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A Study on Targeted Relationships between Contractors and Consultants in Construction Industry

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Abstract

Background/Objectives: Construction industry is a key industry contributing to the economic growth and development of a nation. It is essential, the consultant and contractor to establish harmonious working relationships among them, and resolves issues in a timely manner, minimizing impact on project execution. This paper assesses the perceptions of top and small and medium project management consultants and contractors about each other. **Methods/Statistical Analysis:** This was done by first identifying the problems between them, followed by a comprehensive data collection through questionnaire surveys. **Findings: Application/Improvements:** Respondent agreed that entry of project management consultants into industry was very essential and it has improved the whole industry. Mutual opinions between contractors and consultants were also obtained and well-studied. Top and small and medium class respondents vary in their opinions. **Improvements:** This project could found out the serious relationship issues between the consultants and contractors and the influence of project management consultants in the industry.

Keywords: Construction, Contractors, Consultant, Project Management, Project Management Consultant

1. Introduction

The construction industry is one of the main pillars of our economy. But there is room for improvement in its overall performance in terms of quality, efficiency, productivity, site safety, environmental sustainability and customer satisfaction[1]. In 1999, it accounted for 5.6% of the GDP and 40% of gross domestic fixed capital formation. 9.2% of our workforce was employed by the construction industry in that year. There are, however, a number of shortcomings in the industry's operations and in the quality of its products[2]. The industry is very fragmented and is beset with an adversarial culture. Many industry participants adopt a short-term view on business development, with little interest in enhancing their long-term competitiveness. There is a tendency to award contracts to the lowest bidders and delivery programs are often unrealistically compressed. An inadequately trained workforce also impairs the industry's ability to adopt new technologies and to cope with new challenges[3]. There are so many relationship issues contributing to serious disputes between project management consultants' contractors and clients leading to delay in projects. Egos and politics has become a serious obstacle for better project executions and quality deliverance. Many times projects are getting unnecessarily delayed due to these cheap relationship and ego problems. There are serious ego problems between the Project management consultants and contractors which sometimes even lead to quitting of project. Projects nowadays are far more complicated than ever before[4]. They involve higher capital investments and embrace several disciplines, widely distributed project participants, tighter schedules and stringent quality standards. The stress is put on the information and communication management which has different treatment with the impact of technological advancements.

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Construction project management is the planning coordination and control of a project from conception till completion (including commissioning) behalf of a client. It is concerned with the identification of client's objectives in terms of utility, function, quality, time and cost, and the establishment relationships between the resources. The integration monitoring and control of the contribution to the projects and their output, and the evaluation and selection of alternatives in pursuit of client's satisfaction with the project outcome are the fundamental aspects of the project management[5]. Though project management is not a new concept yet it's been only nearly 10 years that project management consultants have been actively emerged into construction industry. Construction industry witnessed a lot of changes by their arrival. Project management consultancies have started booming up in the construction industry. They make the work of client easier. They monitor the project from the conception till commissioning. But the scenario is always not so smooth. There are serious problems many times between consultants and contractors[6].

Many times project management consultants lack proper project management skills which results in poor project execution. However, project management consultants are playing a great role in improving the quality of projects. Project executions are made a great way easier by the arrivals of consultants. There are lots of relationship problems between consultant and contractors which is affecting the smooth implementation of the project. Many times it even delays the project and even leads to the quitting of the project[7]. There are many problems faced by consultant and contractor related man, cost, material and technology in relation to each other. So it's required to study their relationship problems and suggest suitable measures for a harmonious working relationship between them.

2. Methodology

2.1 Data Collection

The process of detailed data collection was a core part of this project. Questionnaires were formed based on this data obtained. Literatures available in the form of books, journals, periodicals, magazines were studied in detail through which lots of information about the relationship issues in the industry and studies carried out in this regard were obtained. Telephonic interviews, visiting sites, talking with site personals were the main sources for questionnaire preparation. Contractor's consultants and others in the industry were met in person to study their mutual problems which helped in a great way. Other sample questionnaires available regarding to this subject in the literatures and internet also helped in framing questionnaires[8]. Project starts with the data collection from visiting various sites, interviewing site personals, detailed talks with contractors and consultants etc. Data was also collected from internet. Telephonic interviews with various experienced persons in the construction industry were also done. The problems facing the construction industry specifically the relationship problems between contractor and consultants were studied[9].

