

Subscription Churn at BioTRUST Nutrition
Copley, M (2024)

Reducing Subscription Churn at BioTRUST Nutrition:

Exploring Reasons, Best Practices and Solutions

By

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Executive Summary

Partner Organization

Wellbeam Consumer Health is a leading e-commerce entity renowned for its commitment to consumer wellness. It hosts a portfolio of successful brands, each specializing in distinct areas of wellness. This capstone project focuses on BioTRUST Nutrition, a prominent supplement brand under the Wellbeam portfolio. BioTRUST specializes in producing food supplements that provide health and medical benefits, reflecting its mission to empower consumers to achieve their wellness goals.

BioTRUST consumers are dedicated to maintaining active lifestyles and prioritizing high-quality nutritional solutions. Many of them opt for monthly subscriptions to meet their ongoing supplement needs. The Senior Vice-President and e-commerce marketers at BioTRUST Nutrition are critical stakeholders in this project, aiming to sustain current revenue streams and attract new customers to their online subscription program.

Problem of Practice

Wellbeam Consumer Health's subsidiary, BioTrust, experienced a notable decline in net revenue, dropping by 13% in 2023 compared to the previous year's success. This decline is particularly concerning given the brand's heavy reliance on direct-to-consumer (DTC) sales, which contribute to 90% of its revenue, with minimal contributions from Amazon and retail channels.

Between April 1, 2022, and April 31, 2023, BioTrust saw a significant decrease of 19% in active subscriptions, resulting in a revenue churn of \$0.6 million. This decline impacts the customer lifetime value (LTV) and the return on investment in customer acquisition costs. Additionally, there is an 11% delay in subscription renewals, contributing to a total revenue loss of nearly \$1 million. With a loss of 9% in monthly subscriptions and only a 5% increase in new customers, the company faces a negative monthly deficit.

Project Questions

The BioTrust E-commerce team seeks to investigate the factors driving subscription sign-ups and cancellations to devise tailored strategies for improving customer retention. With this problem of practice in mind, this project aims to address these challenges by addressing four project questions:

1. What are BioTRUST's voluntary and involuntary churn rates?
2. What factors drive BioTRUST customers' interest in monthly subscriptions?
3. What factors contribute to customer cancellations of monthly subscriptions?
4. What are the desired features customers look for in subscription offers?

Data Collection Methods

The data collection process included utilizing internal reporting, conducting customer surveys, and organizing an internal focus group involving BioTRUST leaders.

Specifically, BioTRUST's involuntary churn rates were determined by extracting data from the company's subscription management system, Recharge, to identify cancellation rates.

Additionally, declined data codes from the payment processor were analyzed to understand the reasons behind credit card declines.

A survey was conducted to explore the underlying factors contributing to customer retention and acquisition within BioTRUST subscriptions and pinpoint desired features. Between April 22 and April 23, the survey was distributed to 44,000 customers, including active and canceled subscriptions. Two thousand three hundred eighty-nine participants responded, providing valuable insights into customer preferences and behaviors.

Furthermore, a focus group was organized with BioTRUST's experienced professionals to explore the consumer journey in signing up, canceling, or modifying a subscription. This approach aimed to provide a comprehensive understanding of BioTRUST's subscription dynamics and consumer behavior, facilitating informed decision-making for the organization.

FINDINGS BY PROJECT QUESTIONS

Project Question 1: What are BioTRUST's voluntary and involuntary churn rates?

BioTRUST's monthly voluntary churn rate was 7.0%, exceeding the e-commerce sector's typical rate of 6%. Notably, a significant drop in subscription revenue occurs between the third and fourth months, with 75% of cancellations initiated through self-service options. Regarding involuntary churn rates, BioTRUST averages 2.0% per month, slightly higher than the industry standard of 1.4%. Of credit card declines, 35% are primarily due to issues like 'declined – caller issuer' and insufficient funds, which contribute to involuntary churn.

Project Question #2: What factors drive BioTRUST customers' interest in monthly subscriptions?

The analysis findings shed light on the primary motivations driving customers to enroll in monthly subscriptions with BioTRUST, highlighting the importance of high-quality products, complimentary shipping, and convenience. Specifically,

- 19% of surveyed subscribers cited product quality as their primary reason for subscribing.
- 18% of customers enrolled in subscriptions primarily for complimentary shipping.
- 15% of respondents cited convenience as their motivation for subscribing.
- BioTRUST offers free shipping as part of its subscription model.
- 80% of marketing initiatives include free shipping promotions, posing a challenge in distinguishing subscription benefits from one-time purchases.
- BioTRUST prioritizes subscription orders for prompt processing to ensure timely deliveries aligned with customer preferences.

Project Question #3: What factors contribute to customer cancellations of monthly subscriptions?

The customer survey provided invaluable insights into the factors driving cancellations of monthly subscriptions with BioTRUST.

- 37% of subscription cancellations are due to customers' need to reduce expenses amid economic challenges.
- 26% of survey respondents canceled subscriptions because they had excess products.

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- 28% of customers accrued surplus products due to non-compliance with recommended usage.
- 19% of consumers canceled subscriptions to take advantage of better offers within the company.
- 93% of customers who canceled subscriptions made multiple orders utilizing discounts higher than the standard subscription discount.

Project Question #4: What are the desired features customers look for in subscription offers?

The desired features customers look for in a subscription offers are:

- Complimentary shipping: 23.4%
- Ease of cancellation and modifications: 19.8%
- Locked-in pricing: 14.4%
- Loyalty points and discounts: 11%

Notable areas of opportunity include:

- User frustration with password resets in the "My Account" portal: 20%
- Higher discounts during site-wide sales compared to subscription discounts leading to cancellations.

Recommendations

In line with BioTRUST's project goals and objectives, the recommendations are structured to achieve three primary aims: improving voluntary and involuntary churn rates and acquiring new subscription customers.

Recommendation #1: Develop unique pricing plans to enhance the affordability of the subscription offer.

A proposed solution to tackle the issue of BioTRUST's Subscribe and Save program's lower discount is to elevate the subscription discount to 40%.

Recommendation #2: Create Product Information Channels

I propose implementing two key strategies to address product accumulation resulting from customers' adherence to usage instructions.

Recommendation 1:

- Develop informative videos outlining product benefits and usage recommendations.
- Feature these videos prominently on BioTRUST's product pages for easy customer access.

Recommendation 2:

- Incorporate QR codes on product packaging to provide instant access to digital resources.

Recommendation #3: Exclude monthly subscribers from site-wide sale emails.

Discrepancies in pricing can significantly impact customer churn, underscoring the critical role of pricing in subscription dynamics. To mitigate this issue, I propose for BioTRUST to:

- Implement a targeted strategy to reduce voluntary churn by exempting Subscribe and Save (S&S) customers from receiving site-wide sale emails.
- Segregate monthly subscribers from the general mailing list and create a specialized list offering exclusive monthly offers for S&S customers.
- By adopting this focused strategy, BioTRUST aims to prevent S&S customers from being tempted by deeply discounted promotions, which may lead to impulse purchases and product accumulation.

Recommendation #4: Alert Customers when their Credit Cards Decline

To address the challenge of credit card declines, it is recommended that BioTRUST implement the following:

- Implement automated email reminders promptly on the first day a credit card declines.
- Personalize reminders and provide clear explanations and step-by-step instructions for updating credit card details.

- Implement an auto-dialing campaign to address payment issues. This can be accomplished by uploading customer phone numbers and setting up automated recordings to inform customers of declined credit cards.
- Offer incentives to encourage customers to take action to update their credit card details.

Recommendation #5: Initiate a Passwordless Login System

To address the 20% of customers encountering difficulties with the password recovery system, BioTRUST can implement a passwordless login system, allowing customers to access their accounts without remembering passwords or contacting customer support for assistance.

Recommendation #6: Introduce a Loyalty program featuring a "Refer a Friend" model

I recommend that BioTRUST implement a loyalty program to align with evolving consumer preferences and industry norms by utilizing ReCharge's new loyalty program, which is available through its Affinity portal.

Recommendation #7: Market the Subscription model as a Trial

To alleviate concerns regarding the trustworthiness of subscription services, particularly regarding issues like hidden fees and cancellation challenges, BioTRUST can introduce a trial program featuring a significant discount for first-time subscribers. By offering deeper discounts,

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such as 44% off the first subscription and 40% off subsequent ones, BioTRUST aims to entice hesitant consumers to try its subscription service with reduced risk.

Recommendation #8: Implement a Net Promoter Survey

To mitigate the loss of subscription revenue within the third month of enrollment, BioTRUST should introduce a Net Promoter Score survey for every new subscription customer at the outset of their second month.

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Definition of Terms

Voluntary Churn refers to the percentage of customers who actively and willingly choose to cancel or unsubscribe from a service or subscription within a specified period.

Involuntary Churn pertains to the percentage of customers inadvertently lost due to expired credit cards or closed payment accounts.

Time to Home denotes the duration or period it takes for an order to reach its intended destination. This metric gauges the time elapsed from the point of order placement to when the package is delivered.

Customer Satisfaction signifies the degree of contentment, fulfillment, and positive sentiment experienced by customers as a consequence of their interactions, experiences, and transactions with a product, service, or company.

Customer Loyalty signifies the sustained allegiance, commitment, and preference that customers exhibit toward a particular brand, product, or company. It signifies the extent to which customers consistently engage with and make purchases from a specific business rather than seeking alternatives in the market.

Net Promoter Score is a metric to assess customer loyalty and contentment by gauging the likelihood of customers recommending a company's products or services to others (Glossary, 2023.)

Customer Effort Score is a metric to evaluate the ease and convenience of a customer's interactions with a company's products, services, or support channels. It centers on how straightforward or challenging it is for customers to attain their objectives or resolve issues.

Postponement is the act of customers opting to temporarily delay the delivery of products or services encompassed in their subscription plan for a designated duration. This feature allows customers to pause their regular subscription cadence without terminating it entirely.

Product Detail Page (PDP) is a digital presentation offering comprehensive information about a specific product available for purchase. It furnishes potential customers with detailed specifications, features, images, pricing, availability, and other pertinent information.

Lander, short for landing page, signifies an autonomous webpage designed and optimized with a specific goal, such as lead capture, product promotion, or encouraging specific actions from visitors. It differs from comprehensive websites, focusing on achieving a particular conversion objective.

Types of Payment Processing Failures encompass various scenarios where payment transactions encounter obstacles, leading to unsuccessful processing.

Monthly Recurring Revenue refers to the consistent and predictable income generated by a subscription-based business model from its customers every month. It represents the sum of subscription fees, charges, or payments that customers make regularly as part of their ongoing subscriptions.

Customer Lifetime Value is a metric that quantifies the total value a customer generates for a business over the entire duration of their engagement with the company. It considers the revenue generated from the customer's purchases, subscriptions, or interactions and associated costs such as marketing, customer support, and operational expenses.

Average Order Value is a metric that calculates the average amount of money customers spend on each transaction when purchasing a business (wpWax, 2023). It is determined by dividing the total revenue generated from all orders by the total number of orders (ProductPedia, 2023). AOV

offers insights into customer spending behaviors and is a valuable indicator of the efficacy of sales and marketing strategies.

Organizational Context

Partner Organization

The partner organization, Wellbeam Consumer Health, is a prominent e-commerce company recognized for its strong focus on consumer wellness. It is known for providing a diverse range of valuable products to enhance individuals' overall well-being. American Pacific Group, a highly regarded private equity firm recognized for its strategic partnerships, funds Wellbeam Consumer Health. Within the Wellbeam portfolio, multiple successful brands can be found, each specializing in distinct areas of consumer wellness. For instance, Eu Natural offers nutritional supplements enriched with essential vitamins and minerals, while Penetrex has established itself as a trusted source of joint and muscle relief and recovery solutions. TruSkin, another notable brand under the Wellbeam umbrella, offers a diverse array of top-quality skincare products harnessing the power of natural plant-based ingredients. Lastly, BioTrust, a well-regarded nutritional supplement company, distinguishes itself by providing a comprehensive range of products designed to address various facets of health, encompassing weight management, fitness, digestion, and overall well-being.

BioTRUST's products can be purchased online through their official website, BioTRUST.com, Amazon, and Walmart. Additionally, consumers can find them in brick-and-mortar stores such as Walgreens and CVS, making them easily accessible to a broad audience.

In alignment with its mission statement to "facilitate the advancement of prominent online heritage brands, employing exceptional capabilities to empower consumers in their pursuit

of wellness objectives," BioTRUST addresses the diverse needs and preferences of a broad consumer population dedicated to enhancing and maintaining their overall well-being.

BioTRUST customers are individuals who value high-quality products, are willing to invest in premium ingredients, prioritize their well-being, actively seek nutritional solutions, and often consider themselves fitness enthusiasts. Because of their active lifestyle, these customers frequently depend on monthly subscriptions to meet their supplement needs.

Organizational Context and Structure

Wellbeam Consumer Health has a well-defined organizational structure comprising an executive team led by critical leadership positions such as the Chief Executive Officer (CEO) and Chief Financial Officer (CFO). In addition, the corporation is divided into several departments, each performing a specific duty essential to running the business and overseen by vice presidents. These departments include brand management, supply chain, e-commerce, customer service, retail sales, information technology, and research and development. At Wellbeam, all four companies within the organization benefit from the contributions of 88 employees, while specific individuals focus their efforts on working within a particular brand. This division of labor facilitates efficient coordination and specialization, ensuring optimal functioning across various aspects of Wellbeam's operations.

Organizational Stakeholders

The Senior Vice-President and e-commerce marketers at BioTRUST Nutrition are pivotal stakeholders in this project. They need assistance preserving their current revenue and attracting new customers to their online subscription program to generate income.

The project will offer actionable recommendations to improve the company's subscription-based services and strengthen customer loyalty by analyzing and addressing factors

contributing to customer churn. This project aims to tackle BioTRUST's voluntary and involuntary churn rates while acquiring new subscription customers.

Area of Inquiry

Problem Statement

Wellbeam Consumer Health experienced significant profitability through its subsidiary BioTrust, which generated a net revenue of 49 million dollars in 2022. However, in 2023, the brand encountered a 13% decline in net revenue, indicating a challenging period for BioTrust. The brand's revenue comes from three channels: Amazon, retail stores, and direct-to-consumer sales. The revenue distribution depicts a notable breakdown among various sales channels. Amazon sales play a role by contributing 9.1% to the overall income, while sales from retail stores exhibit a more modest presence, representing merely 0.45%. (DTC) Direct-to-consumer sales account for a significant 90% of the dominant share. The direct-to-consumer (DTC) framework includes a distinct revenue avenue from monthly subscription services.

From April 1, 2022, to April 31, 2023, BioTrust witnessed a 19% decline in active subscriptions (total of .6 million in revenue churn), directly affecting the customer lifetime value (LTV) and the return on investment in customer acquisition costs. The figure must account for the 11% of consumers who pause their subscriptions, resulting in a total decrease in revenue generation of nearly one million dollars. In addition, The BioTRUST E-commerce team confronts a significant challenge marked by a disparity between the 5.43% average rate of new customer subscriptions and the higher 7.93% average rate of subscription cancellations. With a substantial gap between new customer subscriptions and cancellations, there is a critical need to formulate and execute targeted strategies to strengthen customer retention.

This imbalance underscores the urgency for comprehensively examining the factors motivating subscriptions and the root causes of cancellations. The BioTRUST E-commerce team is looking for a thorough examination of the drivers that prompt customers to initiate subscription sign-ups while delving into the factors contributing to subscription cancellations. Together with these efforts, they are deeply committed to acquiring valuable insights for crafting tailored strategies and tactics to enhance customer retention.

Project Questions

This project seeks to address these challenges by addressing four project questions:

- 1) What are BioTRUST's voluntary and involuntary churn rates?
- 2) What factors drive BioTRUST customers' interest in monthly subscriptions?
- 3) What factors contribute to customer cancellations of monthly subscriptions?
- 4) What are the desired features customers look for in subscription offers?

Churn directly impacts revenue, as customer cancellations result in recurring revenue loss. This understanding aids in revenue forecasting, budget planning, and growth goal setting. Moreover, reducing churn is often more cost-effective than acquiring new customers. By grasping why customers leave (churn reasons), BioTRUST can devise strategies to enhance customer retention, ensuring a stable and loyal customer base.

Investigating the motivating factors behind customer interest in subscribing is crucial because it allows the team to identify what attracts customers in the first place. The team can use this knowledge to refine marketing strategies and product offerings, ultimately boosting the number of new subscribers.

Examining the factors contributing to subscription cancellations is essential for pinpointing areas of improvement. This information can help the team reduce churn by addressing specific pain points or issues that lead customers to cancel their subscriptions.

Understanding what features customers desire in subscription offers is invaluable for tailoring subscription packages to meet customer expectations. It ensures that the BioTRUST team is offering the right incentives and benefits, thus enhancing the attractiveness of their subscription services.

Capstone Purpose and Significance

This capstone project is essential as it aims to investigate the factors associated with BioTRUST's subscription churn, formulate innovative retention strategies, and comprehensively understand customers' experience with BioTRUST's subscription model. As a result, the organization can augment its cash flow, minimize market expenditures, and ensure long-term sustainability by addressing this critical issue. Additionally, this research contributes to the broader field of consumer behavior and e-commerce by providing insights into factors influencing customer churn and retention in the context of a wellness-focused e-commerce company like BioTRUST Nutrition.

