

Impact of Motivational Factors on Project Team Performance

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Abstract

Motivation is one of the fascinating subjects under organizational behavior science and thus, the study of motivational factors is one of the vital topics chosen by researchers across the globe today. Also, among many human aspects of project management, motivational factors occupies the prominent place in the list and by adopting right motivational strategy companies can benefit with improved project team performance followed by high degree of customer satisfaction. The subject matter of this research paper “ impact of motivational factors on project team performance” is an attempt to understand on specific motivational factors considered by the companies while framing their own performance improvement programmes. A study conducted on this subject matter reveals the fact that, specific motivational factors tabulated by the researcher have an impact on project team performance. This paper exhibits and analyses the results of research survey conducted at select large sector companies in India. Based on this research study results, companies will get an opportunity to review their existing plan and to come out with their own motivational strategies to improve the overall performance of project team..

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I. INTRODUCTION

The study of motivational factors is one of the most important topics considered by researchers today. Companies always look for various motivational strategies to continuously improve the level of motivation among project team members to achieve high degree of customer satisfaction. Motivational theories derived by past researchers in the early 20th century emphasized mostly on money and rewarding system as a motivational tool to bring high degree of employee satisfaction. Most of the studies are conducted in factories producing a product through processes emphasized on rewarding an employee with monetary benefits. But, in the 21st century, many companies started adopting new technologies, methodologies, concepts and tools. Computer application and digital technologies started growing exponentially.

Project management is one such methodology adopted by companies to remain competitive in business and bring high level of customer satisfaction. Use of software and digital computer technologies in manufacturing, engineering, and design services has taken a lead in business growth. Many past research findings highlighted the importance motivation to enhance project team performances and also to meet changing needs of global customers.

Before embarking to these other aspects of motivation, it is equally important to understand the fundamental theories of motivation.

II. THEORETICAL BACKGROUND

A. Motivational Theories

Motivation theories are broadly categorized in to two types as content theories and process theories. Content theories, focus on individual needs to be connected to people's physiological, or psychological deficiencies that we feel a compulsion to reduce or eliminate. Process theories focus on the thoughts, or cognitive processes, that take place within the minds of people, and that influence their behavior. These theories serve as a fundamental concept to conduct further research on motivation.

B. Project Management Concept

In modern business environment, new dimensions are added to business due to the advancement of various concepts and methodologies. Computer and Internet have become the basic platform to launch these new technologies, concepts and methodologies to entire world. Companies across the globe started adopting new techniques, methodologies and concepts to improve their business growth. One such concept is the project management concept (PM) and PM concept emerged as one of the most effective tools in managing many business tasks. 'Project management is the application of processes, methods, skills, knowledge and experience to achieve specific project objectives according to the project acceptance criteria within agreed parameters. Project management has final deliverables that are constrained to a finite timescale and budget' [1].

In recent years many organizations have either adopted PM concept or renewed interest in project management. 'Project management will continue a decade-long trajectory of growth across the globe. As per the latest PMI-commissioned talent gap analysis by Anderson Economic Group (AEG)[2] points to outstanding opportunities in jobs and career growth for project managers within the 11 countries studied. By 2027, the project management-

oriented labor force in seven project-oriented sectors is expected to grow by 33 percent, which in turn creates nearly 22 million new jobs. Across the globe, employers will need nearly 88 million individuals in project management-oriented roles. China and India will represent more than 75 percent of the total project management-oriented employment. This report shows that project managers are important contributors to productivity. Talent shortages in the profession can potentially create risks of nearly US\$208 billion in GDP over the 10-years period in the 11 countries examined.

C. Project and project team motivation

A project is temporary in that it has a defined beginning and end in time, and therefore defined scope and resources. Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements[3].

The idea of a motivated project team may seem like commonsense, but is difficult for project managers to easily understand because definitions of motivation vary among researchers. PMI's Project Management Body of Knowledge (PMBOK) [4] emphasizes that the ability to motivate a project team and other stakeholders is one of the most important interpersonal skills a project manager should possess.

D. Motivational factors impacting project team performances.

For the purpose of this research study, organizational, personal and project management related factors are considered. Project team performances are greatly affected by motivational factors and the important factors which may have significant impact on project team performance are considered for the study .

Motivational factors categorized under five major areas are organizational, personal, project-

management, top-management support related factors and technological factors.

