

Determining Project Performance: The Role of Training and Compensation

M. Shahzad Chaudhry¹, Masood Nawaz Kalyar^{2*}, Hazoor Muhammad Sabir², Bashir Ahmad²

1. National University of Modern Languages (Lahore Campus), Lahore 54000, Pakistan
2. College of Management & Administrative Sciences, GC University Faisalabad 38000, Pakistan

* E-mail of the corresponding author: crony_mnk@yahoo.com

Abstract

The HR is one of the important departments for any organization to accomplish its management tasks in an effective and efficient manner. Major failures of projects may occur due to lack of proper HR planning. This study is aimed to assess whether training and compensations of a project team have any links with the project performance. The data was collected from 73 employees from four main consultant companies working together on a project, located in Lahore, Pakistan. Responses were gone through EFA and Cronbach's Alpha test to assure consistency and reliability. Finally, path analysis in SEM using Amos was run to explore the nature and strength of the links. Results suggest that both training and compensation of project team members are positively associates with project performance.

Keywords: HR Planning, Training, Project performance, Compensation, Pakistan

1. Introduction

The Human Resource (HR) is one of the important departments for any organization to accomplishing its management tasks in an effective manner. Major failures of projects may occur due to lack of proper management/arrangement of this department's functions such as leadership, training and compensation. Either most of companies have no formal infrastructure of HR department or they do not implement it properly. Project Human Management System (PHMS) plays a vital role in all projects by rendering leadership, training, compensation and system that support these services. Workforce of the PHMS comprises of qualified and competent personnel to lead project, provide training and how to compensate the project's employees. Its pole their efforts to come up with smart solution to fulfil a project's and system related requirements.

The PHMS ensures effective implementation of human management system, its inspection, and company considers this system very important to exercise effective project management. Therefore, it has developed and integrated project management system environment. This includes world recognition of the shelf software packages and in-house developed software systems as those have been built to satisfied project management needs. It includes system for bidding's project and monitoring, inspection and testing, material; management, financial control and resource control. The integrated environment, not only, automates the company's business process, but also, makes company fully capable of meeting requirement of construction related projects of any nature.

The rich reporting capability of the system enables project team to monitor all on-going projects and to measure the actual performance against plan. It also points out impact of leader on the performance, role of training and compensation and suggests corrective measures for the crisis. The PHMS remains actively involved in a project throughout its life cycle. Prior to mobilization of a project team, it ensures configuration and initialization of the system. Besides, it also works out for products of great significant necessary for the project and helps in making area wise schedule, to meet manpower requirement plan,

material requirements plan etc. These are prepared mutually by the project team and the PHMS representatives while considering project goals, challenges and bottlenecks. After the mobilization, it is ensured that work progress at site is as per document furnished before mobilization, e.g. daily schedules are generated from the system, distributed to execution, crews, and retrieved duly filled; procurement according to plan budget is not accessed etc. The PHMS strives to continuously improve the system to make it more effective. It implements business process. This practice approach helps project keeping its competitive edge.

There is need to increase the efficiency of this project by focusing leadership, training and compensation more effective, and analysing its impact on the project. These factors are such an essential part of the project success for any company that they have to set up a section to both explain the impact of the factors on functions, and help HR professionals to execute effective strategies. This study focuses on the role and contribution of training and motivation towards efficient performance of the project team towards successful achieving and accomplishing the project.

The research is closely related to the area of training and compensation because it shows these human resource practices' effects on the performance and motivation of the employees in this project. So the different projects should emphasis specific type of human resource practice(s) to integrate their HR practices with project goals and to solve their excellence performance through these HR practices.

2. Literature Review

Kovács & Gergely (2009) illustrate that human recourse management is integral to any organization. It encompasses personals as assets and revenues of an organization. The effective and efficient leadership exploitation of the very recourse can help attainment of organization's goal and individual object. Human resources can vividly be turned as a pillar under who support an organization can certain and progress in this competitive and demanding era. It's not the plan or the machine that matters what matters is the man behind machine and plan. The successful company, human recourse owns its success to it. Human resource and the success is compliance with the talent, professional, commitment and skill of its human resource. "The better the human resource, the better the prospects of an organization." In case management, human talent and organization can stand in good stead. Special force must be given on the imperative aspect of human resource management. In preview carries many functions.

