

Implementation of Project Management System And Techniques (PMST) In Small & Medium Enterprises (SMEs)

Ankita Nandkishor Dhave¹, Dr. A. R. Mundhada², K.R. Ninghot³

² Professor, Dept of Civil Engineering

³ Asst Professor, Dept of Civil Engineering

^{1,2,3} Prof. Ram Meghe College of Engineering & Management, Amravati

Abstract- *This paper primarily tries to target the main aspects of Project Management, viz. scope, time, cost and quality along with the importance of Project Integration. Formal project management is not widely spread in Small Medium Enterprises. Most of the office work and normal business activities are looked at by the staff in an informal manner and in most cases without any project management training. Project integration management is the knowledge area that involves putting all the pieces together. It encompasses high level strategic planning and synthesis of data and inputs from multiple disciplines to modify decisions to be taken regarding numerous aspects and problems affecting a project. Many Small Medium Enterprises handle projects well and are successful. This could be due to their technical knowledge and the individuals involved rather than a conscious effort. But these companies could be falling short of their potential and may perform better if they follow a proper formal system of project management practices. Project leadership also plays a major part in project success. "Management, produces a degree of predictability, focuses on systems, relies on control, organizes and staffs, accepts the status quo and motivates people to comply with standards. Leadership on the other hand, produces changes, focuses on people, relays on trust, aligns people with direction, challenges the status quo and inspires people to change.*

Keywords- Project, Management, Small & Medium Enterprises, Leadership, etc.

I. INTRODUCTION

In India, the construction industry plays a vital role in the economy of the country. It employs a significant share of the workforce, contributes largely to the GDP (Gross Domestic Product) of the country, and is seen as a key promoter for the growth and development of the Indian economy. This construction industry configuration is reasonably uniform across all developed countries, with the fraction of small firm activity being even more pronounced in developing countries.

The major role is played by small construction firms in improving the overall performance of construction industries across the globe. The significant role of small construction firms is proved in India. It is not only significant in its own right, but also plays an instrumental role in the performance of large construction firms and supply chains.

The successful management of small firms, however, is often troubled by their inherent characteristics; in particular, limited workforce and capability, inadequate time and resources for innovation; excessive influence of owner & managers, and difficulty in raising finances and maintaining adequate cash flows.

The potential impact of SMEs (Small & Medium scale Enterprises) to the economy leads to the conclusion that they need to increase their competitiveness and quality to match or exceed the competition. The management of small firms tends to come very unpredictable, informal ways. For example, one of the principle ways of communicating information is via informal face-to-face discussions between individuals which mean that there will be no printed records. They usually do not have systems in place to control and monitor projects and they have ill-defined project management roles and structures. This non-standardized project management practice among small and medium firms affects progress and contributes wastage.

Use of project management will play a significant role in the management of innovation and growth in SMEs, in a way that is tailor-made to meet their requirements. They need project management to manage their uniqueness in a focused manner, and to achieve growth and satisfy their strategic objectives in a way that minimizes the high-inherent risk.

This study intends to analyse the issues and shortcomings in the management practices of small and unorganised construction projects and suggest project management methods that improves the performance of the company in the long run.

II. LITERATURE REVIEW

(Meister W. 2006) Successful project management for small to medium enterprises (SMEs) This paper looks at the System and given an overview of the important concepts that need to be evaluated and managed to increase project success. It has to be look at what success means, the importance of the business case, ROI and alignment with the company strategy. The key factors have been tailored to suit SMEs, and considered systems thinking in relation to the project. The key areas of the paper will focus on the 20% of project management that they think were responsible for a major part of project success.

The Main Project Management Problems Faced by Small and Medium Sized Civil Construction Enterprises in Brazil (December 2016) - João Filipe de Oliveira Baptista, Orlando Celso Longo, Luciane Ferreira Alcoforado - International Journal of Civil & Environmental Engineering. This research is aimed at identifying the relationship between representativeness of the project problems and the use of project management processes in the SME of the civil construction area. It was determined that the knowledge areas which receive more attention from the Small and Medium Sized construction field enterprises are: cost, procurement, time, human resources and integration. Also lower the use of project management the bigger the representativeness of the problems to the Enterprises. It was concluded that in order to reduce project management problems for the construction field, these Enterprises should devote additional efforts on the systematic use of project management processes. By doing so, the Enterprises will get benefited from some advantages such as: systemic vision of the projects, process optimization, risk reduction, deviation minimization, communication improvement and more.

