TELECOM CUSTOMER CHURN ANALYSIS

Created by: Huỳnh Bảo Minh | Data Source: Kaggle

OVERVIEW
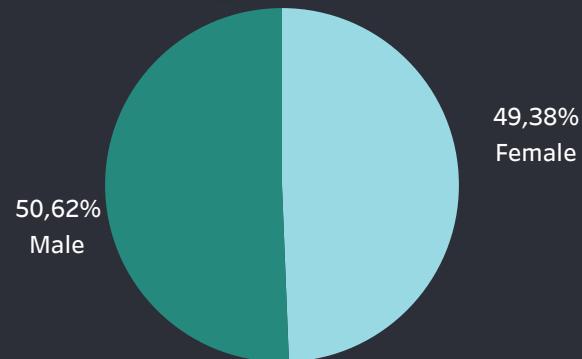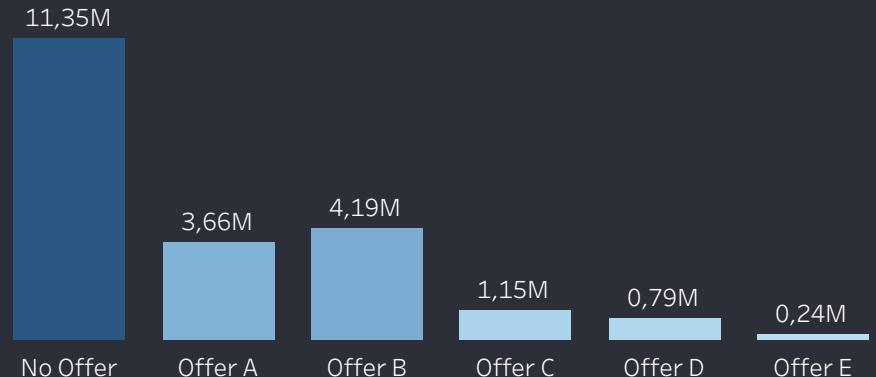
| Total Revenue	# of Customers	# of Churned Customers
21.371.132	7.043	1.869

Revenue by Gender

50,62% Male

49,38% Female

Revenue by Offer

11,35M — No Offer
3,66M — Offer A
4,19M — Offer B
1,15M — Offer C
0,79M — Offer D
0,24M — Offer E

Top 10 Cities by Revenue

Los Angeles	852,73K
San Diego	738,42K
Sacramento	353,37K
San Jose	326,48K
San Francisco	307,00K
Fresno	194,43K
Long Beach	185,94K
Escondido	155,90K
Oakland	154,56K
Whittier	128,86K
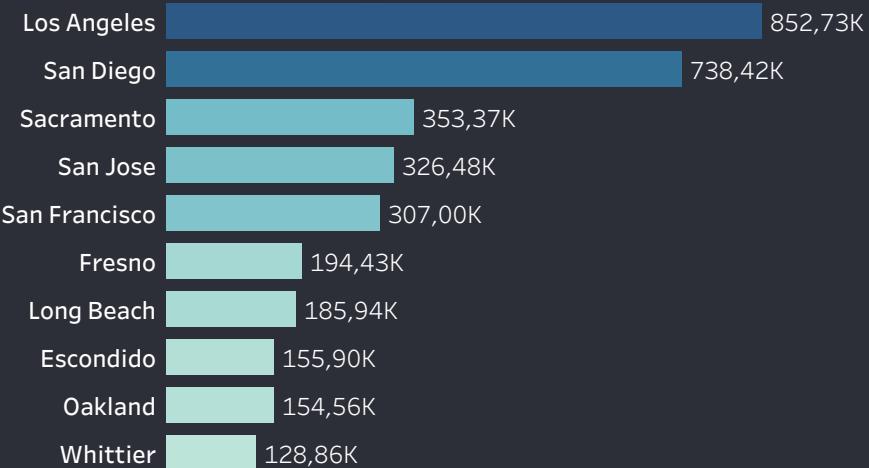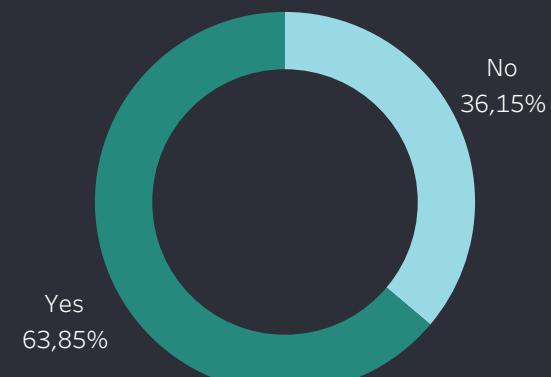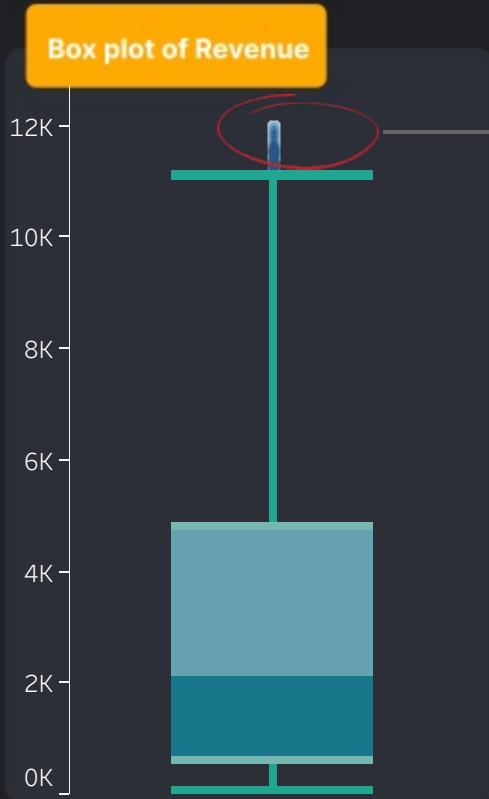
Revenue by Married

