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PROJECT MANAGEMENT IN GLOBAL SCENARIO- A NEED FOR CONTEXT-DRIVEN APPROACH

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ABSTRACT

The classical paradigm of project management relies on a network-centric reductionist approach that largely ignores the context of the project. A study of project management experiences from across the globe indicates some interesting commonalities in the nature of problems as well as differences in ground realities. This paper examines some of the project management experiences, particularly in construction projects, based on a selected sample of accessible published research papers in reputed international journals. Although the sample of study is limited, the findings are indicative of the distinctive problems faced at different geographical locations. It is seen that the context of project execution is a significant factor that needs to be incorporated in the project planning and monitoring process.

Keywords: *Project Management, Global Practices, Construction*

Introduction

With the increasing globalization of economy, there is a growing need for quality infrastructure and professional construction management practices across the globe. The planning and execution of new projects at different locations requires not only skilled and trained manpower and physical resources, but also a professional approach to project management that considers the cultural differences and context-specific problems. This has impressed upon the companies to improve their project management processes in line with international practices and also to take help of contractors and project management experts from different countries. This study aims at providing an overview of project management experiences in various countries that include African countries like Ghana and Nigeria, European countries like UK, France and Germany, North American countries, including USA and Canada, Asian countries like Singapore, Malaysia, Japan, Saudi Arabia and China, and others like Australia and Russia.

Literature Survey

Since the study is broad in scope, we limit the survey to published research papers in reputed international journals that are readily accessible. We now present some of the findings by different researchers in different project contexts.

Ghana

Frimpong et al.[2003] examine some of the causes of delay and cost overruns in the construction of groundwater projects in Ghana as follows:

1. inadequate technical performance, resulting in number of wells being abandoned.

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2. absence of effective and efficient procurement procedures.
3. reluctance to use scheduling techniques, or update schedules
4. lack of skilled management, insufficient attention to allocation of resources

Nigeria

Aibunu and Jagboro[2002] observe that cost and time overruns were the two most frequent effects of delay in Nigerian construction projects. Acceleration of remaining work to compensate for delay frequently fails due to deficiencies in project management processes by clients. Change orders issued by clients often frustrate this acceleration and contribute to project delays. Contingency amounts provided in the budget were not adequate to offset cost overruns.

Sonuga et al.[2002] examine some large scale water supply and irrigation projects in Nigeria and observe the following barriers to success.

1. Inconsistencies in Government policies
2. Local currency devaluation
3. Inappropriate contract conditions
4. Inappropriate design that have high import content of materials
5. Lack of community participation
6. Lack of respect for local law and customs

Odusami et al.[2003] examine the relationship between project leadership, team composition and construction project performance in Nigeria based on a survey of construction related professionals. They report that:

1. Project success or failure does not depend on the profession (builder, architect, engineer, or surveyor) of the project leader.
2. Site managers who are professionally qualified or members of professional bodies are more likely to be effective than those who are not.
3. Project success is significantly affected by the leadership style of project leader.
4. There is a significant positive correlation between project team composition and overall project performance.

An earlier study by Mustapha and Naoum[1998] found that high performance site managers are more likely to prefer team management style (concern for both the task and the people in the Managerial Grid). Odusami et al. [2003] report a study by Slevin and Pinto [1988] that finds the “consultative autocrat” style to be the best leadership style in terms of performance (in this style, the project leader consults the team members for information but takes the ultimate decision). The least effective style was autocratic leadership where the project leader has complete authority in decision making with little or no input from the team members. This agrees with an earlier study by Simkoko [1992] that also reported a strong positive correlation between performance measure and the composition of project management team.

European Union (UK, France, Germany)

Proverbs et al. [1999] studied the performance and practices of UK, French and German contractors (for concrete high rise buildings) in terms of managing construction labour. They report the following findings:

1. Contractors in UK tend to assign more site managers as compared to German and French

contractors. Also, UK contractors tend to employ more semi- skilled workers (needing greater supervision) than do French and German firms.

2. Construction workers (UK and German) work longer hours per week, when compared to French, and also UK workers work more days in a week
3. UK contractors employed predominantly subcontract, semi-skilled labour force. French and German contractors preferred directly employed workers with emphasis on skill. In France, generally the workers are expected to demonstrate the ability to organize, oversee and to control the construction process, thus outperforming their UK and German counterparts.

The authors propose that a model similar to the French system can provide the basis for evolving an “European best practice”.

North America, UK, France

In his study of large EPC projects, Lampel [2001] using field and archival research in USA, Canada UK, France, Malaysia and Japan, finds that there are several common problems and approaches to EPC projects across countries, even though the specific problems in execution would depend on the context. He identifies four distinct groups of core competencies: entrepreneurial (cultural and organizational), technical, evaluative and relational. These support core processes that structure activities and routines involved in project development and delivery. He argues that unlike manufacturing firms that have core competency defined by products or technology, project-based service firms are often driven by unique requirements of individual customers. Hence, for large EPC projects, one can look at core processes (as a proxy for core competence in the manufacturing context) that can describe the project life cycle.

