

CLOCKSTER

ATTENDANCE ANALYSIS

Prepared by:

GROUP 12

Dalupe, Marvin

Andoh, Arseñe

Fermin, Roberto Jr.

Tumayao, Aldrin

Labitad, Leomarie

Padayhag, Andre Niño

The Problem

Clockster HR Department deals with many issues with their employees' performance due to the number of undisciplined personnel recorded.

Methodology

UNDERSTANDING THE PROBLEM

Before diving into the available data, it was necessary to understand the problem first. While doing so, the CEO formulated questions that were identified.

CEO formulated questions.

1. Identify the most disciplined and undisciplined employees and divisions.
2. Create a visualization with the analysis of weekdays and months when most employees were late/absent (either for vacation or sick leave)
3. Which departments tend to forgive employees for lack of discipline? Are there any favorites for any of the departments (perhaps some employees are always forgiven for being late, given time off, etc.?)

CLEANING OF DATA

With the dataset provided, the team reviewed and cleaned the raw data containing attendance, leave requests, payroll, schedules, and users.

The team is cleaning the data via SQL and Microsoft Power BI.

1. Cleaning data with SQL:

- Updated table to remove null values using several queries.
- Removed duplicate values.
- Joined tables to combine data to provide significant details for our analysis.

2. Cleaning data using Power Query:

Second phase of data cleaning was performed using Power Query:

- Removed duplicate values.
- Removed null values still present in the tables.
- Removed column with non-significant data values.
- Split columns to extract significant data combine in one column.
- Merged tables to put in relation info that could provide significant insights and guide us in our analysis.

3. Polishing data using Power Pivot

Once we got a cleaned data, we decided to polish it using Power Pivot

- DAX functions were used to adjust data.
- Measures were calculated to provide additional values important for our analysis.

Examples:

- ✓ Measure to identify disciplined and undisciplined employees.
- ✓ Measure to identify the most disciplined and undisciplined departments.

ANALYZING AND VISUALIZING THE DATA USING SQL and POWER BI

Using the cleaned dataset, the CEO formulated questions that were identified and visualized via Microsoft Power BI.

Findings

Based on the analysis, the team identified the most disciplined and undisciplined employees are both coming from Pharmacy Department (see Figure 1 and Figure 2)



Figure 1. Top 10 Disciplined Employees



Figure 2. Top 10 Undisciplined Employee

For the most numbers of late and absent, it was found that in the month of January which has the majority of late recorded, while month of February has the majority of absent recorded (see Figure 3).

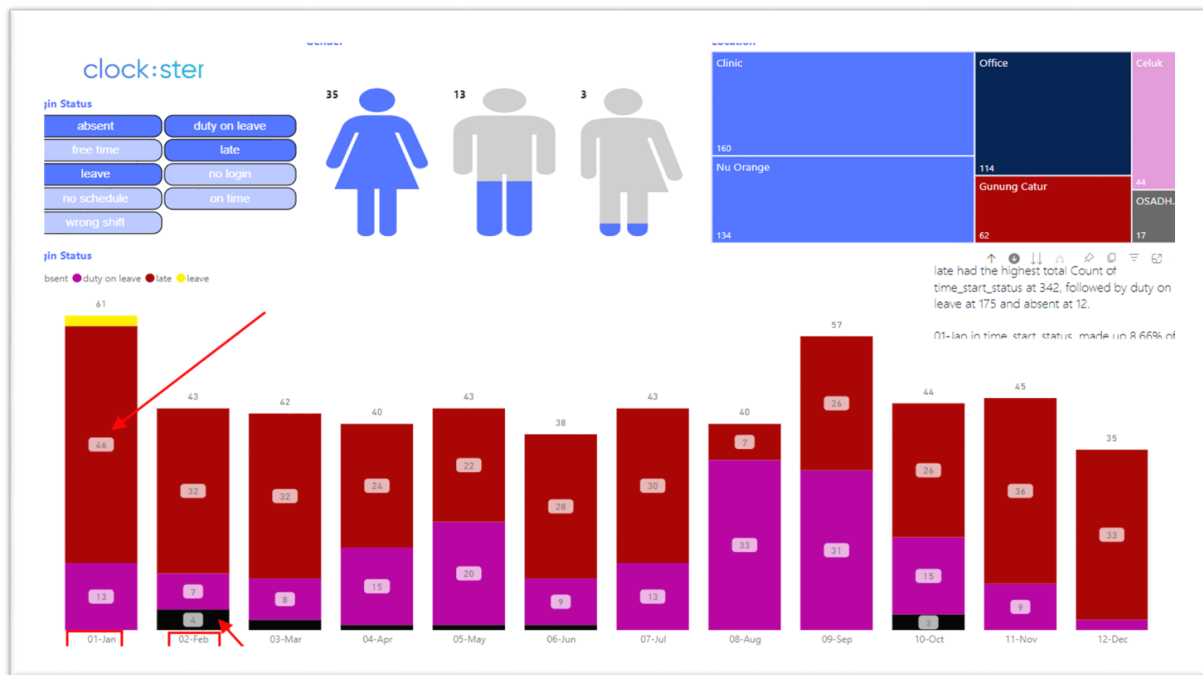


Figure 3. Months Employees were late/absent.