No 36,15%

Yes 63,85%

High-Value Customers
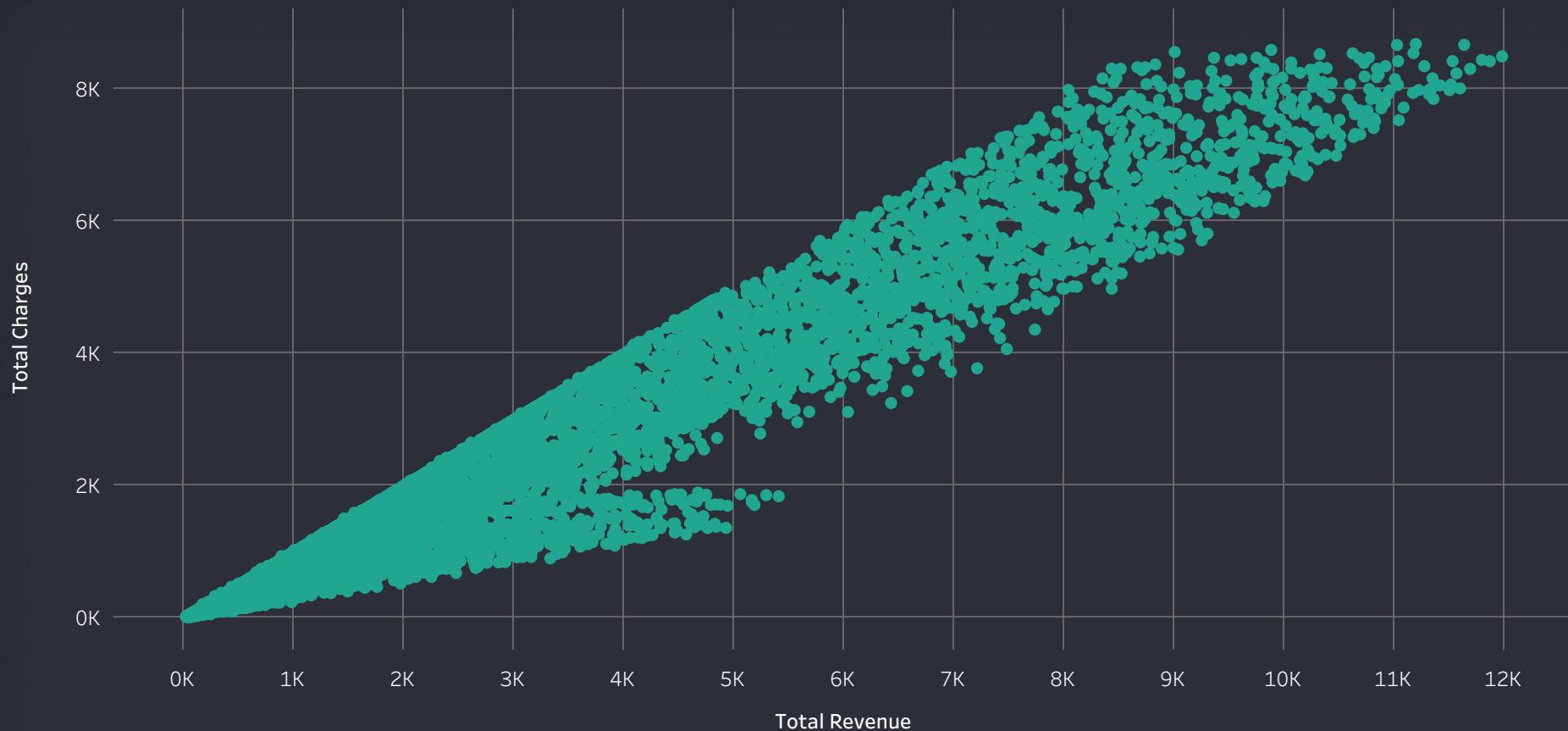
Revenue **outliers** identify a distinct segment of VIP customers with significantly higher spending.

