

Group Assignment 3: Final Research Report

1. Executive Summary:

This report focuses on addressing the high customer churn rate among university students at Mint Mobile by evaluating factors such as monthly budget, contract length, and customer service.

1a. Key findings:

Monthly Budget: Analysis of surveys and interviews of Mint Mobile's university student customers revealed that the requirement of making a \$15/month payment for all 12 months upfront creates concerns. This payment structure may deter university students who may not have the financial capacity to commit to a lump sum payment at a specific time, leading to customer dissatisfaction and increased churn likelihood.

Contract Length: Longer contract lengths are associated with higher churn rates, while university students prefer shorter contract durations due to their changing needs and academic schedules.

Customer Service/Technical Support: Mint Mobile's customer surveys and interviews of university student customers revealed dissatisfaction expressed regarding the quality of customer service and technical support, leading to a higher likelihood of churn.

1b. Recommended actions and next steps:

Flexible Payment Options: Introduce postpaid plans or alternative payment schedules to address concerns about upfront payments for the 12-month contract, particularly for university students with limited monthly budgets.

Shorter Contract Durations: Adapt the contract length options to cater to the preferences of university students, who prefer shorter durations. Offer competing prices for 3-month or month-to-month plans to reduce churn within this customer segment.

Targeted Promotional Offers: Create promotional offers specifically tailored to university students, such as student discounts or exclusive packages. This will attract and retain university students as customers by providing incentives that align with their needs and preferences.

By implementing these recommended actions, Mint Mobile can effectively reduce customer churn among university students, enhance the overall customer experience, and maintain a competitive edge in the telecom industry.

2. Introduction:

2a. Problem Statement

Mint Mobile experiences high customer churn rates among university students, affecting its revenue and competitive position in the telecom industry.

2b. Research Objectives

- To assess the impact of factors that influence customer churn the most, as determined by analyzing the Kaggle dataset
- To further analyze different factors contributing to customer churn and provide remedies and recommendations to Mint Mobile for improving customer retention and enhancing customer experience

2c. Background

Mint Mobile, a low-cost cellular service provider operating in the United States, has seen an alarming increase in customer churn rates among university students. This growing concern is impacting not only Mint Mobile's revenue but also its standing within the fiercely competitive telecom industry.

The telecom industry has a reputation for its high churn rates due to a variety of factors such as cost, quality of service, customer service, availability of better plans or offers from competitors, and technological advancements

Given the recent upsurge in the churn rate among university students, a critical demographic due to their heavy reliance on mobile services, it's clear that Mint Mobile needs to understand the root causes behind this trend and work on effective countermeasures.

This demographic group represents a significant portion of Mint Mobile's customer base and their high churn rate can severely impact the company's bottom line. University students' needs and usage patterns for mobile services might be different from other demographic groups, owing to their academic, social, and personal requirements. Therefore, the factors leading to their decision to switch might also be unique and need to be explored.

The Kaggle dataset sourced from IBM, provides an opportunity to better understand the reasons behind churn. The exploration of this dataset, in the context of Mint Mobile's current problem, can provide invaluable insights into the most impactful factors behind customer churn.

Given the above considerations, our research aims to investigate the factors contributing to high customer churn rates among university students and propose actionable recommendations to Mint Mobile for improving customer retention.

3. Methods:

3a. Observation Methods and Data Collection Procedure:

1) **Secondary data source:**

Using the dataset sourced from IBM, we performed exploratory data analysis to generate a correlation graph and understand what features are highly correlated to customer churn.

2) **Focused research group:**

We conducted a focused group discussion with 3-4 students to gain insights into their preferences regarding telecom service providers. We aimed to understand which providers were popular among students, any providers they disliked, and the features they valued. By comparing these findings with the features identified in the IBM dataset, we concluded that monthly budget, contract length, and tech support were common and essential from a student's perspective.

3) **Quantitative data:**

To further our research, we conducted surveys of university students based on those three features. On gathering the data from the three categories of customers: current users, past users, and never used Mint mobile before, we analyzed the results to identify trends and patterns.

4) **Qualitative data:**

Post the survey, we conducted eight interviews with students from all three categories. We wanted to gather additional information about people's experiences with Mint Mobile and their perspective of the company and its services in order to make effective recommendations and remedies. We created a deductive codebook based on the themes and emotions we identified from the interviews and the initially conducted focus group research interviews.

5) **Visualization and Analysis:**

We built visualizations based on the survey results to assist in our analysis and presentation. Based on those, we came up with a pricing solution and some recommendations related to the brand image that we feel could benefit Mint Mobile.

3b. Sampling Procedure and Selection of Subjects:

For our focused group, we used a sample set of international university students and we employed random sampling and chose random candidates from the IMT 570 class.

For our survey, we targeted university students from all universities in the US, both international and U.S. citizens, and all levels of education (undergraduate, graduate, and Ph.D.). We considered students from three categories: Never used Mint mobile before, Current Mint mobile users, and Past Mint mobile users.

The sampling method we used for interviews was random sampling as every student of the IMT 570 class or any other class or program had an equal opportunity to become a participant.

3c. Validity and Reliability:

Our secondary data source was an IBM dataset so we feel it is quite reliable. The correlation matrix that we created using the dataset also made sense so we did not feel the need to question its validity at any point.

It is not catering to only university students of the US which is why we did not rely heavily on the dataset and simply used it to understand the important features and demographics that affected customer churn.