2.2 Questionnaire Survey

When the project was half way through a separate questionnaire for contractors and consultants were prepared and conducted on more than 30 companies. The questionnaire was prepared based on the data collected and other sample questionnaires available. The result gives an idea of how contractors and consultants think each other. Nearly 30 contractors and consultants were surveyed. Questionnaires were given to them in person and in mails and later collected back the filled questionnaires with the certificates. Most took initiatives to fill it sincerely.

2.3 Data Analysis

Once the survey is conducted the answers are analyzed and comparative study is done. Respondent's views specifically contractors view on consultant and vice versa can be easily studied using the graphs obtained through the analysis. Value 1 is allotted for 'may be' 2 for 'no' and 3 for 'yes'. Mean values are then found out for each question. The survey is conducted separately for contractors and consultants. Questionnaire for contractor is based on what they feel of consultants and the questionnaire for consultants is based on what they feel of contractors. The Figure 1explains the methodology carried out for this project in details. Data collection was carried through site visits, interacting with the site personals, meeting contractors and consultants separately and studying their issues and problems. Meeting with the contractors and consultants were the main method of data collection. Based on the data obtained through various means questionnaires were prepared. Separate

questionnaires were prepared for contractors and project management consultants. It was then later distributed to many contractors and project management consultants to fill. Questionnaires were then collected back after filling and they were categorized into top and small and medium scale contractors and consultants so as to reach into a better conclusion. Later it was analyzed and the results and conclusions were then drawn out of it with the support of graphs.

3. Results and Discussions

A survey is conducted among 30 companies comprising of top contractors, top consultants, small and medium scale contractors and consultants for analyzing the relationship and opinions about each other. Top consultants and contractors were the ISO rated and experienced above 20 years. Questionnaire comprised of 50 questions and 20 questions of that were same to all four for the purpose of comparison. The questionnaire survey was subjected to analysis. The results were interpreted out of it and graphs showing the comparisons were obtained. There were separate questionnaires for top contractors, top consultants, small scale contractors and small scale consultants. The major analysis factors for top and small scale contractors and consultants were: Impact of emergence of project management consultants, Mutual relationship, Partnership, Resource management, Project planning schedules, Payment issues, Common opinions, Disputes, Satisfaction Opinions about contractors and Opinions about project management consultants. Graphs are derived for various factors separately for all four groups of respondents. They are used for the detailed comparative study between top and small and medium scale contractors and consultants. A graph representing some critical major factors in the present industry is also shown.

Figure 1 shows the satisfaction experienced by the respondents about the current situation in the construction industry. It reveals that all four groups are not satisfied about the current situation in the construction industry. Above 65 percent respondents gave answers[10]. There are so many factors that contribute to this less satisfaction. Some of them are ego problems, resource management problems, payment issues, labor issues and so many. The Figure 2 shows the mean values of mutual relationship experienced between contractors and consultants.

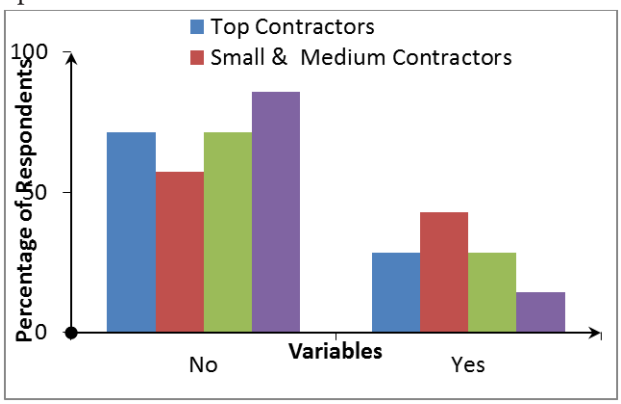

Figure 1. Comparison of Opinions on Satisfaction in the Industry.

