

PORTFOLIO

Khwnasat Giri Narzary

2025

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Hello,

I'm Khwnasat Giri Narzary

Data Enthusiast

I am a passionate data enthusiasts currently pursuing Master's of Computer Application from NIT Kurukshetra. I specialize in

- *Data cleaning and preprocessing*
- *Exploratory Data Analysis*
- *Data Visualization using tools like Python, Power Bi*

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Education

**National Institute of Technology Kurukshetra
(2023-present)**

Masters of Computer Application



**University of Science & Technology Meghalaya
(2019-22)**

Bachelor of Computer Application



Technical skills & Competencies

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Data Analysis & Research

- *Data Cleaning*
- *Exploratory Data Analysis (EDA)*
- *Feature Engineering*
- *Data Visualisation*

Technical Proficiency

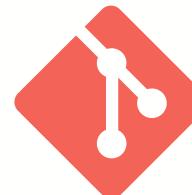
- *Python (Pandas, Numpy, Seaborn, Matplotlib)*
- *Power Bi, Spreadsheets (excel, google sheets)*
- *Github*
- *MySQL (DBMS)*
- *HTML, CSS*



MySQL®



git



Power BI

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Certifications & Learnings

Techgyan Data Science workshop - IITDelhi (BeCon-2025) [view](#)

- Spreadsheets vs Bi tools
- Google Sheets (functions, data cleaning)
- Power Bi (Basic overview, power query editor, visualisation)

Data Analytics Bootcamp - Udemy(ongoing)

- Python(Numpy, Pandas, Seaborn, Matplotlib)
- Statistics (Descriptive/Inferential)
- EDA & Feature Engineering

Accenture Virtual Internship - Forage (2024) [view](#)

- Scocial Buzz (social Media company) with over 500M users
- Identify top 5 highest performing categories (animals, science..)
- May has the highest active users interaction

Customer Churn Analysis

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Introduction:

Customer churn analysis is a vital process that helps businesses understand why customers discontinue using their products or services. This is especially critical in the highly competitive telecom industry, where retaining customers can significantly impact profitability. The study also emphasizes the importance of proactive measures to address churn and improve customer retention.

Objectives:

- To analyze customer churn in the telecom industry and understand the factors contributing to it.
- To examine and analyze the impact of price, service reliability, and accessibility on customer migration.
- To analyze patterns in customer behavior and provide actionable insights and recommendations to reduce churn rates effectively.

Methodology

- **Phase-1:** Problem Identification and Data collection/gathering (*completed*)
- **Phase-2:** Data cleaning and performing Exploratory Data Analysis(EDA) & Feature Engineering
- **Phase-3:** Data Visualization(Power Bi)/ Finding Insights
- **Phase-4:** Final Project Report and Suggestions/Strategies for improvement

About Dataset

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The Telco customer churn data contains information about a fictional telco company that provided home phone and Internet services to 7044 customers in California in Q3. It indicates which customers have left, stayed, or signed up for their service.

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Data Name: Telecommunication customer churn Industry Sample Data

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Industry: Telecommunications

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Author Name/Type: IBM

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Creation Date: 5 April 2023

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Dataset contains 5 tables (Rows, Columns):

