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Research Paper | Management

Employee Attrition and Retention: Exploring the Dimensions in Information Technology Industry in Chennai City

Venkatesh kumar M — Research Scholar, Department of Management Studies, Karpagam University, Coimbatore

Dr.M.Uma Maheswari — Assistant Professor, Dept. of Management Studies Dr.SNS Rajalakshmi College of Arts and Science, Coimbatore

ABSTRACT

Employee attrition and retention are the key challenges faced by information technology industry in India. The main objective of the study is to identify and explore the dimensions of employee attrition & retention in information technology in Chennai. The primary data collected from field survey determine the following factors the Employee work performance, compensation and perks, work time, education and competency, marital status, medical and personal problems, career path, rewards and motivation. based on the analysis of responses of one hundred IT professionals carried out from Chennai region information technology industry" ,based on the analysis of responses of one hundred IT professionals carried out from Chennai region information technology industry" in place of The outcome of the study

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KEYWORDS : Retention, HR practices, employee attrition

INTRODUCTION

Companies in India face a formidable challenge of recruiting and retaining talents while at the same time they have to manage talent loss caused by attrition or through voluntary individual turnover. The attrition percentage rate is determined by dividing the number of employees who left their jobs during a specific period by the average number of employees during the same period. The average number of employees is is determined by adding head count on opening balance and closing balance of the financial year and dividing by 2.

Attrition % = (No. of employee left the organization / average head count) X 100

The biggest challenge faced by the India IT Industry is not attracting the prospective employee but retaining the talent as high turnover is back to a serious concern. In India's famed IT industry, attrition is a sign of growth. In 2013 the attrition rates at IT major TCS, Infosys, Wipro, Tech Mahindra, Accenture, Polaris and Oracle were 10.9 percent, 17.3 percent, 21.1 percent, 17 percent, 12 percent, 12 percent, 18.2 percent and 17 percent respectively (Janani 2014) and in 2014 TCS, Infosys and Cognizant were 12.8 per cent, 20.1 per cent and 15.6 per cent respectively for the quarter ended september (www.mydigitalfc.com). Sep 2014 and the trend is expected to continue with an attrition level across the sector is likely to rise up to 20 per cent in 2015. (http://profit.ndtv.com).

Employee turnover has been a never ending problem faced in Indian information technology organizations due to multiple factors. Hence employee retention was linked to various independent factors of the organization such as compensation, performance rewards, work nature and job security" in place on " such as compensation, performance rewards, work nature and job security (Janani 2014, Praveen Kumar Sharma and Rajnish Kumar Misra 2015).

Attrition in information technology has terrible effects on the organization. They have to combat the amount of disruption due to unplanned exits i.e the more the people leave an organization, the more it is a drain on the company's resources like recruitment expenses, training, orientation resources and the time also affects the productivity of the organization. most researches in the IT sector have addressed only specific problems related to its environmental analysis like challenges, growth and opportunities, the problem of attrition, the HRM systems, and issues of job stress, job satisfaction, Individual performance, HR polices Service conditions, workplace environment and welfare measures etc (Vibha gupta 2013, Bidisha Lahkar Das & Mukulesh Baruah 2013, Mita Mehta et al.,2014, Sultana Nazia & Bushra Begum 2013, Towers Watsonn 2015, Praveen Kumar Sharma and Rajnish Kumar Misra 2015) In this research has indicated these factors were most important for an attrition such as attitude towards job, attitude towards company, service conditions, working conditions, and welfare measures.

These are all becomes very necessary for human resource managers understand the factors that prompt employees to quit an organization. The outcome of the study is expected to help the HR Managers of these organizations in minimizing the attrition rate by developing effective retention strategies specific to their organization.

1.2. OBJECTIVES OF THE STUDY

The objectives of the research is

1. To analyses the factors influencing employee attrition and retention: exploring the dimensions in IT industry in Chennai city.

1.3. HYPOTHESIS OF THE STUDY

Ho. All the variable related factors influencing employee attrition and retention: exploring the dimensions in information technology industry is not correlated

H_1. All the variable related factors influencing employee attrition and retention: exploring the dimensions in information technology industry is correlated

1.4. SCOPE OF THE STUDY

The study has been undertaken mainly to highlight the Employee Attrition and Retention: Exploring the Dimensions in IT Industry. The study is confined to Chennai city.

