Employee Attrition Rate Analysis

Employee Attrition: Contents

1. Overview

2. Research and Analysis Department

3. Sales Department

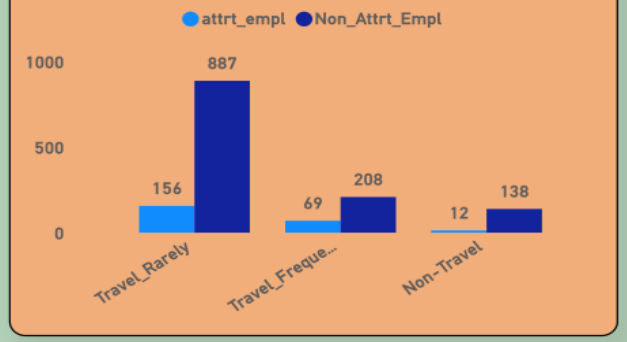
4. Human and Resource Department

1. Overview

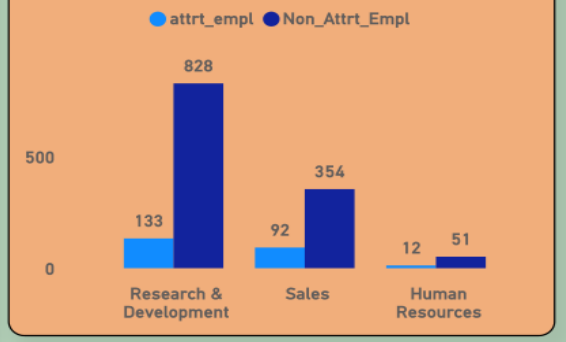
Total Employee	Attrt_Empl	Non_Attrt_Empl	Avg_Empl_Age
1470	237	1233	37

