

Non-optimal Use of Tariff Plans of the Virtual Telephony Service

Anastasia Klein

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Main Questions

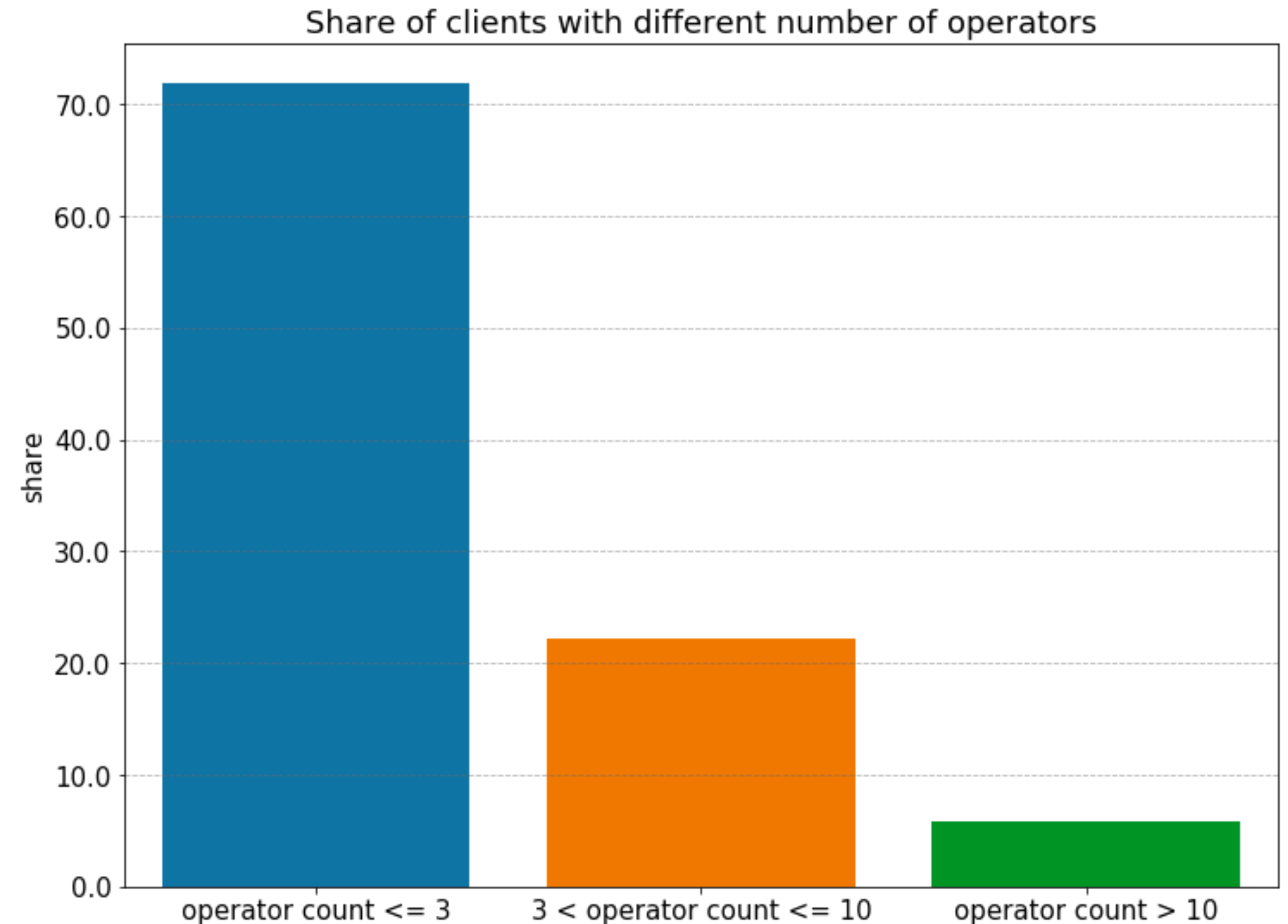
- Determining the optimal tariff plan for each client of the virtual telephony service and find clients with non-optimal plans, estimating their share.
- Calculating the additional revenue from each client using non-optimal tariffs, estimating its share in the total revenue.
- Estimating the reduction in revenue if all users switch to plans that are more beneficial to them

Dataset Description

- There is reports on the use of the virtual telephony service from August 2nd to November 28th, 2019 by operators of 307 clients who registered from August 1st to October 31st, 2019.
- The reports contain data on operators of the clients, what tariff plan they use, how many calls they make, duration of calls, type of calls (internal or not, incoming or outgoing), information about missed calls.
- There are three tariff plans: A, B and C (the first one is the biggest).

The Number of Operator at Clients

- More than 70% clients have no more than 3 operators.
- Only 5% of clients have more than 10 operators.
- A client has 2 operators, on average.
- An average operator makes 35 calls a month and calls for a total of 40 minutes per month.



