

CONSTRAINTS TO THE DEVELOPMENT OF PROFESSIONAL PROJECT MANAGEMENT PRACTICES IN THE GHANAIAN CONSTRUCTION INDUSTRY

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Abstract

Evidence of Professional Project Management Practices in the Ghanaian Construction Industry (GCI) dates back to the 1980s. However, to date not much has been achieved in its advancement and deployment especially in an era where project management is considered as an important management philosophy in achieving project success. This paper reports on a study to determine the constraints that exist in the advancement of project management practices in the GCI. The paper adopted a two-stage data-gathering approach involving qualitative and quantitative techniques. The qualitative approach helped in identifying eighteen (18) Project Management (PM) variables that stakeholders believe are posing challenges to effective PM practices in Ghana. Out of the eighteen variables, nine supported existing literature while the remaining nine appear to be peculiar to the Ghanaian context. Subsequently, questionnaire containing the eighteen (18) variables were administered to 183 professionals who are involved in PM practices and then subjected to factor analysis. The paper highlights five (5) major underlying constraints namely: weak project management knowledge base, lack of clearly defined role for project managers, poor understanding of procurement practices, weak institutional framework and poor communication practices. The paper therefore recommends that, it is important for these underlying factors to be addressed conscientiously as they provide firm basis for advancing professional project management practices in the GCI.

Keywords: Constraints, Development, Ghanaian Construction Industry (GCI), Professional Project Management Practices (PPMP)

1. INTRODUCTION

Various definitions exist for project management in the literature; however, the general consensus is that it seeks to ultimately achieve successful delivery of projects on behalf of the client.

For instance, Walker (2002) defines project management in the construction context to mean the art and science of planning, coordination and control of project with the main aim of satisfying client objectives. The Chartered Institution of Builders (CIOB, 2012) also describes project management as a professional discipline that separates the function of management from design of a project from inception to completion and especially aimed at meeting client requirements. The various Project Management Body of Knowledge books, while acknowledging that project management involves the planning, controlling and coordination of resources to meet project objectives also recognise the significant focus on the client (c.f Omidvar et al., 2011). Within this context Goodwin (1993) has long suggested that project integration is fundamental to the concept of project management. Subsequently Goodwin (1993) advocated that the basic function of project management is for the authority and responsibility of the management of a project to be vested in a single individual and/or entity. It is within this context of having a single individual take charge of the authority and responsibility of the success of a project that the concept of professional project management is argued. Indeed, the fact that project management is a distinct managerial process and require professional expertise is now recognised in both academic and industry (Winch, 1997; White and Fortune, 2002). Furthermore, it has become one of the most demanding professional domains and plays a primary role in project success (c.f Albass and AL-Mharmah, 2000; Cheng et al., 2005).

Notwithstanding this, professional project management practices in the construction industry remains inert in many developing countries such as Ghana, especially regarding the full integration, deployment and advancement of its knowledge base in the industry (Ahadzie et al., 2012). Moreover, stakeholders lack full understanding of the prospective project management environment including the potential challenges and how this should be adequately addressed. For instance, professional project management is noted to have been first used in Ghana in the late 1980s. Subsequently, there has been recognition of the title project manager in Ghana's Procurement Act (i.e. Act 663 of 2003). Nonetheless, project management practice in the GCI is very rudimentary and has remained inert since the 1980s when it was first used. Given that project management has become vital discipline in the world over, it is important for the factors mitigating the advancement of PM practice to be fully understood in the context of developing countries such as Ghana. Thus, the paper gives a report of a study which was aimed at identifying the constraints affecting PPMP the in GCI in order for effective strategies to be promulgated for improvement

The paper starts by providing a brief background of the genesis of professional project management practices in GCI. This is then followed by research methodology adopted involving a two-stage data gathering approach. The penultimate section of the paper focuses on discussing the findings while the final sectional provide a summary of the issues presented in the paper.