3d. Ethical Considerations:

Survey Participant Privacy

We did not prompt for any sort of personal information like name, identification number, gender, or pronouns in the survey. The survey results are available only to us and will be deleted at the end of this project. Also, the interviews were conducted and recorded with consent and all recordings and transcripts will be deleted at the end of the project.

Biases

Since the participants of the survey were mostly students from the University of Washington as compared to those from other universities, there may be potential biases. Our group consists of South Asians which can also introduce bias in our analysis. For focused groups and interviews, the majority of students were from IMT 570 due to which the sampling was not completely random.

4. Findings and Analysis:

Beginning with the evaluation of an IBM telecom provider dataset, we created the below correlation matrix.

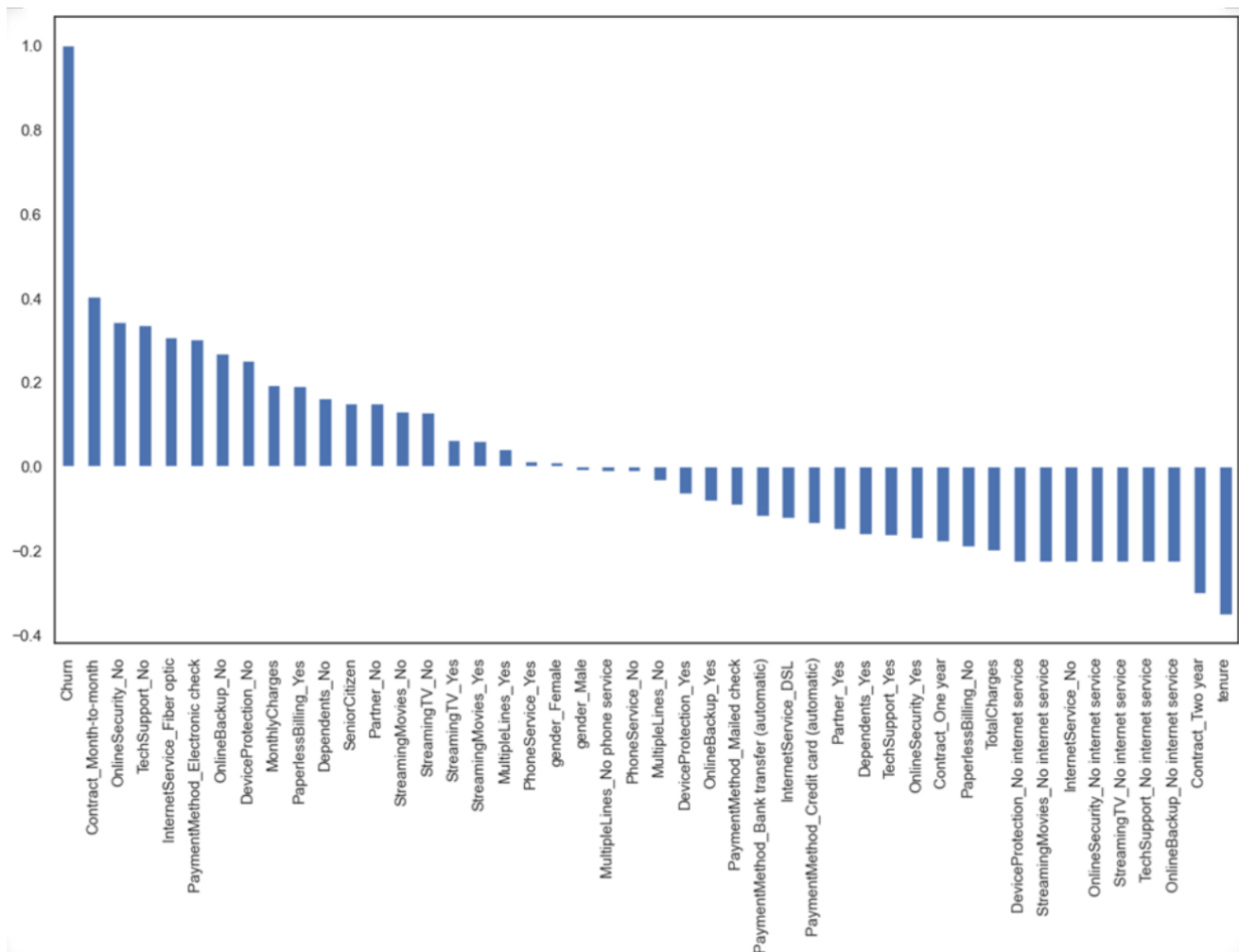


Figure 1

This dataset was used as a springboard for determining the important variables that needed to be investigated and verified using source data. As seen in the figure above, some of the important features that show the highest correlation to the dependent variable churn are Monthly Budget, Online security, Internet Service fiber optic, streaming services, Contract Length, and Technical Support.

From the results derived from the focus group interviews, we found that university students don't care about online security, fiber optics, or accessibility to streaming services. Moving forward the features we explored to provide Mint Mobile with recommendations to reduce churn are:

1. Monthly Budget
2. Tech Support
3. Contract Length

The insights drawn from the survey that we conducted are displayed below along with plots as shown in Figures 2 and 3.