1.5. METHODOLOGY & RESEARCH DESIGN

Methodology is the backbone of the research programme. It directs the researcher to conduct the research in a systematic process which enables the out coming with accuracy. Hence it is mandatory to adopt a right mode of study to derive the conclusion with result.

1.5.1. Data collection

The study has used only primary data. The data are collected from various IT companies in Chennai city and very few data would be collected from secondary sources like newspapers, magazines, journals, books and websites etc.

1.5.2. Sample size and techniques

The sample size is restricted to one hundred respondents in various IT companies in Chennai city. A convenient random sampling technique is used in this study.

1.5.4. Statistical tools used.

*Factor Analysis

1.5.5. LIMITATION OF THE STUDY

This is an empirical study on the Employee Attrition and Retention: Exploring the Dimensions in its Industry in Chennai city. Undoubtedly the results and finding of the study can be applied directly to any other areas. Due to limitations of time and money consideration, the sample size has been restricted to one hundred respondents.

1.1. FACTOR ANALYSIS FOR EMPLOYEE ATTRITION AND RETENTION: EXPLORING THE DIMENSIONS IN INFORMATION TECHNOLOGY INDUSTRY IN CHENNAI CITY.

Factor Analysis is a set of technique which by analyzing correlations between variables reduce their numbers into fewer factors which explain much of the original data, more economically. Even though a subjective interpretation can result from a factor analysis output, the procedure often provides an insight into relevant psychographic variables, and results in economic use of data collection efforts. The subjective element of factor analysis is reduced by splitting the sample randomly into two and extracting factors separately from both parts. If similar factors result, the analysis is assumed as reliable or stable.

A. METHODS OF CONDUCTING FACTOR ANALYSIS

There are two stages in factor analysis.

Stage 1 Factor Extraction process,- this process is primarily used to determine how many factors will be extracted from data.

Stage 2 Rotation of Principal Components.-This is actually optional, but highly recommended. In this study, the rotation of principal component is used. After extracting the factors, the next task is to interpret and title the relevant factors. This is done by the process of identifying those factors which are associated with which original variables. The factor matrix is used for this purpose. The rotated factor matrix comes about in stage 2, these rotated factor matrices are used to anlayse and interpret the factors.

The factor matrix gives us the loading of each variable on each of the extracted factors. This is similar to a correlation matrix with 'loadings' having values between 0 and 1. Values close to 1 represent high loadings and those close to 0, denote low loadings. The normal procedure is to identify the high loading factors and provide a suitable title.

B. STEPS INVOLVED IN CONDUCTING FACTOR ANALYSIS

The steps involved in conducting factor analysis are as follows,

- The first step is to formulate the factor analysis problem and identify the variables to be factor analyzed
- The second step is to develop a correlation matrix of the variables and select the method of factor analysis
- The third step involves the researcher's decision on extraction of number of factors and the method of rotation.
- Next, the rotated factors should be interpreted
- Depending on the objective, the factor scores may be calculated, or surrogate variables selected to represent the factors in subsequent multivariate analysis

C. STATISTICS ASSOCIATED WITH FACTOR ANALYSIS

Formal statistics are available for testing the appropriateness of the factor model.

1. **Bartlett's test of sphericity:** Bartlett's test of sphericity is used to test the null hypothesis that the variables are not correlated in the population. The test for sphericity is based on a chi- square transformation of the determinant of the correlation matrix. A large value of the test statistic favours the rejection of the null hypothesis.
2. **Kaiser-Meyer-Olkin measure of sampling adequacy:** This index compares the magnitude of the observed correlation coefficients to the magnitude of the partial correlation coefficients. Small values indicate that the correlations between pairs of variables cannot be explained by other variables and that factor analysis will not be appropriate.
3. **Eigen value:** Represents the total variance explained by each factor.
4. **Factor loading:** Simple correlation between the variables and the factors.
5. **Factor matrix:** Contains the factor loadings of all the variables and the factors.

