Exploring the Factor Structure of Talent Erosion in the BPM Industry of Rajasthan: An Empirical Analysis

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Abstract- The Indian Business Process Management (BPM) industry has grown exponentially in size and has been holding the supreme position in the global BPM outsourcing arena for more than a decade now. However, talent-erosion is an area of paramount concern for the industry. The present study attempted to identify and explore causal agents of 'talent erosion' in the BPM industry by collecting data from junior and middle level employees of prominent BPM companies in Rajasthan. Using sequential steps of Exploratory Factor Analysis, thirteen selected latent variables of 'Talent Erosion' have been reduced to five major factors viz., Substandard Nature of Job, Hostile Organisational Culture, Perceptual Factors, Unfavourable Work Conditions, Personal Factors. The BPM industry should strategically focus on effective management of these causal agents in order to keep growing at an impressive pace.

Index Terms- BPM industry, Demographic Dividend, Talent Erosion, Causal agents

I. Introduction

The Indian Business Process Management (BPM) industry has grown exponentially in size and has been holding the supreme position in the global BPM outsourcing arena for more than a decade now. The industry has been reaping the benefits of 'Demographic Dividend' in true sense due to the availability of pocket-friendly labour, information technology and connectivity through internet. However, being a service-oriented industry, customer satisfaction through BPMs is guaranteed by quality of its trained workforce.

The BPM industry is one of the highest employment providers in India with more than 60% of its workforce comprising the youth of the country or the generation-y employees. However, monotonous work profile, low value attached to the industry, high performance monitoring, social isolation and erratic duty hours create a stressful work environment for its young employees. Trained staff has been quitting the industry at an alarming rate – the problem being more chronic amongst the junior level of employees. **Thus, talent-erosion is an area of paramount concern for the industry.**

II. Methodology of the Study

Research Design: The design of the present study was exploratory in nature. It aimed to identify and explore causal agents of 'talent erosion' in the BPM industry of Rajasthan. The survey was conducted under natural (un-manipulated) field conditions.

Data Sources and Collection: The study was mainly based on the primary data or collection of empirical evidence; however, reference to secondary data available on the internet was made besides the published and unpublished materials like the newsletters, articles, journals etc. in order to supplement the information. Data was collected from 100 junior and middle level employees of three prominent BPM companies based in Rajasthan, viz., Systweak Software; Vkalp Outsourcing Services Pvt Ltd and Teleperformance with the help of administration of questionnaire based on five point Likert scale.

Data Analysis Approach: The data was coded, tabulated and analysed using PASW Statistics 18 (formerly SPSS Statistics) and statistical tools such as *Cronbach's Alpha Test, Kaiser-Meyer-Olkin Measure of Sampling Adequacy, Bartlett's Test of Sphericity and Exploratory Factor Analysis (EFA)* were used.

III. Analysis and Discussion

In the present study, Exploratory Factor Analysis (EFA) was applied to twenty four causal agents of 'Talent Erosion'. The singularity in the data was checked (by scanning for correlation coefficients greater than 0.9) and due to the problem of multicollinearity, eleven variables were eliminated in this stage. Table 1 reflects the acceptable correlation coefficients of the remaining thirteen agents, which were then used to construct the factor structure.

