

Welcome to the Challenge 2 Operational Performance Analysis Dashboard.
Here you will explore detailed insights into workload, project performance,
employee turnover rates, and what-if scenarios with strategic recommendations
for 2025.

Overview

Work load

Performance

Attritions

What-If

Actions

Thanks

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by Mahmoud Ali



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Employee and Project Performance Analysis - Supporting Operational Decision Making - Challenge 2

1500

Total Tasks

376

Completed Tasks

34%

Attrition Rate

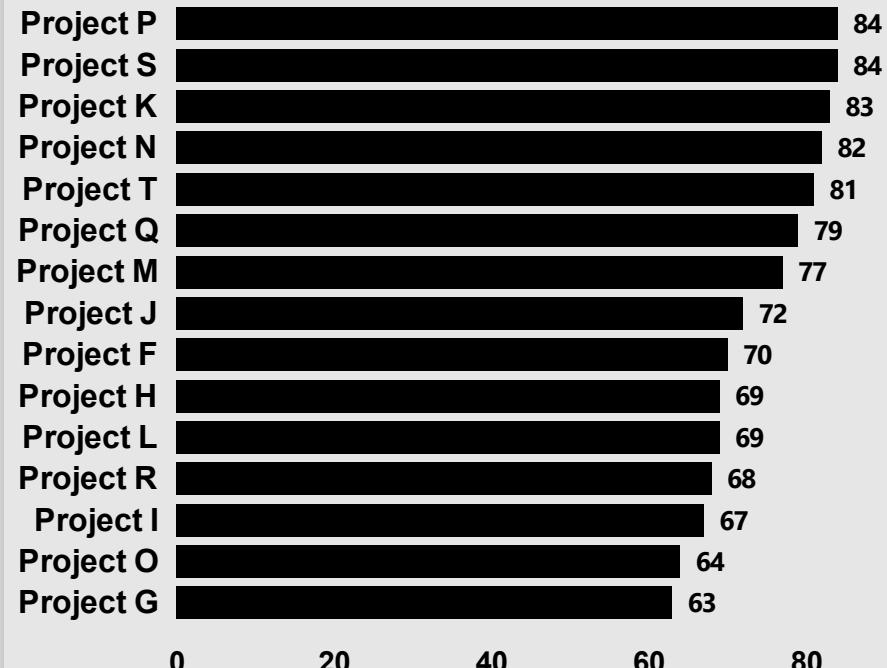
25%

Completion Rate

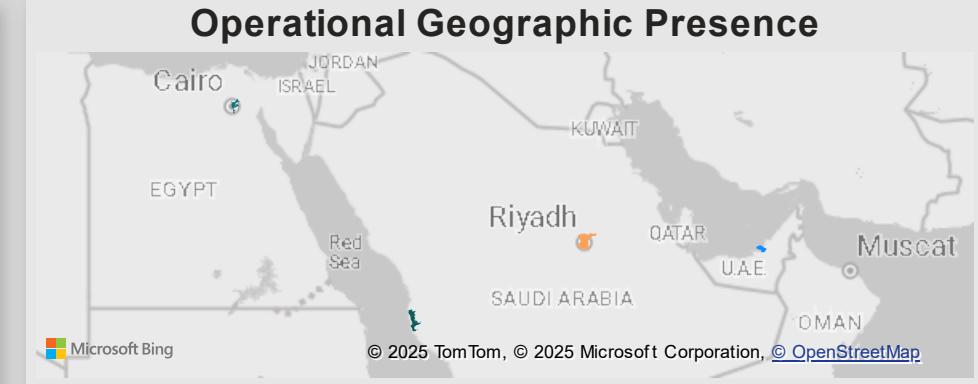
20

Total Projects

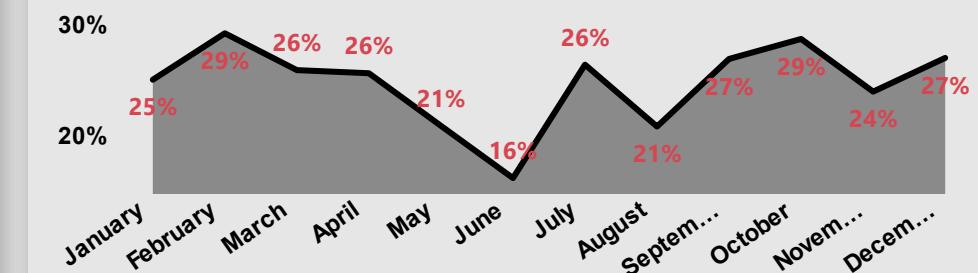
Top Projects by Number of Tasks



Operational Geographic Presence



Task Completion Rate Over Time



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This dashboard sets the stage for deeper investigation into workload, performance, and employee retention and highlights the need for better distribution policies across key locations and projects.

