Title: Customer Onboarding Process Optimization & Revenue Impact Forecast

Author: Rohit Khilare

1️⃣ Project Objective

The goal of this project is to simulate and analyze customer onboarding processes for a SaaS business and quantify the operational and financial impact of onboarding delays. The project was designed to replicate real-world Business Operations Senior Analyst work, focusing on:

- Process bottleneck identification
- Root cause analysis
- KPI development
- Revenue forecast modeling
- Executive-level data visualization (Power BI)

2️⃣ Business Problem Statement

The company observed that customer onboarding delays are increasing, which results in:

- Delayed revenue recognition
- Higher customer churn risk
- Increased operational cost

The objective is to:

- Analyze onboarding duration by team, segment, and delay group
- Correlate onboarding delays with churn behavior
- Quantify revenue loss due to delays
- Provide actionable recommendations to improve onboarding efficiency

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3️⃣ Dataset Description

Total Records: 200 simulated customer onboarding records.

Column	Description
Customer_ID	Unique customer identifier

Column	Description
Onboarding_Start_Date	Onboarding process start date
Onboarding_End_Date	Onboarding process end date
Onboarding_Duration_Days	Number of days taken for onboarding
Assigned_Onboarding_Team	Assigned team for onboarding (Team A, B, C)
Industry_Segment	Industry classification (Enterprise, SMB, Startup)
Contract_Value	Customer contract value
Revenue_Recognition_Date	Date when revenue can be recognized
Churn_Flag	Customer churn indicator (Yes/No)
Delay_Flag	High Delay if onboarding > 15 days, else Low Delay

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4️⃣ Methodology

Step 1: KPI Calculation

Calculated key onboarding KPIs:

KPI	Value (Example Output)
Total Customers	200
Avg Onboarding Duration	13.79 Days
Avg Contract Value	$45,826
Total Contract Value	~$9.17M
High Delay Churn %	5.71%
Low Delay Churn %	0%

Step 2: Bottleneck & Root Cause Analysis

- **By Team:** Identified which onboarding teams have longer average durations.
- **By Industry Segment:** Enterprise customers showed longer onboarding times.
- **By Delay Group:** High delay customers have significantly higher churn rates.

Step 3: Revenue Impact Forecast

Forecasted revenue loss due to onboarding delays:

Metric	Value
Revenue Delay Days Saved	1.79 Days
Total Contract Value at Risk	~$9.17M
Revenue Delay Financial Impact	~$1.18M

Forecast calculated by modeling faster onboarding scenarios.

Step 4: Power BI Dashboard Build

Created full executive dashboard using Power BI:

- KPI Cards (Total Customers, Avg Onboarding Duration, Total Contract Value)
- Onboarding Duration by Team & Segment (Bar Charts)
- Churn % by Delay Group (Bar Chart)
- Revenue Forecast Impact (Table/Card)

Fully interactive dashboard suitable for executive reporting.

5️⃣ Power BI DAX Formulas

Churn % :

DAX

CopyEdit

```
Churn =
DIVIDE(
  CALCULATE(
    COUNTROWS('BizOps_Onboarding_PowerBI_Template'),
    FILTER(
      'BizOps_Onboarding_PowerBI_Template',
      'BizOps_Onboarding_PowerBI_Template'[Churn_Flag] = "Yes"
    )
  ),
  COUNTROWS('BizOps_Onboarding_PowerBI_Template')
```

)

6️⃣ Executive Summary & Insights

- High onboarding delays correlate with significantly higher churn risk.
- Reducing onboarding duration from 13.79 days to 12 days saves ~$1.18M revenue.
- Enterprise segment requires process streamlining.
- Revenue can be recognized faster through better onboarding capacity allocation.
- Actionable recommendation: implement process improvements, automation, or staffing adjustments.

7️⃣ Tools & Technologies Used

Tool	Purpose
Excel	Data cleaning, KPI calculations, revenue forecast model
Python	Dataset generation & simulation
Power BI	Data visualization, dashboard build
DAX	Churn % calculation
Pivot Tables	Initial grouping & aggregation

8️⃣ Outcome

✅ This project demonstrates real Senior Analyst skills including:
Data extraction → KPI design → Root cause analysis → Forecast modeling → Executive storytelling.