VIP Customers

Customer ID	Gender	Age	Offer	Total Revenue
0164-APGRB	Female	56	Offer A	11.979,3
0536-ACXIP	Female	34	No Offer	11.347,5
0619-OLYUR	Male	32	No Offer	11.514,8
0907-HQNTS	Female	74	Offer A	11.221,6
2380-DAMQP	Female	63	No Offer	11.272,2
2469-DTSGX	Female	72	Offer A	11.169,8
2889-FPWRM	Male	31	No Offer	11.195,4
3508-CFVZL	Female	55	Offer A	11.501,8
3810-DVDQQ	Female	28	No Offer	11.688,9
3963-RYFNS	Female	25	Offer A	11.597,0
5451-YHYPW	Female	75	Offer A	11.795,8
5914-XRFQB	Male	58	No Offer	11.529,5
5945-AZYHT	Male	53	Offer A	11.355,9
7030-FZTFM	Male	31	Offer A	11.315,8
7569-NMZYQ	Female	33	No Offer	11.634,5
7602-MVRMB	Female	62	No Offer	11.416,2
8029-XYPWT	Male	72	Offer A	11.340,8
8263-OMNTJ	Male	46	Offer A	11.868,2

Total Charges Vs Total Revenue

Total Charges and Total Revenue exhibit **a strong positive linear** relationship. This confirms that revenue is largely driven by accumulated charges, with refunds introducing moderate variability but not disrupting the overall trend.

Churn Analysis

26,54% of total customers have discontinued their contracts.

Top 3 churn reasons include:
Competitor had better devices (16.75%) - Competitor made better offer (16.6%) - Attitude of support person (11.8%)

Why Customers Churn ?
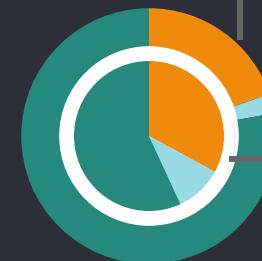
Churn Reason
- Competitor had better devices
- Competitor made better offer
- Attitude of support person
- Don't know
- Competitor offered more data
- Competitor offered higher download speeds
- Attitude of service provider
- Price too high
- Product dissatisfaction
- Network reliability
- Long distance charges
- Service dissatisfaction
- Moved
- Extra data charges
- Limited range of services
- Poor expertise of online support
- Lack of affordable download/upload speed
- Lack of self-service on Website
- Poor expertise of phone support
- Deceased

