

Performance Management System at Software Industry in Public and Private Sectors: A Comparative Study

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ABSTRACT

While managing the objectives of the organization, performance management system refers to the management of employees which initiates with assigning duties and responsibilities to them. Now a day's employees try to climb the ladder of success as soon as they can. Keeping this in mind organizations provide proper developmental opportunities to attract and retain the talent to the organization. In software industry, organizations provide quality services and achieve goals through employees' efficiency and effectiveness which can be maintained by organizations through effective performance management system. Performance Management system acts as a tool to provide success to the organizations by developing their employees in such a way that it fulfils individual as well as organizational objectives. The present study aims at identifying the difference between the performance management system of public and private sector software organizations.

Keywords: Performance Management System, Efficiency, Effectiveness.

1. INTRODUCTION

In the age of rapid advances in science and technology and fast socio-economic changes over the past few decades heightened international competition and globalization of industrial products, it has been recognized that economic growth and prosperity of a country is highly dependent upon the technological changes that could be brought about technicians in industry.

To survive and remain competitive in such a rapidly changing scientific and technological environment, our industrial organizations must undergo continuous structural and technological changes to provide better service and to open up new market. Employees who bear the main responsibility to bring out the changes required in the industry, must be able to adapt to the changing demands of the industry and society and hence be able to constantly update their skills, knowledge, abilities to perform and sustain in today's scenario.

Performance Management system plays a vital role in improving the performance of employees and productivity and quality of service accordingly. Performance management is seen as an integrating process in which managers set standards with their employees, measure and assess results, and reward performance, in order to develop employee's performance with the ultimate goal of achieving organizational success.

Performance management includes managing employee's effort which is based on measured performance outcomes. Thus, the design of an effective performance management process involves how the different aspects of performance can be measured and determining what constitutes good performance.

Performance management consists of an extensive set of activities aimed at enhancing employee performance. Performance appraisal information provides input for the performance management process and performance management focuses on way to stimulate employees to improve their performance. The main goal of the performance management process is performance improvement, initially at the level of the individual employee, and finally at the level of the organization. Hence, Performance Management System emerges as an important aspect of human resource development.

In India, a big need has been felt over recent years and government as well as non-government organizations have made significant efforts to implement PMS in their organization. But all the endeavors made in this field yet, seem not to be sufficient enough and more and more efforts are required to be made by various enterprises to make it effective and efficient.

2. LITERATURE REVIEW

Performance Management is a term which has been a buzzword in the field of business and management. A large number of researches have been done on Performance Management in Industry and organizations. Challenges of knowledge economy have fastened the search for gaining sustainable sources of competitive advantage to survive. As a result, organizational

leaders are giving more importance to the human capital in getting success in the business. However attention for HR related practices, functions and accountability in the organizations has increased drastically over the last few years.

Corcoran (2006) explained that performance management is a system which is made of various interdependent internal processes. Appraisals are only single part of the overall process which covers several sub processes i.e. from recruitment and selection, goal setting, performance review, to training and development. Performance management relates to everything that takes place between these events. Performance management is all about setting and achieving organizational objectives. The objectives put forward by the employee in accordance with the manager's assessment of the employee's performance determine the training and development objectives.

Performance Management is being considered as a vital HR subsystem which can add to the growth and effectiveness of the organization. (Nankervis and Compton, 2006). The effectiveness of HR systems depends on the degree to which they match the both organizational and individual goals (Stone *et al.*, 2006).

Nankervis & Compton (2006) reported that the main purpose of developing performance management systems was to revise the processes in order to achieve desirable outcome , and then to establish whether performance management can be used as a more effective strategic tool in the management of human resources.

Armstrong and Baron (2004) stated that performance management is a tool to ensure that managers manage effectively. This means that (1) they ensure the employees they manage know and understand what is expected of them, (2) they have the skills to fulfill these expectations, (3) they are supported by the organization to develop the capacity to meet the expectations are giving and getting feedback on their performance, and (4) they have the opportunity to discuss the individual and team objectives.

Graham (2004) indicates that performance management is significant because it provides a fair way to guide employees' performance and it enables employees to know what they are expected to do, to know what is working well and to know areas that need improvement. Graham (2004) further argues the importance of performance management is that it enables employees to know how they are contributing to the organization and they are rewarded appropriately.