Literature Review

Introduction

This literature review analyzes the diverse dimensions contributing to customer churn in the context of subscription services. It seeks to reveal the underlying motivations driving customers' choices to subscribe while evaluating the attributes and benefits customers prioritize when committing to a subscription program. Furthermore, this review delves into the historical progression of subscription models, the categorization and significance of subscription metrics,

the demographic characteristics of subscription customers, and, ultimately, the theoretical underpinning provided by the Theory of Reasoned Action (TRA).

Subscription Based Model

A subscription-based model is an e-commerce strategy that enables a company to cultivate a steady stream of revenue by offering customers the option to subscribe to regular product deliveries on a weekly, monthly, or yearly basis, often at preferential rates. This model allows companies to foster enduring consumer relationships alongside a consistent and reliable income stream.

Chen et al. (2018) describe three main types of subscriptions: replenishment, curation, and access, as represented in Figure 1.

Figure 1: Types of Subscription Models

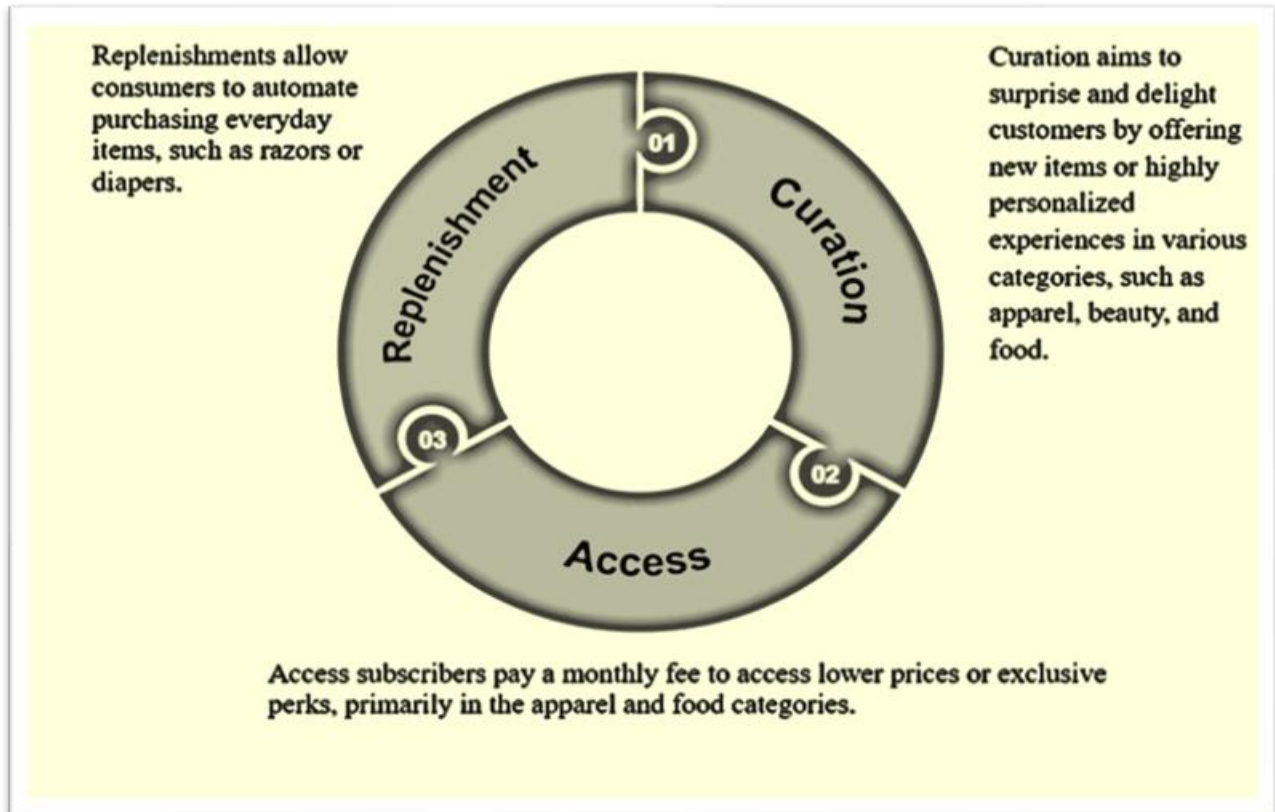


Figure 1. Types of Subscription Models. (Created from the work of Chen et al. (2018).

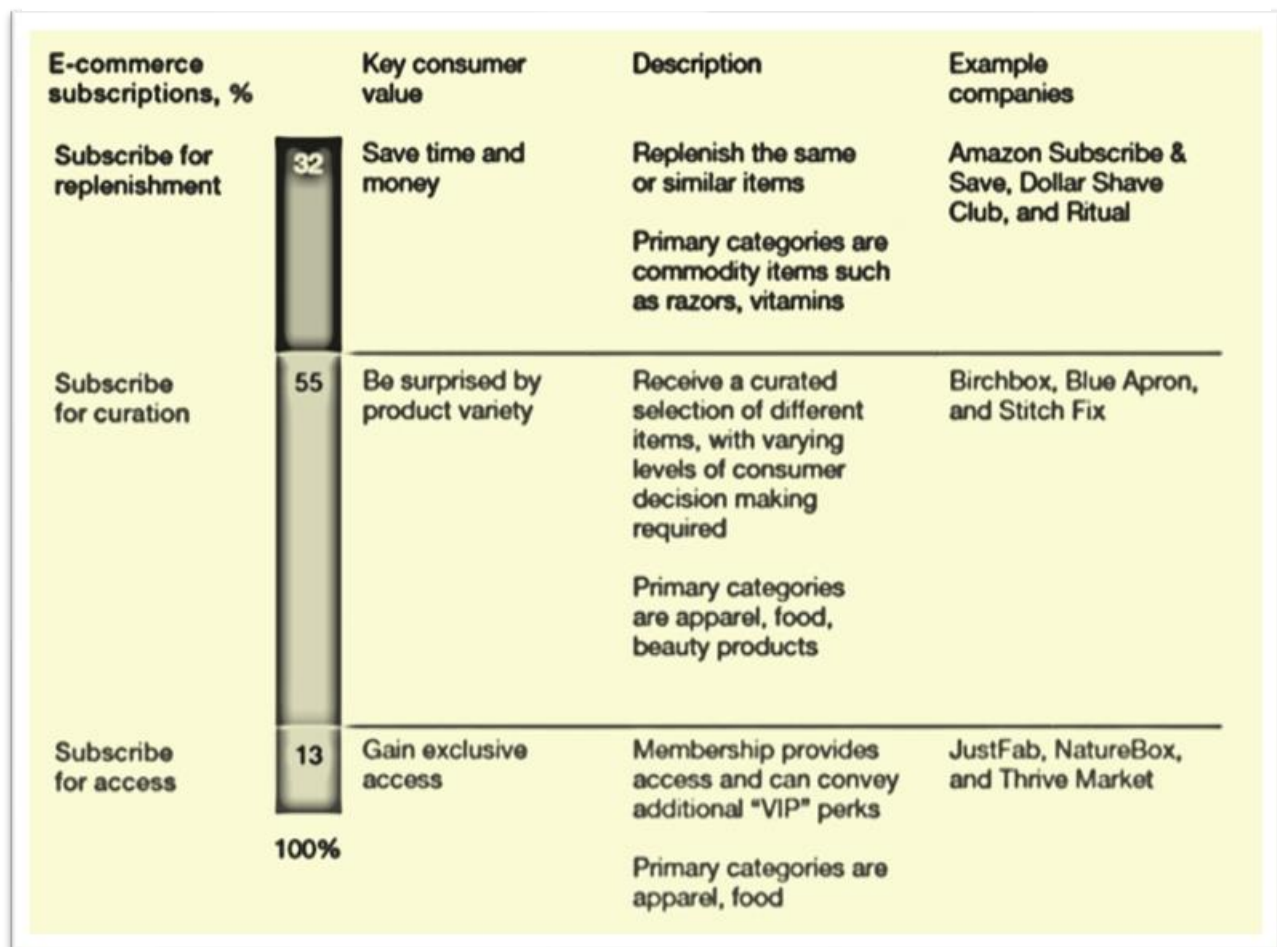
Replenished or predefined subscriptions offer consistency and predictability to customers. These subscriptions ensure that consumers receive their chosen products regularly, keeping them supplied with everyday items without additional effort. Consumers reap the benefits of saving on transactional costs by avoiding frequent trips to the supermarket for their regular purchases.

On the other hand, curated subscriptions offer a more exciting and surprise-filled experience. The subscription provider selects unexpected items from a designated category to fill periodic boxes subscribers receive. However, the selections are tailored to each customer's preferences, making the experience personalized and enjoyable (Bischof et al., 2020). These subscription models enhance their value proposition by introducing customers to novel and diverse products.

Access subscriptions, also known as subscription access models, have gained popularity across various industries. In this model, customers pay a recurring fee for continuous access to specific content, products, or services. Unlike traditional one-time purchases, access subscriptions allow customers to enjoy ongoing availability and usage of the subscribed content or services as long as the subscription remains active with the fulfillment of periodic payments. Diverse sectors offer access subscriptions, such as media streaming services (e.g., Netflix, Spotify), software companies (e.g., Adobe Creative Cloud), gaming platforms (e.g., Xbox Game Pass), and online publications (e.g., The New York Times, Medium). These subscriptions offer customers convenience, flexibility, and cost-effectiveness while providing companies with a steady and recurring revenue stream.

Within the realm of e-commerce, specifically in the category where BioTRUST operates, curation services stand out as the dominant option among these three subscription models. They account for 55 percent of all subscriptions, indicating a robust appetite for personalized offerings. Replenishment subscriptions comprise 32 percent of the total, with access subscriptions constituting 13 percent (Chen et al., 2018). Figure 2 offers an overview of these three predominant subscription models within the e-commerce sector, along with descriptions and examples of companies that successfully implement these models.

Figure 2: E-commerce Subscription Categories



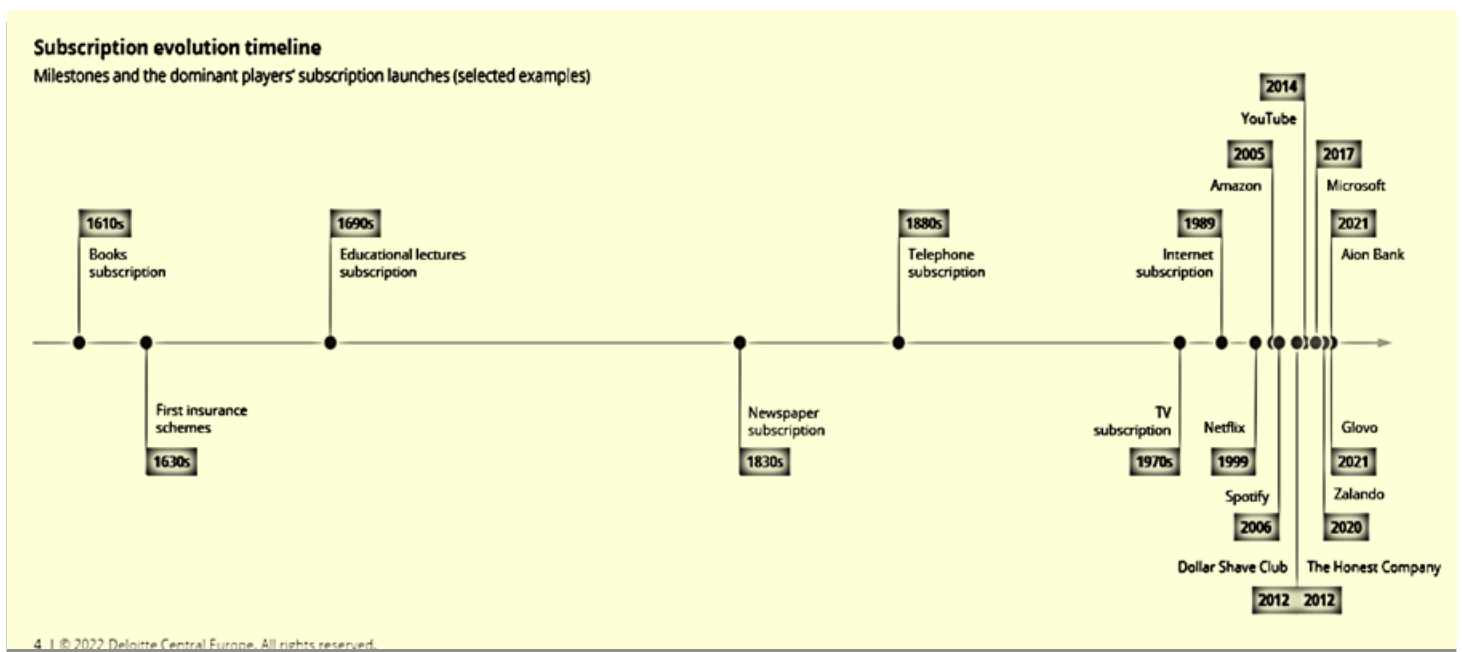
Thinking-inside-the-subscription-box-New-research-on-ecommerce-consumers.pdf Copyright 2018 by McKinsey & Company.

Subscription Evolution, Benefits, and Profitability

In recent years, subscriptions have witnessed a significant surge in popularity, and experts expect this upward trend to persist. The advent of the 21st century has seen a rapid digital transformation and a growing demand for convenience, encouraging the emergence of subscription models. Influential pioneers like television, internet, and online retail providers have played a key role in fueling the growth of this subscription-based economy (Deloitte Central Europe, 2022)

The concept of subscriptions has a long history, dating back hundreds of years. Book subscriptions, for instance, started as early as the 1600s. In the 1800s, companies introduced telephone and newspaper subscriptions. However, the real subscription boom occurred in the 20th century, with the emergence of dominant players like Netflix, Spotify, and Amazon (Deloitte Central Europe, 2022). Fig. 3 outlines the milestones and dominant players in this subscription revolution.

Figure 3: Subscription Evolution Timeline



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Figure 3. Subscription evolution timeline with selected examples of dominant subscription players. From “Subscription evolution timeline,” by Deloitte Central Europe, 2022, <https://www2.deloitte.com/content/dam/Deloitte/fr/Documents/consumer-business/Publications/deloitte-subscription-report-2022.pdf>. Copyright 2022 by Sarah L. Clapp.

Subscription-based models present a symbiotic relationship wherein benefits accrue to both companies and consumers. From the consumer's viewpoint, this model allows for creating personalized preferences, offering greater flexibility, access to exclusive content, and a sense of belonging to a recognized community (Baxter, 2020). This convenient approach allows consumers to align their purchasing habits with their anticipated future needs, thus fostering long-term customer satisfaction and loyalty. For companies, subscription-based models offer the chance to nurture enduring customer relationships, establish a dependable and consistent revenue stream, and shield consumers from competitors (Baxter, 2020). Furthermore, subscription models enable companies to enhance their demand forecasting and manage inventory requirements more efficiently, resulting in streamlined supply chain management.

Subscription models are profitable, and the global COVID-19 pandemic helped them grow even more. A recent industry report shows that subscription-based businesses have witnessed an extraordinary growth rate of 437% over the past decade (Baek & Kim, 2022).

According to McKinsey (2021), consumer goods subscriptions have experienced an extraordinary annual market growth rate of over 100%, meaning **they have more than doubled in size each year**. As of 2016, these subscriptions constituted 15% of all eCommerce shoppers, generating approximately \$2.6 billion in revenues (Bischof et al., 2020). The exponential revenue growth is evident, with subscription boxes reaching an impressive \$22.7 billion in 2021 (Chargebee, 2023). Projections indicate that the market will experience a continued surge, with expectations of soaring to \$65 billion by 2027. This remarkable expansion corresponds to a compound annual growth rate (CAGR) of 18.3% from 2022 to 2027 (Baxter, 2020).

Despite the rapid growth and potential of subscription retailing, the industry faces significant challenges. Acquiring new customers can be costly, and many companies experience high churn rates, up to 70%, due to increased competition (Bray et al., 2021).

