



Subscription-Based Pricing Models in SaaS: An Overview

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Abstract Subscription-based models have changed how businesses and individuals access software because they provide scalability and affordable solutions to the industry. For example, Adobe's transition to a subscription model resulted in a creative cloud suite that increased its customer base from 12.8 million in 2015 to over 22 million in 2020, showcasing its impact on accessibility and business growth. People enable access to a quality suite of powerful tools for a monthly fee rather than a subnational one-time purchase. This has led to more flexible solutions [1].

Historically, the software has been distributed as one-time purchases, often requiring substantial upfront investment and restricting access to essential tools for many users and businesses. The emergence of the Internet and advancements in cloud computing gave rise to Software as a Service, enabling the option of subscription miss.

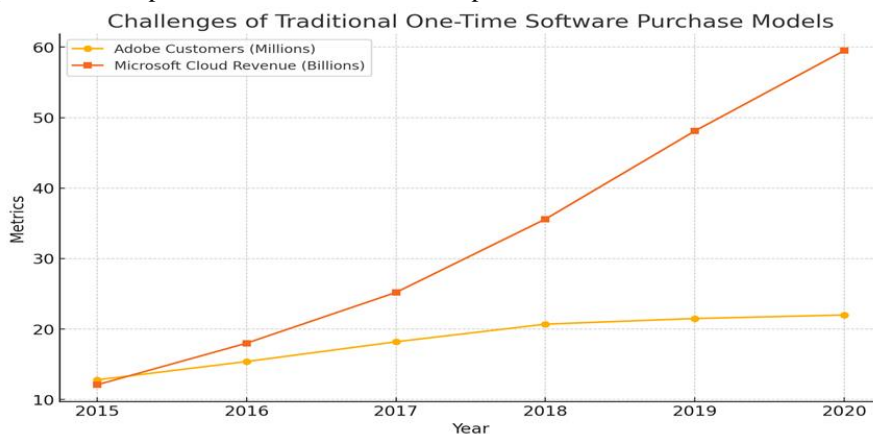
This paper will delve into the evolution of subscription models in SaaS, examining different subscription models like Freemium, Tiered pricing, and Pay-as-you-go models, as well as their effects on customer retention and revenue.

Keywords Subscription-based pricing, SaaS, Scalability, Cost-effective solutions, Customer retention

Introduction

SaaS Software as a Service has changed after the implementation of subscription model pricing. They are mainly offering scalable and cost-effective methods. These methods provide periodic payments rather than substantial one-time purchases. This shift has enabled accessibility and flexibility, primarily increasing—growth in user bases. For instance, there was a massive increase in Microsoft users when they transitioned from the previous model to the Office 365 subscription. Also, their revenue increased from \$12.11 billion in 2016 to \$59.5 billion in 2021 [3].

Here is the impact of subscription models on software companies



Source: Software Licensing Models [7]



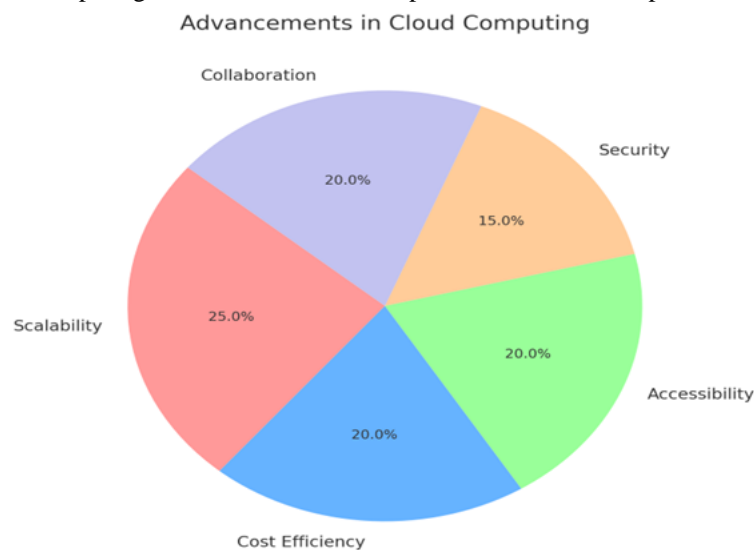
Evolution of the subscription model

Previously, many software used the traditional one-time models for software distribution for many years. In this model, customers must purchase upfront to acquire a license for the software. It has limitations and challenges, but it comes with immediate ownership. A significant barrier is that it comes with a considerable investment for small businesses and individual users, which is a barrier to these.

The advent of the internet and advancements in cloud computing have made way for the subscription models. Subscription models many financial burdens easily spread over the cost over time. This approach develops accessibility, allowing a more comprehensive range of users to access up-to-date software without significant costs. Overall transition to the subscription model thus fundamentally reshaped the software industry, changing a more inclusive and sustainable ecosystem [5].