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Are all projects equally loaded? Which ones are overloaded or underutilized?

SUB 1

SUB 2

1500

Total Tasks

75

Avg Tasks per Project

20

Projects with High Load

Project B

Top Project by Tasks

Detailed Project Workload and Performance by Location

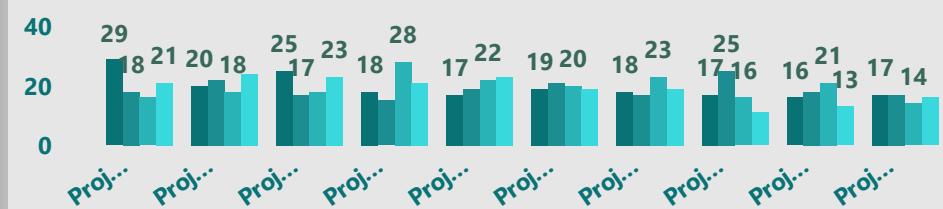
Location	Project Name	Total Tasks	Abu Dhabi Completion Rate	Pending Tasks	Total %
Project P					
Project S					
Project K					
Project N		82	22%	64	
Project T					
Project Q		79	24%	60	
Project M		77	23%	59	
Project J					
Project H		69	30%	48	
Project L					
Project R		307	25%	231	
Total					

Project Load vs Completion Rate



Completed vs Pending per Project

Status ● Closed ● Escalated ● In Progress ● Open

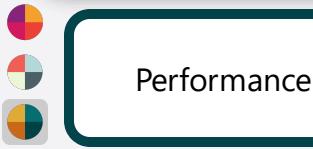


Several high-load projects (P, T, N) are concentrated in specific regions Egypt, KSA) While showing lower than average completion rates. Some projects show high pending tasks even with moderate volume, indicating internal delays.



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Is the distribution of tasks fair between employees and departments?

