

Retention 360

*Employee Attrition
Analysis Report*

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INTRODUCTION

Problem Statement

Human resources are critical assets of any organization. Companies invest significant time and money in hiring and training employees. When employees leave, particularly key personnel, it results in financial losses, operational disruptions, and loss of institutional knowledge.

Common reasons for attrition include:

- Low salaries
- Lack of career growth opportunities
- Poor supervision and management
- Desire to join companies with a global presence
- Lack of recognition and appreciation
- Restricted freedom of expression
- Underutilization of skills and talents

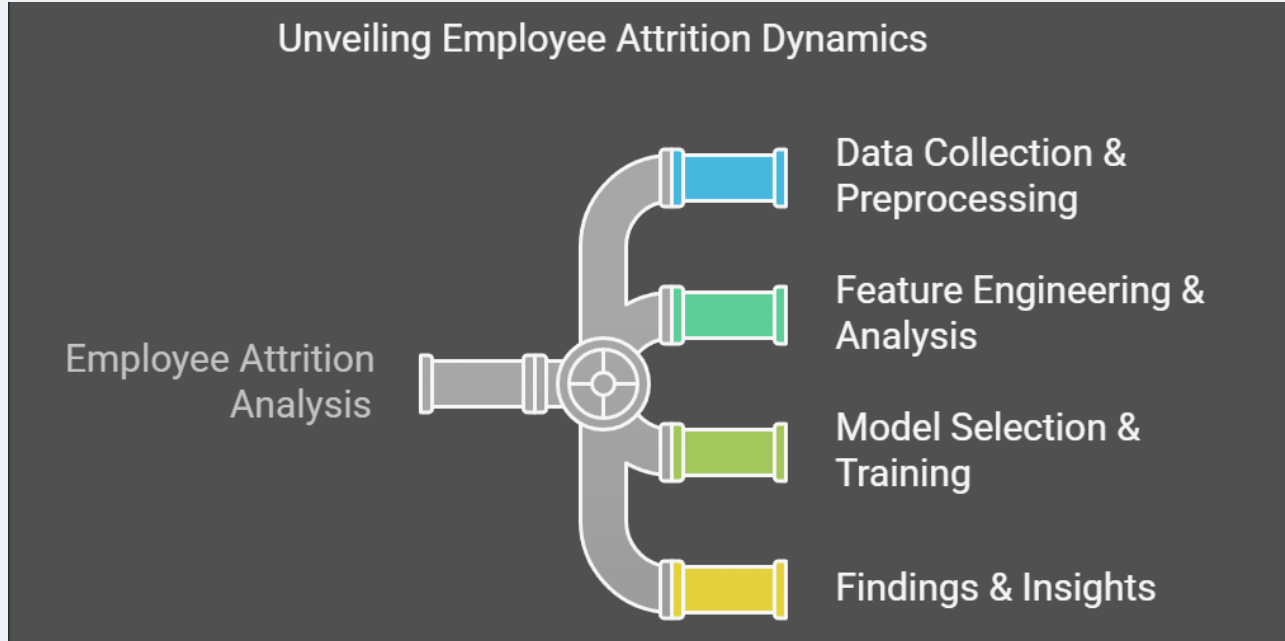
As employee attrition rates continue to rise, organizations need to identify employees at risk of leaving. Predicting attrition allows HR teams to proactively address retention risks and implement strategies to minimize employee turnover.

Objective

This study aims to analyze factors influencing employee attrition, including salary, job satisfaction, growth opportunities, workplace policies, and employee recognition. The insights will help organizations:

- Identify key drivers of attrition
- Develop data-driven retention strategies
- Improve employee engagement
- Enhance hiring and workforce planning efforts

KEY MILESTONES



Data Collection & Preprocessing

- Gathered HR attrition data (1,470 employees, 35 features).
- Cleaned data, handled missing values, and encoded variables.
- Conducted exploratory data analysis (EDA).

Feature Engineering & Analysis

- Identified key attrition factors: job satisfaction, salary, overtime, and work-life balance.
- Created new features like "Income-to-Experience Ratio" and "Job Stability Index."
- Analysed data.

Model Selection & Training

- Tested models:
 - Logistic Regression (86% accuracy, weak recall).
 - Random Forest (92% accuracy, low sensitivity).
 - XGBoost (91% accuracy, better balance).
- Addressed class imbalance with class weighting and SMOTE.
- Improved recall for predicting attrition.

Findings & Insights

- Low salary + low job satisfaction = higher attrition.
- Gen Z has the highest turnover; Millennials are more loyal.
- Overtime increases attrition due to burnout.
- Lack of career growth drives employees to leave.

Key Findings & Insights

1. Job Satisfaction Indicators

- Employees with **low job involvement** have a higher risk of leaving.
- **Poor work-life balance**, especially excessive overtime, leads to burnout and increased attrition.
- Employees dissatisfied with their work environment are more likely to quit.

Actionable Insight:

- Offer **flexible work arrangements** and work-life balance policies.
- Improve **job engagement strategies** through challenging and meaningful work.

2. Salary & Compensation Factors

- Employees with **low monthly income** and **low salary hikes** show higher attrition rates.
- Employees with **high income but limited career growth opportunities** also consider leaving.
- **Job level and salary have a strong correlation**—higher job levels have lower attrition rates.