Employee Attrition Analysis

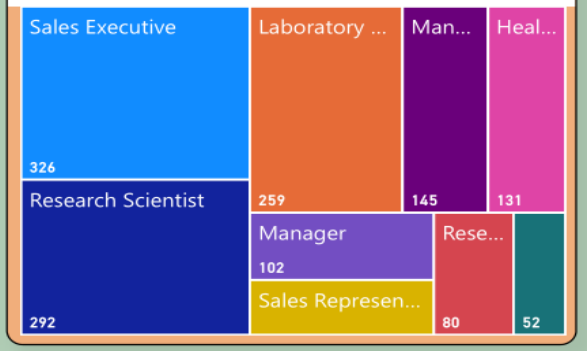
Travel Frequency



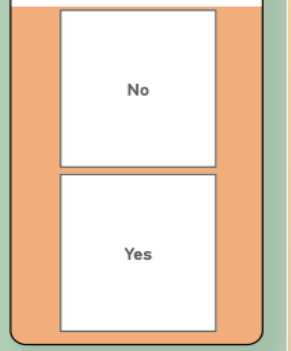
Department



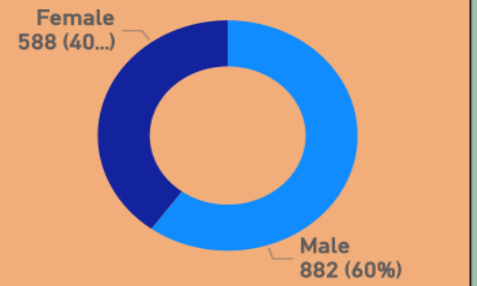
Job Roles



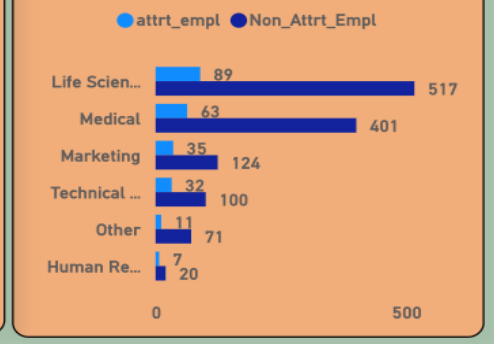
Attrition



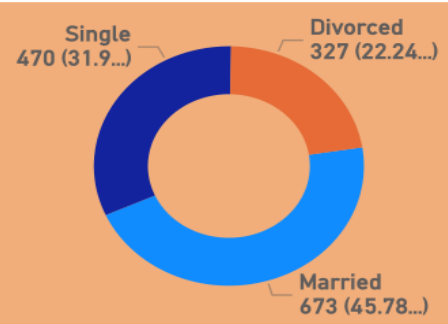
Gender



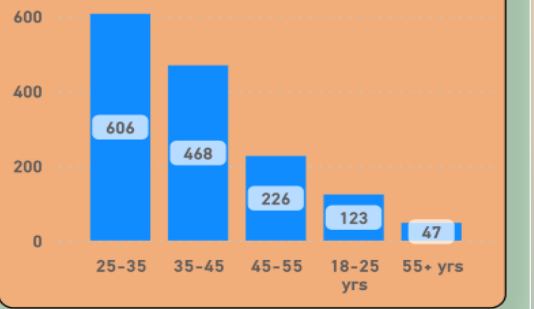
Education Field



Marital Status



Age Group



Observation

1. Total Employee: 1470,
2. Attrition vs Non-Attrition = 237 : 1233
3. Avg Employee Age = 37 Years

Travel Frequency of all employees: Most of the employees travel rarely (= 1043).

Department: R&D, Sales, & HR. R&D has most of the employees (= 961).

Job Roles: Sales Executive (=324), followed by Research Scientist (=292), followed by Lab Tech (=259), has the most no of employees.

Male = 882 (60%), Female = 588 (40%).

Life Science (=606), followed by Medical (=464), followed by Marketing (=159), are three ducational back ground of most of the employees.

Married (= 647) > Single (=470) > Divorced (=327)

25-35 years is where most employees belong (= 606), followed by 35-45 years (= 448), followed by 45-55 years (=226).

2. R&D Analysis

R&D Employee	R&D_attrt	R&D_attrt	Avg_Dist_Km
961	133	13.8%	9

R&D Analysis Overview

Attrt per Gender & age group

Age_Group	Female	Male	Total
25-35	22	45	67
35-45	6	19	25
18-25 yrs	10	14	24
45-55	2	7	9
55+ yrs	3	5	8
Total	43	90	133

Attrt per Distance & marital Status

Distance_From_Home	Divorced	Married	Single	Total
Less than 10Km	10	28	47	85
Less than 20km	5	12	7	24
Less than 30Km	3	9	12	24
Total	18	49	66	133

Attrtd_Mnth_CTC	Total_Mnth_CTC	R&D_OverTime
$546.37K	$6.04M	271

Attrt per Education & job_role

JobRole	Life Sciences	Medical	Other	Technical Degree	Total
Healthcare Representative	2	5	1	1	9
Laboratory Technician	33	17	4	8	62
Manager	1	2			3
Manufacturing Director	4	5		1	10
Research Director	1			1	2
Research Scientist	18	18	2	9	47
Total	59	47	7	20	133

Relationship Level

High | Low | Medium | Very High

Work_Environment

High | Low | Medium | Very High

Job_Involvement

High | Low | Medium | Very High

2. R&D Analysis

R&D Employee	R&D_attrt	R&D_OverTime	Attrtd_Mnth_CTC	Total_Mnth_CTC
961	133	271	$546.37K	$6.04M

R&D Analysis

Attrt per yrs with Curr_mngr & relationship_lvl

YearWithCurrMngr	High	Low	Medium	Very High	Total
Less than 1 yr	16	15	15	11	57
1-5 yrs	13	12	6	12	43
5-10 yrs	4	10	5	13	32
10+ yrs	1				1
Total	34	37	26	36	133