2. PROJECT MANAGEMENT PRACTICES IN GHANA

In Ghana, evidence suggest that project management practices in the construction industry emerged around the late 1980s when it was first used in Mass Housing Building Production (MHBPs) by a quasi-government organization, Social Security and National Insurance Trust (SSNIT) across the country (Ahadzie and Amoah-Mensah, 2010). According to Ahadzie and Amoah-Mensah (2010), this saw the successful completion of 1637 single-storey housing in the Sakumono area in the Greater Accra Region of Ghana within five years of construction. It is noted that the successful completion of the 1637 housing units with time and cost targets had been one of the remarkable project success history in the annals of the Ghanaian house building (Amoa-Mensah, 1999; 2002). However, following this, very little has been achieved in terms of riding on the success achieved on MHBPs to fully integrating the practice within the overall GCI. That is, while the mass housing environment is noted to have seen some entrenchment in the use of project management practices (perhaps because of it speculative and in-house nature of organizing the project team from inception to completion) the situation is not exactly the same in main stream construction practice. Indeed, it was not until quite recently in the year 2003 that project management practice was to receive some boost by the specific mentioning and recognition of the title project manager in Ghana's Procurement Act 663 (c.f. The manual to the Act). Quite recently also, the private sector through alliance with development partners has also established the Ghana Chapter of Project Management Institute (PMI) with the aim of providing leading edge in the practices of PM. Admittedly, the Ghanaian construction industry presents a suitable environment for reviewing the development of professional practices as nearly its activities are based (drawing from Edum-Fotwe & McCaffer, 2000).

However, despite the potential of the GCI in using its project based activities in advancing PPMP, the industry is also plagued by a lot of challenges arising from myriad of project management issues which leave stakeholders including the government often disappointed. Hence, the recent call from the government for the improvement of knowledge base in project management has reinforced the need to identify these constraints as stated in the research objectives (Ministry of Finance and Economic Planning Report, 2006; Amponsah, 2010). Thus, the need to determine the constraints to the development of professional project management arises out of national concerns towards seeking for improvement in the GCI.

3. RESEARCH METHODOLOGY

The paper adopts a two stage data-gathering approach. At the first stage, exploratory method was used to identify the relevant factors constraining the development of professional project management practice in the Ghanaian construction industry. This involved the use of a purposive sampling of twenty-(20) major stakeholders (see table 1). The sample was chosen based on their rich experience from being involved in management of large scale projects in the GCI for over four decades.

The stakeholders comprised five major clients, five major consultants with project management experience, five major contractors who have handled some of milestone projects in Ghana and five leading members of professional and association affiliates in the GCI. The professional association are namely, the Ghana Institution of Engineers (GHIE), the Ghana Institution of Architects (GHIA), the Ghana Institution of Surveyors (GHIS), the Project Management Institute (PMI), Ghana Chapter and the Association of Building and Civil Engineers of Ghana (ABCEG) (table 1). The client organizations comprised three major public institutions and two major private institutions, however for ethical reasons pseudo-names (CC 2 & CC3) have been used for the private companies (see table 1). Similarly the consultants comprised two major public institutions and three private, however pseudo names (CT2 CT3 & CT 4) have been used for the private institution. The contractors are all private and among the 10 top contractors operating in Ghana (labelled as CONT1 CONT2 CONT3 CONT4 & CONT5). Data were collected by the use of semi- structured interview and then transcribed and coded using Nvivo 8 Software. Nvivo offers a useful toolkit for thinking, reflecting and linking elements of qualitative data to develop memos and also annotate the contents of responses for factors to emerge (Kikooma, 2010; Walter, 2011). Here the Nvivo helped in identifying eighteen (18) key constraints. It was observed that nine of these constraints are consistent with general project management literature (see table 2), whilst the remaining nine are inconsistent, suggesting that they might be peculiar to conditions pertaining to project management practices in the construction industry of developing countries such as Ghana.

