

## Relevance of Partnering as an Alternative Approach to Management of Construction Projects in Ghana

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### Abstract

Understandably, clients in both the public and the private sectors in Ghanaian construction industry have become increasingly dissatisfied. What they see is unpredictability and under-performance. What they receive is too often of poor quality, late and over-priced. More often contractors enter the construction project focusing on achieving their objectives and maximising their profit margins, with no regard for the impacts on others. This mind set leads to conflict, litigation and often a disastrous project. In the pursuit of performance excellence, there is a need for partnering. This paper therefore, attempts to explain the need for partnering as an alternative approach to construction project delivery. The paper presents a review of partnering projects in general. Through a postal and e-mailed questionnaire survey, opinions of various parties in Ghanaian construction industry – clients, sub-contractors and contactors were sought regarding construction project delivery and the level of use of partnering. This paper also explains the importance and benefits arising from partnering implementation as reviewed by the other researchers and concluded that, partnering is one of the most innovative developments in delivering a project efficiently and reducing disputes. It provides a sound basis for a ‘win – win’ climate and synergistic teamwork. By changing to a ‘win – win’ style the parties can reap benefits of cost saving, profit sharing, quality enhancement and time management.

**Keywords:** Clients; Construction industry; Under-performance; Partnering; Win-win.

### 1. Introduction

Performance of Ghanaian construction industry is a major cause of concern amongst clients and all stakeholders in the industry (Kwaw et al., 2011). Historically, the construction industry has used procurement methods and contractual arrangements (traditional approach) that have beset the industry with several problems, such as lack of co-operation, limited trust, ineffective communications (Chan et al., 2004). These procurement methods and contractual arrangements have encouraged clients and contractors to see themselves as adversaries and that have reinforced any differences in values, goals and orientations that exist within the construction project team (Latham, 1994). In fact, the traditional construction relationship among the parties in Ghanaian construction industry has lacked any degree of objective alignment, and provides for no improvement in work processes. Parties enter the project focused on achieving their objective and maximises their profit margins, with no regard for the impacts on others. This mind set leads to conflict, litigation, difficult in resolving claims, project delay, and cost overruns and often a disastrous project. The characteristics of such a competitive environment includes objectives which lack commonality, success coming at the expense of others (a win or lose mentality), and a short-term focus.

Understandably, clients in construction industry have become increasingly dissatisfied. What they see is unpredictability and under-performance. What they receive is too often of poor quality, late and overpriced. In Ghana, both public and private sector clients of the construction industry continue to complain about the industry’s performance and its seeming inability to deliver projects on time, within budget and to expected quality standards. Major clients are dissatisfied with consultants’ performance in co-ordinating teams, in design and innovation, in providing a speedy and reliable service and providing value for money. One does not have to look hard for evidence of under-performance in Ghanaian construction industry. Nicco-Annan (2006) carried out a limited survey of the construction of a few office buildings in Accra which have been commissioned by a well-known non-bank financial institution and found that:

- Costs of executed projects far exceeded the original costs, not taking inflation into account.
- Completion dates of executed projects also far exceeded the original completion dates.

The question is, “why is the construction industry under-performing?” The Egan’s UK Report (Rethinking Construction) saw construction as: “a series of sequential and largely separate operations undertaken by individual designers, contractors and suppliers who have no stake in the long term success of the product and no commitment to it.” According to Anvuur et al. (2006), both works and consultancy services in Ghana take very lengthy periods to reach financial closure and are subject to unnecessary delay. In the pursuit of performance excellence in the Ghanaian construction industries, there is a need for an effective management technique. Many new procurement and management techniques have gained popularity to help solve these problems (Sanders, 1994). Partnering is one of such technique that tries to create an effective project management process between two or more organisations (Sanders and Moore, 1992). It aims to generate an organisational environment of trust, open communication, and employee involvement. According to Thompson and Sanders (1998), partnering helps to advance the collaboration and enhance the competence of construction parties. It is an innovative concept to the construction organisations, which traditionally rely heavily on contracting to bind the parties together.