Advancements in cloud computing

The subscription model was implemented, leading to internet and cloud computing advancements. Collaboration is improved through scalability, cost efficiency, and accessibility. Here is the pie chart demonstrating the critical advancements in cloud computing that have driven the adoption model of subscription models.



Source: Cloud computing — The business perspective [4]

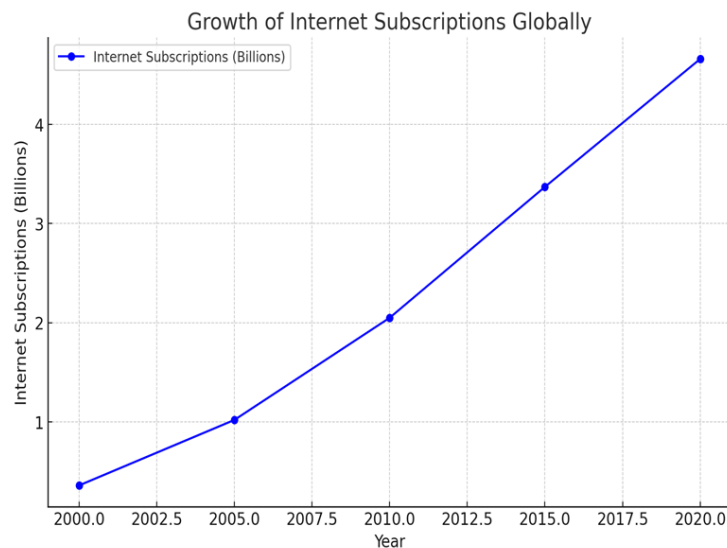
Benefits of Subscription-Based Pricing Models

The main benefit of adopting the subscription-based model is that it removes substantial upfront investments and gives access to advanced software. This software allows for the payment of smaller investments and manageable fees over time. These provide a wide range of companies running on a smaller scale with powerful tools previously unaffordable. Also, this model helps in better financial planning as costs are predictable and spread out over the subscription period [5]

One of the key advantages is these subscription-based models are much more scalable. Businesses can adopt this software based on their current needs. If a company is growing, it can implement this model. After that, it will use this as it grows with more and more features without additional costs for significant capital expenditure [2]. Subscription models give various payment options catering to different financial barriers. Companies can choose from monthly, quarterly, or annual payment methods. This flexibility option allows companies to manage the cash flow immediately. This means companies align software expenses with revenue cycle, and individual users can select plans best fit their budget. Additionally, some companies offer discounts for longer-term commitments, providing further financial incentives for users [3].

The line graph illustrates the global growth of internet subscriptions from 2000 to 2020





Source: International Telecommunication Union (ITU) Statistics [5]

Types of Subscription Models in SaaS

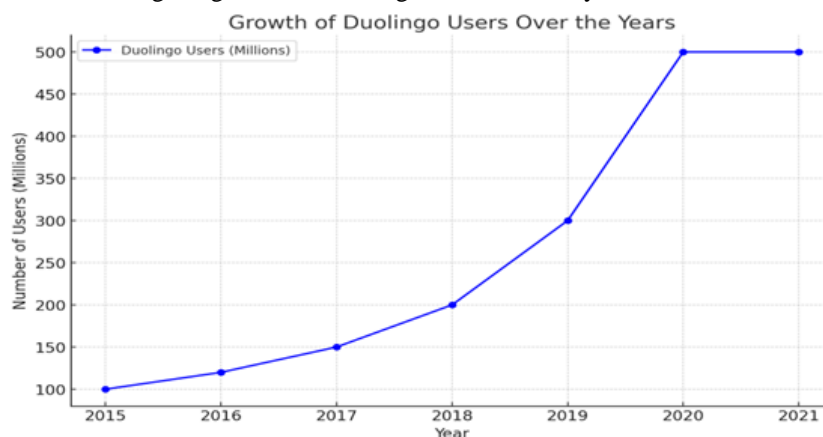
The freemium model comes with basic features of the software for free while charging for advanced functionalities and premium features. This provides users access to software at no cost, increasing user adoption and engagement. Companies benefit by converting daily free users into paying customers once they recognize the value of the premium features they are providing.

Tiered pricing models come with subscription models with different levels of features and services. Each section caters to varying users' needs and budgets. This model ideally helps in targeting multiple audiences. For example, the Tiered model with a basic plan provides essential features, and higher tiers offer additional tools and support. This is most famous among the software companies Salesforce and Slack because they offer more flexibility and scalability to users.