Table 1: Reproduced Correlations

		TE1	TE4	TE5	TE7	TE8	TE9	TE11	TE13	TE14	TE18	TE20	TE21	TE17
Reproduced Correlation	TE1	.648	-.039	-.075	.004	-.002	.225	-.092	-.038	-.037	-.295	.044	.051	-.515
	TE4	-.039	.439	-.430	.145	.226	-.174	.392	.076	-.057	.139	.021	.100	-.081
	TE5	-.075	-.430	.473	-.138	-.190	.190	-.376	.027	-.067	-.106	.083	.011	.239
	TE7	.004	.145	-.138	.740	.351	.111	-.015	-.148	.313	-.362	-.284	-.243	.111
	TE8	-.002	.226	-.190	.351	.658	.435	.012	-.254	.113	.251	-.187	-.172	.030
	TE9	.225	-.174	.190	.111	.435	.667	-.339	-.233	.002	.094	-.062	-.112	-.029
	TE11	-.092	.392	-.376	-.015	.012	-.339	.428	.213	-.163	.113	.140	.220	-.044
	TE13	-.038	.076	.027	-.148	-.254	-.233	.213	.645	-.647	-.208	.611	.680	.224
	TE14	-.037	-.057	-.067	.313	.113	.002	-.163	-.647	.813	.010	-.726	-.781	-.190
	TE18	-.295	.139	-.106	-.362	.251	.094	.113	-.208	.010	.739	-.084	-.115	.043
	TE20	.044	.021	.083	-.284	-.187	-.062	.140	.611	-.726	-.084	.662	.712	.167
	TE21	.051	.100	.011	-.243	-.172	-.112	.220	.680	-.781	-.115	.712	.783	.166
	TE17	-.515	-.081	.239	.111	.030	-.029	-.044	.224	-.190	.043	.167	.166	.621
Residual	TE1		.010	-.001	.019	-.025	-.114	-.010	.028	.034	.153	-.066	-.009	.296
	TE4	.010		.265	-.078	-.108	.061	-.171	.008	.007	-.058	.023	-.100	.013
	TE5	-.001	.265		.055	.054	-.052	.172	.008	-.010	.019	-.016	-.031	-.167
	TE7	.019	-.078	.055		-.133	-.030	.004	-.029	-.043	.217	.047	.047	-.100
	TE8	-.025	-.108	.054	-.133		-.233	-.071	.073	.036	-.096	-.028	.035	-.074
	TE9	-.114	.061	-.052	-.030	-.233		.212	-.008	.019	-.088	.014	-.074	.011
	TE11	-.010	-.171	.172	.004	-.071	.212		-.098	-.013	-.074	-.011	-.055	.011
	TE13	.028	.008	.008	-.029	.073	-.008	-.098		.118	.069	-.098	-.053	-.041
	TE14	.034	.007	-.010	-.043	.036	.019	-.013	.118		.016	.078	.007	.029
	TE18	.153	-.058	.019	.217	-.096	-.088	-.074	.069	.016		-.007	.047	.020
	TE20	-.066	.023	-.016	.047	-.028	.014	-.011	-.098	.078	-.007		-.120	-.052
	TE21	-	-	-	.047	.035	-	-.055	-.053	.007	.047	-.120		-.034

		.009	.100	.031			.074							
	TE17	.296	.013	-.167	-.100	-.074	.011	.011	-.041	.029	.020	-.052	-.034	

Extraction Method: Principal Component Analysis.

The next step was to apply Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity to the remaining thirteen linear components in order to measure the sample adequacy and strength of the relationship among factors.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.710
Bartlett's Test of Sphericity	Approx. Chi-Square	276.298
	Df	78
	Sig.	.000

A KMO statistical value of 0.710 indicated that patterns of correlations amongst the remaining thirteen causal agents were relatively compact and therefore it was concluded that factor analysis should yield distinct and reliable factors. Bartlett's measure tests the null hypothesis that the original correlation matrix is an identity matrix (Field, 2005). Table 2 shows that for the collected data, Bartlett's test was highly significant ($p < 0.001$); therefore factor analysis was deemed appropriate for the study.

Factor Extraction

Table 3 lists the eigenvalues associated with each linear component (latent variable) before extraction, after extraction and after rotation. The eigenvalues associated with each factor represent the variance explained by that particular linear component of talent erosion. In our case, factor 1 explained 24.287% of total variance, factor 2 explained 11.933%, factor 3 explained 10.109%, factor 4 explained 9.146%, and factor 5 explained 8.483%. All the remaining factors were insignificant since their eigenvalues were less than 1; hence they were discarded in the Extraction Sums of Squared Loadings. Finally, the Rotation Sums of Squared Loadings was also obtained to equalize the relative importance of the identified factors since rotation has the effect of optimizing the factor structure as given by Fields (2005).

The cumulative percentage of total variance explained by the collected data was 63.959% which was within acceptable limit and implied that the random errors in the measures have been taken care of.

Table 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	3.157	24.287	24.287	3.157	24.287	24.287	2.987	22.978	22.978
2	1.551	11.933	36.220	1.551	11.933	36.220	1.551	11.931	34.908
3	1.314	10.109	46.330	1.314	10.109	46.330	1.329	10.225	45.134
4	1.189	9.146	55.476	1.189	9.146	55.476	1.282	9.861	54.995

5	1.103	8.483	63.959	1.103	8.483	63.959	1.165	8.964	63.959
6	.901	6.928	70.887						
7	.829	6.377	77.264						
8	.732	5.634	82.898						
9	.639	4.915	87.812						
10	.578	4.447	92.259						
11	.431	3.319	95.578						
12	.393	3.020	98.598						
13	.182	1.402	100.000						
Extraction Method: Principal Component Analysis.									