Some General Findings about Data

- Clients do not have reports every day
- 88% of clients had reports on calls last 30 days
- Almost 30% of clients have only incoming calls that are free of charge
- Only 2.5% of all answered calls are internal, the duration of which is not longer a minute

The Optimal Tariff by Current Calling Plan

- The tariff plan C (the smallest) is optimal for almost all clients.
- The tariff plan B is optimal only for 4 clients.
- The tariff plan A is optimal for only 1 client.
- Almost half of active clients use a non-optimal tariff plan.
- The share of optimal tariff plans for large clients is lower than for other clients. Clients having optimal tariff plans are not large clients.

	Optimal Tariff Plan		
	Plan C	Plan B	Plan A
Current Plan			
C	140	2	0
B	97	1	0
A	27	1	1

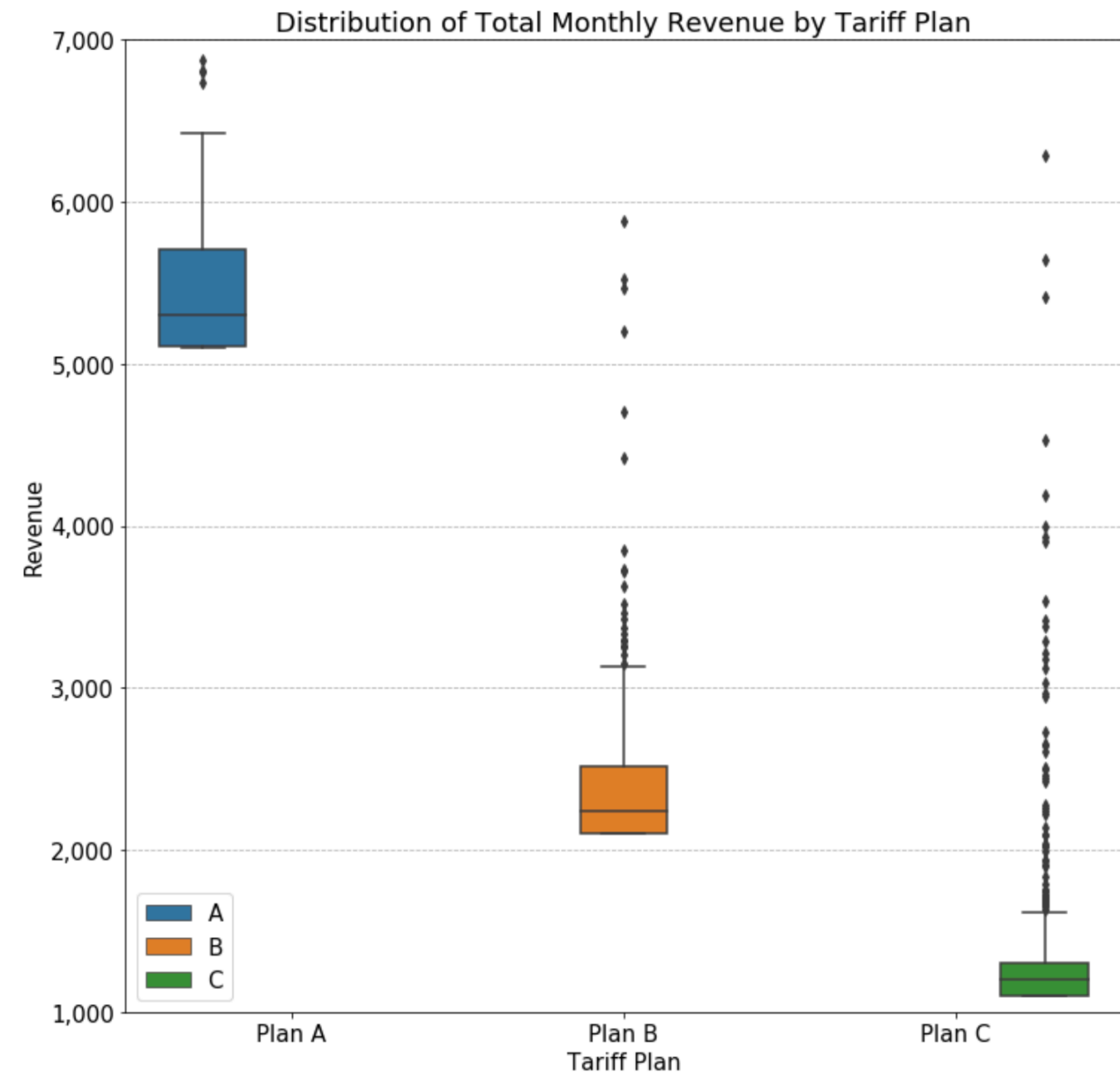
Churn Rate at Optimal and Non-Optimal Tariffs

