# A STUDY ON IMPACT OF PERFORMANCE APPRAISAL ON EMPLOYEE SATISFACTION IN IT SECTOR

Virender Khanna*

***PURPOSE***
*THIS study is aimed at finding out analytically what factors impact the employee's satisfaction regarding the appraisal processes followed in their organization.*

***Research Methodology****: To achieve the set objectives, the study used a mixed-methods research design to collect requisite data, which allowed it to collect both qualitative and quantitative data. A survey was floated between 12th November to 18thNovember, 2015 and 112 responses were received. Whereas quantitative data were analysed using Statistical Package for Social Science (SPSS), qualitative data were subjected to content analysis.*

***The Finding****: The study has found that there is strong relation between team related factors in the appraisal and employee satisfaction pertaining to performance appraisal. The analysis has also captured the differences in satisfaction across different types of appraisal processes followed across the different organizations.*

***Practical Implications:*** *In today's economy, especially in case of the Indian economy the contribution of Services industry is very important and a large part of the labor force is engaged in this industry. Within the Services industry a major chunk is of the IT companies which are also the largest employer of the youth in the country. Given the importance that the IT industry has for their human resources it is obvious that they adopt global practices in training and evaluating their employees.*

***Key Words:*** *Employee satisfaction, Performance Appraisal, Appraisal process, IT Sector.*

## Introduction

Performance appraisal is considered to be a constant source of complaints and dissatisfaction for employees across geographies and industries. The closest comparison that performance appraisals receive is that of some dreaded examination where the future course of an individual's career is to be decided. It is common to find that people attribute their companies' appraisal process to be the reason for their lack of progress in the organization and given the fact that the IT industry in India has so far generated 2.5 million direct employments, it is indeed necessary to know and understand the factors that affect the satisfaction of these employees from these performance appraisals.

The study of factors relating to the satisfaction of employees with regards to Performance Appraisal has covered a number of factors related to the individual, his team, the company culture, etc. In our current context of IT performance appraisals, we find that the IT industry has a very high attrition rate. A perception is there that due to the voluminous recruitments done by the IT industry on an annual basis, performance appraisals often do not capture the proper parameters and hence there is a

* *Professor, Head of the Department, School of Business and Entrepreneurship, FDDI, Noida, Gautam Budh Nagar, Uttar Pradesh, India.*

huge amount of voluntary attrition. Big players in the industry such as TCS (13.6%), Cognizant (17.1%), Infosys (21.0%) and Wipro (17.6%) all had above 12% attrition in the Financial Year 2015-16, which implied that for every 100 hires the companies lost more than 12 employees. Because of such high attrition rates and at the same time the contribution of the ITsector to the Indian economy, we felt the need to conduct our project on factors affecting satisfaction of employees to the Appraisal process.

## Review of Literature

Locke & Lathan (1990) characterize job satisfaction as pleasurable or positive enthusiastic state coming about because of the examination of one's job or job understanding. Job satisfaction is a consequence of employee's impression of how well their job gives those things that are seen as vital. It is by and large perceived in the organizational conduct field that job satisfaction is the most vital and as often as possible considered attitude.

Luthans (1998) placed that there are three vital measurements to job satisfaction: job satisfaction is a passionate reaction to a job circumstance. In that capacity it can't be seen, it must be construed; job satisfaction is frequently controlled by how well result meet or surpass desires. For example, if organizational members feel that they are working substantially harder than others in the office however, are accepting less rewards they will presumably have a negative attitude towards the work, the supervisor and additionally associates. Then again, in the event that they feel they are being dealt with extremely well and are being paid fairly, they are probably going to have uplifting attitudes towards the job. Job satisfaction causes a progression of impacts on different parts of organizational life. The impact of job satisfaction on employee can be seen in expanded profitability, reliability, and diminished truancy. The dominance of research confirmation shows that there is no solid linkage amongst satisfaction and profitability (Locke & Lathan, 1990). Cole (2002) battles that job satisfaction is an every now and again concentrated subject in work and organizational writing. This is principally because of the way that numerous specialists trust that job satisfaction patterns can influence work advertise conduct and impact work efficiency, work exertion, employee truancy and staff turnover. Additionally, job satisfaction is viewed as a solid indicator of general individual prosperity and also a decent indicator of goals or choices of employees to leave a job.

Lather and Goyal (2003) studied job satisfaction amongst managers and engineers in relation to personality and psychopathology. The study revealed that personality structure of Extremely Satisfied (ES) and Extremely Dissatisfied (ED)is similar and that of Very Satisfied (VS) and Not Satisfied (NS) is similar, only Moderately Satisfied(MS) employees showed different personality structure. Singh (2002) additionally assert that it is not just the engaged employees who would like to stay in the organization and have a prolonged association, the organizations also make sincere efforts to retain their engaged employees. The study conducted by Dhawan (2015) shows a significant and negative effect of stressors (role expectation conflict, role erosion and role isolation) on overall job satisfaction and consequently a positive effect on overall job performance.