Partnering as an approach to manage construction projects is regarded as an important management tool to improve quality and programme, to reduce confrontations between parties, thus enabling an open and non-adversarial contracting environment. This research therefore, attempts to explain the need for partnering as an alternative approach to effective construction project delivery. The paper also assesses the performance of construction projects and the level of use of partnering in Ghanaian construction industry. The paper further discusses the importance and benefits arising from partnering implementation.

### *1.1 What Is Partnering*

Numerous definitions of partnering have been derived from past studies. Among them, the definition developed by the Construction Industry Institute (CII) in the United States is the most widely cited. The CII defined partnering as “a long-term commitment between two or more organizations for the purpose of achieving specific business objectives by maximizing the effectiveness of each participant resources. This requires changing traditional relationships to a shared culture without regard to organizational boundaries. The relationship is based on trust, dedication to common goals and an understanding of each other’s individual expectations and values (Construction Industry Institute, 1991).

The above definition depict partnering as a generic term and emphasis that the relationship will cause all to seek win-win solutions, place value in long-term and emphasis that the relationships and encourage trust and openness to be the norms and that an environment for profit exists. It is also a view that neither partner should benefit from exploitation of the others needs, concerns and objectives and is interested in helping its partner achieve them. It creates a team environment to accomplish a set of goals in much the same way that a sports team works together to achieve its goals. But perhaps the definition that provides explicit meaning, which is adopted for this paper, is that by the Reading Construction Forum, in trusting the team (Bennett and Jayes, 1995). Partnering is a managerial approach used by two or more organisations to achieve specific business objectives by maximising the effectiveness of each participant’s resources. The approach is based on mutual objectives, an agreed method of problem resolution, and an active search for continuous measurable improvements. This definition focus on the key elements that feature prominently in partnering, irrespective of the form it takes.

### *1.2 Objectives of Partnering*

In construction, the concept of partnering is described as a generic term of management approach to align project goals (Bayliss, 2002). The goal for partnering is to improve relationships among contracting parties, either in single project partnership or in long-term strategic alliances. Partnering provides benefits to the contract-parties, including cost effectiveness, work efficiency, opportunities for innovation, equitable risk sharing, and less confrontation (Black et al., 2000). Partnering is not a contract but an attempt to establish non-adversarial working relationships among project participants through mutual commitment and open communication. It is also serves to create an environment that fosters cooperation and team work (Stevens, 1993).

### *1.3 Genesis of Partnering In Construction Industry*

Partnering has been widely advocated for the Construction industry to rectify the adversarial contractual relationships that have jeopardised the success of many projects.

Features of partnering relationships have been seen in various industries for many years. The partnering style of

relationships with contractors was a feature of some construction projects in Britain early in the Industrial Revolution (Barnes, 2000). As applied today, it originates in the philosophies of the Japanese influenced automobile industry. The defence, aerospace and construction industries have followed. Its essence is alignment of values and working practices by all members of the supply chain in order to meet the customer's real needs and objectives (Green, 1999). Continuous improvement has been an important objective, with emphasis not only on cost but also on quality, lead time, customer service, and health and safety at work.

Contrary to current perceptions, construction partnering, although not necessarily in its present form or using that particular name, has existed within the UK construction industry since at least the early 1990's, when Marks and Spencer and Bovis began a long-standing relationship which has lasted to the present time and is based upon mutual trust and respect as well as the resulting commercial benefits enjoyed by both parties (Masterman, 2003).

In the USA, it was in the late 1980's that growth of claims and litigation on construction contracts led public agencies to begin to use the technique that led to a promising increase in the controlling of cost and time growth on numerous major projects (Bennett and Jayes, 1998). Many States and central governmental organisations are now committed to the use of partnering, and it is understood that the growth of the use of the method in the private sector has increased significantly in the recent past and continues to expand.