Table 1: Sample for Qualitative Study

Clients	Consultants	Contractors	Institutions
Social Security and Insurance Trust (SSNIT)	Building and Road Research Institute	CNT 1	Ghana Institution of Surveyor (GhIS)
CC2	CT 2	CNT 2	Ghana Institution of Engineers (GhIE)
Ministry of Water, Work and Housing	CT 3	CONT 3	Ghana Institution of Architect (GIA)
CC3	CT 4	CNT 4	Project Management Institute, Ghana Chapter (PMI)
Ghana Education Trust Fund	Architectural Engineering and Services Limited	CNT 5	Association of Building and Civil Engineers Ghana.(ABCEG)

Table 2: Variables Posing Challenges to PM Practices in Ghana

Consistent with Literature	Inconsistent With Literature and Unique to Ghanaian Practice
Inadequate knowledge of construction project management practices by government agencies /public service (Rwelamila, 2004; Gow and Morss, 1988; Kartam <i>et al.</i> , 2000).	Lack of ethics and code of practice for construction project management professionals.
Construction professional's inability to acquire basic knowledge in project management (Du, 2001).	Inadequate legislative framework and enabling environment for project management practices.
Misunderstanding among construction professionals on project management concepts (Liu 2004).	The unwillingness of construction professionals to accept the role of project managers.
Poor definition of construction project scope (Chung-Suk and Gibson, 2001).	Non-availability of project management training facilities for construction professionals.
Lukewarm attitude towards change by construction professionals (Loo,2002)	Poor understanding of procurement practices.
Communication barriers among project participants (Albbasi And Al-Mharmah, 2000).	Wrong choice of procurement approach
Lack of client understanding of what they want from construction professionals (Irem, 2005).	Insufficient technical details and specification as provided by other professionals.
Increasing complexity of projects and the scarcity of human capital (Crawford <i>et al.</i> , 2006).	Limited authority for project managers in contractual documentation.
Difficulty in accessing information on project management theory in practices (Koskela and Howell, 2002; Shenhar 1998; Turner, 1999).	Ignorance of the benefits of project management practices over other traditional management principles.

The second stage involved the use of constructs generated at the exploratory survey stage in designing questionnaire, using a five-point rating scale. The essence was to help subject the eighteen variables to factor analysis towards understanding their underlying nature. The respondents were asked to rate the level of severity of each identified constraint on the development of professional project management practices in Ghana. The five-point rating scale for the levels of severity range from 1= Least, 2 = Lower, 3 = High, 4 = Higher, 5 = Highest. In all 183 questionnaires were distributed to professionals who have had some experience in construction project management practices in Ghana. Out of these, 143 were retrieved representing response rate of 78%. This high response rate was achieved through personal distribution of the questionnaires and several follow ups visits made for retrieval.

Data generated from the survey was further analysed by the use of principal component analysis, which was aimed at finding groups of related variables and thus ideal for reducing a large number of variables into a more easily understood framework (Field, 2005a)

3.1 The Factor Analysis

The fundamental concept underlying factor analysis is the ability to statistically manipulate the empirical relationship among several variables to help reveal conjectural constructs of the relationships (Kreuger and Neumann, 2003). More so, to check for reliability that samples are adequate for factor analysis, Kaiser-Meyer-Olkin measure of sampling adequacy (KMO-test) was conducted. Field, (2005a) indicates that the sample is adequate if the value of KMO is greater than 0.5. As presented in Table 3, the KMO measure of this study achieved a high value of 0.852 indicating the adequacy of the sample size for the factor analysis. The Bartlett’s test of sphericity was also significant suggesting that the population was not an identity matrix; therefore, there exist some relationships between the variables. Bartlett’s Test for this study was highly significant ($p < 0.001$), and therefore suggesting that factor analysis is appropriate.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.852
Bartlett's Test of Sphericity	Approx. Chi-Square	7.300E3
	Df	153
	Sig.	.000

After the KMO sampling adequacy and Bartlett’s test of sphericity, data was then subjected to principal component analysis (with varimax rotation). Subsequent to principal component analysis, the communalities involved were first established. Communality describes the total amount an original variable shares with all other variables included in the analysis and is very useful in deciding which variables to finally extract (see table 4).