The pay-as-go model charges based on the user's engagement with the software. Their flexible approach ensures the customer only pays for what they use, making it cost-effective for varying usage levels. These models are suitable for companies with fluctuating needs. They are commonly used by cloud service providers like AWS (Amazon Web Services) and Microsoft Azure, where customers pay based on their use [7].

For instance, Duolingo has applied the freemium model to provide language learning resources. Users can access the basic version for free, including ads, while premium subscriptions get an ad-free experience with more features. This freemium model democratized language learning, making it accessible to millions worldwide. As of 2021, Duolingo has 500 million downloads, significantly impacting the freemium model [6].

Here is the line chart illustrating the growth of Duolingo users over the years



Source: Duolingo User Statistics [2]



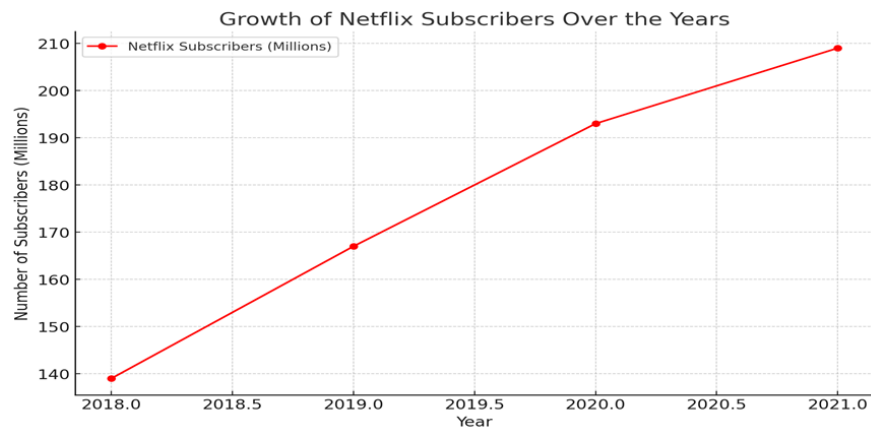
Challenges in implementing Challenges in Implementing Subscription Models

Changing from traditional software to a subscription-based model can be an advanced and resource-intensive process. Businesses can face significant barriers to finances during the transition as they shift their process from receiving large up-front payments to more minor, receiving recurring payment sets.

Customer retention can be difficult, mainly if customers are accustomed to a one-time purchase. There may be resistance to continuing payments, even if the overall cost is lower. Businesses need to effectively communicate the value and benefits of the subscription model, such as continuous updates, enhanced support, and cost-effectiveness, to overcome skepticism and resistance.

There is also a challenge regarding implementing and maintaining a subscription model, which requires robust technical infrastructure and operational capabilities. This includes setting up automated billing systems, ensuring data security, and managing customer accounts. Technical glitches or failures in the billing process can lead to customer dissatisfaction and result in the loss of subscribers.

Subscription churn, or the rate customers cancel their subscriptions, is a central issue for business. A high churn rate can significantly impact revenue and growth. Companies must adopt effective customer retention strategies. Personalized engagements, loyalty programs, and regular feedback mechanisms can be used to reduce churn [4]. For instance, the graph below highlights the effectiveness of Netflix's strategies in managing subscription churn and retaining users.



Source: Netflix Subscriber's data [3]

Future Directions in Subscription-Based Pricing

Future direction implementation of SaaS includes dynamic and personalized pricing with the integration of Artificial Intelligence and machine learning. Emerging trends include usage-based and value-based pricing models catering to diverse customer needs. Sectors like automotive and healthcare will expand more. Businesses will maximize customer lifetime value through superior support and continuous product enhancement. Sustainability and social responsibility will make crucial differences that appeal to environmentally conscious customers. The subscription model will emphasize flexibility, customer-centric strategies, and technological advancements to remain competitive and meet evolving market demands [8].

Bottom Line

The nature of subscription pricing models has revolutionized the SaaS industry, providing a more scalable, affordable, user-friendly method of delivering software that not only makes the software more accessible to a wide range of users on an ongoing basis but drives innovation. This transition from one-time purchases to subscriptions has meant that users no longer require deep pockets to get their hands on sophisticated tools. Yet moving toward a subscription-based model is challenging considerations of payment adoption, customer retention, churn management, and robust technical operations must be met. Netflix and Duolingo have successfully addressed these challenges by focusing on personalized engagement and constant value delivery. This is where the most significant potential in the future is how AI and machine learning will scale up subscription models, establishing prices that are personal (due to the individual characteristics of every visitor)



and dynamic. In general, subscription models make costs directly relevant to value and increase convenience. This gives the developers a more sustainable approach that leads to loyal publishers and, thus, a more competitive and less responsive product to market.

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