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Specialization: *Logistic Analytics.*

Business Focus: *Logistic and Supply Chain Industry*

Tool: *Tableau*

SMARTMOVE LOGISTICS ANALYTICS

Project Learning Opportunities

- This project provides a practical opportunity to apply data analytics in a real-world logistics setting. You will explore operational data, uncover performance trends, evaluate delivery efficiency, and generate actionable insights to support business decision-making and drive operational improvements.

Tools and Technology to be Used

tableau

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Case Study Overview

Introduction to the Business

SmartMove Logistics is a rapidly expanding third-party logistics company operating in several major Nigerian cities. Known for its commitment to timely and efficient deliveries, the company relies on a diverse fleet of vehicles to manage operations. As SmartMove continues to scale, it faces increasing challenges in balancing delivery performance, managing delays, and controlling operational costs across regions.

Case Study Overview

Problem Statement

Despite significant growth between 2021 and 2024, SmartMove's leadership team has identified several operational concerns:

- Delays in delivery schedules, especially in cities like Port Harcourt and Kano
- Rising cost per delivery due to fuel prices and under-utilized routes
- Inconsistencies in on-time performance across vehicle types
- Lack of consolidated reporting to evaluate year-over-year improvements

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Rationale for the Project

(What is the Importance of the project to the business)

1.

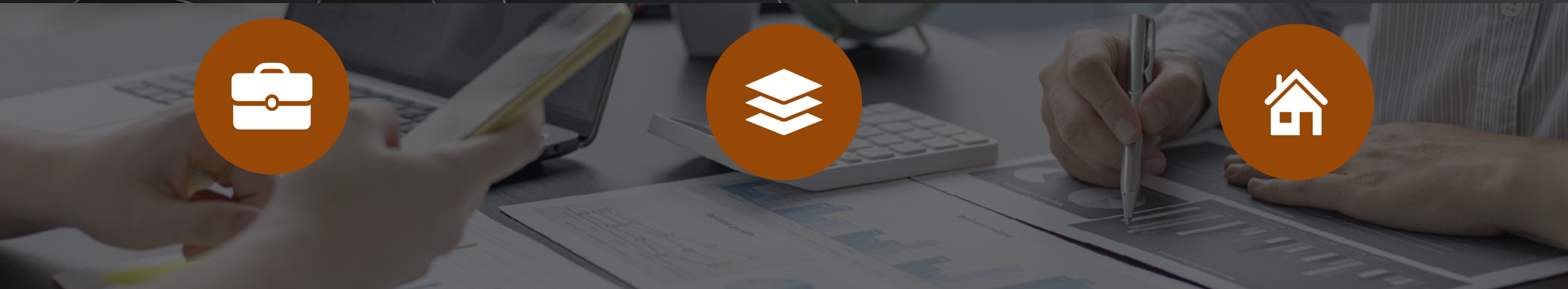
Helping SmartMove identify operational bottlenecks and cost inefficiencies

2.

Empowering the company to optimize delivery routes and allocate resources effectively

3.

Using data to support strategic planning, cost reduction, and service improvement



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Case Study Objectives

(What participants will be able to do at the end of the case study)

Track total deliveries and cost per delivery over 4 years

Compare average delivery time and on-time rate across cities

Identify improvement or decline in delivery KPIs via YoY analysis

Analyze delay patterns monthly and regionally

Enable leadership to monitor performance by city and vehicle type, helping guide strategic decisions on resource allocation and fleet optimization.

Provide recommendations for operational efficiency based on data

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Data Description

- Date : The actual date when the delivery data was recorded
- City : The destination or operational city where the delivery occurred.
- Vehicle Type : The type of vehicle used for delivery
- Deliveries : The total number of successful deliveries made on that date by vehicle and city.
- Average Delivery Time : The mean time (In hours) it took to complete deliveries for a given record
- Average Cost : The average operational cost incurred per delivery for that record.
- On Time Rate : Percentage of Deliveries that were completed within the scheduled time
- Delays : Total number of deliveries that arrived later than scheduled time

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Tailored questions

- 1. Are we delivering more or fewer packages each year?
- 2. Which cities have the highest delivery performance?
- 3. Which vehicle types handles most of our logistics operations?
- 4. Where are most delivery delays happening and when?
- 5. Which cities are improving or declining in delivery time?

