🚲 **Bike Dekho – Business Intelligence Report**

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**Project Overview:**

The **Bike Dekho – Bike Sales Analysis** is a hands-on data analysis project that explores sales trends in the biking industry using Microsoft Excel. This project demonstrates how Excel can be effectively utilized for **data cleaning, transformation, analysis, and visualization** to drive meaningful business insights.

🧩 Business Problem

The company wants to boost bike sales but struggles to understand what influences customer purchase behavior. Key uncertainties include:

* Which **demographic or lifestyle traits** lead to higher purchases?
* How do **region, occupation, income, and commute distance** impact buyer conversion?
* Can **targeted campaigns** help improve sales conversion rates?

This BI report aims to uncover insights hidden in customer data and develop action-oriented strategies for increased sales.

📘 Part 1 – Data Cleaning & Preparation

Processed using the raw data file:

* Removed missing or irrelevant records
* Standardized entries for consistency (e.g. income brackets, commute ranges)
* Applied categorical labels for income segmentation
* Validated dataset integrity with 1000 clean records

✅ *Clean dataset ready for analysis & dashboarding*

📊 Part 2 – Data Analysis & Interpretation

🔍 Purchase Behaviour

* Total buyers: **481**
* Non-buyers: **519**
* Buyer conversion rate: **48.1%**

🌍 Region-Wise Trends

| **Region** | **Buyers** |
| --- | --- |
| North America | 220 |
| Europe | 148 |
| Pacific | 113 |

▶️ *North America leads in buyer share*

👔 Occupation Insights

| **Occupation** | **Buyers** | **Non-Buyers** |
| --- | --- | --- |
| Professional | 150 | 126 |
| Skilled Manual | 115 | 140 |
| Clerical | 88 | 89 |
| Management | 73 | 100 |
| Manual | 55 | 64 |

▶️ *Professionals show the highest purchase conversions*

🚶 Commute Distance Impact

| **Distance** | **Purchases** |
| --- | --- |
| 0–1 Miles | 366 |
| 1–2 Miles | 169 |
| 2–5 Miles | 162 |
| 5–10 Miles | 192 |
| 10+ Miles | 111 |

▶️ *Short-distance commuters (0–1 miles) buy the most*

📈 Age & Income Insights

* Peak purchase age: **35–50**
* Highest contributing income ages: **40–48**
* Total income across age brackets: **₹5.63 crore+**

📈 Part 3 – Dashboard Design in Excel

🛠 Dashboard Elements

* Slicers: Region, Occupation, Income, Education, Age
* Visuals:
* Region vs Purchase – Bar graph
* Occupation vs Conversion – Stacked column
* Age-Income Distribution – Line chart
* Buyer Split – Pie chart

🎨 *Clear layout with filters & conditional formatting for insights at a glance*

📌 Executive Summary

This report identifies key behavioural and demographic drivers of bike purchases using Excel-based analytics. Purchase trends show professionals and urban short-distance commuters are the top buyers, especially in North America. Strategic filtering via the dashboard reveals age and income sweet spots for targeting.

✅ Conclusion & Recommendations

🔹 Focus marketing on **professionals** and **skilled manual workers**  
🔹 Design campaigns for **commuters under 2 miles**  
🔹 Leverage **North America region** for growth  
🔹 Offer promos to age group **35–50** — top contributors in income and purchases