

P6-2**THE INFLUENCE OF THE PROJECT MANAGER ON THE SUCCESS OF THE CONSTRUCTION PROJECTS****Mahdi M Abdulsamad Ali¹ and Nicholas Chileshe²**¹ BSc (Eng), MSc (Construction Mgt) and Ph.D. Candidate, Built Environment Division, Faculty of Development and Society, Sheffield Hallam University, City Campus, Howard Street, Sheffield, S1 1WB, UK. E-mail:

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The success and failure of any project depends upon many factors, the Project Manager is considered to be the key contributor to the success of any project, as well as a guide to the team members to achieve the client satisfaction (Cost, Time and Quality). Therefore the main aim of this paper is to provide a practical approach for understanding the importance of the Project Manager and his effectiveness to the success of the construction projects. In addition, the Project Manager's roles, responsibilities and duties have direct impact to the success of the construction projects. In order to identify the thoughts and opinion of the construction industry on this particular assertion, a quantitative study was carried out within the UK construction industry. The result of the study shows that there is an extremely strong correlation between the Project Manager and the success of the construction projects. In construction projects the Project Manager is considered to be one of the most important people who can lead and drive the projects in the right direction and conclude construction projects successfully. Moreover, these can play the most important role regarding the improvement of the organization's performance, the organization's profitability and the client's satisfaction. The research confirmed that the Project Manager is a very essential element to the success of the construction project and have an impact at every stage of the construction project. So it concluded that selection of a Project Manager should be carefully done with regard to experience, knowledge, power/authority and good understanding to the kind of the project.

Keywords: Project Management, Construction Management, Project Success Factors.

1. INTRODUCTION

The reasons for success or failure of projects and project management are many and different. Nguyen [1] believed that a construction project is commonly acknowledged as successful when it is completed on time, within budget, and in accordance with specifications and to the stakeholders' satisfaction. When a project is finished on time, within budget, to an acceptable quality and the client's satisfaction it is considered to be a successful project. This is due to the ability of all workforces within the project. As much as they have good experience to manage the job properly, good communication links and understanding their responsibilities the triangular success project management will be achieved. The following are some definitions of "Project Success" in general and in construction. Effective project management in construction must vigorously pursue the efficient utilization of labour, material and equipment to improve labour productivity. In addition good project management in the field of construction should have an excellent project manager, expert site manager, and very good contractor having extensive

experience in construction, professional subcontractors and good engineer sites. Project success does not just depend

upon the performance of the project team. The success or flair often is depending upon the contributions of function managers, suppliers, customers, contractors etc. But as I have mentioned above the project manager as a leader for the construction projects can be the most important person to lead the project to the success that is depending on his/her skills, knowledge and experience. As much as the project manager has experience will be very easy for him/her to reach the success, finish the project on time, within budget and a high quality of work. Baccarini [2] said it is common for these two separate components of project success and presents them as a single entity. In sequence to properly define and assess project success, a distinction should be made between product success and project management success, as they are not the same. Project management success focuses upon the project process and, in particular,

the successful accomplishment of cost, time, and quality objectives. On the other hand, product success deals with the effects of the project's final product and the objectives of the project. The Project managers in construction are responsible for the overall success of delivering the owner's physical development within the constraints of cost, schedule, quality and safety requirements. Kerzner [3] defining that the successful project management is strongly depended upon the following points:

A good daily working relationship between the project manager and the line manager who directly assign recourse to projects: and the ability of functional employees to report vertically to their line manager at the same time that the report horizontally to one or more project manager.

2. DEFINITIONS OF THE PROJECT MANAGER

There are roles and typical responsibilities for project managers which have been defined. The project manager role, as applied to a construction project, is defined as addressing the following: *"The overall planning, co-ordination and control of a project from inception to completion aimed at meeting a client's requirements in order to produce a functionally and financially viable project that will be completed on time within authorized cost and to the required quality standards."* [4]. *"The person who is charged with managing the resources to get the complete project implementation on time, within budget with the agreed functionality"* [6]. *"A project manager is the person who has the overall responsibility for the successful planning and execution of a project."* [6]. Synthesising these definitions, it is clear that Project Manager has overall responsibilities for the execution of a project taking into account to complete the project on time, within budget with the agreed functionality.

3. THE IMPORTANCE OF PROJECTS MANAGERS (PM)

Organizations have recognized that project managers play a critical role in the success of service engagements. To succeed, project managers are required to deliver products and services that meet the needs of the organization and that deliver value to their clients. They must master the hard skills, such as understanding processes, tools and techniques, as well as people skills. The latter allows project managers to provide vision and direction, resolve issues, evaluate and mitigate risk, and build and sustain client relationships. [7]. Furthermore, the PM is considered the most important person who could manage and resolves all problems that arise during

the project life cycle of the construction project, and to ensure that projects follow the planned time scale that has been prepared.

