

Project Documentation:

Regional Analysis of Funnel Metrics and Conversion Trends


1. Project Overview

This project aims to provide actionable insights for the Marketing and Sales departments of a client organization. By using Power BI and Excel, the analysis helps these teams better understand user behavior, monitor performance across regions, and refine strategies to optimize funnel metrics and product distribution. The project supports data-driven decision-making to enhance overall efficiency and drive growth.

1.1. Key Objectives:

- Visualize funnel metrics (Landing Page Views, Registrations, First Payments) by region.
- Analyze the distribution of First Payments by product type across all and selected regions.
- Track monthly conversion rates across key funnel stages.

2. Dataset Description

2.1. Source:  DATA for Regional Analysis of Funnel Metrics and Conversion Trends

2.2. Structure:

- Funnel Data: Contains metrics for Landing Page Views, Registrations Completed, and First Payments by region.
- Product Data: Includes First Payment counts by product type and region.
- Conversion Data: Monthly metrics for key funnel stages.

2.3. Data Preprocessing:

- Checked the data for duplicates, missing values, and inconsistencies to ensure its accuracy and reliability.
- Verified data completeness and resolved missing values where necessary.
- Calculated additional metrics:
 - For Regional Analysis of Funnel Metrics Dashboard:
Total and average values for Landing Page Views, Registrations Completed, and First Payments by region.
 - For First Payment Analysis by Product Type and Region Dashboard:
Total, average, minimum, and maximum values for First Payments by product type and region.

- For Monthly Conversion Rate Analysis Dashboard:

Conversion rates were calculated for each step (using the formulas below), along with their average, maximum, minimum values and the percentage delta was computed based on the selected time period.

Conversion Rate Formulas:

Registration Conversion Rate = (Registrations Completed / Landing Page Views) × 100%

Payment Conversion Rate = (First Payments / Registrations Completed) × 100%

Note: Totals, averages, percentage delta, minimum, and maximum values dynamically adjust based on applied filters. Conversion rates remain fixed as calculated metrics.

3. Methodology

3.1 Regional Analysis of Funnel Metrics

3.1.1. Visualizations:

- Clustered bar charts for each metric (LPV, Registrations, FP) with average lines.

3.1.2. Slicers:

- Selection of one or multiple regions.
- "Above/below average" segmentation via buttons.

Note: Analysis relative to the average is accurate only when all regions are selected.

3.1.3. Cards:

- Total values for metrics based on selected regions.

Measure: the number of unique users performing the action.

3.1.4. Other:

- Reset button for clearing all slicers and chart selections (Broom).
- Tooltips cards with absolute and percentage values on hover.
- Informational tooltip about the requirement to select all regions for average analysis.

3.2 First Payment Analysis by Product and Region

3.2.1. Visualizations:

- Clustered Column Chart for the distribution of first payments by product type.
- Treemaps for the distribution across categories: platform, access type, product feature.

Note: Clicking on a column in the chart displays the corresponding categories in the treemaps and key metrics on the Cards.

3.2.2. Slicers:

- Platform.
- Access Type.

- Product Feature.
- Region Group.

Note: Slicers work in parallel, allowing for combined filtering.

3.2.3. Cards:

- Total value.
- Minimum.
- Maximum.
- Average first payment values.

Measure: The count of unique users who performed the first payment based on the selected filters.

3.2.4. Other:

- Reset button for clearing all slicers and chart selections (Broom).
- Tooltips cards with absolute and percentage values on hover.

3.3 Monthly Conversion Rate Analysis

3.3.1. Visualisations:

- Line Chart for the trend of conversion rates over time:
 - Conversion from Landing Page Views to Registrations.
 - Conversion from Registrations to First Payments.
 - Combined (both conversion trends)

Note: Metrics are presented in a monthly breakdown.

The chart view can be switched between individual conversion trends and a combined view using buttons located above the chart.

3.3.2. Slicers:

- Timeline (monthly breakdown)

3.3.3. Cards:

- Minimum
- Maximum
- Average value
- Percentage Change Δ

Measure: These metrics are expressed as percentages, as they correspond to the conversion rate, which is inherently represented in percentage terms.

3.3.4. Other:

- Reset button for clearing all slicers and chart selections (Broom).

- Tooltips cards with values on hover.

4. Visualisations and Key Insights

4.1. Link: [Visualisations and Key Insights | Funnel Metrics and Conversion Analysis](#)

5. Technical Details

5.1. Data Connection: The dashboard is connected to a locally stored Excel file, which acts as the primary data source. The file is manually maintained and updated, ensuring data integrity and relevance for analysis.

5.2. Automatization: The data refresh process is manual, requiring the Excel file to be updated and reloaded into the dashboard environment. No automated data refresh pipeline is currently in place, which may be considered for future optimization depending on the project's needs.

5.3. Tools: Power BI, Excel, Google Sheets

6. Additional Information

6.1. Current Version: Version 1.0

6.2. Change Log:

- Version 1.0 | 2025-01-28 | Initial release with key metrics, filters, and visualizations.

6.3. Contact Information: For questions or suggestions, please contact:

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