

PROJECT

ON TABLEAU

BY

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INTRODUCTION

- This project was done to determine the total amount of sales and profits made in a superstore.
- To determine the employee performances base on their departments
- To show the employees attrition count

BACKGROUND PROJECT

Superstore provides the sale of goods and services to consumers.

There are many superstores in different locations globally, but this project will work on the database from one of the superstores to forecast sales.

PROJECT OBJECTIVES

The aim of this project is to build dashboards showcasing the following:

- Sales dashboard
- Profit dashboard
- Employees Performances
- Attrition count
- Job satisfaction

PROJECT METHODOLOGY

This project was conducted in steps viz;

- Data collection
- Data pre-processing
- Data exploration
- Data modeling
- Data evaluation
- Recommendation

DATA ANALYSIS

SALES DASHBOARD

This dashboard was created to determine the total sales base on regions, monthly sales, sales by region , category, highest sales by state and sales by states in a superstore From the visuals below;

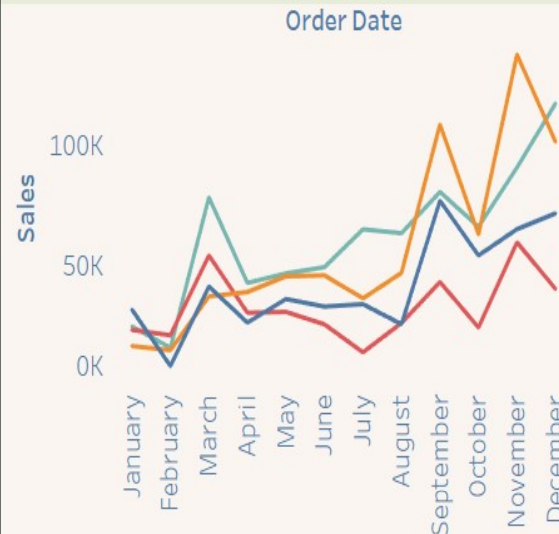
- **TOTAL SALES BY REGIONS:** It can be seen that in the total sales by region, the west made the highest sales with exactly **739,814** sales over the years ,while the south made the lowest sales with exactly **391,722** sales.
There is no significant difference between the sales made in the west and the east but the west took the lead with over **47,986** sales. There is significant difference in sales between the west and the central region with the west topping the central with exactly **236,643**.
- **TOTAL SALES BY CATEGORY:** Categorically, looking at sales, there isn't much difference in percentage. while technology topped the list with a percentage of **36.10**,furniture and office supplier had **32.44%** and **31.46%** respectively. This shows that the sellers tried in their different capacity and little or no effort was needed on the three categories.
- **TOTAL MONTHLY SALES BY REGION:** The monthly sales made by each region was not stable as can be seen from the analysis. While the sales were the same in january and february,it rises in march with west making the highest sales followed by south, central and East made the lowest sales. In April, there was a dropdown with central region making the lowest sales of **2,623**,followed by East with **30,316** sales. West and south had the same top sales with sales of **38,905**.The sales in the regions continued simultaneously till september when it skyrocketed again with East making the highest sales of **108,514**,followed by west with a sale of **80,460** and central going down slightly below west with sales of **76,833**.It was noticed that there was a big dropdown of sales in south with sales of **43,077** which they need to work on. Between october to december, the sales continued to fluctuate but in the month of december, there was great significant difference in the four regions with west topping the list with **117,170** and East going down from **496** to **101,273**.The central rose gradually from **65,026** in nov to **71,592**.The south also dropped from **59,539** in nov to **40,183**.
- **HIGHEST SALES BY STATE:** Looking at the map, only two states made the highest sales and that is California and New york with **457,688** and **310,876** respectively. Although Washington, Texas and Pennysylvannia also made considerable sales, but base on counting the highest ,California and New york made more encouraging sales.

