

Optimizing **Growth** & Improving **Churn**

Examining Month-to-Month Contracts for Combined Service Plans

Telco Data Set

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Presentation Overview

- Visualize current trends in **churn** data at Telco
- Recommendations for month-to-month plans
- **Churn** reduction model / outcomes



*In order to turn **churn** into **growth**!*

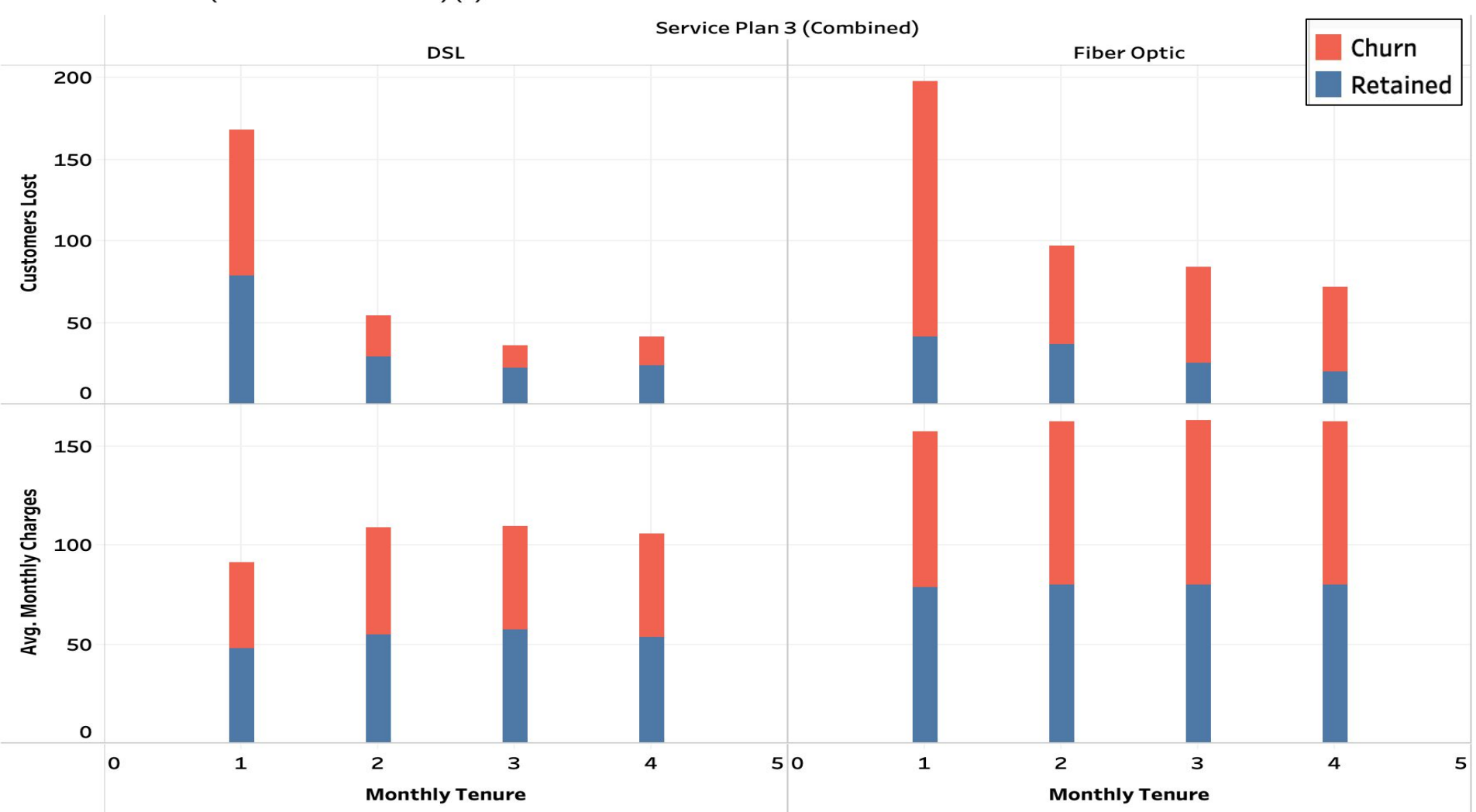
Executive Summary

- **Churn** = roadblock to **growth** (month-to-month)

- *Current model = fixed **growth***

*New model = new potential (**growth** and profit)*

- *Small change* =  churn  growth



General Takeaway

- Internet service *drives* churn
- Cost does *not* appear to be a driver
- **Churn** costs us clients and money!
- How can we decrease **churn** if our product drives **churn**?