Mishra (2007) explore the role of project management which is helpful to create a balance between task, the individual, and the team. The project manager and the functional managers are responsible to create this balance and make it possible to achieve the desire objectives of the project. Setting the level of expectations and measurements of the performance, the purpose of this process is to develop a set of objectives which id helpful for the project team and then to assist the team members and their functional managers in setting individual objectives. Here important thing is motivational element because some time objectives and tasks are complex to finish them. Motivation made it easier and quiet helpful for the completion of tasks. The employees show better performance and achieve goals and objectives in required time period. Checking the latest Individual performance with the set objective and compare with others help to understand the performance measurements. If appropriate, review the Human resource plan by the project manager and functional manager its quiet easy to check performance of individuals and note down the focus area in project.

Birch, Kephart, Murphy, Pallas, Alder, & MacKenzie (2007) developed an analytical framework based on the compensational factors. These factors can be purely related to the performance of the employees, their time which devote for the achieving the company goals. In this framework attention of compensation regarding health care services focused on individual efforts to meet the goals of the company effectively and share high market value of that company. The further requirements for human resources compensation depend on four elements: performance, education and experience, level of assignments and part in achieving the company's goals. The conceptual framework also presented demographical factors which influence on the compensation of employees. The researchers linked positively these factors with

compensation and analyse their effect on the performance. They use co-relational analysis and got positive results.

Dessler, G. (2004) describes the various training programs are formulated to provide dual purposes. Courses like, team building, managerial skills, Negotiation and conflict resolution can be fully utilized to improve inter as well as intra personal and communication skills. Technical training programs not only cover the theoretical aspect of civil, electrical and mechanical technologies but also how efficiently and effectively companies make use of it at different sites. Company trains their employees regarding communication skills, which help them to enhance interpersonal skills, effective work and personal grooming of employees. It can train their employees technically particularly computer based knowledge is provided to all employees and other training includes training of electrical engineers, civil engineers and computer engineers. It can train their employees to work with others outside the organization by training them regarding communication skills, interpersonal skills, conflict resolution.

Jackson & Schuler (1990) described the planning regarding human resource had traditionally been used by organizations to ensure that the right person is in the right job at the right time. Under some conditions the traditional ways were helpful to manage the HR staff but due to environmental uncertainty and instability, it was not helpful for long term because high environmental instability, demographic shifts, changes in technology, and heightened international competition were forced to change your planning. For leading organization they should forecast the future and then plan the things according to it. It is really helpful for cost and time saving. In addition, organizations must develop long-term as well as short-term solutions in favoured of both companies and employees. When companies compensate and train their employees according the need of the employees they must performed according the requirements and achieving the objectives of the companies.

3. Theoretical Framework

3.1. Training

Edwards & Rees (2006) were analysed to provide training opportunities to make company's human resource efficient, compatible and skilful, and to bring them at its required levels. Employee development is something that most people imagine as intrusive all-day group training sessions. Unfortunately, this dreaded approach to employee development is just the opposite of how employee development should occur and feel to employees. Employee development can manifest itself in many forms of training, evaluations, educational programs, and even feedback. If executed correctly, the effects of training on employee performance can often encourage growth within the worker and the organization itself.

Dessler (2004) introduce the motivation, training and development of employees in the area of management. Motivation increase through education and support by the training companies can develop the skills through giving them training.

He also describe training need exists when there is a gap between what is required of a person to perform their work competently and what they actual know. A "training needs assessment", or "training needs analysis", is the method of determining if a training need exists and if it does, what training is required to fill the gap. The assessment can be as detailed and involved as needed. It can polish its resources through give training of 2 to 3 week to every employee - be it at the lower level or managerial level because the project has some standards and work procedures so that every employee has orientation about their work & policies. Specialize training is mostly covering specialized technical skills in particular discipline or project system. It would be use of current new software and technology. The knowledge and skills gained during the training will increase abilities and allow participants to perform their jobs at an acceptable level.