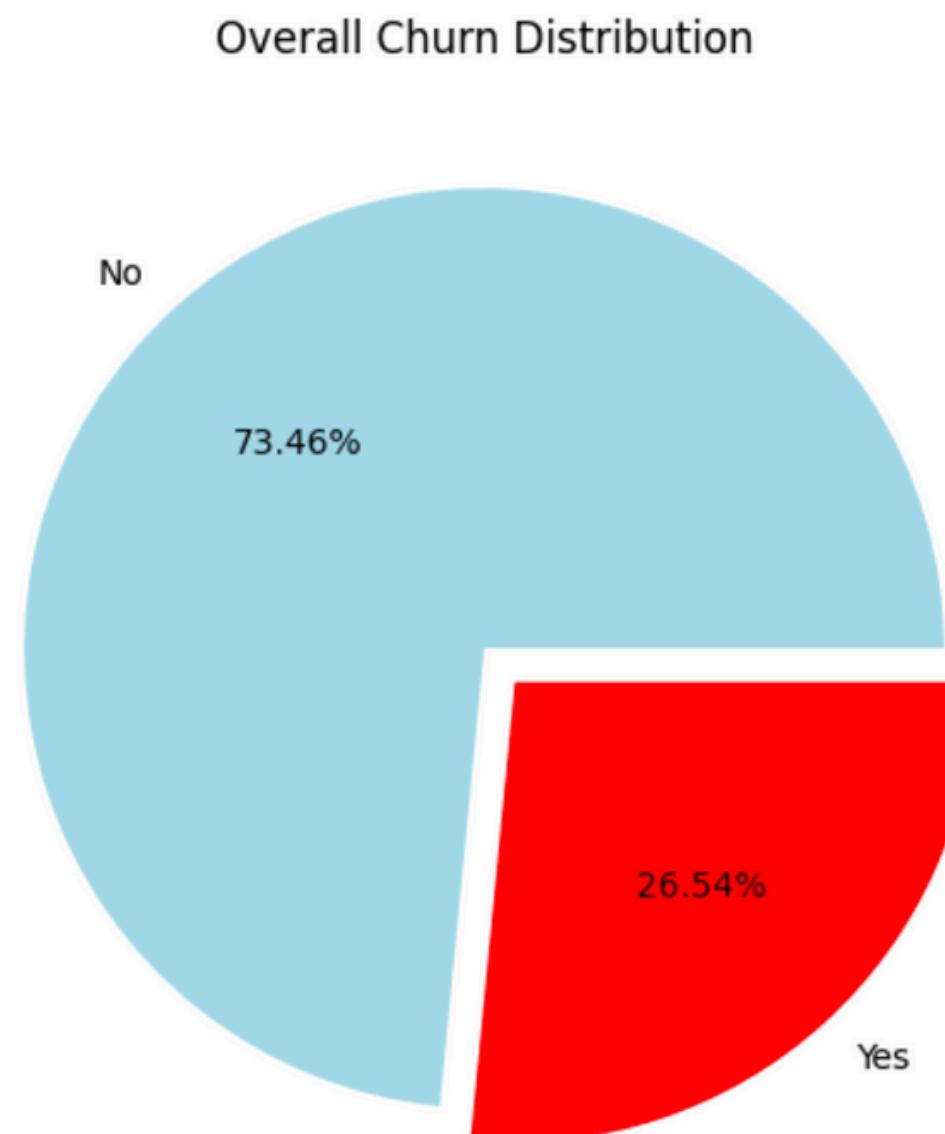
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- **Population (1672,3)**: Population count zip code wise.
- **Demographics (7044,9)** : Gender and dependents
- **Services (7044,31)**: Details on customer subscriptions, revenues and internet type
- **Status (7044,11)**: Satisfaction score, churn status, reasons.
- **Location (7044,10)**: Country, state, city, latitude and longitude

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Initial Analysis

During the initial analysis, we discovered that the company **lost** approximately **27%** of its **customers** within just **three months**, underscoring the urgent need to address customer retention.

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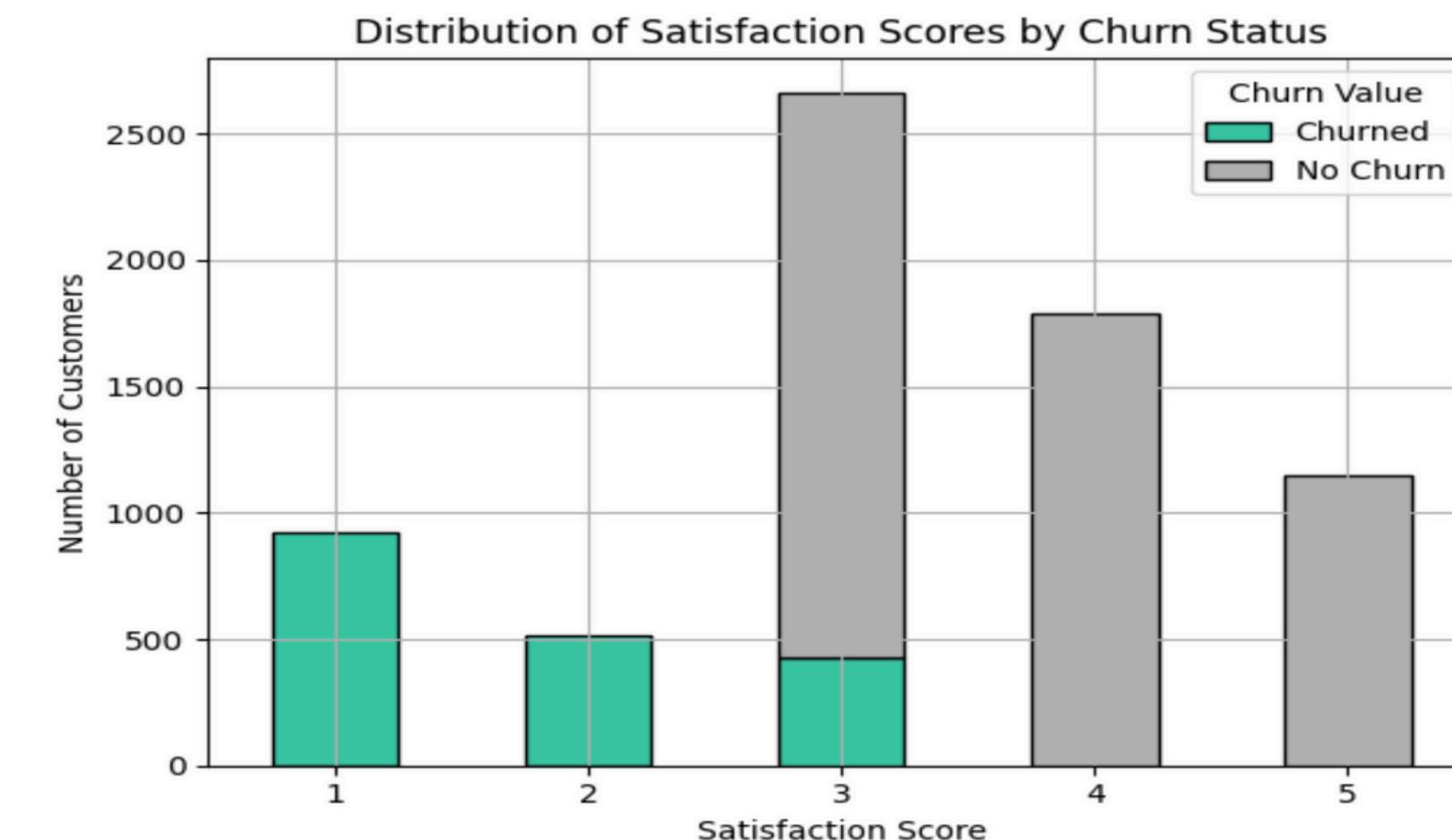
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QUESTION