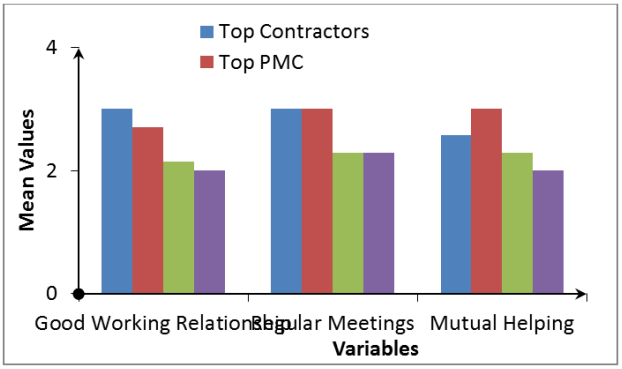

Figure 2. Comparisons of Opinions on Mutual Relationship.

Figures 3 clearly shows that small and medium scale contractors and project management consultants has comparatively poor mutual relationship, mean values being near to 2. Small and medium scale contractors and consultants do not have regular meetings and discussions. They take fewer efforts to know the problems faced and help each other. This results in poor relationship which in turn hampers better project execution. Whereas top consultants and contractors have comparatively better mutual working relationship, mean values near to 3. They are more systematic organized in conduction regular meetings and discussions. This clearly results in the better quality of project execution compared to small and medium scale. But still top contractors and consultants also face many ego problems and various mutual relationship issues which even interrupt smooth project execution and reflect the partnership experience of respondent groups.

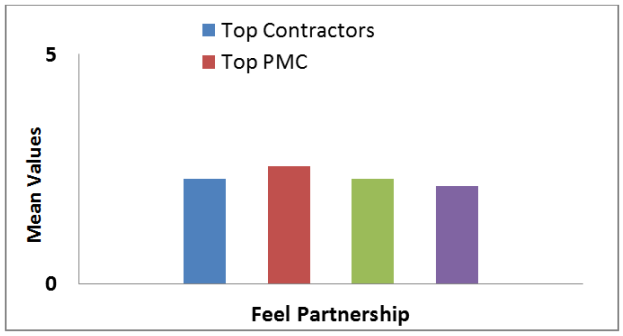

Figure 3. Comparison of opinions on Partnership in Projects.

From the Figure 3 one can infer that partnership element is less in the Indian construction industry. Even top contractors and consultants do not have a proper partnership approach in the project executions. It's too pathetic in small and medium scale consultants and contractors. This is a major factor causing problems in better project executions. Relationship and ego issues prevent contractors and consultants to work in a partnership basis. Many times though they start to work in partnership, it gets interrupted during the execution stage due to many reasons. Lack of proper communication and discussions adds to the situation. All this implicates the necessity of implementing a proper partnership approach in Indian industry. It's high time to take some steps in this matter as its causing lots of even economic losses when projects are getting unnecessarily delayed. We know that it's been only nearly 10 years that project management consultants have emerged into Indian industry. It's important to have a check on its impacts.

The Figure 4 presents the impact made by the entry of project management consultants into industry and helps us to know about the effects and influence made by the project management consultants in the industry. All the four group of respondents agrees that the emergence of Project Management Consultant was very essential in the Indian industry[11]. It has improved the construction industry in many ways especially related to quality. Especially the concept of planning and management took place in the industry with their arrival. Both contractors and consultants feels that project management consultancy should made compulsory for all the projects as it helps in execution ensuring quality by frequent examining. At the same time contractors feels that consultants are given more respect in the industry though they are not the actual executors. Project planning schedules are a major document in nowadays projects which gained more importance with the arrival of project management consultants into the industry. It helps to execute the project timely without delay. Issues related to this were also analyzed[12].

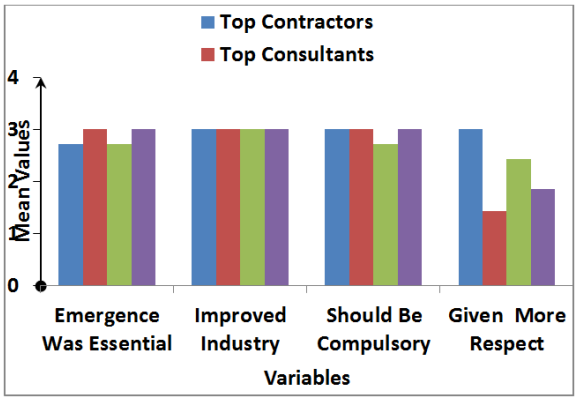

Figure 4. Comparison of Opinions on entry of Project Management Consultants.