The history of Performance Appraisals can be traced to the early 20$^{th}$century. Employee satisfaction with regards to his work becomes a paramount feature of 20$^{th}$century. The assessment of employee satisfaction can be traced to the 1930s where psychologists like Uhrbrock in the "Journal of Psychology" and Kornhauser in "Industrial psychology in England, Germany, and the United States" talked about attitude measurement techniques to assess factory worker attitudes. Over time this evolved and current measurement tries to understand employee satisfaction based on culture, diversity, ethnicity, relationships with colleagues, work distribution, etc.

India is the world's largest sourcing destination for the IT industry, accounting 52% of US$ 124-130 billion market. IT sector employs about 10 million people in India and contributes heavily to the technical transformation of the country. The IT/Software Industry has put India on the world stage and has projected an image of technical excellence over which a lot of our financial ratings, loans, and developmental funds depends.

Every employee is qualified for an astute and cautious examination. The accomplishment of the procedure

relies upon the director's eagerness to finish a helpful and target examination and on the employee's ability to react to productive proposals and to work with the chief to achieve future objectives (Berman, 2005; Kent, 2007). The evaluation procedure starts with the setting up of performance measures, and these principles are generally verbalized in such an expression as "A full day's work". Fletcher (1994) asserts that, the desires a director has as far as work performance by his or her subordinates must be unambiguous in order to obviously convey them to the subordinates. This multitude of appraisal techniques led us to consider the satisfaction levels with the appraisal process in this industry and made us undertake this study to better explore, understand and analyze the evolving contours of performance management in India.

Berman (2005) affirms that performance appraisals are basic for vocation and progression arranging - for people, significant jobs, and for the organization in general. Performance appraisals are basic in staff inspiration, attitude and conduct improvement, imparting and adjusting individual and organizational points, and encouraging positive connections amongst administration and staff. They likewise give a formal, recorded, consistent survey of an individual's performance, and an arrangement for future advancement. Job performance appraisals - in whatever frame they take - are subsequently key for dealing with the performance of individuals and organizations. The study conducted by Bernardin (2002), Ellickson (2002), and Jawahar (2006) has also been used to understand the correlation of performance appraisal feedback with employee satisfaction.

## Objectives of Study

The Objectives of Study are as follows:

1. To understand the various factors of the appraisal process which affect the satisfaction of employees.
2. To understand the significance of the factors in driving the satisfaction of the employees.
3. To understand the appraisal process which is termed to be most fair by the employees.

## Hypotheses

The research tests following hypotheses:

$H_0$1: Satisfaction does not depend on the independent variables *like team bonding, appraiser competency, frequency of appraisal, etc.*

$H_0$2: The satisfaction score does not depend on the type of appraisal.

$H_0$3: The satisfaction score does not depend on the salary level of the employees.

## Data Collection

A survey was floated between 12th November to 18th November, 2015 and 112 responses were received. The recipients were assured that their responses will be kept confidential as the data involved aspects of appraisal systems of various organizations. A self-administered simple questionnaire with 20 questions was created in English. The questions revolved around four major categories of factors, in line with our findings – System related, Appraiser related, Team related and Pre & Post Appraisal related. Various categories of experience brackets were targeted as follows:

Out of the 112 responses obtained, 38 were randomly selected participants of PGDM programme having previous work experience in IT sector. The rest 72 were working professionals from 29 organizations spread across India.

The majority of the organizations had the following Appraisal systems:

a. Bell Curve

b. Management by Objectives

c. 360-degree feedback

## Data Analysis

$H_0$1: Satisfaction does not depend on the independent variables like team bonding, appraiser competency, frequency of appraisal, etc.

$H_A$1: Satisfaction depends on the independent variables.

To start with, a regression model was used to understand the impact of the independent variables on the output of the variable – satisfaction. To include non-metric variable – type of appraisal system, two dummy variables – Dummy1 and Dummy2 were created to include them in the regression model. The objective of regression model was to study the significance of factors as well as the multi-collinearity characteristics. In case of multicollinearity, factor analysis will be carried out after regression analysis.

**Table No. 1: Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | R Square Change | Change Statistics | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | F Change | df1 | df2 | Sig. F Change |
| 1 | 0.882[a] | 0.778 | 0.758 | 0.48751 | 0.778 | 12.809 | 17 | 88 | 0 |

*a. Predictors: (Constant), recoimpl, Dummy1, Autonomy in decison making, Team Bonding, Dummy2, Apprcompet, Clearly demarcated roles , Ratings meet expec, Rate the frequency, Appr Bias, Process implementation, Quality of task in team, Asgn per obj, Team communication, Importance given to opinion, Fairness of promo, Feedb imp.*

Based on the model summary, the R Square value of 0.778 suggests that the independent variables explain upto 77% variation on the employee satisfaction.