SUB 1

SUB 2

5

Average Tasks per Employee

12

Max Tasks for One Employee

110

Imbalanced Employees

Month

All

Country

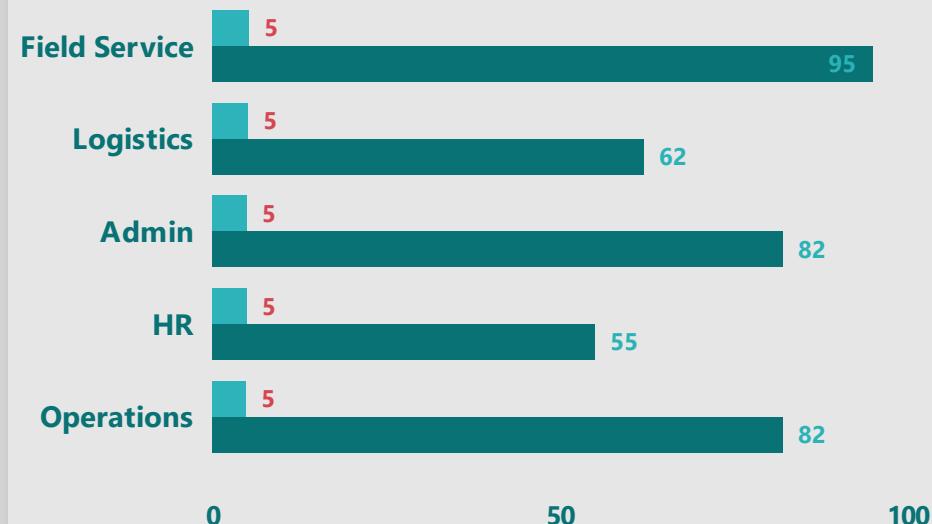
All

Field Service

Top Department by Load

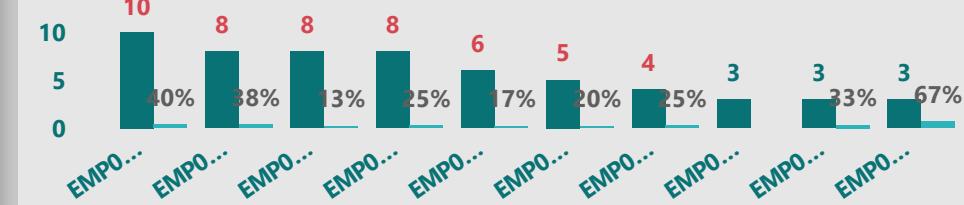
Tasks per Department

● Average Tasks per Employee ● Completed Tasks



Tasks vs Completion Rate per Employee

● Total Tasks ● Completion Rate



Department × Location – Task Count

Location	Admin	Field Service	HR	Logistics	Operations	Total
Abu Dhabi	72	69	61	45	60	307
Cairo	128	168	130	123	122	671
Dubai	66	74	52	46	65	303
Total	315	361	290	246	288	1500

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The field service and logistics departments carry significantly higher task volumes per employee, while some individual employees (E0296, E0291) show both high load and low completion, suggesting urgent need to review task assignments and workload balancing



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Are all projects delivering consistent results? Which ones lag behind despite resources?