- Churn rate of clients using optimal and non-optimal calling plans does not differ and is about 12%.

	not active clients	all clients	churn, %
clients using optimal tariff	19	161	11.8
clients using non-optimal tariff	18	145	12.4

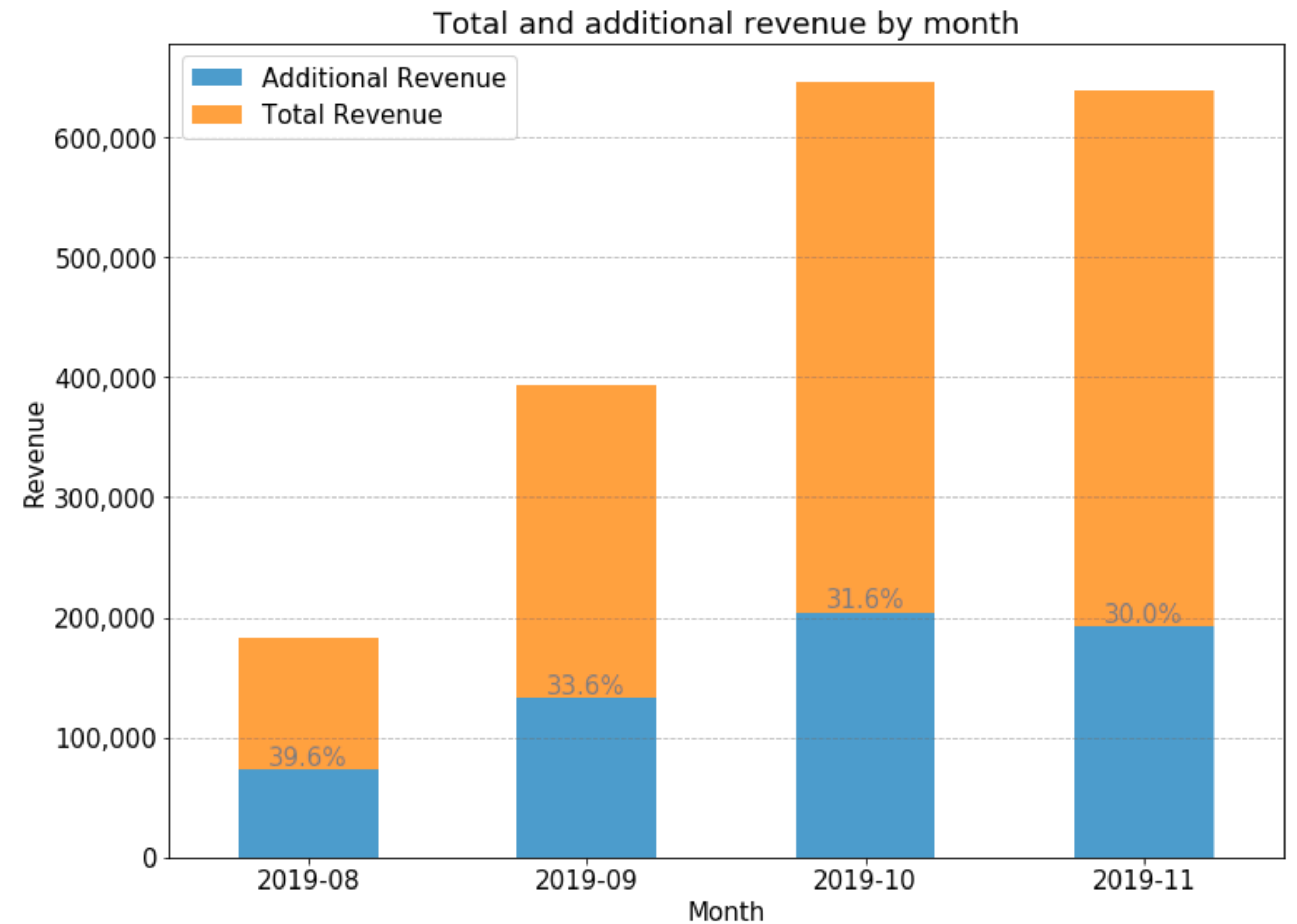
Monthly Revenue from a Client by Tariff Plans

- The monthly fee in each tariff, on average, consists only of the monthly base price of the tariff and the cost of connected operators.
- The average **cost of calls does not differ much in different tariffs** and makes a small contribution to the monthly fee.
- Revenue from a client with tariff A - the highest, with tariff C - the lowest.