Performance met expectations for work quality and quantity. Employees understand their job completely and make few errors after training. The needs assessment can be quite simple and obvious. By conducting training needs analysis management can target the group that needs to be trained as well as hone in on exactly what training is required. On the basis of discussions above, it is proposed that training of project team members could result in better project performance.

H1: Training of project team is positively associated with project performance.

3.2. Compensation

Compensation is the reward or anything that is given in return against services rendered from labour. Edwards & Rees (2006) proposed a direct effect on the performance of employees i.e. if u adds further benefits in the basic salary of your employees they will motivate and give significant performance. In their research they analyse the performance of the employees after giving the medical facilities to the old employees its shows the better results. HRM strives to achieve organizational goals and the goals of employees through effective personnel programs policies and procedures. Successful performances of the personnel function can greatly enhance the bottom line of any organization. The personnel practitioners however are challenged more today than at any time in the history by a changing and more demanding labor force that has high expectation about the work place. At the same time, rapidly advancing technologies and outside influences are changing the nature of our jobs. It is thus more critical and more difficult to maintain a work environment that motivates and satisfies Human Resources.

Employee benefits can range anywhere from promised bonuses, Vacation time, Health coverage, and most of all raises. Usually if these are given to employees based on quality and quantity of something they will work much harder and increase productivity. This can lead to a competitive work place that's uncomfortable. Also if you want quantity over quality usually the quality will go down and sometimes you will lose customers.

According to Cascio (1991) Compensation which includes direct cash payment, indirect payments in the form of employee benefits and incentives to motivate employees to strive for higher levels of productivity is a critical component of the employment relationship. Compensation affected by forces as diverse as labor market factors. Collective bargaining, government legislation and top management philosophy regarding pay and benefits

Compensation may be defined as money received for the performance of work plus many kinds of benefits and services that organizations provide their employee. Compensation is recompense, reward, wage or salary given by an organization to persons or a group of persons in return to a work done, services rendered, or a contribution made towards the accomplishment of organizational goals. Wage, dearness allowance, bonus and other allowance are examples of monetary compensation, while good accommodation, children education, transport facilities, subsidized ration of essential commodities, etc. come under non-monetary compensation. In short, wage paid to collar workers or salaries paid to white collar employee can be classified as compensation. A good compensation package is a good motivator. Hence, the primary responsibility of the HR manager is to ensure that the company's employees are well paid. So it may propose that project team compensation might have a relationship with project performance.

H2: Project team compensation has positive links with project performance.

INSERT FIGURE 1 HERE

4. Methodology

4.1. Data Collection

Through structured questionnaire, data was collected from the companies, which make joint venture (JV) for this project and their departments specially HR department and different engineering departments included in the project. The leadership questionnaire was adopted from Paice et. al. (2000). The questionnaires include the questions based on leadership and project performance at the level of maturity that is satisfactory performance. The project performance instrument was adopted from (Keller, 1986). In

the questionnaire, “five point liker scale (strongly agree, agree, no idea, disagree and strongly disagree)” was used to check the significant impact. The questionnaire was distributed among the top subject specialist and section comprising engineering, sociology, environment, institutional development and so on.

The sample used in the study includes 80 employees from four main consultancies companies working together on a project, located in Lahore, Pakistan. The sample is a true representative of the population. The total population size is 145 employees working on this project. Among these responses, 73 were filled in the usable format.

The filled questionnaire was processed by the computer and visualized graphically and in tabulated form. It was examined by using Statistical Package for the Social Sciences (SPSS-16); enabled to know the HR system of the organizations in depth resulting as well as summarizing the findings of each organization regarding three major factors.