TABLE -1
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	**.683**
Bartlett's Test of Sphericity: Approx. Chi-Square	**437.034**
Df	**105**
Sig	**.000****

*P<0.05

In the above table, two tests namely, Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) & Bartlett's Test of Sphericity have been applied to test whether the relationship among the variables has been significant or not. The Kaiser-Meyer-Olkin Measure of sampling adequacy shows the value of test statistics is 0.683, which means the factor analysis for the selected variable is found to be appropriate or good to the data. Bartlett's test of sphericity is used to test whether the data are statistically significant or not with the value of test statistics and the associated significance level. It shows that there exists a high relationship among variables.

TABLE - 2. TOTAL VARIANCE EXPLAINED

component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared loadings		
1	3.364	22.430	22.430	3.364	22.430	22.430	3.053	20.355	20.355
2	2.832	18.877	41.307	2.832	18.877	41.307	2.216	14.774	35.128
3	1.474	9.826	51.133	1.474	9.826	51.133	2.206	14.709	49.838
4	1.163	7.750	58.883	1.163	7.750	58.883	1.357	9.046	58.883
5	.979	6.528	65.412						
6	.884	5.896	71.308						
7	.720	4.798	76.106						
8	.687	4.583	80.689						
9	.614	4.096	84.784						
10	.576	3.840	88.624						
11	.487	3.244	91.868						
12	.410	2.732	94.600						
13	.336	2.240	96.840						
14	.266	1.771	98.611						
15	.208	1.389	100.000						

Extraction Method: Principal Component Analysis

The principal component analysis is used in the above table. It is a multivariate technique for identifying the linear components of a set of variances. The principal component analysis have extracted eight factors, there are 8 factors that have Eigen values more than 1; i.e., 22.43, 18.88, 9.826 and 7.750. The eight factors extracted together account for 58.88 per cent of the total variance under Rotation Sums of Squared Loadings, which is a good sum (Hair, Bush and Ortinau, 2000). The number of variables has been economized from 15 to 4 underlying factors. Only while 41.117 per cent of the information content has been lost 58.88 per cent is retained by the 4 factor extracted out of the 15 variables. This is a very low percentage and can be ignored.

TABLE - 3. COMMUNALITIES

S.NO	FACTORS	INITIAL	EXTRACTION
1	Marriage in pipe line	1.000	.467
2	Night shift	1.000	.520
3	Family problem	1.000	.659
4	Salary	1.000	.573
5	Higher education	1.000	.541
6	Performance	1.000	.676
7	Skill set	1.000	.610
8	Leave	1.000	.605

9	External Interviews	1.000	.455
10	Behavior/ Motivation	1.000	.594
11	Rewards	1.000	.493
12	Duration in current role	1.000	.565
13	Training performance	1.000	.693
14	Growth/ Career Path	1.000	.714
15	Medical problems	1.000	.752

Extraction Method: Principal Component Analysis.
The above table shows the Factor Extraction Process. It was performed by Principal Component Analysis to identify the number of factors to be extracted from the data and by specifying the most commonly used (Malhotra, 2001) Varimax rotation method. In the principal component analysis, total variance in the data is considered. The proportion of the variance is explained by the 15 factors in each variable. The proportion of variance is explained by the common factors called commonalities of the variance. Principal Component Analysis works on initial assumption that all the variance is common. Therefore, before extraction the commonalities are all 1.000. Then the most common approach for determining the number of factors to retain (Luck and Rubin, 2001) i.e., examining Eigen values was done.