4. THE ROLES OF THE PROJECT MANAGERS (PM)

The role of the project manager on the construction process can be different from company to company, that is it depends upon many issues such as the size of the company and the size of the construction project. The project manager is accountable to the sponsor for the day to day management of the project work from the outset through to closure. [8]. The key role of the project manager is to motivate, manage, co-ordinate and maintain the moral of the whole project team. [9]. [10]; [11]; [12] and [13] stated that the manager can perform these roles, Interpersonal roles, International roles and Decisional roles, so these roles, can be defined as the follows:

THE INTERPERSONAL ROLES:

- *The Manager as Figurehead.* This is a senior role and involves being the public face of the organization, representing the organization at functions and acting as the high level talking head to the media. The manager should be the key link between the management and the other workforce within the organization.
- *The Manager as Leader.* In this, the organization looks to its formal head for guidance and motivation. One of the most important points for the project manager in this section is to give motivation and activation. Also the manager should be responsible for allocating staff, at all levels within the organization.
- *The Manager as Liaison.* Here, the manager should use all forms of contacts, written or verbal, with other persons or organization, whether inside or outside the organization that is including the client's customers, suppliers, contractors, engineers and the sub-contractors.

THE INFORMATIONAL ROLES:

- *The Manager as Monitor.* In this regard, the manager should have the control function in the organization, collecting information on matters such as whether company budgets of planned project costs, time and quality targets are being met. Moreover, the

manager should be responsible and monitor the entire workforce and the project's processes within the organization.

- *The Manager as Disseminator.* The manager should make sure that everybody in the organization is provided with the appropriate information and data required for them to carry out their job properly.
- *The Manager as Spokesperson.* Here, the project manager is the external public relations head, representing his organization effectively.

THE DECISIONAL ROLES:

- *The Manager as Entrepreneur.* In the entrepreneur role, the manager acts as initiator and designer of much of the controlled change in his organization. What is more the manager should activate the role and improve the performance and position of the organization.
- *The Manager as Disturbance Handler.* This involves dealing with both external disturbances such as government changes in policy and internal disturbances such as personality clashes and industrial disputes.
- *The Manager as Resource Allocator.* This requires deciding how the organization's resources including capital will be used.
- *The Manager as Negotiator.* This involves discussions inside and outside the organization on matters such as contracts payments.

The role of the PM encompasses many activities including: Planning and Defining Scope; Activity Planning and Sequencing; Resource Planning; Developing Schedules; Time Estimating; Cost Estimating; Developing a Budget Controlling Quality; Managing Risks and Issues; Creating Charts and Schedules; Risk Analysis; Benefits Realisation; Scalability, Interoperability and Portability Analysis Documentation; Team Leadership; Strategic Influencing and Customer Liaison. The PM should be responsible for allocating staff and this done at all levels within the organization, and should be responsible for connecting with all parties inside and outside the workplace, so being able to receive and send information easily, and making a good relationship with the whole workforce, which leads to project success. The PM should ensure that the work is going on, day by day, keeping control and finishing

the construction process on time without any problem in the budget and in the time management. Also he should make sure that everybody in the organization is provided with the appropriate information and data required for them to carry out their job properly. The PM is responsible for resolving the problems inside the organization if they occur, such as problems between the contractor and employees, sub-contractor and contractor, engineers and sub-contractors, or the problems in the construction process if they occur. What is more he/she can be a negotiator which involves discussions inside and outside the organization on matters such as contracts payments.

5. THE RESPONSIBILITIES OF THE PROJECT MANAGER

Young [8] stated that the project manager has so many responsibilities during the work which can be accounted as the following points: Selection of the core team with the project sponsors; Identifying and managing the risks; Monitoring and tracking project progress; Solving the problems that interfere with progress; Leading the project team, and being responsible for the team; Delivering the project deliverables and benefits; and Managing performance of everyone involved with the project.