4.2.Data Analysis and Results

Data was analysed on different performance effecting parameters including leadership. The results were derived through using statistical tool. Data was also analysed using the frequency analysis to describe the results. In frequency analysis tables took frequency and present values to describe and conclude the results. In order to address the research questions, exploratory factor analysis (EFA), correlation analysis and path analysis was used to conduct analysis. Principal components analysis (PCA) was used as factor extraction method in the study. When principal components analysis (PCA) is used, it is generally assumed that the original variables or items are correlated, and principal components analysis will develop a new group of variables that are uncorrelated (Chatfield & Collins, 1980). Finally, path analysis was run in Amos 16 to test the hypothesis whether any links exist between leadership and project performance. All the dimensions of training construct were explored by using exploratory factor analysis. Factor loading of the items ranged from 0.558 to 0.812. The alpha value for the construct was 0.614, higher score showed higher level of project team practices. In the same way, all the dimensions of compensation and project performance were also explored by using EFA. Factor loading of the items ranged from 0.625 to 0.852 and 0.471 to 0.783 for compensation and project performance respectively. The alpha values for the construct of compensation and project performance were 0.81 and 0.69 respectively.

Table presents the means, standard deviations and correlation coefficients among variables of interest. The results from descriptive statistics indicate that training is positively linked with compensation ($R^2=0.561$, $p<0.01$) and project performance ($R^2=0.629$, $p<0.05$) of project team members. In the same way, compensation was also found strong positively linked with project performance ($R^2=0.744$, $p>0.01$). Results suggest that training and compensation are linked with outcome variable.

INSERT TABLE 1 HERE

Structural Equation Modelling (SEM) technique was used to determine the strength of the relationship among dependent and independent variables. For this purpose, path analysis was run using Amos 16. Joreskog and Sorbom (1993) suggested the following criteria for goodness-of-fit indices to be used in assessing the fitness of model: X^2/df ratio was recommended less than 3; the values of NFI, RFI, CFI, and TLI were recommended to be greater than 0.90. A chi-square of 7.96 on 4 degrees of freedom and $p<0.01$; and some other goodness-of-fit statistics (GFI = 0.91; RFI = 0.95; TLI = 0.93; CFI = 0.98; RMR = 0.009 and NFI = 0.96) indicated goodness of fit of the data well to the model.

INSERT FIGURE 2 HERE

The standardized regression coefficient value of training for performance is 0.58, $p<0.01$ with $R^2=0.24$; which means the increase in training by 1 is responsible for increase in performance 0.58. Similarly, the standardized regression coefficient value of

compensation for performance is 0.63, $p < 0.05$ with $R^2 = 0.37$; which means the increase in compensation by 1 is responsible for increase in performance 0.63. Results indicate that there is significance positive effect of compensation and training on performance. Data fully supported our hypotheses.

5. Discussions and Conclusion

The fundamental assumption of this study is that the ultimate goal of the entire commercial organizational project is to maximize their performance and successfully implement these factors to get maximum results. All the activities are engaged and organized to achieve this goal and the most important, regarding these factors, to achieve performance. The study shows that the project has its own scheduling for every step/stage especially in case of human resource, which is very important natural resource. But the results show that most of the projects fail to achieve this goal due to the little attention of management towards the human resource factors such as leadership, training of the employees and their level of compensation. This study is useful to understand the effect of human resource on the project performance especially on the implementation of these factors.

This study suggests that training of project team members and compensation plans are such an essential part of the project success for any company that they have to set up a section to both explain the impact of the factors on functions, and help HR professionals to execute effective strategies. This study focuses on the role and contribution of training and motivation towards efficient performance of the project team towards successful achieving and accomplishing the project. Arrange training for them to understand the work, helpful to achieve project goals and know about new procedures and technology used in work. Compensation directly affects the employees' performance, while providing them incentives and financial benefits according to their performance.

Employees have their own way of working; looking their own interest rather than project, so there is need of strong leadership who make bound and manage like a team. There are huge differences like cultural and working style between expatriate and local staff. They do not have respect and not proactive in their work. The research is intimately related to the area of interest because it shows that these human resource practices have effects on employees' motivation and their performance in the project so the other companies should emphasis on specific type to integrate their HR practices with project goals and to solve their problems through HR practices.

The project needs to combine these results for creating relationships of specific HR factors (e.g. Training and Compensation) with project performance. This breakthrough for the project in linking the impact of specific HR factors to project performance would be achieved by very close co-operation between its HR managers, project management and employees.