According to Economic and Social Council of United Nations (2003), performance management and measurement systems are developed as a means of observing and

maintaining organizational control. Performance management, as related to human resource management, is the process of delivering success to organizations by improving capabilities of individuals and teams. Organization should develop competencies of employees in such a way that it should align with those of the organizational goals because employees or people are considered to be the most important assets for an organization. Performance Management System, act as both behavioral change tools for improving the organizational performance. PMS must be able to capture the internal and external changes of the organization. Many organizations stated that their PMS implementations are somehow effective in a way that they have conducted all relevant and necessary steps in their Performance Management System. The effectiveness of implementation of Performance Management System in an organization is still under ambiguity it depends on variety of factors that determines the success in organizations.

Lawler and McDermott (2003) in their study on performance management practices of medium and large US corporations found that PMS design related practices like - business strategy driven performance goals; joint establishment of performance goals; performance results and salary linkage; and development planning were highly correlated with system effectiveness. In their study they also found certain high impact practices which brought about differentiation in performance management process and these are: training for appraisees, termination of lowest rated individuals etc.

De Bruijn (2002) lists three benefits that are considered the outcome of an effective PMS: transparency, improving the quality of policies, and decision making. One argument which reflects the impact of time on PMS is that its implementation is considered a long-term process. This long-term focus is that the first barrier in implementing PMS in public sector organizations has a short term focus due to political cycles and budgetary issues. (Liner, et al.2001 etc). Thus, the time or duration of PMS implementation needs to be analyze which shows the maturity of the PMS initiative, and increases the organizational expertise. It also shows the capacity of the PMS to attract attention over time.

Wyatt (1994) conducted a study which focuses on identifying the best practices in performance management by examining the systems of a selected group of companies recognized for financial success and innovative human resource programs. The study revealed that there are a set of best practices that could facilitate the process of designing, implementing, and monitoring performance management. These are: internal and external alignment; simplicity; flexibility; decentralized control; a measurement process; senior

management involvement, linkage between pay and performance, feedback from multiple sources and employee development.

OBJECTIVES OF THE STUDY

Based on the need and scope of the research, the following are the precise objectives of the study:

- To examine the differences between the Performance Management System of the public and private sector enterprises.
- To assess the difference between Performance Planning followed in public and private sector software industry
- To examine the difference between Performance Review in public and private sector software industry
- To identify the difference in the Implementation of Performance Management System in public and private sector software industry
- To assess the difference in the Post Implementation practices between public and private sector software industry.

HYPOTHESES

On the basis of the nature of this study, and also on the basis of the variables identified through literature study, the following null hypotheses have been formulated:

H01: There is no significant difference between the Performance Planning of public and private sector software industry.

H02: There is no significant difference between the Performance Review of public and private sector software industry.

H03: There is no significant difference between the Implementation of PMS among public and private software industry.

H04: There is no significant difference between the Feedback system of public and private sector software industry.

H05: There is no significant difference between the Rewards and Recognition of public and private sector software industry.

H06: There is no significant difference between the Performance Improvement of public and private sector software industry.

3. RESEARCH METHODOLOGY

It includes research design, sampling technique and methods of data collection used for the present study.

3.1 Research Design: Wagner (2003) also stated that descriptive research designs are precise and reliable due to their strict control over the research problem and information gathered. Therefore, descriptive methodology was adopted to compare performance management system practices in selected public and private sector software industry.

3.2 Sampling Plan: Convenient and random sampling procedure was adopted for the present study. Similar number of employees from public and private sector has been compared so as to maintain homogeneity in the analysis.

3.3 Sample Size: A sample of 100 employees of software industry from NOIDA (Western Uttar Pradesh) has been taken as a sample for the study. 50 employees each from public (CDAC- Centre for Development of Advanced Computing) and private sector (WIPRO Technologies Ltd.) were taken as a sample.

3.4 Data Collection: The methodology applied to data collected in this research study constituted mainly of survey technique (structured survey) i.e. surveys using a structured questionnaire. This was done to obtain responses. The questionnaire contained closed ended questions, i.e. respondents were to choose only from the alternative responses provided in the questionnaires.