While Thursday has the highest number of lateness recorded and Friday has the most absent recorded and employees took leave only on Saturday (see Figure 4).

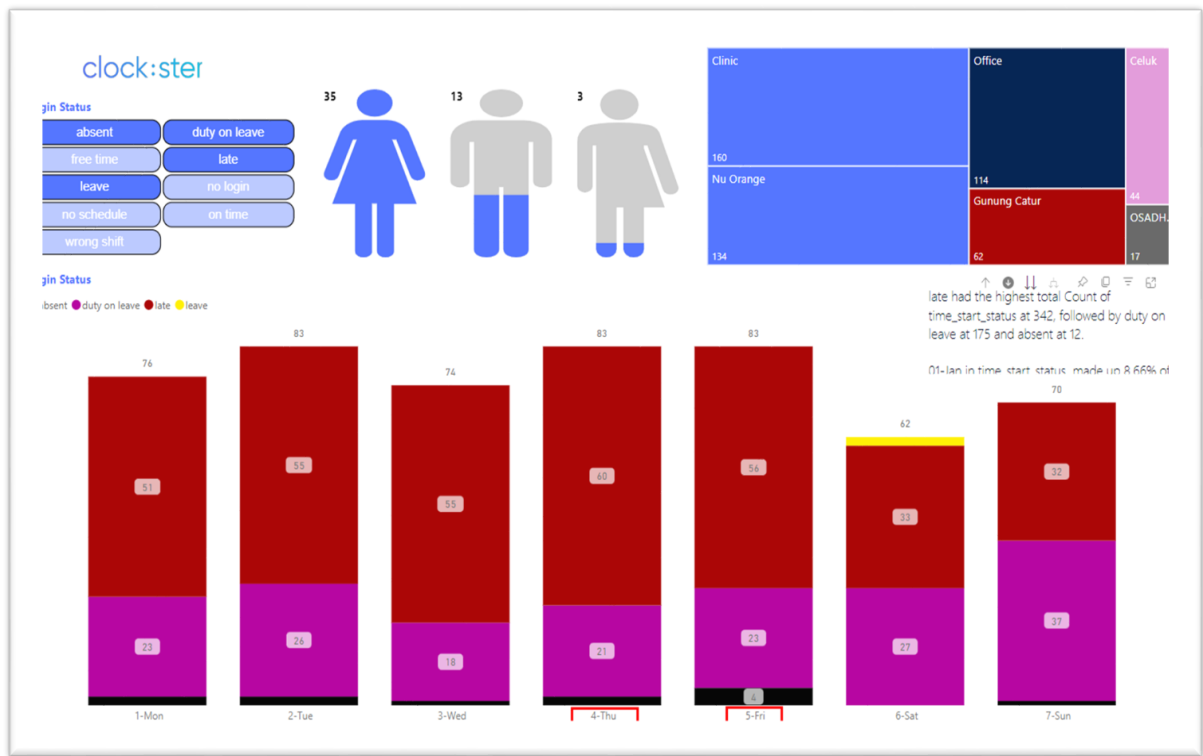


Figure 4. Weekdays Employees were late/absent.

Further into the analysis, the team was found that the PBF Department tends to be the favorite department among other departments despite to their high number of late and low attendance performance recorded they still given this special leave benefit (see Figure 5 and Figure 6). The team was having these following assumptions.

- PBF have a minimal number of employees, maybe that's why they ignore some of the lapses done by their employees.
- The hospital does not require many employees in PBF department, and it is noticeable that among all departments it has the least number of employee, so they intend to forgive them, only if they just doing their job properly.