Attrt per Curr_Comp_Yrs & W/Life_Balacne

CurrentRoleYears	Bad	Best	Better	Good	Total
10+ years			3		3
1-5 years	10	6	28	10	54
5-10 years	2	4	11	7	24
Less than 1 year	7	4	26	15	52
Total	19	14	68	32	133

Attrt_salary per no_of_Training & Performance

Performance_Rate	0-2 times	3-4 times	5-6 times	Total
Excellent	$285,840	$51,853	$126,628	$464,321
Outstanding	$54,136	$9,272	$18,645	$82,053
Total	$339,976	$61,125	$145,273	$546,374

Attrt per Yrs_Since_Last_Promotion & Sal_%_hike

Salary_PCNT_Hike	10+ yrs	1-5 yrs	5-10 yrs	less than 1 yr	Total
Less than 15%	4	12	11	56	83
Less than 20%	1	5	1	23	30
Less than 25%		4	1	15	20
Total	5	21	13	94	133

Attrt per Total_Exp & No_Of_Prv_Companies

Total_Exp	Current Company	Less than 5	More than 10	Total
10+ yrs	5	11	11	27
1-5 yrs	13	6	6	25
5-10 yrs	25	17	12	54
less than 1 yrs	27			27
Total	70	34	29	133

1. Total Employee: 961,
2. Attrition vs Non-Attrition = 133: 828
3. Attrition percentage = 13.8%,
4. Total Monthly CTC = $ 6.04M,
5. Attrition employees monthly CTC = $ 546.37K

R&D Analysis Observation

1. **90 Males** and **43 Females** left the company, out of which employees between **25-35 years** and **35-45 years** are most likely to quit.
2. As per Marital Status, **Single Employees (=66)** are most likely to leave, followed by **Married (=49)**. Employees, whereas **employees living within 10Km distance** from office is most likely to quit.
3. Employees with **Life Science**, and **Medical** are seen to quit the company, followed by **Technical Degree** holders , **with Laboratory Technician** job role is showing the highest attrition rate **followed by Research Scientist**.
4. Employees working **with current manager for less than 1 year** is more likely to leave, followed by those having **5-10 years** exp and **10-15 years** exp, whereas employees showing both, **Very High and Low level of Relationship**, are more likely to quit.
5. Performance wise both, **Excellent and Outstanding**, employees are more likely to quit.
6. Employees with **less than 1 year experience** with less than **15% Salary Hike** is likely to quit, followed by those with less than **20% and 25%** Salary Hike .
7. Employees with **"Better" work-life balance** working in the company for **1-5 years** are more likely to quit, followed by those who are working for **less than 1 year**.
8. Employees who are working within the **same company for 5-10 years**, followed by those who are working for **less than 1 year** are more likely to quit.

3. HR Analysis

HR Employee	HR_attrt	HR_attrt	Avg_Dist_Km
63	12	19.05%	8.70

HR Analysis Overview

Attrt per Gender & age group

Age_Group	Female	Male	Total
18-25 yrs		2	2
25-35	6	2	8
35-45		2	2
Total	6	6	12

Attrt per Distance & marital Status

Distance_From_Home	Divorced	Married	Single	Total
Less than 10Km	2	2	1	5
Less than 20km	2	2		4
Less than 30Km	1	2		3
Total	5	6	1	12

Attrtd_Mnth_CTC	Total_Mnth_CTC	R&D_OverTime
$44.59K	$419.23K	17

Attrt per Education & job_role

JobRole	Human Resources	Life Sciences	Medical	Technical Degree	Total
Human Resources	7	1	2	2	12
Total	7	1	2	2	12

Relationship Level

High | Low | Medium | Very High

Work_Environment

High | Low | Medium | Very High

Job_Involvement

High | Low | Medium | Very High

3. HR Analysis

HR Employee	HR_attrt	HR_OverTime	Attrtd_Mnth_CTC	Total_Mnth_CTC
63	12	17	$44.59K	$419.23K

