

Project 1

Adviti Pvt. Ltd.: HR Analytics Project Manual

Background

Adviti Pvt. Ltd. is a multifaceted consulting firm with a presence across various industry domains. The company prides itself on leveraging data-driven insights to inform strategic decisions and improve organizational efficiency. In line with this vision, the HR department has initiated an analytics project to delve into the workforce data and uncover actionable insights that will contribute to enhanced employee engagement and optimized operational practices.

Problem Statement and Objectives

As business analysts, you will leverage your analytical skills to explore the dataset, derive insights, and compile the findings into a coherent narrative for the company's leadership. This exercise is designed to simulate real-world business analytics tasks, providing a platform for the practical application of data analysis in a corporate setting.

Problem Statement 1: Identify Factors Influencing Employee Attrition

- **Objective:** To pinpoint the underlying causes of employee turnover and propose data-backed strategies to bolster retention.

Problem Statement 2: Optimize Employee Training Programs

- **Objective:** To suggest necessary changes those are to be made in training programs.

Goal

To analyze the data and create an analytical report that encapsulates key findings, trends, and recommendations. This report will be presented to the CEO of Adviti Pvt. Ltd., aiding in strategic decision-making.

Analysis

- 1) Diploma holders tend to go for higher education or better opportunities after earning on filed experience in companies. We can see that 59% of diploma holders have left the jobs.
- 2) Bachelor's with higher experience tend to switch for better salary and higher position after gaining expertise in the field. Bachelors with 15+ years' experience have left the company at 63% rate.

3) Employees who have done PHD and Masters seen leaving companies for better position and better salary hikes. Also, after certain points salary increment got saturated in the company.

| Education_level | Experience_Category | No | Yes | Grand Total | Attrition Yes % |
|-----------------|---------------------|----|-----|-------------|-----------------|
| Bachelor's | 0-2 Years | 17 | 15 | 32 | 47 |
| Bachelor's | 10-15 Years | 9 | 11 | 20 | 55 |
| Bachelor's | 15+ Years | 9 | 15 | 24 | 63 |
| Bachelor's | 2-5 Years | 10 | 11 | 21 | 52 |
| Bachelor's | 5-10 Years | 11 | 16 | 27 | 59 |
| Diploma | 0-2 Years | 14 | 11 | 25 | 44 |
| Diploma | 10-15 Years | 10 | 5 | 15 | 33 |
| Diploma | 15+ Years | 17 | 14 | 31 | 45 |
| Diploma | 2-5 Years | 12 | 17 | 29 | 59 |
| Diploma | 5-10 Years | 19 | 14 | 33 | 42 |
| Master's | 0-2 Years | 11 | 6 | 17 | 35 |
| Master's | 10-15 Years | 6 | 10 | 16 | 63 |
| Master's | 15+ Years | 14 | 19 | 33 | 58 |
| Master's | 2-5 Years | 13 | 16 | 29 | 55 |
| Master's | 5-10 Years | 16 | 12 | 28 | 43 |
| PhD | 0-2 Years | 13 | 14 | 27 | 52 |
| PhD | 10-15 Years | 12 | 7 | 19 | 37 |
| PhD | 15+ Years | 9 | 22 | 31 | 71 |
| PhD | 2-5 Years | 11 | 13 | 24 | 54 |
| PhD | 5-10 Years | 12 | 12 | 24 | 50 |

- We have seen that there was no significant salary difference between 10-15 and 15+ years' Experience Category

| Experience_category | TotalEmployees | Attrition_Yes | Attrition_No | Attrition Yes % | Attrition No % | Avg_Salary |
|---------------------|----------------|---------------|--------------|-----------------|----------------|--------------|
| 15+ Years | 119 | 70 | 49 | 59 | 41 | 6,604,717.50 |
| 10-15 Years | 70 | 33 | 37 | 47 | 53 | 6,554,336.69 |

4) Attrition rates are higher when not promoted

| | Promotion | Attrition_Yes | Attrition_No | Attrition Yes % | Attrition No % |
|---|-----------|---------------|--------------|-----------------|----------------|
| ► | Yes | 122 | 129 | 49 | 51 |
| | No | 136 | 116 | 54 | 46 |

5) Department based attrition

| Department | TotalEmployees | Attrition_Yes | Attrition_No | Attrition Yes % | Attrition No % |
|------------|----------------|---------------|--------------|-----------------|----------------|
| Sales | 74 | 42 | 32 | 57 | 43 |
| Finance | 100 | 46 | 54 | 46 | 54 |
| Marketing | 81 | 44 | 37 | 54 | 46 |
| IT | 82 | 38 | 44 | 46 | 54 |
| HR | 73 | 40 | 33 | 55 | 45 |
| Operations | 95 | 50 | 45 | 53 | 47 |

- Sales department has the highest attrition of 57% followed by HR department.
- Finance and IT has the lowest attrition rate.

