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#### PREDICTION OF EMPLOYEE ATTRITION USING IBM DATA

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### **ABSTRACT**

Attrition is a serious problem and is now quite high in the sector. It is the main issue that stands out in all companies. Despite the fact that the term "ATTRITION" is often used, many people are unable to understand what it truly is. "Attrition is defined as the gradual loss of workers due to retirement, resignation, or death. It may also be referred to as employee turnover or employee defection. When a skilled and well-adapted employee departs from the company, a gap is left behind. As a result, the company loses important contacts, expertise, and abilities. Modern managers and people administrators are very interested in lowering attrition in the business in a way that will support the organization's growth, development, and effectiveness to the fullest.

**Keywords:** Job involvement, Job satisfaction, Performance rating, Relationship satisfaction, Environment satisfaction, Work-life balance and Attrition

**INTRODUCTION:** Employee attrition continues to be one of the major problems in today's organizational structure, despite a number of changes in the external environment. Attrition will unavoidably happen in every company. According to the definition of employee attrition, this natural process causes a moderate loss of staff, employees through retirement, voluntary departure, and death. Therefore, they are not immediately replaced. Certain forms of attrition, as when an employee retires or relocates, cannot be avoided. However, at a certain point, attrition has the capacity to seriously harm an organisation. An organisation experiences a void when a talented and well-adapted employee departs the company for whatever reason.

# Objectives of the study:

- TO analyze job involvement, job satisfaction, performance rating, relationship satisfaction, and work-life balance, environment satisfaction.
- To analyze attrition strategies followed by IBM company.
- To study the relationship between relationship satisfaction, job involvement, job satisfaction, performance rating, environment satisfaction, work-life balance, and attrition.
- To study the impact of the relationship between job satisfaction, job involvement, environment satisfaction, performance rating, relationship satisfaction, and work-life balance on attrition.

# Literature Review:

SL NO	AUTHOR'S NAME	JOURNAL NAME	BRIEF
1	Fr.Reginold John	Archaeology of Egypt/Egyptology	From the study, it was discovered that there is a clear link between employee engagement and work satisfaction and that there is a direct link between employee engagement and employee attrition. This study's weakness is that it only included 150 people in its sample and that its population was restricted to Kerala. Variables including leadership, organizational commitment, supervisor support, and perceived organizational support may be included in a future study.
2	Tiiu Kamdron	Organizational Psychology	Menon's Empowerment Scale, the Job Crafting Scale, and the Kanungo Job Involvement Scale. Means, standard deviation, and correlation are research tools. results of the research, Results supported the central theory that JI serves as a lone mediator between PE and JC. Important partial mediations were discovered via a bootstrapping analysis.
3	Shikha Rana	International Journal of Organizational Analysis	The study's findings confirmed links that had been theorized since PA justice in India strongly predicted bank workers' AC. For senior employees and female employees, respectively, the moderating effects of age and gender on the link between PA justice and AC are shown to be significant. Since the current study was cross-sectional, there are few conclusions that can be drawn about causation.
4	Neha Agrawal	Journal of Positive School Psychology	The study shows the review result about occupation turnover aim, which is discovered that 77% (293) women professionals react that they didn't prepare for occupation turnover expectation, and 23% (87) women professionals respond that they are preparing for occupation turnover aim in the situation of work-life balance.
5	Dr.B.Latha Lavanya	International Journal of Business and Management Invention	Calculating staff attrition in the firm is the primary goal. Analysis of the effect of demographic parameters on attrition is one of the secondary objectives. Regression, T-test, and Chi-square are the tools utilized. There is no statistically significant difference between the components' dimensions as a predictor of employee attrition. Age, gender, and the cause of attrition are all significantly different demographic factors, and H0 is rejected. Only 100 observations have been included by the researcher. For generality, the results should be validated using a large sample.

#### **DATA AND METHODOLOGY**

Descriptive research is used to describe the most recent conditions in the company, whereas Analytical research is used to analyze the data by applying research tools.

## Hypothesis of the study:

- 1. H0: There is no significant relationship between relationship satisfaction, job satisfaction, environment satisfaction, performance rating, job involvement, work-life balance and attrition.
- H1: There is a significant relationship between relationship satisfaction, job satisfaction, environment satisfaction, performance rating, job involvement, work-life balance and attrition.
- 2. H0: There is no significant impact between relationship satisfaction, job satisfaction, environment satisfaction, performance rating, job involvement, work-life balance and attrition.
- H1: There is a significant impact between relationship satisfaction, job satisfaction, environment satisfaction, performance rating, job involvement, work-life balance and attrition.

#### **DATA ANALYSIS AND FINDINGS**

#### **Correlation Matrix**

		Attrit ion	Work-life balance	Relation ship satisfacti on	Environm ent Satisfacti on	Job Involve ment	Job satisf action	Performa nce rating
Attrition	Pearson's r	_						
	p-value	_						
Work-life balance	Pearson's r	- 0.063	_	0.020				
	p-value	0.015	_	0.453				
Relations hip satisfacti on	Pearson's r	- 0.047	0.020	_				
	p-value	0.072	0.453	_				
Environ mentSati sfaction	Pearson's r	- 0.106	0.028	0.008	_			
	p-value	< .001	0.290	0.769	_			
Job Involvem ent	Pearson's r	- 0.129	-0.015	0.034	-0.008	_		
	p-value	< .001	0.576	0.189	0.751	_		
Job satisfacti on	Pearson's r	- 0.101	-0.019	-0.012	-0.007	- 0.021	_	
	p-value	< .001	0.456	0.633	0.795	0.411	. <del>-</del>	
Performa nce rating	Pearson's r	0.002	0.003	-0.031	-0.030	- 0.029	0.00	)2 —
	p-value	0.936	0.922	0.230	0.258	0.265	0.93	so —

# Regression

Model Fit Measures

			overall model test					
model	R	R <sup>2</sup>	F	df1	df2	p		
1	0.227	0.0514	7.91	10	1459	<.001		

#### omnibus ANOVA Test

	Sum of Squares	df	Mean Square	f	р
Environment Satisfaction	3.101	3	1.034	7.97	< .001
Job Involvement	3.985	3	1.328	10.24	< .001
Job satisfaction	2.517	3	0.839	6.47	< .001
Work-life balance	0.796	1	0.796	6.14	0.013
Residuals	189.208	1459	0.130		

#### **INTERPRETATION**

The work-life balance p = 0.015 which is < 0.05 it is significant. The relationship satisfaction p = 0.072 which is > 0.05 it is not significant. Environment satisfaction p = 0.01 which is <0.05 it is significant. Job Involvement p = 0.01 which is < 0.05 it is significant. Job Satisfaction p = 0.01 which is <0.05it is significant. The performance Rating p = 0.936 which is > 0.05it is not significant.

## **CONCLUSION**

According to the findings of the study, to reduce the attrition rate in the organization they should use new, innovative technologies and efficient training methods which provide employees to improve in the organization. Any smart HR manager is aware that an effective staff retention strategy depends on employee satisfaction. The effect that employee happiness has on consumers and, ultimately, company profits. In order to grow, inspire, and keep their talent pool, HR professionals in firms must be flexible in their methods.

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