HR Analysis

Attrt per Total_Exp & No_Of_Prv_Companies

Total_Exp	Current Company	Less than 5	More than 10	Total
10+ yrs			2	2
1-5 yrs	2	1		3
5-10 yrs	2	1	1	4
less than 1 yrs	3			3
Total	7	2	3	12

Attrt per Yrs_Since_Last_Promotion & Sal_%_hike

Salary_PCNT_Hike	1-5 yrs	less than 1 yr	Total
Less than 15%	3	7	10
Less than 20%		1	1
Less than 25%		1	1
Total	3	9	12

Attrt per Curr_Comp_Yrs & W/Life_Balacne

CurrentRoleYears	Best	Better	Good	Total
1-5 years		4	1	5
5-10 years		1	1	2
Less than 1 year	1	4		5
Total	1	9	2	12

Attrt_salary per no_of_Training & Performance

Performance_Rate	0-2 times	3-4 times	5-6 times	Tot
Excellent	7	1	3	11
Outstanding			1	1
Total	7	1	4	12

Expand

Attrt per yrs with Curr_mngr & relationship_lvl

YearWithCurrMngr	High	Low	Medium	Very High	Total
1-5 yrs	3			2	5
5-10 yrs				1	1
Less than 1 yr	3	1	1	1	6
Total	6	1	1	4	12

1. Total Employee: 63,
2. Attrition vs Non-Attrition = 12:51
3. Attrition percentage = 19.05%,
4. Total Monthly CTC = $ 419.23K,
5. Attrition employees monthly CTC = $ 44.59K

HR Analysis Observation

1. **6 Males** and **6 Females** left the company, out of which employees between **18-25 years** are most likely to quit.
2. As per Marital Status, **Both Married and Divorced** are most likely to leave, followed by **Single** Employees, whereas **employees living within both 10Km & 20 Km distance** from office is most likely to quit.
3. Employees with **Human Resoruces** are seen to quit the company, **with HR**job role is showing the highest attrition rate.
4. Employees working **with current manager for Less than 1 year** is more likely to leave, followed by those having **1- 5 years** exp, whereas employees showing both, **Very High and High Level of Relationship**, are more likely to quit.
5. Performance wise both, **Excellent and Outstanding**, employees are more likely to quit, whereas training given between **0-2 times**.
6. Employees with **less than 1 year experience** with less than **15% Salary Hike** is likely to quit.
7. Employees with **"Better" work-life balance** working in the company for **1-5 years in the current role** are more likely to quit, followed by those who are working for **less than 1 year**.
8. Employees who are working within the **same company for 5-10 years**, followed by those who are working for **Less than 1 years** are more likely to quit.

3. Sales Analysis

Sales_Emplyee	Sales_attrt	Sales_%_attrt	Avg_Dist_Km
446	92	20.63%	9.37

Sales Analysis Overview

Attrt per Gender & age group

Age_Group	Female	Male	Total
18-25 yrs	8	10	18
25-35	18	23	41
35-45	7	9	16
45-55	5	12	17
Total	38	54	92

Attrt per Distance & marital Status

Distance_From_Home	Divorced	Married	Single	Total
Less than 10Km	6	17	31	54
Less than 20km	3	7	10	20
Less than 30Km	1	5	12	18
Total	10	29	53	92

Attrtd_Mnth_CTC	Total_Mnth_CTC	R&D_OverTime
$543.58K	$3.1M	128

Attrt per Education & job_role

JobRole	Life Sciences	Marketing	Medical	Other	Technical Degree	To
Manager		2				
Sales Executive	20	21	9	3	4	
Sales Representative	9	12	5	1	6	
Total	29	35	14	4	10	

Relationship Level

High | Low | Medium | Very High

Work_Environment

High | Low | Medium | Very High

Job_Involvement

High | Low | Medium | Very High

3. Sales Analysis

Sales Employee	Sales_attrt	Sales_OverTime	Attrtd_Mnth_CTC	Total_Mnth_CTC
446	92	128	$543.58K	$3.1M