**Table No. 2: ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 51.752 | 17 | 3.044 | 12.809 | 0.000[b] |
| | Residual | 14.735 | | 88 | 0.238 | |
| | Total | 66.488 | | 105 | | |

*a. Dependent Variable: Satisfaction*

*b. Predictors: (Constant), recoimpl, Dummy1, Autonomy in decison making, Team Bonding, Dummy2, Apprcompet, Clearly demarcated roles , Ratings meet expec, Rate the frequency, Appr Bias, Process implementation, Quality of task in team, Asgn per obj, Team communication, Importance given to opinion, Fairness of promo, Feedb imp.*

Based on the ANOVA output, the regression model is significant at p=0.00, which is substantiated with high value of F of 12.89 = 09 corresponding to 17.88 degrees of freedom

**Table No. 3: Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Collinearity Statistics | | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | Sig. | Tolerance | VIF |
| 1 | (Constant) | 0.179 | 0.348 | | 0.514 | 0.609 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Team Bonding | 0.019 | 0.082 | 0.018 | 0.227 | 0.821 | 0.551 | 1.814 |
| Team communication | 0.158 | 0.105 | 0.145 | 1.498 | 0.139 | 0.381 | 2.627 |
| Autonomy in decison making | -0.213 | 0.081 | -0.224 | -2.610 | 0.011 | 0.584 | 1.73 |
| Clearly demarcated roles | 0.024 | 0.086 | 0.026 | 0.283 | 0.778 | 0.430 | 2.324 |
| Importance given to opinion | 0.124 | 0.096 | 0.133 | 1.288 | 0.203 | 0.336 | 2.981 |
| Quality of task in team | -0.126 | 0.080 | -0.144 | -1.581 | 0.119 | 0.430 | 2.328 |
| Dummy 1 | 0.078 | 0.141 | 0.039 | 0.551 | 0.583 | 0.707 | 1.414 |
| Dummy 2 | 0.056 | 0.160 | 0.026 | 0.353 | 0.726 | 0.668 | 1.498 |
| Rate the frequency | 0.171 | 0.077 | 0.182 | 2.226 | 0.3 | 0.534 | 1.873 |
| Process implementation | 0.415 | 0.082 | 0.444 | 5.075 | 0.000 | 0.568 | 1.760 |
| Ratings meet expec | 0.144 | 0.085 | 0.152 | 1.690 | 0.096 | 0.443 | 2.257 |
| Fairness of promo | 0.270 | 0.094 | 0.297 | 2.866 | 0.006 | 0.334 | 2.994 |
| Apprcompet | -0.079 | 0.087 | -0.078 | -0.905 | 0.369 | 0.476 | 2.102 |
| Appr Bias | 0.077 | 0.085 | 0.081 | 0.901 | 0.371 | 0.439 | 2.278 |
| Asgn per obj | -0.173 | 0.100 | -0.171 | -1.720 | 0.090 | 0.362 | 2.759 |
| Feedb imp | 0.123 | 0.093 | 0.142 | 1.326 | 0.190 | 0.313 | 3.199 |
| Recoimpl | -0.006 | 0.092 | -0.007 | -0.067 | 0.947 | 0.356 | 2.811 |

From the coefficient tables, collinearity exists for several variables. Hence, Factor analysis needs to run to combine the factors having multi-collinearity. After which a regression can be re-run to find significant factors. Also to find the major variables entering the regression equation, step wise regression was done.

**Table No. 4: Stepwise Regression**

| | | **Variables Entered/Removed[a]** | |
|---|---|---|---|
| Model | Variables Entered | Variables Removed | Method |
| 1 | Process implementation | | Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100). |
| 2 | Rate the frequency | | Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100). |
| 3 | Fairness of promo | | Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100). |
| 4 | Ratings meet expec | | Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100). |

*a. Dependent Variable: Satisfaction*

Looking at the variables entered/removed from the table of the stepwise regression analysis, we find that only 4 independent variables contribute in increasing the R square significantly – Process Implementation, Rate the frequency, Fairness of promo, and Ratings meet expectations.

These are the variables which explain maximum part of the variation in the dependent variable Satisfaction.

**Table No. 5: Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | R Square Change | Change Statistics | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | F Change | df1 | df2 | Sig. F Change |
| 1 | 0.749[a] | 0.561 | 0.556 | 0.61158 | 0.561 | 99.757 | 1 | 88 | 0.000 |
| 2 | 0.804[b] | 0.646 | 0.637 | 0.55311 | 0.085 | 18.366 | 1 | 87 | 0.000 |
| 3 | 0.827[c] | 0.684 | 0.671 | 0.52606 | 0.038 | 9.119 | 1 | 86 | 0.003 |
| 4 | 0.839[d] | 0.704 | 0.689 | 0.51183 | 0.021 | 5.287 | 1 | 85 | 0.024 |

*a. Predictors: (Constant), Process implementation*

*b. Predictors: (Constant), Process implementation, Rate the frequency*

*c. Predictors: (Constant), Process implementation, Rate the frequency, Fairness of promo*

*d. Predictors: (Constant), Process implementation, Rate the frequency, Fairness of promo, etc.*

This Table No. 5 explains the contribution that the independent variables have in explaining the variation of the dependent variable – Satisfaction. The Table No. 5 shows that process implementation explains the highest variation, 56.1%, and the other variables too explain the dependent variable in a significant manner. We keep these variables and exclude the remaining variables as the R square change by adding those variables is not too significant. The R square value of having the four variables is 70.4% which is really good for social science topics. Also, the adjusted R square is almost the same as R square, confirming that the number of observations taken for the analysis is sufficient.