Project Management in Small and Medium-Sized Enterprises (2016) - Alejandro J. Roman - From the Romtech Project Management Blog.. In this paper author said that a SME needs the same management and operation tools as any company to its size, but if in any case it is formalized it is essential for any organization to consider the "Change", to manage it, especially to take into account the needs of those involved. Difficulties arise sometimes because of the nature of the SME with its objectives contradicting with the fast changes and the idea of living up to date. Introducing changes in this type of organization sometimes results in difficulties to digest and implement. The author's proposal for the SME is to introduce small visible changes in the immediate period, always from the integrative perspective of the client and the profitability of their business.

The Role of the Project Manager in Construction Projects in India - Shibani, A. and Sukumar, D. (2015) Chinese Business Review, volume 14. In this research paper author studied about challenges that are as being critical to the construction industry have in fact not been named as being so. This research includes weak consumer demand, lack of manpower, lack of finance, and a weak global economy. What has however been rated as critical is lack of systems and processes, cost overruns, untimely completion, waste of money, time, resources, conflicts between end clients and construction firms, achieving customer satisfaction, and high competition. Moreover, the Indian construction sector is highly fragmented, with projects being plagued with cost overruns, untimely construction schedules, defects, and poor crisis management. The role of a project manager is in the preconstruction stage where planning is the key task. The main role of the project manager is the preparation of deliverable schedule in accordance with client bid, drawing up the preliminary construction schedule, delineating project requirement, allocation of resources, plan review, and goal setting.

Knowledge Management Practices in Small-Medium Sized Building Firms (2015) - Sepani Separate and Antoni Basic. In this paper author signify the knowledge about practices in small-medium sized building firms. He found that the construction industry is different than the other industry. People's knowledge is found to become a critical factor in the innovativeness and competitiveness of construction organizations. The primary role of the organization should be the integration of knowledge: that is, by generating new combinations of existing knowledge. Knowledge of the project management in construction industry will be reduce the repetitive mistake and facilitate innovation, increase agility, improve teamwork and improve project performance.

Project Management Practices in India (January 2013) - PMI Study released by ShriSriprakashJaiswal, the Minister of State for Statistics and Program Implementation (MoSPI) According to this study, project management practices in India differed not only on the basis of size and complexity of the project involved, but also across sectors as well as forms of ownership (Public or Private). Despite sufficient awareness of the benefits of project management, 'lack of client led demand in India' and 'lack of clarity of benefits' stand out as the major factors influencing adoption of project management practices, even in the private sector. Some of the major challenges in adopting project management practices identified in the study were a low level of understanding of the scope of the term Project Management, which tends to generate a rather myopic view of what it entails, and inadequacy of skilled and semi-skilled manpower

often limit the productivity and cause a huge divergence in terms of the results expected and what is actually delivered at the end.

Project Management in Small to Medium-Sized Enterprises: Tailoring the Practices to the Size of Company (2012) - Rodney Turner, Ann Ledwith, John Kelly - Management Decision, Vol. 50 Iss: 5 pp. 942 – 957. The authors propose that small to medium-sized enterprises (SMEs) need simpler, more people-focused forms of project management than traditionally used by larger organizations. Their results show that project management is widely used for both internal and external projects. They found that smaller younger companies tend to use less formal project management processes than larger older ones. Micro-sized and small companies need less bureaucratic; more people focused forms of project management, to facilitate the work of teams of generalists. Medium-sized and large companies need more formal project management approaches to coordinate the work of teams of specialists. But medium-sized companies still simpler forms of project management than larger companies.

III. PROPOSED IMPROVEMENTS

Firstly, the Project Management in Small to Medium-Sized Enterprises must be resized. Although the idealized strategy for the initial phase of implementation aimed to be a simple PMS, it turned out to be too complex; in general, the key users' mindset and knowledge in PM practices were not prepared for such PMS. The excessive formality of the Gantt chart tool should be eliminated. Its objective was to allow a high level project planning, but in our experience the use of this tool quickly implied increasingly complex project planning. The implemented agile component in the PMIS must be replaced by a more flexible and versatile module/component. Independently of the necessary improvements at the high-level planning and the agile component, the hybrid model proved to be a good approach for the organization. The changes that have been identified as necessary don't compromise the validity of the model. Concerning the change management process, a new embedding strategy must be sorted, which should include an incremental process of change, and a readjustment of the initial scope, in order to reduce the initial impact and select the teams of the organization that are more comfortable with the PM practices, in order to begin to disseminate the PMS in the organization using an incremental strategy rather than do everything at once. The cost management should be ignored in the initial implementation phase, because it brings more complexity to the PM process, and it should be required to the project managers in later stages. The PMO team should also change some of its practices. Firstly, it is necessary to