Figure 5 shows the planning schedule issues. The small scale contractors have a major complaint that they are not being provided with planning schedules in time from consultants. Top contractors and consultants don't have many issues with timely planning schedules. But all the four group of respondents agrees that they rarely keep up with planning schedules as they feels very difficult to stick on to it due to the interruption of many delays [13]. However they agree that if they have a proper strict combined planning and management from both the sides of contractors and consultants it's easy to go with schedules. Small and medium consultants and contractors don't even have sometimes proper schedules. Resource management is one of the key elements needed in fast execution of a project. Even after the construction industry being developed so much with the modern technologies machineries and materials, still the resource management poses as serious issues[14].

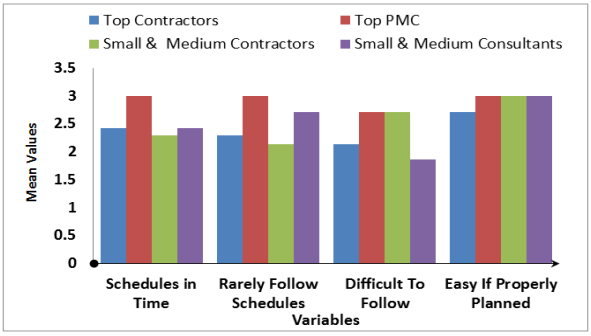

Figure 5. Comparisons of Opinions on Planning Schedule.

The Figure 6 shows the resource management concerns that the mean values of all the four respondent groups is 3 which implies that they agree resource management which is a major factor causing delays in project. Small and medium contractors have a high tough time in proper resource management since their mean values are close to 3. Top contractors don't feel that their resource management is very weak since their mean values are close to 2. All the four respondents feel that resource management has to be sufficiently improved as mean values being 3. At the same time, top Project Management Consultant and contractors do not agree that this is the most tough job, mean values being close to 2 while small and medium contractors mean value is 3.

Mutual opinion study is the key part of this project. Top small and medium contractors were surveyed about their opinions about consultants[15].

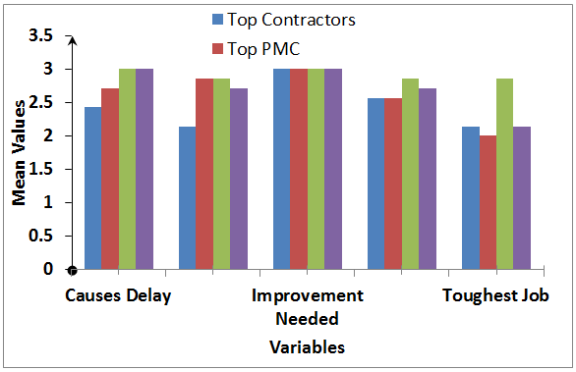

Figure 6. Comparison of Opinions on Resource Management.

Figure 7 shows the mean values of various factors regarding the top small and medium project management consultants. A top contractor feels that Project Management Consultants are respected more and they are dominant since their mean values are close to 3. However, they do not feel that Project Management Consultant make project planning complicated, make projects costlier and reduces profit since their mean values are near to 9. They don't have many complaints about the regularity of signing, checking, materials wastages etc., since their mean values are near to 2.5. Small and medium contractors feel that consultants are too dominant, too strict, reduces profit, make projects costlier[16] and their materials got wasted; their mean values being close to 3.Small and medium contractors responded that they feel easy to do the projects without Project Management Consultant as the mean value being close to 3. However, Top, small and medium contractors responded that they need consultants to be friendly.

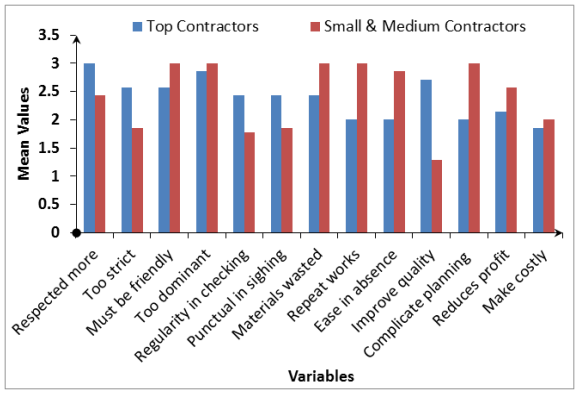

Figure 7. Opinions about Project Management Consultants.

