

# Designing Key Responsibilities Areas (KRA)for Project Managers

## Dr Arjita Biswas, Assistant Professor, NICMAR University, Pune, India abiswas@nicmar.ac.in

*Abstract*— The performance of the project managers who oversee the company's projects is a key factor in determining how well a construction company grows. Therefore, it is necessary to identify the skills and competencies needed by project managers in accordance with their job roles and responsibilities. This information can then be used to identify any gaps between the required and actual levels of competencies. In modern human resource management (HRM) practice, determining a person's or an occupational role's competence has been considered an increasingly effective and versatile instrument. These evaluations can aid in defining job-role qualities and desired performance levels, which can serve as a foundation for many areas of the HRM function.

A review of the literature found that the abilities of project managers have become a fairly common research issue. However, definite Key Responsibility Areas (KRA) for construction and Project Managers are not established. This study aimed to fill this knowledge gap by identifying project managers' appropriate KRA

A variety of data were collected from the Project managers selected. The study used two methods for gathering data: semi-structured interviews and an online questionnaire. By analysing the frequency and nature of the responsibilities that project managers play in relation to their daily jobs, the online questionnaire was used to determine their competencies. The results from the completed surveys were then validated using semi-structured interviews. The outcome of the study is a document stating the KRA of the Project/ Construction Manager which would help him to understand his roles and responsibilities and it will also help in other functions of HRM, like recruiting, training, etc.

#### Keywords— Construction; Project Manager; Competency; KRA

## I. INTRODUCTION

India is a growing country and the country's construction sector is predominant in the contribution of its GDP. In the Construction/Infrastructure Company, there is a huge competition in grabbing projects. Applying efficient project management strategies in construction projects can be quite tough. Constraints, ambiguity, and a great deal of coordination are often their defining characteristics, which challenge the manager's performance and capacity to lead and coordinate a broad group of functional specialists. (Andrew R. J. Dainty & Moore, 2005). Project Managers are the father of any project, who manages the overall project. The project managers' performance overseeing the company's projects is a key factor in determining how well a project is completed. It directly impacts the growth of the construction company. Moreover, there is an evident link between top team members' competence and the organisation's overall performance. Project management is increasingly a major factor in defining work identity in many modern organisations. The firm and the profession are two distinct factors that project managers are subject to, and both have an impact on their identity and behaviour. More importantly, project managers are becoming known

as individuals with distinct professional identities. Therefore, developing a professional identity may offer a route for career progress, increased reputation, and financial reward within an organisation; but, perhaps more importantly, it may offer the person an outside source of validation.

Furthermore, there is a clear correlation between top team members' competence and the organisation's overall performance. When applied successfully, competency assessments can be used to plan and execute numerous human resource management (HRM) procedures, like recruitment, and selection of the right person at the right place and help in assessing the training needs, appraisal etc.(Amruta Pujari et al, 2015). The required duty of PMs during the entire lifecycle of the construction project has no clear, uniform definition in theory. PM assures the success of the project from its origin to its conclusion while working in the client's and/or promoter's best interests (Formoso et al., 2002; Ling, 2003; Ogunlana et al., 2002). In addition, Ogunlana et al. (2002) and Ling (2003, 2004) found that the professional hierarchy has begun to notice the PMs' involvement in the design stage of building projects, including housing. Stated that, to meet today's



professional demand and to ensure their continued relevance in the industry, project managers must continually improve themselves, in both constructionspecific and non-construction competencies which are demanded of them in order to fulfil the requirements for the project.

The efficiency of the project manager's work has a direct impact on the project's success.

Due to the nature of project management, which relies heavily on teamwork and team leadership, a manager's traits can have a significant impact on a project's outcomes. In order to have a successful completion of a project within cost and time, a project manager and construction manager should be thoroughly aware of his duties within the framework. The correct work expectations and skill mapping boost productivity among employees and better match them with organizational standards.

Competency and/or competency frameworks can be used in performance management, a key strategic human resource management function.

Project Managers' performance can be suitably rewarded by comparing it to performance criteria or desired behaviours, and development programme s can be implemented to address weaknesses in each project manager's unique profile.

