

DATA ANALYSIS PROJECT

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DATA ANALYSIS

TITLE

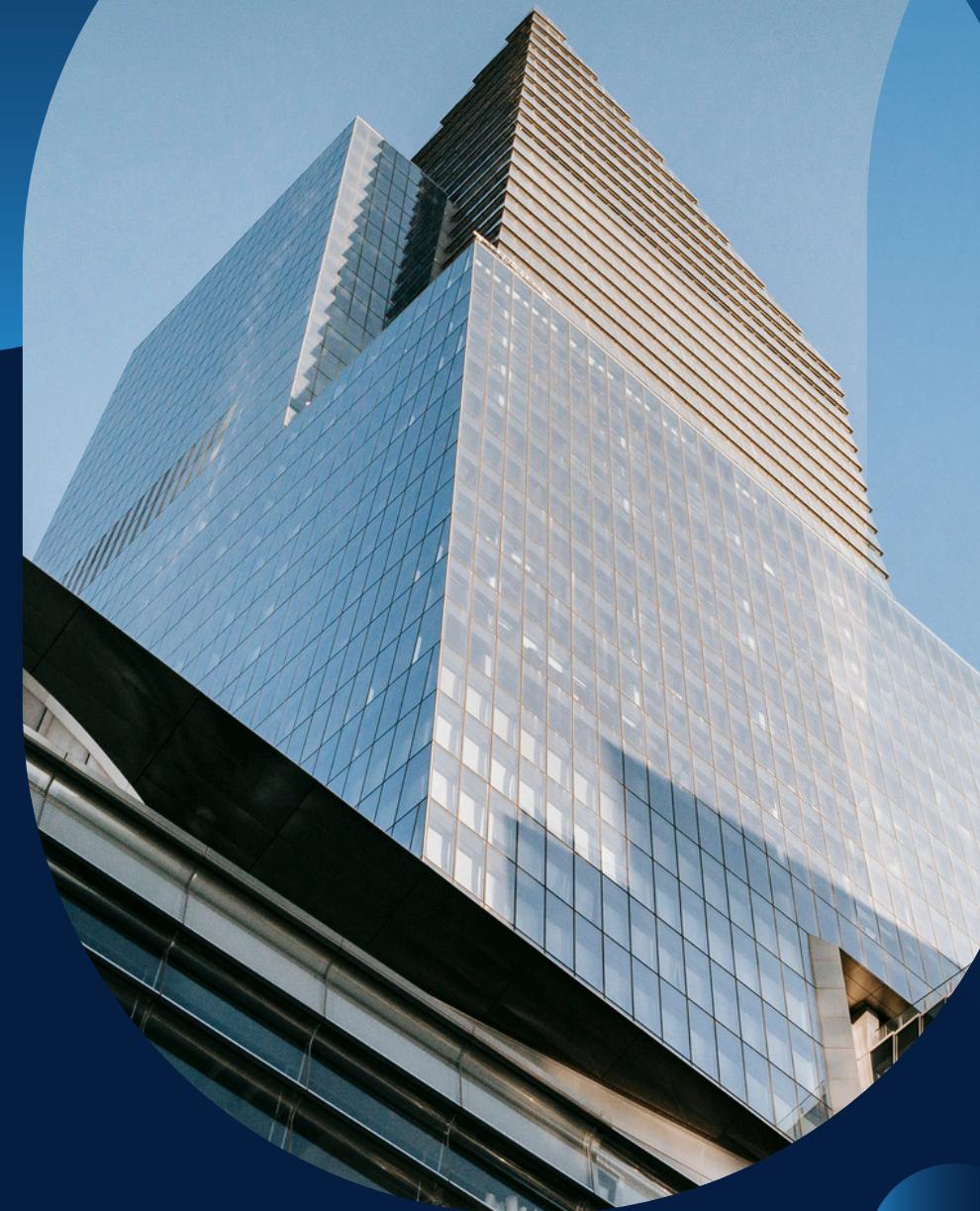
Data Analysis Report – Logistics Insights & Recommendations