SUB 1

SUB 2

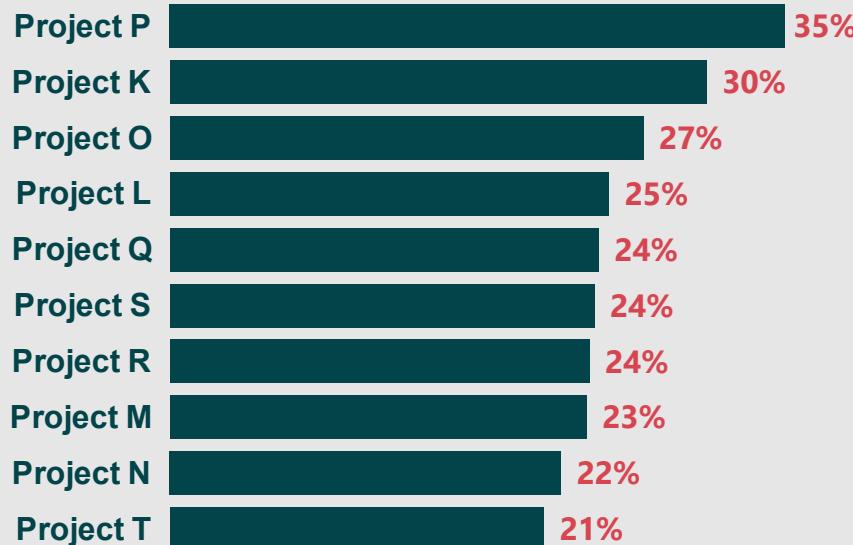
25%

Completion Rate

Project P

Top Performing Project

Task Completion Rate – by Project



Month

All

Country

All

Cairo

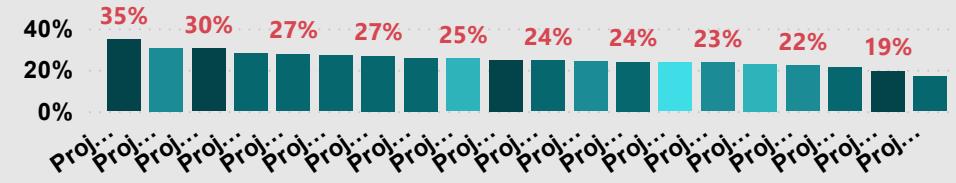
Top Project Location

376

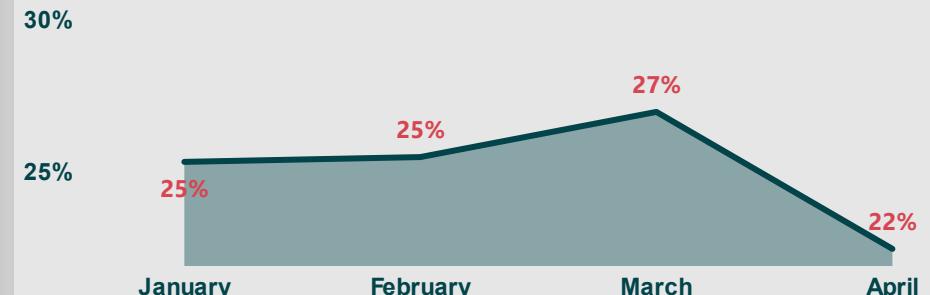
Completed Tasks

Tasks per Employee by Department

Location ● Abu Dhabi ● Cairo ● Dubai ● Jeddah ● Riyadh



Trend of Completion Rate – All Projects



Several projects show completion rates below 50%, despite having above-average task volumes. This points to potential execution inefficiencies and calls for performance audits on selected projects.



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Is productivity impacted by workload or time? Which projects are lagging behind?

SUB 1

SUB 2

300

Total Employees

20

Total Projects

25%

Completion Rate

Month

All

Country

All

Admin, Operations,
Field Service

Top 3 Performing Departm...

Team Size vs Output – Per Project

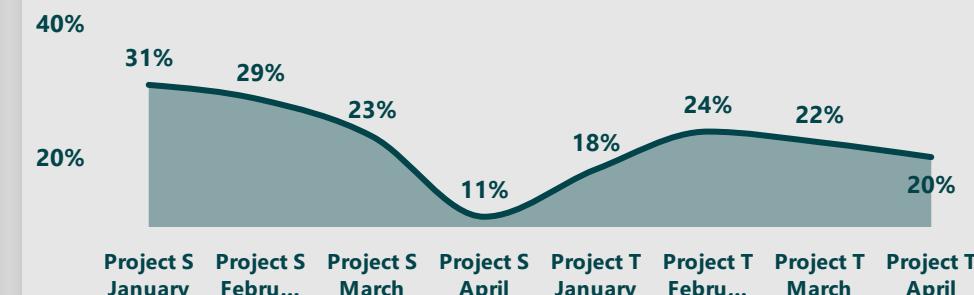
● Count of Employee ID ● Completed Tasks



Performance Trend Over Months



Monthly Project Load vs Completion Rate (Selected Projects)



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Completion rates dipped in April, suggesting possible organizational or seasonal delays.
There's no strong correlation between team size and output, hinting at inefficiencies in resource utilization.