**Table No. 6: ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 37.313 | 1 | 37.313 | 99.757 | 0.000[b] |
| | Residual | 29.175 | 87 | 0.374 | | |
| | Total | 66.488 | 88 | | | |
| 2 | Regression | 42.931 | 2 | 21.466 | 70.166 | 0.000[c] |
| | Residual | 23.556 | 86 | 0.306 | | |
| | Total | 66.488 | 88 | | | |
| 3 | Regression | 45.455 | 3 | 15.152 | 54.750 | 0.000[d] |
| | Residual | 21.033 | 85 | 0.277 | | |
| | Total | 66.488 | 88 | | | |
| 4 | Regression | 46.840 | 4 | 11.710 | 44.701 | 0.000[e] |
| | Residual | | 19.647 | 84 | 0.262 | |
| | Total | | 66.488 | 88 | | |

*a. Dependent Variable: Satisfaction*

*b. Predictors: (Constant), Process implementation*

*c. Predictors: (Constant), Process implementation, Rate the frequency*

*d. Predictors: (Constant), Process implementation, Rate the frequency, Fairness of promo*

*e. Predictors: (Constant), Process implementation, Rate the frequency, Fairness of promo, etc.*

The fourth row is the one we need to look at as it contains all the variables that are significant in explaining the dependant variable. From the table no. 6, it can be confirmed that the variables are together significant in explaining the satisfaction variable. This is seen in the Sig. column of the table no. 6. The significance is further supplemented with the fact that the F value for the predictors – 44.701 is really high.

**Table No. 7: Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Collinearity Statistics | | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | Sig. | Tolerance | VIF |
| 1 | (Constant) | 1.022 | 0.244 | | 4.188 | 0.000 | | |
| | Process implementation | 0.701 | 0.070 | 0.749 | 9.988 | 0.000 | 1.000 | 1.000 |
| 2 | (Constant) | 0.392 | 0.265 | | 1.480 | 0.143 | | |
| | Process implementation | 0.586 | 0.069 | 0.626 | 8.499 | 0.000 | 0.848 | 1.179 |
| | Rate the frequency | 0.296 | 0.069 | 0.316 | 4.286 | 0.000 | 0.848 | 1.179 |
| 3 | (Constant) | 0.286 | 0.255 | | 1.124 | 0.265 | | |
| | Process implementation | 0.468 | 0.076 | 0.500 | 6.141 | 0.000 | 0.627 | 1.595 |
| | Rate the frequency | 0.221 | 0.070 | 0.235 | 3.137 | 0.002 | 0.741 | 1.350 |
| | Fairness of promo | 0.238 | 0.079 | 0.261 | 3.020 | 0.003 | 0.557 | 1.795 |
| 4 | (Constant) | 0.162 | 0.254 | | 0.637 | 0.526 | | |
| | Process implementation | 0.409 | 0.079 | 0.437 | 5.211 | 0.000 | 0.560 | 1.787 |
| | Rate the frequency | 0.193 | 0.069 | 0.206 | 2.781 | 0.007 | 0.719 | 1.391 |
| | Fairness of promo | 0.184 | 0.080 | 0.203 | 2.305 | 0.024 | 0.511 | 1.959 |
| | Ratings meet expec | 0.182 | 0.079 | 0.192 | 2.299 | 0.024 | 0.568 | 1.760 |

*a. Dependent Variable: Satisfaction*

Based on the coefficients given in table no. 7, all the variables which entered the stepwise regression are significant.

Now Factor Analysis was performed to club the correlated factors.

**Factor Analysis**

H0: The variables cannot be clubbed into factors.

H1: At least a pair of variables can be clubbed into factor

**Table No. 8: KMO and Bartlett's Test**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | 0.875 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 621.780 |
| | df | 105 |
| | Sig. | 0.000 |

The value of KMO measure of sampling adequacy is greater than 0.8 which suggests ideal case for factor analysis. This is also supported by the Chi-Square and significance values.

