

# The Development of Performance Assessment Questionnaire: Arguing the Need for Design Thinking Performance Management System

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## Abstract

Organizations are looking forward to revamp non-operational and orthodox performance assessment processes to create more responsive and inventive methods. Since covid 19, Many HR innovators have revisited the process and procedures to clean their old practices and construct new processes that reflect the purpose and people. The quest to challenge and not to consider performance for granted is to look into the dimensions of performance with open mind and explore new horizons. Design thinking has moved from mere designing marketing products to designing better employee experiences. Bhilai Steel Plant is located in the heart of Chhattisgarh state and pioneer in steel industry. Being people intensive industry where well-being and growth is measured based on performance estimates and reports has motivated us to propose our work collaborating design thinking and performance management.

Keywords – Performance assessment, dimensions, design thinking, employee experiences, Performance Management.

## 1. Introduction

Organization's growth should be seen as not value for money but value for skill and knowledge and a gateway to honor them. Tim Brown, CEO of international design firm IDEO, defines "Design thinking is a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success." It helps to diagnose the health of organizations by identification of processes that are not cumbersome, which can be continued and draw solutions that make your employees' lives easier. Bhilai Steel Plant (BSP) is the leading unit of Steel Authority of India Limited, the largest producer of steel in India and worldwide. The World Steel Dynamics identifies it as second in the league of 'world class' steel makers in terms of a progressive yardsticks or performance measurement.

Our intent through this research is to develop and magnify on previous treatments as well as assimilate recent research on performance evaluation using design thinking. Waldman & Spangler (1989) proposed an integrated model of job performance concentrating on characteristics of the individual like experience and ability and outcomes like feedback and job security in the work environment.

Cardy & Dobbins (1994) discussed the relationships between Total Quality Management (TQM) and performance appraisal. The outcome of their work says that performance is determined by both the behavior of the individual and the system in employee functions.

Harris et al (1995) examined performance ratings to identify psychometric characteristics which were gathered for research as well as managerial purposes. They observed leniency in administrative-based ratings whereas the ratings for research purposes confirmed significant correlations with a predictor.

Solomon Markos and M. Sandhya Sridevi (2010), in their study, suggest that employee engagement is the remedy to improve their performance. It enhances the relationship between the employer and employee in the wake of true engagement predictions.

Eric Lesser et al. (2016) advocated the use of good work design to improve employee experience.

With the change in decade, organizations were viewed in terms of values, vision and mission statements of the company. Any change in culture that failed to involve employees repeatedly lead to failure of the inventiveness (Mittal, 2018).

Design thinking can be levered by HR managers for ensuring organization culture and values. It calls for collaboration with employees to create culture supporters.

The design thinking process will help in finding key issues with respect to improvement ideas which can then be prototyped and tested for an iterative way of cultural transformation (Sreenivasan, 2018).

Many well-known companies such as Electronic Arts, Nestle, Qualcomm, Airbnb have adopted design thinking as a planned tool for improving their results. This research has uniquely presented performance assessment area of HR that can fit the adoption of design thinking. The proposed framework of questionnaire can be used for revisiting the evaluation Performance management

In most cases, employees dislike the entire process of performance management as they view it as routine evaluation which sometimes results in top talent leaving the organization. Here is where design thinking can help improve the performance management process.

## 2. Objectives

Objective of this research work

1. To identify the key performance indicators for the effective implementation of design thinking in performance evaluation in Indian steel plant.

## 3. Methodology

The present day performance assessment tools aim to achieve the below mentioned outcomes-

- Employee Productivity -The performance evaluation tool comprises of metrics which calculate employee productivity rate which talks about the capacity of growth in terms of production of human capital. It often relates to speed, or could reflect accuracy.
- Employee satisfaction – though turnover rate is low at BSP, but engagement surveys are carried out to measure employees attitude and concerns of their dissatisfaction.
- Employee engagement: At the core of engagement survey is also its ability to predict higher productivity, better customer service, lower turnover, and many other relevant and positive outcomes.
- Employee innovation – The present HR practice recognizes that innovation is a key driver to business success and so it's a part of evaluation process.