0   100   200   300

Num of Customers
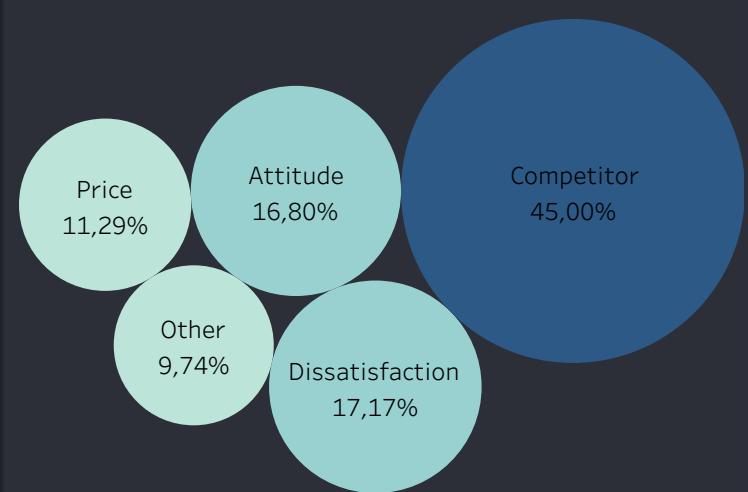
Churned by Married

Married

Non-Married

Status
- Churned
- Joined
- Stayed
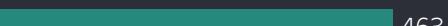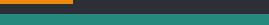
Churned by Categories

Price
11,29%

Attitude
16,80%

Competitor
45,00%

Other
9,74%

Dissatisfaction
17,17%

Churn Analysis
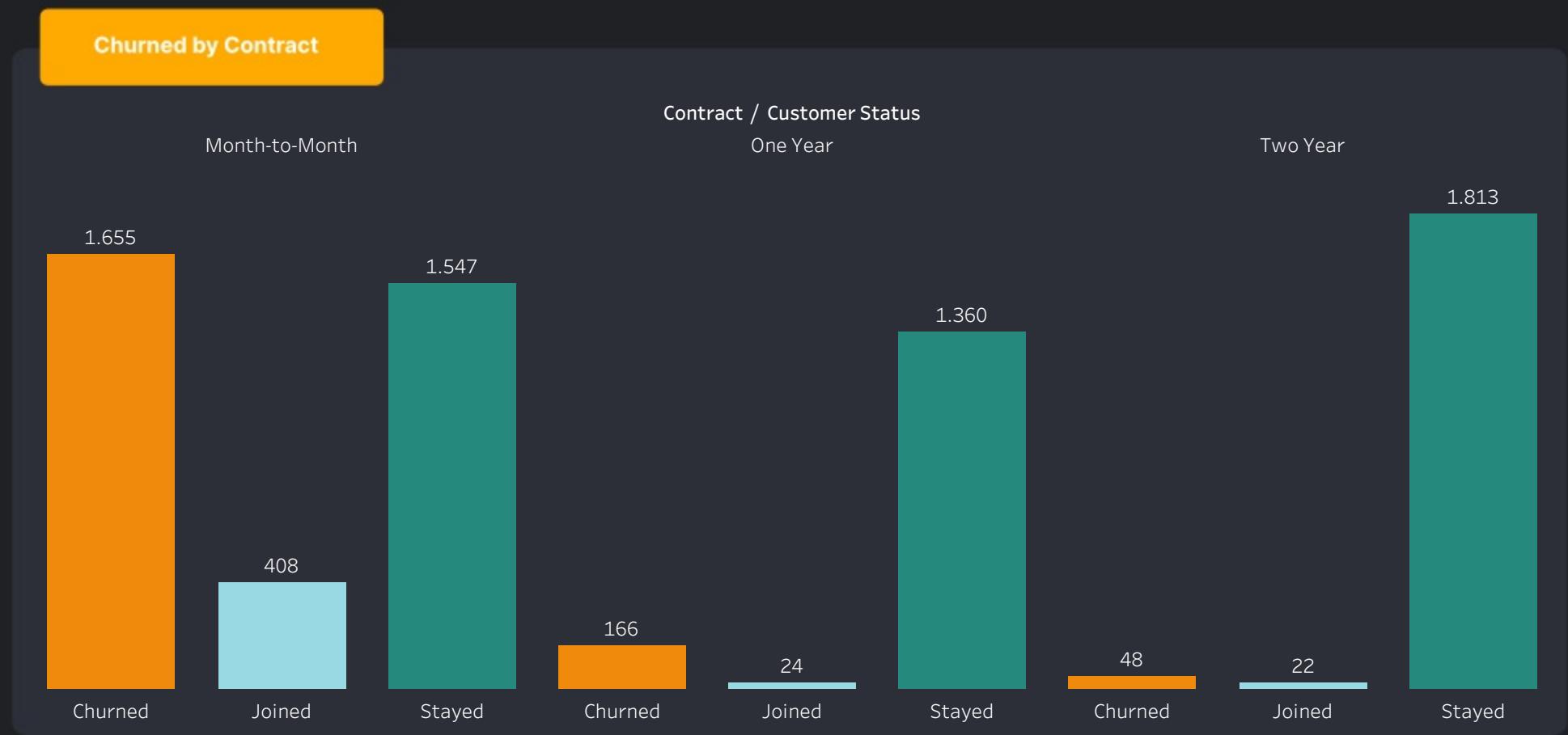
| Tenure Category	Customer Status		
1 - 6 Months	Churned		784
	Joined		454
	Stayed		232
7 - 12 Months	Churned		253
	Stayed		463
1 - 2 Years	Churned		294
	Stayed		730
2 - 3 Years	Churned		180
	Stayed		652
3 - 4 Years	Churned		145
	Stayed		617
4 - 5 Years	Churned		120
	Stayed		712
5 - 6 Years	Churned		93
	Stayed		1.314