Recommendation

Researched best practice: Flat rate pricing model ([Moser et al., 2018](#))

- Reminds customers of product value
- Benefit from flat rate without increasing churn
- Reverses the narrative (we see the problem and we want to help)

\$30.00 Flat Rate DSL Service

- Reduce **churn** in DSL Service
- Incentivise DSL Service over Fiber

Some numbers to consider

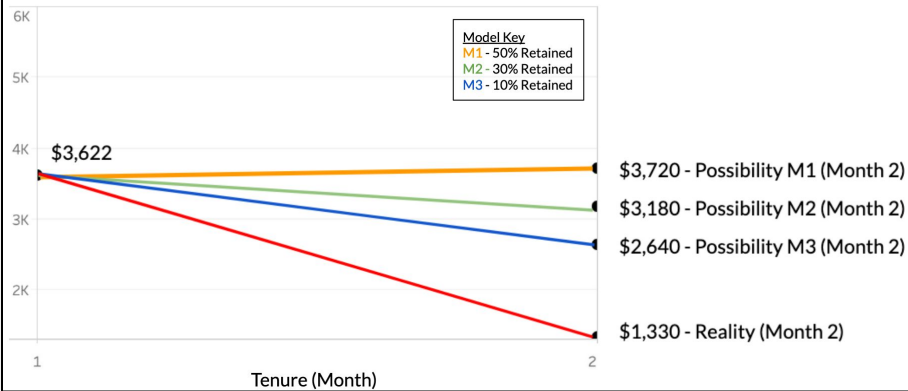
Current Reality DSL				
Month	DSL Monthly Cost	# of Customers Retained	# of Customers Churn	Profit
1	\$45.85	79	89	\$3,622.36
2	\$45.85	29	25	\$1,329.73
			Total Profit	\$4,952.09
Current Reality Fiber				
Month	Fiber Monthly Cost	# of Customers Retained	# of Customers Churn	Profit
1	\$78.65	41	157	\$3,224.58
2	\$78.65	37	60	\$2,909.99
			Total Profit	\$6,134.57

Churn Reduction Model

If historic retention rates were maintained, what would this model predict for 2nd month profit if **50%** of churned customers had been retained, **30%**, **10%**?

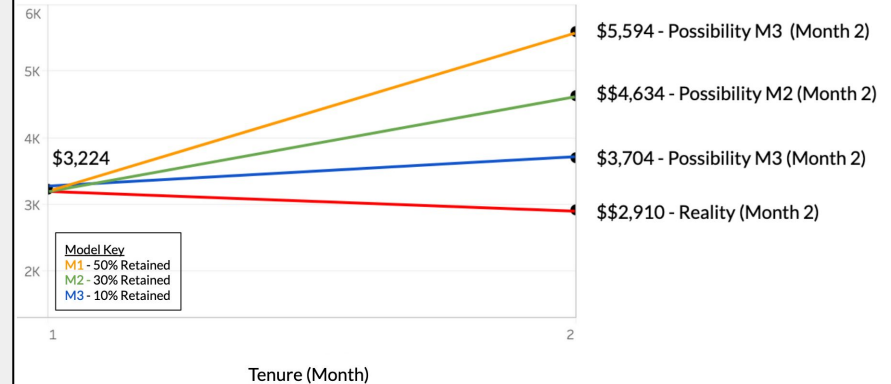
DSL Profit - Reality vs. Possibility

-Which Line do you Prefer?



Fiber Profit - Reality vs. Possibility

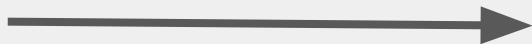
-Which Line do you Prefer?