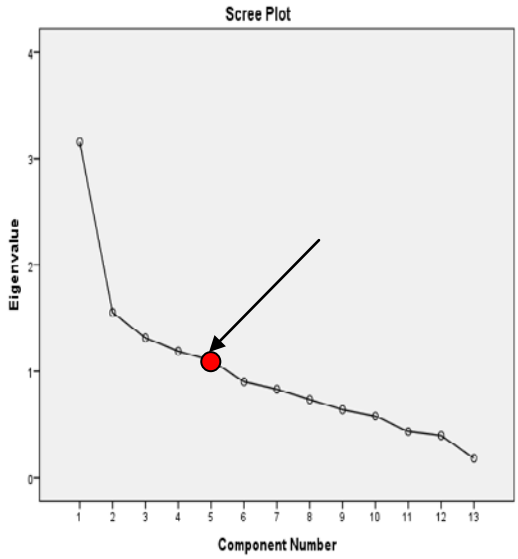
Table 4 depicts the communalities before and after the extraction of factors. Since one of the underlying assumptions of Principal Component Analysis is that variance of all components before the extraction of factors is common, therefore initial communalities of all the components was one. However, after the extraction of factors, the communality of each variable portrayed the common variance in the data structure. The highest communality after extraction was depicted by the variable 'Lack of Self-Motivation' (with value 0.813) and lowest by the variable 'Irregular Work Hours' (with value 0.439) signifying that while 81.3% of the respondents agreed that lack of self-motivation has been causing talent erosion in the BPM industry, only 43.9% of the respondents felt that irregular work hours cause it.

Before the rotation of the obtained component matrix, the extraction of factors was confirmed with the help of a scree plot depicted in Figure 1, as obtained by the PASW software, where the arrow denotes the 'Point of Inflexion'. As can be seen, after five points on the scree plot, the curve starts becoming concave thereby confirming that there are five significant factors which led to flight of human capital.

Table 4: Communalities

	Initial	Extraction
Ineffective Supervision	1.000	.648
Irregular Work Hours	1.000	.439
Poor Mentoring	1.000	.473
Personal Reasons	1.000	.740
No Career Growth	1.000	.658
Low value of BPM job	1.000	.667
Power & Politics	1.000	.428
Monotonous Desk Work	1.000	.645
Lack of Self-Motivation	1.000	.813
Lack of Specialised Skill	1.000	.739
Social Isolation	1.000	.662
Repetitive Nature of Work	1.000	.783
Unsatisfactory Work Conditions	1.000	.621
Extraction Method: Principal Component Analysis.		

Figure 1



Factor Rotation

Table 5 depicts the Rotated Component Matrix which produces a matrix of the factor loadings for each component variable on to each factor. In our study, factor loadings less than 0.6 were suppressed. Also, the component variables were listed in the order of size of their factor loadings and each variable load on to only one factor.

On the basis of the nature of component variables which load on to same factor, common themes were identified for all the five factor structures respectively and a model of the factor structure of 'Talent Erosion' in the BPM industry of Rajasthan was constructed (Figure2) which highlights the reasons behind alarming rate of attrition in the Indian BPM industry.