Performance criteria can be established in two different ways, according to Sina Moradi (2020). The first type of criteria is input-based, which refers to the personal qualities, behaviours, traits, competencies, and skills that an employee contributes to the success of a project while working there. The individual performance requirements that are connected to a company's overarching strategy or a specific job description are known as output-based criteria.

Recently in the corporate sector, including in Construction firms two terminologies are being tremendously used and followed to assess the performance of the employee under Performance Management i.e. KRA and KPA.

**Key Responsibility/Result Areas (KRA)**: KRA are major targets, and responsibilities which are decided and agreed upon by and between the Appraiser and Appraise at the commencement of the Financial Year and the Appraise is accountable for its accomplishments. Targets are set in KRA which are derived from functional responsibilities as well as from company objectives.

**Key Performance Indicators** (**KPI**): KPIs help an employee to define and measure progress towards their key result areas. KPIs are quantifiable measurements agreed upon beforehand that reflect the critical success of an employee.

In the Construction Sector, Project Managers (PM) are mostly evaluated by different KPIs based on various categories, the most common being the following:

**Based on Time**: The essence of any project is timely completion which directly impacts the project's cost. So, timely completion of the project is a major criterion for KPI.

**Budget:** Completion of the project within the estimated budget.

**Quality**: Quality of the project in terms of its construction and also in terms of management without any conflicts and disputes among the stakeholders.

**Effectiveness**: Effectiveness in terms of using the resources efficiently and effectively.

Designing the KPI and KRA as per the project-specific requirements is always helpful. KPI design should be S.M.A.R. T: specific, measurable, attainable, relevant, and time-bound. In the paper, a few KRA forms are designed for Project Managers as examples of different projects which can be utilised by any firm for the successful evaluation of PM.

## II. METHODOLOGY

Identifying the standards or metrics that indicate successful performance in the job role under investigation was a crucial first step in this study. For that Focus Group Discussion was the initial step to finalize the evaluation criteria.

The focus group discussions resulted in a substantial list of criteria for performance excellence that was described by the participants as being associated with project success. The focus group mainly consist of Top Management and HR Managers. Members were encouraged to discuss openly their views of the criteria for performance excellence, with the researcher.

The full range of criteria was then listed and the participants were asked to rank the importance of each criterion on a five-point Likert scale on an individual basis. Members were of a strong opinion that there is a strong correlation between the performance of project managers and that of projects. These are factors known as Critical Project Success Factors (CPSF)against which the performance of a project can be measured. CPSFs often comprise factors such as time, budget, specification, user expectations, quality of workmanship, and minimizing construction aggravation (Songer and Molenaar 1997).

While such measures may be appropriate for appraising the success of the overall production effort, they fail to consider the external factors that can bounce the efforts (positive or negative) of the construction project manager like procurement routes, weather conditions, design constraints, and supply chain relationships. It would be



unfair for poor project performance to be directly attributable to an individual manager.

This study was built using two methods; semi-structured interviews and an examination of company documentation.

Thirty-nine project managers were interviewed. In each organisation, managers were from a broad range of ages, levels of experience and seniority and, in a male-dominated industry. The result was a range of ages (from 24 to 63 years), levels of experience (from 1 to 35 years) and grades of seniority (from first role to project director). Table I contains details of those interviewed. The interview schedule contained a number of questions structured around three sections; (A) perceptions and experiences of project management as a career, (B) reflections on the status of project management, both locally and more widely, and (C) beliefs about skills, competencies and effectiveness associated with the project manager role.

A variety of data were collected from the managers selected. Initially, they were asked to describe their job tasks and key responsibilities in order to identify the competence requirements of their roles.

