"CUSTOMER RETENTION STRATEGY THROUGH OFFER EFFECTIVENESS ANALYSIS:
POWERBI"

PROJECT REPORT

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INTRODUCTION

Customer retention has become a critical strategic focus for modern businesses due to increasing competition, rising customer acquisition costs, and shifting consumer expectations. Retaining existing customers not only strengthens long-term profitability but also enhances brand loyalty and reduces operational costs. Companies now heavily rely on data analytics to understand customer behavior, evaluate offer performance, and design targeted strategies that encourage repeat purchases.

In a digital-first environment, customers interact with brands through multiple touchpoints such as mobile apps, email, SMS, and social media. These interactions generate valuable behavioral data that can reveal which offers customers respond to, which channels work best, and which segments are at high risk of churn. Offer effectiveness analysis plays a vital role in identifying patterns that improve customer satisfaction and long-term loyalty.

This project, "Customer Retention Strategy Through Offer Effectiveness Analysis," focuses on analyzing how different offer types—BOGO, discounts, cashback, and non-offer interactions—influence customer retention. Using analytical insights and visual dashboards, the study evaluates customer responsiveness, conversion funnels, purchase behavior, and retention performance across multiple dimensions.

ABSTRACT

The project titled "Customer Retention Strategy Through Offer Effectiveness Analysis" aims to analyze customer behavior and evaluate the effectiveness of promotional offers in retaining customers. By studying offer redemption trends, retention rates, communication channel impact, and purchase patterns, the project transforms transactional customer data into meaningful insights that support retention-focused decision-making.

The dashboard created for this project presents key metrics such as Total Customers (5000), Total Retained (3149), Retention Rate (0.63), Total Purchase Amount (13.76M), Offers Accepted (2980), and Average Feedback Score (3.0). These indicators help understand customer loyalty and behavioral patterns in response to offers.

Visualizations include offer-type retention analysis, offer response by communication channel, a customer conversion funnel, and purchase behavior before and after offers. The analysis reveals that offer-driven communication significantly influences retention and that customers exposed to personalized and high-value offers tend to make more repeat purchases. Overall, the project demonstrates how businesses can use offer analytics to refine retention strategies and improve long-term customer value.

OBJECTIVES

• To analyze customer retention performance across different offer types (BOGO, Discount, Cashback, None).

• To evaluate how communication channels such as App, Social Media, Email, and SMS influence offer acceptance.

• To measure key retention metrics such as retention rate, customer conversion, and offer redemption.

• To identify purchase behavior changes before and after offer acceptance.

• To interpret customer journey stages using conversion funnel metrics.

• To visualize customer retention trends against offer value.

• To provide data-driven insights that support the development of stronger customer retention strategies.

DATA ANALYSIS

PROCEDURE

1. Data Collection

Customer data was gathered from CRM and digital marketing systems. The dataset includes customer status, offer types, purchase frequency, offer values, communication channels, feedback scores, and retention outcomes.

2. Data Cleaning and Preprocessing

Duplicate records were removed; missing values in offer type, gender, and purchase frequency were corrected. Numerical variables (purchase count, offer value) and categorical variables (offer type, channel) were standardized for analysis.

3. Data Organization

Data was divided into key analytical dimensions:

• Dimensions: Customer Status, Offer Type, Communication Channel, Gender

• Measures: Retention Rate, Offers Accepted, Purchases Before Offer, Purchases After Offer, Feedback Score, Offer Value

4. Exploratory Data Analysis (EDA)

EDA focused on:

• Customer retention trends

• Offer acceptance behavior

• Funnel drop-offs

• Pre-offer and post-offer purchase comparison

• Correlation between offer value and retention rate

5. Data Visualization

The dashboard includes:

• KPIs for retention and purchase metrics

• Bar charts for retention by offer type

• Line chart for retention vs. offer value

• Donut chart for offer response by channel

• Conversion funnel visualization

• Comparative bar chart for purchases before and after offers

6. Interpretation of Results

Patterns show stronger retention for offer-engaged customers,

high offer responsiveness via App and Social Media, and positive purchase changes after offer use.