Table 4: Communalities

Constraints to the Development of PPMP	Initial	Extraction
Lack of ethics and code of practice for construction project management professionals	1.000	.966
Inadequate legislative framework and enabling environment for project management	1.000	.998
Inadequate knowledge of construction project management practices by government agencies/public service	1.000	.996
The unwillingness of construction some categories professionals to accept the role of project managers	1.000	.994
Construction professionals inability to acquire basic knowledge in project management	1.000	.939

Misunderstanding among construction professionals on project management concepts	1.000	.991
Non-availability of project management training facilities for construction professionals	1.000	.978
Poor understanding of procurement practices	1.000	.997
Wrong choice of procurement approach	1.000	.991
Insufficient technical details and specification in contract documentation	1.000	.980
Difficulty in assessing information on project management theory in practices	1.000	.977
Poor definition of construction project scope	1.000	.990
Lack of client understanding of what they want from construction professionals	1.000	.993
Communication barriers among project participants	1.000	.993
Ignorance of benefits of project management practices over other traditional management principles	1.000	.991
Lukewarm attitude towards change by construction professionals	1.000	.984
Increasing complexity of projects and the scarcity of human capital	1.000	.992
Limited authority for project managers in contractual documentation	1.000	.996

Extraction Method: Principal Component Analysis

From the results in Table 4, the average communality of the variables after extraction was above 0.80. The conventional rule about communality values is that; extraction values (eigenvalues) of more than 0.50 at the initial iteration indicates that the variable is significant; and should be included in the data for further analysis or otherwise removed (Field, 2005a, b). In applying the latent root criterion, five (5) components were extracted, as their respective eigenvalues were greater than one (see table 5) and also from the scree plot in Figure 1 five (5) components with eigenvalues greater than 1.0 were extracted using the factor loading of 0.50 as the cut-off point. In addition, the five components extracted cumulatively explained 98.582% of the variation in the data set, which agrees with the cumulative proportion of variance criterion, which says that the extracted components should together explain at least 50% of the variation in the data set.

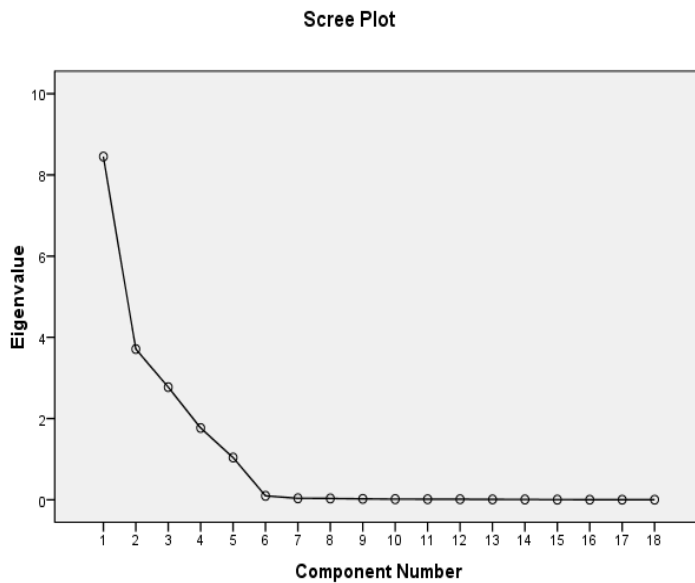


Figure 1 Scree Plot

Table 5: Rotated Component Matrix^a

Constraints to the Development of PPMP	Component				
	1	2	3	4	5
Lack of ethics and code of practice for construction project management professionals				.858	
Inadequate legislative framework and enabling environment for project management				.881	
Inadequate knowledge of construction project management practices by government agencies/public service	.978				
The unwillingness of construction some categories professionals to accept the role of project managers		.952			
Construction professionals inability to acquire basic knowledge in project management	.946				
Misunderstanding among construction professionals on project management concepts		.948			
Non-availability of project management training facilities for construction professionals				.880	
Poor understanding of procurement practices				.979	
Wrong choice of procurement approach				.974	
Insufficient technical details and specification in contract documentation		.943			
Difficulty in assessing information on project management theory in practices	.967				
Poor definition of construction project scope		.950			

Lack of client understanding of what they want from construction professionals	.962
Communication barriers among project participants	.969
Ignorance of benefits of project management practices over other traditional management principles	.977
Lukewarm attitude towards change by construction professionals	.971
Increasing complexity of projects and the scarcity of human capital	.975
Limited authority for project managers in contractual documentation	.980

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 6 iterations.