Subscription Metrics

In the subscription business realm, growth and success are gauged primarily by customer retention. As a result, subscription businesses rely on critical metrics such as the rate of churn, rate of customer acquisition, and cost of customer addition to track and enhance their growth (Business Perspective, 2017). Fig. 4 illustrates the essential performance indicators measuring retention and overall progress within the subscription economy

Figure 4: Subscription Metrics

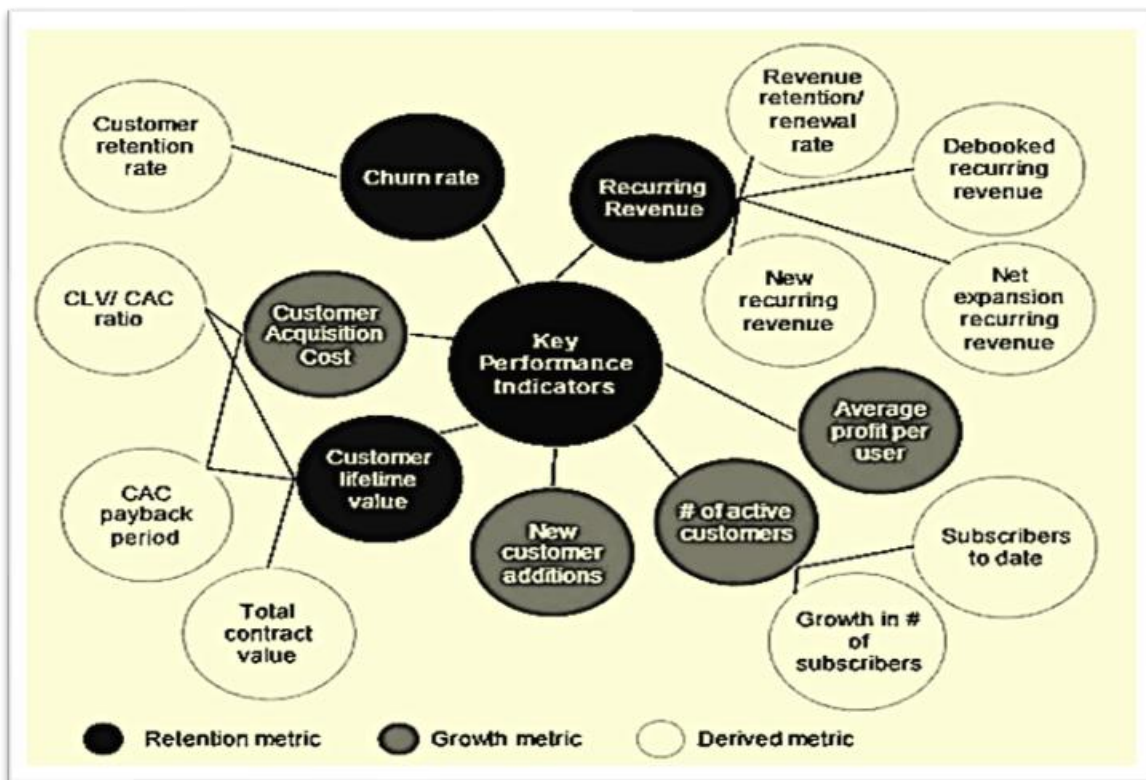


Figure 4. Subscription metrics. From “KPIs for Measuring Performance of Subscription Business,” by Business Perspective, 2017, https://www.nets.eu/SiteCollectionDocuments/white-paper/whitepaper_subscription_economy_business_perspective.pdf. Copyright 2012 by MEC+ analysis.

While all the indicators play a role in guaranteeing the success of subscription models, some hold particular significance. Figure 5 highlights the most critical metrics to measure according to (Business Perspective, 2017). These include customer churn, monthly recurring revenue, lifetime value, and acquisition costs. These key indicators are essential in assessing the performance and sustainability of subscription businesses.

Figure 5: Success Parameters

Category and KPI		Description and Perceived Importance in Determining Success	
Universal	Churn rate	% subscribers leaving every month. Should ideally be less than customer acquisition rate	60%
	Monthly recurring revenue	Sum of revenues from recurring product plans, excluding all one-time, non-recurring payments such as setup costs and/or professional fees	50%
Fiscal	Customer lifetime value	A prediction of the value a business will receive from an on-going customer relationship over a defined period of time	50%
	Customer acquisition cost	Total cost of sales and marketing spent to acquire a single customer	45%
	Average profit/user	Average percentage of profit that remains after deducting costs for the product/service from revenue	40%
Customer Growth	# of monthly new users	Number of new subscribers added per month	15%
	# of active users	Running sum of net subscriber count (# of subscribers acquired minus # of subscribers churned) during a given period	35%

Figure 5. Success parameters for managing subscriptions. From "KPIs and Success Parameters." by Business Perspective, 2017, https://www.nets.edu/SiteCollectionDocuments/white-paper/whitepaper_subscription_economy_business_perspective.pdf. Copyright 2012 by MEC+ analysis.

The type of subscription model employed determines the significance of these key performance indicators. For instance, in healthcare companies, metrics like monthly recurring revenue (the consistent and predictable income generated by a subscription-based business model from its customers every month) and customer lifetime value (a metric that quantifies the total value a customer generates for a business throughout their engagement with the company), hold greater importance than other subscription models, such as Pandora Music Radio, which

charge flat rates. Regardless of the subscription model, monthly recurring revenue and churn rate remain crucial metrics. It serves as a vital gauge of the model's sustainability and success.

Subscription Churn

Customer churn, referred to as customer attrition, describes when customers cease their engagement with a particular company, particularly in subscription-based businesses (Zhang, 2023). It directly indicates the company's performance and how effectively it sells its products or services.

Customer churn holds significant importance for several reasons. In the subscription business model, the focus is on customer retention rather than just initial conversion. The success of subscription businesses relies on customers staying loyal over an extended period. High customer churn resembles a leaky bucket, where the rate of customers leaving exceeds the rate of new customer additions. This situation can lead to trouble as the customer base continuously diminishes (O'Connor, 2015).

On the other hand, low customer churn allows businesses to recoup their customer acquisition costs, increasing profitability over time. Each retained customer becomes more valuable as their ongoing patronage helps cover the initial expenses incurred in acquiring them. Consequently, reducing churn becomes essential for subscription-based enterprises' long-term sustainability and financial success.

Two distinct types categorize churn rates: voluntary churn and involuntary churn. Voluntary churn occurs when a customer actively decides to cancel their subscription membership. On the other hand, involuntary churn, or passive churn, happens when a customer's card is declined, often due to expired expiration dates or technical processing issues with the financial provider handling the payment.

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According to the 2022 State of Subscription Commerce report by Recharge Payments, "passive churn" poses a significant challenge for retailers, as customers may unintentionally leave their subscriptions, often due to outdated card payments. The report states that, on average, merchants lose 10% of their revenue to failed payments, which can happen because of something as simple as forgetting to update credit card details. Furthermore, failed payments contribute significantly to passive churn, where customers exit the service without actively canceling their subscriptions.

Churn rates exhibit significant variation across different product categories. For beauty and apparel, the churn rates are notably low, hovering around 10% for both categories (Andonova et al., 2021). On the other end of the spectrum, meal kit services experience the highest churn rates, ranging from 60% to 70% (Chen et al., 2018).

According to Recurly (2022), companies that sell subscriptions to regular consumers tend to lose more customers than those that sell to other businesses. Industries like digital media, entertainment, and retail have an average rate of losing customers (churn) of 7.1%. In contrast, industries like software, professional services, and healthcare, which sell to businesses, have a lower churn rate of 5.8%. This difference happens because when consumers buy something, it usually costs less, so losing them is less of a financial risk than losing a business customer. Figure 6 illustrates the E-commerce segment's churn rates, with an average voluntary churn rate of 5.73% and an involuntary churn rate of 1.24%.

Figure 6: Business Churn in E-commerce



Figure 6. Business Churn in Retail. From “Churn rate by industry.” by Recurly, 2022, https://recurly.com/research/churn-rate-benchmarks/paper/whitepaper_subscription_economy_business_perspective.pdf. Copyright 2022 by Recurly Research.

Typically, B2C (Business-to-consumer) subscription enterprises encounter higher customer churn rates than B2B (business-to-business) enterprises. Industries such as Digital Media and Entertainment, Consumer Goods and Retail, and Education exhibit an average churn rate of 7.1%, while their B2B equivalents—Software, Business & Professional Services, and Healthcare—demonstrate an average churn rate of 5.8% (Recurly, 2022).

Unlike membership-based models, subscription consumers do not pay to become members of a business to access its services. Instead, they subscribe to services that grant them direct access to product offerings. The key distinction lies in the absence of locked-in annual contracts for most subscriptions, as customers can choose between monthly and yearly plans. This flexibility allows subscribers to cancel their subscriptions anytime without being tied to long-term commitments. This freedom to come and go as they please has resulted in an average

cancellation rate of nearly 40% among subscribers. This finding indicates that customers value the ability to make decisions on their terms and are more inclined to opt for services that offer this level of autonomy (Andonova et al., 2021).

Subscription Customer

According to research conducted by Andonova et al. (2021), women account for 60% of total subscriptions in the market. However, men tend to have a higher count regarding the number of subscriptions per person. Specifically, 42% of men reported having an average of three subscriptions, while only 28% of women reported the same (Chen et al., 2018). Subscribers generally have higher incomes, with approximately 54% reporting annual incomes over \$100,000 (PYMNTS, 2020). This information suggests that subscription services appeal to consumers with more disposable income. Regarding age demographics, subscriptions are most popular among millennials, with 14% having subscriptions, followed by 10% of Gen Zers, 10% of Gen Xers, and 4% of baby boomers (PYMNTS, 2020). The data shows that younger generations are more inclined to embrace subscription-based services.

According to Woo and Ramkumar (Ramkumar & Woo, 2018) and Banerjee (2019), age plays a minor role in signing up for beauty and fashion subscriptions. This information suggests that targeting specific age groups might not be as crucial as offering relevant product categories. For instance, Gen Xers value practicality and customization, so tailoring subscription offerings to meet these preferences could be beneficial. As baby boomers age, there is a potential to capture their interest with product categories that address health and anti-aging needs. Considering that baby boomers are the wealthiest generation and account for approximately 50% of all consumer spending, it becomes crucial to recognize their potential as valuable customers (Andonova et al., 2021). Therefore, companies should make efforts to acquire and engage them effectively.

Analysts foresee Gen Z consumers assuming the role of the predominant consumer group to embrace subscription models as they mature and attain financial autonomy (PYMNTS, 2020).

Understanding Consumer Subscription Cancellations: Common Reasons and Insights

Amid the prevailing backdrop of inflation, the landscape of consumer subscriptions has undergone a notable transformation. Except for streaming services, the percentage of consumers who continue to hold subscriptions has decreased from 31% in October 2021 to 24% in March 2022, and this change is primarily due to the impact of rising inflation (PYMNTS & sticky.io, 2022).

Consumers discontinue their subscriptions due to a multitude of reasons. Several factors influence subscription cancellations within business-to-consumer models. The principal catalysts behind these cancellations encompass inflationary pressures, surplus products, shipping delays, stock shortages, and price escalations.

Reducing Overall Expenses

As experts had suggested the looming possibility of a recession in 2023, consumers critically reassessed their subscription commitments heading into 2024. The impact of inflation is palpable in the escalated costs of essentials like groceries, gas, rent, and automobiles, leading many households to adopt the straightforward cost-saving measure of discontinuing non-essential subscriptions. This pragmatic approach has led to the cancellation of subscriptions by a substantial 46 million consumers over the past year (PYMNTS, 2023).

Recurly (2022) conducted a comprehensive survey involving 2,612 individuals aged 18 and above from the United States. All participants were active subscribers to one or more subscription services. This research initiative spanned the period from March 2021 to March 2022 and sought to investigate subscriber behaviors and preferences. The outcomes of this study

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unveiled a significant trend: 91% of Americans are proactively considering the implications of inflation. Concurrently, the most recent update of the Subscription Commerce Conversion Index has identified a noteworthy decline in the percentage of consumers who maintain subscriptions. This analysis, which encompasses data from 17 million consumers, illustrates a decrease in subscription retention rates from 31% in October 2021 to 24% by March 2022. The primary driver of this decline has been identified as inflationary pressures (PYMNTS, 2022).

According to The Conference Board (2021), a member-driven think tank providing reliable insights into future trends, consumer confidence, and overall economic expectations shaped consumer spending behavior. The study revealed that consumers had growing concerns about increasing prices, especially for essential items like groceries and gasoline. This decline in consumer confidence affected people of all age groups but was particularly pronounced among those with household incomes exceeding \$100,000 and those earning less than \$50,000. Conversely, individuals with incomes between \$50,000 and \$99,999 experienced relatively stable confidence levels (The Conference Board, 2021).

Consumer confidence and general economic expectations influence subscription churn in several ways. When consumers sense economic instability or anticipate an impending recession, they often adopt a more cautious approach to their expenditures. In such circumstances, essential expenses take precedence over discretionary ones like subscriptions, resulting in an uptick in churn rates. Diminished consumer confidence invariably translates into more stringent budgeting practices. What was once affordable subscriptions may lose appeal during economic uncertainty, prompting customers to cancel or downgrade their subscriptions.

Subscribers tend to retain subscriptions they perceive as indispensable or exceptionally valuable. Consequently, economic concerns prompt consumers to reevaluate the necessity and

worth of their subscriptions, potentially causing an uptick in churn rates for less essential services. Finally, economic hardships can precipitate payment-related issues, such as credit card declines or insufficient funds, contributing to involuntary churn.

In May 2023, Sherwin Studios and ReCharge Payments individually conducted studies to explore the factors contributing to subscription cancellations. Their respective findings corroborate the subscription cancellation observations put forth by PYMNTS, revealing that 36% of consumers terminated their subscriptions due to financial constraints.

Product Overload

Delving deeper into why people cancel subscriptions, research has found that a common reason is that consumers receive more products than they can use. In May 2023, Sherwin Studios conducted a study that delved comprehensively into the underlying factors driving subscription cancellations. The results of this investigation underscore that 23% of subscribers terminated their subscriptions due to having too many products. PYMNTS (2022) found that 17% of consumers who decided to terminate their subscriptions did so due to receiving excess products. Within this subset, 28% indicated that their waning interest in the offering contributed to the surplus of products (PYMNTS, 2022).

Additionally, a distinct revelation accentuates the presence of a segment of customers who, despite initially subscribing to a service, did not actively engage with or utilize the product. This perspective finds further validation in the survey outcomes, where 15% of consumers identified limited product usage as a notable factor influencing their decision to cancel subscriptions (Baek & Kim, 2022). These findings reaffirm the validity of these insights within the broader landscape of subscription services. This observation underscores the significance of

fostering customer engagement and providing product education to utilize subscribed services effectively.

Erratic Delivery Service

The post-sale continuum plays a pivotal role within e-commerce retailers, encompassing critical stages such as checkout and prompt, impeccable delivery of purchased items to customers' doorsteps. The significance of timely deliveries is crucial, as they directly impact customer satisfaction and subsequent purchasing behavior. This observation finds affirmation in Victor's (2020) insights. Notably, approximately 69% of consumers prioritize the punctuality of deliveries, a sentiment that directly influences retailers' patronage. Instances of failure to deliver purchased items within two days of the stipulated date result in decreased consumer engagement. Hughes's (2023) study also reported the consequences of untimely deliveries. A solitary occurrence of late delivery prompts 17% of respondents to sever patronage. In comparison, an escalating percentage of 55% would discontinue shopping with a retailer after encountering delayed deliveries on two to three occasions.

The PYMNTS (2022) study reveals an intriguing distinction as it examines different subscription models. Direct-to-consumer subscribers, constituting 31% of the surveyed cohort, exhibit a higher propensity (27%) to relinquish brand loyalty due to concerns like irregular deliveries compared to subscribers of alternative service providers. This discernment underscores the intricate interplay between subscription management and the maintenance of consumer loyalty in the evolving e-commerce landscape.

Depletion of Inventory

Inventory depletion and product unavailability are influential triggers that prompt suspending subscriptions. These circumstances evoke disappointment among customers and

propel them towards seeking alternative options, which may eventually lead to switching to a competitor. Corsten and Gruen's (2004) study underlines that this phenomenon triggers various reactions. Notably, 7% to 25% of consumers encountering a stock-out scenario refrain from seeking substitutes for their desired items. Furthermore, within this context, a substantial percentage, ranging from 21% to 43%, opt to switch to alternative providers to secure the items they seek. The implications of such occurrences on retailers are substantial, as they can result in the forfeiture of nearly half of intended purchases. This phenomenon translates to an approximate 4% decline in sales for a typical retailer, potentially equating to a staggering \$4 million reduction in annual sales for a retailer with a million-dollar revenue (Corsten & Gruen, 2004).

Similarly, Ranjan and Puri's investigation in 2012 draws attention to a significant behavioral pattern exhibited by consumers during stock-out conditions. When confronted with such situations, 32% of respondents opted to switch brands entirely, 41% chose an alternative size or variety within the same brand, and 14% expressed a desire to explore offerings from competitors.

Consistent with these findings, PAYMENTS' study in 2022 and research conducted by McKinsey in 2021 corroborate the impact of product unavailability on subscription cancellations. Both studies converge on the observation that when products become unavailable, the likelihood of consumers canceling their subscriptions stands at 15%. This convergence underscores the robustness of the observed phenomenon across diverse studies and contexts.

Price Increase

Recurly (2022) engaged in an extensive research endeavor to uphold a robust subscription customer base. This investigation encompassed a comprehensive analysis of over

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1,900 subscription websites utilizing the Recurly platform to process subscription payments. The study discerned escalated pricing as the paramount catalyst for customer attrition, a sentiment 71% of the respondents echoed. Figures 7 and 8 portray these insights, illustrating the primary factors influencing subscription cancellations, including those occurring within the past 12 months.