In Australia, formalised partnering emerged at the beginning of the 1990's, partially, it is believed (Uher, 1999) as a result of central and state governmental initiatives which put forward a new strategy to improve production in the construction industry, which included a commitment to partnering.

#### *1.4 Relevance of Partnering to Ghanaian Construction Industry*

The key question one ought to ask is "how relevant is partnering to the Ghanaian situation". According to Nicco-Annan (2006), Ghana government, in one shape or form is the biggest customer to the Ghanaian construction industry. Having been entrusted with the use of public funds, it is understandable that government will seek to ensure fairness and transparency in the award of contracts. His view, however, was that government should not be a slave to fairness and transparency to the point of condoning mediocrity and under-performance. He continued to argue that competitive tendering which is predominantly tendering practice in Ghana is not working and it is time we cast away the cynicism towards partnering. He further stated that if the principles of partnering are adhered to, the issues of transparency, fairness and equitableness and accountability can be addressed as follows:

- The adoption of an open-book policy in partnering in which the contractor is asked to justify his cost build-up.
- The partnering team will agree to each contractor's proposals for procuring the basic inputs and agree to the net cost. Following this agreement of the net cost of the project, competition in the selection of contractors can be obtained by tendering the profit and overheads.
- Agreeing to a percentage of work that should be reserved for sub-contractors can ensure equitableness in the distribution of work and in the demand placed on contraction industry. Indeed, this will strengthen partnering because those sub-contractors who prove themselves well, by definition, become part of the supply chain that is vital in the delivery of a successful project.
- Political accountability is a force to reckon with and in traditional competitive tendering, the lowest price almost always wins. Partnering, however, seeks to balance the requirements of quality, time and cost in offering best value as opposed to lowest price.

#### *1.5 The Process of Partnering*

The key to partnering is that it starts at the outset of a project. The process is formally established in 'workshop (or 'kick-off') sessions between the partnering members so that everyone has a clear understanding of what the process is and agrees to use it. As in any collaborative venture, all parties have to get together pre-construction and invest time into agreeing and understanding the objectives, form and operation of a partnering agreement (Wearne and Wright, 1998). The essential stages of the project partnering process are:

- Decision stage: the desire of all of the main members of the project team to become involved in the partnering process is essential; this desire will often stem from relationships that have been formed during past associations when organisational cultures have been found to be compatible. If this has not been the case, and examination of each of the main participants' organisations and personnel to

establish compatibility, or the lack of it, is essential before any commitment is entered into. Once all of the parties are convinced that they wish to participate in the partnering process, a decision to use partnering on the project under consideration can be made and the next stage of the process can be commenced.

- Establishment of working practices – during this stage, a series of mutual objectives for the project are identified and agreed and the way in which problems are to be solved during the duration of the project is established. These activities are carried out by means of a workshop, which needs to be held immediately the decision has been taken to use the partnering process and should be attended by all of the main parties involved in the project. This event is critical to the sources of the project as it will determine how the project team will implement the project together and engender mutual understanding among the participants. This initial workshop is likely to be of 1 or 2 day’s duration as it will be dealing with a considerable amount of detail in order to reach agreement on a list of mutual objectives, identify improvement targets, design the problem resolution process and deal with any matters specific to the project. The final major task of the workshop is to formulate a partnering charter, a document with no legal standing, which incorporates in simple language the agreed mutual objectives, a summary of the problem resolution process and the basic philosophy and aims of the partnership. Once this document had been signed off by all of the parties, it is exhibited in the offices of all the participating organisations and in all site offices, canteens, notice boards etc. At the end of the workshop, arrangements are made for future follow-up and induction workshops.
- Implementing partnering practices – the execution of the practices agreed during the second stage of the partnering process is carried out in parallel with, but physically separate from, the everyday management of the project by means of the follow-up workshops.