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Diagnosing Job Turnover: Who's Affected and How? Insights into Departments, Years of Experience, and Key Turnover Drivers

Month
All

Country
All

Field Service Top Attrition Dept

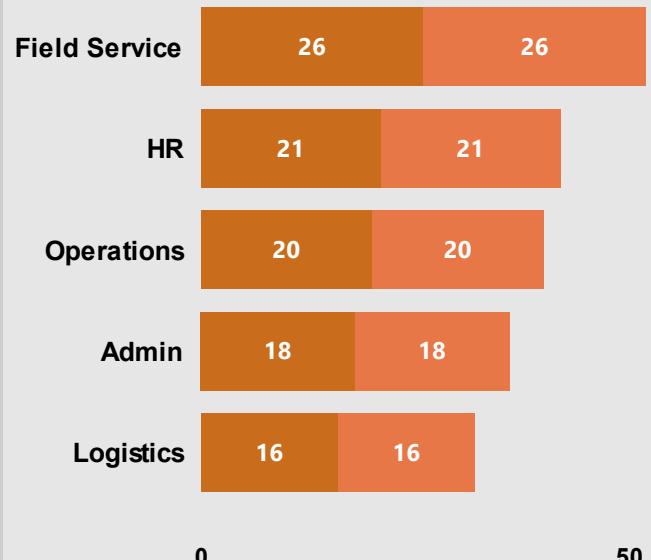
300
Total Employees

34%
Attrition Rate

101
Resigned Employees

Attrition Rate and Resigned Count by Department

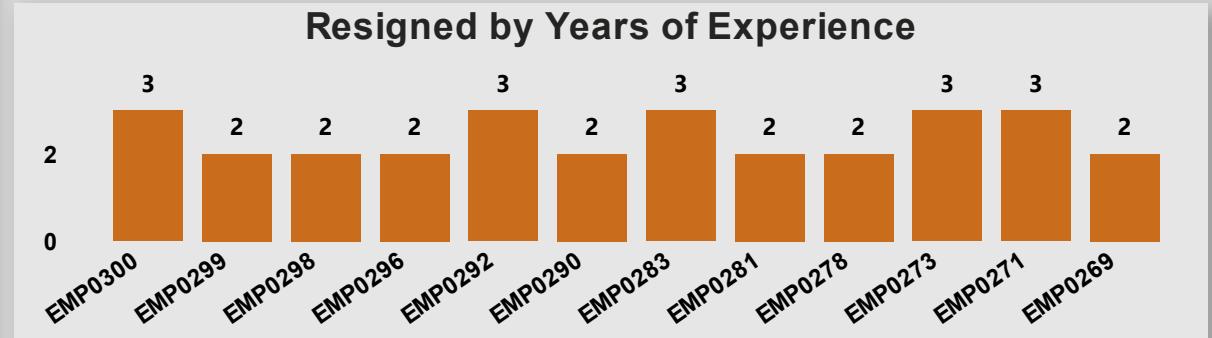
Count of Employee ID Resigned Employees



Attrition Rate and Count of Employee ID by Department



Resigned by Years of Experience



The attrition rate isn't limited to the field services department. Nearly 70% of employees leave the company within the first two to three years of joining. This suggests that the problem isn't a skills shortage, but rather a work environment or poor early integration. This highlights a clear gap that management needs to address.





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What-If Scenarios: Reducing Attrition for Key Talent Groups

SUB 1

SUB 2

SUB 3

38%

Current Attrition Field Service

28%

Projected Attrition Field Service

34%

Current Attrition New Hires

17%

Projected Attrition New Hires

20

Projected Leavers Field Service

6

Retained Employees Field Service

50

Projected Leavers New Hires

51

Retained New Hires

Field Service: Current vs Projected

28%

0%

38%

Resigned New Hires Actual vs Simulated

50

0

101

New Hire Attrition Reduction

50%

0%

Field Service Attrition Reduction

25%

0%

Targeted retention strategies show clear impact:

Improving onboarding for new hires and enhancing Field Service conditions can reduce overall attrition and retain key talent in high-turnover areas.