III. PURPOSE OF THE STUDY

The proposed research study is an attempt to understand the current trend of motivational impact on project team performance in large scale private and public sector companies where systems and processors are in place to handle large as well as multiple numbers of projects. Hence to compare an apple to apple, large private and public sector companies are chosen for this research study. In large private or public sector companies handle multiple project teams and large number of projects are executed. However, based on the outcome of this research study, other sector companies can also adopt this strategic motivational approach which may enhance their opportunity to win more and more customer projects.

A. Significance of the study

As project management is becoming a more and more popular in organizations, this research study is of great importance to organizations and project managers. Prior studies have shown that motivated employees are more productive than unmotivated workers, which can improve an organizations competitive position. Large scale public and private sector companies execute multiple projects in various locations and hence this study throws a light on strategic motivational strategies followed in large companies. The results of this study will be the reference point for SME's to adopt these strategies for business growth as well as to gain an entry into global market with confidence.

B. Scope of the study

This research study covers the important factors governing project team motivation and key motivational factors impacting project team performances in private and public sector companies in India. The targeted respondents are project leaders, managers and directors of the companies

responsible for execution of multiple projects running in large-scale organizations.

C. Limitations of the study

This research is mainly intended to study the Influential factors governing project team motivation in only selected large scale private and public sector companies in India. To obtain the current trend of motivational strategies followed only in large scale (annual turnover > 250 crores) companies where multiple projects are executed simultaneously and to obtain 360 degree review of the project team performances achieved due to the impact of these important motivational factors.

D. Problem statement

In this dynamic business world, companies started looking at new ways and means to keep their workforce highly motivated to meet the changing needs of customers. Hence, to bring high level of customer satisfaction, new technologies, concepts, tools, and methodologies are carefully chosen by companies to meet these customers' challenges. Due to this change in global business environment, companies started thinking beyond money or reward, but there is a need to look at other aspects of motivation, which is not necessarily money. This takes us to the problem question of this research "what are all the other non-monetary aspects influencing motivation, and what are all the motivational factors impacting project team performance?"

And to answer the above question, there exists a need for this research study to understand the factors influencing motivation other than monetary or tangible benefits. Past research studies conducted on motivational factors are all done outside India, mostly in American and European companies, and very few are conducted in Asian region. Through literature survey many papers are reviewed and summarized. There have been a few researches done so far to understand the importance of motivation in project management scenario

especially in Indian companies. Hence, this proposed research study is an attempt to fill such gaps by mapping the current trend of motivational strategies followed in large private and public sector companies in India, where multiple customer projects are executed.

IV. RESEARCH OBJECTIVE

The proposed research work is studied with the objectives:

- To study various factors influencing team motivation in projects.
- To compare the most significant factors influencing project team to perform better.

V. RESEARCH METHODOLOGY

A. Research approach and study area

In India, the Small and Medium Enterprises (SMEs) sector has had a remarkable history and continues to be recognized as a driving force of the country's economy. Whereas, at the international level, the large scale industries too have an equal importance in improving country's economy. According to government of India classification* of industries, any company whose annual turnover exceeding rupees 250 crores are grouped under large scale.

According to the amended Section 7 of the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006, a large enterprise will be defined as a unit where the annual turnover exceed rupees 250 crores and above. Hence study area chosen for this study is large scale private and public sector companies in India.

B. Research design

The proposed research study will be conducted with below methodologies.

Descriptive study method is adopted with survey; questionnaire techniques are used for data collection.

Large enterprises whose annual turnover exceeding 250 crores & located within India are considered for this study to cover leading business sectors both in private and public enterprises engaged in design, engineering and manufacturing projects in India.

VI. IMPACT OF MOTIVATIONAL FACTORS ON PROJECT TEAM PERFORMANCE

Motivational factors impacting project team performances depends on performance are measured by attributes. These performance measuring attributes are chosen for right assessment in percentage of overall performance of project team.

Project managers mainly focuses on overall team performance for given projects executed by companies from time to time. Questionnaire design is mainly focused on 25 prime motivational factors impacting project team performance.

Motivational factors impacting project team performance considered for this study are shown in table no:1 as below.

Sl #	Motivational factors
1	Organizational factors
2	Personal factors
3	Project Management related factors
4	Top Management support related factors
5	Technological factors

Table No: 1 List of most important motivational factors impacting project team performance.

Prominent among performance measurement attributes, which are considered for this research study, are listed below.