#### TABLE

CHARACTERISTICS OF INTERVIEWED PROJECT MANAGERS

| Age           | 30-39    | 40-49      | 50-59 | 60plus |
|---------------|----------|------------|-------|--------|
|               | 4        | 23         | 11    | 1      |
| Sex           | Male     | Female     |       |        |
|               | 39       | 0          |       |        |
| Qualification | Graduate | Post-      |       |        |
|               |          | Graduation |       |        |
|               | 21       | 8 9        |       |        |
| Prior         | Yes      | No         |       |        |
| Occupation    | 37       | 2          |       |        |
| before (PM)   |          |            |       | TD     |
|               |          |            | 21    |        |

#### III. **RESULTS**

#### **Designing KRA**

A sample of the Performance Linked Incentive KRA was designed by the Researcher. A similar kind of KRA can be designed as per the need of the construction firm.

The performance of PM would be evaluated on the following parameters monthly basis. The Parameters are designed keeping in mind SMART objectives as described above.

| TABLE III - KRA WITH V | WEIGHTAGE |
|------------------------|-----------|
|------------------------|-----------|

| S.NO | Description of KRAs                     | Weightage                            |
|------|---|--------------------------------------|
| 1    | Turn Over / Targets                     | 30                                   |
| 2    | Bottom Line / Profit                    | 20                                   |
| 3    | Realization / Cash Flow                 | 25                                   |
| 4    | Management of Cost optimization         | 15                                   |
| 5    | Management of Procedures and<br>Systems | 10                                   |
|      | TOTAL                                   | 100                                  |
| 6    | Quality Output                          | Rating A to E*<br>where A is highest |

The above Table (II) gives the division of weightage to KRA. Based on the priorities top Management decides with the HR team the different criteria for KRAs and their relative weightage.

The details of the above would be as under :-

**Turnover/Targets:-** The turnover/Target would be a common parameter for all PMs within the organization. For example say :-

Project 'A':- 12 crores per month

Project 'B':- 9 crores per month

Project 'C':- 15 crores per month

PM of each project would have the target to achieve as per their project targets. Say for e.g. All employees in the project 'A' (incl. PM/PI, Billing Engr, Purchase Manager, Supervisor, Operators etc would have a collective target to achieve 11 crores in the month. But the main responsibility would be of the PM.

**Bottom Line/Profits:** - The same ratio shall be applicable for the bottom line as the Top line. The Bottom line indicates that the target profit from the project is generated, which not only helps the company in other projects but also generates a flow of funds.

The targets given to each project/site shall be applicable to each PM at the site including the technical and support functions.

**Realization/Cash flow:** - The purpose is to ensure that the project site not only has enough cash flow for functioning and that the vendors/suppliers and PCs are providing all support as they are provided their payments on time.

**Management Cost Optimization**: - The project would be given a target for cutting down the cost of running the same and it would be expected that all members contribute in bringing down the cost either by higher efficiency or by bringing down the cost. The target would be distributed among the employees by the PM and they would be anticipated to achieve their targets on reduction of cost without affecting the quality and quantity.

**Management of Procedures and Systems:** - Under this, the employee's individual performance and achievements are accounted. The individual targets set for his performance are accounted for here. i.e. a Purchase Executive has been advised to provide the raw material as per the scheduled dates are been provided with, an Execution Executive (Civil Engineer) has built up a particular section by a particular date, Tender Executive has to get no of tenders submitted by a particular date, the Production Engineer is required to produce particular tonnage of output etc. are some examples of this KRA which is individual based. This KRA would also become part of his annual performance. Detailed KRA of the

Ι



Project Manager is listed in the later part of the paper under this point.

**Quality Output:** - Under this PM would be rated monthly on his individual performance on Quality work done by him/her. The rating would be on the scale of A to E where A is excellent and E is unsatisfactory.

An average of all the ratings in a year shall become part of his personal performance.

**Behaviour Skills:** - This would again be an individual rating based on his behaviours at the workplace, where grading is given to him. This would also be part of his annual achievements and would become data for the Annual Review. The rating would be based on Discipline, punctuality, Regularity, Leadership skills etc. A simple A to E rating would be anticipated by the Reporting Manager which would be valued at the end of the year. The Behaviour skills would not become part of the monthly review incentive system.