These workshops will take place at intervals and will be of a duration determined by the project team; they will also deal with any problems that have arisen during the implementation of the project, review progress that has been made in achieving the agreed mutual objectives and take whatever action is necessary to ensure that the previously agreed continuous improvements are being made. Sub workshops, sometimes referred to as action teams, and are used to deal with matters which are not capable of being dealt with during the comparatively short duration of the normal workshops.

On the appointment of new key members of the project team, whether they are consultants, subcontractors or suppliers, induction workshops are held in order to familiarise the new corner with project partnering and to obtain their agreement to partnering charter.

Over the often lengthy implementation period of many major projects, these workshops should enable project teams to establish the trust and understanding which is so necessary to improving working relationships and enhancing performance to the benefit of all of the participants. Figure 1 illustrates the project partnering process.

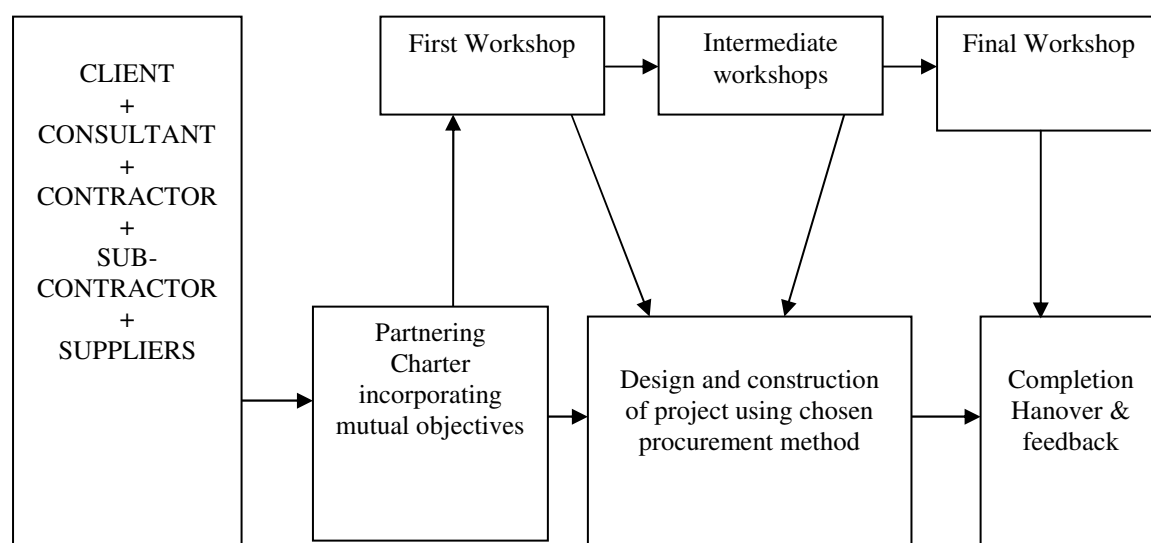


Figure 1: The project partnering process (Masterman, 2004)

## 2. Research Methodology

Most of the content of this research is based on a review of relevant materials from textbooks, professional journals, conference papers, refereed publication and research reports to explain the objectives of partnering, genesis of partnering and its implementation process in the construction industry. Opinions of various parties in Ghanaian construction industry – client consultants, main/sub-contractors were sought regarding construction project delivery, performance and the level of use of partnering in Ghanaian construction industry. In total one hundred and eighty (180) questionnaires were distributed among twenty (20) client consultants and one hundred and sixty (160) main/sub-contractors. The one hundred and sixty (160) building contractors used for the study were the total number of building contractors in Accra and Cape Coast who have registered with the Association of Building and Civil Engineering Contractors in Ghana. Accra and Cape Coast were selected for the study because the concentrations of contractors were highest and lowest respectively. The researcher covered all the one hundred and eighty (180) respondents because the population was considered to be small. The questionnaires were posted with self-addressed envelopes and followed up with a soft copy of the questionnaire through an e-mail to the respondents whose e-mail addresses were easily identified. This was to ensure that the targeted persons received the questionnaire. The postal and e-mails addresses were obtained from the office of the Association of Building and Civil Engineering Contractors in Ghana and Ghana Business Directory website. In totality, 164 out of 180 questionnaires were received. The 164 returned questionnaires consisted of eighty-seven (87) respondents from main contractors, sixty-two (62) from sub-contractors and fifteen (15) from client consultants. Table 1 (Appendices) shows the breakdown of number of questionnaires sent to various respondents and received from respondents. Data collected was analyzed using descriptive statistics, thus frequencies and percentages.