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Tech Stack

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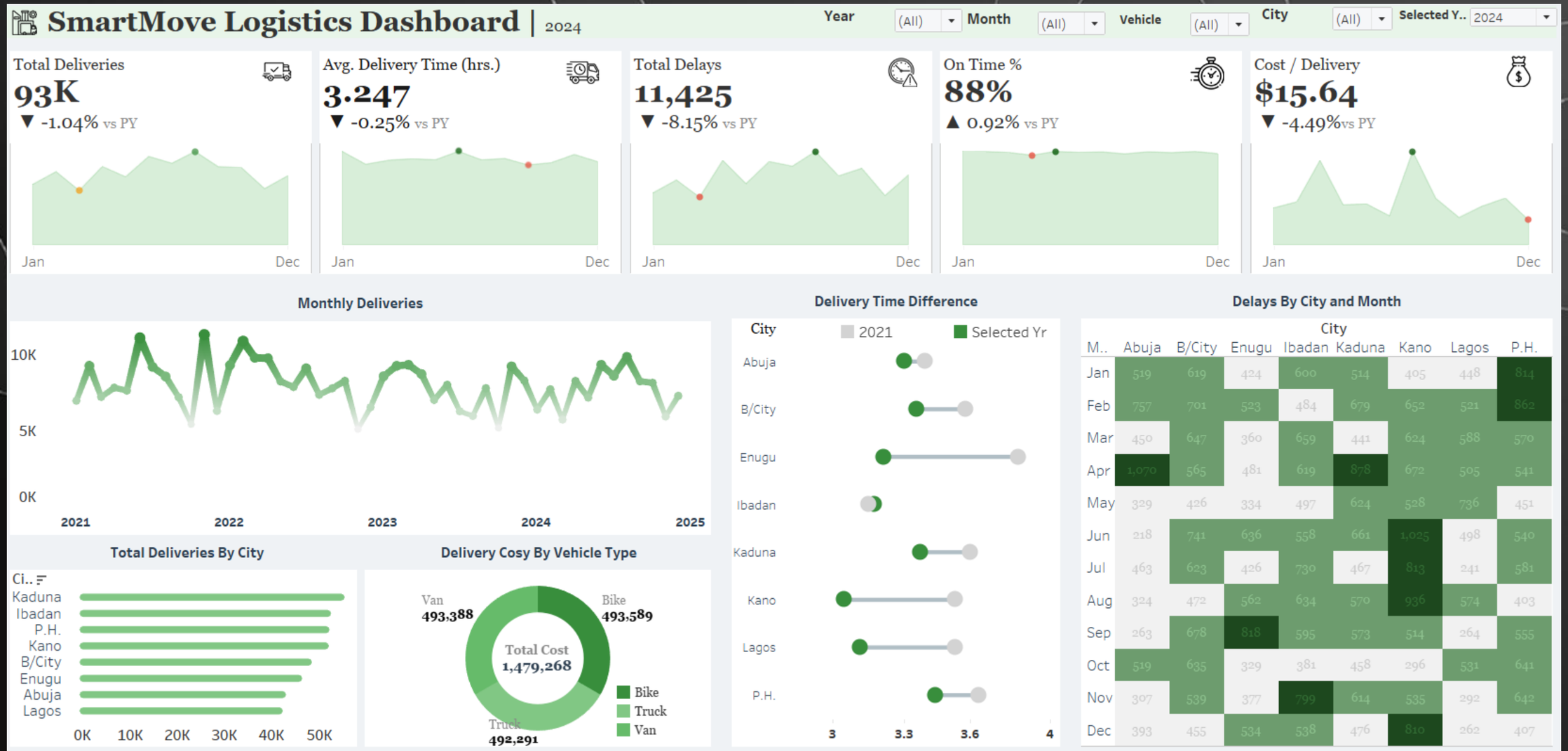
Dashboard



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Project Workflow

Preparation

Load and clean delivery data, ensuring accuracy in cost, time, and delay fields..

Analysis

Use Tableau to visualize key logistics KPIs across cities, vehicles, and time.

Insight

Identify trends, inefficiencies, and performance gaps using comparative and trend charts..

Recommendation

Propose strategic actions to reduce delays, optimize fleet usage, and lower costs.

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Dataset

Click HERE to download the Dataset

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READY TO DELVE IN?