**Table No. 9: Communalities**

| | Initial | Extraction |
|---|---|---|
| Team bonding | 1.000 | 0.651 |
| Team communication | 1.000 | 0.785 |
| Autonomy in decision making | 1.000 | 0.539 |
| Clearly demarcated roles | 1.000 | 0.786 |
| Importance given to opinion | 1.000 | 0.719 |
| Quality of task in team | 1.000 | 0.625 |
| Rate the frequency | 1.000 | 0.526 |
| Process implementation | 1.000 | 0.507 |
| Ratings meet expec | 1.000 | 0.651 |
| Fairness of promo | 1.000 | 0.715 |
| Apprcompet | 1.000 | 0.572 |
| Appr Bias | 1.000 | 0.544 |
| Asgn per obj | 1.000 | 0.722 |
| Feedb imp | 1.000 | 0.726 |
| recoimpl | 1.000 | 0.663 |

*Extraction Method: Principal Component Analysis.*

The extraction values obtained from communalities are greater than 0.5, which indicates that the variables can be clubbed into factors.

**Table No. 10: Total Variance Explained**

| | Initial Eigen values | | | | Extraction Sums of Squared Loadings | | Rotation Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|---|---|---|
| Component | % of Total | Cumulative Variance | % of % | Total | Cumulative Variance | % | % of Total | Variance | Cumulative % |
| 1 | 6.810 | 45.399 | 45.399 | 6.810 | 45.399 | 45.399 | 4.601 | 30.676 | 30.676 |
| 2 | 1.756 | 11.704 | 57.102 | 1.756 | 11.704 | 57.102 | 2.548 | 16.988 | 47.664 |
| 3 | 1.065 | 7.102 | 64.204 | 1.065 | 7.102 | 64.204 | 2.481 | 16.540 | 64.204 |
| 4 | 0.895 | 5.964 | 70.168 | | | | | | |
| 5 | 0.786 | 5.241 | 75.410 | | | | | | |
| 6 | 0.584 | 3.894 | 79.303 | | | | | | |
| 7 | 0.546 | 3.637 | 82.940 | | | | | | |
| 8 | 0.479 | 3.196 | 86.136 | | | | | | |
| 9 | 0.461 | 3.076 | 89.212 | | | | | | |
| 10 | 0.351 | 2.341 | 91.553 | | | | | | |
| 11 | 0.345 | 2.301 | 93.85 | | | | | | |
| 12 | 0.292 | 1.944 | 95.798 | | | | | | |
| 13 | 0.234 | 10.558 | 97.356 | | | | | | |
| 14 | 0.213 | 1.422 | 98.778 | | | | | | |
| 15 | 0.183 | 1.222 | 100.000 | | | | | | |

*Extraction Method: Principal Component Analysis.*

From the Principal Component Analysis, three factors have been generated from the set of 15 variables.

**Table No. 11: Rotated Component Matrix[a]**

| | Component | | |
|---|---|---|---|
| | Factor 1 | Factor 2 | Factor 3 |
| Team Bonding | | | 0.779 |
| Team communication | | | 0.832 |
| Autonomy in decison making | | | 0.613 |
| Clearly demarcated roles | | 0.858 | 0.215 |
| Importance given to opinion | | 0.667 | 0.462 |
| Quality of task in team | | 0.615 | 0.403 |
| Rate the frequency | 0.675 | | |
| Process implementation | 0.678 | | |
| Ratings meet expec | 0.710 | | |
| Fairness of promo | 0.794 | | |
| Apprcompet | 0.585 | | |
| Appr Bias | 0.686 | | |
| Asgn per obj | 0.791 | | |
| Feedb imp | 0.704 | | |
| Recoimpl | 0.598 | | |

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

*a. Rotation converged in 7 iterations.*

From the rotated component matrix, the variables were classified under the three factors and based on the factor score coefficient matrix, the weighted scores were calculated for the 3 factors.