Figure 7: Top Reasons for Subscription Cancellation

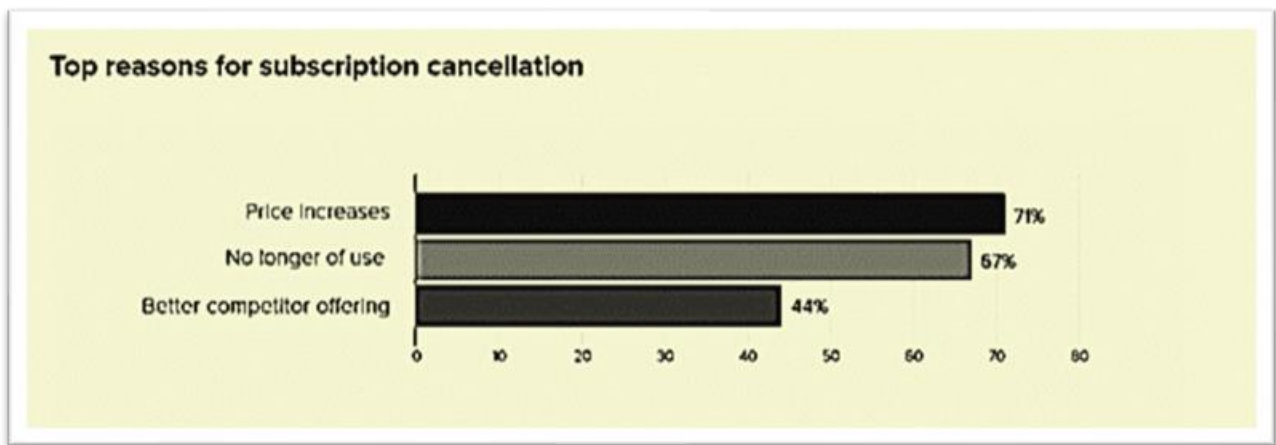
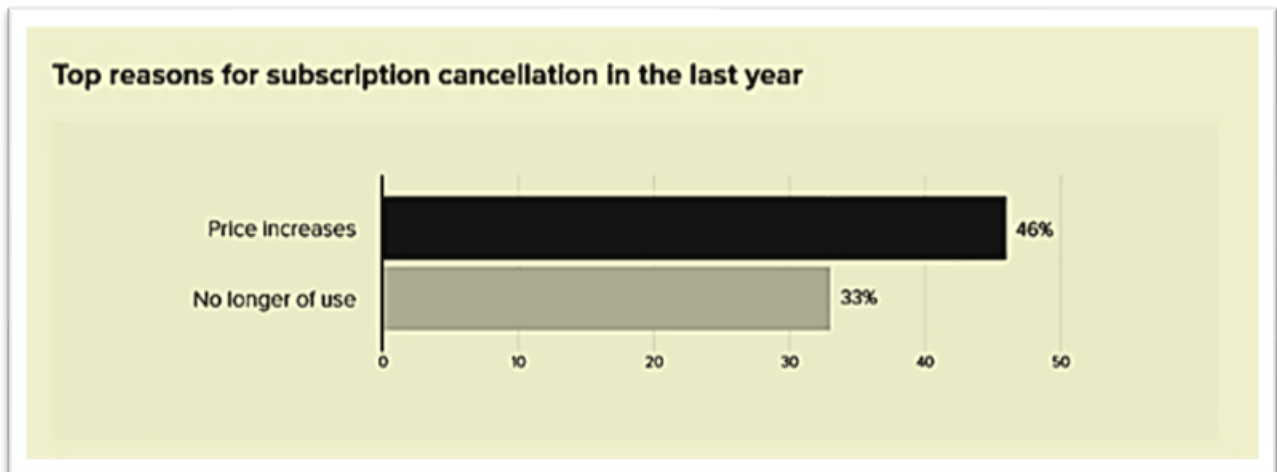


Figure 7. Recurly’s top reasons for subscription cancellations. From “Top reasons for subscription cancellation.” by Recurly, 2022, <https://go.recurly.com/rs/439-LSC-903/images/NEW-FINAL-rp-2022-08-endemic-survey-report-us.pdf>. Copyright 2022 by Recurly Research

Figure 8: Top Reasons for Subscription Cancellation in the Last Year



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Figure 8. Recurly's top reasons for subscription cancellations in the past 12 months. From "Top reasons for subscription cancellation in the last year." by Recurly, 2022, <https://go.recurly.com/rs/439-LSC-903/images/NEW-FINAL-rp-2022-08-endemic-survey-report-us.pdf>. Copyright 2022 by Recurly Research.

The conclusions drawn from this study resonate with the research conducted by PYMNTS (2022). Similarly, their study highlighted that 26% of all subscription cancellations were directly linked to price hikes, further substantiating the prominence of this factor. In alignment with the previous findings, Oconner (2015) cited price increments as one of the prominent rationales for subscription cancellations.

Specifically, raising prices can prompt a notable portion of customers to discontinue their subscriptions, particularly if the core competitive advantage of the service is perceived to be its affordability. The underlying psychology here lies in the notion that paying more for a previously identical offering can evoke sentiments of being exploited, thereby emphasizing the importance of refraining from increasing pricing for existing customers.

Factors Influencing Customer Adoption of Subscription Models

In the contemporary business landscape, consumer preferences have evolved beyond focusing on products, emphasizing the need for a customer-centric approach. This shift aligns seamlessly with the burgeoning subscription economy, mirroring the changing consumption patterns (Baek & Kim, 2022). Numerous studies have delved into the intricate motivations underpinning consumer subscriptions.

Product Value

Customer interest and their subsequent decision to subscribe to a monthly service significantly depend on the perceived value attributed to the product. The concept of customer value encapsulates two pivotal dimensions: the monetary expenses linked to the alternative

options available to the customer and the subjective assessment of worth assigned to the unique attributes that differentiate a supplier's offering from these alternatives (Hinterhuber et al., 2021).

In affirmation of this concept, a survey undertaken by McKinsey (2021) centered on subscription motivations yielded compelling results. Among the subscribers surveyed, a substantial proportion, precisely 62%, expressed their inclination to subscribe to a specific service grounded in the perceived value they attribute to the product. This finding underscores the pivotal role of the perception of value in influencing consumer decisions within the context of subscription services.

Favorable Pricing

The allure of improved pricing through direct brand subscriptions significantly drives customer interest in monthly subscriptions, which was highlighted in Lee's (2019) research. This sentiment was affirmed by 47% of Direct-to-Consumer (D2C) subscribers, with their study revealing that both price and quality serve as primary stimuli in this context. Their study revealed that price and quality are primary stimuli in this context. In a similar vein, Bray et al. (2021) meticulously dissected diverse attributes, attitudes, and behaviors inherent to distinct subscription models, with their findings spotlighting favorable pricing as a noteworthy factor.

Choi et al. (2021) dove further into subscription motivations. Their investigation substantiated the pronounced role of pricing as a prime driving force. This facet underscores the criticality of price evaluations for Direct-to-Consumer (D2C) subscribers. Their anticipated favorable pricing directly from the brands holds substantial sway over their subscription choices. Consequently, the discrepancy between expected and actual prices could lead to customer churn, a sentiment highlighted by (PYMNTS, 2022). This intricate interplay underscores the intricate role of pricing considerations in shaping the dynamics of subscription services.

Product Quality

The quality of a product plays a crucial role in influencing consumers' decisions to subscribe to a service. When individuals perceive a product as high quality, it engenders positive experiences and a favorable brand impression. This optimistic perception, in turn, frequently culminates in heightened customer loyalty, recurrent purchases, and an elevated inclination to consider subscription services provided by the same brand (Sugrova et al., 2017).

This perspective garners further validation through a recent survey (McKinsey, 2021). In this study, 45% of the respondents highlighted that elevated quality is a pivotal motivating factor guiding their decisions to subscribe. This convergence of findings underscores the significance of product quality as a determinant that shapes consumer behavior within the domain of subscription services.

Variety of Items and Experiences

Deloitte (2022) revealed that 36% of consumers are motivated to subscribe due to the expansive array of offerings tailored to their preferences. This diversity allows customers to select choices that closely match their tastes, amplifying their contentment and involvement with the subscription service. This find resonates in the works of McKinsey (2021) and PYMNTS (2002), both of which endorse the indispensable role of a diverse range of items as a driving incentive for subscriptions. Their respective investigations showed that various products and experiences enable customers to select offerings that resonate with their specific tastes and needs, fostering a sense of personalization and engagement.

Convenience and Easy Access

Convenience assumes a pivotal role within online subscriptions, offering multifaceted advantages. It conserves valuable time, providing seamless accessibility at all hours, streamlining

automated delivery processes, enabling customization and personalization, and simplifying overall management. Customers can effortlessly access a wide range of products or services with just a few clicks, highlighting the convenience and eliminating the need for physical store visits. The convenience factor is further amplified by the consistent availability ensured by online subscriptions, eliminating the need for manual reordering while catering to personalized preferences. Additionally, user-friendly account management features empower customers with substantial control over their subscriptions, a notion endorsed by (Deloitte, 2022). Chen et al. (2018) survey further supports these observations by highlighting the potency of convenience and ease of use as motivational factors. In this study, 32% of respondents expressed their inclination to subscribe specifically due to these attributes.

Desired Features of Subscription Models

The subscription journey has undergone a transformation that surpasses simplicity, progressing from a rudimentary sign-up and automated service model to an anticipation of heightened flexibility, customization, and value. In the contemporary landscape, consumers exhibit a distinct penchant for an array of features, such as complimentary shipping, hassle-free returns, seamless subscription cancellation, loyalty initiatives, customization options, and impeccable customer service. Collectively, these attributes represent the paramount aspirations of today's subscription-seeking consumers.

Free Shipping

Complimentary shipping maintains its foundational significance, consistently emerging as a paramount priority for subscribers, as underscored by 82% of consumers (PYMNTS, 2022). Reinforcing this prevailing trend, the Deloitte e-commerce study titled "Demystifying the Hype of Subscription: What Is the True Potential of Subscription and What Drives Its Success?"

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highlights the pivotal role of free delivery within the realm of subscription commerce. Notably, 71% of customers prefer complimentary delivery, underscoring its undeniable significance as a highly sought-after supplementary service within the e-commerce subscription milieu. Duvall's (2019) survey brought similar insight: a notable 84% of shoppers have intentionally made purchases due to the availability of free shipping. Furthermore, the findings underscored that 30% of shoppers are inclined to augment their order sizes to meet the criteria for qualifying for free shipping, further substantiating the potent influence of this aspect on consumer behavior.

Free Returns

The Business Perspective (2017) study explained key customer factors that contribute to the success of subscription models, with streamlined returns processes being a notable element among them. Moreover, a collaborative effort between PYMNTS and sticky.io (2022) underscored the pronounced demand for easily accessible free returns. A survey undertaken by Shopify Plus (2023) unveiled that 86% of online shoppers agree that their likelihood of revisiting online merchants experiences a significant increase when free returns are part of the equation. Additionally, 75% of respondents conveyed their inclination to augment their purchase frequency over time when presented with the opportunity for extended free returns. This finding emphasizes the significant impact of this element on consumer behavior, further underscoring the importance of incorporating such preferences within subscription models.

Ease of Pausing or Cancelling Subscriptions

The availability of self-service options is another pivotal driver influencing customer engagement in enrolling for monthly subscriptions, notably the provision to temporarily pause or cancel subscriptions. This attribute has yielded a substantial 23% surge in subscription retention rates (Recurly, 2022). This self-service feature significantly augments customer contentment and

allegiance by furnishing a swift mechanism for subscribers to oversee their subscriptions and effectuate temporary suspensions when required.

Furthermore, the capacity to terminate subscriptions promptly without incurring penalties emerges as a particularly sought-after attribute within the domain of retail subscriptions. 81% of subscribers strongly prefer this capability (PYMNTS, 2022). These statistics accentuate the criticality of subscription models' flexibility and user autonomy, underscoring their profound influence on consumers' subscription choices and decisions.

Loyalty Programs

Customers prefer unique rewards that are hard to replicate. Such rewards encompass personalized assortments and tailor-made incentives aligned with individual preferences. An excellent example of a unique reward that is hard to replicate in subscription services could be personalized, handcrafted items explicitly tailored to each customer's preferences and needs. These one-of-a-kind products or experiences provide a sense of exclusivity and value that is difficult for competitors to mimic. Grolier and Michel's (2020) research underlines that rewards possess the potential to not only bolster transactional loyalty but also amplify emotional allegiance. In this light, companies are encouraged to venture beyond the confines of conventional point-based reward systems and consider innovative strategies to curtail subscription churn rates. The study conducted by Vincent and Webster (2013) provides further substantiation to this approach. Their findings elucidate that acknowledging and appreciating customer commitment, coupled with implementing loyalty programs, wields the capacity to elevate customer engagement and foster enduring loyalty. These results underscore the potency of a multifaceted approach to rewards and recognition, underpinning the significance of creating an array of incentives that resonate with diverse customer needs and aspirations.

Customization

The capacity to tailor the content of subscription boxes emerges as a compelling driver of customer interest in subscribing monthly. Teece and Linden (2018) stress that this element of customization augments the inherent value of the service while simultaneously establishing a distinctive edge over competitors. According to Deloitte (2022), 14% of its consumers demand personalization upon subscribing. Recurly (2022) affirms that success hinges on a comprehensive growth strategy that revolves around an exceptional product, outstanding customer experience, and the incorporation of customization and adaptable plan management.

The attribute of customization engenders a sense of control and ownership, allowing subscribers to curate products in alignment with their individual preferences, tastes, and requirements. This facet of personalization imparts a profound and intimate connection between subscribers and the subscription service, thus contributing to heightened engagement levels and strengthened loyalty. Infusing a personal touch into the subscription journey significantly reinforces the rapport between consumers and the service, fostering a lasting and mutually beneficial relationship.

Top-Notch Customer Service

Deloitte (2022), Bansal et al. (2004), and Vincent and Webster (2013) all emphasize the significance of customer service as a crucial feature in meeting subscription consumer needs. The emphasis on customer service within subscription models is vital due to its pivotal role in meeting consumer needs and fostering sustainable customer relationships. Exceptional customer service enhances the overall subscriber experience, engenders trust, reinforces brand loyalty, and contributes to a positive brand image.

According to a study by Microsoft (2017), 96% of consumers consider customer service to be a crucial factor in their choice of loyalty to a brand. Furthermore, a study by Tousley (2023) found that 93% of customers are likely to make repeat purchases from companies that offer excellent customer service. These insights underscore the importance of exceptional customer service in driving customer retention and long-term subscription success.

Customer Satisfaction, Net Promoter Score, and Loyalty

Comprehending subscription churn necessitates a comprehensive grasp of customer reactions toward a company's offerings and services, particularly their attitudes and perceptions. A pivotal aspect of this evaluation is customer satisfaction, which entails comparing the delivered performance against customer expectations (Lemon & Verhoef, 2016). This comparison, whether leading to positive or negative disconfirmation, significantly impacts customer satisfaction.

Multiple methodologies have been employed to gauge customer satisfaction, with a common thread being the utilization of questions like "How satisfied are you with XXX?" These inquiries can be open-ended or incorporate emoticons representing varied customer emotions, such as happiness or discontent. Furthermore, researchers have observed the intricate dynamics of non-linear satisfaction effects and the substantial influence of customer delight. This trend highlights the direct connection between customer satisfaction, consumer behavior, and company performance, rendering it a fundamental practice in marketing. Furthermore, in evaluating customer loyalty, metrics such as the Net Promoter Score (NPS) and Customer Loyalty have become instrumental (Lemon & Verhoef, 2016). These metrics hold significance as high customer loyalty correlates with lower churn rates. Loyal customers, by nature, exhibit a reduced propensity to cancel their subscriptions, thereby contributing to heightened customer retention.

Additionally, satisfied and loyal customers often advocate for subscription services. They are more inclined to spread positive word-of-mouth recommendations, potentially leading to new customer acquisitions that can counterbalance the impact of churn.

Moreover, NPS scores function as an early warning system for potential churn. A declining NPS score can signal decreasing customer satisfaction, necessitating prompt action to address concerns and prevent cancellations.

The Net Promoter Score (NPS) stands as a widely accepted customer loyalty metric, gauging the likelihood of customers recommending a brand or company to others. By categorizing responses on a scale of 0 to 10, customers fall into groups of Promoters, Passives, or Detractors. Shifting focus, Customer Loyalty offers a more comprehensive view, evaluating the degree of commitment and repeat business exhibited by existing customers. This metric signifies customers' propensity to maintain their association with a company and resist switching to competitors.

Various factors contribute to customer loyalty, including customer satisfaction, the quality of products or services, customer service efficiency, brand reputation, and overall customer experience. Metrics like customer retention rate, repeat purchase rate, or customer lifetime value can effectively measure and track customer loyalty over time. Elevated customer loyalty signifies a robust and lasting relationship, fostering repeated purchases, heightened lifetime value, and positive advocacy from customers.

Research Gaps

Scholars have garnered insights into consumer preferences and behaviors within the expansive realm of subscription customer behavior and

cancellations. However, notable research gaps persist, prompting the need for further exploration. One unexplored domain concerns the interaction between age-specific offerings and their impact on subscription adoption and retention. An in-depth inquiry is imperative to unveil how diverse age demographics influence the subscription landscape. Another critical void necessitates investigating marginalized and underserved groups within the subscription ecosystem. A thorough examination of subscription adoption within these demographic groups is crucial for tailoring subscription models to their specific needs and preferences, promoting inclusivity, and adhering to principles of social responsibility, particularly as subscription services often favor those with disposable income.

Moreover, a significant research gap revolves around understanding mechanisms that facilitate sustained engagement and counter churn beyond the initial subscription phase. As the subscription landscape evolves through innovation, a compelling avenue for research lies in dissecting emerging subscription models. Novel offerings such as sustainability-focused subscriptions and hybrid models warrant exploration. It is also crucial to note that clear information on different credit card decline codes and their rates was not readily available. This event is primarily due to the variability in decline percentages across different financial institutions and the lack of consistent definitions for all decline codes.

Finally, the existing literature needs more information regarding when consumers may encounter a decline in subscription revenue based on the delivery month. This gap underscores the necessity for additional research to delve into and comprehend the specific timing and patterns connected to drops in subscription revenue during the delivery month. A thorough investigation into this aspect has the potential to offer valuable insights into customer behavior, preferences, and potential challenges at various stages of the subscription cycle. Such exploration

would significantly contribute to an enhanced and comprehensive understanding of subscription dynamics within the context of BioTRUST Nutrition.

