management control; and human resource training: leadership, stakeholder management, communication, team building and negotiation skills.

5. Constraints Facing the Construction Project Management Practices in Developing Countries

A great deal of project management involves avoiding problems, tackling new grounds, managing a group of people and achieving clear objectives quickly and efficiently (Reiss,1995). However, in most developing countries, is the vice versa. Rwelamila, (2004) also noted that the project management competencies of public sector organisations, which are responsible for

infrastructure development in most developing countries are poor although these organisations portray themselves as being able to manage projects effectively. The industry in most developing countries is faced with numerous abandonment of project, as reported by Ahadzie and Amoah-Mensah, (2010) and Nwachukwu *et al.*, (2010). In addition, time and cost overrun, resultant claims and disputes remain norms in developing countries (Al-Moumani, 2000; Kumaraswamy & Chan, 1998; Mezher & Tawil, 1998; Ogunlana & Promkuntong, 1996; El-Razek *et al.*, 2008; Assaf & Al-Hejji, 2006; Chan & Kumaraswamy, 1996; Kaming *et al.*, 1997). Poor performance of industries in developing countries is often attributed to lack of effective working relationships among project participants (Ibid). Mutijwaa & Rwelamila, (2007); Le-Hoai *et al.*, (2008), Gyadu-Aseidu, (2009) added that, the lack of project management concept has led to low productivity and poor quality, which has been the bane of construction industries in several countries, particularly in developing countries. On the other hand, Ligny & Erkelens, (2008); Kumaraswamy, (2009) professionals in developing countries lack the ability to

innovate and adapt to new ways of working. For instance, the construction industry in South Africa is stuck in the seventies' attitude of adversarialism and negativity (Gidman, 2001 & Barriere, 2003). It is no wonder that Didibhuku and Mvubu, (2008) indicated that construction organisations in developing countries lack capacity and cannot meet the demand of construction work. Furthermore, Ofori, (2003) indicated that these challenges facing the construction industry in developing countries are well known due to poor performance on projects that takes place in these nations.

El-Saaba, 2001 and Ahadzie (2009) observe that professional project management is still evolving over the world but its implementation to construction projects in developing countries presents some of the most challenging arenas within which to apply effective project management techniques Barriere (2003) observes that challenges in the implementation of effective project management are due to the culture and other characteristics of the particular society and configuration of its economic, political and administrative system in developing countries. Abbasi and Al-Mharmah (2000)

revealed that project management practices should be consistent with norms.

Gow and Morss, (1998) research indicated nine constraints, which are critical to the effective execution of project management practice, which are also now prevalent in developing countries. These constraints: includes cultural values, political and economic conditions, organisational environments, social problems, lack of skills, and lack of resources (Muriithi and Crawford, 2003; Stuckenbruck & Zomorrodian 1987). Government bureaucracy therefore runs deep in these projects and will have an effect on the control of the project (Stuckenbruck & Zomorrodian, 1987). Bribery and corruption is also widespread in these countries and can delay projects (Ibid). Developing effective

project management practices however is becoming a larger challenge with the increasing complexity of projects and the scarcity of human capital (Thomas and Winter, 2006). Loo, (2002) also indicated some barriers which retard the development or the growth of project management practice in all diverse of disciplines which include construction industry. These barriers are: leadership and organisational culture, inadequate investment in training, resistance to change, individual versus team compensation, time pressures and constraints and no project management champion in organization. Despite, this challenging business conditions, project management remains an exciting and evolving practice. The summary of the constraint factors identified from various literatures is contained in Tab.1.

Table 1: A Summary of Constraints Facing the Construction Project Management Practices in Developing Countries

Authors	Constraints
Abbasi and Al-mharmah (2000)	Lack of knowledge, Change in authority, Weak interface with customs, High cost of management and Difficulties in communication with other professionals.
Adnan <i>et al.</i> , (2006)	No requisite experience and are small
Ascher (1983), Bryce and Crawford (2003)	Highly bureaucratic, Large numbers of professional staff, Complex process, procedures, and Rigorous reporting requirements.
Du (2001)	Misunderstanding of pm system, Ownership of PM companies, Poor qualification of CS Practitioners, Lack of management knowledge

	and skills; Management of PM companies and insufficient laws on PM
Gow and Morss (1988)	Political, environmental and economic constraints, Institutional realities, Personnel constraints, Technical assistance shortcomings, Decentralization and participation shortcomings, Timing, Information systems and Differing agendas, Sustaining project benefit.
Iyer and Jha (2005), Kumaraswamy and Chan (1998), Kartam <i>et al.</i> , (2000) , Al-Momani (2000)	Conflict between project parties
Kartam <i>et al.</i> , (2000)	Lack of owner’s awareness, lack of A/E’s awareness, Lack of contractor’s awareness, Existing owner’s administration system, Approval procedures adopted by the statutory Authorities, Endless and continuous user’s requirements, Lack of authorities delegated to the PM, Political impacts and Changes to project scope and plans
Kerzner (2006)	Technology advances, Insufficient resources, Low team member commitment and morale, Little formal authority lacks authority and Maturity or technical expertise
Kliem (2003)	Lack of IT knowledge
Lee <i>et al.</i> ,(2005), Iyer & Jha (2005)	Lack of appropriate software
Li (2000)	Qualification of the practitioners, Status of PM companies, Work scope of PM companies, Coordination with other professionals, Management of PM companies and External environment of PM
Ligny and Erkelens, 2008	Inability to innovate
Loo, (2002)	Leadership and organizational culture, Inadequate investment in training, Resistance to change, Individual versus team compensation and Time pressures and constraints
Muriithi and Crawford,(2003): Ahadzie (2007)	Cultural values, political and economic conditions, organizational environments, social problems, lack of skills, and lack of resources
Oluikp <i>et al.</i> , (2005)	Leadership problem, Lack of visible support for group, Inability to capture and codify core project knowledge mechanisms, Reinvention of the wheel and Inadequate learning from projects
Stuckenbruck and Zomorrodian (1987)	Government bureaucracy ,effective control of the project and Bribery and corruption
Thomas & Winter, (2006)	Increasing complexity of projects and the scarcity of human capital
Toor and Ofori,(2008)	Lack of focus on leadership research, and professional development programs

6. Conclusion

Project Management as a professional practice continues to expand and develop in many developing countries and has been described as the best practices in optimising project activities to achieve higher performance. From literature, the emerging constraints to development of Project management practices in developing countries are misunderstanding of the PM concepts by professionals, lack of adequate knowledge, high bureaucratic delays, political and economic challenges, leadership and organisation differences as well as lack of appropriate software.

It is therefore recommended that

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capacity building through the evaluation and management of construction project implementation should be encouraged among public and private sectors. Managerial and technical expertise should be built among local firms to operate the privatised projects upon their transfer to the government at the end of the concession period. Finally, there is the need for researchers in developing African countries to have rigorous approach on merits and demerits of the project management profession and its practices in the construction industry by forming effective professional institutions.

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