Q1. Churn Status vs. Customer Satisfaction

How does the churn status vary with customer satisfaction scores ?



Key Insights:

Low Satisfaction (Scores 1-2): Almost every customer in this group churned, indicating an exceptionally high churn risk.

High Satisfaction (Scores 4-5): No churn observed — these scores are highly predictive of customer retention.

Mid Satisfaction (Score 3): Acts as a tipping point — majority retained, but a noticeable minority still churned.

Overall: Satisfaction Score is a highly reliable predictor of churn behavior in this dataset.

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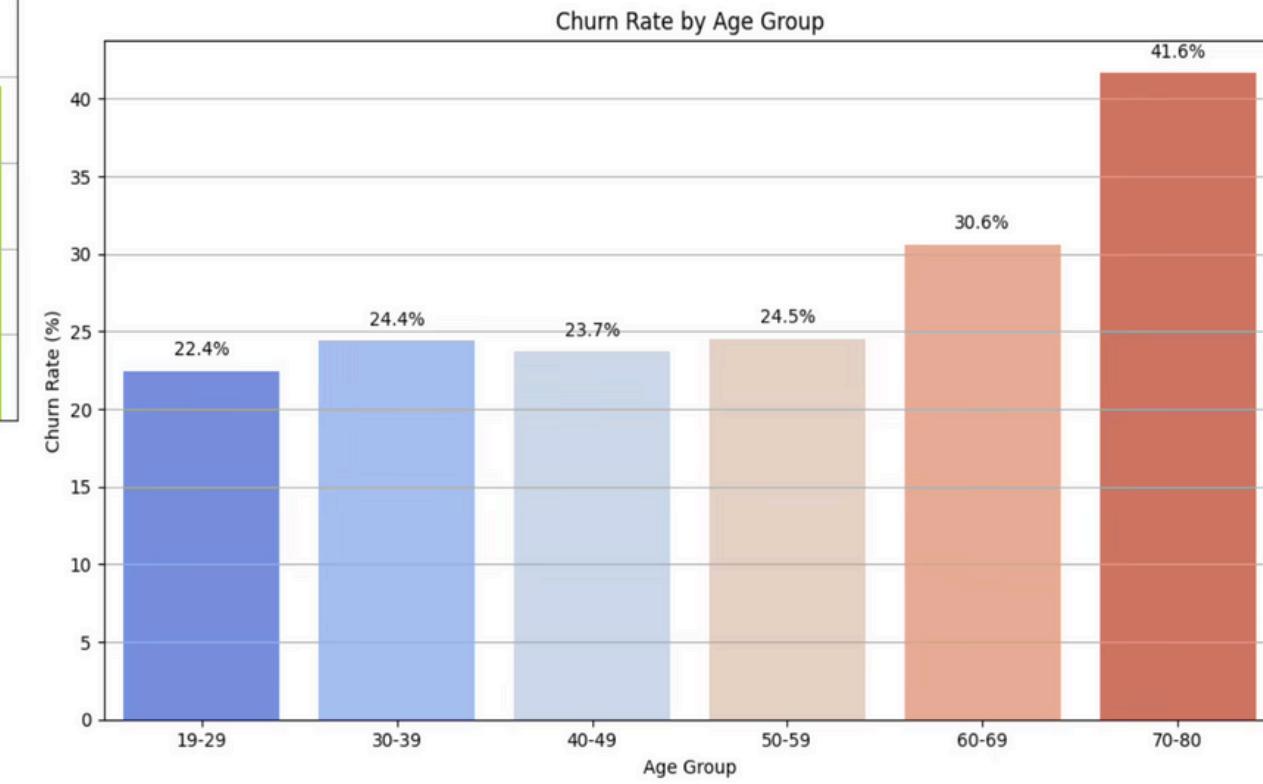
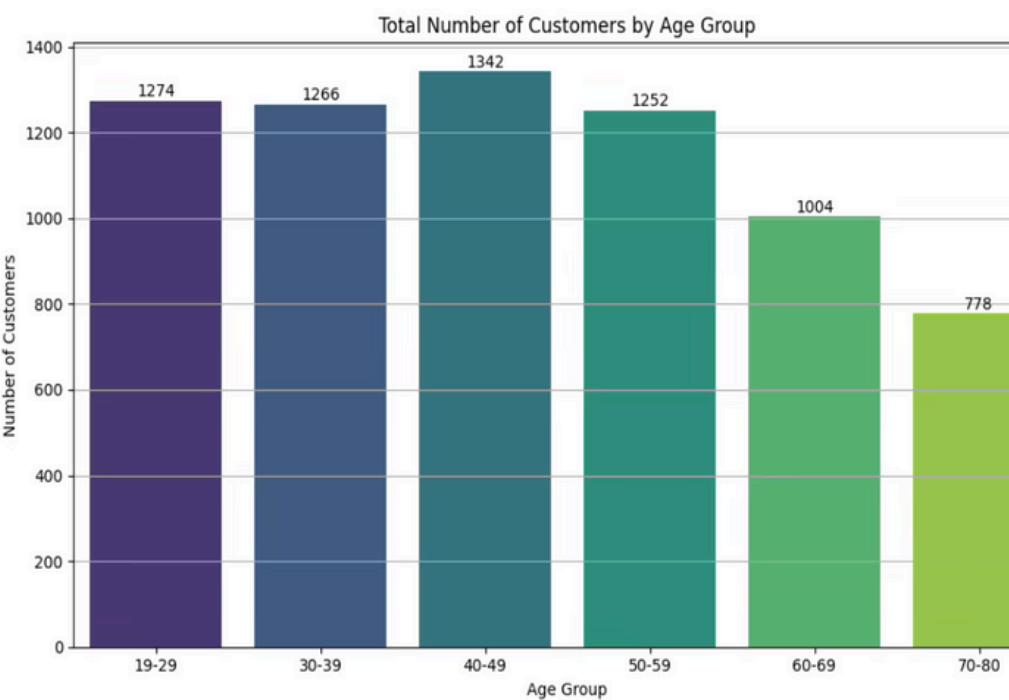
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QUESTION

Q2. Churn Rate vs. Seniority

How does the churn rate vary with customer seniority?



Key Insights:

Age (Seniority): Churn rates increase notably for customers over 60 years old. While most customers fall within the 19–59 age range, older customers show a higher churn risk, indicating the need for targeted retention strategies for the 60+ segment.

Key Suggestions

Marketing & Sales Team: Focus Areas

- Targeted offers (e.g., bundles, loyalty programs, time-limited discounts) could re-engage inactive users.
- Personalized pricing based on usage and engagement may improve retention.
- Early feedback help reduce churn.
- Senior customers and high-churn cities need tailored marketing.

Product Managers: Focus Areas

- High churn for Streaming TV, Movies, and Music suggests insufficient value.
- Improve or simplify underutilized add-ons to boost retention.
- Promote premium features (e.g., HD streaming to binge-watchers) and tiered bundles to reduce churn.

Key Suggestions

Network Engineers: Focus Areas

- Fiber optic users show higher churn. Focus on improving service stability/quality.
- San Diego has higher churn; review network congestion and bandwidth allocation.
- Address installation issues, equipment malfunctions, and streaming errors to reduce churn.

Customer Support: Focus Areas

- Prioritize service disruptions, and unresolved issues to prevent churn.
- Reach out to low satisfaction customers with proactive solutions (discounts, support) to reduce churn.

CONCLUSION

The churn analysis highlights that customer **age, tenure, contract type, and value-added services** are key **factors** influencing **retention**. High churn rates among **fiber optic users** and **monthly subscribers**, especially in areas like **San Diego**, signal areas for improvement. Bundled services and longer-term contracts reduce churn, while third-party streaming offerings may weaken loyalty. By implementing targeted, department-specific strategies based on these insights, organizations can strengthen customer satisfaction, loyalty, and long-term value.



Thank you

Contact Details

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