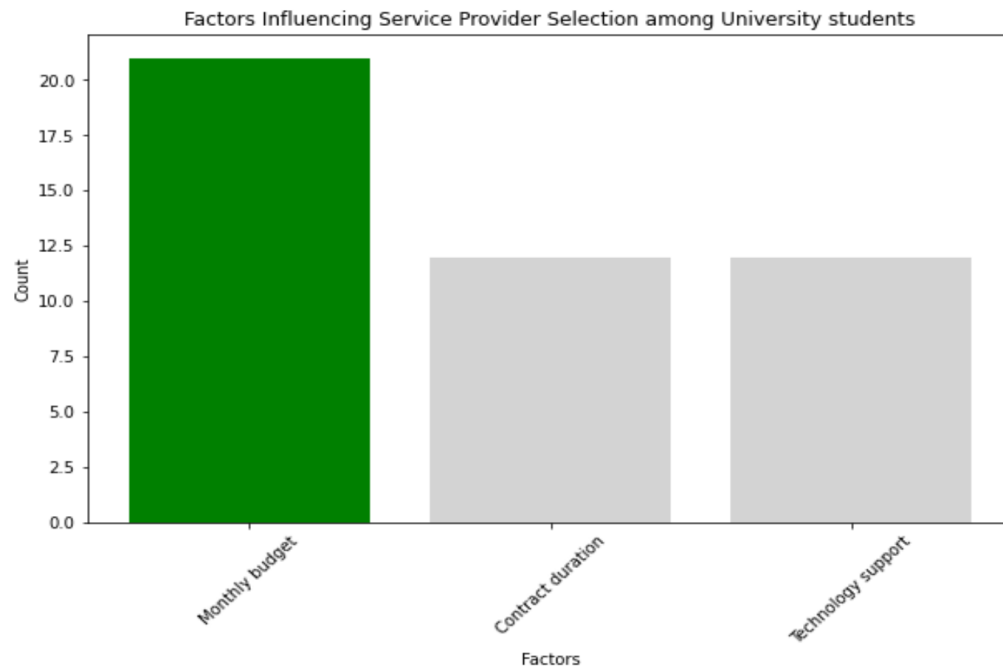


Figure 2

Figure 2 displays a bar plot highlighting the importance of the "Monthly Budget" factor. The survey data revealed that the most significant factor for university students in selecting a service provider was the "**Monthly Budget**." This finding underscores the importance of affordability to students, as they often face financial constraints. Interestingly, factors such as contract duration and technical support had relatively less influence on university students' decision-making process.

The analysis of Figure 3 and 4 below aimed to identify students' preferences regarding contract length.