- Meeting project objectives (customer satisfaction level) =PA
- Meeting project timelines (on time delivery)=PB
- Staying within budget (cost control)=PC
- Quality of output (quality of product or service)=PD
- Quick to respond to customer queries (Response level)=PE

Average performance expected by company or P_{minimum} is considered to be the minimum standard set by company to assess the performance of team and it is assumed to at least 50% and $P_{\text{motivation}}$ is considered as additional 50% which is assumed to be the indicator of enhanced performance due to effective project team motivation. It is assumed that equal weightage is considered for all the above five performance measurement parameters are considered for this research study. The overall performance,

$$P = [P_{\text{minimum}} @ 50\% + P_{\text{motivation}} @ 50\%],$$

Where, $P_{\text{motivation}} = PA + PB + PC + PD + PE$.

Questionnaire is designed with above mentioned parameters to obtain the response for most important motivational factors impacting project team performance.

VII. RESULTS AND DISCUSSIONS

Out of 125 questionnaires circulated in both private and public sector companies only 111 respondents who answered all 25 questions making a response rate of 89%. Among the 111 respondents, 82% were male and 18% were female. Among 111 respondents, 58% of the respondents are project managers followed by 38% project leaders and 4% were project directors. The demography spread of respondents with respect to their job position is shown in chart below.

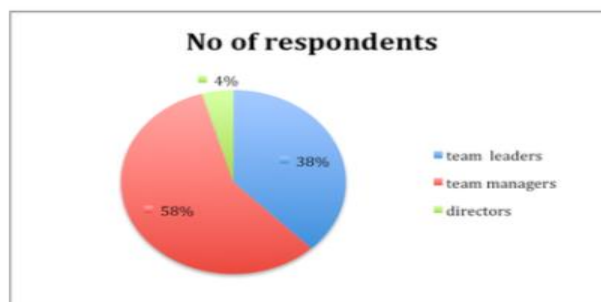


Fig: 1 Demography spread of respondent's job position

Among the important motivational factors, top five factors which signifies performance level improvement between 91-100% are analyzed based on study results.

Out of 111 respondents 44% are voted for top management support, involvement and decision making aspect as number one motivational factor followed by support and monitoring the project progress will have an second most priority with significant impact on project team performance.

Schmid, Bernhard's [5] claimed that top management support is key factor and its one of the top most motivational factor impacting project team performance.

Clearly defined performance indices and key result areas also stood third in the row with 35% response level. Thamhain, H. J. [9] has critically analyzed the factors responsible for creating cultural and philosophical differences that influence the way companies manage their projects and set up control systems. Equally important, the work environment must foster effective communications, cross-functional linkages, and a business process conducive to interconnecting people, activities and support functions. It further involves the project leader's ability to resolve intergroup conflicts and to build multifunctional teams.

By providing conducive and safe working office environment will have an impact on project performance have fourth place(34%) and fifth place is shared by two motivational factors(33%) viz., providing best welfare facilities and clearly defines

roles and responsibilities to project team.

The factors with corresponding performance level is shown in table no: 2 as below.

Motivational factors	Performance improvement 91-100 %
Top management's support & involvement in handling crisis by arriving at quick decision making strategy.	44%
Top management's constant support and involvement by monitoring the project progress.	41%
Clearly defined key performance indices (KPI)&key result areas (KRA).	35%
By providing conducive and safe working office environment.	34%
By providing best welfare facilities	33%
Clearly defined roles and responsibilities (R & R) to project team.	33%

Table no: 2: Top five most prominent motivational factors showing 91-100% performance improvement with response level in percentage.

As far as second most important findings of this survey is that majority of the respondents claims that due to the impact of 5 top most important motivational factors expecting 81-90% performance enhancement chose by respondents are shown in table no: 3 as below.

Motivational factors	Performance Level 81-90%
By sharing organizations mission statement to project team	48%
Clearly defined roles and responsibilities (R & R) to project team.	48%
Clearly defined key performance indices (KPI)&key result areas (KRA).	46%
Organization's human resource policies with open and transparent performance evaluation cum rewarding system.	45%
By organizing dinner for project group to celebrate every milestone success.	44%
By sharing organizations short term and long-term vision to project team	43%
By Organizing cultural fest and outing Programme to project team.	43%

Table no: 3: Top five most prominent motivational factors showing 81-90% performance improvement with response level in percentage.

The key motivational factor among top five factors opted by with performance level improvement between 81-90% is sharing organizations mission statement and clearly defined roles and

responsibilities to project team with 48% voting. The second most important factor with 46% score is clearly defined key performance indices and key result areas. As per Flynn, C.[10], a key purpose of an organization's employee and appraisal system is to find agreed-upon ways of improving performance & a good performance appraisal system not only makes managers more effective, but increases employee motivation to do a better job.