3.4.1 Primary Data: The collection of primary data was done using personal investigation and field surveys which include development of questionnaire and administering the questionnaire on the sample identified. In conducting the survey employees from different departments at all levels were randomly approached personally and through mails to fill in the survey questionnaire.

3.4.2 Secondary Data: The collection of secondary data was based on literature review through online research databases such as EBSCO, ABI-Info, Pro-Quest, Scopus, etc. During the course of secondary data collection adequate information was available on the internet which helped in getting an overview performance management system in public and private sector enterprises.

4. DATA ANALYSIS AND FINDINGS

The research is descriptive, primary data has been collected through a pre tested questionnaire. The questionnaire has been designed using Likert scale and averaging of the

responses has been done using appropriate method.

For testing the hypothesis, one way ANOVA has been used to find out whether the difference between two sample means is significant or not. Analysis of Variance was used for testing the hypothesis formulated. For this test, the significance level of $p < .05$ were taken. The analysis of data was carried out by using IBM SPSS 23.0 software package.

Table-4.1 Descriptive Statistics

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Performance Planning	Public	50	28.30	6.698	.947	26.40	30.20	8	36
	Private	50	31.26	5.439	.769	29.71	32.81	14	36
	Total	100	29.78	6.250	.625	28.54	31.02	8	36
Performance Review	Public	50	38.84	7.574	1.071	36.69	40.99	20	49
	Private	50	44.10	7.172	1.014	42.06	46.14	24	52
	Total	100	41.47	7.800	.780	39.92	43.02	20	52
Implementation	Public	50	34.26	4.944	.699	32.85	35.67	14	40
	Private	50	36.26	4.184	.592	35.07	37.45	21	40
	Total	100	35.26	4.666	.467	34.33	36.19	14	40
Feedback	Public	50	13.36	3.702	.524	12.31	14.41	6	18
	Private	50	14.62	2.791	.395	13.83	15.41	7	19
	Total	100	13.99	3.323	.332	13.33	14.65	6	19
Rewards and Recognition	Public	50	25.06	5.701	.806	23.44	26.68	9	31
	Private	50	27.56	5.226	.739	26.07	29.05	12	33
	Total	100	26.31	5.584	.558	25.20	27.42	9	33
Performance Improvement	Public	50	22.00	5.249	.742	20.51	23.49	7	28
	Private	50	23.60	4.870	.689	22.22	24.98	11	28
	Total	100	22.80	5.101	.510	21.79	23.81	7	28

Table-4.1 gives a descriptive statistics about the public and private sector software organizations. It gives a detail about the mean, standard deviation and standard error on the various components of performance management system identified for the present study.

ANOVA was conducted to see the significance of the relationship between the independent and dependent factors. In the given case, each hypothesis was tested for the selected public and private sector software organizations taken for the study.

Table-4.2 Hypothesis Testing using ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
H₀₁	Between Groups	219.04	1	219.04	5.884	0.017
	Within Groups	3648.12	98	37.226		
	Total	3867.16	99			
H₀₂	Between Groups	691.69	1	691.69	12.715	0.001
	Within Groups	5331.22	98	54.4		
	Total	6022.91	99			
H₀₃	Between Groups	100	1	100	4.768	0.031
	Within Groups	2055.24	98	20.972		
	Total	2155.24	99			
H₀₄	Between Groups	39.69	1	39.69	3.693	0.058
	Within Groups	1053.3	98	10.748		
	Total	1092.99	99			
H₀₅	Between Groups	156.25	1	156.25	5.224	0.024
	Within Groups	2931.14	98	29.91		
	Total	3087.39	99			
H₀₆	Between Groups	64	1	64	2.497	0.117
	Within Groups	2512	98	25.633		
	Total	2576	99			

Table-4.2 shows that for the first hypothesis it is evident that the value of $F(1,98) = 5.884$ for which the value of $p = 0.017$ i.e., $p < .05$, shows that there exists a significant difference between the performance planning of public and private sector IT organizations, as the P value is less than 0.05 for 5% significance level. Hence, H_{01} in case of public and private sector IT organizations is rejected

It is clear from table 4.2, for second hypothesis when analysis of variance is calculated, the F ratio came out to be $F(1, 98) = 12.715$ for which the value of value of p is 0.001 i.e. $p < 0.05$, at 5% significance level. It shows that there exists no significant difference between the performance review of public and private sector software organizations. Hence Null hypothesis 2 in case of public and private sector IT enterprises is rejected.

