

Employee Data Analysis using Excel



STUDENT NAME: J. Charumathi
REGISTER NO: asunm221122201031 (22)
DEPARTMENT: B.com (cs)
COLLEGE: TMG College



PROJECT TITLE

Employee turnover



AGENDA

1. Problem Statement
2. Project Overview
3. End Users
4. Our Solution and Proposition
5. Dataset Description
6. Modelling Approach
7. Results and Discussion
8. Conclusion



PROBLEM STATEMENT

- Our organization is experiencing a high employee turnover rate, which is affecting our operational efficiency and overall productivity. The frequent departure of skilled employees results in increased recruitment and training costs, disrupts team dynamics, and leads to a loss of institutional knowledge. We need to identify the key factors contributing to employee turnover and develop strategies to improve employee retention."



PROJECT OVERVIEW

Purpose: To analyze employee turnover within the organization to identify key drivers, assess impacts, and develop strategies for improving retention.

objectives: Identify factors contributing to turnover. Calculate and analyze turnover rates. Develop actionable recommendations to reduce turnover.

Scope: Analyze turnover data from the past two years across all departments.

Key Deliverables: Turnover Analysis Report. Recommendations for reducing Turnover.

Timeline: Project duration: [Start Date] to [End Date]

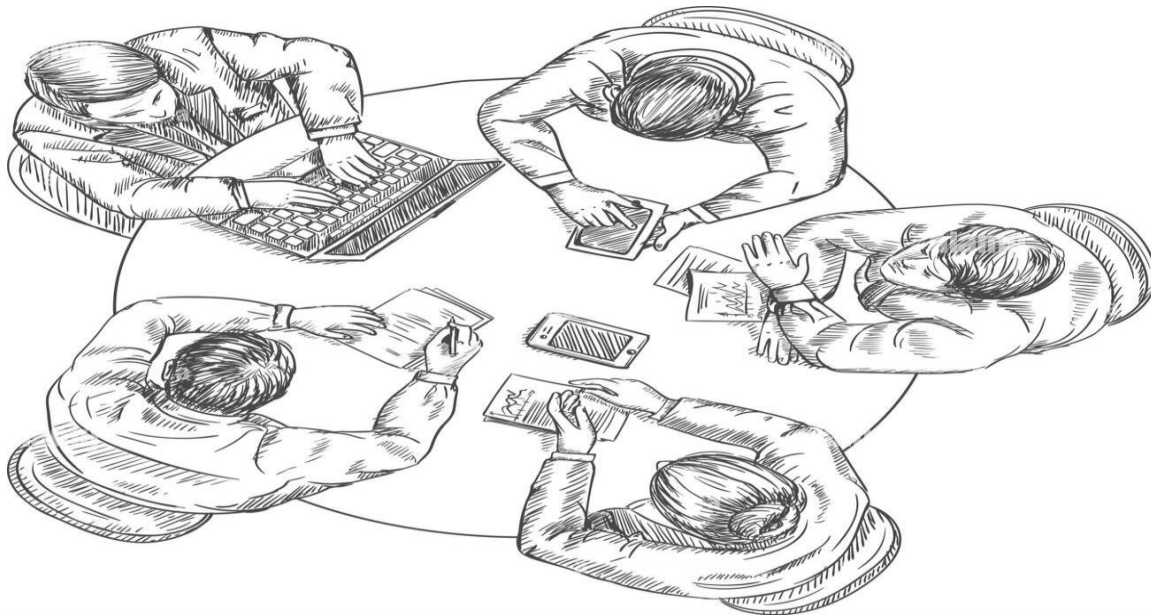
Stakeholders: Project Sponsor: [Name] HR Team: [Key Members] Success]

Success Criteria: Reduced turnover rates and improved employee satisfaction. This concise overview highlights the essential aspects of the project.