## 3. Results

The results of this study were generated from all the responses received. Table 2 (Appendices) shows a summary of findings of research conducted by the researcher on some of the Partnering and Non-partnering projects carried out in Ghana, specifically Accra and Cape Coast. The survey indicated that 8% of the projects undertaken by the participants' organisations were Partnering projects and 92% of the projects Non-partnering. The participants' firms were small to large (D4 through D1) size companies which meant that the survey was cut-across all organisations irrespective of the size.

With regard to the level of use of the partnering in Ghanaian construction industry, the result indicates that only 8% of the participants' organizations implemented partnering for their projects. When compared cost on partnering projects with non-partnering project, it was realized that partnering projects incurred lower cost risks between 2-5%. Partnering projects also recorded no risk of time overruns. On the other hand all the non-partnering projects under studied suffered major deficiencies such as cost and time overruns. Table 2 (Appendices) gives more details and other related issues concerning partnering and non-partnering projects performance.

## 4. Discussion

It was also realized that 92% of the projects which formed the non-partnering projects have been delivered based on the traditional procurement system with open competitive tendering where clients appointed consultants to act on their behalf in order to produce designs and supervise site works. One thing we should note is that in a traditional procurement system, particularly with open competitive tendering, cut-throat tendering is actively encouraged, mainly by the client and usually upon advice from the client's consultant. The system is adversarial, based on a closed book approach in which client, consultant and contractor often play a game of hide and seek with one another, hoping to "catch each other out". This is the main reason for the atrocious prevalence of claims within the industry and situations when the out-turn or final cost of projects far exceed the tender price, leaving extremely bitter clients who feel ripped off by unscrupulous contractors. According to Nicco-Annan (2006), the adversarial relationship between clients and construction constructors inherited in this procurement system is one of the major barriers to the success of the construction industry. In contrast to the traditional procurement approach in which the parties appear pitched against each other, partnering seeks a team approach in which the parties work together to improve performance through agreeing mutual objective, devising a way for resolving any disputes and committing themselves to continuous improvement, measuring progress and sharing gains. Sir

John Egan's report, "Rethinking construction," recommended that "the industry must replace competitive tendering with long-term relationships based on clear measurement of performance and sustained improvements in quality and efficiency." According to Nicco-Annan (2006), competitive tendering which is predominantly tendering practice in Ghana is not working and it is time we cast away the cynicism towards partnering. He further stated that if the principles of partnering are adhered to in the Ghanaian construction industry, the issues of transparency, fairness and equitableness and accountability can be addressed as follows:

- The adoption of an open-book policy in partnering in which the contractor is asked to justify his cost build-up.
- The partnering team will agree to each contractor's proposals for procuring the basic inputs and agree to the net cost. Following this agreement of the net cost of the project, competition in the selection of contractors can be obtained by tendering the profit and overheads.
- Agreeing to a percentage of work that should be reserved for sub-contractors can ensure equitableness in the distribution of work and in the demand placed on construction industry. Indeed, this will strengthen partnering because those sub-contractors who prove themselves well, by definition, become part of the supply chain that is vital in the delivery of a successful project.
- Political accountability is a force to reckon with and in traditional competitive tendering, the lowest price almost always wins. Partnering, however, seeks to balance the requirements of quality, time and cost in offering best value as opposed to lowest price.