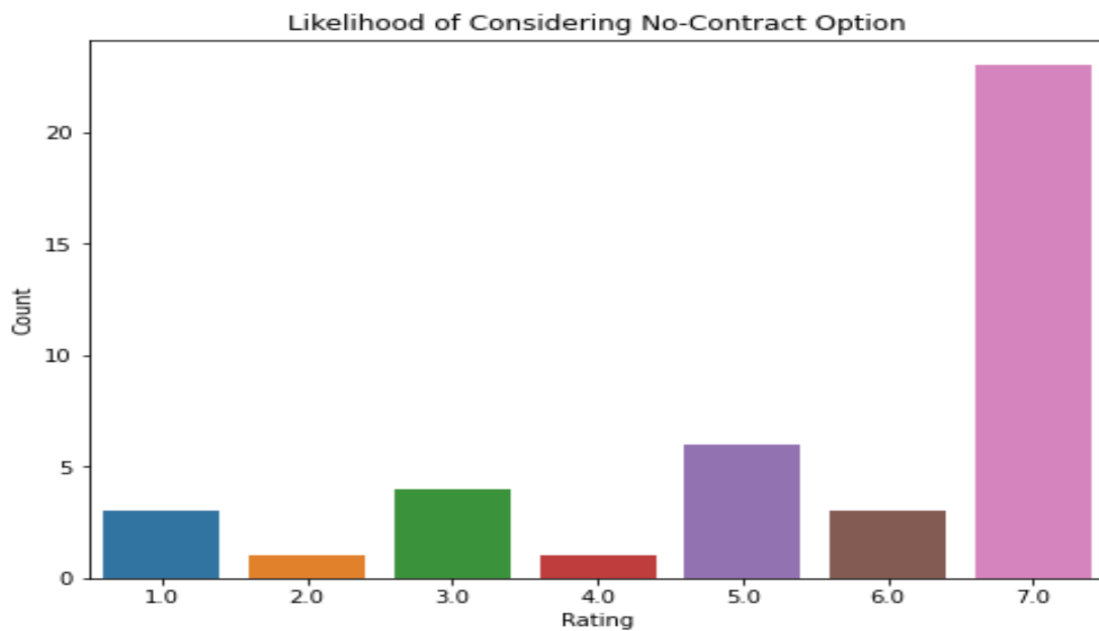


Figure 3

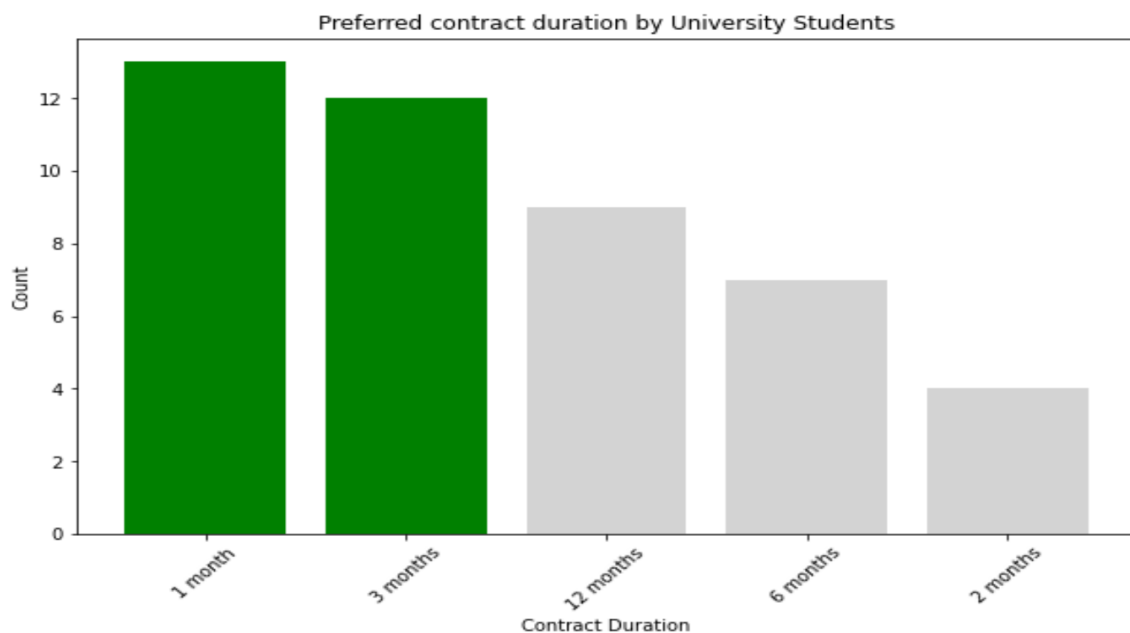


Figure 4

Figure 3 shows that maximum students prefer a no contract option meaning, they do not want to pay a huge amount of money upfront. Mint mobile only offers prepaid plans with upfront payment for the entire contract duration. There is also no refund policy in case a customer decides to leave mid-way.

In Figure 4, the analysis of contract length preferences among university students revealed a preference for shorter contract durations, such as 1 month and 3 months. This finding indicates that students value flexibility in their service plans, potentially due to changing needs and circumstances during their academic journey. Mint Mobile can leverage this insight by offering contract options that align with the flexibility requirements of university students.

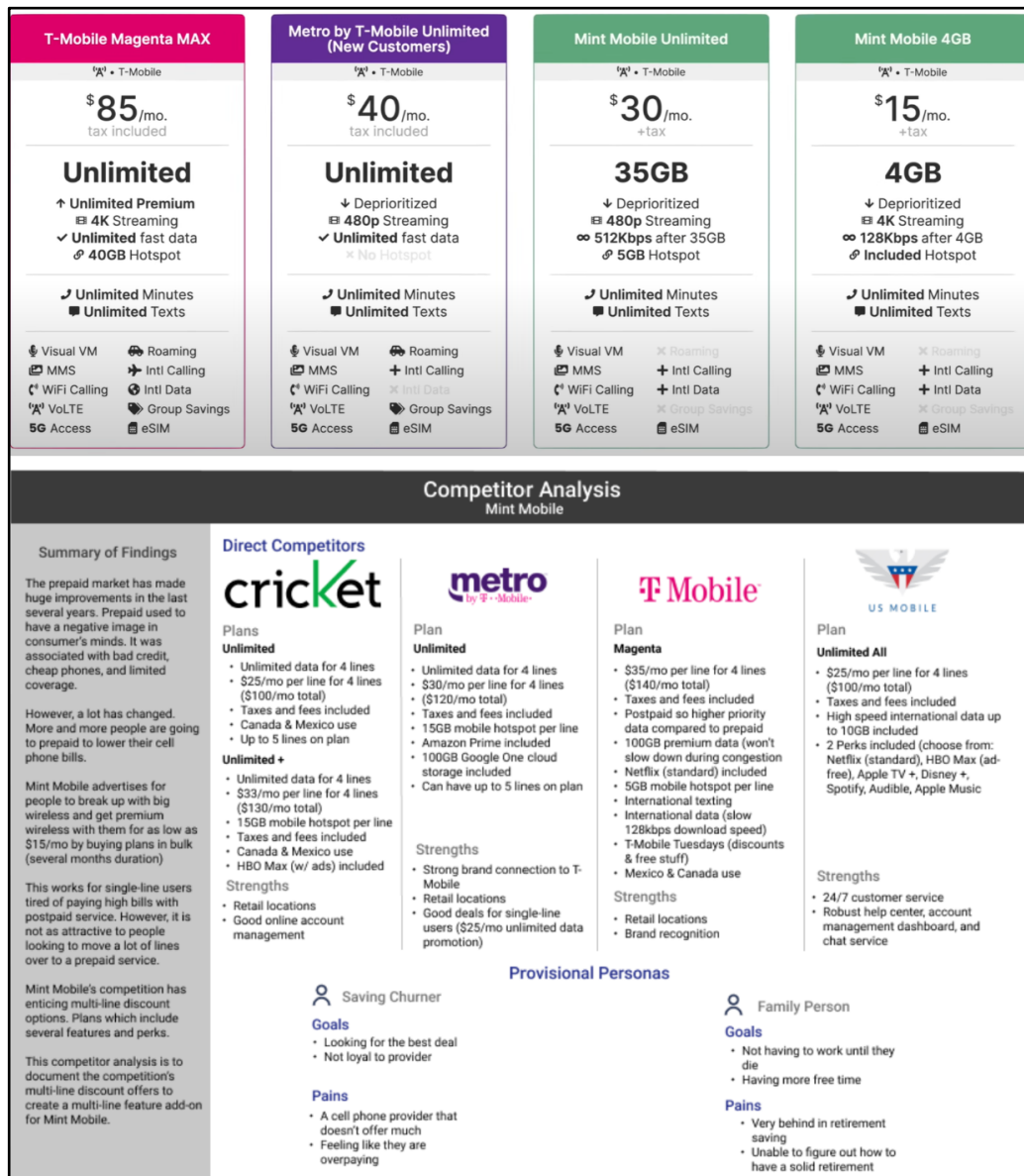


Figure 5

Source: <https://colinjashby.com/mintmobile/>

From the above images, we see that Mint Mobile's prices range on the lower side and offer better services when compared to the industry standard, which is their USP.