The result of the analysis of variance for comparison between implementation of performance management system in public and private sector IT firms is exhibited in table 4.2. For concern, the estimated F ratio is $F(1, 98) = 4.768$ with $p = 0.031$, which is highly significant as the value is less than 0.05, thus it can be said that there exists a significant difference between the implementation of performance management system at public and private sector IT organizations or in other words it is stated that Null hypothesis three is rejected.

Table-4.2 shows that for the hypothesis it is evident that the value of $F(1, 98) = 3.693$ with $p = 0.058$ i.e. $p > 0.05$, shows that there exists no significant difference between the groups. As the P value is more than 0.05 for 5% significance level, there exists no significant difference between the feedback

given to the employees of public and private sector software organizations so, Null hypothesis 4 is accepted.

The above table shows that the F ratio for rewards and recognition between public and private sector software organizations was calculated which came out to be $F(1, 98) = 5.224$, which is highly significant with $p = 0.024$. Since $p < 0.05$, there exists a significant difference between the rewards and recognition provided to the employees of public and private sector IT enterprises. As a result null hypothesis five is rejected.

Table 4.2 shows the results of the analysis of variance for comparison between performance improvement in public and private sector IT organizations. For concern, the estimated F ratio is $F(1, 98) = 2.497$ with $p = 0.117$, which is not significant as the value is more than 0.05, thus it can be said that there exists no significant difference between the performance improvement at public and private sector IT organizations or in other words it is stated that Null hypothesis six is accepted.

5. CONCLUSION AND RECOMMENDATIONS

It is concluded that the work context of software industry is known to be knowledge intensive; dynamic and team based. Multiple teams working from geographically dispersed and culturally diverse locations are involved in the entire software project. PMS, being no exception, also faces unique challenges in such a context, but also has the potential to provide distinct HR advantage. Since human performance is the primary asset in any knowledge based industry like software services, the PMS, if designed and implemented well, has the potential to result in desired outcomes such as: role clarity; enhanced performance; performance alignment at all levels - individual, team and organizational; improved superior subordinate relationship; greater employee commitment and motivation to improve performance. While serving the immediate or short term purposes, it is important for performance management systems' of software organizations to focus on developmental aspects of their human capital as they confront volatile markets and rapidly changing business landscape. Due to evolving nature of tasks, rapid changes in client expectations, dynamic performance goals and shifting task priorities, feedback almost becomes the lifeblood of teams and individuals working in the software set-up. Frequent and timely feedback may help an employee re-focus and align his/her performance with team and project goals and take remedial actions if necessary. The results of this study highlight the crucial role played by project management layer in performance facilitation and assessment. Improvements in system design and implementation and greater strategic focus over the period of time may certainly help in bridging the gap.

As various similarities have been identified during the present research on the performance management system of public and private sector enterprises, so as certain differences have been also observed while collecting data for the given study in the performance management system of both public and private sector enterprises. These differences arise because of the difference in the structure

and operations of both types of sectors such as in public sector enterprises, performance related pay and reward systems are not strongly developed whereas private sector enterprises easily associate monetary rewards to the outstanding performers as per the requirement of the organization. Public sector enterprises are implementing performance management system to create accountability among employees rather than just controlling them while private sector enterprises use their performance management system mainly for control purposes.

A major finding of the present study is that a lot of the respondents were in doubt about the need and applicability of the PMS, which creates an ongoing exploration about the fact and factors which leads to their doubt and uncertainty. It further focuses a vital role should be played by line managers, as it is clear that lack of trust among the supervisors and subordinates was one of the major issues faced while reviewing the performance. The Performance Management System is designed and implemented to excel the performance of the individual as well as the organization as a whole. The present system can be further explored to study the challenging issues and consequently some developmental measures that could be taken to change and develop the system. Future research is still required to identify the extent to which the PMS is implemented in all public and private sector enterprises in India and the challenges faced by different organizations whose pool of experiences can inform improvements and overall effectiveness through the PMS. Although performance measures are now widely used within public sector organizations as well, but there is a lack of substantiation about their worth and efficacy. Hence it is still not clear to what extent performance measures help the organizations to accomplish their objectives.

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