SALES DASHBOARD

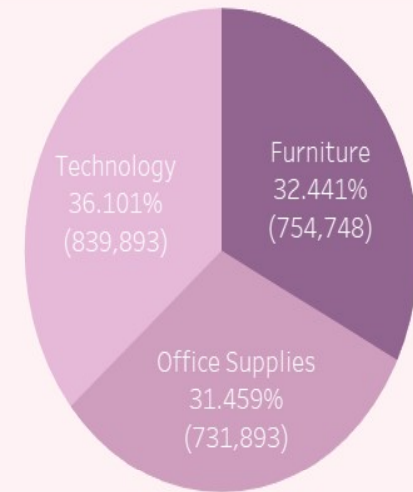
Total sales by region



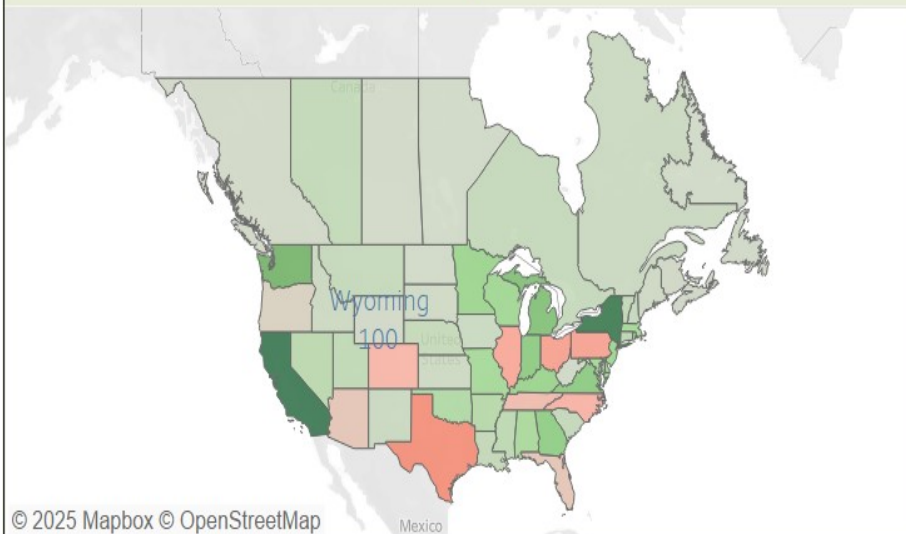
Total monthly sales by region



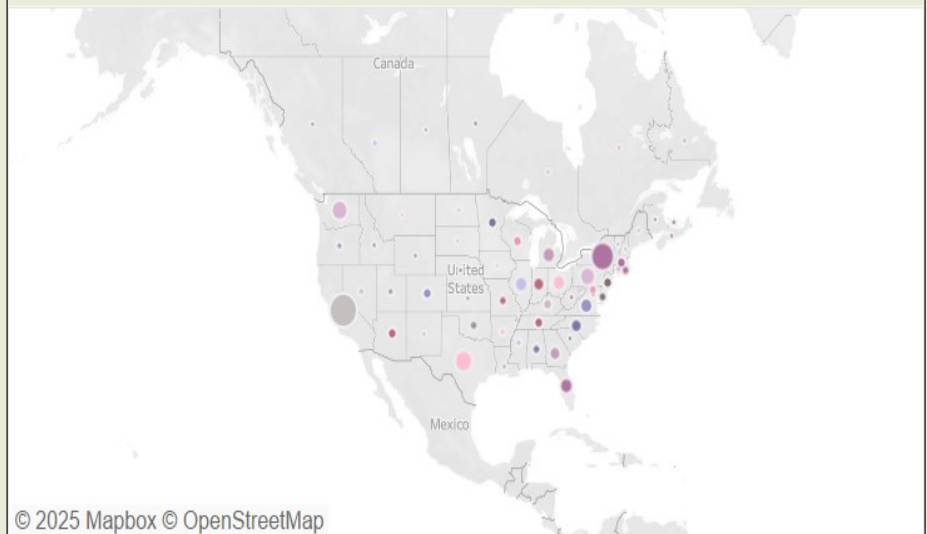
Total sales by category



Profits by states



Highest sales by state

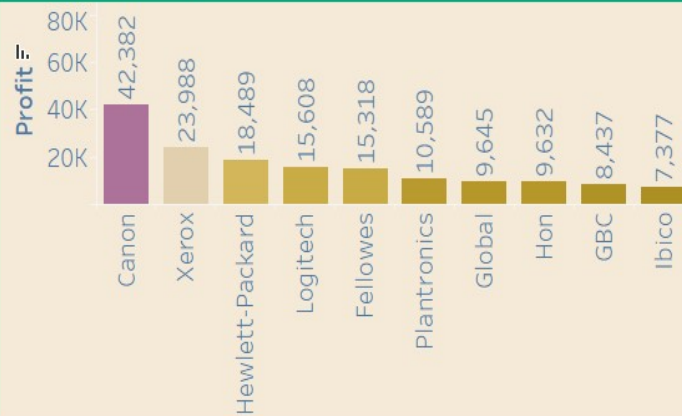


PROFIT DASHBOARD

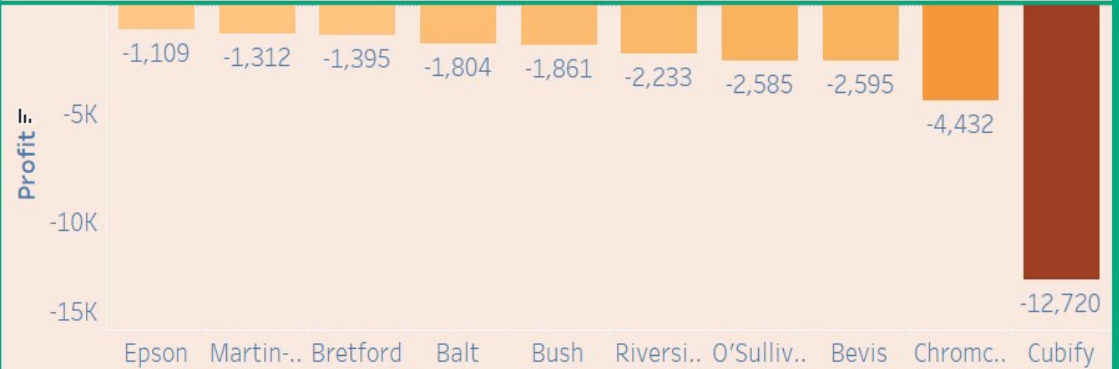
- **PROFITS BY STATE**: From the map, Virginia made the highest profit of **18,598**, topping the Oregon south which had the lowest profit of **1190** and Newfoundland and Labrador with **18,203** and **18,411**. Prince Edward Island surpasses Dakota with **18,203** and **18,269** respectively. This shows the states made so much loss apart from Virginia.
- **BOTTOM 10 MANUFACTURERS**: From the visual, the manufacturers that made the least profit was seen with cubify topping the list with **-12,720** and Epson **-1,109**. There was no much difference in loss between the other manufacturers except for Riverside and O,sullivan that had **-2,233** and **-2,585** respectively with chromecraft that made **-4,432** losses.
- **TOP 10 MANUFACTURERS**: On the otherhand, the top ten manufacturers were listed with canon topping the list with **42,382** thereby giving the other manufacturers a gap of twice his profit and some ,more than twice his profit.
- **TOP SALES**: The top five sales were also analysed and Canon image topped the list of sales with a sale of **61,600** and the least top sales with **19,823** from GBC, leaving the top sales in the range of **61,600** to **19,823**.