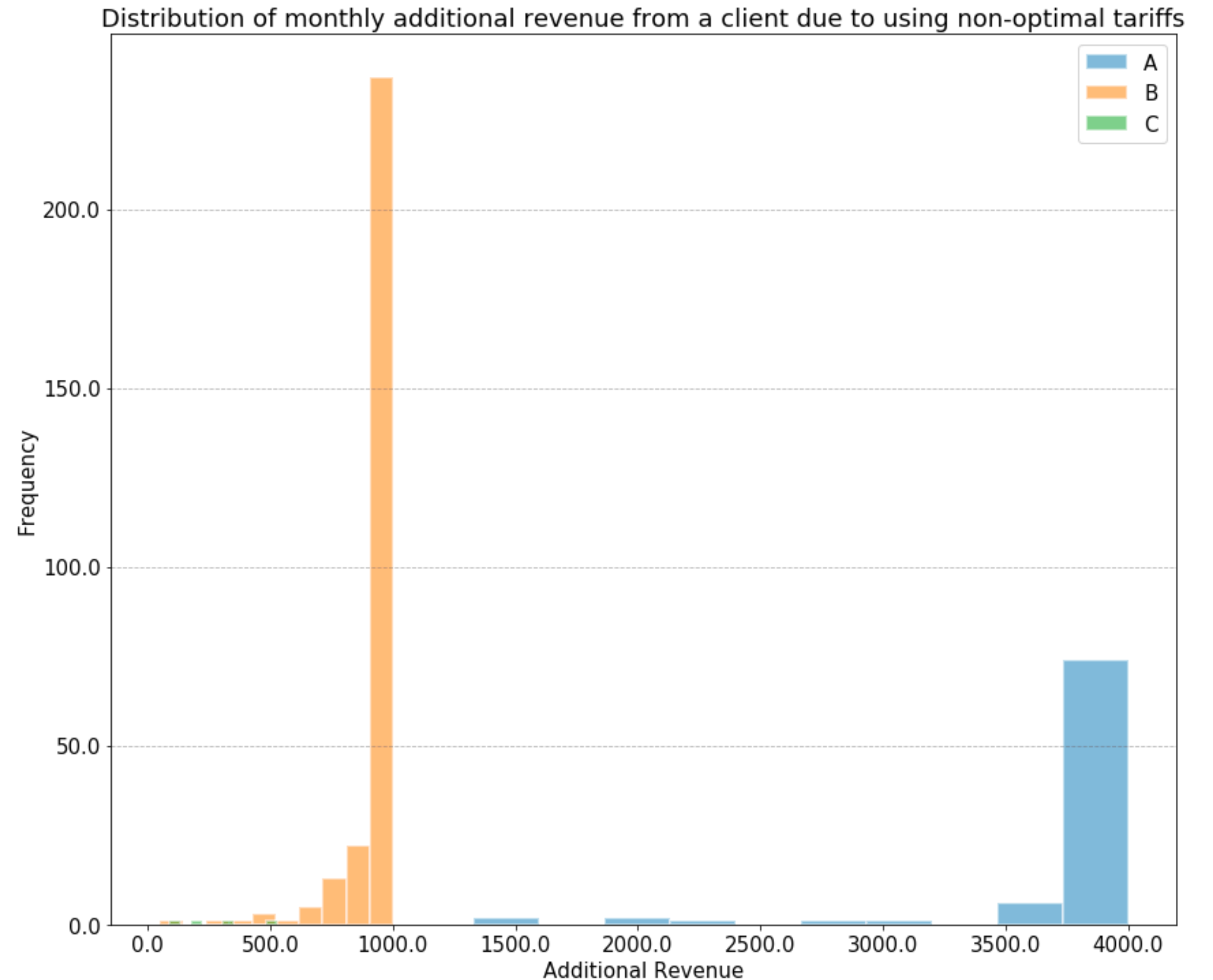
Monthly Total and Additional Revenue from Non-optimal Using Tariffs by Clients

- Average extra revenue from a client using a non-optimal tariff is about **760 units per month**.
- Additional revenue from the use of non-optimal tariffs by clients is about 30% of the total revenue on average.



Monthly Additional Revenue from Non-Optimal Using Tariffs

- Additional revenue from clients using non-optimal tariff plan mainly comes from rates A and B.
- Additional revenue is mainly due to the difference in the base price between tariffs A and B with the minimum tariff C, which is 4000 and 1000 units, respectively.



Recommendations

- 30% of the revenue comes from clients using non-optimal plans, which is pretty high. If all clients switch to the optimal tariff, the revenue will drop sharply. Since this churn is no different for optimal and non-optimal users, we can assume that the risk of that switch is quite low.
- It makes sense to understand why clients have chosen the most expensive plan, so probably the cost is not a factor here, so they are probably ready to pay even more. So I would recommend to think about new plan with even higher base price.
- Churn is 12% - that indicator should be compared with the competitors. Increasing of the loyalty will have an impact on the revenue accordingly.