According to Norusis (1988) and Dogbegah et al., (2011) the ability to interpret the results of principal component analysis can be improved through rotation. Hence, rotation was to achieve a simple structure from the large loadings factors in absolute value for some of the variables, making it easier to identify and interpret them. More so, it is desirable that each variable has large loadings for only a few factors, preferably one, helping to differentiate the factors from each other. If several factors have high loadings on the same variables, it is difficult to determine how factors differ. As noted by Chris (2004), results after factor rotation indicate the amount of variance between the variables that each factor accounts for and provides loadings of all the variables on each factor (Ibid). As demonstrated in table 6 all the five (5) components have more than one variable loading on it, resulting in keeping all the five components which form 98.582% of the total variable of eighteen (18). The total variance explained by each component extracted is as follows: The first principal component accounted for 46.96% of the total variance whilst the second component, explained 20.62%. Component 3 accounted for 15.42%, component 4 accounted for 9.824%, and component 5 accounted for 5.772% of the variance.

Table 6: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.453	46.959	46.959	8.453	46.959	46.959	5.896	32.753	32.753
2	3.711	20.619	67.578	3.711	20.619	67.578	4.101	22.784	55.538
3	2.774	15.408	82.987	2.774	15.408	82.987	3.048	16.934	72.472
4	1.768	9.824	92.810	1.768	9.824	92.810	2.695	14.975	87.446
5	1.039	5.772	98.582	1.039	5.772	98.582	2.004	11.136	98.582
6	.096	.533	99.115						
7	.036	.201	99.316						
8	.032	.180	99.496						
9	.023	.126	99.622						
10	.016	.087	99.710						
11	.014	.078	99.788						
12	.013	.073	99.861						
13	.008	.047	99.908						
14	.007	.038	99.946						
15	.003	.016	99.961						
16	.003	.015	99.976						
17	.002	.013	99.990						
18	.002	.010	100.00						

Extraction Method: Principal Component Analysis

4. FINDINGS AND DISCUSSION

On the basis of the exploratory factor analysis, the names of various components were derived based on the factors with the highest loadings and the understanding of the relevance of these factors in the Ghanaian construction industry. Similarly, Chen and Choy (2007) argued that critical examination of inherent relationships among various factors should be considered in naming the components. On this basis, component 1 was labelled weak project management knowledge base; component 2 was labelled lack of clearly defined role for project managers; component 3 was labelled poor procurement management practices; component 4 was labelled weak institutional framework and component 5 was labelled poor communication management. The following section now discusses each component individually.

4.1 *Component 1: Weak Project Management Knowledge Base*

Component 1 comprises six (6) variables, which accounted for 46.959% of the total variance. These are : inadequate knowledge of construction project management practices by government agencies/public service (0.978) construction professionals' inability to acquire basic knowledge in project management (0.946) difficulty in assessing information on project management theory in practice (0.967) ignorance of benefits of project management practices over other traditional management principles (0.977) lukewarm attitude towards change by construction professionals (0.971) increasing complexity of projects and the scarcity of human capital (0.975) (see Table 6). The figures in the bracket indicate the loading of each variable impact on the component. This component was named as weak project management knowledge base. Dib (2007) has noted that the construction industry generally suffers from what is described as the "islands of knowledge syndrome" due to the lack of connectivity between its various participants and functions. Albbasi and Al-Mharmah (2000) and Kartam et al., (2000) opined that lack of project management knowledge are common in most developing countries. It is also interesting to note that, this component is associated with human resources management issues. Indeed, Dogbegah et al., (2011) and Isik et al., (2009) postulate, that human resources management is an inevitable dimension of project management since it is people who deliver projects. This aligns with Langford et al., (1995), who postulate that the survival of the industry depends to large extent, on its ability to develop this basic resource that is human resources. Thus if the GCI is to reap the full benefit of PM in today's competitive environment the stakeholders must critically or strongly pursue a strong knowledge base in PM practices.

