Marketing Campaign Funnel & Retention Analysis

1. Executive Summary

- This report presents an in-depth performance analysis of various marketing channels and their impact on user conversion and retention. Using structured data from 7,309 users, we evaluated key metrics such as conversion rates, retention rates, and funnel drop-offs. The objective was to determine the most effective marketing strategies and user segments that contribute to long-term engagement.

- The data was analyzed using **SQL**, **Excel**, and **Power BI**. Key performance indicators (KPIs) were calculated to uncover actionable insights about user behavior, campaign effectiveness, and segment-wise performance based on demographics and user preferences.

2. Objectives

- Measure overall conversion and retention rates.
- Evaluate the performance of each marketing channel.
- Assess the impact of A/B testing variants (Control vs. Personalization).
- Analyze segment trends by age group and preferred language.
- Visualize the user journey from served → converted → retained.
- Recommend actionable strategies for marketing and user engagement optimization.

3. Dataset Summary

- **Total Users Served**: 7,309

- **Source**: Marketing campaign data (January 2018)

- **Data File**: [Marketing Channel Performance Analysis.xlsx](#)

4. Tools & Technologies Used

Tool	Purpose
SQL	Data cleaning and KPI calculation
Excel	Data tabulation, pivot analysis
Power BI	Data visualization and dashboard creation

5. KPI Calculations (SQL)

KPI	Value
Total Users Served	7,309
Converted Users	1,015
Retained Users	655
Conversion Rate	13.89%
Retention Rate	64.53%
Avg Cancel Days	49.25

- SQL queries for each calculation are available in the file:

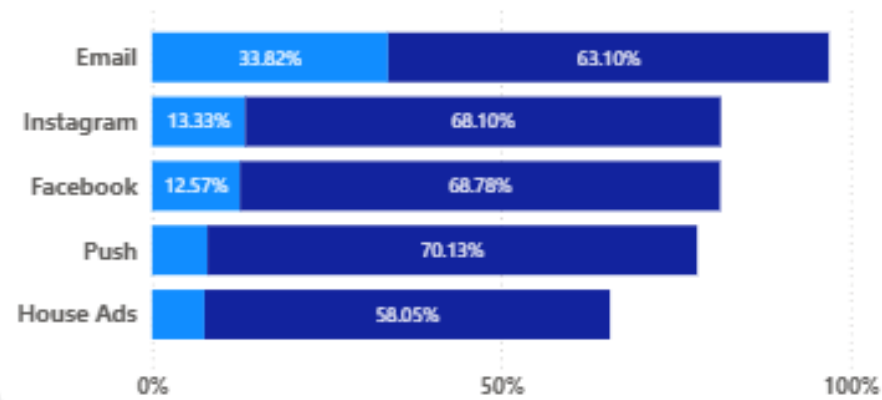Marketing Channel SQL QUERIES.docx

6. Visualizations

The Power BI dashboard includes:

• Channel-wise conversion and retention comparison

• Age group and language breakdown

• Funnel visualization: Served → Converted → Retained

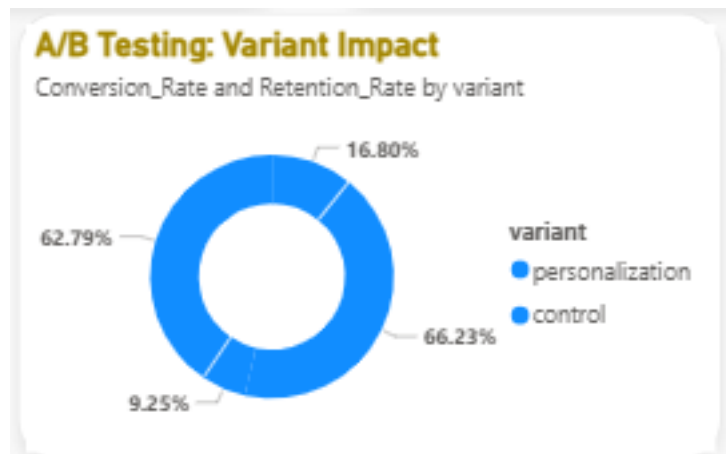• Variant (A/B) comparison: Control vs. Personalization

Channel-wise conversion and retention comparison

Conversion & Retention by Channel

Channel	Conversion	Retention
Email	33.82%	63.10%
Instagram	13.33%	68.10%
Facebook	12.57%	68.78%
Push		70.13%
House Ads		58.05%

Results | Messages

	marketing_channel	conversion_rate	retention_rate
1	Email	33.815551537070	63.101604278074
2	Instagram	13.333333333333	68.103448275862
3	Facebook	12.571103526734	68.778280542986
4	Push	7.921810699588	70.129870129870
5	House Ads	7.510080645161	58.053691275167

• Email and Instagram are the **top-performing** channels in both conversion and retention.

• House Ads had minimal impact and may require strategic overhaul.