The rating for the Quality and Behaviour would be :-

- 'A' = Excellent achieves 100%
- 'B' = Very Good is achieving 91% to 100%
- 'C' = Good is achieving 75% to 90%
- 'D' = Satisfactory, is achieving 60% to 74%

'E' - Unsatisfactory, achievement is less than 59%

All Reviews can be rated in 2 parts: - a) for Monthly review b) Annual Review. For Monthly review all the above 6 points can be considered; for Annual Review performance in Sr. No. 4, 5 & 6 could be considered and weighted accordingly.

Based on the above matrix and weightage to each KRA an achievement can be worked out by the top management in association with HR department.

The above KPI designed are in broader view. Detailed monthly KRA was designed with micro details so that evaluation of PM can be evaluated without any conflicts. Weightage factor was assigned as per the discussion within the focus Group where PM had actively participated in the design of KRA form. The KRA form has to be modified monthly/Quarterly or six monthly as per the stage of the project and milestones.

Two examples of KRA sheets are presented in the paper for better understanding. A similar KRA sheet can be designed for the job-specific role of PM as per the requirements of the project.

The tables (III and IV) show KRA designed for the Project Manager for Road Projects and Commercial Projects respectively.

The tables broadly classify the KRA type mainly two here Primary Performance and Behavioural Skills.

Performance indicators for each KRA type and planned weightage are further elaborated. Please note that the KRA performance indicators and weightage may vary based on the project-specific requirements.

## TABLE IIIII KRA DESIGNED FOR PROJECT MANAGER FOR ROAD PROJECT

| KRA Type | KRA  | Indicators                  | Planned Weightage % |
|----------|--|-----------------------------|---------------------|
|          | Profitability & Productivity Achievement                             | Not less than 90%           |                     |
|          | To achieve Profitability (3%) as per Green book Engineering          |                             |                     |
|          | Achievement of monthly profitability (3.0%)                          | At least 80% of the Budget  | 40                  |
|          |  |                             |                     |
|          | Resource Mobilization & Utilization                                  |                             |                     |
|          | As per the required Budget   |                             |                     |
|          | PRW's as per budgetary requirement                                   |                             |                     |
|          | Ensure no labour is kept on a supply basis                           |                             |                     |
|          | Utilization of shuttering material to ensure that material component |                             |                     |
|          | is Rs.55/Sqm.  | 100%                        | 10                  |
|          | Utilization of machinery as per the justification                    |                             |                     |
|          | Inflow   |                             |                     |
|          | Submission of Monthly R.A. Bill including N.S. Item                  | By 1st of every month       |                     |
|          | Realization of Payment 70%   |                             |                     |
|          | Realization of balance payment                                       | By 10th of every month      |                     |
|          | Outflow  | By 25th of every month      |                     |
|          | Payment to PC  | As per the stipulated time. |                     |
|          | Supplier payments  | By 10th of every month      |                     |
|          | HO Share & HO Rental   | By 15th of every month      |                     |
|          | Documentation - Monthly presentation                                 | By 30th of every month      | 10                  |
|          | Budget & rolling budget  |                             |                     |
|          | Presentation   |                             |                     |
|          | Submission of documents at HO  |                             |                     |
|          | Client Orientation- Submission of monthly project report             |                             |                     |
|          | Project summary/Project highlights                                   |                             |                     |



|                     | Important milestones                               |                                   |   |
|---------------------|--|-----------------------------------|---|
| Primary Performance | Pictorial presentation/Photographs                 |                                   |   |
|                     | Progress of major activity up to the current month |                                   |   |
|                     | Staff status/Equipment deployment status           |                                   |   |
|                     | Status of bought-out items                         |                                   |   |
|                     | Completion programme in MS project                 |                                   |   |
|                     | Constraints & drawing status                       |                                   |   |
|                     | Status of Deviation item/Non-schedule item         | By 1 <sup>st</sup> of every month | 5 |
|                     | Correspondence with Client to ensure compliances   |                                   |   |
|                     |  | Able to influence and             |   |
|                     | Leadership & motivator                             | motivate subordinates             |   |
|                     |  | towards the achievement of        | 4 |
|                     |  | Goals.                            |   |
|                     | Strategic thinking/planning                        | Able to do intensified            |   |
|                     |  | exploration of, strategy from     | 4 |
|                     |  | new directions, farsighted        |   |
|                     | Flexibility  | ensures an open environment       | 4 |
|                     |  | and is ready to adapt change      |   |
|                     | Decision making                                    | Ability to make quick and         | 4 |
|                     |  | effective decisions               | 4 |
|                     | Customer/ stakeholder                              | Is able to make and maintain      |   |
|                     | Relations  | cohesive relationships with       | 4 |
| Behavioural Skills  |  | the                               | 4 |
|                     |  | stakeholders/ customers           |   |