4.2 *Component 2: Lack of Clearly Defined Role for Project Managers*

Component 2 consists of unwillingness of some categories of construction professionals to accept the role of project managers (0.952) misunderstanding among construction professionals on project management concepts (0.948) insufficient technical details and specification in contract documentation (0.943) and poor definition of construction project scope (0.950). This was labelled lack of clearly defined roles for project managers, accounting for 20.619% of the total variance (see Table 6).

It is worth noting that Liu et al., (2004) in assessing the same situation in China rank misunderstanding as second most influential constraint to PM practices in China. Chan et al., (1999) indicates that misunderstanding is normally caused by the influence of traditional construction management systems, which is very much dominant in Ghana as well. As noted earlier, in Ghana, evidence of project management practice dates to the late 1980s when it was first used on Mass Housing Building Production (MHBPs) (Ahadzie and Amoah-Mensah, 2010). However, while the knowledge in project management theory is gaining grounds especially in academia, there is still much to be done especially regarding the full integration of the project management practice in general construction. Notwithstanding that the title project manager has now been given recognition in Ghana's procurement Act the clear responsibility and authority of the project managers is not clearly understood and many projects are still awarded based on traditional procurement practices without recourse to an independent professional project manager (c.f Ahadzie et al., 2012). Moreover, on projects where project managers have been appointed the responsibility and powers of the project manager remain limited within the project lifecycle due to the strong attachment of participants to tradition procurement practices. It is clear that some of the challenges militating against the development of PM practices in GCI borders on cultural and structural weakness, it would be necessary for the GCI seek ways of addressing this (c.f Bredillet et al., 2010; Ahadzie et al., 2013). As noted by Gibson and Hamilton, (1994) for project management to be successful, the start-up phases of a project to the completion stage should be highly defined in terms of the procedures and operation to be undertaken and the GCI need to take a cue by clearly defining the role and scope of the project manager from inception to completion.

4.3 Component 3: Poor Understanding of Procurement Practices

Three variables loaded onto the third component accounting for 15.408% of the remaining variance. The three variables are poor understanding of procurement practices, (0.979) wrong choice of procurement approach (0.974) and limited authority for project managers in contractual documentation (0.980). Examination of the three variables that correlated very well indicates that the underlying factor for the component could be named as poor understanding of procurement practices. The Procurement Act (Act 663 of 2003) is legal framework for procuring goods and services including construction projects in Ghana. The framework for the contract document is based on International Federation of Consulting Engineers (FIDIC) contract documents. Prior to the enactment of the Procurement Act in 2003, the legal framework for awarding and executing contracts called the pink form was based on the Joint Contract Tribunal (JCT), UK. The striking change in Ghana's procurement Act is the recognition given to the title project manager which did not exist in the pink form. Apart from this, the Act lacks any detail regarding the various forms of procurement and how they are to apply in different contract conditions. However, as noted by Masterman (1992; 2012) and many other researchers (c.f Kong & Gray, 2006; Chang & Ive, 2002; Murray & Langford, 1998), the correct choice and application of the right procurement system has a huge impact on the success of a project.