Actionable Insight:

- Introduce **competitive salary adjustments** based on market standards.
- Implement **transparent promotion pathways** to encourage career growth.

3. Benefit & Recognition Factors

- Employees with **low stock option levels and limited incentives** are more likely to leave.
- Employees who feel **underappreciated or lack recognition** tend to have lower retention rates.

Actionable Insight:

- Establish **recognition and reward programs** to appreciate employees' contributions.
- Provide **additional benefits like stock options and bonuses** to retain top talent.

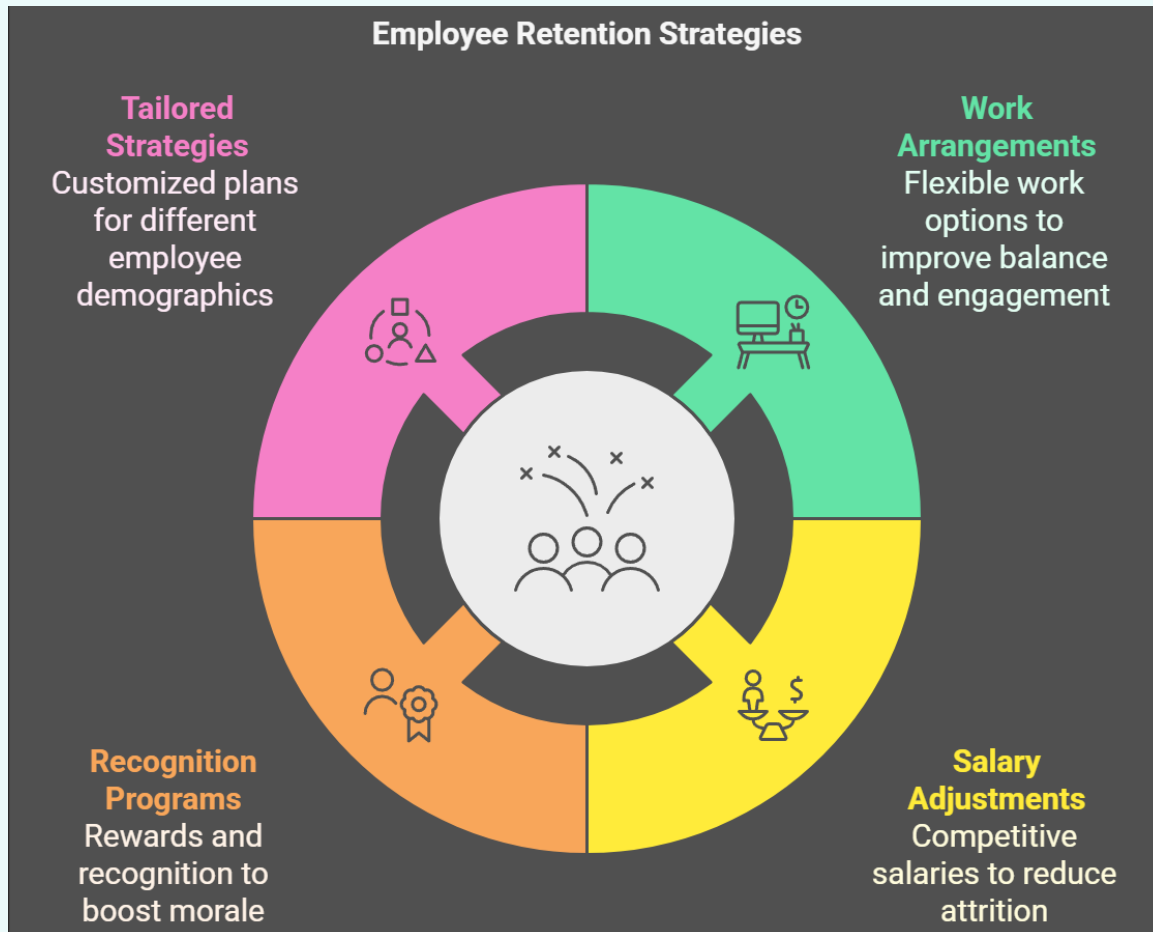
4. Employee Demographics & Generational Trends

- **Gen Z employees** have the highest attrition rates.
- **Millennials show stronger retention tendencies**, but career growth influences their decision.
- Employees with **shorter tenures (<3 years)** are more likely to leave than long-term employees.

Actionable Insight:

- Develop **tailored retention strategies** for different generations.
- Offer **mentorship programs** for new employees to enhance engagement.

Recommendations & Solutions



1. Tailored Strategies

- Implement personalized career development plans to retain employees at risk.
- Use employee feedback to customize training and mentorship programs.

2. Work Arrangements

- Offer flexible work schedules, hybrid models, and remote work opportunities.
- Provide work-life balance initiatives to reduce burnout and improve productivity.

3. Recognition Programs

- Develop structured recognition programs to appreciate employees' efforts.
- Establish performance-based incentives and public acknowledgment systems.

4. Salary Adjustments

- Conduct market-based salary evaluations and implement fair pay structures.
- Provide competitive bonuses and stock options to retain top talent.

Conclusion:

By leveraging data-driven insights, organizations can reduce attrition rates, improve employee engagement, and enhance workforce stability. Implementing the recommended strategies will help retain top talent, reduce recruitment costs, and create a more productive work environment.

~ Himanshu Nagapure