The process of partnering is, therefore, a clear attempt to overcome some of the actual and perceived shortfalls in traditional methods of procurement. Previous studies (Cowan et al., 1992, Moore et al., 1992) suggested that project partnering could well be applied to construction projects and can provide improved time and cost benefits to both clients and contractors. In the nutshell, construction companies and clients in Ghana can use partnering to improve their competitiveness, to improve product quality and to keep pace with changing customer requirements.

### *3.1 Performance of Partnering Projects in Terms of Cost Reduction*

According to Uher (1999), a research carried out by the New South Wales Department of public works and services, which compared costs on the individually partnered projects with non-partnered public projects, reported a possible 2-3 percent reduction *in* cost when using project partnering. A research reported by Westminster University also suggested savings of 60 percent when practising strategic partnering. This research was based upon the case study of the McDonalds construction programme for their standard, fast food restaurants and reflects not only the use of strategic partnering but also the use of modular buildings and the repetitions nature of the projects and should therefore be viewed in this context (Barlow et al., 1997). Other case studies of partnering in Australia, although not providing specific examples of cost savings, confirm that the use of the method results in a lower risk of cost overruns.

In the USA, a quantitative study of 400 public projects half of which were performed using project partnering, carried out by the Texas Department of Transportation found that whereas the partnered projects incurred more change orders (variations) than non-partnered projects, the average cost was approximately one-half of that expended on non-partnered projects. The partnered projects had slightly less cost growth than non-partnered projects, and for the majority of the partnered projects no costs were incurred from claims or disputes. Because of the nature of the research, no attempt was made to identify any cost savings that may have resulted from these benefits (Gransberg et al., 1999).

The University of Reading's Report on partnering maintained that cost savings of 2-10 percent were achieved on the project partnering schemes that were examined and that savings of up to 30 percent could realistically be achieved when strategic partnering is used (Reading Construction Forum, 1995).

Bennett and Jayes (1998) report on second-generation partnering, i.e. long-term/strategic partnering, maintained that where cost reduction was the focus of the exercise savings of up to 40 percent were obtained.

### *3.2 Performance of Partnering Projects in Terms of Time Saving*

The 1995 Reading Construction Forum report on partnering maintained that the benefits derived from partnering included reduced design times, quicker commencement on site and shorter construction periods. A 27 percent reduction in construction times achieved on five projects carried out by the Arizona Department of Transport is

given as an example. As overview of the performance of partnering in the Australian construction industry (Uher, 1999) is more circumspect in its findings, which in essence, simply confirmed that there was a lower risk of time overruns on partnered projects.

An analysis of partnered project performance carried out on 400 projects in the State of Texas in the USA was more positive, establishing that time growth was negative on all of the 200 partnered projects, which resulted in them being completed, on average, some 4-7 percent earlier than originally planned. Bennett and Jayes (1998) maintained that when using second-generation/strategic partnering and provided that the firms involved carry out the correct management actions, savings in time of more than 50 per cent are achievable.

### *3.2 Performance of Partnering Projects in Terms of Quality Improvement*

According to the Reading Construction Forum (1995) report on partnering, much of the literature examined for the report suggested that the primary focus of partnering should be quality. Some of the case studies investigated showed a reduction in the number of defects identified, together with a related decline in the amount of remedial work needed. Three of the five clients studied in the Westminster University report (Barlow et al., 1997), claimed to have achieved improvements in construction quality. The Australian experience (Uher, 1999), although lacking in definitive data with regard to quality, confirmed in general terms that the use of project partnering resulted in an improvement in quality standards.