<PROFIT DASHBOARD>

Top 10 manufacturers



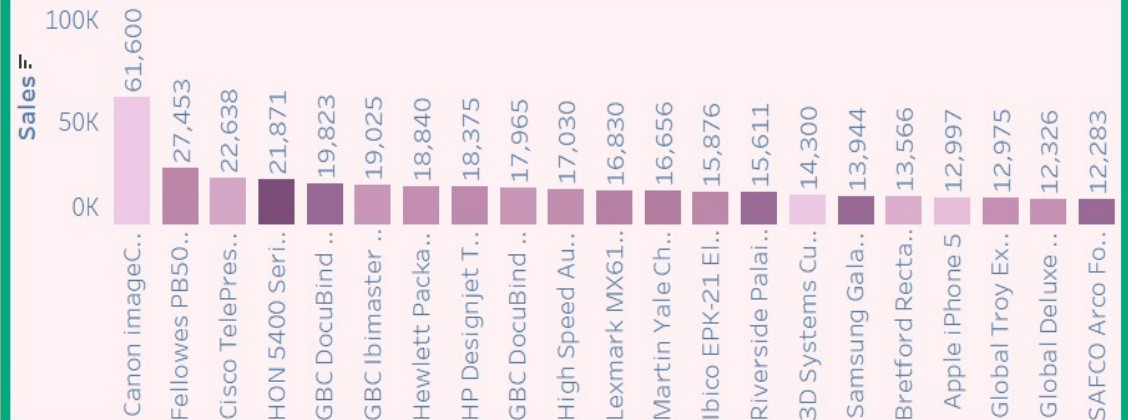
Bottom 10 manufacturers



Top 5 sales



Filtering by number

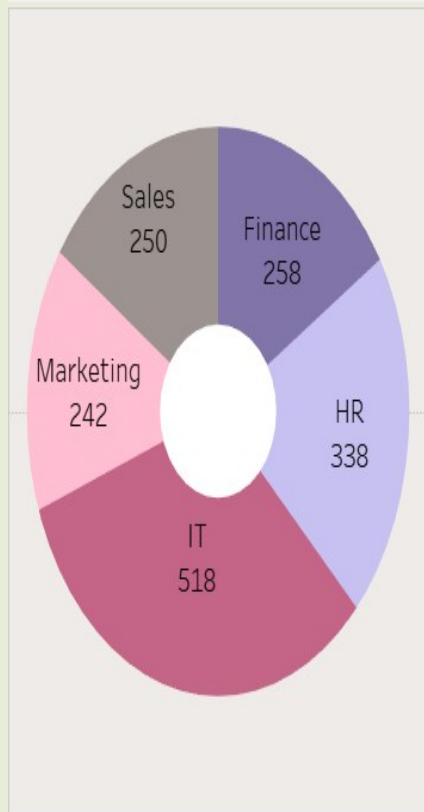


EMPLOYEES PERFORMANCE/ATTENDANCE RATE

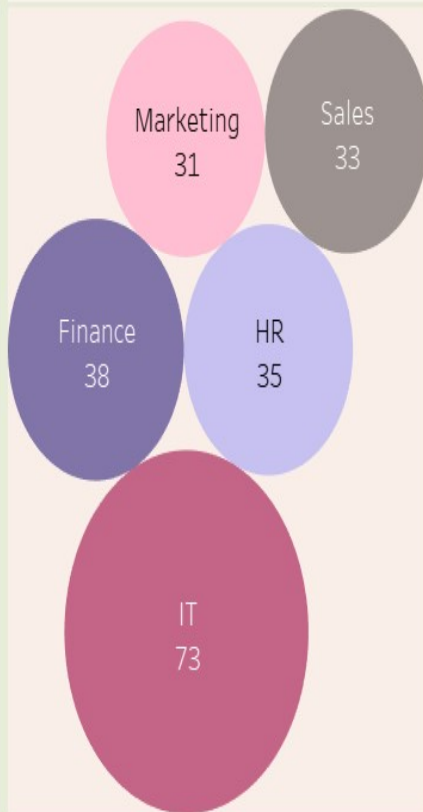
- **BONUS BASE ON DEPARTMENT**: From the analysis, the IT department had the highest bonus rate with **10,900** bonuses, followed by the HR with **5,950**. The Finance, Marketing and Sales departments were in the same range with **4,600, 4,000, and 4,200** respectively. This shows the seriousness of employees in the IT department.
- **PERCENTAGE OF ATTENDANCE RATE**: The attendance rate was actually competitive but Chloe Miller and Daniel Williams topped the list with a percentage of **5.48%** each, followed by Chris Wilson, Emily Johnson and James Foster who were in the same range with a percentage of **5.42%** each. The others had the same range of **5%** with a little difference except for Mia Mitchell who had **4.98%**, making her the highest absentee.
- **ATTENDANCE RATE**: The attendance rate also showed the number of times each employee came to work. From the analysis, it can be seen that the number of attendance justified the percentage of attendance above. Looking at the attendance performance, they stood at the range of **99-90** with Chloe Miller and Daniel Williams attending **99 times** while Mia Mitchell who was the least attended **90 times**.
Generally, there was no significant difference in their attendance rating, which is encouraging.
- **PERFORMANCE RATE BY DEPARTMENT**: The best performed department from analysis was seen to be the IT department, followed by the HR, although this can equally be confirmed base on the bonuses given to the departments.
- **PROJECTS COMPLETED BASE ON DEPARTMENT**: Base on the projects each department completed, IT had a total of **73** projects, HR -**35**, Finance -**38**, Sales -**33** and Marketing **31**. This analysis still gave kudos to IT for the number of projects completed against the others whose projects completed were at the range of **31-38**.
- **PERCENTAGE PERFORMANCE BASE ON DATE**: After the analysis, it can be deduced that if more efforts are put in place, there's going to be great improvement of performance in the coming years because there has been an increase or a little decrease in performance since **2021** till date.