Variant (A/B) comparison: Control vs. Personalization

A/B Testing: Variant Impact
Conversion_Rate and Retention_Rate by variant

- 16.80%
- 62.79%
- 66.23%
- 9.25%

variant
- personalization
- control

Results | Messages

	variant	conversion_rate	retention_rate
1	personalization	16.801173881144	66.229985443959
2	control	9.249798332885	62.790697674418

- The **Personalization variant** significantly outperformed Control in both conversion and retention.
- Personalized user experiences **drive better outcomes** and should be prioritized.

Conversion by Age Group

age_group	conversion_rate	retention_rate
19-24 years	23.18%	
24-30 years	18.69%	
0-18 years	15.89%	
55+ years	7.75%	
30-36 years	7.27%	
45-55 years	7.09%	
36-45 years	6.99%	
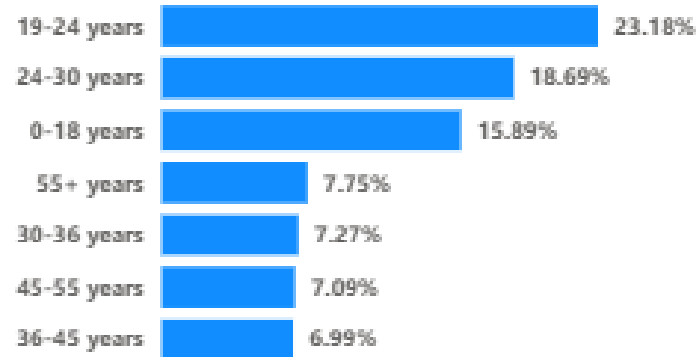
Results / Messages

	age_group	conversion_rate	retention_rate
1	19-24 years	23.182861514919	68.976897689768
2	24-30 years	18.688524590163	67.105263157894
3	0-18 years	15.894039735099	64.583333333333
4	55+ years	7.747196738022	67.105263157894
5	30-36 years	7.271010387157	59.740259740259
6	45-55 years	7.088846880907	54.666666666666
7	36-45 years	6.994328922495	55.405405405405

Segment-Wise Trends:
Age Group

- Users aged **19–24** are the most responsive to campaigns.
- Younger demographics should be the focus of targeted campaigns.

Segment-Wise Trends: **Language Preference**

	language_preferred	conversion_rate	retention_rate
1	German	45.038167938931	64.406779661016
2	Arabic	17.924528301886	52.631578947368
3	English	13.250000000000	65.149833518312
4	Spanish	11.076923076923	55.555555555555

• **German-speaking users** show higher engagement and are more likely to convert.

• Localized content for top-performing languages can improve results.

Marketing Funnel Drop-off
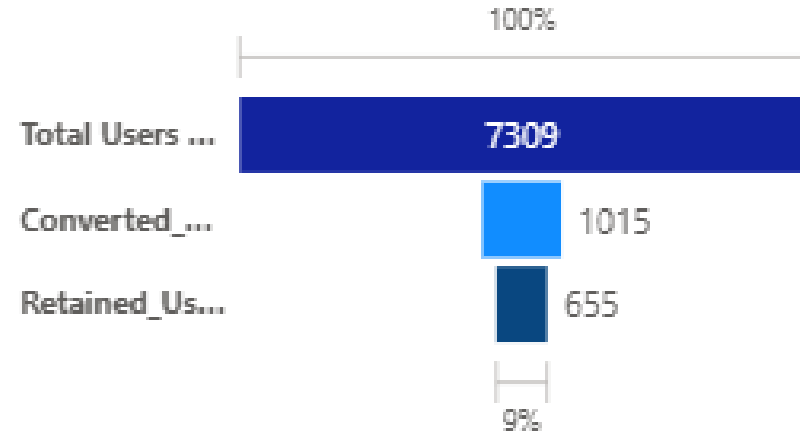
	total_served	total_converted	total_retained
1	7309	1015	655

Funnel visualization: Served → Converted → Retained

- A **sharp drop** is observed from "Served" to "Converted".
- However, post-conversion retention is strong.
- Focus should shift toward **improving initial conversion** through better onboarding or incentives.
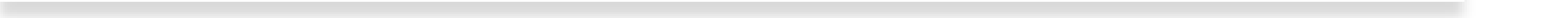
9. Recommendations

- ✅ **Boost Campaigns on Email & Instagram**
  → These platforms show the highest ROI in conversion and retention.

- ✅ **Use Personalized Content Across Channels**
  → A/B tests prove that personalization drives better performance.

- ✅ **Target Youth Demographics (19–24)**
  → Customize messages and visuals for young adult audiences.

- ✅ **Expand German Language Support**
  → Localize campaigns for high-performing language groups.

- ✅ **Reevaluate Underperforming Channels**
  → Consider revising or retiring low-impact channels like House Ads.

10. Conclusion

This project demonstrates the power of data-driven marketing decisions. By analyzing user behavior across channels, demographics, and content types, we uncovered clear patterns in user engagement. Adopting the insights and recommendations from this analysis can significantly enhance future campaign performance, reduce churn, and improve retention strategies.

🙏 **Thank You for Watching!**

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