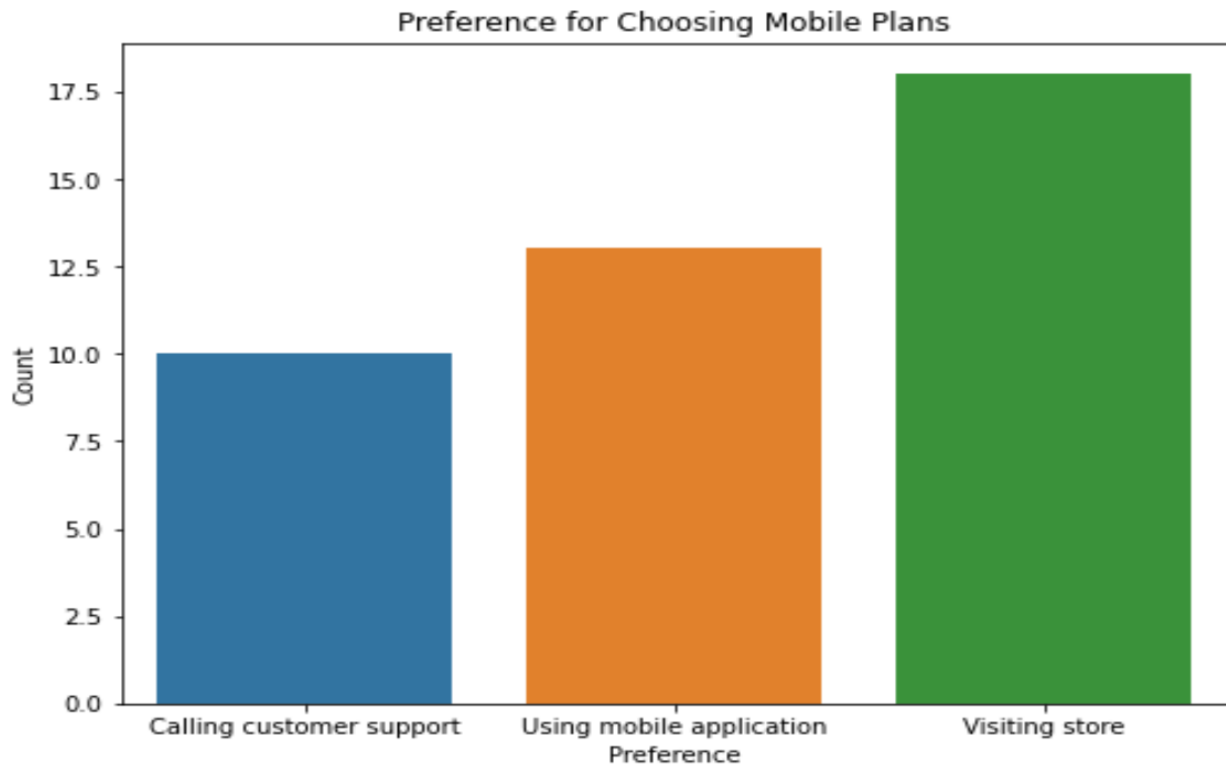


Figure 6

Figure 6 provides valuable insights into the key requirements of university students when selecting a telecom service provider. The data indicates that students prioritize having physical stores available for issue resolution, favoring the ability to interact face-to-face rather than relying solely on remote support options like phone or app-based assistance. This finding is particularly significant for Mint Mobile, as the company lacks physical store presence. By not having easily accessible stores, Mint Mobile may be missing out on potential customers who value the convenience and personal touch of in-person support. To address this issue and improve customer retention among university students, Mint Mobile should consider expanding its store network, strategically locating stores near universities to provide convenient access to their target audience.

Now analyzing survey data specifically targeted towards ex-Mint Mobile users. This gives us valuable insights into specific reasons that contribute to customers leaving Mint.