China

In a study of large scale BOT power station projects in China, Tam[1995] identifies some distinctive features. For instance, decision-making in large infrastructure projects is centralized, involving the top leaders of the bureaucracy, and is often less responsive to market forces. The BOT route to privatization can lead to lengthy negotiations during the pre-contractual stage.

Chan et al[1999] address the issue of managing construction projects in the transitional period from the old practices to the new. They point out that while the local engineers may lack expertise in construction management, they are familiar with the regulations, submission procedures and local situations. Foreign professionals can complement by their knowledge on construction management practices like planning, risk management, time management and so on.

Liu et al.[2004] identify factors that constrain the development of professional project management in China's construction industry. Projects face problems of cost overruns, poor quality and time delays. While the new system of construction supervision (CS) started in late eighties is similar to the professional project management practices in the West, it had some unique characteristics suited to the economic and political environment of China. There is often a gap between the services supplied by the CS engineers and the services demanded by the clients.

Lai et al.[2004] explain a method used for evaluating bids in Chinese construction industry. In the late eighties, competitive bidding began to be introduced in the construction industry to phase out the previous assignment system. This also aims at changing the project financing arrangement from free Government allocations to commercial loans from the banks. By the end of 1990s, the new bidding systems became popular not only in the construction industry, but also in many other types of projects.

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Gale and Luo[2004] study the factors affecting construction joint ventures (JV) in China. The authors point out that the success and failure of JVs are influenced by two factors: (1) attempts by one partner to obtain dominant control, and (2) disagreements over management and operational strategies of the JVs. The authors advise that the foreign partners should understand the cultural differences as early as possible and the JV agreement must be comprehensive and detailed to cover all obligations and rights by both the parties.

Fang et al.[2004] address the issue of workplace safety management performance on construction sites in China. They prioritized five common factors as foreman related, worker related, crew related, manager related and safety training related. When safety resources are limited on a construction site, the priorities of key factors can be used to achieve best workplace safety.

Smith et al.[2004] provide a learning experience from a power plant project. Their study illustrates the problems faced by ill-defined legal framework, under developed regulatory framework and other factors, and also the potential opportunities that mitigate these difficulties. The authors propose that indigenous private funds may be tapped for infrastructure investment by according the same tax and other labour related benefits as is available to JVs. Also, since the Chinese companies are better at risk-taking and dealing with complex local problems than the foreign companies, there is no need for seeking unrealistic guarantees.

Chen and Partington [2004] find that while both the Chinese and UK project managers considered their fundamental task as being in charge of the management and delivery of a project within budget, on time, to a defined scope, there were marked differences in their (1) approach to managing relationships between people, (2) conceptions of work in their relationship with company, project team, client, and subcontractors, (3) approach to conflict resolution and organizational structure preference, and (4) attitude to uncertainty. The authors conclude that the prevailing western project management practices may not necessarily be supported by the Chinese culture.

Xu et al. [2005] study different types of collaboration between foreign contractors and their Chinese partners. They point out that acquisitions may be difficult to realize, joint ventures may be risky for foreign contractors, and project based collaboration may create vulnerability due to short-term commitment. Hence they postulate that the most appropriate form of collaboration for foreign contractors in China could be the strategic alliance model.

Xu and Greenwood [2006] focus on the evolution of traditional approaches to project procurement. Typically, the foreign contractors face three types of entry barriers in China: government restrictions, market barriers and technical barriers. Foreign contractors have advantages in know-how such as production, technology, finance and marketing and enjoy advantages in securing FDI projects. The design-build route to market entry provides opportunities to be innovative.

Indonesia

Kaming et al [1998], in their study of Indonesian construction labour, report that work schedules extending beyond 40 hours per week reduce labour productivity and create excessive inflation of construction labour costs without any benefit to completion schedule. Thomas [1992] reports a 12% reduction in efficiency for every 10 hours of overtime workload.

Malaysia

Chan [2001] attempts to identify relationships between time and cost of building projects in Malaysia. Government policy requires that the Malays have a minimum specified shareholding

and involvement in senior management in any limited company. The availability of skilled labour varies across the country. Also, laws and procedures may vary from one state to another. In the early 1990s, the Government liberalized the foreign labour policy to meet shortages by issuing temporary work permits. The Construction Industry Development Board (CIDB) that reports to the Ministry of Works began its operations in December 1994 as the highest regulatory body. All construction works must be registered with the CIDB.