Theoretical Framework

The current study investigating subscription churn will adopt the Theory of Planned Behavior (TPB) proposed by psychologist Icek Ajzen as its foundational theoretical framework.

Figure 9 visually depicts its constituent elements

Figure 9: Theory of Planned Behavior

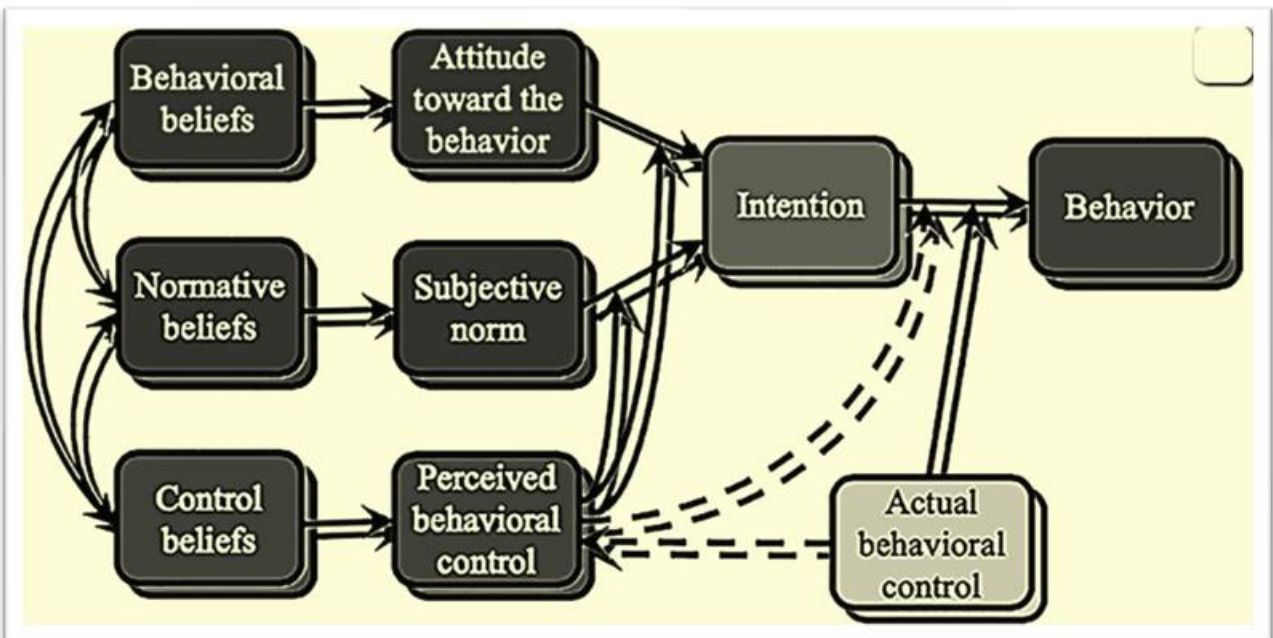


Figure 9 Outlines the components included in the Theory of planned behavior. From " The Theory of Planned Behavior: Selected Recent Advances and Applications," by Bosnjak et al. (2020) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7909498/>. Copyright 2020 by Icek Ajzen.

According to Bosnjak et al. (2020), TPB focuses on predicting and explaining human behavior based on an individual's intentions. The critical components of the Theory of Planned Behavior are:

1. Attitudes in the TPB represent an individual's overall feelings or evaluation towards a specific behavior. Positive attitudes toward a behavior increase the likelihood of intending to engage in it.
2. Subjective Norms: Subjective norms play a role in the TPB, reflecting the perceived social pressure or expectations from significant others. If others endorse the behavior and the individual believes they should perform it, this strengthens their intention to do so.
3. Perceived Behavioral Control: Perceived behavioral control refers to an individual's perception of how easy or difficult it is to perform the behavior. Factors like skills, resources, and obstacles influence this perception. If an individual perceives a high level of control over the behavior, they are more likely to intend to engage in it.

Incorporating perceived behavioral control into the model recognizes that even if someone has positive attitudes and subjective norms favoring a behavior, they might be unable to perform it if they lack the necessary control.

The TPB suggests that attitudes, subjective norms, and perceived behavioral control influence behavioral intention (Bosnjak et al., 2020). These intentions, in turn, guide an individual's actual behavior. The theory assumes that people make rational decisions by considering their internal beliefs, social influences, and perceived ability to perform the behavior.

The Theory of Planned Behavior (TPB) is a valuable framework for examining the factors influencing subscription cancellations, the drivers behind subscription sign-ups, and the key attributes consumers seek in a subscription service, as illustrated in Appendix A. This versatile theory offers a structured approach to comprehensively explore the intricate dynamics of consumer behavior in the context of subscription-based models. By applying the TPB to these

aspects, businesses can gain a nuanced understanding of consumer decision-making processes, allowing for the development of effective strategies to enhance subscription services and reduce cancellations.

Conceptual Framework

In the context of subscription churn, attitudes are crucial in influencing customers' decisions to either retain or cancel their subscriptions. These attitudes are multifaceted and can encompass perceived value, content quality, pricing, and overall satisfaction with the subscription service. Positive attitudes towards the subscription service, driven by high perceived value, favorable content, and reasonable pricing, will likely result in higher customer retention rates. Conversely, negative attitudes from dissatisfaction with content, perceived overpricing, or unmet expectations could significantly contribute to subscription cancellations.

When examining subscription churn, subjective norms are another dimension that affects customers' subscription decisions. These norms encompass the influence of external factors such as family, friends, online communities, and even marketing campaigns. Peer recommendations, discussions within online communities, or endorsements from influencers may sway customers. This social influence can shape customers' perceptions of continuing or discontinuing their subscriptions.

Within subscription churn, perceived behavior refers to the factors that impact a customer's decision-making process regarding their subscription. These factors include the ease of canceling a subscription, the flexibility to pause or modify subscriptions based on changing needs, and the availability and effectiveness of customer support. The perceived behavior aspect reflects the practical aspects of the subscription service that influence customers' interactions and experiences, thus influencing their decisions to either stay subscribed or cancel.

Intervening Factors

In addition to attitudes, subjective norms, and perceived behavior, several intervening factors can significantly influence subscription churn. These factors complicate the decision-making process and shed light on the broader context in which customers evaluate their subscription services.

Customer demographics are a pivotal intervening factor that can shape subscription churn. Age, gender, income level, and geographical location can impact how customers perceive value, interact with content, and prioritize subscription services (PYMNTS, 2020). For instance, younger subscribers place more emphasis on content variety, while older subscribers may value consistent quality and reliability.

Past subscription experiences also play a critical role in subscription churn. Customers who have had positive experiences with previous subscriptions are more likely to have higher expectations for their current subscriptions. On the other hand, negative past experiences, such as encountering technical issues or poor customer service, can lead to heightened sensitivity to similar issues in their current subscription, potentially influencing their decision to cancel (PYMNTS, 2020).

Customer demographics, past experiences, and external market trends interact with attitudes, subjective norms, and perceived behavior to shape customers' decisions regarding subscription churn. Understanding these multifaceted dynamics is essential for subscription businesses to effectively tailor their strategies and offerings, mitigating churn and fostering long-term customer retention.

Intention

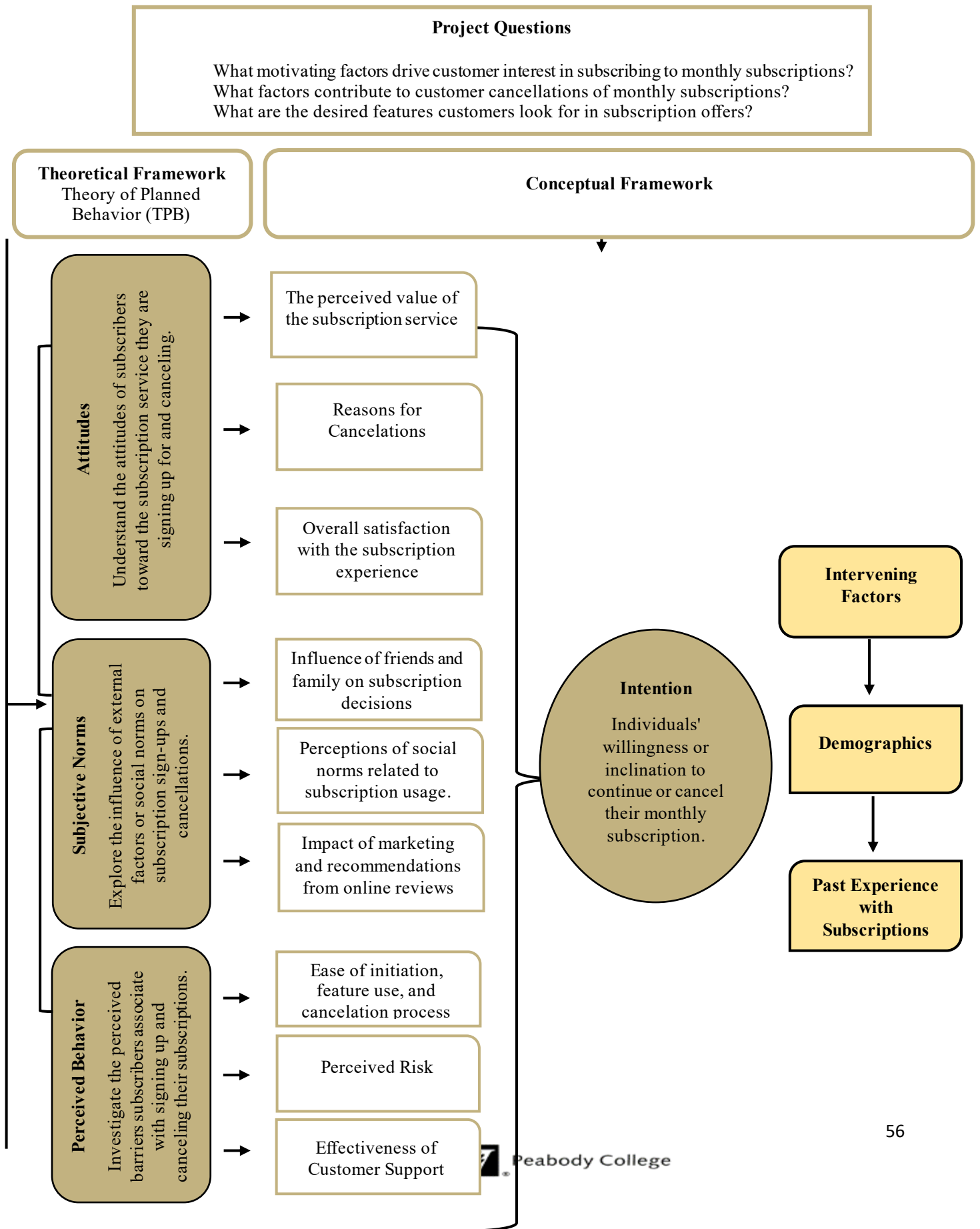
In the context of subscription churn and customer behavior, the intention refers to the individual's willingness and inclination to continue or cancel their monthly subscription (Bosnjak et al., 2020). Their attitudes, subjective norms, and perceived behavioral control regarding the subscription service shape this intention.

Positive attitudes towards the subscription service, perceived social norms endorsing its usage, and the perceived ease of managing and deriving value from the subscription collectively influence the intention to continue the subscription. Conversely, the intention to cancel the subscription may arise from negative attitudes towards the service, the influence of social norms that suggest alternative options, and perceived barriers in managing or deriving satisfaction from the subscription.

Understanding the underlying intentions that drive customers to continue or cancel their subscriptions is crucial for developing effective strategies to decrease subscription churn. By investigating the interplay between attitudes, subjective norms, and perceived behavioral control, this research aims to shed light on the factors that shape customer intentions and, subsequently, their behavior regarding subscription retention or cancellation.

The following conceptual framework establishes the foundation for examining subscription customer behavior (Figure 10).

Figure 10: Conceptual Framework



Project Methodology

Project Aim and Questions

The BioTRUST E-commerce team confronts a pressing challenge with a noticeable discrepancy between the average rate of new customer subscriptions at 5.43% and the higher cancellation rate, averaging 7.93%. As highlighted by Mani (2022), the e-commerce industry witnesses an average subscription cancellation rate of 5.4%, significantly lower than the rate among new customers, which surpasses 11%. This striking disparity underscores the importance of investigating the factors driving subscription sign-ups and the reasons behind cancellations.

Given the substantial gap between new customer subscriptions and subscription cancellations, developing targeted strategies to enhance customer retention is essential. To address these challenges, the project focused on answering the following questions:

What are BioTRUST's voluntary and involuntary churn rates?

1. What factors drive BioTRUST customers' interest in monthly subscriptions?
2. What variables contribute to customer cancellations of monthly subscriptions?
3. What are the desired features customers look for in subscription offers?

Research Approach

This capstone project utilized a mixed-method approach, systematically collecting and analyzing numerical churn data to investigate patterns and establish relationships between variables through a descriptive design. This method employed structured data collection instruments, including existing datasets (Figure 11) and surveys (Appendix B).

Figure 11: Data Collection Plan

Data Collection Plan			
Project Question	Operational Definition	Data Source	Rationale
What is BioTRUST's current voluntary churn rate?	$(\text{Lost Customers} \div \text{Total Customers at the Start of Time Period}) \times 100$ (Bernazzani-Barron, 2022.)	Tableau reporting – <i>SNS Weekly Retention Stats</i>	Calculating voluntary churn allows us to measure the rate at which customers proactively cancel their subscriptions.
What is BioTRUST involuntary churn?	$(\text{Lost Customers (declined transactions)} \div \text{Total Customers at the Start of Time Period}) \times 100$.	ReCharge Reporting – <i>involuntary churn</i>	Determining the involuntary churn rate offers insights into customers who churn due to payment processing issues or declined transactions.
What are the main factors that drive customers to subscribe?	N/A	Customer Survey (refer to Appendix B)	By knowing what motivates customers to subscribe in the first place, BioTRUST (BT) can focus on reinforcing these aspects to reduce churn. BT can target potential customers more effectively by highlighting the factors that resonate most with their target audience.
What key features do customers consider most important when evaluating subscription offers?	N/A	Customer Survey (refer to Appendix B)	It provides valuable insights for product development. BT can allocate resources to enhance or introduce features that align with customer preferences, making their subscriptions more appealing. In addition, knowing what features resonate with customers enables more effective marketing. BT can emphasize these critical features in its promotional materials, attracting subscribers who are genuinely interested in what it offers.

Secondary Data

Examining various secondary data illuminated the dynamics of subscription revenue within BioTrust Nutrition. This thorough analysis encompassed essential metrics like Monthly Recurring Revenue (MRR), Customer Lifetime Value (CLV), and Average Order Value (AOV), as illustrated in Figure 12. By incorporating these metrics into the churn reduction strategy, I could identify opportunities, discern trends, and uncover pathways to enhance the overall customer experience.

Figure 12: Secondary Data

Secondary Data	Description	Rationale
Monthly Recurring Revenue	Describes the reliable and steady revenue a subscription-based business model generates monthly from its customers.	Analyzing MRR trends reveals shifts in revenue and subscription engagement.
Customer Lifetime Value	Calculates the overall value a customer contributes to a business over the entire interaction with the company.	CLV reflects a customer's total value over their relationship with the business. A higher CLV signifies a loyal customer base less prone to churn.
Average Order Value	A metric that calculates the average amount of money customers spend on each transaction when purchasing a business.	Understanding AOV aids in aligning pricing and subscription plans with customer preferences and budgets. Declining AOV might indicate customers are moving to lower-tier plans or reducing spending.

Qualitative research was concentrated on understanding and interpreting the context and subjective experiences of the consumer experience when using the online subscription portal to

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modify and cancel their subscription. A focus group was convened to assess the customer experience associated with subscription enrollments, modifications, and cancellations. The focus group's primary objective was to address the following critical inquiries:

1. **Process Details:** The intricacies and stages of subscribing, modifying, pausing, or canceling a subscription were investigated.
2. **Communication Initiatives:** The ongoing communication strategies initiated once a customer subscribes were examined.
3. **Additional Subscription Benefits:** Supplementary advantages the subscription model provides beyond cost considerations were explored.
4. **Churn Prevention Strategies:** The current strategies or tactics implemented to mitigate customer churn were assessed.
5. **Online Reviews and Feedback:** The availability of online reviews about the subscription model and the nature of the feedback received were investigated.

The focus group participants were seasoned professionals with integral roles within BioTRUST Nutrition. Collectively, these individuals played pivotal roles in shaping customer experience protocols. They contributed to formulating guidelines that facilitated consumer comprehension of the subscription processes and addressed any queries that may arise throughout these processes. A detailed process map can be found in (Appendix C). By involving experts, the project aimed to utilize their extensive knowledge and expertise to gain insights into the customer journey and refine strategies that boost customer satisfaction and retention.

Data Collection Tools

The project methodology employs diverse tools and platforms to collect, analyze, and interpret the data essential for the comprehensive investigation of subscription churn and customer experiences with BioTRUST Nutrition. These tools were selected to ensure accuracy, efficiency, and depth in uncovering valuable insights. The combination of online survey platforms, focus group field notes, data extraction software, and visualization tools forms the foundation of this data collection strategy.

Utilization of Online Survey Platform (Alchemer and Maropost)

The project employed the Alchemer platform for survey creation, facilitating the collection of quantitative data from a large pool of participants. Maropost served as the chosen tool for email communication, utilizing the email addresses linked to each subscription order. Maropost offered features for tracking delivery and open rates, ensuring effective outreach to the target audience, and encouraging their active participation in the survey process.