free its elements from some of the previous responsibilities, allowing them more availability to support the key users and to maintain and improve the PMS. The PMS should be supported by top management. In addition, the whole PMS should be documented in a simple way, with the objective of creating an organization Body of Knowledge (BoK), which provides guidance to all the project managers and remaining key stakeholders of the PMS, such as top management and team members.

IV. CONCLUSION

- i. The construction process is complex system. The purpose of this work was to identify the relation between the project's problem and the use of project management processes in Small and unorganized firms in construction.
- ii. There was significant improvement in the performance of both the projects covered under this study.
- iii. It can be concluded that in order to reduce project management problems for the construction field SMEs, these companies should devote additional efforts on the systematic use of project management processes.
- iv. Companies will benefit from some advantages such as: systemic vision of the projects, process optimization, deviation minimization, communication improvement and more.
- v. The major challenge lies in convincing these small and unorganized firms to adapt these practices in their firm by informing them of its advantages and the time and cost saving it can bring about in their projects.

REFERENCES

- [1] Borštnar, M. K., &Pucihar, A. (2014). Impacts of the Implementation of a Project Management Information System – a Case Study of a Small R&D Company. *Organizacija*, 47(1), 14–23.
- [2] Braglia, M., &Frosolini, M. (2014). An integrated approach to implement Project Management Information Systems within the Extended Enterprise. *International Journal of Project Management*, 32(1), 18–29.
- [3] Cooke-Davies, T. J., Crawford, L. H., &Lechler, T. G. (2009). Project Management Systems: Moving Project Management from an Operational to a Strategic Discipline. *Project Management Journal*, 40(1), 110–123.
- [4] Dinsmore, P. C., &Cabanis-Brewin, J. (2014). *The AMA Handbook of Project Management* (4th ed.). New York, NY, USA: Amacom. European Commission. (2015).
- [5] User guide to the SME Definition. Retrieved from <https://publications.europa.eu/s/lkkY> Fernandes, Gabriela , Ward, Stephen , Araújo, M. (2015).

- [6] Improving and embedding project management practice in organizations A qualitative study.pdf. *International Journal of Project Management*, 33(5), 1052–1067. Fernandes, G., Moreira, S., Araújo, M., Pinto, E. B., & Machado, R. J. (2018).
- [7] Project management practices for collaborative university-industry R&D: A hybrid approach. *Procedia Computer Science*, 138, 805–814. Fernandes, G., Ward, S., & Araújo, M. (2014).
- [8] Developing a Framework for Embedding Useful Project Management Improvement Initiatives in Organizations. *Project Management Journal*, 45(4), 81–108. Fernandes, G., Ward, S., & Araújo, M. (2015).
- [9] Improving and embedding project management practice in organisations - A qualitative study. *International Journal of Project Management*, 33(5), 1052–1067. Ghobadian, A., & Galleary, D. (1997). TQM and organization size. *International Journal of Operations and Production Management*, 17(2), 121–163.
- [10] Ghosh, B. S., Forrest, D., Dinetta, T., Wolfe, B., & Lambert, D. C. (2012). Enhance PMBOK by Comparing it with P2M, ICB, PRINCE2, APM and Scrum Project Management Standards. *PM World Journal*, XIV(I), 78. Hayata, T., & Han, J. (2011).
- [11] A hybrid model for IT project with Scrum. *Proceedings of 2011 IEEE International Conference on Service Operations, Logistics and Informatics*, 285–290. Kostalova, J., Tetreva, L., & Svedik, J. (2015). Support of Project Management Methods by Project Management Information System. *Procedia - Social and Behavioral Sciences*, 210, 96–104.
- [12] Maassen, M. A. (2018). Product development models in the IT sector-From Waterfall to Agile Project Management Models in the case of AVIRA SOFT S.R.L. *Proceedings of the International Conference on Business Excellence*, 12(1), 568–578. Murphy, A., & Ledwith, A. (2007). Project management tools and techniques in high technology SMEs. *Management Research News*, 30(2), 153–166.