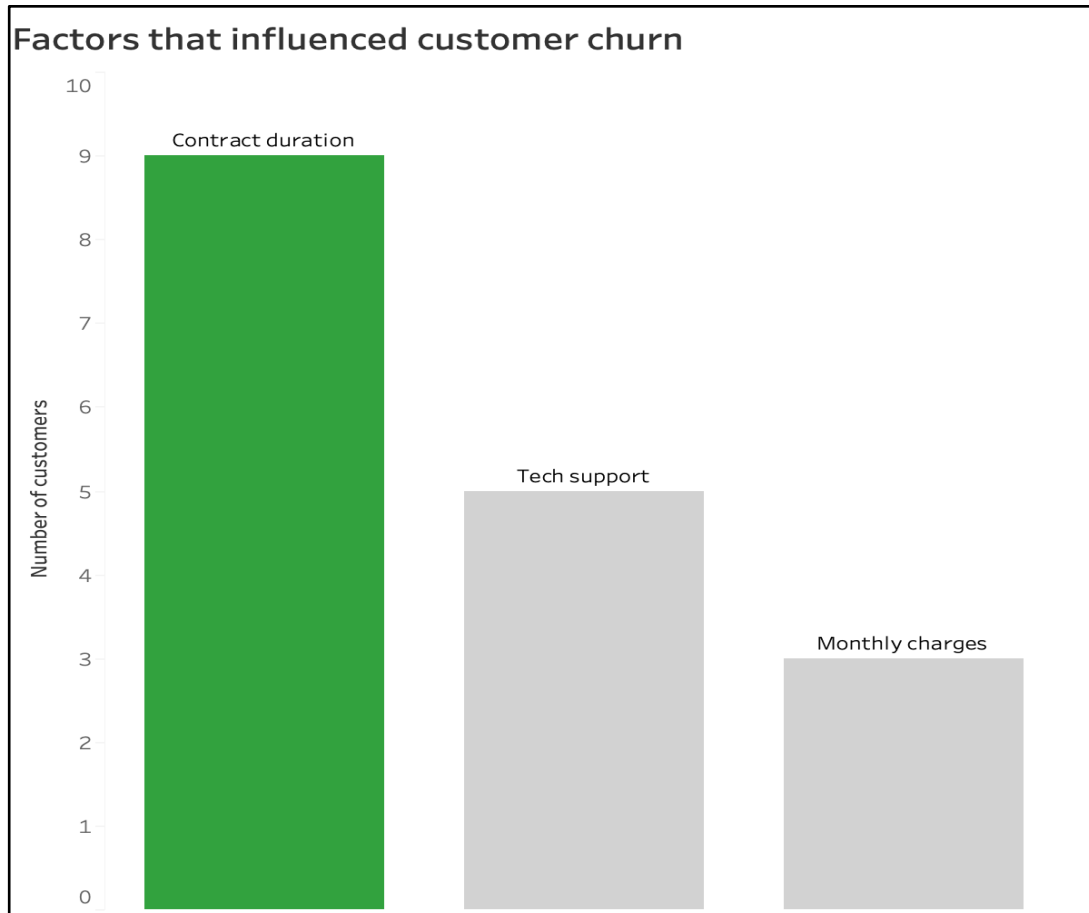


Figure 7

Figure 7 highlights the contract duration as the primary driver of customer attrition for Mint Mobile. This finding is supported by Figure 3, which demonstrates university students' preference for month-to-month or shorter plans rather than 12-month contracts. The correlation between these figures indicates that the extended contract duration offered by Mint Mobile significantly contributes to customer churn. To address this issue and improve customer retention, Mint Mobile should introduce more flexible and shorter-term plan options. Similar findings and recommendations were offered by ex-Mint users in the qualitative analysis performed. *(Refer to the Appendix to see the deductive codebook on ex-Mint users)*

5. Impact, Strengths/Limitations & Recommendations

5a. Recommendations

Our research indicates that the main factor causing customers to leave Mint Mobile is the current pricing strategy. This strategy relies heavily on bundled pricing and extended contract periods, compelling customers to commit to long-term contracts for lower monthly rates. This structure is particularly unattractive to segments such as college students who prioritize flexibility and cost-effectiveness.

We recommend that Mint Mobile devise a strategic pricing model that prioritizes affordability over a multitude of options. By underscoring reasonable pricing, Mint Mobile can attract cost-conscious customers who desire affordable, flexible mobile services. Offering prepaid plans with attractive pricing options could cater to customers' needs for financial control and adaptability, fostering greater satisfaction and loyalty. This customer-centric approach could potentially reverse the customer churn trend and improve Mint Mobile's market positioning.

We also propose that Mint Mobile introduce a \$15/month postpaid rate, presenting an enticing entry-level option for budget-conscious customers. This rate supports Mint Mobile's image as a consumer-friendly, reasonably priced provider. Further, we recommend a one-time assurance fee starting at \$30, varying based on the chosen plan, incentivizing sign-ups for Mint Mobile. This fee contributes to a free seventh month of service. Importantly, to enhance flexibility, customers switching carriers before their contract ends should be eligible for a prorated refund, thus aligning with their changing needs and preferences.

To gain customers' trust, it is essential to communicate the pricing structure clearly and openly, including the monthly fees, one-time assurance fees, and terms related to the plans. To make sure that their charges are still reasonable and competitive, Mint Mobile should constantly evaluate feedback from customers, market trends, and competitor pricing.

Month	Fees	Rates
First month	One-time assurance fee	\$30 (one time)
	Monthly charges	\$15/month
Second month onwards	Monthly charges	\$15/month

Through this thoughtful pricing strategy offering flexible options and reasonable rates, Mint Mobile can attract and retain customers. Offering both prepaid and postpaid plans cater to varied preferences, while the assurance charge rewards commitment. To maintain competitiveness and lower churn, Mint Mobile should regularly reevaluate and fine-tune its strategy.

5b. Strengths & Limitations

Strengths

The proposed strategy for Mint Mobile balances competitive rates with customer flexibility, targeting price-conscious consumers in the fierce telecom market. This approach could enhance Mint Mobile's appeal, reduce churn, and solidify its reputation as a customer-centric, progressive provider. A key strength of this recommendation lies in its emphasis on competitive pricing, as cost and flexibility increasingly drive customer decisions. By offering competitively priced, flexible solutions, Mint Mobile could successfully engage customers seeking affordable and adaptable mobile services.

