# PROJECT REPORT

PROJECT TITLE:	CUSTOMER LIFETIME VALUE ANALYSIS (POWER BI PROJECT)		
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PROJECT LINK:	https://github.com/Ishika002/CUSTOMER-LIFETIME-VALUE-ANALYSIS.git		

### INTRODUCTION

This project focuses on analyzing **Customer Lifetime Value (CLV)** using Power BI to help businesses understand customer profitability over time. CLV measures the total revenue a business can expect from a customer throughout their relationship. By leveraging Power BI's **data visualization** and analytical capabilities, this project provides insights into customer retention, purchase behavior, and revenue trends. The analysis helps businesses make data-driven decisions to improve customer engagement, marketing strategies, and overall profitability.

### DATA & METHODOLOGY

#### Data:

- 1. Customer Transactions Data Purchase history, order dates, and transaction amounts.
- 2. Customer Demographics Age, location, and other relevant attributes.
- 3. Engagement Data Frequency of purchases, retention rates, and interactions.

### Methodology:

- 1. Data Collection & Cleaning Import and clean customer transaction data in Power BI.
- 2. **CLV Calculation** Use formulas to compute revenue per customer, retention rate, and average purchase value.
- 3. **Visualization & Insights** Create dashboards for customer segmentation, retention trends, and revenue forecasts.
- 4. **Predictive Analysis** Use Power BI's DAX measures or integrate with machine learning for CLV forecasting.
- 5. Business Strategy Recommendations Identify high-value customers and optimize marketing efforts.

## **KEY INSIGHTS & FINDINGS**

- **High-Value Customers Drive Revenue** A small percentage of customers contribute to the majority of revenue, emphasizing the need for retention strategies.
- **Customer Retention Impacts CLV** Higher retention rates lead to increased CLV, making loyalty programs and personalized marketing essential.
- **Purchase Frequency Matters** Customers with frequent repeat purchases have a significantly higher CLV compared to one-time buyers.
- Seasonal Trends Influence Spending CLV varies across different seasons, helping businesses optimize marketing efforts during peak periods.
- **Segmentation Improves Targeting** Identifying customer segments based on CLV allows businesses to allocate resources effectively for retention and acquisition.

### **CONCLUSION & IMPACT**

The Customer Lifetime Value (CLV) analysis in Power BI provides valuable insights into customer behavior, revenue contribution, and retention trends. By leveraging Power BI's visualization and analytical capabilities, businesses can identify high-value customers, optimize marketing strategies, and improve overall profitability. The project highlights the importance of retention, purchase frequency, and customer segmentation in maximizing CLV. This analysis helps businesses make data-driven decisions to enhance customer relationships, increase long-term revenue, and allocate marketing budgets efficiently. By focusing on high-CLV customers and improving retention strategies, companies can drive sustainable growth and gain a competitive advantage in the market.