Survey and Sampling Strategy

The survey methodology encompassed all customers who were either currently subscribed or had terminated their subscriptions between April 2022 and 2023, totaling approximately 44,438 customers.

Two pivotal factors influenced this choice. Firstly, it predates the implementation of a price reduction in June 2023, avoiding potential sample distortion attributable to this change. Secondly, this timeframe covers the past 12 months, allowing customers to recall their subscription interactions. Surveying the entire cohort of subscription customers during this period minimized bias, ensuring reliable insights into subscription churn dynamics. I received

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2,389 responses, with 58% coming from past subscribers and 42% from active subscribers. 82% of respondents were 55 years old or older, 71% were females, and income distribution was even.

The survey instrument consisted of 14 questions that spanned a wide range of topics, including demographic information, subscription behaviors, motivations, concerns, and desired features (Appendix B).

Understanding the age, gender, and income demographics of the BioTRUST subscriber base helped identify patterns or trends in churn. This demographic information was valuable for tailoring marketing and communication strategies. Different age groups and genders may respond differently to marketing messages or incentives, so knowing BioTRUST's audience helped craft more effective retention campaigns.

Income levels could also be a significant factor in churn. Subscribers with lower incomes might be more sensitive to pricing changes, while those with higher incomes could be more concerned with the overall value of the subscription. This information helped refine BioTRUST's pricing strategy to minimize churn.

To encourage greater participation, customers received incentives to respond. The initial distribution of the survey encompassed the provision of a 30% discount on any forthcoming item. Recipients could apply this discount to an upcoming subscription or a new order. Additionally, a sequence of reminder emails was dispatched at seven-day intervals, extending up to three email reminders. The initial email reminder featured a 30% discount offer, followed by a second email reminder with a 40% discount offer, culminating in a final email reminder with a 50% discount coupon. These measures aimed to enhance the response rates. Individuals who had responded to the survey were excluded from the subsequent email reminders to ensure a judicious and streamlined communication process.

Incorporation of Focus Groups

A focus group was conducted with BioTRUST's seasoned professionals to map the consumer journey in signing up, modifying, or canceling a subscription. The central questions addressed were: "What procedures do consumers follow to enroll in, make alterations to, or terminate a subscription, and how are they informed about the program and its advantages?"

Gaining insights into the steps consumers take in these interactions and their awareness of the program and its benefits provides valuable information about various touchpoints in the customer lifecycle. This examination aims to uncover potential pain points, barriers, or areas for improvement within the process.

Harnessing Data Extraction Software (ReCharge and ProfitWell)

Recharge Analytics contributed to understanding subscription churn by furnishing detailed insights and analytics regarding BioTRUST's subscription services. The platform facilitated the analysis of diverse metrics and trends linked to customer subscriptions, pivotal in pinpointing patterns and factors that contributed to churn. In particular, Recharge Analytics aided in calculating churn rates and offering data on customer behavior, encompassing the frequency of subscription modifications, pauses, or cancellations. This analysis helped comprehend customer preferences and identify potential reasons for churn.

ProfitWell was integrated with ReCharge analytics to gather comprehensive customer demographics and additional subscription-related data. This approach enhanced the depth of the analysis and provided a holistic view of the factors influencing customer engagement and retention within BioTRUST's subscription ecosystem.

Integration of Process Mapping Tools and Excel

Translating findings from focus group dialogues into process maps involved visually capturing subscription-related journeys. The study aimed to illustrate the sequential steps encompassing subscription initiation, modifications, and cancellations using process mapping tools, facilitating an intricate comprehension of customers' experiences throughout these stages.

The study utilized Excel for data preprocessing, cleaning, and conducting fundamental statistical calculations in the quantitative analysis. Collectively, these tools fostered a holistic understanding of subscription churn, customer experiences, and the strategies employed by BioTRUST Nutrition, contributing valuable insights to the project endeavor.

Ethical Considerations

In planning and conducting this study, a series of measures were implemented to address ethical considerations. The survey introduction provided clear and concise information about the study's purpose, the nature of data collection, and the plan for data utilization.

Anonymity was ensured as the survey remained completely anonymous, with participant identities absent from the responses. Steps were taken to ensure the secure storage of all collected data, permitting access only to authorized personnel. Responses were aggregated and reported in a manner that safeguarded individual privacy and identification.

The study was conducted solely for internal purposes to enhance understanding of various aspects of the subscription model. Participants could rest assured that their responses would not be used commercially or shared with external parties. Participation in the survey was entirely voluntary, with no adverse consequences arising from choosing not to participate. A dedicated contact point was provided for participants with questions, concerns, or the need for further information.

Validity and Reliability

I employed various strategies to ensure the collected data's validity and reliability. I validated the sources for quantitative data by establishing standardized definitions, cross-verifying information with BioTRUST's finance team members, and maintaining detailed data logs. These logs served as comprehensive and transparent documentation of the research process, contributing to the validity and reliability of the collected data. In the qualitative domain, I conducted a focus group assessment, having the focus group review all my notes to ensure accuracy in transcriptions. Additionally, I engaged in member checking by seeking feedback from BioTRUST's e-commerce team to confirm the accuracy of the data interpretation and ensure alignment with their customers' experiences.

This iterative feedback loop helped address potential biases, misinterpretations, or oversights, ultimately strengthening the trustworthiness of the research outcomes. Furthermore, I meticulously conducted consistency checks on secondary data to maintain coherence in data and timeframe, thereby averting potential discrepancies.

Data Sources for Churn Rates and Subscription Metrics

My analysis delved into BioTRUST's churn rates and subscription metrics. A subscription dashboard was created in Excel using data extracted from Profitwell and Tableau reporting (Appendix E). This dashboard comprehensively compared various variables, encompassing churn rates, churn revenue, new customer subscription rates, and subscription decline rates. Furthermore, it examined the primary reasons for involuntary declines, subscription revenue categorized by gender and age, subscription growth rates across different age groups, and gender-specific churn rates. Appendix D displays the specific items designated for analysis, the sources of data, and the corresponding data collection methods.

The dashboard included secondary data elements such as Average Order Value, Monthly Recurring Revenue, Subscription Growth Rate, and Customer Lifetime Value to provide a comprehensive perspective. The analysis involved utilizing measures of variability, summary statistics, and summary reports, which unveiled insights into data distribution, categorical overviews, and significant discoveries.

Variable Selection

The following variables were considered in the data to deepen the exploration of the project questions.

Voluntary and involuntary churn rates

Voluntary and involuntary churn rates are percentages that fall under continuous variables. The independent variables included customer satisfaction, subscription price, customer demographics, and the presence of specific subscription features. The subscription price was considered a continuous variable, representing a spectrum of pricing options. Additionally, customer demographics within the survey encompassed a variety of variable types, including nominal (e.g., gender), ordinal (e.g., yearly income), and continuous (e.g., age) variables. On the other hand, the dependent variables pertained to customers who canceled their subscriptions and experienced involuntary disconnections due to payment issues.

Customer Motivation

These factors were evaluated to understand their influence on the motivation for signing up for a subscription. Independent variables included reasons for subscribing, perceived benefits, or promotional incentives. Reasons for subscribing were categorical (nominal) variables, representing different reasons as distinct categories (e.g., cost savings, discounts, free trials, and exclusive content). The dependent variable was the motivation for signing up for a subscription.

In this question, respondents were asked to select one or more motivations from a list of options. Each motivation represented a distinct category or label, but no implied order or ranking existed. Therefore, it fell under the category of nominal data.

Subscription Features

There were several critical attributes in analyzing the factors impacting the desired features of a monthly subscription. These attributes, treated as independent variables, encompassed specific subscription features, customization options, and pricing tiers. As one example of these attributes, specific subscription features were represented as nominal variables, signifying various feature options. For instance, they could encompass access to premium content or personalized recommendations. Meanwhile, pricing tiers were treated as ordinal variables, indicating distinct subscription levels such as primary, premium, or premium plus. The focal point of the analysis was the dependent variable: desired features in a monthly subscription. Respondents expressed their preferences by selecting one or more subscription features from a predefined list. Each chosen feature was a distinct category, with no inherent order or ranking among them. Consequently, this variable fell within the nominal data category.

Findings

This section presents the findings derived from investigating the project's central questions. It outlines BioTrust Nutrition's subscription churn rates, the underlying motivations propelling customer subscriptions, the determinants of cancellations, and the specific features customers prioritize in subscription offerings. These insights offer a valuable understanding of the factors influencing customer behavior and their implications for subscription retention and engagement.

Project Question 1 - What are BioTRUST's voluntary and involuntary churn rates?

BioTRUST's monthly voluntary churn rate stands at an average of 7.0%, slightly higher than industry norms. The involuntary churn rate averages 2.0%, slightly higher than industry standards. As per findings from Recurly (2022) and Stripe (2022), the e-commerce sector typically encounters a 6.14% voluntary churn rate and a 1.26% involuntary churn rate in business-to-consumer transactions. They highlight the recommendation for DTC (direct-to-consumer) companies to target a voluntary churn rate of 4% or less and an involuntary churn rate of less than 1%.

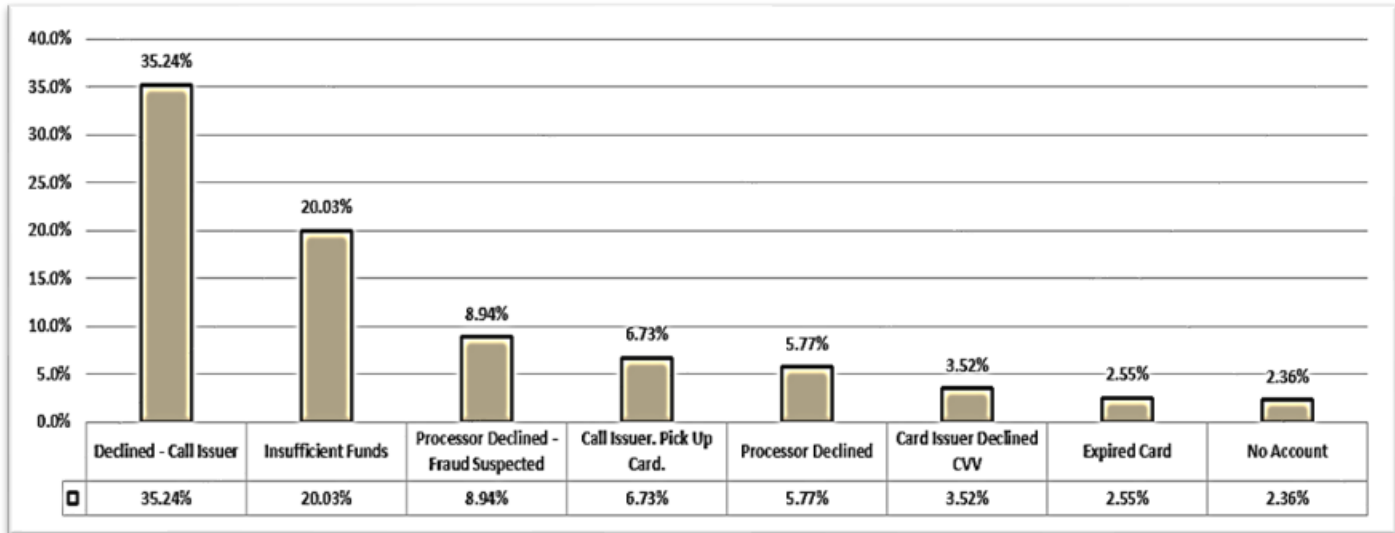
While BioTRUST's involuntary churn rates were slightly higher than industry norms, diving into the reasons for credit card payment failures became a paramount concern for the BioTRUST team. The significance of reducing involuntary churn became evident when considering the financial implications, especially given the challenges BioTRUST faced in acquiring new customers. Curtailing involuntary churn could result in substantial cost savings, as acquiring new customers proves to be more cost-intensive (customer acquisition cost of \$100) than retaining existing ones.

As depicted in Figure 13, 35% of BioTRUST's involuntary churn is associated with a processing code termed "declined—caller issuer." This error message commonly signifies that the credit card issuer, typically the bank or financial institution issuing the customer's credit card, has declined the payment transaction. This event often occurs when customers receive new credit cards, requiring them to update their payment information to continue their subscriptions.

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Additionally, an extra 20% of payment declines result from insufficient funds. These statistics underscore two significant contributors to involuntary churn

Figure 13: BioTRUST's Top Reasons for Involuntary Churn (Credit Card Declines)



Lastly, as I analyzed the voluntary and involuntary cancellations rates, I found that BioTRUST loses 60% of its subscription revenue shortly after the third month of consumers receiving their monthly shipments, as illustrated in Figure 14. This finding highlights a critical juncture where a substantial portion of revenue is impacted, indicating the month at which retention offers should be provided.

Figure 14: Revenue Loss Per Month

% of Original Revenue Retained After Each Month													
Cohort Mo	Cohort Value	MO 1	MO 2	MO 3	MO 4	MO 5	MO 6	MO 7	MO 8	MO 9	MO 10	MO 11	MO 12
2022-04	\$64,856.32	72.10%	55.10%	45.80%	38.90%	35.00%	31.30%	27.60%	24.70%	21.60%	20.60%	19.20%	18.00%
2022-05	\$80,074.83	70.20%	53.80%	44.70%	39.10%	33.40%	31.60%	27.20%	24.00%	20.80%	19.60%	17.70%	16.00%
2022-06	\$70,282.89	76.30%	60.50%	51.60%	44.50%	37.10%	32.80%	28.90%	26.30%	22.30%	20.00%	18.60%	17.70%
2022-07	\$62,077.27	68.90%	52.00%	42.70%	37.30%	31.20%	28.20%	24.00%	23.50%	21.50%	18.10%	15.90%	15.50%
2022-08	\$40,860.92	77.40%	58.30%	46.00%	39.40%	35.60%	33.00%	30.30%	26.40%	23.30%	23.40%	20.40%	19.20%
2022-09	\$53,557.28	72.40%	57.50%	42.20%	35.20%	32.40%	29.10%	24.70%	22.20%	19.50%	18.80%	17.70%	16.10%
2022-10	\$46,557.29	77.20%	54.10%	43.10%	37.60%	31.30%	27.30%	24.20%	20.90%	20.20%	17.30%	15.90%	
2022-11	\$55,992.26	69.50%	49.80%	38.70%	31.90%	26.60%	22.50%	20.30%	18.30%	17.70%	16.10%		
2022-12	\$18,139.03	82.50%	63.40%	53.80%	45.20%	34.50%	29.10%	28.80%	24.80%	24.50%			
2023-01	\$50,405.80	80.40%	61.10%	49.60%	41.70%	36.60%	30.80%	28.10%	24.00%				
2023-02	\$33,397.73	75.20%	58.00%	46.50%	36.10%	34.00%	28.70%	28.20%					
2023-03	\$29,277.94	80.60%	58.30%	46.60%	41.50%	37.50%	36.50%						
2023-04	\$31,564.18	73.40%	56.20%	44.20%	38.10%	31.80%							
2023-05	\$63,065.59	94.70%	76.80%	65.10%	55.90%								
2023-06	\$55,054.49	89.30%	72.20%	60.20%									
2023-07	\$48,894.61	90.50%	69.20%										
2023-08	\$53,154.34	85.20%											
2023-09	\$50,035.29												

During the literature review phase, details on when customers typically experience a decline in subscription revenue associated with the delivery month were not found.

In light of these findings, optimizing strategies to mitigate voluntary and involuntary churn rates within BioTRUST's subscription model is crucial for sustained business growth and enhanced customer retention.

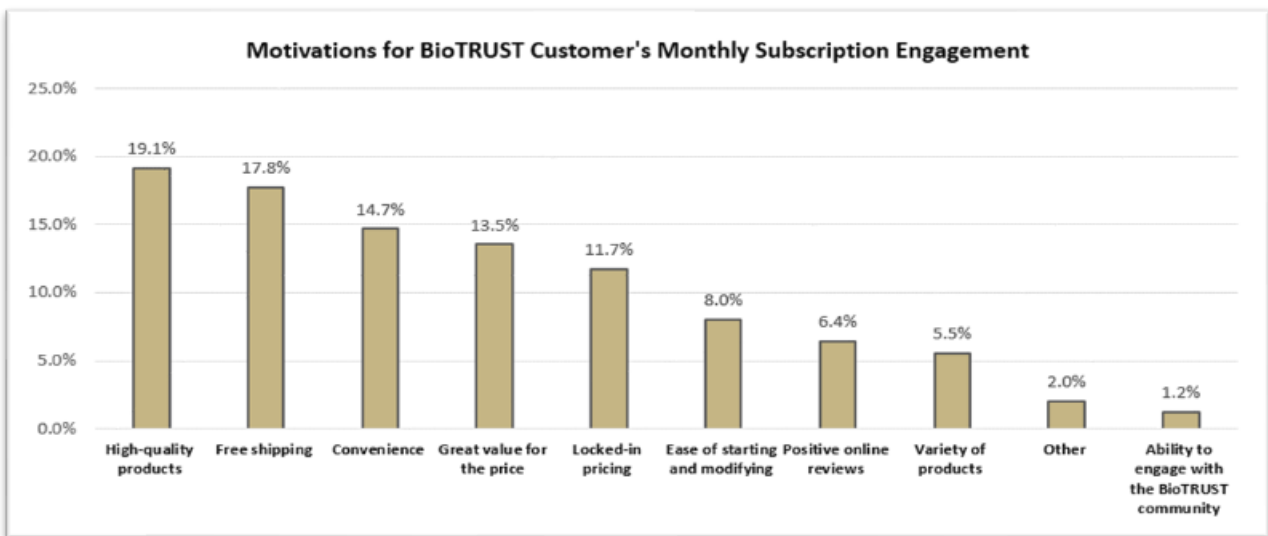
Project Question 2: What factors drive BioTRUST customers' interest in monthly subscriptions?