Limitations

Our recommended pricing strategy for Mint Mobile has potential benefits but also faces challenges. The unpredictable market and customer reactions necessitate close monitoring for effective adjustments. We need to carefully balance affordability with profitability, considering the fluctuating economic landscape. The new pricing structure could potentially perplex customers, underscoring the need for clear communication about fees and policies. With the time value of money and unpredictable customer tenure, our strategy may require consistent updates to maintain profitability. Regular feedback analysis and adjustments are crucial in navigating these uncertainties and reducing customer churn, ultimately optimizing Mint Mobile's market positioning.

5c. Impact

Users:

Enhanced Flexibility: Strategic pricing, including prepaid plans and reasonable monthly rates, caters to users' desires for adaptable spending and budgeting.

Budget-Friendly Options: A \$15/month postpaid rate offers cost-effective entry-level choices for budget-conscious users.

Empowerment: A one-time assurance fee with clear communication of terms ensures users feel secure and unburdened by long-term commitment.

Mint Mobile:

Customer Retention: The flexible and affordable pricing strategy can attract and retain customers by offering perks for commitment without tying them down.

Competitive Advantage: Regular evaluation and adjustment of pricing based on feedback and market trends ensure Mint Mobile's sustained competitiveness.

Improved Brand Perception: Prioritizing customer-friendly choices enhances Mint Mobile's reputation, contributing to customer loyalty.

6. References & Citations

- Telco Customer Churn. (n.d.). Telco Customer Churn | Kaggle. <https://datasets/blastchar/telco-customer-churn>
- Mint Mobile website <https://www.mintmobile.com/>
- *Mint Mobile (Case Study) – Colin J Ashby.* (n.d.). Mint Mobile (Case Study) – Colin J Ashby. <https://colinjashby.com/mintmobile/>

Appendix

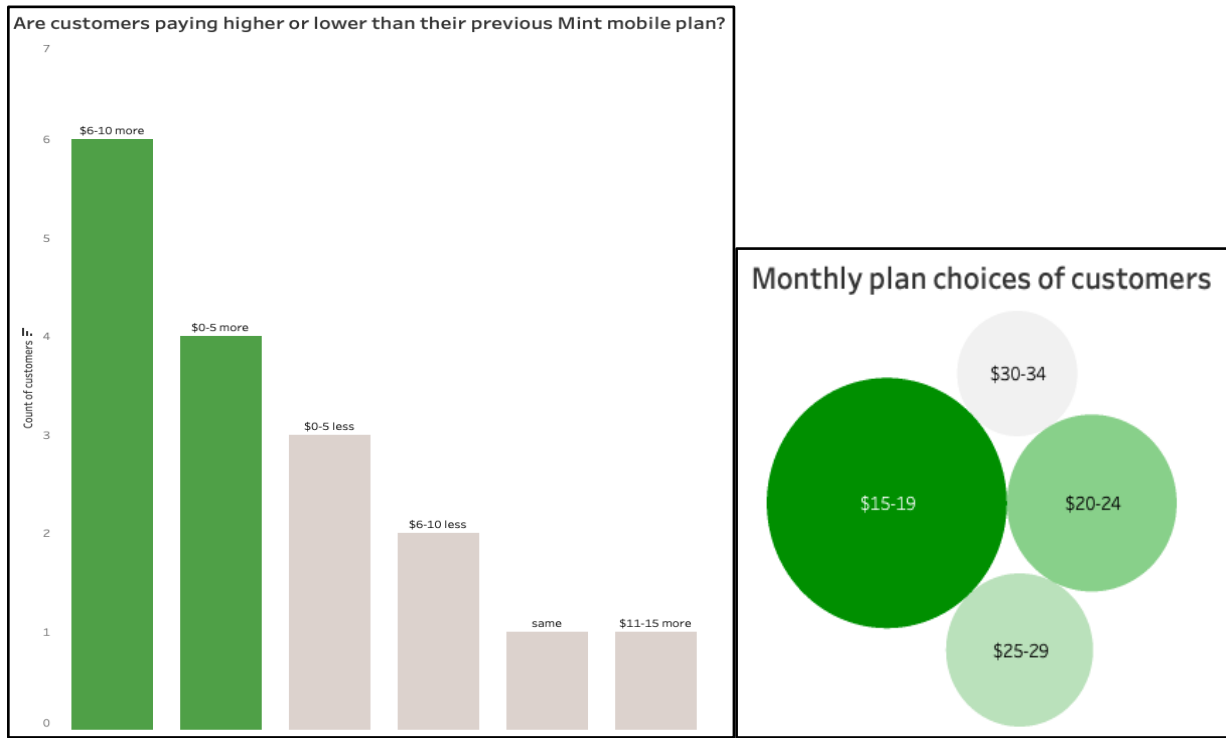


Figure 8

The bar graph in Figure 8 represents how much more or less the customers, who switched from Mint Mobile, are paying monthly to their mobile service provider.

Table 1: Deductive Codebook from Interviews conducted with Ex-Mint Mobile users.

Theme	Code	Description	Questions Asked
Frustration	Signal and Coverage Issues	Frustration and dissatisfaction with signal and coverage problems	"Whenever I was in subways or I was taking the link rail, the signals went missing."