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What-If Scenarios: Retaining Mid-Level Talent & Incentive Impact

SUB 1

SUB 2

SUB 3

34%

Overall Attrition Rate

17%

Impact of Salary on Attrition %

34%

Current Attrition Rate (2-3 Yrs)

17%

Projected Attrition Rate (2-3 Yrs)

56

Projected Leavers from Salary

28%

Projected Attrition Rate from Salary

51

Retained (2-3 Yrs)

50

Projected Leavers (2-3 Yrs)

Projected Overall Attrition Rate
(Post-Salary Increase)

Projected Attrition Rate(2-3Yrs Experience)

Experienced Attrition Reduction

28%

0%

100%

17%

0%

100%

50%

11%

Targeted retention strategies can deliver meaningful impact on workforce stability.

Improving engagement for mid-level employees (2-3 years) can significantly reduce their attrition rate, preserving experienced talent





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What-If Scenarios: Operational Flexibility & Resource Impact

SUB 1

SUB 2

SUB 3

40

Current Average Weekly Hours

48

Projected Avg Weekly Hours

99

Active Employees

30

Rotated Employees Count

15%

Projected Overall Productivity

19%

Projected Total Salary Cost %

14%

Productivity Impact from Rotation %

Employee Rotation %

30%



Productivity Impact of Adjusting

15%

0%

100%

Projected Completion Delay from Rotation

30%

0%

100%

Initial Productivity Impact %

14%



Working Hours Change %

19%



Operational flexibility carries both risks and opportunities. Staff rotation improves adaptability but may delay project delivery if overused. Adjusting working hours can optimize productivity and cost, but requires careful calibration to avoid negative impacts.





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Diagnosing Workload Issues and Proposed Solutions for 2025 - Optimizing Workload Management and Task Distribution

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SUB 2

SUB 3

SUB 4

SUB 5

Key recommendations to address workload imbalances, improve task distribution, and enhance operational efficiency, based on 'Workload - Project Load' and 'Workload - Employee/Department Load' analysis.

Key Findings Addressed:

- High-load projects in Egypt & KSA show low completion rates.
- Moderate-volume projects suffer internal delays, leading to high pending tasks.
- Field Service & Logistics departments have disproportionately high task volumes per employee.
- Certain employees face high task loads and low completion rates.

Recommendations and Actionable Steps:

1. Rebalance Project Workload Across Regions and Teams

- **Recommendation:** Redistribute projects to balance workload, especially for Egypt & KSA.
- **Actionable Steps:**
 - Assess team/location capacities to find underutilized resources.
 - Develop a project allocation framework based on priority, resources, and expertise.
 - Promote cross-regional collaboration for workload and knowledge sharing.
 - Monitor project completion, pending tasks, and team stress post-redistribution.

2. Investigate and Address Internal Delays in High-Pending Task Projects

- **Recommendation:** Analyze and resolve bottlenecks in projects with high pending tasks despite moderate volume.
Actionable Steps:



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Diagnosing Performance Issues and Proposed Solutions for 2025 - Enhancing Project Efficiency and Overall Performance.

SUB 1

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Recommendations to improve project delivery, address performance issues, and optimize resource utilization for better project outcomes, based on the 'Performance - Project Performance' and 'Performance - Productivity' analysis.

Key Findings Addressed:

- Projects with high task volumes show less than 50% completion rates, indicating execution inefficiencies.
- Overall completion rates dipped in April, suggesting the influence of external or internal factors.
- No strong correlation exists between team size and output, hinting at resource or team management challenges.
- Project performance varies across different locations and departments.

Recommendations and Actionable Steps:

1. Conduct Performance Audits for Underperforming Projects

- **Recommendation:** Audit projects with consistently low completion rates (under 50%) despite high task volumes to identify the root causes of inefficiency.
- **Actionable Steps:**
 - Review project planning, execution, resource allocation, risk management, and communication processes.
 - Identify specific bottlenecks (e.g., skill gaps, unclear requirements, inadequate project management practices).
 - Develop and implement tailored recovery plans for audited projects.
 - Share lessons learned throughout the organization to prevent recurrence.





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Diagnosing Attrition Issues and Proposed Solutions for 2025 - Strategic Recommendations for Reducing Attrition and Retaining.