Churning Customers: Most of the churning customers has only subscribed to the telecom company for a period of 1-6 months. The number of churning customers significant decreases for customers with longer tenure of months than 1-6 months, and it can also be seen that the trend is constantly decreasing for churning customers from 1-2 years to 5-6 years.

Staying Customers: Most of the staying customers which consists of 1314 customers have already subscribed to the telecom company for 5-6 years. There is no clear trend as the data for staying customers of 1-2 years to 4-5 years only ranges around 617-730 customers, before the sharp increase to 1314 customers for customers with 5-6 years subscribed.

Joining Customers: All joining customers fall into the 1-6 months category, where it can be seen that all the customers are only subscribed to the telecom company for 3 months or less as a result from querying the data.

Churn Analysis

Contract / Customer Status

Month-to-Month   **One Year**   **Two Year**

|								
1.655	408	1.547	166	24	1.360	48	22	1.813
Churned	Joined	Stayed	Churned	Joined	Stayed	Churned	Joined	Stayed
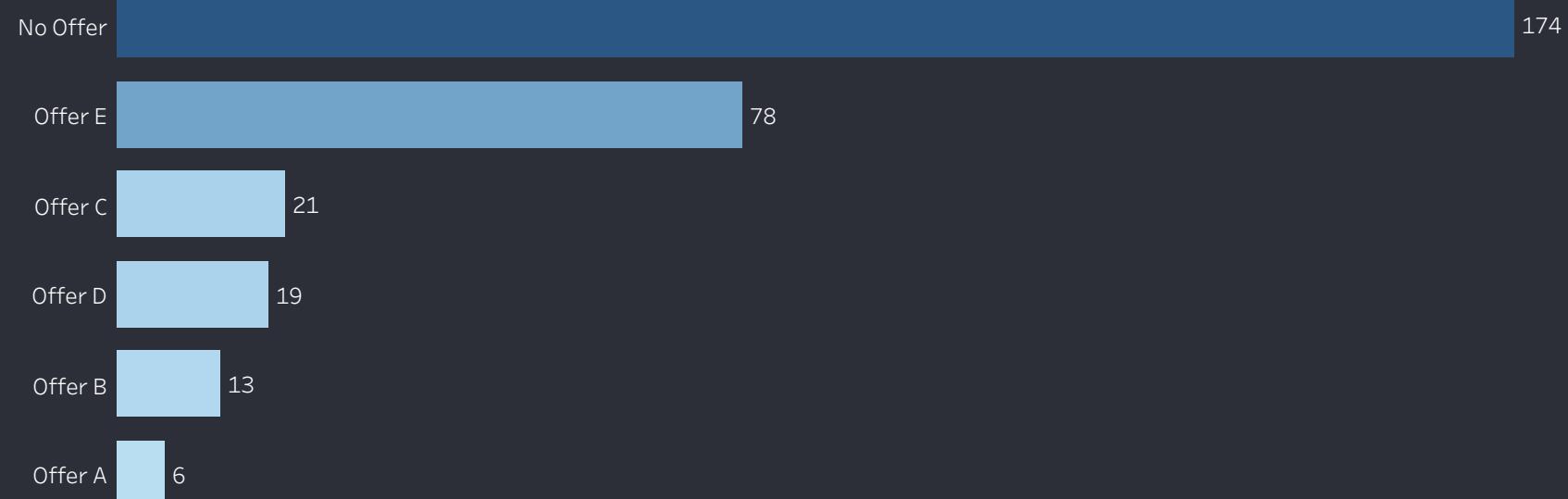
Month-to-Month Contract Popularity: It can be seen that **88.55%** of the churned customers are subscribed to the telecom company on a month-to-month contract, whereas the remaining 8.88% customers are subscribed on one-year contracts (166 customers) and 2.57% are subscribed on two-year contracts (48 customers).