The third & fourth priority factors chosen by respondents are organizations human resource policies with open and transparent performance evaluation cum rewarding system with 45% and organizing dinner for project group to celebrate every milestone of success with 44% . Fifth place is shared by two motivational factors with 43% score are sharing organizations short term and long-term vision and cultural fest and outing Programme to project team. Results indicate that highest number of respondents with an agreement that motivational factors enhance performance level of 81-90% and its evident from the survey results indicated above.

Now the third performance rating level of 71-80% considered for this survey and the score card of top 5 most important motivational factors voted by respondents are shown in table no:4 as below.

Motivational factors	Perfor mance level 71-80%
By integrating project activities with enterprises resource planning (ERP) system and providing anytime access to project team.	32%
Early implementation of ISO/EN standards and by providing project documentation support to project team.	29%
By sharing organizations short term and long-term vision to project team	25%
By providing anytime access to e- library and project management information system (PMIS).	24%
Clearly defined and shared career growth plan to project team.	24%
By providing best and safe transport facilities to project team.	23%
Application and usage of industrial Internet of things (IIoT) across the organization.	23%
By providing high-speed free internet connectivity to project team.	23%
By providing smart communicating devices including smart phones, tablets and virtual reality tools to project team.	23%

Table No:4: Top five most prominent motivational factors showing 71-80% performance improvement with response level in percentage.

R. Dhinakaran Samuel and N. Santhosh Kumar[6] envisage the importance of ERP implementation is also one among the key motivational factors enhancing project team motivation.

The respondents opted their top priority motivational factor as ERP system integration as 32% , followed by ISO/EN standards implementation as 29% voting which is a clear indication of one of the most important motivational factors.

Miguel Buleje[7] emphasized in his research that project success in SME's are depending on ERP implementation.

Another study conducted by G Sivaramakrishnan and S Giridhara, are shown with their research workings that 50% of performance improvement is observed after implementation of QMS system with ISO standards documentation system in manufacturing industries in India. In the similar context sharing long term and long term vision(25%) followed by access to project management information system availability/clearly defined career growth plan to project team(24%) are also opted as prime motivational factors to be considered for project team performance improvements.

The fifth ranking score of 23% are shared by four factors viz., best and safe transport facilities; application and usage of industrial internet of things(IIoT);providing high speed internet access and smart communicating devices to project team.

The overall average response level for 25 combined motivational factors with 5 point likert's score card of 111 respondents are shown in table number 5 with corresponding 1-5 Likert's scale for better understanding of this research approach.

Motivational factors impacting project team performance	Likert's scale				
	5	4	3	2	1
	Performance level scale				
	91-100%	81-90%	71-80%	61-70%	51-60%
	Average level of response				
	27%	40%	20%	8%	4%

Table No:5: Overall average response level for combined 25 motivational factors with Likert's scale 1-5 and performance level scale

Since the average response level for performance improvement of 51-60% and 61-70% are only 8 % and 4% respectively, the top five score card among 25 motivational factors are ignored for this results analysis.

From the above result analysis that, motivational factors considered for this study will have an significant impact by improving the project team performance level to 70% & above.

The study results indicates that, if companies use these factors while adopting motivational strategy for enhancing the project team performance up to 100% can be achieved which in turn bring high degree of customer satisfaction.

VIII. IMPLICATIONS AND RECOMMENDATIONS

Though the prime objective of this research study is to map the performance indicating motivational factors, the conducted research study has some limitations. One of the limitations in this research is related to the sample size of study. The respondents for this study were only 110 employees. Another limitation in this study is that the study is conducted in large sector companies in India. For better

mapping future studies can be conducted across the globe. Due to limited time as well as data collection, the research has just concentrated on 25 most prominent motivational factors, but there is scope to consider any other motivational factor which may have significant impact on project team performance for further study. This study may be further extended to cover as many as 350 samples by author to fine tune survey results obtained by this pilot study. The current study is conducted in large public and private sector companies with an annual turnover of above 250 crores. The respondents are 5 directors, 64 managers and 42 project team leaders amounting to 111 out of 125 questionnaires distributed.

For better mapping of motivational trend in multinational companies, future studies can be conducted across the globe. The results of current study will be the foundation for future researchers who are planning to conduct the same survey in small and medium enterprises for which author is ready to support.

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