	Current Reality		Model 1 (50% Retention)		Model 2 (30% Retention)		Model 3 (10% Retention)	
Month	Profit (DSL)	Profit (Fiber)	Profit (DSL)	Profit (Fiber)	Profit (DSL)	Profit (Fiber)	Profit (DSL)	Profit (Fiber)
2	\$1,329.73	\$2,909.99	\$3,720.00	\$5,594.65	\$3,180.00	\$4,634.65	\$2,640.00	\$3,704.65
Combined Profit	\$4,239.72		\$9,314.65		\$7,814.65		\$6,344.65	

Conclusion

Churn



Growth

PROBLEM

*Sub-par internet service driving **churn** (1/3 of new customers lost)*

RECOMMENDATION

*Flat rate pricing model (\$30 DSL Service) to reduce **churn***

MODEL

50% Retention:
2.5 x Current Profit
30% Retention:
2 x Current Profit
10% Retention:
1.5 x Current Profit

OUTCOME



Product Value
Profit Margin
Peace of Mind

Customers are our most important asset!

Literature Cited:

1. Moser, Sabine et al. (2018). **The Effect of a Service Provider's Competitive Market Position on Churn Among Flat-Rate Customers.** *Journal of Service Research*, Volume: 21 issue: 3, page(s): 319-335 .

Appendix: (1a) Model and Model Data

Model Projects Based on Telco Data

Current Projects Based on Telco Data

Current Reality DSL				
Month	DSL Monthly Cost	# of Customers Retained	# of Customers Churn	Profit
1	\$45.85	79	89	\$3,622.36
2	\$45.85	29	25	\$1,329.73
			Total Profit	\$4,952.09
Current Reality Fiber				
Month	Fiber Monthly Cost	# of Customers Retained	# of Customers Churn	Profit
1	\$78.65	41	157	\$3,224.58
2	\$78.65	37	60	\$2,909.99
			Total Profit	\$6,134.57

Recommendation - Reduce DSL Rate to \$30 a Month and Convert 30% of New Customers to DSL				
Month	DSL Monthly Cost	# of Customers Retained	# of Customers Churn	Profit
1	\$45.85	79	89	\$3,622.36
2	\$45.85	29	25	\$1,329.73
2 (Model 1)	\$30.00	124		\$3,720.00
2 (Model 2)	\$30.00	106		\$3,180.00
2 (Model 3)	\$30.00	88		\$2,640.00
		Variable Retention		
		50% Retention Model	79 + 45 (\$30.00)	
		30% Retention Model	79 + 27 (\$30.00)	
		10% Retention Model	79 + 9 (\$30.00)	
Month	Fiber Monthly Cost	# of Customers Retained	# of Customers Churn	Profit
1	\$78.65	41	157	\$3,224.58
2	\$78.65	37	60	\$2,909.99
2 (Model 1)	(\$78.65) + 79 (\$30.00)	79		\$5,594.65
2 (Model 2)	(\$78.65) + 47 (\$30.00)	47		\$4,634.65
2 (Model 3)	(\$78.65) + 16 (\$30.00)	16		\$3,704.65
		Variable Retention		
		50% Retention Model	41 (\$78.65) + 79 (\$30.00)	
		30% Retention Model	41 (\$78.65) + 47 (\$30.00)	
		10% Retention Model	41 (\$78.65) + 16 (\$30.00)	

Project Profit per Model

Month	Current Reality		Model 1 (50% Retention)		Model 2 (30% Retention)		Model 3 (10% Retention)	
	Profit (DSL)	Profit (Fiber)	Profit (DSL)	Profit (Fiber)	Profit (DSL)	Profit (Fiber)	Profit (DSL)	Profit (Fiber)
2	\$1,329.73	\$2,909.99	\$3,720.00	\$5,594.65	\$3,180.00	\$4,634.65	\$2,640.00	\$3,704.65
Combined Profit	\$4,239.72		\$9,314.65		\$7,814.65		\$6,344.65	

Appendix: 1b

monthly_tenure	1					
contract_details	Month-to-Month					
product_key	2					
Column Labels						
Row Labels	No	Yes		Total Count of customer_id		Total Average of monthly_charges
	Count of customer_id	montnt of custome	Average of monthly_charges			
DSL	14	35	20	41.055	34	38.71470588
Fiber Optic	4	76	18	76.86388889	22	76.70227273
Grand Total	18	44	38	58.01710526	56	53.63839286
monthly_tenure	1					
contract_details	Month-to-Month					
product_key	3					
Column Labels						
Row Labels	No	Yes		Total Count of customer_id		Total Average of monthly_charges
	Count of customer_id	montnt of custome	Average of monthly_charges			
DSL	79	48	89	43.50786517	168	45.71309524
Fiber Optic	41	79	157	78.2955414	198	78.44166667
Grand Total	120	59	246	65.7097561	366	63.41871585