6. THE RELATIONSHIP BETWEEN THE PROJECT MANAGER AND PROJECT SUCCESS

There is an extremely strong correlation between the PM and the success of construction projects. In construction projects the PM is considered to be one of the most important people who can lead and drive the projects in the right direction and conclude construction projects successfully. Moreover, these can play the most important role regarding the improvement of the organization's performance, the organization's profitability and the client's satisfaction. Hauschildt *et al* [14] said, it is accepted that effective project managers are essential to project success and many organizations have spent large sums to improve the selection of managers. Successful construction projects need appropriate project managers with high levels of experience, good quality of knowledge, skills, and the ability of communicate with others, co-operative techniques, motivation and capability of driving the project to success and managing any occurring problems. Supporting this, Crawford [16], [17] and [18] defines competence as the knowledge, skills and personal characteristics required to achieve job performance as defined by appropriate standards. Thus, to manage the project effectively, the project manager needs knowledge about the application of project management tools and techniques and not only the skill to apply them in routine situations but also the competence to apply them in unfamiliar situations, so to be able to respond to unexpected

situations. The project may also need technical knowledge of the project domain, and the skill to apply it. Moreover, Turner and Muller [15] concluded that the project manager's leadership style does influence success, and that different leadership styles are appropriate on different types of projects. The messages for the managers of projects are as follows: When appointing project managers to projects, they should consider their leadership style and appoint project managers with an appropriate leadership style for the project they have to manage; They understand the types of projects the organization has undertaken, develop within the pool of available project managers appropriate leadership styles for those projects; and They should value their project managers. The project manager's competence contributes to project success, so competent project managers should be valued.

7. THE RESEARCH SAMPLE

The questionnaires were sent to a wide number of Construction Companies in the UK, the list of these companies were identified from the FAME database. More than 75 questionnaires were posted to the construction companies; a two week period was set on to receive the completed questionnaires'. The overall rate of return was very good with a final response rate of 39% of the overall posted questionnaire. The questionnaire was designed in accordance with the primary objectives of the study in mind, that is, to gather extensive information about the influence of the Project Manager on the success of the construction project, the successful factors and the barriers factors on the success of the construction project management. Section A Background (*Seven Questions*), Section B Identification of leadership Attributes (*One questions with seven points*), Section C Investigation the factors influencing the PM style of the CPM (*Three questions*), Section D Factors in successful Project Management (*Five questions*), and Section E Identification of barriers affect to successful Project Management (*Two questions*).

8. THE ANALYSIS

8.1 Factors in successful Project Management:

The following sub section presents the descriptive statistics of the four factors in the successful project management.

AN AREAS DO YOU CONSIDER TO BE CRITICAL TO THE EFFECTIVENESS OF PROJECT MANAGEMENT: THIS QUESTION AIM WAS TO ASCERTAIN WHAT WAS CONSIDERED CRITICAL TO THE EFFECTIVENESS OF THE PROJECT

MANAGEMENT. A NUMBER OF AREAS WERE GIVEN AND THE RESPONDENTS HAD TO INDICATE A RESPONSE.

1. Client-contractor relation: Regarding client-contractor relation, the majority of respondents agreed that this was an important area with 51% agreeing with it very strongly whilst a further 33% agreeing with it. Only a 3% of respondents stated that these relationships between client and contractor had no or little influence on project management.

2. Labour relation: With regards to labour relations, 49% and 20% of respondents agreed and strongly agreed respectively that this area to critical to the effectiveness of the project management.

3. Good Project Manager: The majority of the respondents agreed or strongly agreed that having a good project manager in place is very critical to the management of the project, with 38% and 56% respectively confirming as so. Only a very small number of the respondents, comprising 3% total, disagreed with the importance of a good project manager in charge.

4. Negotiation ability of the PM: A communication is an essential commodity for a CPM, thus the majority, 72%, of the respondents agreed/strongly agreed that a PM with good negotiation skills to be a very important to the project. There are many factors that can influence the success of the construction project management, such as Client-contractor relation, Labour relations, Good project manager and Negotiation ability of the PM. However the results of this survey confirmed that PM is considered one of the most important factors linking to the successful project management. This survey confirmed that the good understanding and high quality of relationship in the construction project will be very helpful to the workforce to complete project tasks and achieve the project's goal. Also it could be seen that successful project management should has good relationship between all members.

8.2 DESCRIPTION SELECTION FOR IMPORTANCE CRITICAL EFFECTIVENESS FACTORS OF PM.

The descriptive statistics (frequencies) are computed and summarised to generate the total score, mean score and importance indices which are shown in *Table 1.0*. The ranking of the critical effectiveness factors of the Project Manager is based on the mean score with the higher the mean, the more important the choice with the ranking in the order of importance as identified with other attributes in this chapter.