Figure 8 shows the opinion about contractors by consultants. Small and medium consultants feel that contractors lack sincerity, lack proper finishing, do low quality works, have no skilled labor, do malpractices, demands more money, no proper supply of materials and equipments and have frequent labor disputes, mean values being close to 3. They also feel that contractors are never ready to accept their corrections. Top consultants do not have much complaints about contractors however they feels that contractors have no proper skilled labor, proper arrangement of equipments and materials , mean values being close to 3[17]. They do not feel that contractors lack sincerity, do low quality works, gets cheap materials, do malpractices, demands more money, breaks quotation etc.. Mean values being near to 2. They also feel that contractors are ready to accept the corrections. So comparatively top consultants have better opinions contractors than small and medium consultants[18].

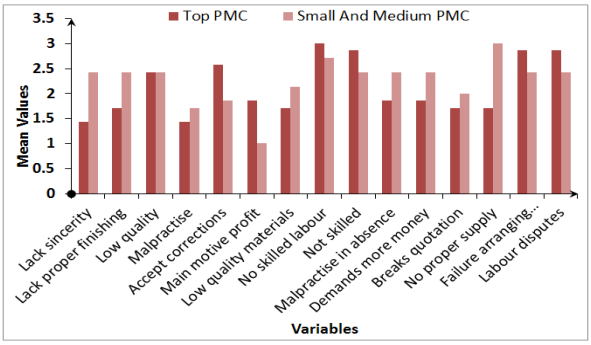

Figure 8. Opinions about Contractors.

Figure 9 shows common opinion about contractors. Top Project Management Consultant and contractors feels that contractors are the actual executors as the mean value being close to 3[19]. While small and medium contractors and consultants do not feel much so. All the four group of respondents agrees that construction industry will get standardized if the contractors get standardized mean values being 3[20]. Also the four groups feel that contractors require resource improvement and need planning skills as the mean value being 3.Mutual disputes are the major issue in the construction industry. Many times it ends in quitting of contracts. Frequency of disputes was studied in detail among the four respondent groups[21]. Disputes have to deal through proper negotiations. Many times this doesn't occur especially in small and medium contractors and consultants. Disputes can hamper project executions to a greater extend. It may lead to unwanted delays, economic losses and smooth project executions.

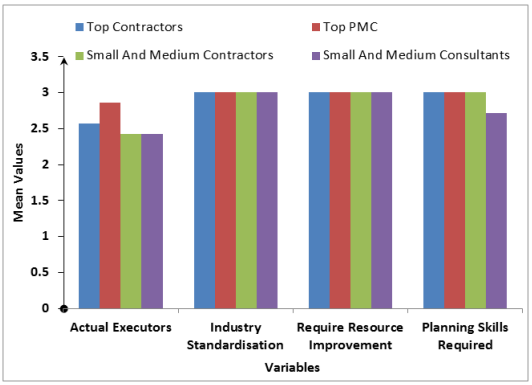

Figure 9. Comparison on opinions about contractors.

Figure 10 explains that small scale contractors and consultants often get into disputes with each other as the mean value being 3, while disputes are less for top contractors and consultants as the mean value being near to 2.

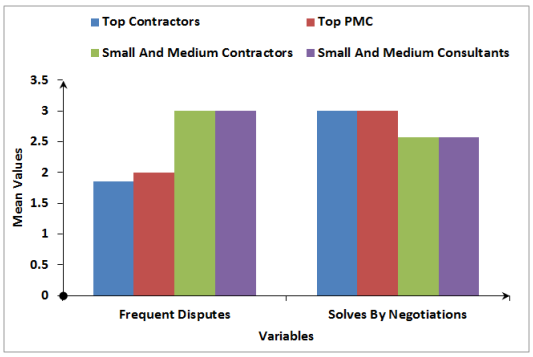

Figure 10. Comparisons of Opinions on Disputes.