**Table No. 12: Weighted Scores for Factor**

| Factor 1 | Factor 2 | Factor 3 | Satisfaction | Factor 1 | Factor 2 | Factor 3 | Satisfaction |
|---|---|---|---|---|---|---|---|
| 6.17 | 4.23 | 5.06 | 4.00 | 4.63 | 2.11 | 2.31 | 3.00 |
| 4.91 | 4.49 | 4.51 | 3.00 | 5.22 | 3.71 | 4.62 | 3.00 |
| 4.70 | 4.75 | 4.79 | 3.00 | 5.86 | 5.29 | 4.90 | 2.00 |
| 6.08 | 3.71 | 4.35 | 5.00 | 4.07 | 4.77 | 4.35 | 3.00 |
| 5.54 | 4.77 | 5.06 | 4.00 | 4.43 | 3.69 | 2.31 | 3.00 |
| 4.04 | 4.49 | 4.35 | 3.00 | 6.56 | 4.77 | 5.06 | 4.00 |
| 6.48 | 4.49 | 4.79 | 4.00 | 4.96 | 3.46 | 4.46 | 3.00 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3.16 | 3.43 | 3.03 | 2.00 | 5.02 | 5.03 | 3.91 | 3.00 |
| 6.73 | 4.77 | 4.90 | 4.00 | 3.45 | 3.17 | 3.47 | 2.00 |
| 3.61 | 4.52 | 3.91 | 2.00 | 5.76 | 4.75 | 4.35 | 4.00 |
| 5.74 | 4.51 | 5.06 | 4.00 | 5.18 | 3.71 | 4.18 | 3.00 |
| 4.22 | 3.43 | 4.62 | 3.00 | 7.71 | 5.29 | 5.78 | 5.00 |
| 6.41 | 4.51 | 5.78 | 4.00 | 6.88 | 4.49 | 5.07 | 4.00 |
| 6.17 | 5.00 | 4.62 | 4.00 | 3.77 | 2.11 | 3.91 | 2.00 |
| 5.86 | 5.29 | 5.07 | 4.00 | 5.79 | 2.11 | 3.19 | 4.00 |
| 5.25 | 4.23 | 5.50 | 3.00 | 6.57 | 4.00 | 4.90 | 4.00 |
| 5.58 | 2.94 | 4.51 | 4.00 | 5.76 | 5.29 | 5.50 | 4.00 |
| 5.73 | 4.25 | 4.79 | 5.00 | 3.49 | 3.97 | 3.30 | 3.00 |
| 3.22 | 4.75 | 4.62 | 2.00 | 4.44 | 4.77 | 5.78 | 2.00 |
| 4.42 | 4.49 | 4.35 | 3.00 | 3.58 | 3.43 | 5.50 | 3.00 |
| 5.63 | 3.20 | 4.18 | 4.00 | 3.48 | 3.97 | 4.35 | 4.00 |
| 2.45 | 1.57 | 3.19 | 1.00 | 3.65 | 3.97 | 4.35 | 2.00 |
| 2.70 | 2.60 | 2.75 | 2.00 | 4.72 | 5.00 | 5.07 | 3.00 |
| 6.53 | 4.75 | 4.90 | 5.00 | 4.59 | 3.74 | 4.18 | 3.00 |
| 5.88 | 4.77 | 5.50 | 4.00 | 6.68 | 4.77 | 5.34 | 4.00 |
| 4.63 | 3.17 | 3.47 | 3.00 | 6.06 | 5.00 | 4.35 | 3.00 |
| 4.67 | 3.97 | 3.19 | 4.00 | 6.35 | 4.23 | 4.96 | 5.00 |
| 6.17 | 4.23 | 4.62 | 4.00 | 4.98 | 4.23 | 3.91 | 3.00 |
| 2.96 | 3.17 | 2.75 | 1.00 | 5.55 | 4.20 | 3.91 | 4.00 |
| 5.04 | 4.00 | 4.62 | 4.00 | 5.36 | 2.65 | 2.59 | 2.00 |
| 5.05 | 4.23 | 4.35 | 4.00 | 5.58 | 2.40 | 3.19 | 4.00 |
| 5.61 | 3.71 | 4.18 | 3.00 | 5.51 | 4.77 | 5.78 | 4.00 |
| 3.50 | 3.48 | 4.18 | 3.00 | 6.08 | 5.29 | 5.34 | 4.00 |
| 4.73 | 2.11 | 3.19 | 3.00 | 5.46 | 3.69 | 3.91 | 4.00 |
| 5.00 | 3.74 | 3.47 | 3.00 | 4.46 | 3.71 | 4.90 | 3.00 |
| 5.67 | 3.97 | 5.50 | 4.00 | 2.97 | 1.86 | 5.23 | 2.00 |
| 5.64 | 3.20 | 5.34 | 4.00 | 5.08 | 3.69 | 4.79 | 5.00 |
| 4.94 | 3.97 | 5.23 | 3.00 | 6.17 | 4.23 | 5.06 | 4.00 |
| 3.30 | 3.17 | 3.63 | 2.00 | 6.29 | 5.29 | 5.34 | 3.00 |
| 5.95 | 5.29 | 3.91 | 4.00 | 5.55 | 3.17 | 3.47 | 4.00 |

Post factor analysis, regression analysis was done using the calculated factor scores.

**Table No. 13: Summary Measures**

| | | | | | | |
|---|---|---|---|---|---|---|
| Multiple R | 0.7705 | | | | | |
| R-Square | 0.5936 | | | | | |
| Adj R-Square | 0.5776 | | | | | |
| StErr of Est | 0.5962 | | | | | |
| *ANOVA Table* | | | | | | |
| Source | df | SS | MS | F | p-value | |
| Explained | 3 | 39.4692 | 13.1564 | 37.0078 | 0.0000 | |
| Unexplained | 102 | 27.0183 | 0.3555 | | | |
| *Regression coefficients* | | | | | | |
| | Coefficient | Std. Err | t-value | p-value | Lower limit | Upper limit |
| Constant | 0.0709 | 0.3907 | 0.1815 | 0.8565 | -0.7072 | 0.8490 |
| Factor 1 | 0.6171 | 0.0711 | 8.6787 | 0.0000 | 0.4755 | 0.7588 |
| Factor 2 | -0.0708 | 0.0970 | -0.7304 | 0.4674 | -0.2639 | 0.1223 |
| Factor 3 | 0.0973 | 0.1005 | 0.9673 | 0.3365 | -0.1030 | 0.2975 |

From the results, shown in Table No. 12, the Factor 1 (Team related factors) is significant. The R Square value has reduced to 0.5936 due to Factor analysis. Among all category of factors, Team related factors is significant.