SUB TITLE

Analyzing Logistics Data Using Excel & Power BI

PRESENTATION

- 01** Key observations and data insights
- 02** Possible solutions for recurring issues
- 03** Any additional points that may enhance operational efficiency

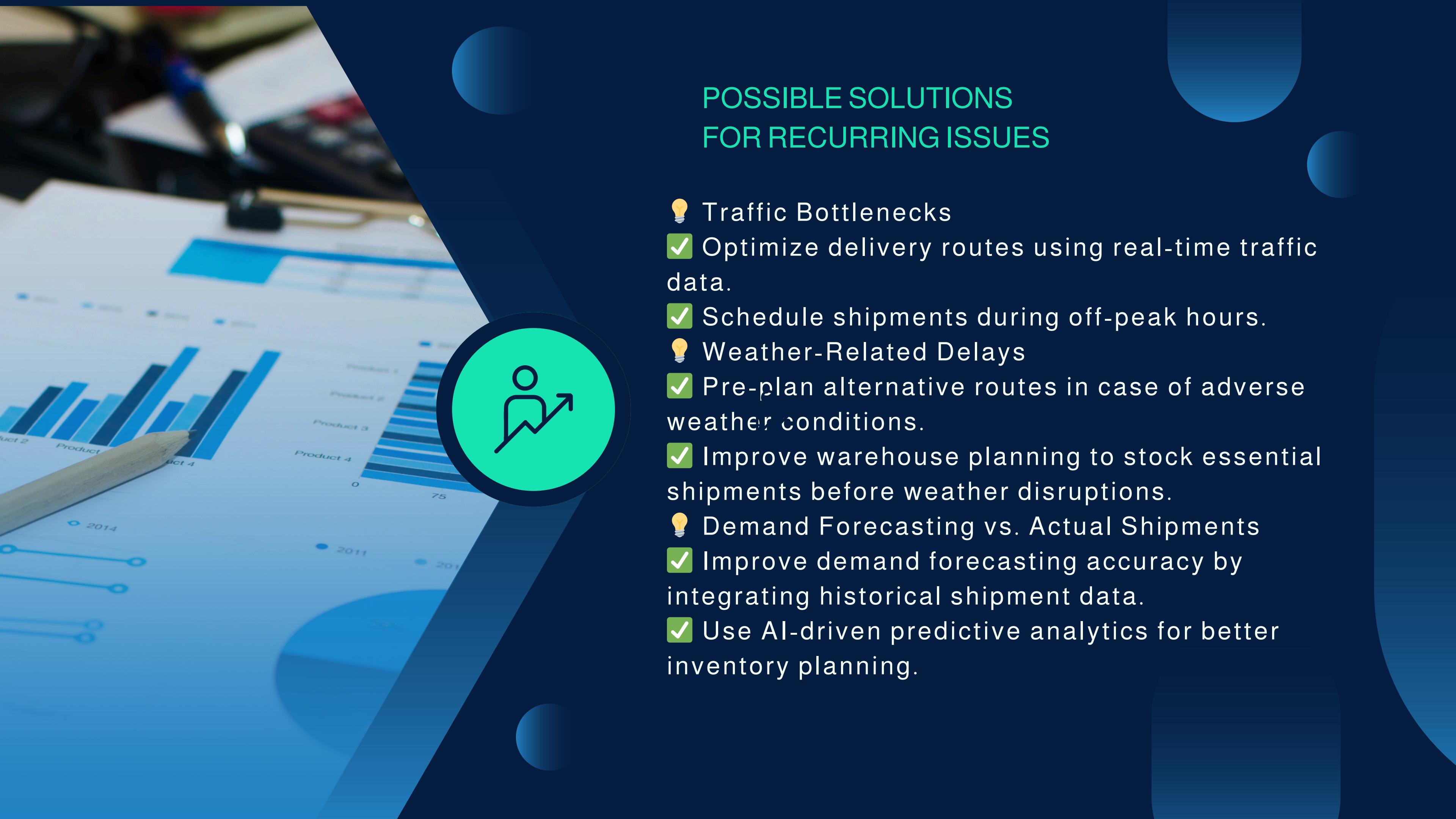




KEY OBSERVATIONS & DATA INSIGHTS

- ◆ Shipment Delays vs. On-Time Shipments
 - 43.4% of shipments are delayed.
 - Pie chart visualization comparing delayed vs. on-time shipments.
- ◆ Top Reasons for Logistics Delays
 - Traffic & Weather are the most frequent causes.
 - Chart showing count of delays by reason.
- ◆ Factors Affecting Delays
 - Temperature, humidity, and user transactions show a correlation with delays.
 - Line chart or trend line graph showing relationships.