TABLE - 4. ROTATED COMPONENT MATRIX

S.NO	FACTORS	COMPONENT			
		1	2	3	4
x6	Performance	**.783**	-.171	.161	-.093
x3	Family problem	**.733**	.137	-.270	.173
x4	Salary	**.716**	.058	-.012	.237
x5	Higher education	**.677**	-.047	-.008	-.282
x2	Night shift	**.676**	.249	-.017	-.024
x1	Marriage in pipe line	**.542**	.187	-.054	-.223
x15	Medical problems	.168	**.848**	.019	.068
x14	Growth/ Career Path	.175	**.815**	.135	-.027
x9	External Interviews	-.166	**.516**	.248	.317
x7	Skill set	.062	-.021	**.778**	-.007
x8	Leave	-.161	.054	**.696**	.304
x10	Behavior/ Motivation	.025	.206	**.647**	-.365
x11	Rewards	-.104	.324	**.579**	.205
x12	Duration in current role	.035	.209	.174	**.700**
x13	Training performance	.228	.470	.389	**-.519**

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization
a. Rotation converged in 8 iterations
It indicates the Rotated Component Matrix wherein rotation is converged in 8 iterations. Using the Rotated Component Matrix which is a better matrix for interpreting factors Nargundkar, 2002, The factors are interpreted as explained below. below. As suggested by Nargunkar, 2012, different variables are combined based on their loading on different factors and the factors are named as follows: Factor 1, the variables like Performance, Family problem, Salary, Higher education, Night shift and Marriage in pipe line have high loading on factor 1 due to high correlation values of 0.783, 0.733,0.716, 0.677, 0.676 and 0.542 respectively. Factor 2, the variables like Medical problems, Growth/ Career Path and External Interviews have high loading on factor 2 due to high correlation values of 0.848, 0.815 and 0.516 respectively. Factor 3,the variables like Skill set, Leave, Behavior/ Motivation and Rewards have high loading on factor 3 due to high correlation values of 0.778, 0.696, 0.647 and 0.579 respectively. Factor 4, the variables like Duration in current role and Training performance have values of 0.700 and -0 .519 respectively.

The scree plot is the diagrammatic representation of the total variance explained based on the variance in the Eigen values of the 15 components using Principal Component Analysis. This chart states that the high influence of the one factor based on their Eigen value is greater than 1.

CHART – I

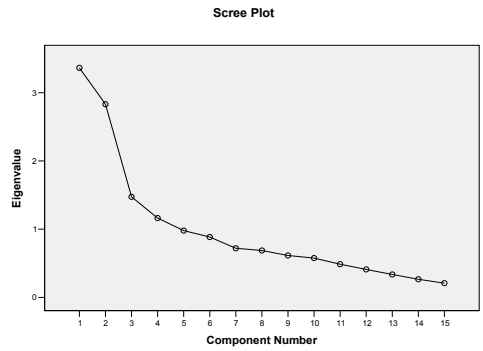

TABLE -5.
COMPONENT TRANSFORMATION MATRIX

COMPONENT	1	2	3	4
1	.837	.498	.202	-.099
2	-.454	.505	.716	.161
3	.091	-.510	.562	-.645
4	.290	-.487	.361	.741

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization
The above table reveals the factor correlation matrix. If the factors are not correlated among themselves, then in the factor correlation matrix, the diagonal elements will be 1's and off diagonal elements will be 0's. Since matrix was rotated with Varimax, barring some variables all other variables are found to have, even if not zero correlations but fairly low correlation.

CONCLUSION
Thus the fifteen variables in the data were reduced to four component factors and each factor may be identified with the corresponding variables as follows:

TABLE - 6
SHOWING THE FACTORS IDENTIFIED THE FACTORS INFLUENCING EMPLOYEE ATTRITION AND RETENTION: EXPLORING THE DIMENSIONS IN IT INDUSTRY IN CHENNAI

x6	Performance	61.31%	Factor I
x3	Family problem	53.73%	
x4	Salary	51.27%	
x5	Higher education	45.83%	
x2	Night shift	45.70%	
x1	Marriage in pipe line	29.38%	
x15	Medical problems	71.91%	Factor II
x14	Growth/ Career Path	66.42%	
x9	External Interviews	26.63%	
x7	Skill set	60.53%	Factor III
x8	Leave	48.44%	
x10	Behavior/ Motivation	41.86%	
x11	Rewards	33.52%	
x12	Duration in current role	49.00%	Factor IV
x13	Training performance	26.94%	

Hence we concluded that the above mentioned finding in the research clearly indicates that that for employees now are to be retained by prioritizing ie., providing the best salary, higher education, performance rewards and considering their personal problem of working during night shifts.

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