

Product Ownership Insights Dashboard Documentation

This dashboard visualizes customer data, allowing users to explore product ownership and customer demographics. The following sections outline the available plots and their functionality:

1. Percentage of Customers with Each Product

- Plot Type: Bar Plot
 - Description: This plot displays the percentage of customers who own each of the products: INSCO, PPSI, PROFMED, and STI.
 - Purpose: To give an overview of how widespread the ownership of each product is across the customer base.
 - Insight: It allows for quick comparisons of product ownership and helps identify the most and least popular products among customers. All customers have INSCO and STI, with PROFMED having the lowest number of customers.
-

2. Customer Demographics

- Plot Type: Various (Histograms, Pie Charts)
 - Description: This section provides demographic insights about the customers based on attributes like Age, Gender, Occupation, and Ethnicity.
 - Age Distribution: A histogram showing the age distribution of customers, with an optional Kernel Density Estimate (KDE) to visualize the spread of ages.
 - Gender Distribution: A pie chart depicting the distribution of male, female, and other gender groups within the customer base.
 - Occupation Grouping Distribution: A donut chart showing the relative frequency of different occupation groups.
 - Ethnicity Distribution: A count plot showing the breakdown of ethnicity groups in the customer data.
 - Purpose: To provide a detailed view of the customer demographics.
 - Insight: The majority of customers are between the ages of 30 and 50. The gender distribution is fairly balanced, with a slight male majority. Most customers are employed in the medical sector, and the customer base is predominantly white in terms of ethnicity.
-

3. Product Uptake by Demographic Group

- Plot Type: Heatmap
 - Description: This heatmap shows the product uptake (ownership percentage) for each demographic group, such as Gender, Ethnicity, Occupation, and Member Title.
 - Purpose: To visualize how different demographic groups are distributed across the four product categories.
 - Insight: Approximately 75% of customers employed in science and research fields are enrolled in the PPSI product, indicating strong alignment between this profession and the offering.
-

4. Product Overlap Heatmap by Occupation

- Plot Type: Heatmap

- Description: This heatmap shows the overlap of product ownership within different occupation groups. It calculates how many customers in each occupation group own multiple products.
- Purpose: To visualize the intersection of product ownership among customers grouped by occupation.
- Insight: Medical professionals show the highest overlap in product ownership, specifically with INSCO and STI products as expected as both are held by all customers.

5. Product Ownership vs Income Heatmap:

- Plot Type: Heatmap
- Description: This heatmap shows the overlap of product ownership within different income brackets.
- Purpose: To visualize the intersection of product ownership among customers grouped by income.
- Insight: Majority of customers are high income earners with an income at least R150k.

6. Demographic Insights: Income, Age & Gender:

- Categorizes GrossPersonalIncome into income groups.
- Categorizes Age into age groups.
- Creates heatmaps for each gender, displaying the distribution of customers based on income and age.
- For both females and males, the highest income earners are aged between 46-60.

7. Product Uptake by Age Group and Gender:

- Allows the user to select a product and displays a bar chart showing the number of customers by age group and gender for the selected product.
- Uses a color palette for gender differentiation.

Other Features and How to Use the Tool:

1. Sidebar Filters:

- Occupation Group:
 - Purpose: Allows you to filter customer data based on their occupation.
 - How to Use: Select an occupation group (e.g., Medical, Legal, or Finance) from the drop-down menu.
- Gross Personal Income Range:
 - Purpose: Filter customers based on their income range.
 - How to Use: Use the slider to select a range of income (in ZAR), with the option to customize the minimum and maximum values.
- Product Selection:
 - Purpose: Filter by product type to analyze customer ownership of specific products.
 - How to Use: Select one of the available product categories (INSCO, PPSI, PROFMED, STI) to view ownership information.

2. Overview Tab (Tab 1):

This tab provides a quick, high-level overview of key insights for the selected occupation and income range.

- Selected Occupation: Displays the occupation group chosen in the sidebar.
- Income Range: Shows the selected income range with a comma-separated value format (e.g., R10,000 – R50,000).

- Customer Count: Displays the total number of customers that fall within the selected occupation and income range.
 - Example: "Number of customers in selected occupation and income range: 2,500"
- Product Ownership Summary:
 - Purpose: A table showing the count of customers who own the selected product (INSCO, PPSI, PROFMED, or STI).
 - How to Read: "Yes" or "No" in the table represents whether the customer owns the product.

3. Visualizations Tab (Tab 2):

This tab provides a detailed visualization of product ownership distribution.

- Bar Chart:
 - Purpose: Displays the number of customers who own the selected product within the specified occupation and income range.
 - How to Read: Each bar represents a product's ownership in terms of customer count.
 - Interactive Features: Hover over the bars to see the exact customer count.

4. Strategic Recommendations Tab (Tab 3)

- Targeted Insurance Bundles for High-Income Professionals
 - Insight: Both female and male customers aged 46–60 represent the highest earning demographic.
 - Strategy: Position high-value or premium insurance and investment products specifically for the 46–60 age group. Highlight benefits such as wealth protection, advanced healthcare coverage, and retirement planning. Tailor messaging to reflect their life stage—financial security, legacy planning, and peace of mind. Utilize personalized outreach via email, financial advisor consultations, and exclusive webinars to drive engagement and conversion.
- Upsell Campaign for Medical Professionals
 - Insight: The majority of customers work in the medical field and typically hold only two products (INSCO and STI)
 - Strategy: Launch an upsell campaign targeted at medical professionals, encouraging them to expand their coverage with complementary products such as PPSI or PROFMED. Position these as tailored solutions that align with their professional risks, income protection needs, or long-term financial planning. Use targeted messaging through email, in-app notifications, or whatsapp messaging to showcase the added value and peace of mind these additional products provide. Include limited-time bundle discounts or loyalty incentives to drive uptake.