#### TABLE IVV

#### KRA DESIGNED FOR PROJECT MANAGER FOR COMMERCIAL PROJECT

| KRA Type            | KRA  | Indicators                               | Planned Weightage % |
|---------------------|--|--|---------------------|
|                     | Profitability & Productivity Achievement                             | Not less than 90%                        |                     |
|                     | To achieve Profitability (2.25%) as per Green book                   |  |                     |
|                     |  |  | 40                  |
|                     | Achievement of monthly profitability (2.27%)                         | At least 80% of the Budget               |                     |
|                     |  |  |                     |
|                     |  |  |                     |
|                     | Resource Mobilization & Utilization                                  |  |                     |
|                     | As per the required Budget   |  |                     |
|                     | PRW's as per budgetary requirement                                   | a la |                     |
| Primary Performance | Ensure no labour is kept on a supply basis                           |  |                     |
| ·                   | Utilization of shuttering material to ensure that material component | ge                                       |                     |
|                     | is Rs.55/Sqm.  | 100%                                     | 10                  |
|                     | Utilization of machinery as per the justification                    | Nº M                                     |                     |
|                     | Inflow ? CAV   | 8  |                     |
|                     | Submission of Monthly R.A. Bill including N.S. Item                  | By 1st of every month                    |                     |
|                     | Realization of Payment 70%   |  |                     |
|                     | Realization of balance payment<br>Outflow<br>Payment to PC           | By 10th of every month                   |                     |
|                     | Outflow  | By 25th of every month                   |                     |
|                     | Payment to PC  | As per the stipulated time.              |                     |
|                     | Supplier payments  | By 10th of every month                   |                     |
|                     | HO Share & HO Rental   | By 15th of every month                   |                     |
|                     | Documentation - Monthly presentation                                 | By 30th of every month                   | 15                  |
|                     | Budget & rolling budget  |  |                     |
|                     | Presentation   |  |                     |
|                     | Submission of documents at HO  |  |                     |
|                     | Documentation - Monthly presentation                                 | 10th of every month                      |                     |
|                     | Budget & rolling budget  | 8th of every month                       |                     |
|                     | Presentation   | By 7th of every month                    | 10                  |
|                     | Submission of documents at HO  |  |                     |
|                     | Client Orientation- Submission of monthly project report             |  |                     |
| Primary Performance | Project summary/Project highlights                                   |  |                     |
|                     | Important milestones   |  |                     |
|                     | Pictorial presentation/Photographs                                   | By 1 <sup>st</sup> of every month        |                     |
|                     | Progress of major activity up to the current month                   |  |                     |
|                     | Staff status/Equipment deployment status                             |  | 5                   |
|                     | Status of bought-out items   |  |                     |
|                     | Completion programme in MS project                                   |  |                     |
|                     | Constraints & drawing status   |  |                     |
|                     | Status of Deviation item/Non-schedule item                           |  |                     |
|                     |  |  |                     |
|                     |  | Able to influence and                    | 1                   |



| his to consider the second s |                             |                               |   |
|---|-----------------------------|-------------------------------|---|
|   | Leadership & motivator      | motivate subordinates         |   |
|   |                             | towards the achievement of    | 4 |
|   |                             | Goals.                        |   |
|   | Strategic thinking/planning | Able to do intensified        |   |
|   |                             | exploration of, strategy from | 4 |
|   |                             | new directions, farsighted    |   |
|   | Flexibility                 | ensures an open environment   | 4 |
|   |                             | and is ready to adapt change  |   |
|   | Decision making             | Ability to make quick and     | 4 |
|   |                             | effective decisions           | 4 |
|   | Customer/ stakeholder       | Is able to make and maintain  |   |
|   | Relations                   | cohesive relationships with   | 4 |
| Behavioural Skills  |                             | the                           | 4 |
|   |                             | stakeholders/ customers       |   |