7. Conclusion from Analysis

Personalized offers and channel optimization significantly influence retention. Behavior data highlights clear opportunities to strengthen loyalty programs and offer targeting.

ABOUT DATASET

Key Attributes in the Dataset:

• Customer_ID

• Customer_Status (Retained / Churned)

• Offer_Type (BOGO, Discount, Cashback, None)

• Offer_Value

• Offer_Channel (App, SMS, Email, Social Media)

• Num_Purchases_Before_Offer

• Num_Purchases_After_Offer

• Offers_Accepted

• Feedback_Score

• Total_Purchase_Amount

Data Purpose

• To measure retention influenced by offer redemption

• To compare purchase behavior before and after offers

• To assess communication channel effectiveness

• To evaluate offer value vs. retention correlation

• To identify high-performing and low-performing offer types

METHODOLOGY

Tool Used

• Microsoft Power BI – for modeling, analyzing, and visualizing customer retention metrics.

Visualizations Used

• KPI Cards:

– Total Customers

– Total Retained

– Retention Rate

– Total Purchase Amount

– Offers Accepted

– Feedback Score

• Bar Charts:

– Retention Performance by Offer Type

– Purchase Behavior Before & After Offer

• Line Chart:

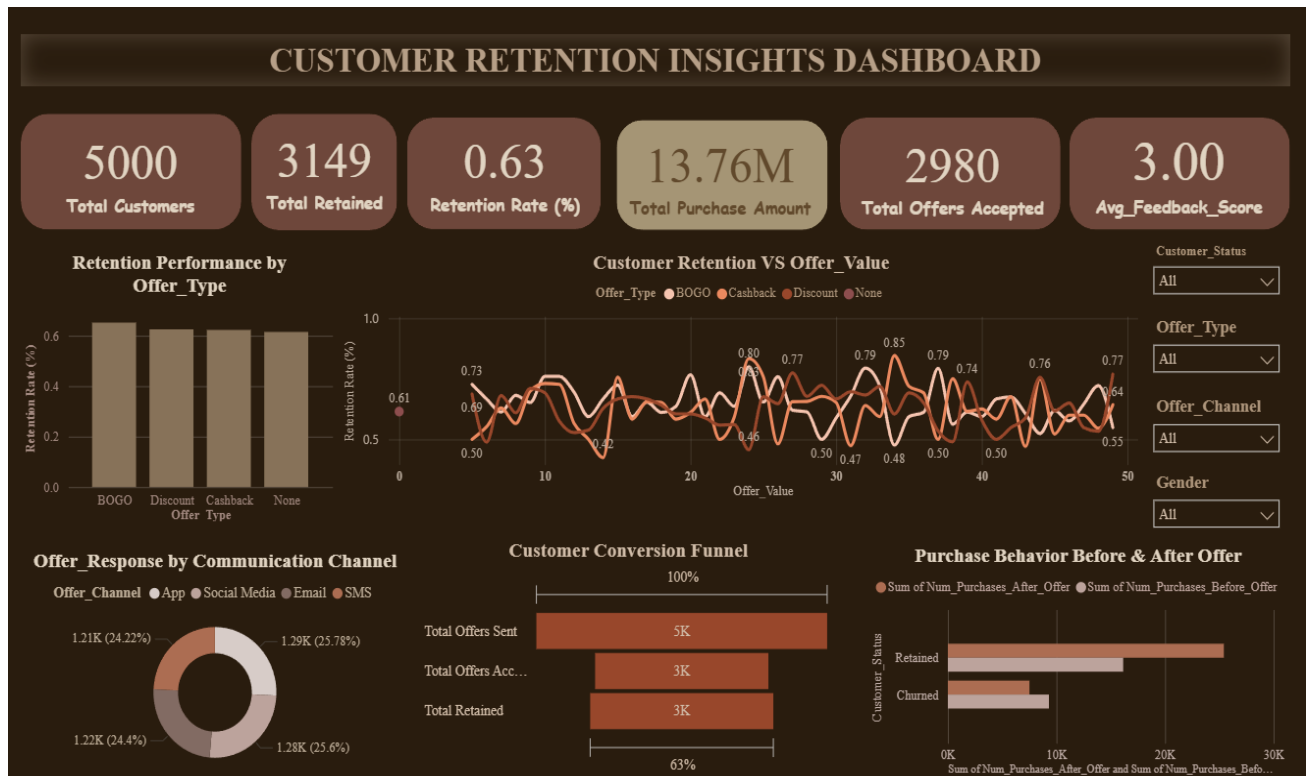– Customer Retention vs Offer Value

• Donut Chart:

– Offer Response by Communication Channel

• Funnel Chart:

– Customer Conversion Funnel

Interactive Components

• Slicers for Customer Status, Offer Type, Offer Channel, Gender

• Tooltips for detailed metrics

• Multi-level filtering for segment-wise analysis

DATA VISUALIZATION

DATA INTERPRETATION

Dependent Variables (Measured):

• Retention Rate

• Feedback Score

• Purchase Frequency After Offer

• Offers Accepted

Independent Variables (Influencing Factors):

• Offer Type

• Offer Value

• Communication Channel

• Customer Status

• Gender

Key Insights:

• Retention rate is 0.63, indicating strong offer influence.

• Offer types with financial benefits (BOGO, Discount, Cashback) deliver higher retention than no-offer customers.

• Communication channels show nearly equal distribution, with App and Social Media slightly higher in engagement.

• Purchase volume increases significantly after offer acceptance—most visible among retained customers.