PERFORMANCE DASHBOARD

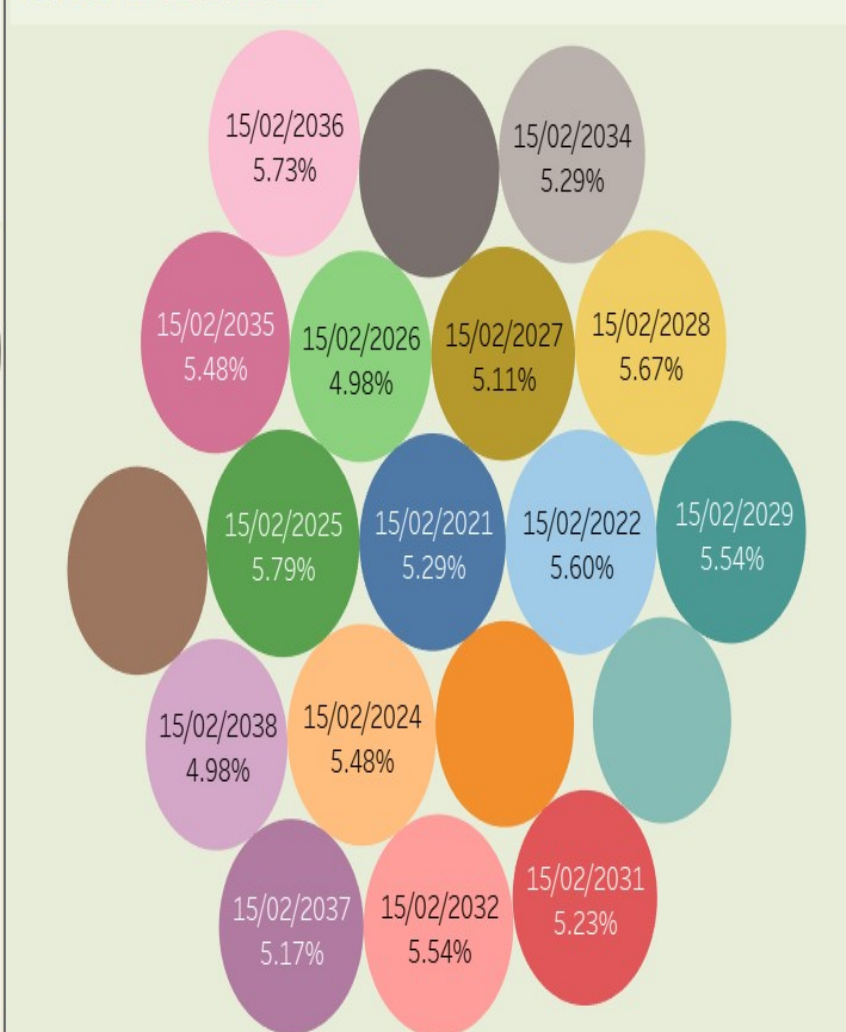
PERFORMANCE RATE BY DEPARTMENT



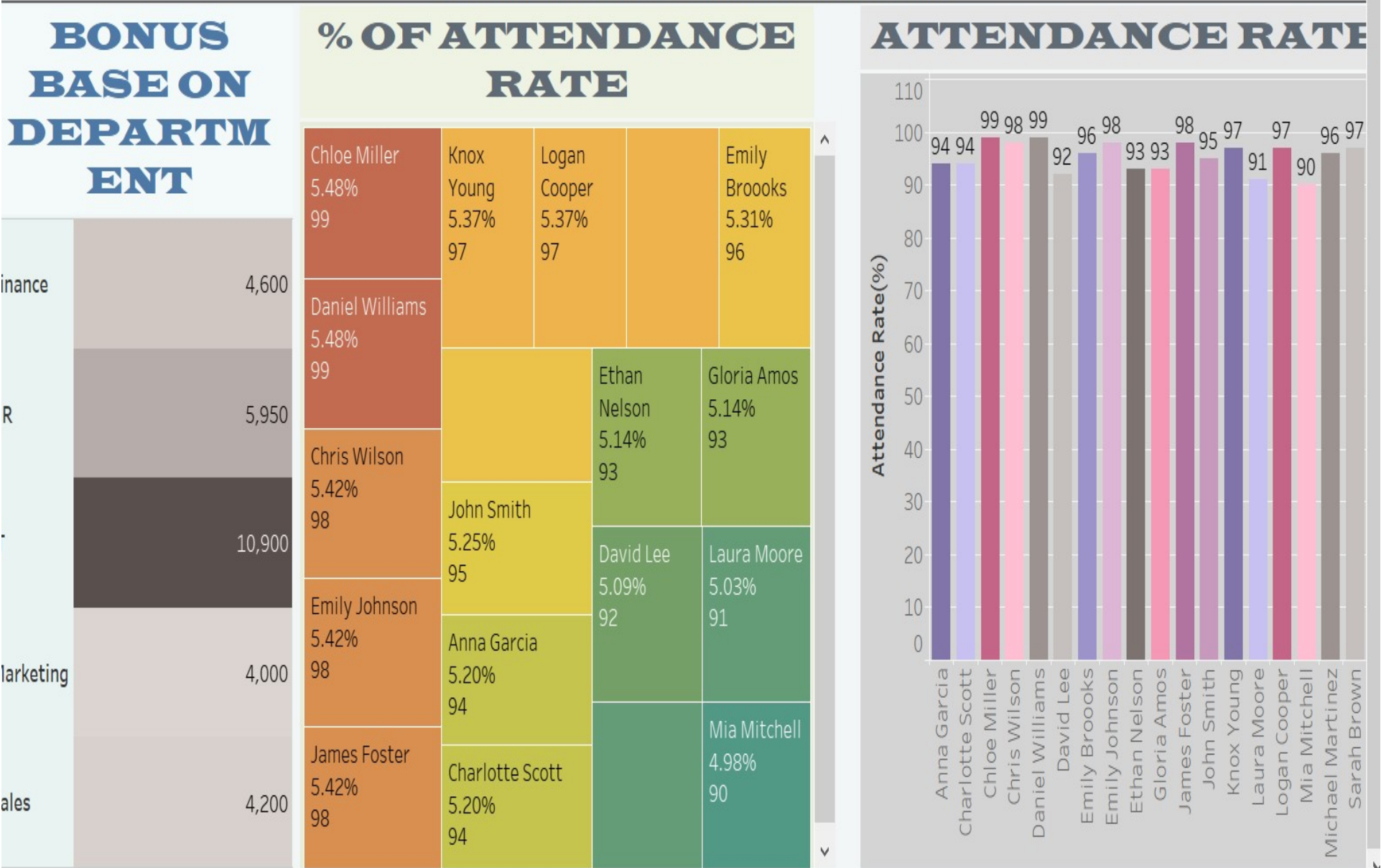
PROJECTS COMPLETED BASE ON DEPARTMENT



% PERFORMANCE BASE ON DATE



ATTENDANCE & BONUS DASHBOARD

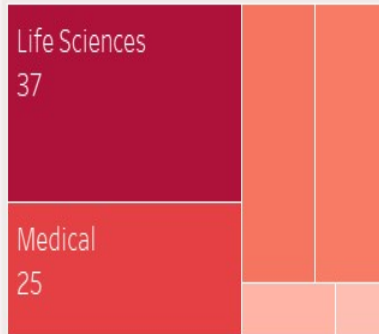


EMPLOYEES ATTRITION COUNT

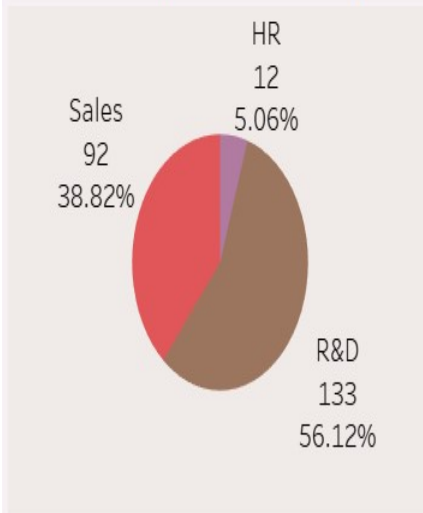
- **HIGHEST NUMBER OF ATTRITION**: From the analysis, when Education was analysed, Life sciences had the highest attrition rate of **37** followed by the medical department with **25**. Technical degrees, Marketing, Human resources and Others which were not mentioned had attrition count of **16,15,4** and **2** respectively.
- **ATTRITION COUNT FOR MALE AND FEMALE**: Generally, it was noticed that the male gender that left are greater than the female. This comes to the fact that the work may not be favourable for the male base on the meagre salary they receive.
- **HIGHEST NUMBER OF ATTRITION BY DEPARTMENT**: The analysis showed that the employees that left the company were from R&D department with great percentage of attrition of **56.12%** as against sales and HR with percentage attrition of **92%** and **12%** respectively.
- **HIGHEST AGE GROUP IN ATTRITION**: Ages between **25** to **34** left the work with the percentage of the male topping the list. From the age bracket, it can be deduced that maybe they left for greener pasture or the work may be stressful and no longer conducive for them, reason for their resignation.

EMPLOYEES ATTRITION DASHBOARD

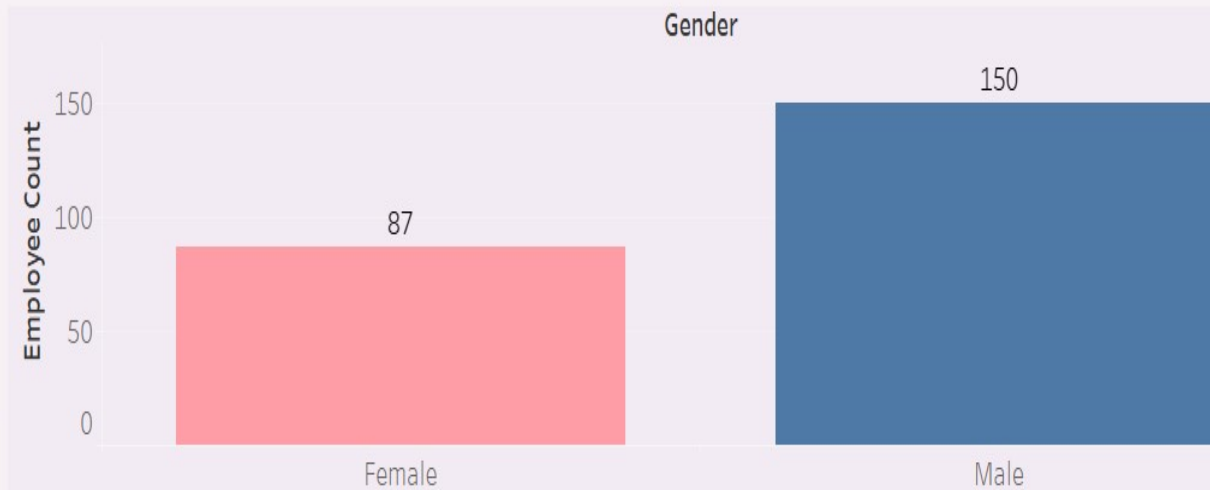
HIGHEST NO. OF ATTRITION(EDUCATION)