Interestingly construction performance in Ghana has for many years been poor and many reports have decried the public sector's lack of commercial edge in the exercise of its procurement function (Anvuur and Kumaraswamy, 2006). An efficient public procurement practice remains the principal foundation for effective project management practices and it is therefore, important that the Public Procurement Act is reviewed to reflect the choices and application of specific procurement systems depending on project type and the characteristics of the client. This will demand that the project managers' role is further clarified regarding the specific responsibilities for choosing and applying the various procurement systems (c.f Masterman, 1992; 2012)

4.4 Component 4: Weak Institutional Framework

The fourth component consist of lack of ethics and code of practice for construction project management professionals (0.858) inadequate legislative framework, and enabling environment for project management (0.881) and non-availability of project management training facilities for professionals (0.880) and accounted for 9.824% of the variance (see Table 6). Subsequently, critically examining the latent characteristics of the variables, the component was labelled weak institutional framework. From the literature, it is noted that the majority of project managers in the construction industry in many developing countries (PMs) learn their trade experientially on the job and this is due to fact that, there is no single professional body to regulate their practice for current and future development (c.f Odusami et al., 2003; Ahadzie and Amoah–Mensah, 2010). Presently, there is also no academic institution in Ghana which offers specific construction project management programme although it must be admitted that some attempts are now in place to commence the programme soon. The few project managers who have the requisite professional training often belong to either belong to the PMI (US) or APM (UK). Admittedly, there is also now Project Management Institute (Ghana chapter) but they are far from making any impact yet given that institutional landscape is not robust to support their activities (Ahadzie et al., 2012). The bottom line will be a holistic approach of linking the Procurement Act to creating a strong institutional framework that has the potential of supporting the growth of professional project management practices.

4.5 Component 5: Poor Communication Practices

Component 5 accounted for 5.772% of the variance. The respective loading factors are lack of client understanding of what they want from professionals (0.962) and communication barriers among project participants (0.969). Subsequently, this component was labelled poor communication practices. Considering the complex nature of project management practice, project managers are supposed to communicate the project goals and vision to the team members and ensure that they understand their role and responsibility. For instance, Chan and Kumarsawamy, (1999) indicated, that effective communication structure within contracting organisation with clients, consultants and sub-contractors need to be developed, in order to enhance project management practise thereby improving project performance.

The BRE, (2011) also emphasizes that the most weaknesses in the construction industry is as a result of poor communication. In Ghana and many developing countries poor communication practices among project construction participants has since long been noted as one of the bane to project performance in the industry (c.f World Bank, 1996; 2003, Westering, 1997; Anvuur and Kumaraswamy, 2006; Fugar and Agyakwah-Baah, 2010). Drawing from the findings of this study, it is therefore important that communication mediums are clearly defined and here the root among others can be traced to improving communication channels in the Ghana's Procurement Act.

5. CONCLUSION AND RECOMMENDATIONS

PM as a professional practice continues to expand and develop in many developing countries such as Ghana; however, the pace of its development is constrained by local inhibiting factors. This paper reports of a study that sought to identify these constraints in the Ghanaian context and propose recommendations for further development of professional project management practices. The study employed a two stage data collection techniques involving both qualitative and quantitative approaches. Data collected was analysed using Nvivo 8 and principal component analysis.

To this extent, the paper has identified five major constraints to the development of professional project management practices in the GCI. These are weak project management knowledge base, lack of clearly defined role for project managers, poor understanding of procurement practices, weak institutional framework and poor communication practices. The findings reflect the inherent cultural and structural weakness of the construction industry in many developing countries (c.f Bredillet et al., 2010). In the light of the findings it is recommended that, given that PM practice has become that management philosophy for achieving project success in modern construction practice, In the case of Ghana, it is noted that the root cause of many of the challenges would be addressed if a critical look is taken at improving and strengthening the legal and communication channels regarding the role and responsibilities of the project manager. Specifically it is advocated that the project managers' role should be clearly defined within the project cycle and going forward there would be the need for a strong institutional and or professional affiliation to certify and give recognition to PM practice in the industry. Many successful construction economies have since long embraced the project management concept and indication are that it has led to improvement in project performance in these countries. The GCI has in the past been bedevilled with so many management problems and it is high time that structural reforms are introduced to incorporate the positive side of professional project management practices. While the study focuses on Ghana, the findings are similar to what pertains in many developing countries. There are therefore useful lessons that can be carried across in terms of the recommendations.

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