Figure 15 shows that among the surveyed subscribers, the primary drivers for enrolling in a monthly subscription with BioTRUST are the company's high-quality products, free shipping, and convenience. More specifically, 19% of respondents expressed their willingness to subscribe based on the perceived value they associate with the product. This notion aligns with the findings of Hinterhuber et al. (2021) and McKinsey (2021), who identified that customer value consists of two fundamental dimensions: the monetary expenses related to alternative options and the

subjective assessment of the unique attributes that differentiate a supplier's offering from these alternatives. In simpler terms, when customers consider value, they assess the amount of money they will spend compared to other options and consider unique qualities that set a product apart.

These findings emphasize the pivotal role of value perception in influencing consumer decisions within subscription services and emphasize the need for subscription businesses to prioritize product development and quality assurance efforts to meet customer expectations and minimize churn.

Figure 15: Motivations for BioTRUST Customer's Monthly Subscription Engagement



18% of customers expressed that the availability of free shipping was their primary motivation for enrolling in a subscription. This finding aligns with the results of the Deloitte e-commerce study titled "Demystifying the Hype of Subscription: What Is the True Potential of Subscription and What Drives Its Success?" Additionally, insights from Duvall's (2019) survey echoed similar sentiments, emphasizing the significance of complimentary shipping as a critical factor driving subscription enrollments. This observation is consistent with broader trends in the

e-commerce subscription landscape, as highlighted by PYMNTS (2022), where free shipping consistently emerges as a crucial and highly sought-after service.

Shipping incentives are integral to the success of subscription models, often serving as a critical factor in customer retention. BioTrust recognizes this importance and offers free shipping as part of its subscription model, enhancing the value proposition for subscribers. However, a potential challenge arises when free shipping is featured prominently in lander promotions, accounting for 80% of BioTRUST's marketing initiatives. This strategy inadvertently blurs the distinction between subscription benefits and one-time purchases, potentially undermining the unique value proposition of the subscription model. Consequently, customers may perceive less incentive to commit to a subscription if they can access similar benefits through occasional promotions.

Convenience constitutes 15% of responses, emerging as the third primary factor motivating subscription enrollment. This convenience is exemplified by the constant availability of online subscriptions, eliminating the need for manual reordering and catering to individualized preferences. These insights align with the findings of Deloitte (2022) and the survey conducted by Chen et al. (2018), emphasizing the compelling influence of convenience and user-friendliness as motivating factors. Notably, respondents in these studies expressly indicated a preference for subscribing due to these attributes.

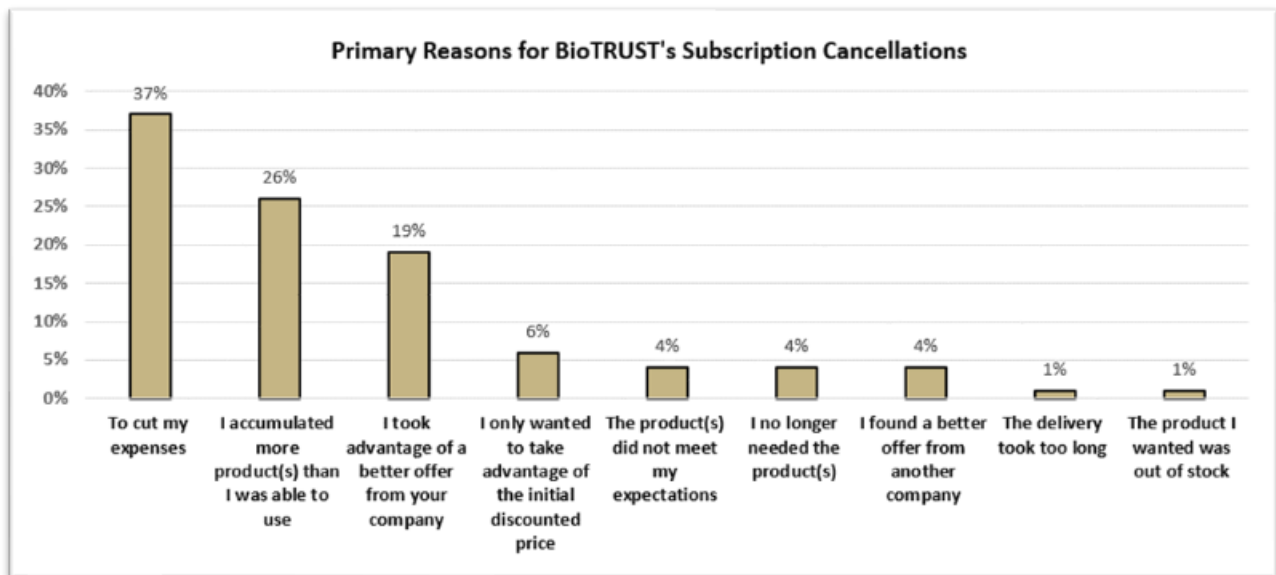
Given this understanding, it becomes paramount to guarantee that shipping processes are executed promptly to uphold the delivery frequency chosen by customers. My investigation confirmed that all subscriptions are prioritized for processing at the outset of each day. This deliberate approach ensures that deliveries are made according to customer expectations, aligning seamlessly with their chosen delivery schedules. By prioritizing subscription orders this

way, BioTRUST demonstrates its commitment to delivering convenience and reliability to its subscribers, enhancing the overall customer experience, and fostering long-term loyalty.

Project Question 3: What factors contribute to BioTRUST customer cancellations of monthly subscriptions?

The customer survey provided valuable insights into the factors driving cancellations of monthly subscriptions. Figure 16 illustrates that the primary reason for subscription cancellations, comprising 37%, is customers' need to reduce their expenses.

Figure 16: Primary Reasons for BioTRUST's Subscription Cancellations



As alluded to in the studies conducted by PYMNTS and sticky.io (2022), as well as the insights from Recurly (2022) and The Conference Board (2021), the looming specter of a 2022 - 2023 recession prompted consumers to reevaluate their subscription commitments as they carefully ventured into 2023. The upsurge in inflation has magnified essential expenditures, compelling many households to adopt a simple yet effective cost-saving approach: discontinuing

non-essential subscriptions. This situation underscores the importance of increased discounts on monthly subscriptions and the importance of healthcare products as essential, aiding customers in understanding the value of their investment.

The second most common reason for subscription cancellations, reported by 26% of survey respondents, is having an excess of the product on hand. This finding aligns with previous research by Sherwin Studios (2023) and PYMNTS (2022), where 23% of subscribers cited a similar reason for discontinuing their subscriptions.

Insights gathered during focus group interviews revealed that an excess of products was cited as a common reason for subscription cancellations by customer service representatives.

"Our observations resonate with a common sentiment: customers frequently express their desire to cancel subscriptions due to product surplus, emphasizing a recurring concern." – Charlene Clegg Senior Manager of Learning and Communications

"Each product was designed for a 30-day regimen. However, customers are accumulating surplus product as a result of not adhering to the recommended usage instructions." – Scott Carter Customer Service Manager

With this understanding in mind, I analyzed the closing macros utilized for each customer service ticket. These macros encompass four distinct records. For example, the process includes the customer's call to cancel their subscription (code one), cancellation due to product surplus (code two), agent discussion on product usage (code three, relating to non-compliance), and the final resolution (code four). The analysis showed that 28% of customers accrued surplus products within the same timeframe due to non-compliance with recommended usage. These findings underscore the significance of fostering customer engagement and providing product education to utilize subscribed services effectively.

Lastly, 19% of consumers canceled their subscriptions because they took advantage of a better offer within the company. In light of consumers' ongoing quest to economize, it is crucial to highlight a critical insight from my interview with the focus group: BioTRUST frequently offers discounts ranging from 20% to 38% during promotional site-wide sales. Remarkably, these discounts occasionally surpass the standard 20% discount provided for subscriptions.

Further investigation into this discovery involved generating a report from April 1, 2022, to April 30, 2023, focusing on customers who terminated their subscriptions. The analysis found customers who, post-cancellation, made three or more orders utilizing 20% or higher coupon discounts, surpassing the subscription's standard 20% discount. Out of the 18,589 customers who canceled, a staggering 17,307, equating to 93%, they placed three or more orders using coupons of 20% or more.

These findings underscore a competitive environment where site-wide promotions might outshine the inherent value of subscription discounts.

Project Question 4: What are BioTRUST customer's desired features in subscription offers?

Before diving into the findings for project question (4), "What are the desired features customers look for in subscription offers?" and project question (2), "What factors motivate customer interest in subscribing to monthly subscriptions?" – let us establish the distinction between the two inquiries. Although both questions explore customer preferences and interests in the realm of subscriptions, they spotlight different facets of the subscription experience.

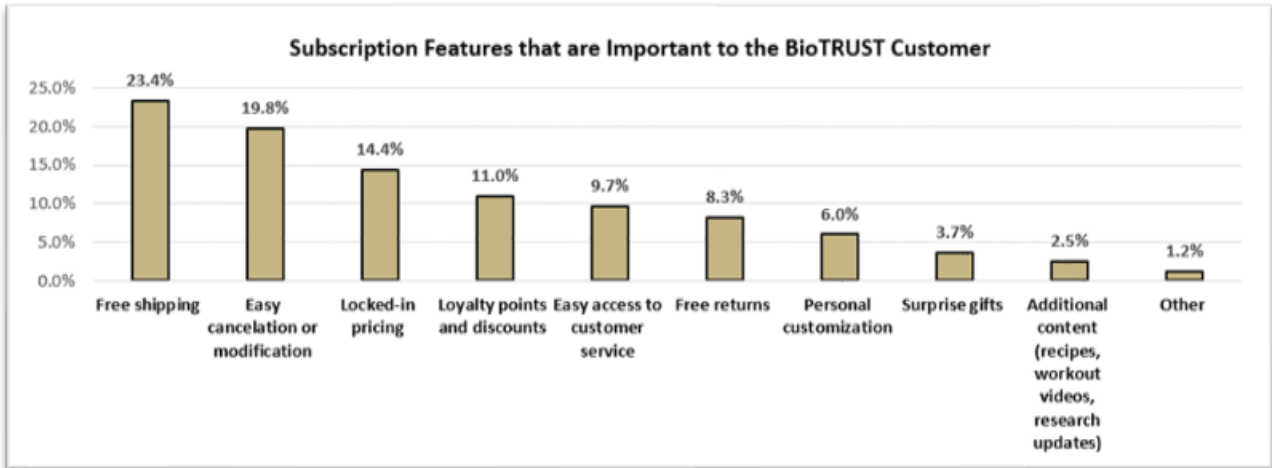
Project question 2, "What motivates you to sign up for a subscription?" aims to unearth the underlying reasons or drivers that prompt individuals to initiate a subscription. Motivation

could encompass perceived value, convenience, discounts, or specific needs or desires the subscription service fulfills.

Conversely, project question 4, "What features are you most interested in?" shifts the focus to the specific attributes or components of the subscription that customers find appealing or crucial. This question aims to pinpoint the key elements, functionalities, or benefits that customers prioritize when considering or using a subscription service. It sheds light on the features contributing to customer satisfaction and influencing their decision to engage with or continue the subscription.

As illustrated in Figure 17, complimentary shipping maintains its foundational significance, consistently emerging as a priority for subscribers, as shown by 23% of survey respondents. The findings of PYMNTS (2022) and Duvall (2019) complement the results of this study, explicitly highlighting customers' preference for complimentary delivery. Their research underscores the undeniable significance of free shipping as a highly sought-after supplementary service in the e-commerce subscription milieu. Furthermore, their findings reveal that shoppers tend to increase their order sizes to qualify for free shipping, further substantiating the potent influence of this aspect on consumer behavior.`

Figure 17: Subscription Features that are Important to the BioTRUST Customer



As discussed in the findings for project question two, BioTrust included free shipping in 80% of their marketing initiatives, not including subscribe and save. This finding highlights a competitive landscape where the allure of free shipping might overshadow the intrinsic value of subscription discounts offering the same perk.

Secondly, the ease of cancelation and modifications for consumers' subscriptions scored a close second, accounting for 20% of survey responses. It highlights that consumers prioritize flexibility and control over their subscriptions, emphasizing the importance of providing user-friendly options for adjusting or discontinuing the service. This insight helps subscription businesses tailor their models to meet customer expectations, ultimately contributing to customer satisfaction and retention.

These survey results align with Recurly's (2002) and PYMNTS's (2022) findings, emphasizing the crucial role of self-service options as a pivotal driver influencing customer engagement in monthly subscriptions, specifically the ability to pause or cancel subscriptions temporarily.

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With that said, 20% of customers contacted BioTRUST customer service to request password resets. This percentage of users encountering difficulties accessing their subscription portal suggests a potential correlation between user frustration and the likelihood of churn. Insights from Recurly and PYMNTS (2022) emphasize the importance of a user-friendly subscription interface. Customers who experience smooth interactions are more inclined to maintain their monthly subscriptions. Therefore, addressing and optimizing the user experience could reduce subscription churn.

Locked-in pricing emerged as a crucial feature in line with customer motivations to sign up for a subscription, garnering agreement from 14% of survey respondents. These findings align with Recurly's (2022) extensive investigation, which analyzed over 1,900 subscription websites using the Recurly platform for payment processing. Notably, both the survey responses for this project and the study completed by Recurly (2022) identified stabilized pricing as a critical factor, pinpointing escalated pricing as a primary driver for customer subscription cancellations. According to Recurly (2022), 71% of consumers terminated their subscriptions due to rising rates. These results underscore the critical importance of locked-in pricing within subscription models. Locked-in pricing provides customers with stability and predictability, mitigating the risk of cancellations driven by unexpected price hikes.

BioTrust currently offers locked-in pricing for subscription members. However, it is essential to note that if a consumer cancels their subscription and later reactivates it, the price point may vary if BioTRUST decides to increase product prices. The prices of BioTRUST products remained stable during the project analysis period.

Loyalty points and discounts are the top reasons, with 11.0% of survey respondents deeming this feature necessary. Grolier and Michel's (2020) research aligns with this discovery,

affirming that rewards enhance transactional loyalty and amplify emotional allegiance. Vincent and Webster's (2013) study further supports this approach, emphasizing that recognizing and appreciating customer commitment and implementing loyalty programs can elevate customer engagement and foster enduring loyalty. BioTRUST presently does not provide Loyalty points for either subscription or non-subscription customers.

Recommendations

Based on BioTRUST's goals and objectives for this project, the recommendations are formulated with three aims: enhancing BioTRUST's voluntary and involuntary churn rates and generating new subscription customers. It is important to note that the literature review provided many reasons for cancellations but needed to provide more direction in recommendations to improve it. The complexity of this situation stems from multiple factors. Firstly, the unique background of each company poses a challenge in formulating recommendations tailored to their specific needs, product offerings, and technology platforms. Secondly, the diversity of financial institutions accessible to e-commerce companies further complicates matters. Each institution specializes in its credit card processing methods and code descriptions, adding another layer of intricacy to the recommendation process.

I am presenting recommendations from discussions with BioTRUST's leadership team and insights from vendors who shared best practices based on their clients' experiences. These recommendations are informed by instinct and practical insights rather than existing literature research.

Recommendations for Improving BioTRUST's Voluntary Churn Rates

Upon uncovering these insights, BioTRUST's voluntary churn rates emerge due to various factors. The recommendations focus on addressing the top three reasons highlighted by survey respondents: 37% attempting to cut down expenses, 26% experiencing the accumulation of excess products, and 19% canceling their subscription to take advantage of BioTRUST site-wide sales—the recommendations provided below aim to address these key findings.

Recommendation #1: Develop unique pricing plans to enhance the affordability of the subscription offer.

During BioTRUST's site-wide sales, customers can enjoy up to 38% discounts, surpassing the standard 20% subscription discount. Lee (2019), Bray et al. (2021), and Choi et al. (2021) found that better pricing from brand subscriptions attracts customers to monthly subscriptions. PYMNTS (2022) warns that discrepancies in pricing may lead to customer churn, showcasing the crucial role pricing plays in subscription dynamics. With recession warnings looming in 2023, consumers will reevaluate subscriptions in 2024 due to rising inflation (PYMNTS, 2022). Subscribers typically keep subscriptions they deem indispensable or precious.

To tackle the lower discount offered with BioTRUST's Subscribe and Save program, increasing the subscription discount price to 40% is recommended. This adjustment is expected to result in higher revenue in the fourth month than customers availing themselves of site-wide sales.

Figure 18 illustrates the potential revenue increase for BioTRUST under the following assumptions:

- * What if 1,318 customers enrolled or reinstated their subscription monthly at the average order value of \$45?

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- * What if 1,318 customers made purchases using the site-wide sale discounts at the company's average order value of \$130 but did not enroll in a subscription?
- * What if 1,318 are non-subscription customers but are new buyers at the company's average order value for new customers of \$111?