Critical Effectiveness Factors of PM	Total score	Mean score	Importance index	Rank	Levels
1. Client-Contractor relation	432	4.32	0.864	2	H
2. Labour relation	384	3.84	0.768	4	M
3. Good project Manager	447	4.47	0.894	1	H
4. Negotiation ability of the PM	411	4.11	0.822	3	H

Table 1.0: Description selection for importance critical effectiveness factors of PM

Examination of Table 1.0 illustrated that a Good project manager is considered the first most important effectiveness element of successful project management with (*mean score=4.47, Ii=0.894*). Also it could see that client-contractor relation and negotiation ability of the PM are essential factors to the success, within High levels of rank. Labour relation comes in the last position of the success factors of this question, which placed Medium levels. Given the descriptive statistics for the critical effectiveness factors of the Project Manager, the following sub section provides the summary of the definitions of the Project Manager's effectiveness factors.

Importance critical effectiveness factors of PM: An importance of the following Characteristic of the Successful Project Manager. **1. Strong leadership and motivation capability:** Question asked the respondents to rate the importance of a number of traits that a project manager should have, these characteristics included, strong leadership with good motivation capabilities, only 5% of the respondents did not express view but the remaining 95% stating this to be very important characteristics. **2. High standards of ethics and integrity:** When it came to having a high standard

of ethics and integrity, 59% agreed that this be very high whilst a further 13% strongly agreed with it.

3. Committed and decisive: The majority of respondents, that 56% agreed very strongly that a project manager should be committed and decisive especially when it come dealing with emergency cases, only 13% of the respondents did not rate this in either capacity. A successful Project Manager must have process strong leadership and motivation capability, high standards of ethics and integrity plus committed and decisive, regarding contingency cases. As a result from this survey strong leadership is considered very important factor regarding a successful Project Manager.

DESCRIPTION SELECTION FOR IMPORTANCE CHARACTERISTIC OF THE SUCCESSFUL PM

Table 1.1 sets out the descriptive statistics in form of the total and mean score of the characteristics of the successful Project Manager. The ranking of the characteristics of the successful Project Manager is based on the mean score with the higher the mean, the more important the characteristic with the ranking in the order of importance as identified with other attributes in this chapter.

Characteristic of the Successful PM	Total score	Mean score	Importance index	Rank	Levels
1. Strong leadership & motivation capability	464	4.64	0.928	1	H
2. High standards of ethics and integrity	365	3.65	0.73	3	M
3. Committed & decisive	443	4.43	0.886	2	H

Table 1.1: Description selection for importance characteristic of the successful PM

In term to fined the most importance characteristic of successful PM, the above table shows that strong leadership was the most importance characteristic, with ($mean\ score=4.64, I_i=0.928$) which placed the first rank and high levels of importance. The other two characteristics where equally important as they fell within the high and medium levels. Given the descriptive statistics for the characteristics of the successful Project Manager, the following sub section provides the summary of the definitions of the stated Characteristics.

IMPORTANCE CHARACTERISTIC OF THE SUCCESSFUL PM

RANTING THE FOLLOWING POINTS UPON WHICH SUCCESSFUL PROJECT MANAGEMENT DEPENDS: THIS QUESTION FOLLOWED SIMILAR STRUCTURES TO PREVIOUS QUESTION BUT ASKED THE RESPONDENTS TO RANK A NUMBER OF POINTS ON HOW THEY AFFECTED THE SUCCESS OF THE MANAGEMENT OF THE CONSTRUCTION PROJECT.

1. The good performance of the PM: Nearly all the respondents that are 92% agreed or strongly agreed that a good performance by PM had big influence on management of project.

2. The selection of the project team and Scheduling of activities: This overwhelming view was followed by again the majority of respondents, 82% strongly agreeing that a careful selection of project team and good scheduling of activities have positive impact on successful management of project.

4. Risk assessment and contingency plan: Regarding to the risk assessment and having a contingency plan in place, 31% of respondents did not express a view but 49% agreed that these contributed to the management success, this number was further supported by 20% of respondents strongly agreeing with.

Successful project management depends upon many factors, which revolves around time, cost and quality work. Baker et al [21] defined project success as “If the project meets the technical performance specifications and/or mission to be performed and if there is a high level of satisfaction concerning the project outcome among: key people in the parent organization, key people in the client organization, key people in the project team and key users or clientele of the project effort, the project is considered an overall success. Performance of the PM, Selection of the project team and Scheduling of activities are the must main factor

for project success. All of these factors are depending upon the performance of the PM, because he/she will plays importance role regarding to select the project team and scheduling of activities. So it is clear to conclude that from this survey and literature review the success of the project depending upon many factors in the project, but still the construction project manger is considered the most important person who can lead the project to the success and achieve the organization goals.

DESCRIPTION SELECTION FOR IMPORTANCE POINTS OF SUCCESSFUL PROJECT MANAGEMENT.

