

ANALYSIS REPORT OF EMPLOYEE ATTIRTION DATA

SUBMITTED BY
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OBJECTIVE: The objective of an analysis report on employee attrition data is to understand the factors contributing to employee turnover within an organization. This involves identifying patterns and trends related to why employees leave, which can help the company improve retention strategies. The dataset contain total of **1676** entries and **21** columns. The ultimate goal is to help the organization reduce employee turnover, retain valuable talent, and maintain a healthy and productive work environment.

Result Grid		Filter Rows:		Export:		Wra
Field	Type	Null	Key	Default	Extra	
EmployeeID	int	YES		NULL		
Age	int	YES		NULL		
Attrition	text	YES		NULL		
BusinessTravel	text	YES		NULL		
DailyRate	int	YES		NULL		
Department	text	YES		NULL		
DistanceFromHome	int	YES		NULL		
Education	int	YES		NULL		
EducationField	text	YES		NULL		
EmployeeCount	int	YES		NULL		
EnvironmentSatisf...	int	YES		NULL		
Gender	text	YES		NULL		
HourlyRate	int	YES		NULL		
JobInvolvement	int	YES		NULL		
JobLevel	int	YES		NULL		
JobRole	text	YES		NULL		
JobSatisfaction	int	YES		NULL		
MaritalStatus	text	YES		NULL		
MonthlyIncome	int	YES		NULL		
MonthlyRate	int	YES		NULL		
age_category	varc...	YES		NULL		

DATA CLEANING:

Using MySQL table import dataset into a newly created database. Remove unnecessary columns and check for any missing or inconsistent data. The last column labeled as “?” has no data, which can likely be ignored.

DATA ANALYSIS:

Using SQL queries order by, group by, limit, etc. and aggregate functions like min, max, avg, sum, etc.

Overall attrition rate:

The count of attrition distributed in the dataset

Attrition Yes count: 199
Attrition No count: 1477

Age category:

Age category	count
Young adults	914
Adults	449
Old age	313

Attrition by Age:

Higher attrition rates are observed in younger employees. They might be more likely to change jobs for career advancement or personal reasons.

age_category	count(*)
Adults	23
Young adult	160
Old age	16

Attrition by Department:

High attrition rates are observed in maternity department. High attrition in maternity roles often results from poor work life balance, high stress, limited career growth, and challenging work conditions.

department	count(*)
Maternity	98
Cardiology	74
Neurology	27

Attrition by job satisfaction:

Employees with lower job satisfaction rated 1. As job satisfaction increases, attrition decreases where high satisfaction rated 4.

jobsatisfaction	count(*)
4	45
3	60
2	42
1	52

Attrition by business travel:

Different travel categories included in the dataset. High attrition rates can increase business travel costs and disrupt schedules due to frequent staff changes.

businesstravel	count(*)
Travel_Rarely	126
Travel_Frequently	57
Non-Travel	16

Attrition by marital status:

Higher attrition rate observed in single. Single employees may have higher attrition rates due to greater job mobility.

maritalstatus	count(*)
Single	114
Married	61
Divorced	24

Attrition by gender:

Higher attrition rate observed in male. Attrition rates can impact men based on their industry, job role, work life balance.

gender	count(*)
Male	113
Female	86

Attrition by education field:

High attrition rates in life science education can strain resources, financial challenges.

educationfield	count(*)
Life Sciences	84
Medical	51
Marketing	28
Technical Degree	22
Other	8
Human Resources	6

CONCLUSION:

In conclusion, the analysis of employee attrition data identifies critical factors contributing to turnover. Key issues such as employee engagement, work-life balance, and career development opportunities have been highlighted. Implementing targeted strategies to address these issues can help reduce attrition rates, improve retention, and enhance organizational performance. Ongoing monitoring and data-driven approaches will be crucial for managing and mitigating future attrition effectively.

- Overall attrition rate approximately 12% of employees have left the company.
- In the case of age young employees are more leave the company. When employees age, attrition rate tends to decrease significantly.
- High attrition rates are observed in maternity department. High attrition in maternity roles often results from poor work life balance, high stress, limited career growth, and challenging work conditions.
- Higher attrition rate observed in male. Attrition rates can impact men based on their industry, job role, work life balance.