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Strategic initiatives to address high attrition rates, especially among new and mid-level (2-3 years of experience) employees, and to improve overall talent retention. These recommendations are based on the 'Attrition Analysis' and 'What-If Scenarios'.

Key Findings Addressed:

- High overall attrition, particularly within the first 2-3 years of employment.
- Field Services exhibits higher attrition rates, though the issue is widespread.
- Early attrition suggests potential issues with onboarding, the work environment, or early career development, rather than solely a skills shortage.
- Targeted interventions (e.g., improved onboarding, better conditions in Field Services, salary adjustments, and specific retention programs for mid-level talent) can significantly reduce attrition.

Recommendations and Actionable Steps:

1. Revamp the Onboarding and Early Integration Program

- **Recommendation:** Redesign the onboarding program to be more comprehensive, engaging, and supportive, aiming to reduce early-stage attrition.
- **Actionable Steps:**
 - Develop a structured 90-day+ onboarding plan that includes clear milestones, regular check-ins, and mentorship opportunities.
 - Implement a buddy or mentor system to provide new hires with guidance and support during their initial months.
 - Ensure new hires have absolute clarity on their roles, responsibilities, and performance expectations from day one.





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Diagnosing Operational Issues and Proposed Solutions for 2025 - Recommendations for Optimizing Operational Processes.

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Concise recommendations to enhance operational flexibility and efficiency, based on insights from the 'What-If

- Operation' scenarios (Employee Rotation & Working Hours Adjustment).

Key Insights Addressed:

- Adjusting working hours can impact productivity and salary costs; achieving an optimal balance is crucial.
- Employee rotation can boost adaptability and skill diversity but requires careful management to avoid potential disruptions.

Recommendations and Actionable Steps:

1. Strategically Implement Employee Rotation

- **Recommendation:** Utilize employee rotation selectively to build a more versatile and adaptable workforce, mitigating risks of project delays through careful planning.
- **Actionable Steps:**
 - Initiate a pilot rotation program in less critical projects to assess its impact and refine the process.
 - Prioritize rotation for developing critical skills or addressing potential single points of failure.
 - Ensure structured knowledge transfer before and during rotation periods.
 - Closely monitor productivity and project timelines during rotation, adjusting the program based on observed outcomes.

2. Optimize Working Hours Based on Needs and Impact



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Data Limitations, Future Considerations, and System Capabilities

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This section outlines key data limitations encountered during the analysis, suggests areas for future data enhancement, and confirms how the developed dashboard fulfills the project's requirement for an intelligent automation system.

1. Identified Data Gaps and Limitations

A comprehensive analysis is always reliant on the breadth and depth of available data. While the current dataset provided valuable insights, the following data gaps were identified, which, if addressed, could further enrich future analyses:

a. Operational Cost Data

- Description:** The current dataset does not include detailed information regarding operational costs associated with projects, departments, or specific activities.
- Significance (Referencing Project Instructions):** The original project instructions highlighted "operational costs are continuously escalating without a clear explanation" as a key concern. The absence of cost data prevented a direct quantitative analysis of this specific issue.
- Potential Analysis (If Data Were Available):** Access to operational cost data would enable analyses to identify key cost drivers, correlate costs with project performance or departmental efficiency, assess the financial impact of attrition, and evaluate the return on investment for various proposed interventions.
- Recommendation:** It is recommended to explore the feasibility of integrating detailed operational cost data into future data collection efforts. This would provide a more holistic view of business performance and support more robust financial decision-making.

b. Predictive Data for HR Efficiency in New Projects



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Thank you for watching with interest.

I hope that I was able to provide you with a comprehensive analysis of the project's problems and that I conveyed the picture correctly. I also hope that the visions and recommendations were good.

I hope you'll visit my websites, my portfolio on GitHub, Drive, and my website, as well as my LinkedIn page. I hope you'll share your comments.

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