#### IV. CONCLUSIONS AND RECOMMENDATIONS

This research has identified a set of robust criteria for measuring the performance of construction project managers. The results show the practicability of predicting job performance based on managers' performance on the project which actually depends on their competencies and behavioural skill set.

The paper highlights the need to identify the evaluation criteria based on SMART objectives which will definitely be measurable based on some quantitative data.

If the KRA does not match the requirement suggested, the gaps can be closed by the company policy based on adopting a permutation combination of the following methods-

- Emphasizing the importance of individual, project and Organizational growth
- Self-initiative and self-learning drive,
- Various training programs like Competency training during in-house programs organized by the company itself, On-site training, and Executive development programs organized at National and International levels
- Motivation through a higher appraisal for achieving the targets by PM
- Monthly declaration of best PM within all the PMs within the firm to boost confidence and good work.

KRA is the Key Results (Responsibility) Area that will help to measure a business's success and would guide setting a higher benchmark for the Project Managers.

The work is limited to a generic nature and does not specify the type, scale, and magnitude of the construction Projects. Any construction company can implement this defined KRA to suit their requirementsA construction company can gain insights into how to prepare KRAs for employees at various levels and design appropriate performance measurement criteria.

#### ACKNOWLEDGEMENT

The writer wishes to acknowledge the assistance of the construction companies, project Managers and all those who took part in the development of the KRA policy on which this paper is based.

#### REFERENCES

- Amruta Pujari1, Dr. S. S. Pimplikar, Mr. Rahul S. Patil), Need for Competency Mapping of Project Managers in Indian Construction Sector, International Journal of Advanced Technology in Engineering and Science, 3(2), (2015).
- [2] Andrew R. J. Dainty, Mei-I Cheng ; and David R. Moore, Competency-Based Model for Predicting Construction Project Managers' Performance, *Journal of Management in Engineering*, Vol. 21(1), 2-9(2005). ©ASCE, ISSN 0742-597X/2005/1-2–9.
- [3] Anthony D.Songer and Keith R.Molenaar, Project Characteristics for Successful Public – Sector Design- Build, *Journal of Construction Engineering and Management*, (1997).
- D.K. Ahadzie, D.G. Proverbs, Isaac Sarkodie-Poku, Competencies required of project managers at the design phase of mass house building projects, *International Journal of Project Management*, 32, 958–969(2014).
- [5] Formoso, C.L., Tzotzopoulous, P., Liedtke, R., A model for managing the product development process in house building, Engineering, Construction and Architectural Management, Vol. 9 (5/6), 419–432(2002).
- [6] Ghasem Omidvar, Farhang Jaryani, Zulkiflee Bin Abdul Samad, Somaye Fattahi Zafarghandi, and Samaneh Salehy Nasab, A Proposed Framework for Project Managers' Competencies and Role of E-Portfolio to Meet These Competencies, *International Journal* of e-Education, e-Business, e-Management and e-Learning, . 1(4),(2011).
- [7] Ling, Y.Y., A conceptual model for selection of architects by project managers in Singapore, *International Journal of project Management*, 21, 135–144(2003).
- [8] Ling, F.Y.Y., 2004. How project managers can better control the performance of design-build projects. International Journal of project Management. 22, 477–488(2004).
- [9] Ogunlana, S., et al., Factors and procedures used in matching project managers to construction projects in Bangkok, International Journal of Project Management, 20 (5), 385–400 (2002).
- [10] Sina Moradi , Kalle Kähkönen and Kirsi Aaltonen , Project Managers' Competencies in Collaborative Construction Projects, Buildings, 10(50)(2020), doi:10.3390/buildings10030050.