6) Attrition based on position.

| Position | TotalEmployees | Attrition_Yes | Attrition_No | Attrition Yes % | Attrition No % |
|-----------------------|----------------|---------------|--------------|-----------------|----------------|
| Software Engineer | 12 | 10 | 2 | 83 | 17 |
| Content Creator | 10 | 7 | 3 | 70 | 30 |
| Account Executive | 19 | 13 | 6 | 68 | 32 |
| Supply Chain Analyst | 28 | 18 | 10 | 64 | 36 |
| HR Manager | 29 | 18 | 11 | 62 | 38 |
| Sales Representative | 28 | 17 | 11 | 61 | 39 |
| HR Coordinator | 20 | 12 | 8 | 60 | 40 |
| Operations Manager | 27 | 16 | 11 | 59 | 41 |
| Creator | 16 | 9 | 7 | 56 | 44 |
| System Administrator | 15 | 8 | 7 | 53 | 47 |
| Accountant | 27 | 14 | 13 | 52 | 48 |
| Marketing Coordinator | 24 | 12 | 12 | 50 | 50 |
| Marketing Manager | 30 | 15 | 15 | 50 | 50 |
| Financial Analyst | 32 | 14 | 18 | 44 | 56 |
| Sales Manager | 27 | 12 | 15 | 44 | 56 |
| Finance Manager | 40 | 17 | 23 | 43 | 58 |
| IT Support Specialist | 14 | 6 | 8 | 43 | 57 |
| Recruiter | 24 | 10 | 14 | 42 | 58 |
| Logistics Coordinator | 40 | 16 | 24 | 40 | 60 |

| | | | | | |
|---------------------|----|---|----|----|-----|
| Data Scientist | 16 | 6 | 10 | 38 | 63 |
| Data Analyst | 23 | 8 | 15 | 35 | 65 |
| CTO | 1 | 0 | 1 | 0 | 100 |
| Head Data Analytics | 1 | 0 | 1 | 0 | 100 |

- We have observed highest attrition in software engineers (83%) and content creators (70%).
- Data scientist and data analyst have the lowest attrition rate.

7) Attrition based on training hours completed.

| Training_Hours_Category | avg_salary_position | Attrition Yes % | Attrition No % |
|-------------------------|---------------------|-----------------|----------------|
| 31-40 Hours | 3,210,673.89 | 60 | 40 |
| 11-20 Hours | 3,263,174.02 | 53 | 47 |
| 21-30 Hours | 3,791,895.26 | 50 | 50 |
| 40+ Hours | 3,387,845.08 | 50 | 50 |
| 0-10 Hours | 3,560,674.51 | 40 | 60 |

- Employees who have completed around 30-40 hours of training show the highest attrition rate.
- One thing to note here is that average salary plays an important role in attrition of employees.
- Point to observe here is that when employees got to salary what they deserve after giving time in training hours they were ready to serve for the company.

Suggestions:-

- 1) Employees with higher experience are leaving the company at higher rates, this could be because of the promotion they are expecting is not given to them.
- 2) Sales department has the highest attrition of 57% followed by HR department. Need to examine the internal issue in these two particular departments which is affecting the attrition.
- 3) Training hours is not directly impacting the attrition as avg salary given plays a crucial role in this. Those who have done more hours and got certification might be expecting salary hike after devoting time in up skilling.
- 4) Employees who have done PHD and Masters seen leaving companies for better position and better salary hikes. Also, after certain points salary increment got saturated in the company. One to one communication with experienced and valuable resources should be conducted to understand the root cause of their resignation.
- 5) We have observed highest attrition in software engineers (83%) and content creators (70%). These departments should be given free hand to show their creativity and innovation. This could be a prime reason for their attrition.