Sales Analysis

Attrt per Total_Exp & No_Of_Prv_Companies

Total_Exp	Current Company	Less than 5	More than 10	Total
10+ yrs	6	15	5	26
1-5 yrs	11	4	3	18
5-10 yrs	12	10	11	33
less than 1 yrs	15			15
Total	44	29	19	92

Attrt per Curr_Comp_Yrs & W/Life_Balacne

CurrentRoleYears	Bad	Best	Better	Good	Total
10+ years			2		2
1-5 years	3	2	24	12	41
5-10 years	1	4	11	6	22
Less than 1 year	2	6	13	6	27
Total	6	12	50	24	92

Attrt_salary per no_of_Training & Performance

Performance_Rate	0-2 times	3-4 times	5-6 times	Total
Excellent	$229,956	$41,226	$218,970	$490,152
Outstanding	$36,915	$3,407	$13,104	$53,426
Total	$266,871	$44,633	$232,074	$543,578

Attrt per Yrs_Since_Last_Promotion & Sal_%_hike

Salary_PCNT_Hike	10+ yrs	1-5 yrs	5-10 yrs	less than 1 yr	Total
Less than 15%	3	14	5	35	57
Less than 20%		4	7	15	26
Less than 25%		1	2	6	9
Total	3	19	14	56	92

Attrt per yrs with Curr_mngr & relationship_lvl

YearWithCurrMngr	High	Low	Medium	Very High	Total
10+ yrs		1	1		2
1-5 yrs	11	6	10	9	36
5-10 yrs	10	5	1	5	21
Less than 1 yr	10	7	6	10	33
Total	31	19	18	24	92

Sales Analysis Observation

1. Total Employee: 446,
2. Attrition vs Non-Attrition = 92: 354
3. Attrition percentage = 20.63%,
4. Total Monthly CTC = $ 3.1M,
5. Attrition employees monthly CTC = $ 543.58K

1. **54 Males** and **38 Females** left the company, out of which employees between **25-35 years** and **18-25 years** are most likely to quit.
2. As per Marital Status, **Single Employees (=53)** are most likely to leave, followed by **Married (=49)**. Employees, whereas **employees living within 10Km distance** from office is most likely to quit.
3. Employees with **Life Science**, and **Medical** are seen to quit the company, followed by **Technical Degree** holders , **with Laboratory Technician** job role is showing the highest attrition rate **followed by Research Scientist**.
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7. Employees with **"Better" work-life balance** working in the company for **1-5 years** are more likely to quit, followed by those who are working for **less than 1 year**.
8. Employees who are working within the **same company for less than 1 year**, followed by those who are working for **5-10 years** are more likely to quit.

Summarization

1. Total Employee: 1470,
2. Attrition vs Non-Attrition = 237: 1233
3. Attrition percentage = 16.12%.

1. **Gender:** Male employees are more likely to quit than Female employees.
2. **Age Group:** mostly 25-35 years employees are more likely to quit company.
3. **Marital Status:** Mostly Single and Married Employees are likely to quit.
4. **Education Background:** Life Science, Medical, Technical Degree, and Marketing are the four fields where employees quit most often.
5. **Job Role:** Sales Executive & representative, along with HR, and Research Scientist and Lab Technician are the job roles where employees quit mostly.
6. **Working with Current Manager:** Those who worked with current manager for Less tan 1 year, and between 1-5 years are more likely to quit.
7. **Salary Hike and Promotion:** Those were promoted within 1 year and having a salary hike of less than 15% are more likely to quit.
8. **No years of Experience:** Employees with Less than 1 year, 1-5 years, and 5-10 years of total experience are more likely to quit.
9. **No of Previous Companies worked**: Those who are working within the same company, and those who have worked with at least 5 companies are more likely to quit.
10. **Performance Level:** Employees having Excellent and Outstanding performance level are likely to quit more often

Thank You.
Pritam Banerjee.