Disappointment	Customer Service	Disappointment with poor customer service and unhelpful support	<i>"I was in the call for two, three hours, and they were not able to help me in any way."</i>
Inconvenience	Plan Flexibility	Inconvenience and dissatisfaction with the lack of flexibility in changing plans and options	<i>"I could not change the plan, or if I pay more, I could buy more data, but that doesn't make any sense."</i>
Dissatisfaction	Features and Options	Perception of Mint Mobile lacking essential features and options	<i>"I could not change the plan, or if I pay more, I could buy more data, but that doesn't make any sense."</i>
Frustration	Lack of Nearby Stores	Frustration with the absence of physical stores nearby and difficulty accessing customer support	<i>"I had to go very far to find a store, and it was not anywhere near where I live."</i>
Contentment	Satisfied with current plan	Contentment with the features and value offered by the current service provider	<i>"My current service provider offers services like Netflix, unlimited calling, unlimited internet, and it's a good deal."</i>
Appreciation	Budget-friendly plans	Appreciation for affordable plans and the ability to manage monthly budget	<i>"Having the plan not be too expensive would be a good thing."</i>

Preference	Reliable service quality	Preference for reliable and high-quality service over cheap offerings	<i>"They can provide quality over quantity, and that is what attracts customers the most."</i>
Desire	Improved tech support	Desire for improved technical support services and faster issue resolution	<i>"They should have good services, and the customers can also go to their stores and have their issues resolved."</i>

Table 2: Deductive Codebook from Interviews conducted with other service provider users who have never used Mint Mobile

Theme	Code	Description	Questions Asked
Awareness	Mint Mobile Awareness	Participant's awareness of Mint Mobile as a mobile service provider	<i>"Aware of Mint Mobile services through friends"</i>
Frustration	Concerns about patchy connectivity	Participant's concerns or reservations about Mint Mobile	<i>"Friends with Mint Mobile service experience patchy connectivity very often especially in link rails and subways"</i>

Brand Impression	Impressed with brand value of Mint Mobile	Good impression of Mint Mobile's brand after watching the commercial	<i>"Has a great band impression with trusted faces in the commercial"</i>
Reputation	Mint Mobile Reputation	Participant's perception of Mint Mobile's reputation in the market	<i>"I am impressed by the branding commercial because of the big personality and trusted face of Ryan Reynold"</i>
Dissatisfaction	Preference for Family Plans	Consideration of selecting other service providers due to inflexible pricing plans	<i>"Having unlimited data and flexibility in choosing contract plans is the preference"</i>
Utilization	Utilization of Available Services	Participant's actual utilization of available mobile services	<i>"I don't check my utilization very often, I am content with the data and connectivity the current service provider offers"</i>
Satisfied	Customer Service Experience	Participant's never experienced customer service and network quality issues	<i>"Great network quality and coverage in the current service provider"</i>

Reluctance	Hesitance in switching service providers	Participant's efforts and hesitancy towards switching providers	<i>"Convenience in continuing the usage of familiar mobile service provider as I do not prefer switching often"</i>
-------------------	--	---	---

Table 3: Deductive Codebook from Interviews Conducted with Current Mint Mobile Users

Theme	Code	Description	Questions Asked
Decision-making	Cost-effectiveness	Decision to choose Mint Mobile based on its low-cost plans	<i>"And what stood out for me is that, you know, I would say the cost it was less expensive compared to the other providers..."</i>
Connectivity	Connectivity issues in non-metropolitan areas	Experiencing connectivity issues in certain areas	<i>"The reason for getting a point is that you know, the connectivity is great in metropolitan areas or cities, but travel to some distance places... there's low data speed at those places."</i>

Contract Duration	Preference for shorter contracts	The desire for shorter contract terms	<i>"Um, I would definitely choose a shorter contract given that they're offering the same price..."</i>
Usability	Ease of use of Mint Mobile App	Positive feedback about the usability of the Mint Mobile app compared to T-Mobile's.	<i>"Their application is very intuitive and easy to visualize things in comparison to T Mobile."</i>
Pricing	Understanding of pricing structure	The interviewee's understanding of Mint Mobile's pricing structure.	<i>"I realized that, you know, the longer your period is, the less you have to pay per month."</i>
Utilization	Utilization of Available Services	Participant's actual utilization of available mobile services	<i>"I don't check my utilization very often, I am content with the data and connectivity the current service provider offers"</i>
Future Intent	Renewal and loyalty	The interviewee's intent to renew and remain loyal to Mint Mobile.	<i>"Yes, I would definitely renew it for maybe at least a year. Whatever the cheapest option is that gets me the most benefits."</i>

Referral	Likelihood to recommend Mint Mobile	The interviewee's likelihood to recommend Mint Mobile to others	<i>"Oh, I always try to recommend my friends. I think on a scale of 1 to 10 I would recommend just okay. Yeah, if time is the highest, then I would think I would be like seven or eight, honestly, maybe eight or nine."</i>
-----------------	-------------------------------------	---	---

Recommended Pricing Plan Calculation:

Plan Type: 5GB/month - \$15/month

Month	Assurance Fee + Monthly charges	Total amount	Refundable amount
1 month	\$45	$\$25 * 1 = \25	\$20
2 months	\$60	$\$25 * 2 = \50	\$10
3 months	\$75	$\$25 * 3 = \75	\$0
4 months	\$90	$\$20 * 4 = \80	\$10
5 months	\$105	$\$20 * 5 = \100	\$5
6 months	\$120	$\$20 * 6 = \120	\$0
7 months (Free)	\$120	$\\$15 * 7 = \\105	\$15
8 months	\$135	$\$15 * 8 = \120	\$15
9 months	\$150	$\$15 * 9 = \135	\$15
10 months	\$165	$\$15 * 10 = \150	\$15
11 months	\$180	$\$15 * 11 = \165	\$15
12 months	\$195	$\$15 * 12 = \180	\$15