Importance of Flexibility: With month-to-month contracts, it is seen that month-to-month contracts are the main choice for customers so that they are more free to cancel their subscription switch providers if certain expectations of the phone/internet services by the customers offered are not achieved.

Churn Analysis

Churn reason: Competitor made better offer

Churned by Offer

| Offer	Count
No Offer	174
Offer E	78
Offer C	21
Offer D	19
Offer B	13
Offer A	6
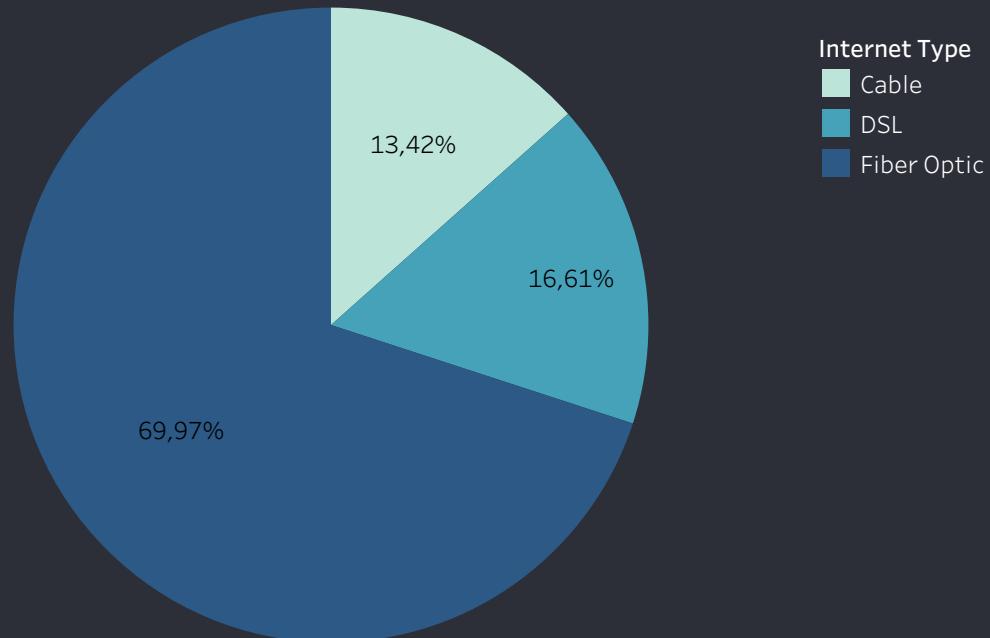
Majority Without Offers: For churned customers who received better offers by competitors, it is found that **56%** of the customers did not subscribe to any existing promotions/offers from the company.

Offer E Ranked Highest in **Churn Rate** across All Offers: For those who did subscribe to offers, 25.1% of the customers of this churn reason subscribed to Offer E, whereas the remaining subscribed to other offers. Therefore, all the offers especially Offer E **should be reviewed** on the features offered so that it appeals to customers and maintain its competitiveness in the telecom market.