POSSIBLE SOLUTIONS FOR RECURRING ISSUES

- 💡 Traffic Bottlenecks
 - ✓ Optimize delivery routes using real-time traffic data.
 - ✓ Schedule shipments during off-peak hours.
- 💡 Weather-Related Delays
 - ✓ Pre-plan alternative routes in case of adverse weather conditions.
 - ✓ Improve warehouse planning to stock essential shipments before weather disruptions.
- 💡 Demand Forecasting vs. Actual Shipments
 - ✓ Improve demand forecasting accuracy by integrating historical shipment data.
 - ✓ Use AI-driven predictive analytics for better inventory planning.



ENHANCING OPERATIONAL EFFICIENCY

📈 Reducing Delays:

- Implement an automated alert system for high-risk shipments.
- Optimize warehouse-to-delivery transit times with improved logistics planning.

📦 Better Inventory Management:

- Increase buffer stock for frequently delayed items.
- Improve supplier coordination to prevent stock shortages.

🚀 Technology Integration:

- Use IoT-based tracking for real-time shipment monitoring.
- Implement a dynamic scheduling system to improve efficiency.

DATA ANALYSIS REPORT - LOGISTICS INSIGHTS & RECOMMENDATIONS



CONCEPT 1

Key Findings from Excel Analysis



CONCEPT 2

Power BI Insights - Shipment Delays



CONCEPT 3

Power BI Insights - Demand vs.
Actual Shipments



CONCEPT 4

Recommendations for
Operational Efficiency



KEY FINDINGS FROM EXCEL ANALYSIS



- Duplicate & Missing Data: Data cleanup revealed X duplicate records and missing values in [specific columns]. Handled via [method used].
- Logistics Delay Reasons: Top reason for delays: [e.g., Traffic, Weather, Mechanical Failure].
- Traffic Impact: Highest waiting time observed under [specific traffic condition].
- Asset Utilization: Most utilized asset: [Asset Name], least utilized: [Asset Name].
- Visualization: Pie chart or bar chart showing shipment delays by reason.



POWER BI INSIGHTS SHIPMENT DELAYS

- Delay Proportion: [X%] of shipments were delayed, while [X%] were on time.
- Factors Affecting Delays:
 - Temperature: Higher temperatures linked to increased delays.
 - Humidity: Noticeable trend affecting logistics performance.
 - User Transactions: High transaction volumes corresponded to longer wait times.
- Visualization: Line chart/Pie chart/Others showing delay trends with temperature & humidity.





POWER BI INSIGHTS DEMAND VS. ACTUAL SHIPMENTS

- Comparison of Demand Forecast vs. Actual Shipments:
 - Demand forecasts were [overestimated/underestimated] by X%.
 - Peak demand months: [Month Names], while actual shipments fluctuated.
- Operational Impact: Discrepancy led to [e.g., inventory shortages, excess stock].
- Visualization: Line chart/pie chart/Others comparing forecasted vs. actual shipments.





RECOMMENDATIONS FOR OPERATIONAL EFFICIENCY

- Addressing Recurring Issues:
 - Traffic Bottlenecks: Optimize routes, introduce real-time traffic monitoring.
 - Weather Delays: Implement preemptive scheduling & weather-resistant storage.
- Enhancing Demand Forecast Accuracy:
 - Use AI-driven predictive analytics.
 - Align warehouse stocking strategies with forecast trends.
- Optimizing Inventory & Shipments:
 - Improve warehouse utilization.
 - Dynamic pricing based on seasonal demand.
- Final Thought: Implementing these changes can reduce delays and improve operational efficiency.
- Visualization: Infographic summarizing key recommendations.



THANK YOU

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