The researchers were keen in knowing that whether such big unit has incorporated the design thinking in the performance management system or not and so a questionnaire was designed to check the efficacy of the evaluation at three different touch points which includes process, people and technology. The problems identified under the periphery of these touch points check these issues –

- How do performance reviews impact the experience of employees
- The benefit is just to identify the top or low performers of to help them develop and grow.
- Is the duration between the assessment and declaration of result known to employees?
- The feedback is practiced or is just in papers.
- Do these touch points mean the same to all the employees or they vary.

The present system of performance assessment in Bhilai Steel Plant is based on report and reviews and is done yearly. Though the system has incorporated all the means to identify the best performance assessment and reduce the gap between reporting and reviewing scores by averaging but still there lies a scope for further revision.

The study is exploratory as well as descriptive in nature which has attempted to determine the performance assessment factors by surveying 199 employees of Bhilai Steel Plant through questionnaire. The questionnaire was pre tried and further reformed. The degree of response on the 15 statements collected on the Likert Scale where 1= Strongly Disagree and 7 = Strongly Agree. The data collected is analyzed using factor analysis.

## 4. Result and Discussion

Table 4.1 Reliability Statistics

Cronbach's Alpha	N of Items
.692	15

The Cronbach's Alpha value is 0.692 indicates the higher level of reliability.

Table 4.2 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.653
Approx. Chi-Square	5052.041
Bartlett's Test of Sphericity df	105
Sig.	.000

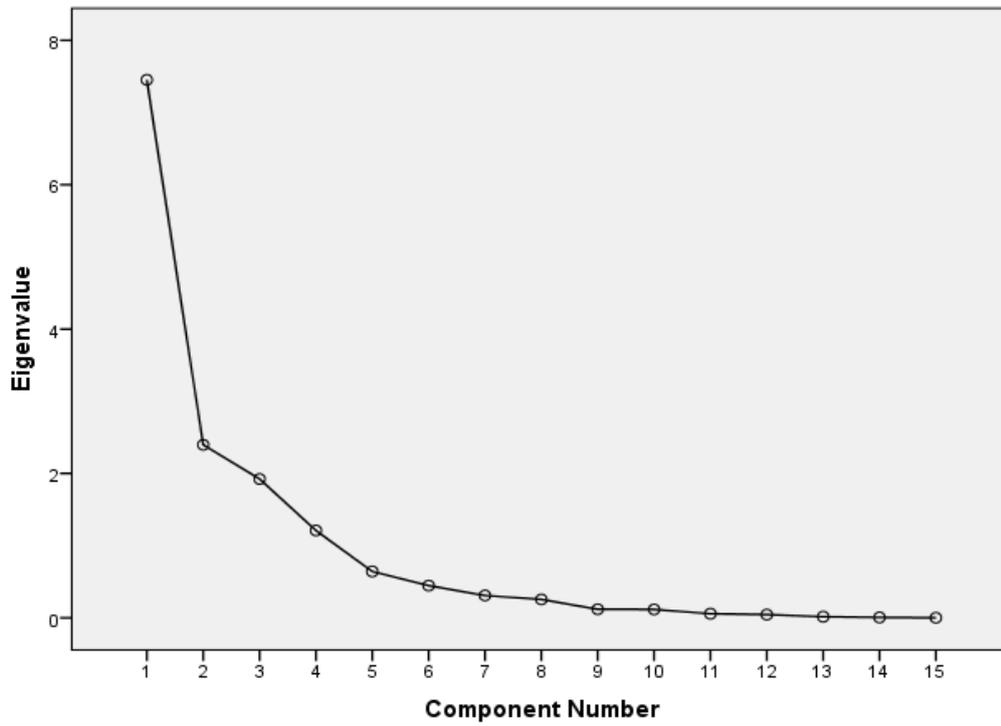
The KMO statistics being 0.653, which is considered as good degree of common variance and so it can be considered that sample size is adequate for factor analysis. The Bartlett's significance value .000 also suggests that the data is substantially correlated.