Churn Analysis

Churn reason: Competitor had better devices

Internet Type
- Cable
- DSL
- Fiber Optic

13,42%

16,61%

69,97%
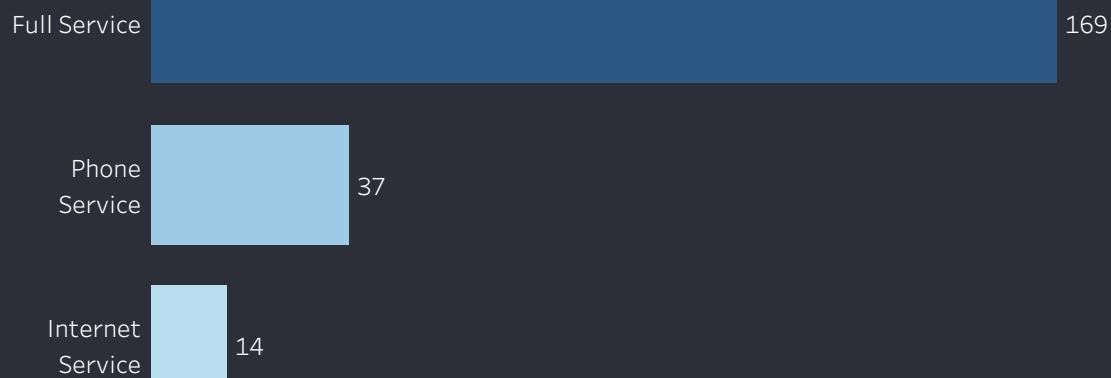
Popularity of Internet Types: From the data observed above, it is seen that **70%** of the churning customers who got offered better devices from competitors use the fastest type of internet, which is the **fiber optic**, whereas the remaining 16.6% subscribes to DSL internet and 13.4% subscribers to cable internet.

Churn Analysis

Churn reason: Attitude of support person

Churned by Service Type

Full Service	169
Phone Service	37
Internet Service	14
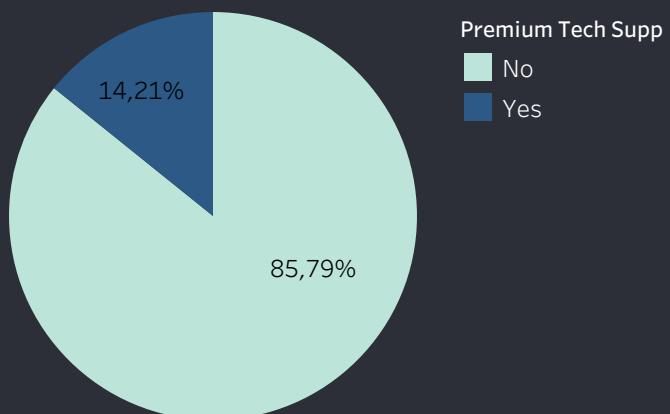
Bad attitude of support staff **not at specific department**: The findings above indicate that the attitude of support staff is not strongly related to only a single department (phone service of internet service department).

Churned by Premium Technical Support

Premium Tech Supp
- No
- Yes

14,21%
85,79%

14.21% of **Premium Tech Support subscribers** churned because of the support staff's attitude, which is **unsatisfactory** given that they paid a premium for this service.

CONCLUSION

Key Revenue Insights

Offer B leads in total revenue.

Married customers generate **63.8%** of revenue.

Top 5 countries: **Los Angeles - San Diego - Sacramento - San Jose - San Francisco**

Churn Customer Insights

Churn is highest among customers with **1–6 months tenure.**

No-offer customers account for **56.2%** of churn.

Offer E leads in churn among offered plans.

Competitive Churn Drivers

Churn Category: **Competition - Dissatisfaction - Attitude - Price**

Top 3 Churn Reason : **Competitor had better devices - Competitor made better offer - Attitude of support person**

ACTIONABLE RECOMMENDATIONS

Offer Benefits Review

Redesign high-churn offers (especially Offer E) to improve customer retention.

Maintain and enhance top-performing offers (Offer B, A) to sustain revenue growth.

Customer Growth & Retention Strategies

Marketing Schemes for Offers to drive customer acquisition and reduce early-stage churn.

Implement reward programs to retain long-term customers and increase customer lifetime value.

Choice of High-Quality Devices Offered

Training Programs for Support Staff