**Table No. 14: ANOVA**

$H_0$1: All the three systems of appraisal don't differ in satisfaction scores

$H_A$1: There is difference in satisfaction scores among the three systems of appraisal

| *Summary stats for samples* | | | | | |
|---|---|---|---|---|---|
| | Satisfaction_360 degree feedback | Satisfaction_ Bell Curve | Satisfaction_ MBO | | |
| Sample sizes | 29 | 49 | 24 | | |
| Sample means | 4.103 | 3.367 | 3.458 | | |
| Sample standard deviations | 0.724 | 1.035 | 0.932 | | |
| Sample variances | 0.525 | 1.071 | 0.868 | | |
| Weights for pooled variance | 0.283 | 0.485 | 0.232 | | |
| Number of samples | 3 | | | | |
| Total sample size | 102 | | | | |
| Grand mean | 3.598 | | | | |
| Pooled variance | 0.869 | | | | |
| Pooled standard deviation | 0.932 | | | | |
| *One Way ANOVA table* | | | | | |
| Source | SS | df | MS | F | p-value |
| Between variation | 10.484 | 2 | 5.242 | 6.032 | 0.0034 |
| Within variation | 86.036 | 99 | 0.869 | | |
| Total variation | 96.520 | 101 | | | |
| Confidence intervals for mean differences | | | | | |

| Confidence level | 95.0% | | | | |
|---|---|---|---|---|---|
| *Tukey method* | | | | | |
| Difference | Mean diff. | Lower | Upper | Signif? | |
| Satisfaction_360 degree feedback - Satisfaction_Bell Curve | 0.736 | 0.215 | 1.257 | Yes | |
| Satisfaction_360 degree feedback - Satisfaction_MBO | 0.645 | 0.031 | 1.259 | Yes | |
| Satisfaction_Bell Curve - Satisfaction_MBO | -0.091 | -0.645 | 0.463 | No | |

The p value of 0.0034, suggests that there is difference in levels of satisfaction across the three systems of appraisal: 360-degree feedback, Bell Curve, and Management by Objectives. The difference obtained using Tukey method suggests that the difference is significant for 360-degree feedback and Bell curve, 360-degree feedback and MBO. This also suggests the reason for major IT companies moving away from the forced Bell curve method.

$H_0$1: Satisfaction levels don't differ across different salary brackets

$H_A$1: Satisfaction levels are different across salary brackets

For this purpose, satisfaction levels were studied across the following income brackets:

a. 3 to 5 Lakhs, b. >5 to 10 Lakhs, c. >10 to 16 Lakhs, d. >16 Lakhs.

**Table No. 15: Summary Stats for Sanples**

| | Satisfaction_ >10 to 16 Lakhs | Satisfaction_ >3 to 5 Lakhs | Satisfaction_ >5 to 10 Lakhs | Satisfaction_ Above 16 Lakhs |
|---|---|---|---|---|
| Sample sizes | 14 | 38 | 48 | 2 |
| Sample means | 3.714 | 3.368 | 3.729 | 4.000 |
| Sample standard deviations | 0.726 | 1.076 | 0.962 | 0.000 |
| Sample variances | 0.527 | 1.158 | 0.925 | 0.000 |
| Weights for pooled variance | 0.133 | 0.378 | 0.480 | 0.010 |
| Number of samples | 4 | | | |
| Grand mean | 3.598 | | | |
| Pooled variance | 0.951 | | | |
| Pooled standard deviation | 0.975 | | | |

## Research Findings and Discussion

Research findings provided interesting insights on factors related to appraisal system, impacting employee satisfaction on appraisal. The gap identified through literature review – Team based factors were found to be significant when compared to other factors. The list of hypotheses and the conclusions obtained are summarised below.

$H_0$1: Satisfaction does not depend on the independent variables like team bonding, appraiser competency, frequency of appraisal, etc.

Multiple Regression, Stepwise Regression, and Factor analysis were used to examine the relationship. Out of the factors categorized using factor analysis, Team based factors had greater impact on the satisfaction on appraisal systems. It was validated using secondary research that approximately 40% of weightage is given to team performance metrics as majority of the work done in the organizations is project based. As the allocation of teams is random, the employees have a very little say over the allocation of teams. Improper allocation can thus lead to lower satisfaction on appraisal systems as team performance is factored in the ratings, thus impacting overall employee satisfaction. Hence, proper feedback regarding team dynamics need to be taken by the organizations capturing the team based factors such as Team bonding, Team communication, Autonomy of decision making in team, tasks offered in team, etc.