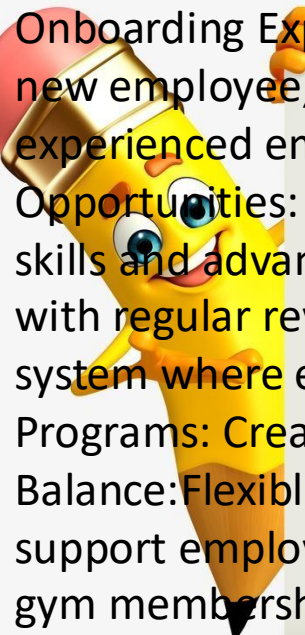


WHO ARE THE END USERS?

Employee turnover refers to the rate at which employees leave an organization and are replaced by new employees. This can happen for various reasons, including resignations, retirements, layoffs, or dismissals. "End users" typically refers to the individuals who directly use a product or service, usually in the context of software or technology. However, if you're referring to "end users" in the context of employee turnover, it might relate to how turnover affects the people who rely on the services or work provided by those employees—often customers, clients, or internal stakeholders



OUR SOLUTION AND ITS VALUE PROPOSITION



Onboarding Experience: Personalized Onboarding: Tailor the onboarding process to meet the specific needs of each new employee, ensuring they feel valued and well-integrated from day one. Mentorship Programs: Pair new hires with experienced employees to foster relationships and offer guidance. Employee Development: Continuous Learning Opportunities: Offer professional development programs, certifications, and training to help employees grow their skills and advance their careers. Career Pathing: Provide clear career progression paths within the organization, along with regular reviews and goal-setting sessions. Recognition and Rewards: Performance-Based Rewards: Implement a system where employees are recognized and rewarded for their contributions and achievements. Peer Recognition Programs: Create platforms where employees can recognize and appreciate each other's efforts. Work-Life Balance: Flexible Working Conditions: Offer options like remote work, flexible hours, and additional leave benefits to support employees' work-life balance. Wellness Programs: Provide resources for physical and mental health, such as gym memberships, meditation sessions, or counseling services. Employee Engagement: Regular Feedback Mechanisms: Conduct regular surveys, one-on-one meetings, and town hall sessions to gather feedback and understand employee concerns. Team Building Activities: Organize events that foster team spirit and strengthen interpersonal relationships. Competitive Compensation and Benefits: Fair Compensation Packages: Regularly review and adjust salaries and benefits to stay competitive in the industry. Comprehensive Benefits: Offer health insurance, retirement plans, and other benefits that cater to the diverse needs of employees. Culture of Inclusion and Diversity: Diversity Initiatives: Promote a diverse and inclusive workplace where all employees feel respected and valued. Inclusive Policies: Develop policies that support diversity, such as non-discrimination policies and diversity training.

Dataset Descript

Employee ID: Unique identifier

Age

Gender

Department

Job Role

Tenure: Duration with the company

Salary

Education level

Performance rating

Training Hours

Promotion Count

Turnover Status: Indicator of whether the employee
left or stayed



Dataset description

stag	event	gender	age	industry	profession	traffic	coach	lead_gend	greywage	way	xtraversio	independ	selfcontro	ar
23.9651	1	m	33	Banks	HR	empjs	no	m	white	bus	6.3	5.2	6.9	
22.9651	1	m	33	Banks	HR									
15.9343	1	f	35	verGenera	HR	abrecNEra	no	m	white	bus	6.2	6.2	2.6	
15.9343	1	f	35	verGenera	HR	abrecNEra	no	m	white	bus	5.4	7.6	4.9	
8.41068	1	m	32	Retail	Commercial	youjs	yes	f	white	bus	3	4.1	8	
8.9692	1	f	42	manufactur	HR	empjs	yes	m	white	bus	6.2	6.2	4.1	
8.9692	1	f	42	manufactur	HR	empjs	yes	m	white	bus	6.2	6.2	4.1	
120.444	1	f	28	Retail	HR	referral	no	m	white	bus	3.8	5.5	8	
8.6078	1	f	29	Banks	HR	empjs	no	f	white	bus	8.6	6.9	2.6	
4.43532	1	f	30	Consult	Marketing	youjs	yes	m	white	bus	5.4	5.5	3.3	
67.3511	1	f	40	manufactur	HR	abrecNEra	no	m	white	car	8.6	4.1	1.8	
20.9281	1	m	23	Banks	HR	referral	yes	m	white	bus	3	6.9	4.9	
20.9281	1	f	22	Consult	HR	abrecNEra	my head	f	white	foot	5.4	8.4	4.9	
8.93634	1	f	24	State	etc	advert	yes	f	white	foot	7	6.2	4.1	
33.577	1	f	25	etc	HR	KA	my head	f	white	foot	9.4	1.2	4.1	
16.3943	1	f	28	Building	HR	youjs	no	m	white	car	8.6	5.5	4.9	
15.3429	1	f	30	Banks	HR	abrecNEra	no	m	white	bus	5.4	5.5	3.3	
26.4476	1	f	27	IT	Sales	referral	yes	m	white	bus	5.4	6.9	2.6	
14.7187	1	f	36	Banks	HR	referral	yes	f	grey	bus	5.4	6.9	3.3	
45.3717	1	f	29	etc	HR	referral	no	m	white	bus	7.8	6.2	6.4	