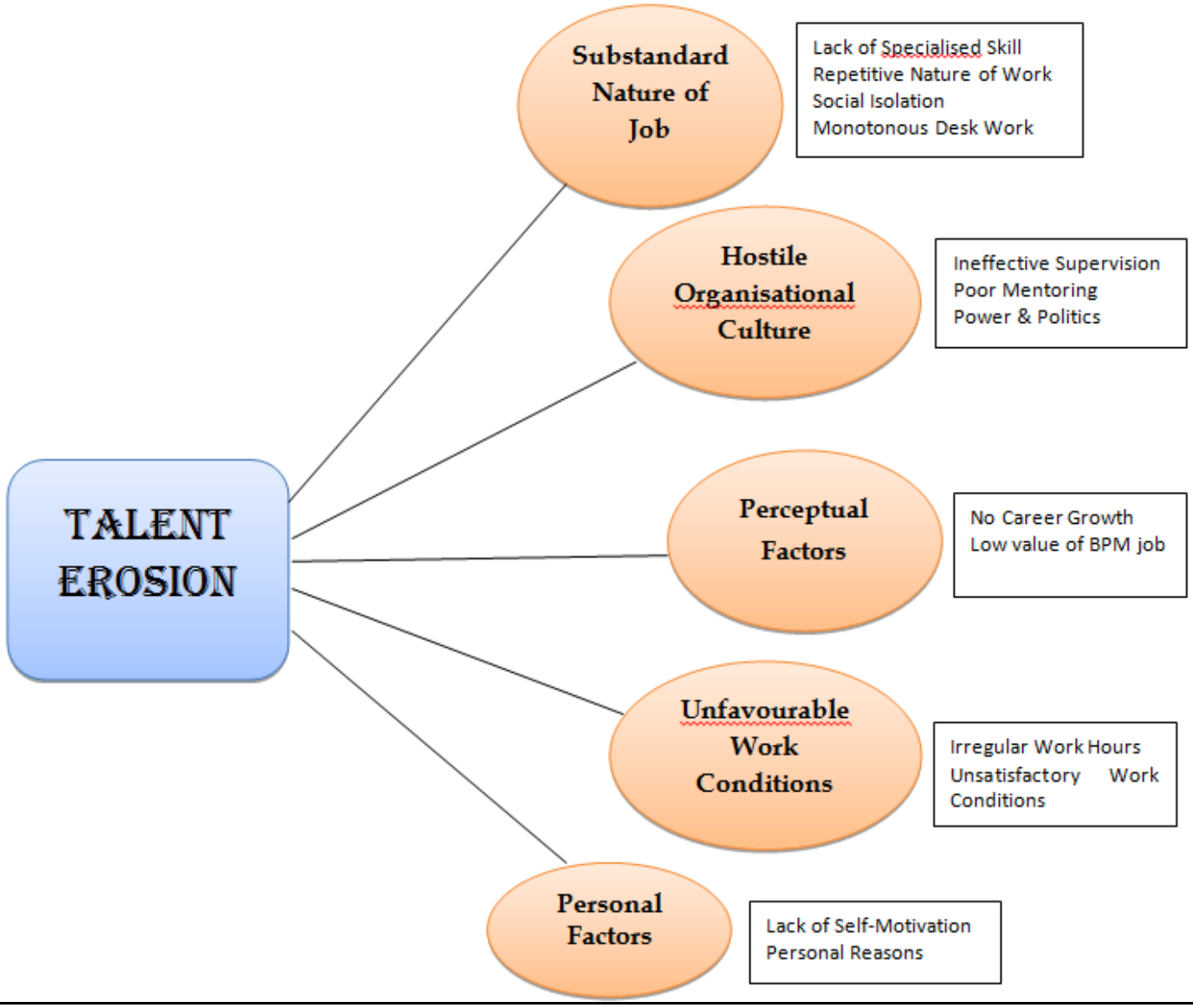
Table5: Rotated Component Matrix[a]

Item	Component				
	1	2	3	4	5
Lack of Specialised Skill	.892				
Repetitive Nature of Work	.877				
Social Isolation	.808				
Monotonous Desk Work	.749				
Ineffective Supervision		.664			
Poor Mentoring		.653			
Power & Politics		.608			
No Career Growth			.751		
Low value of BPM job			.711		
Irregular Work Hours				.774	
Unsatisfactory Work Conditions				.732	
Lack of Self-Motivation					.755
Personal Reasons					.720

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 5 iterations.

Figure 2: Factor Structure of Talent Erosion



Reliability Statistics

Reliability statistics of scales used for the study were tested by using Cronbach's Alpha and results were found satisfactory. As is evident from the table 6 that all the dimensions have acceptable values of Cronbach's Alpha which signify construct validity of the factor structure of 'Talent Erosion' in the BPM companies.

Table6 : Reliability Statistics

Name of the Factor	Cronbach's Alpha	Component Variables (Factor Loadings)
Substandard Nature of Job	0.813	Lack of Specialised Skill Repetitive Nature of Work Social Isolation Monotonous Desk Work
Hostile Organisational Culture	0.683	Ineffective Supervision Poor Mentoring Power & Politics

Perceptual Factors	0.712	No Career Growth Low value of BPM job
Unfavourable Work Conditions	0.649	Irregular Work Hours Unsatisfactory Work Conditions
Personal Factors	0.613	Lack of Self-Motivation Personal Reasons

IV. Conclusion

The study followed sequential steps of Exploratory Factor Analysis to deduce that there are five key factors (comprising thirteen causal agents) which create stressful environment in, and hence propel erosion of talent from the Indian BPM industry. Since the work environment in the BPMs is based on unrealistic standards, it can be very daunting for its young professionals. The need of the hour is to hire HR managers who can devise industry specific policies and programs to address the challenge of high turnover of employees at the middle and junior levels. Employees who leave the organization take along with them valuable information regarding the firm, its customers, current projects, other confidential data and cause potential customer loss, thereby, negatively impacting the morale and productivity of other employees in the company, thereby initiating a negative vicious cycle of attrition and brand image. The model for talent erosion that is depicted in this study lists out the crucial parameters that need to be worked upon by HR professionals for effective management of flight of human capital, which has become a compelling necessity for the Indian BPM industry.

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