Table 4.3 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.453	49.688	49.688	7.453	49.688	49.688	3.785	25.236	25.236
2	2.398	15.985	65.672	2.398	15.985	65.672	3.653	24.355	49.591
3	1.925	12.831	78.503	1.925	12.831	78.503	2.994	19.962	69.553
4	1.210	8.065	86.568	1.210	8.065	86.568	2.552	17.014	86.568
5	.642	4.283	90.851						
6	.447	2.979	93.830						
7	.309	2.063	95.893						
8	.255	1.701	97.594						
9	.119	.796	98.390						
10	.117	.777	99.167						
11	.057	.380	99.548						
12	.045	.297	99.845						
13	.017	.110	99.955						
14	.005	.037	99.992						
15	.001	.008	100.000						

Extraction Method: Principal Component Analysis.

Figure 4.1 Scree Plot



The scree plot shows the corresponding eigenvalues of the variables. The pattern has step curve, the bend and a straight line which is ideal in factor identification.

Table 4.4 Rotated Component Matrix<sup>a</sup>

	Component			
	1	2	3	4
topandlowperformers	.843	.237	.324	-.072
feedbackusefulinperformance	-.016	.950	-.009	.027
growanddevelop	.922	.052	.251	-.081
Feedbackcommunicationfair	.152	.251	.878	-.212
evaluationtoolrevision	-.124	-.372	-.250	.814
assesmentandreciptofresultstimeknown	.946	-.035	.105	.142
Userfreindly	-.030	.233	.068	-.890
inovationnotaccuracy	.414	.216	.851	-.158
trainingforactionablefeedback	-.567	-.566	-.319	.208
straightforwardprocess	-.035	.213	-.107	.802
Reportsnottogenerateresults	.531	.477	.250	-.294
achivementsrecognized	-.532	-.500	-.331	.417
collabrativeprojectsinevaluation	.029	.918	.195	-.194
tranningpostevaluation	.392	.836	.279	-.048
Identifystrengthinateam	.276	.050	.923	-.094

From the 15 variables identified, four factors were extracted. Together, these factors show a variability of 86%. However their individual variance is 25.236%, 24.355%, 19.962%, and 17.014%.

Factor 1 is composed of identification of top and low performers, system's ability to help individuals grow and develop, knowing the time to fill self-assessment and receive result, and the requirement of training to give actionable feedback, report not as basis to generate feedback and recognition of achievement. These factors address individual issues so they can be named Employee centric factor

Factor 2 deals with the tool being effective in improving performance cross collaborative evaluation process and training post evaluation so it can be named Open Minded Work Environment factor

Factor 3 extracted talks about feedback communication to be fair, innovation based and not accuracy and identification of employees' strength in a team so it can be named Innovation Centric

Factor 4 evaluation tool revision, user friendly and straight forward process and hence it can be named as Development centric factor.

## 5. Conclusion

The outcomes of research conducted illustrate the identification of key performance indicators relative to design thinking as a milestone in revising HR Practices in BSP. In this research, four factors are identified to facilitate the design thinking module. The study indicates that managing these indicators effectively by acknowledging importance to employees concern, having open work environment, innovation, and promotion of skills and development are some of the ways to manage these issues. The study has proved that efficient change management is one of the critical success factors to successful implementation design thinking in BSP. The insights provided by this exercise will enable the HR in BSP to redesign performance management in their organization in a way that takes into account the perspectives at three touch points, ie people, process and technology of workforce. When redesigning the performance management process, these factors can be used to optimize the needs of different employees and incorporate design thinking in performance management system.

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