6. Limitations of the Study

Besides significant managerial and academia implications of the results, the present study also has some limitations in its scope and subjects of study. First, the data was of cross sectional nature that was collected only over a single period of time. Second, the study focused only on a single project rather to study multiple projects. Third, data could be used to test some other statistical and econometrics techniques to draw more generalized conclusions and implications. Finally, data was only of quantitative nature and only training and compensation were taken as HR factors to explore the relationship between HR factors and project performance. However, future studies could focus on multiple dimensions of HR planning as well as leadership styles to explore the links in depth. Future studies could also be based on both qualitative and quantitative nature of data.

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Appendix

Table 1: Descriptive Statistics and Correlation Matrix

	Mean	S.D	1	2	3	4
Gender	1.43	0.29				
Age	33.40	6.44	-.289			
Training	3.59	0.518	.807**	.257**		
Compensation	4.25	1.601	.447**	.524*	.561**	
Project Performance	4.11	0.649	.389**	-.203**	.629*	.744**

N=73, *p<0.05, **p>0.01

Figure1: Hypothesized Conceptual Model

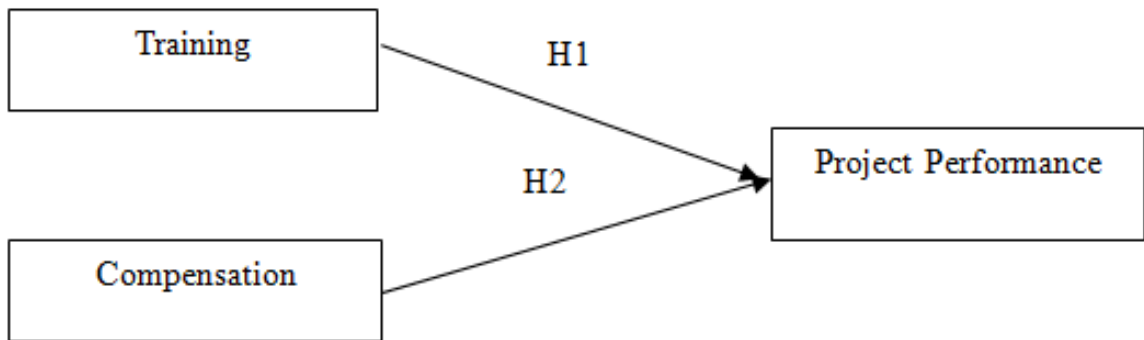
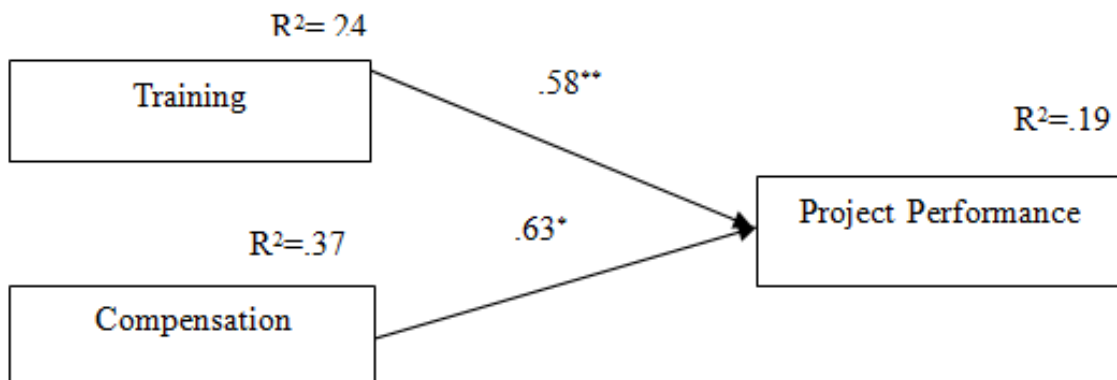


Figure2: Hypothesized Conceptual Model



Note: *** $p < 0.001$, ** $p < 0.01$, * $p > 0.05$

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