4. Conclusion

All the four respondent groups (top contractors, top consultants, small and medium consultants and contractors) are not satisfied over the current situation in the construction industry. Since contractors are the actual executors of a project, all the four respondent groups feel that construction industry will get standardized if contractors get standardized. All four respondent groups agree that emergence of project management consultant into Indian industry was very essential and industry has improved a lot after their arrival. With the arrival of consultants, contractors are forced to ensure quality in their works to a great extent. Both top consultants and contractors have comparatively better mutual relationships with each other while small scale consultants and contractors don't have. Regular meetings and discussions are the major reason for this better relationship. Absence of these, contributes to a poor relationship with many other factors. Both top and small scale contractors gave the opinion that they are not given schedules in time by consultants while consultants complain that contractors rarely keep up with planning schedules. All four agrees that contractors also must have good planning skills for better project executions and consultants should try to improve more.

5. References

1. Majid MZA, McCaffer R. Factors of non-excusable delays that influence contractors' performance. Journal of Management in Engineering. 1998; 14(3):42–9.
2. Abdullah MR, Asmi A, Azis A, Memon AH, Rahman IA. Assessing the effects of construction delays on MARA large projects. International Journal of Advanced Science, Engineering and Information Technology. 2011; 1(6):624–29.
3. Ali AS, Don ZM, Alias A, Kamaruzzaman SN, Pitt M. The performance of construction partnering projects in Malaysia. International Journal of Physical Sciences. 2010; 5(4):327–33.
4. Al-Momani AH. Construction delay: a quantitative analysis. International Journal of Project Management. 2000; 18(1):51–9.
5. Ameh OJ, Osegbo EE. Study of relationship between time overrun and productivity on construction sites. International Journal of Construction Supply Chain Management Economics. 2011; 1(1):56–7.
6. Atkinson R. Project management: cost, time and quality, two best guesses and a phenomenon, its time to accept other success criteria. International Journal of Project Management. 1999; 17(6):337–42.
7. Christensen D, Walker DHT. Understanding the Role of

''Vision" in Project Success. Project Management Journal. 2004; 35(3):39–52.
8. Chua DKH, Shen LJ, Bok SH. Constraint-based planning with integrated production scheduler over internet. Journal of Construction Engineering and Management. 2003; 129(3):293–301.
9. Cox A, Ireland P. Managing construction supply chains: The common sense approach, Engineering, Construction and Architectural Management. 2002; 9(5/6):409–18.
10. Chan APC, Chan CYH, Tang BS, Chan EPW, Ho KSK. Exploring critical success factors for partnering in construction projects. Journal of Construction Engineering and Management. 2004; 130(2):188–98.
11. Divakar K, Subramanian K. Critical factor to be monitored for successful completion of Construction Projects. International Journal of Applied Engineering Research. 2009; 4(8):1557–66.
12. Sotoodeh Gohar A, Khanzadi M, Maryam F. Identifying and Evaluating Risks of Construction Projects in Fuzzy Environment: a Case Study in Iranian Construction Industry. Indian Journal of Science and Technology. 2012; 5(11):3593–602.
13. Elhag TMS, Boussabaine AH, Ballal TMA. Critical determinants of construction tendering costs: quantity surveyors' standpoint. International Journal of Project Management. 2005; 23(7):538–45.
14. Enshassi A, Najjar JA, Kumaraswamy M. Delays and cost overruns in the construction projects in the Gaza Strip. Journal of Financial Management of Property and Construction. 2009; 14(2):126–51.
15. Koushki PA, Al-Rashid K, Kartam N. Delays and cost increases in the construction of private residential projects in Kuwait. Construction Management and Economics. 2005; 23(3):285–94.
16. Kumaraswamy MM, Chan DWM. Factors facilitating faster construction. Journal of Construction Procurement. 1999; 5(2):88–98.
17. Mink OG, Shultz JM, Mink BP. Developing and Managing Open Organizations - A Model and Methods for Maximizing Organizational Potential, Somerset, Austin, 1991; 284.
18. Lewis JD. Partnerships for Profit - Structuring and Managing Strategic Alliances, Free Press: New York, 1990.
19. Lorange P, Roos J. Strategic Alliances - Formation, Implementation, and Evolution, Blackwell: Cambridge, Massachusetts, USA, 1993.
20. Meng X. The effect of relationship management on project performance in construction. International Journal of Project Management. 2012; 30(2):188–98.
21. Wearne SH, Ninos GE. Responsibilities for project control during construction. University of Bradford: U K, 1984.