Figure 18: Cumulative Revenue Based on Assumptions

	Cumulative Revenue After						
	Customers	Month 0	Month 1	Month 2	Month 3	Month 4	Month 5
Enrolled in a subscription offer	1,318	\$ 59,480	\$ 104,477	\$ 142,731	\$ 175,799	\$ 204,758	\$ 231,223
Purchased using site-wide discounts (non-subscribers)	1,318	\$ 171,340	\$ 171,340	\$ 171,340	\$ 171,340	\$ 171,340	\$ 171,340
New Customers (non-subscribers)	1,318	\$ 146,733	\$ 163,366	\$ 178,009	\$ 190,622	\$ 201,575	\$ 211,579

This adjustment is beneficial because it ensures that the subscription discount remains competitive with BioTRUST's site-wide sales. By increasing the subscription discount to 40%, customers will perceive more excellent value in enrolling in the Subscribe and Save program, potentially leading to higher subscription enrollments and retention rates. Additionally, aligning the subscription discount with the site-wide sales demonstrates consistency and reinforces BioTRUST's commitment to offering attractive discounts to its customers across all purchasing channels.

Raising the discount beyond 40% notably impacted profitability, influenced by product margins, cost of goods, customer acquisition expenses, and overall sales volume. While a higher discount might draw in more customers and boost sales, it could simultaneously diminish the profit margin per sale, potentially resulting in decreased overall profitability.

Recommendation #2: Create Product Information Channels

According to PYMNTS (2022) and Baek & Kim (2022), customers often accumulate products because they fail to take them as directed, often due to a lack of understanding of using them.

To prevent product accumulation stemming from customers' adherence to usage instructions, BioTRUST can implement several strategies. Firstly, the company can create informative videos detailing each product's benefits and usage recommendations, placing them prominently on BioTRUST's product pages for easy access. Secondly, incorporating QR codes on product packages can further assist customers in following usage instructions by providing instant access to digital resources like instructional videos, guides, or FAQs. This immediate access can clarify usage guidelines, address common concerns, and ensure effective product utilization.

Additionally, QR codes can direct customers to online communities or forums for peer support and advice, fostering a sense of community around product usage. One of BioTRUST's sister companies has successfully employed this approach and has proven effective in promoting adherence to product instructions while enhancing customer satisfaction.

Recommendation #3: Exclude monthly subscribers from site-wide sale emails.

According to PYMNTS (2022), discrepancies in pricing can contribute to customer churn, emphasizing the importance of pricing in subscription dynamics. BioTRUST can implement a strategy to exempt Subscribe and Save (S&S) customers from receiving site-wide

sale emails to address this issue and reduce voluntary churn. This approach involves segregating monthly subscribers from the general mailing list and creating a specialized list with exclusive monthly offers for S&S customers.

By doing so, BioTRUST can ensure that S&S customers are not tempted by deeply discounted promotions that may lead to impulse purchases and product accumulation. As a result, this focused strategy can help lower the risk of subscription cancellations triggered by extensive promotional discounts, ultimately contributing to improved customer retention and revenue stability.

Recommendations for Improving BioTRUST's Involuntary Churn Rates

The findings highlight that BioTRUST faces challenges with involuntary churn rates, which are slightly higher than industry standards, resulting in significant consequences for the business. The identified cause of 35% of credit card declines, attributed to customers receiving new credit cards and requiring payment information updates, serves as a basis for several strategic recommendations.

Recommendation #4: Alert Customers when their Credit Cards Decline

To address the challenge of credit card declines, particularly those linked to "declined-caller issuers," it is recommended that BioTRUST leverage ReCharge, its subscription platform system. This objective can be pursued through both proactive and reactive strategies.

Proactive Measure

I recommend that BioTRUST implements automated email reminders to prompt customers to update their credit card details. These reminders should be personalized and sent

out promptly on the first day a credit card declines, providing clear explanations and step-by-step instructions for resolution.

Additionally, BioTRUST can incentivize customers to maintain current payment information by offering discounts or special deals on upcoming billing cycles. This proactive approach encourages customers to update their details and enhances their overall experience with the company.

Reactive Measure

As a reactive measure, BioTRUST could implement an auto-dialing campaign as a reactive measure to address payment issues promptly. This initiative involves pulling a daily credit card decline report from ReCharge and utilizing Five9, their call center phone system, to create an automated outbound campaign. By uploading customer phone numbers and setting up automated recordings, BioTRUST can inform customers of declined payments, guide them on updating their information, and offer incentives to encourage action.

Combining proactive and reactive outreach strategies will enable BioTRUST to reduce credit card declines effectively, ultimately enhancing revenue stability and customer satisfaction. This approach aligns with BioTRUST's goal of providing exceptional service and support to our valued customers.

Additionally, feedback from Ben Grunert, Account Manager at ReCharge, highlights the updated subscription model's positive impact on customer retention and revenue generation. Implementing these recommendations will further solidify their commitment to delivering value and excellence to our customers.

Recommendation #5: Initiate a Passwordless Login System

The recommendation to implement a passwordless login system addresses subscription churn by addressing a significant friction point in the customer experience. Seamless subscription management is vital for retaining subscribers, as highlighted by research (Recurly, 2022) and (PYMNTS, 2022). Currently, 20% of customers resort to contacting customer service for password resets, indicating challenges with the existing password recovery system. This event frustrates customers attempting to update their credit cards through the portal, potentially leading to churn.

By introducing a passwordless login system, BioTRUST can streamline account access and eliminate customers needing to remember passwords or contact customer support for assistance. Instead, customers can authenticate their accounts using their email address and a code sent via email or text message. This change simplifies the login process, reducing friction and enhancing the customer experience.

Moreover, passwordless login enhances security by offering various authentication factors, such as biometrics or one-time codes, as (Johnson, 2023) highlighted. This suggestion ensures that customers can securely access their accounts and manage their subscriptions without compromising their personal information.

Ultimately, passwordless login aims to create a smoother and more secure login experience, empowering customers to quickly modify or update their orders. By improving the ease of subscription management, BioTRUST can mitigate churn and retain more subscribers over the long term.

Recommendations to Generate New Customers and Increase Revenue

This project explored the subscription churn patterns at BioTRUST, revealing a 9% churn rate against a 5% average for new subscriptions per month. To address these findings, I propose a multifaceted growth strategy. The strategy involves implementing a Loyalty program featuring a "Refer a Friend" model, offering trial offers, Net Promoters surveys, webinars with detractors, and the introduction of bundles.

Recommendation #6: Introduce a Loyalty program featuring a "Refer a Friend" model

The research conducted by Grolier and Michel (2020) emphasizes the dual impact of rewards, enhancing transactional loyalty and fostering emotional allegiance. Expanding on this insight, BioTRUST should implement a Loyalty Program to meet changing consumer preferences and industry standards. This program will reward loyal customers while attracting new subscribers to BioTRUST's subscription services. Leveraging ReCharge's new loyalty program through its Affinity portal is a cost-effective solution for BioTRUST to achieve this goal. Adding a loyalty program to a subscription model can help with customer growth in several ways:

- **Retention:** Loyalty programs incentivize customers to remain subscribed for extended periods to accumulate rewards or benefits, thus reducing churn rates.
- **Attraction:** Offering exclusive perks or rewards through the loyalty program can attract new customers interested in those benefits, thereby expanding the subscriber base.
- **Referrals:** Many loyalty programs include referral incentives, encouraging existing customers to refer friends or family members to the subscription service, thus driving customer acquisition.

- **Engagement:** Loyalty programs can increase customer engagement by offering personalized rewards, discounts, or experiences, leading to higher customer satisfaction and loyalty.

Building upon the "Refer a Friend" program, this strategy harnesses the influential potential of word-of-mouth marketing to amplify its impact.

This initiative empowers satisfied customers to advocate for the brand, spreading positive experiences and nurturing a community of trust. To launch this program effectively, BioTRUST should tap into its pool of promoters (approximately 6,935) and ensure clear communication of the program details, guiding participants on how to earn rewards or incentives. Streamlining the sharing process with intuitive tools and user-friendly design, particularly optimized for mobile users, will reduce friction. BioTRUST could offer diverse and appealing rewards to keep the program dynamic, regularly updating them to maintain interest. Timely reward payouts and adherence to program rules will sustain referrers' engagement, encouraging repeat referrals and ensuring ongoing program success.

Overall, a well-designed loyalty program enhances the value proposition of the subscription model, fosters stronger customer relationships, and contributes to sustainable customer growth over time.

Recommendation #7: Market the Subscription model as a Trial

The Conference Board (2021) emphasizes consumers' concerns regarding the reliability and trustworthiness of subscription services, citing issues like hidden fees, cancellation challenges, and product quality as deterrents to enrollment. To address these apprehensions,

BioTRUST can implement a trial program with a deeper discount for first-time subscribers, encouraging hesitant consumers to try its subscription service with reduced risk.

Offering introductory discounts, such as 44% off the first subscription and 40% off subsequent ones, presents multiple benefits for BioTRUST in attracting new customers. This approach provides a compelling incentive for potential subscribers to use the service. The discounted initial cost minimizes perceived financial risks, while the upfront discount acts as a potent tool for converting leads into paying customers. BioTRUST can streamline the subscription conversion process by addressing potential hesitations and objections and facilitating more significant customer acquisition.

Recommendation #8: Implement a Net Promoter Survey

Customer satisfaction is essential for subscription retention, as it compares delivered performance with customer expectations (Lemon & Verhoef, 2016). Addressing both the gap in Net Promoter Scores between using the subscription portal and calling customer service, along with the observation that 60% of BioTRUST's subscription revenue is lost within the third month of enrollment, the suggestion is to introduce a Net Promoter Score (NPS) survey for every new subscription customer at the onset of the second month.

This proactive approach allows BioTRUST to gauge customers' initial experiences with the subscription service, facilitating early identification of dissatisfaction or concerns. By categorizing customers as promoters, passives, or detractors, BioTRUST can pinpoint potential issues and take corrective actions before they escalate. These recommendations aim to address

specific pain points, enhance customer satisfaction, and contribute to long-term subscription retention for BioTRUST.

Conclusion

In this analysis, I have presented a range of findings and recommendations that align with the objectives pursued by BioTRUST Nutrition. The multifaceted approach addresses specific challenges identified by comprehensively examining subscription dynamics, customer behavior, and industry benchmarks. The proposed strategies are tailored to optimize BioTRUST's subscription model and foster sustained growth in a competitive market landscape.

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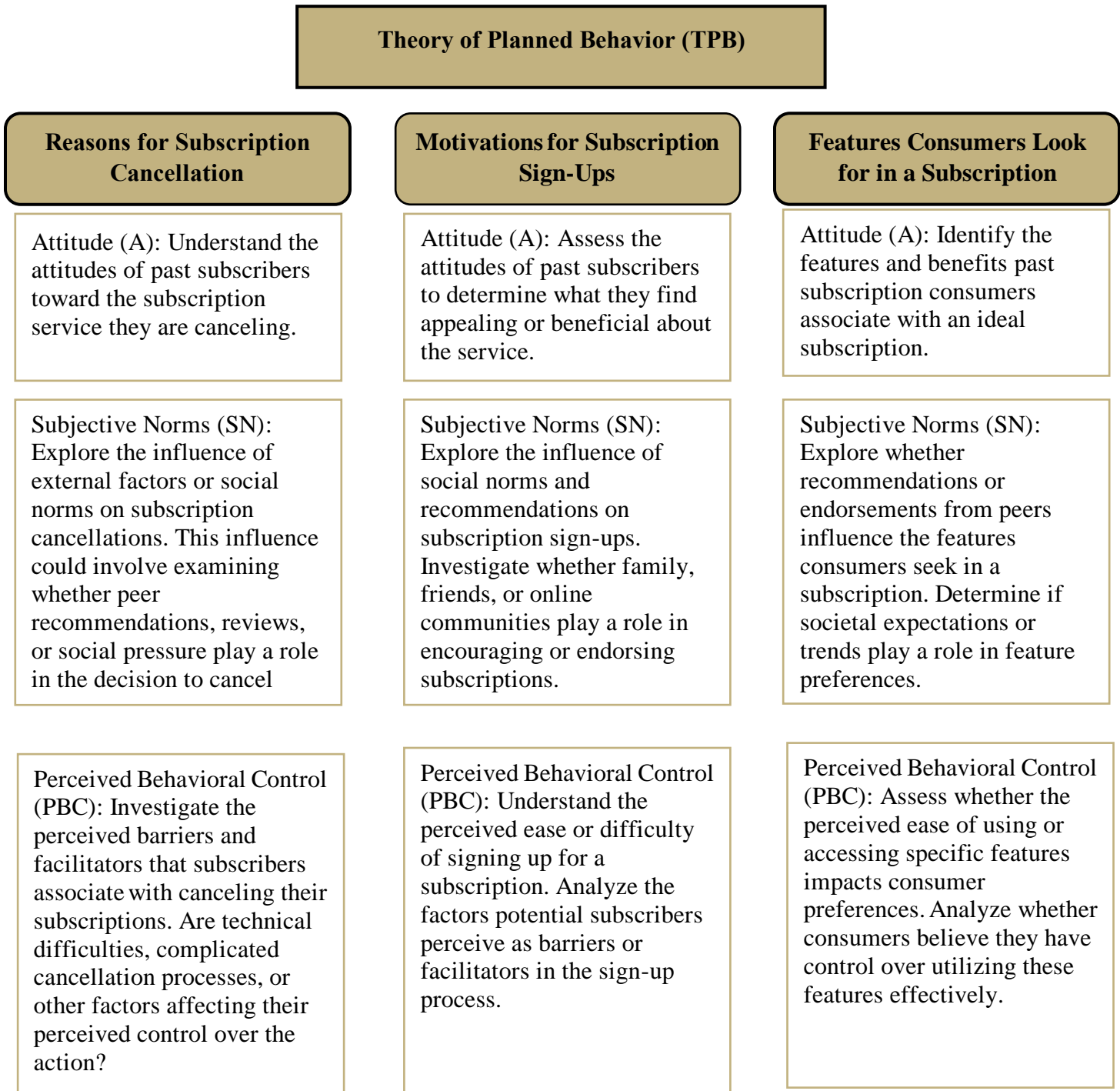
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Appendices

Appendix A: Applying the Theory of Planned Behavior to Subscription Churn



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Appendix B: Survey

https://docs.google.com/document/d/1g9H3U8bpHZcPkHi6oaNIPuEV0O0c1Eal/edit?usp=drive_link&oid=114891289807789034182&rtpof=true&sd=true

Appendix C: Process Map

https://drive.google.com/file/d/17__8SNAgshUoPO8hOcJ1GigJD7mtboNi/view?usp=drive_link

Appendix D: Data Analysis

The project will analyze BioTRUST's churn rates using data from the internal database and Tableau reporting, specifically the SNS Weekly Retention Stats. The data collection method involves crafting a subscription dashboard in Excel to compare and analyze various variables such as churn rates, churn revenue, new customer subscription rates, subscription decline rates via the processor, top reasons for involuntary declines, subscription revenue by gender and age, subscription growth rate by age group, and churn by gender and age group. Additionally, secondary data will be considered, including average order value, monthly recurring revenue, subscription growth rate, and customer lifetime value.

Measures of variability such as range and variance will be applied to the original subscription revenue retained and the percentage of original subscription customers retained after each month to provide insights into the spread or dispersion of data points. Summary statistics will include tabular summaries presenting counts, percentages, and other relevant statistics to offer a concise overview of categorical data. Summary reports will present the results of the descriptive analysis, including tables, charts, and concise descriptions of key findings.

Through a customer survey, the project will also investigate factors influencing voluntary cancellation rates, enrollment motivation, and desired features. The entire customer population who canceled their subscriptions from April 2022 to April 2023, totaling 44,438 customers, will

be surveyed. Measures of central tendency such as mean, median, and mode will be used to describe the center or typical value of the survey responses.

Furthermore, the procedures consumers follow to enroll in, make alterations to, or terminate a subscription, as well as how they are informed about the program and its advantages, will be examined through focus groups. Feedback from these groups will be turned into a process map, allowing for a structured examination to identify issues or errors and determine the root causes.

Appendix E: Subscribe and Save Dashboard

https://docs.google.com/spreadsheets/d/1Du7iQxxj_zB93aPaQ2nlXzwexovYGKz6/edit?usp=drive_link&ouid=114891289807789034182&rtpof=true&sd=true

Appendix F: Data Cleaning and Preprocessing

The following were the steps implemented to clean and preprocess the data:

1. Imported the completed dataset into Excel for analysis.
2. Inspected the raw data to identify immediate issues, such as missing values, duplicate entries, or formatting problems. All data were found.
3. Ensured that data types were correctly assigned to each variable, distinguishing between numerical and categorical variables, and corrected any data type misassignments.
4. Detected and addressed duplicate records in the dataset by removing them.
5. Standardized or normalized numerical variables to achieve a consistent scale.
6. Applied natural language processing (NLP) techniques for survey sections that required explanation. This process included text cleaning, tokenization, and sentiment analysis.

7. Validated data integrity and collaborated with the partner organization to confirm that values fell within the expected ranges or categories.

Appendix G: Data Exploration

The data was displayed using heat maps and line and column charts to understand the data's characteristics and initial patterns.

Line charts displayed:

1. Churn rates
2. Churn revenue
3. New customer subscription rate

Column charts displayed:

1. Top reasons for involuntary declines
2. Monthly recurring revenue
3. Average order value
4. % of subscriptions renewed each month
5. Subscription growth rates
6. Customer lifetime value
7. Churn and subscription revenue by gender and age
8. Subscription growth rate by age

Heat maps displayed the following:

1. % of original subscription revenue retained after each month
2. % of original subscription customers retained after each month

Appendix I: Implementation Timeline