### *3.2 Performance of Partnering Projects in Terms of Quality Improvement*

Partnering relationships offer advantages and opportunities specific to the individual members of the project team. The benefits of partnering include:

- **Benefits for client:** Effective utilisation of personnel resources may be the most important benefit to the owner, in terms of both staffing requirements and available expertise. The client may also benefit from increased flexibility and responsiveness in terms of added skills and resources available from other parties, from the presence of a diversity of talent not usually found in a single company and from reduced costs associated with contractor or consultant selection, contract administration, mobilisation, and the learning curve associated with beginning a project with a new contractor or consultant. Other benefits will be the reduced dependence on legal counsel, the development of a team for future projects and more control over possible cost overruns.
- **Benefits for design team:** Partnering provides the design team with the opportunity to refine and develop new skills in a controlled and low risk way. This occurs because new methods or approaches may be required to meet owner project requirements. Through partnering, the design team will benefit from the involvement of contractors during budgeting, development of the team for future projects and optimal use of the design team's time.
- **Benefit for contractor:** The contractor may benefit from increased opportunity for value-engineering involvement to provide value for money, faster decision-making processes, and more effective time and cost control. Other benefits to the contractor will include formation of teams for future projects, increased opportunity for financially successful projects, reduced dependence on legal counsel and the possibility of faster payments.
- **Benefits for the manufacturers and suppliers:** As with the other team members, the benefits that manufacturers and supplier stand to gain through partnering include approval of their products recommendation, a voice in the design intent, involvement in the coordination with other project trades and the possibility of repeat business. Other benefits are a better chance for quality in product installation and increased opportunity for financially successful projects.

## **5. Conclusion**

This paper attempted to explain partnering as an alternative contractual arrangement for successful project delivery in the Ghanaian construction industry. With the identification of the specific issues and problems, such as cost overruns, time overruns, fragmented nature and adversarial relations, in the Ghanaian construction industry, a partnering is highly recommended. Partnering arrangement can replace the potentially adversarial atmosphere and foster a team approach to achieve common goals. Industry world-wide studies have suggested the use of partnering as a way to promote co-operative contracting. Construction companies and clients in Ghana can use partnering to improve their competitiveness, to improve product quality and to keep pace with changing customer requirements. Partnering is one of the most innovative developments in delivering a project efficiently

and reducing disputes. It provides a sound basis for a 'win – win' climate and synergistic teamwork. By changing to a 'win – win' style the parties can reap benefits of cost saving, profit sharing, quality enhancement and time management.