Table 1.2 sets out the descriptive statistics in form of the total and mean score of the characteristics of the key points of successful Construction Project Management. The ranking of the key points of the successful Construction Project Management is based on the mean score with the higher the mean, the more important the key point with the ranking in the order of importance as identified with other attributes in this chapter.

Points of successful construction project management	Total score	Mean score	Importance index	Rank	Levels
1. Good performance of the PM in the project	446	4.46	0.892	2	H
2. The selection of the project team	477	4.77	0.954	1	H
3. Scheduling of activities	439	4.39	0.878	3	H
4. Risk assessment & contingency plan	389	3.89	0.778	4	M

Table 1.2: Description selection for importance characteristic of the successful PM

Examination of *Table 1.2* indicates that the Selection of the project team comes in the first important successful points of the construction project management, with (*mean score=4.77, Ii=0.954*), then the Good performance of the construction project manager, within (*4.64 mean score and 0.892 Importance index*). Scheduling of activities and Risk assessment & contingency plan came in the third and fourth importance successful points. With three high levels of importance the table confirmed the literature review that the good performance of the PM, the selection of the project team and scheduling of activities are considered very essential factors for the project success.

IMPORTANCE POINTS OF SUCCESSFUL PROJECT MANAGEMENT.

The four key points (PS1 through PS4) of the

Table 1.3: the quality of the CPM

<i>Strongly Agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly disagree</i>
20	18	1	0	0

The majority of the respondents believe that how good the PM is on his/her job is big factor is determining the success of the construction project, this supported by 51% agreeing very strongly with statement, followed by 46% agreeing. Hardly any of the respondents Disagreed that the quality of the PM had any major influence on the success of the project, with 3% not expressing a view. Quality means (experience, knowledge and authority), so it's clear that the experience, knowledge and authority are very important essential skills of the PM. These factors should be taking into account once selection the PM, in order to select high quality of PM.

9. CONCLUSION

Project manager as a Leadership in the construction industry has been shown to be

successful Construction Project Management are summarised graphically with the values of the mean score and importance indices identified in *Table 1.2* clearly indicated.

THE HIGH QUALITY OF PM IS CONSIDERED ONE OF THE MOST IMPORTANT FACTORS IN DETERMINING THE SUCCESS OF THE CONSTRUCTION PROJECT. TABLE 1.3 SETS OUT THE FREQUENCY OF THE RESPONSES TO THE QUALITY OF THE CONSTRUCTION PROJECT MANAGERS.

an important factor in successful project execution in a number of studies. [23] Showed that good supervision is the most

significant variabit influencing percentage time of bricklayers. [22] Also remarked that the effect of management factors on productivity could be significant. [24] Attributed most project failures in terms of time and cost overruns or abandonment to lack of purposeful leadership in the industry. As long as the project managers have more experience, the required set of knowledge, a high level of skills and authority, he/she would not find any difficulties in finishing the projects within the time scale, estimated budget, acceptable quality of work and finally to the satisfaction of the client. It is very important that managers are chosen who have the same background and match their abilities to the types of the projects.

Choosing appropriate project manager to the right project needs to take into account different elements, such as viewing the last experience of the managers; the extent of knowledge they have; and the authority of controlling the project (in case any thing happens in the main plan). The Project Manager competence, including his or her style does influence the project success. The roles of the project manager are difficult to manage sometimes, but it's still the project manager's responsibility to create a balance between project needs and the other parties. It is importance to take into account the leadership style (Knowledge, Experience, Authority etc) when appointing the PM, also there should be big consideration to select the appropriate project manager for the type of the project. As long as the project managers have good relationship with other parties (contractor, client, sub-contractor, engineers, employees, the management etc) can take advantages to the project success. Good communication and interaction links between the workers inside the organization are considered the most importance elements for the successful project management, and also can reduce the failure. Achieving the successful management triangle (Time, Cost & quality) must be taking into account by all people who involved in the project. This may not be achieve by the project manager himself, but this needs good relationship, personal & employees motivations, great planning, high level of communication and finally selection appropriate project manager. Experience, knowledge and authority are considered very important elements of the PM in the project management; these elements should be taking into account once choosing the PM to any project. The research confirmed that the Project Manager is considered a very essential element to the success of the construction project. He/she can have an impact at every stage of the construction project, but the most importance stages should be focus are Strategy, Per-

construction and Construction stages. As a final word, it could be concluded that Successful project management depending upon many factors, such as good PM with high level of skills, strong relationship, motivation capability to the workforce, selection of the project's team, high level of communications great planning and control and right project manager selection. So to avoid the failure the above factors should be taking into account during and before starting in any project.

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