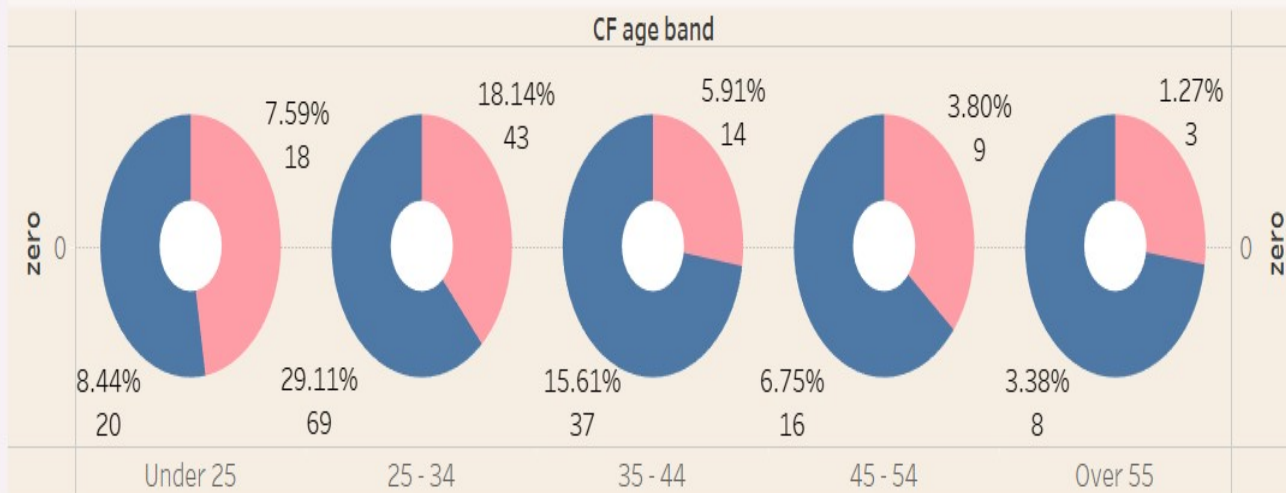
HIGHEST NO. OF ATTRITION(DEPARTMENT)



ATTRITION COUNT FOR MALE & FEMALE



HIGHEST AGE GROUP IN ATTRITION



Gender

Female

Male

Education

(All)

Associate's

☒ Bachelor's

Doctoral D

High Scho

Master's D

Attrition count

2

JOB SATISFACTION

- **KPI**: From the analysis, the total number of employees stood at **1,470** with attrition count of **237**, with the age of attrition **37** years.
- **KPS**: From the kps data, the employee count is **1,470** and the job involvement stood at **4,013**. Looking at the kps, the workers are few compared to the jobs involved, which explains the high rate of attrition.
- **JOB SATISFACTION AGAINST JOB ROLE**: The analysis conducted here shows that the sales executives have done their jobs satisfactorily having the highest grand total of **326** followed by research scientist and lab technician with job satisfaction of **292** and **259** respectively. Although manufacturing director and Health care rep tried but they need more effort to meet up with the others who ranged **200**. Research director and sales rep were in the range above **80**, therefore they need to work harder while human resources performed to the lowest satisfaction of **52** which means not satisfactory compared to others.

JOB SATISFACTION DASHBOARD

KPS OF THE DATA

Moving Average ..	37
Count of HR data	1,470
Distance From H..	13,513
Employee Count	1,470
Hourly Rate	96,860
Job Involvement	4,013
Sum of Job Satis..	4,011
Monthly Income	9,559,309
Monthly Rate	21,040,262
Num Companies	2 959

KPI

Employee Count	1,470
Attrition count	237
Avg. Age	37
Monthly Income	#9,559,309.00

JOB SATISFACTION RATE AGAINST JOB ROLE

Job Role	Job Satisfaction			
	1	2	3	4
Healthcare Representative	26	19	43	43
Human Resources	10	16	13	13
Laboratory Technician	56	48	75	80
Manager	21	21	27	33
Manufacturing Director	26	32	49	38
Research Director	15	16	27	22
Research Scientist	54	53	90	95
Sales Executive	69	54	91	112
Sales Representative	12	21	27	23

RECOMMENDATIONS

- This analysis shows that the distributors in the central region and southern region should improve in distribution and more awareness should be created in these regions for improvement.
- I recommend that the sellers in the south should verify the reason(s) for the decrease on dec when others increased and make amendments.
- Distributors and sellers should put more effort in other states. They should provide means to advertise their products in the states where there are competitive products and sellers.
- I recommend that the distributors and sellers should go for market survey and know the strategies used by virginia sellers to make more sales in order to improve on their sales.
- I recommend that they should check work strategies of the IT department and follow suit or even add more ideas to exceed them.
- I recommend more effort and bonuses to be given to the employees to boost their morale to perform well in order to erase the fluctuation in the performance over the years.
- I recommend that there should be salary increment, to be the key that will hold the professionals among them from leaving the work.
- I recommend that young, vibrant individuals in their late twenties and early thirties should be employed or if possible older individuals who can be able to adapt to both the work and its environment.
- I recommend interviews to be conducted to give room for more workers in order to reduce stress and increase production.