Japan

Andi and Minato [2003] present factors that may influence the quality of design documents in the Japanese construction industry. Although design fees may constitute less than 10% of the total construction costs, design commitments have tremendous impact on later expenditures. Lack of attention to design documents can lead to low quality, inadequate and defective or deficient design documents, and defective design is a significant risk to project delay. Common problems were constructability, conflicts in structural designs, inadequate temporary work designs, improper construction methods, and differing site conditions information. Often costs incurred due to design changes are not fully reimbursed by the client leading to loss of profits by the contractor.

Zwikael et al [2005] studied project management styles between two different cultures, the Japanese and the Israeli. The authors report that Israeli project managers are more focused on performing "Scope" and "Time" management processes, assisted by project management software, while Japanese project managers use formal "Communications" and "Cost" management more frequently. The Japanese organizations use clear and measurable success measure for each project, while project objectives in Israel are often quite foggy. Japanese organizations have smaller cost and schedule overruns, while Israeli projects provide better technical performance at the end of the project.

Saudi Arabia

Assaf and Al-Hejji [2006], in a study to identify causes of delay in large construction projects in Saudi Arabia, find that 70% of the projects had time overruns and the average time overrun was between 10 and 30% of original duration as indicated by 76% of the contractors and 56% of the consultants. They identify 73 causes of delays and found that "Change Order" was the common cause of delay by contractors, consultants and owners.

Australia

Loosemore and Lee [2002] study the problems of managing employees of various cultural groups with limited proficiency in indigenous language of their workplace. They focus upon the problems experienced in two English-speaking countries (Australia and Singapore) where cultural diversity is an accepted characteristic of the construction industry. Unlike Australia, the majority of the operative workforce on Singaporean construction sites is non English-speaking. The authors report that no common language of business is used at the operational level in the construction industries of Australia and Singapore. English is often used at managerial level and a wide range of languages is used at operative level. This language difference leads to communication problems and potential conflict in construction industry.

Russia

Aleshin [2001] studied the problem of risk management of international and joint venture projects with foreign co-operation in Russia. According to an assessment, 56,000 interrelated projects had to be completed in 15-20 years period. Economic risks, absence of necessary knowledge, and experience of market economy in Russia had necessitated the need to involve foreign

partners for projects in the form of joint ventures.

Anna and Fraser [2002] present the perceptions of political risk and Russia's market potential held by the marketing managers of UK construction firms that are involved in the Russian market. They conclude that political risk needs to be considered at the stage of researching and penetrating a foreign market. The effects of political risks are more important in markets like Eastern Europe that are under evolution as well as sectors like construction that are dependent on the general economic and political climate and susceptible to government intervention.

Critical Analysis of Global Contexts

A close look at the experiences of project managers across different countries shows some interesting patterns. Although the problems of project management may be similar everywhere, the techniques used and the issues addressed vary considerably. While in this study we have not explicitly attempted to identify the causal factors, there appears to be some opportunity for research in this area. More specifically, if the countries could be broadly classified into two categories, namely developing and developed, the nature of project management problems faced in each category is more or less typical. Developing countries (like Ghana, Nigeria, China, Malaysia, Saudi Arabia and Russia) face "low level" problems for which solutions have been found and well established in the project management practices of the developed countries.

Typical problems faced by project managers in the developing countries are: poor technical performance (leading to rework and wasted efforts), absence or reluctance to use efficient procedures, lack of skilled managers and poor quality of decisions, inadequate availability of raw materials, poor contract documents, inadequate legal redressal and conflict of interests between stakeholders.

Typical problems faced by project managers in the developed countries are: adopting globally best practices, measurable project success criteria, competency based project portfolio management, quality of design and other documents, overstaffing, working hours per week, age and skill profile of workforce, human relationships in projects, organizational structures, access to and joint ventures in third world markets and managing multicultural teams.

Fortunately, the studies have also indicated that the best practices in project management of the developed countries can be adopted and adapted to local conditions in developing countries. For example, professionally qualified site managers, leadership style of project leader, composition of project team, workforce training and supporting legal and regulatory framework can improve project management success in the context of less developed countries as well.

Conclusions

The above study focused on global experiences in project management. While time and cost overrun appear to be universal outcomes of poor project management practices, the solution to these problems may not be found without considering the local factors and context. In African countries like Ghana and Nigeria, project leadership and team composition played an important role in success. In European countries like UK, France and Germany, working schedules and work force characteristics across nations were important. In China, problems cropped up due lack of technical expertise (requiring help of foreign professionals) and tendency towards centralized decision making in large construction projects. In multi-cultural project teams of Singapore and Australia, the differences in language can cause communication barriers between supervisory personnel and operatives. Countries like Japan and Israel emphasise different aspects like project documentation and performance metrics. A critical analysis of the experiences of

project managers across different countries indicates that there can be no uniform solution to such problems, and the existing network based techniques for project management cannot be readily improved to capture such context dependent complexity.

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