## References

- ANVUUR, A., KUMARASWAMY, M. & MALE, S. Taking forward public procurement reforms in Ghana. 2006. CIB.
- BARLOW, J., CHOEN, M., JASHAPARA, A. & PRESS, P. 1997. *Towards positive partnering: revealing the realities in the construction industry*, Policy Press Bristol.
- BARNES, M. Civil engineering management in the Industrial Revolution. Proceedings of the ICE-Civil Engineering, 2000. Thomas Telford, 135-144.
- BAYLISS, R. F. 2002. Partnering on MTR corporation Ltd's Tseung Kwan O extension. *HKIE Transactions*, 9, 1-6.
- BENNETT, J. & JAYES, S. 1995. Trusting the team The best practice guide to partnering in construction.
- BENNETT, J. & JAYES, S. 1998. The Seven Pillars of Partnering: a Guide to Second Generation Partnering, Reading Construction Forum.
- BLACK, C., AKINTOYE, A. & FITZGERALD, E. 2000. An analysis of success factors and benefits of partnering in construction. *International Journal of Project Management*, 18, 423-434.
- CHAN, A. P., CHAN, D. W., CHIANG, Y., TANG, B., CHAN, E. H. & HO, K. S. 2004. Exploring critical success factors for partnering in construction projects. *Journal of Construction Engineering and Management*, 130, 188-198.
- CONSTRUCTION INDUSTRY INSTITUTE 1991. In Search of Partnering Excellence. Austin, Tx: CII Special Publication, Construction Institute.
- COWAN, C., GRAY, C. F. & LARSON, E. W. Project partnering. 1992. Project Management Institute.
- GRANSBERG, D. D., DILLON, W. D., REYNOLDS, L. & BOYD, J. 1999. Quantitative analysis of partnered project performance. *Journal of construction engineering and management*, 125, 161-166.
- GREEN, S. 1999. Partnering: the propaganda of corporatism. In: OGUNLANA, S. O. (ed.) *Profitable Partnering in Construction Procurement*. London: E.& F. N. Spon.
- KWAW, P. K., YALLEY, P. P., COBBINAH, J. F. & OPINTAN-BAAH, E. 2011. Ghana's Public procurement Reform and Continuous Use of Traditional Procurement System: The Case of the Construction Industry. *Takoradi Polytechnic Journal of Technology*, 1, 51-64.
- LATHAM, M. 1994. Constructing the team: final report on joint review of procurement and contractual arrangements in the UK construction industry. *Her Majesty's Stationary Office, London*.
- MASTERMAN, J. 2003. *An introduction to building procurement systems*, Routledge.
- MOORE, C. C., MOSLEY, D. C. & SLAGLE, M. Partnering: guidelines for win-win project management. 1992. Project Management Institute.
- NICCO-ANNAN, J. 2006. Partnering in construction. *The Quantity Surveyor*, 1, 14-19.
- READING CONSTRUCTION FORUM 1995. Trusting the Team. The Best Practice Guide to Partnering in Construction. Reading: Centre for Strategic Studies in Construction.
- SANDERS, R. 1994. Partnering on the Wangaratta Bypass. *Australian Project Manager*, 12, 21-25.
- SANDERS, S. R. & MOORE, M. M. Perceptions on partnering in the public sector. 1992. Project Management Institute.
- STEVENS, D. 1993. Partnering and value management. *The Building Economist, September*, 5-7.
- THOMPSON, P. J. & SANDERS, S. R. 1998. Peer-reviewed paper: Partnering continuum. *Journal of Management in Engineering*, 14, 73-78.
- UHER, T. 1999. Partnering performance in Australia. *Journal of Construction Procurement*, 5, 163-176.
- WEARNE, S. & WRIGHT, D. 1998. Organizational risks of joint ventures, consortia and alliance partnerships. *Int. Jl. of Project & Business Risk Management*.



*Appendices*

*Table 1: Sent/Returned Questionnaire*

<b>Respondent type</b>	<b>Number of questionnaire sent</b>	<b>Percentage sent (%)</b>	<b>Number of questionnaire return</b>	<b>Percentage return (%)</b>	<b>Number of questionnaire not return</b>	<b>Percentage of questionnaire not return</b>
Main Contractors	95	52.78	87	48.33	8	4.44
Sub-Contractors	65	36.11	62	34.44	3	1.67
Client Consultants	20	11.11	15	8.33	5	2.78
<b>Total</b>	<b>180</b>	<b>100</b>	<b>164</b>	<b>91.11</b>	<b>16</b>	<b>8.89</b>

*Table 2: Summary of Findings of Performance of Partnering and Non-partnering projects carried out in Accra and Cape Coast*

<b>Performance Variables</b>	<b>Partnering Projects</b>	<b>Non-partnering Projects</b>
Cost overruns	Between 2 – 5 %	Between 25%-43%, not taking inflation into account
Time overruns	No time overruns recorded	Between 9-21 months
Project delivery satisfaction	All the clients were satisfied with project delivered	96% of the respondents' claim clients were not satisfied with the projects delivered by their contractors in terms of cost, time and quality for non-partnered project
Claims Issues	No claims issues were recorded	73% of the projects under studied had claims issues
Disputes Issues	No disputes cases were recorded	54% of the projects under studied had disputes cases
Working Relationships	All the respondents claim project participants were happy with the working relationship with the other parties	73% of the respondents claim project participants were unhappy with the working relationship with the other parties
Project delivered with partnering system / traditional procurement system	8% of the completed projects under studied have been delivered with inclusion of partnering	92% of the completed project under studied, have been delivered based on the traditional procurement system with open competitive tendering where clients appointed consultants to act on their behalf