$H_0$2: All the appraisals methods provide the same satisfaction score

Three appraisal methods: 360-degree feedback, Bell Curve, and Management by Objective (MBO) were compared and the differences were found to be significant. There was significant difference between 360-degree feedback, Bell Curve and MBO. This is consistent with the trends today. Major IT giants such as IBM, TCS, Accenture have dumped, forced fit bell curve and moved towards 360-degree feedback which is more holistic and evaluates all vital aspects in terms of performance. To counter alarming attrition rates (19.3% in 2016) these organizations shall seriously consider replacing Bell Curve based appraisal.

$H_0$3: The satisfaction score is not dependent on the salary level of the employees

It was initially perceived that satisfaction varies with salary levels, however, IT being competitive sector, people could easily switch organizations if they were not satisfied with the systems in the organization. This was supported by the findings that satisfaction levels across income brackets were not different. This provided insight that the system of appraisal was perceived the same by employees in all income brackets.

## Conclusion

The results of this study should be able to help HR managers in understanding the factors affecting appraisal process. Performance Management has a resounding impact on employee productivity. In the current context, reduction in high attrition rates through evolving practices in performance management is crucial. In IT industry, team performance is an integral part of the appraisal process. To enhance organizational effectiveness, the teams need to be properly aligned with the organizational objectives. Proper care is thus required in team selection and allocation to maximize team effectiveness. Scientific techniques of grouping people into teams based on requirements can be pursued as a remedy. As indicated in several secondary references, today's employee wants the organization to feel his importance rather than treating him just as a number.

## Recommendations

To promote employee satisfaction, organizations should focus on holistic growth of employees driven through robust 360-degree feedback system. Rather than spending numerous hours in the administration of appraisal systems, the paradigm shift is towards "in the moment performance" conversations with meaningful feedback.

## Scope of Further Research

The level of satisfaction that an employee has with regard to the performance is an important component of his overall satisfaction with the organization. Employees with higher satisfaction are more likely to have longer tenure with the company and more likely to recommend the company to others. This relation between the employees' satisfaction with the appraisal process and their likelihood to recommend the company can be researched into further because secondary research has found that the hiring at

senior levels in the IT industry is done mainly through the recommendations of employees. The direction of the research can be to explore the correlation between the employee satisfaction with the appraisal process and their likelihood to recommend someone to join the company.

The second area ripe with potential for future research is the impact of the intrinsic factors of the team of which the employee is a part of the organization. The results have shown that team related factors play an important role in the employee satisfaction with the appraisal process. However, there is much scope in investigating in-depth into this as there are many aspects of the team that might be impacting the performance appraisal satisfaction. Organizations that have given higher weightage to team performance in the individual appraisal process might yield stronger instances of relation between the team related factors and the employee satisfaction.

## References

Berman, P.L. (2005). Appraisal systems for effective organizations. India: Prentice Hall.

Bernardin, H.J. (2002). Increasing the accuracy of performance measurement: A proposed solution to erroneous attributions. *Human Resource Planning, 12*(3), 239-250.

Cole, G.A. (2002). Personnel management for organizations. London: Kogan Page.

Ellickson, M.C. (2002). Determinants of job satisfaction of municipal government employees. *Public Personnel Management*, *31*(3), 343-358.

Dhawan, N. (2015). Impact of stressors on job satisfaction: An empirical analysis. *Delhi Business Review,16(2),* 59-68.

Fletcher, C. (1994). Performance appraisal in context: Organizational changes and their impact on practice. In N. Anderson & P. Herriot (Eds.), Assessment and selection in organizations: Methods and practice for recruitment and appraisal (pp.41-56). Chichester, England: John Wiley & Sons.

Jawahar, I.M. (2006) Correlated of satisfaction with performance appraisal feedback. *Journal of Labor Research*, *27*(2), 213-236.

Kent, F.G. (2007). Strategic appraisal management in banks. *Educational Journal on effective teaching in elementary Banks*. South Africa: Pretoria.

Lather, A.S., & Goyal, S. (2003). An analytical study of job satisfaction in relation personality and psychopathology of corporate, *Delhi Business Review: An International Journal of Society for Human Transformation and Research, 4*(1), 51-56.

Locke, E.A., & Lathan, G.P. (1990). Theory of goal setting and task performance. Englewood Cliffs, N.J: Prentice Hall.

Luthans, F. (1998). Organizational behaviour. Boston: Irwin McGraw-Hill/Irwin.

Moser, K. (1997). Commitment in organizations. *Psychologies, 41*(4), 160-170.

Singh, A.K. (2002). Accounting for human resource: Acquisition, development, and retention, Society for Human Transformation and Research, Delhi. ISBN: 978-81-923211-5-8.