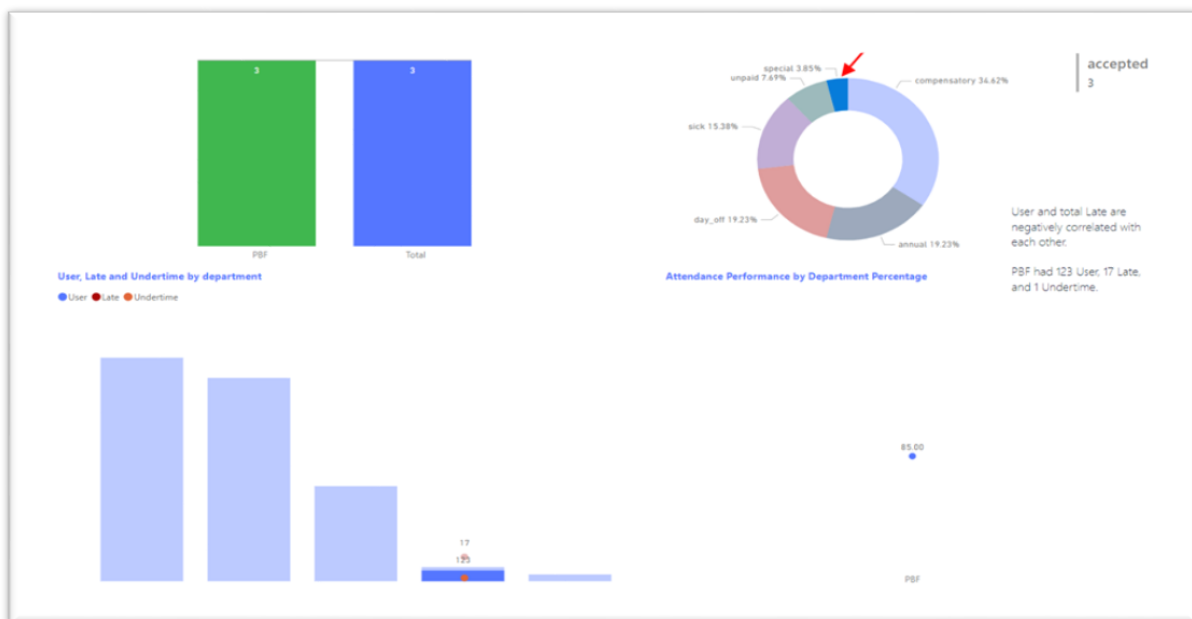


Figure 5. Department Given Special Leave

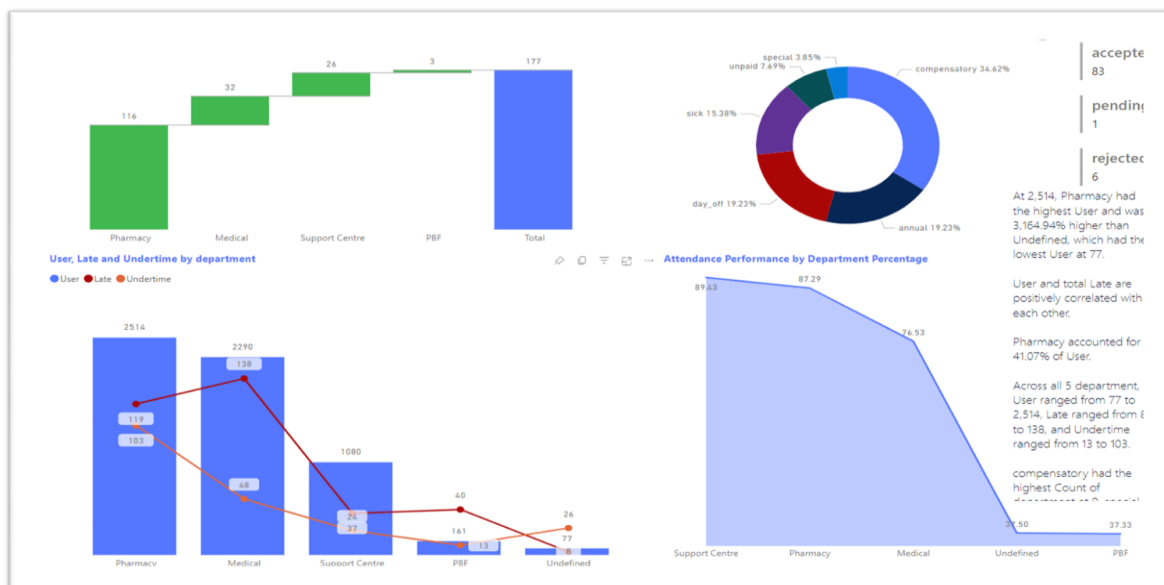


Figure 6. Department Attendance Performance

Recommendations

Based on the findings, the team is recommending the following actions to decrease the number of undisciplined employees and how to deal with it:

1. The company should set clear and strict policies. A straightforward absence/tardiness policy is essential if any employees are required to report to work at a specific time. Schedule an orientation for every newly hired employee to discuss company policies and provide an employee handbook afterward for their reference containing all the necessary information including rules and regulations of the company.
2. Address attendance and tardiness issues via memorandum accordingly. Provide a document containing their records of absence or for being tardy and have them explain their side before implementing disciplinary action against them.
3. Establish a reward system for compliance. It is to acknowledge the employee's good behavior, by implementing an incentive program and providing the best attendance certificate that will encourage staff to be more punctual.
4. Conduct company recreational activities like team building, yearly/monthly get together, company leagues, etc. for the employees to enjoy the company's culture, also to get to know more about employees' behaviors, and have every employee social interaction, increase personal confidence and self-awareness.