THE "WOW" IN OUR SOLUTION

•It sounds like you're trying to identify or articulate the unique, standout aspect of your solution to the problem of employee turnover. To help you with that, I need a bit more information: What is your solution to employee turnover? Is it a tool, a strategy, or a process? What are the key features or approaches of this solution? What specific problem does it address? Are you focusing on retention, employee engagement, onboarding, or something else? What results have you seen or do you expect from this solution? Do you have any data or testimonials that show its effectiveness? Once I have more details, I can help you pinpoint and articulate the "wow" factor that makes your solution stand out



MODELLING

Data Collection
Employee Data: Collect data on demographics, job roles, tenure, salary, performance ratings, etc.
Exit Data: Information on when and why employees left, such as exit interviews, voluntary vs. involuntary turnover.
Company Data: Business metrics like financial performance, department size, and workload.
External Data: Economic conditions, industry trends, and labor market data.

Exploratory Data Analysis (EDA)
Descriptive Statistics: Summarize the main features of the data.
Correlation Analysis: Identify relationships between different variables and turnover.
Visualization: Use charts (like histograms, bar charts, and scatter plots) to identify patterns.

Model Selection
Logistic Regression: Common for binary outcomes like turnover (yes/no).
Decision Trees/Random Forests: Handle non-linear relationships and interactions well.
Survival Analysis: Models the time until an event occurs (in this case, turnover).
Machine Learning Models: Techniques like Gradient Boosting, Neural Networks for more complex patterns.



RESULTS

Increased Costs: High turnover leads to increased costs related to recruitment, training, and onboarding new employees. It can also disrupt workflows and decrease overall productivity. Knowledge Loss: When experienced employees leave, they take valuable knowledge and skills with them, which can be difficult and time-consuming to replace. Morale Impact: High turnover can lower morale among remaining employees, potentially leading to a further increase in turnover as job satisfaction decreases. Operational Disruptions: Frequent employee exits can disrupt operations, delay projects, and lead to inconsistency in service or product quality. Innovation Opportunities: On the flip side, turnover can bring fresh perspectives and ideas into the organization, fostering innovation and potential improvements. Culture Shift: New hires may influence the organizational culture positively or negatively, depending on their integration and the company's management of turnover.



conclusion

Employee turnover is a significant challenge for organizations, with both positive and negative implications. A well-managed turnover process can bring fresh talent and ideas, potentially boosting innovation and adaptability. However, high turnover often leads to increased costs, such as recruitment, training, and lost productivity, while also negatively impacting team morale and continuity. To mitigate the adverse effects of turnover, companies should focus on strategies such as improving employee engagement, offering competitive benefits, providing career development opportunities, and fostering a positive workplace culture. Regularly assessing the reasons behind employee departures through exit interviews and surveys can also help identify areas for improvement, allowing organizations to retain valuable talent and maintain a stable workforce. In conclusion, while some level of turnover is inevitable and can even be beneficial, excessive turnover can be detrimental to an organization's success. Thus, striking the right balance through effective human resource management is crucial.