• Higher-value offers slightly improve retention, with peaks visible around mid-range offer values.

• The customer funnel shows a strong acceptance and retention conversion (63%).

KEY PERFORMANCE INDICATORS (KPIs)

• Total Customers: 5000

• Total Retained: 3149

• Retention Rate: 0.63

• Total Purchase Amount: 13.76M

• Total Offers Accepted: 2980

• Average Feedback Score: 3.0

• Offer-wise Retention Rate

• Channel-wise Offer Response

• Purchase Increase After Offer

SLICERS

• Customer Status

- Offer Type

- Offer Channel

- Gender

- Offer Value Range

- Purchase Count Range

PROJECT INSIGHTS – CUSTOMER RETENTION ANALYSIS

• Retention rate of 63% indicates strong customer engagement through offers.

• BOGO and Discount offers show the highest retention, confirming appeal of direct-value incentives.

• App and Social Media channels produce the highest offer responses, showing digital-first customer behavior.

• Purchase counts increase significantly after receiving offers, especially among retained customers.

• Funnel analysis reveals strong conversion from offer sent → offer accepted → retained.

• Offer value correlates positively with retention, though excessively high values do not show proportionate gains.

• Churned customers show lower engagement and minimal purchase improvement after offers.

CONCLUSION

Analysis confirms that offer-driven communication significantly improves customer retention and purchase behavior. Personalization, channel optimization, and offer targeting are crucial in creating effective retention strategies. The dashboard reveals that retention metrics, offer acceptance trends, and behavioral patterns can guide companies to design better loyalty models and reduce churn.

SUGGESTIONS

1. Personalize offers based on customer value and behavior patterns.

2. Strengthen app-based and social media offer campaigns.

3. Introduce loyalty tiers to boost engagement and feedback scores.

4. Optimize offer value to balance cost and retention impact.

5. Target churn-prone customers with exclusive recovery offers.

6. Continuously monitor retention dashboards for timely interventions.

7. Reduce fatigue by limiting repeated or irrelevant offers.