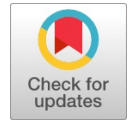


Optimizing Trial Experiences in Cloud Platforms: Challenges, Strategies, and Impact on User Engagement and Conversion Rate

Prakash Somasundaram, K Aishwarya Pillai



Abstract: This article delves into the significance of trial experiences in the context of cloud-based solutions, a crucial aspect of today's digital business landscape. As cloud platforms reshape service delivery, the Freemium and Free Trial models emerge as compelling strategies for customer engagement. These models not only offer a glimpse into the service's capabilities but also serve as a critical touchpoint for building trust and rapport with potential customers. Optimizing trial experiences, however, comes with a set of challenges, including balancing feature accessibility with the need to incentivize paid conversions and tailoring the trial to diverse user needs and expectations. This article extensively examines the optimization of trial experiences within cloud platforms, encompassing hurdles, strategic approaches, and their profound influence on user engagement and conversion rates. It highlights the delicate art of designing trial experiences that are sufficiently feature-rich to demonstrate value yet limited enough to encourage upgrade to paid versions. The article also discusses how personalization and customer feedback can be leveraged to enhance trial experiences. By analyzing key industry players like Microsoft Azure, Amazon Web Services (AWS), and Google Cloud Platform (GCP), the article sheds light on how these frontrunners utilize trial experiences to captivate audiences and fortify their customer base. It explores their distinct approaches in offering trials, the impact on market positioning, and how they balance the need for security and compliance with user accessibility. The insights from these industry giants provide valuable lessons for other players in the cloud computing sphere looking to harness the power of trial experiences for customer acquisition and retention.

Keywords: Cloud-Based Solutions, Conversion Rates, Trial Experience Optimization, User Engagement.

I. INTRODUCTION

In today's digital landscape, where cloud-based solutions play an increasingly integral role in business operations, the importance of providing potential customers with opportunities to test and assess cloud platforms cannot be overstated. Cloud platforms have implemented a strategy to revolutionize how services and software are delivered.

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*Correspondence Author(s)

Prakash Somasundaram*, Department of Computer Science, Northeastern University, San Francisco, California, United States of America (USA). E-mail: somasundaram.p@northeastern.edu, ORCID ID: [0009-0009-4512-2339](https://orcid.org/0009-0009-4512-2339)

K Aishwarya Pillai, Department of Computer Science, Northeastern University, San Francisco, California, United States of America (USA). E-mail: pillai.k@northeastern.edu, ORCID ID: [0009-0003-8110-4986](https://orcid.org/0009-0003-8110-4986)

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Organizations continuously seek innovative methods to captivate individuals and stimulate desired actions. The Freemium and Free Trial models have garnered extensive approval among the myriad choices available. Trial experiences are methods that are used to allow potential customers to explore the features and capabilities of a cloud platform before deciding on a purchase [4]. However, optimizing trial experiences presents several challenges. This article delves into optimizing trial experiences within cloud platforms, addressing challenges, strategies, and the impact on user engagement and conversion rates. By examining prominent cloud platforms such as Microsoft Azure, Amazon Web Services (AWS), Google Cloud Platform (GCP), and others, we explore how these industry leaders leverage trial experiences to captivate audiences and bolster customer acquisition.

II. ENABLING TRIAL EXPERIENCES IN CLOUD PLATFORMS

Enabling trial experiences in cloud platforms entices potential customers to try out a cloud platform's functionalities and features before making a purchase decision. The process has several benefits for both the business [2]. One of the benefits is that they help attract and convert more customers because they experience the cloud platform's performance, security, usability, and scalability without any commitment or risk [1][19][20][21][22]. The trials increase customer loyalty and satisfaction as the cloud platform meets their needs and expectations. Free trials reduce customer acquisition costs because they lower barriers to entry and increase word-of-mouth referrals. The company can also gather customer feedback and data because it can monitor and analyze user behavior and preferences during the trial period [6]. Enhancing their offerings is achievable by leveraging customer feedback and data to pinpoint and address user challenges, elevate user contentment, boost user involvement, refine user conversion strategies, and tailor personalized user suggestions [5].

III. CHALLENGES ASSOCIATED WITH IMPLEMENTING A TRIAL EXPERIENCE IN CLOUD PLATFORMS

A. Trial Period Management

Cloud platform providers must establish and uphold the timeframe and extent of the trial phase, carefully balancing the interplay between user contentment and the conversion rate [4].

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The trial needs enough time for the users to evaluate and compare different cloud platforms, explore and learn the platform's functionalities and features, and make informed purchase decisions [8]. However, on the other hand, the providers need to limit the trial period scope and time to create a sense of scarcity and urgency for the users. Additionally, it should limit them from abusing or exploiting the free services. The temporal aspect greatly influences user engagement and conversion rates. This necessitates a well-defined and uniform trial period policy that can effectively harmonize the requirements and anticipations of both the cloud platform providers and the users engaging in the trial [1].

B. Infrastructure and Resource Provision

During the free trial period, enough resources need to be allocated and managed by the cloud platform providers. Resources such as CPU, memory, network, storage, etc., should be well distributed to each user, considering the trade-off between performance and cost [14]. Trial users need to have enough resources to facilitate easy application running and perform experiments on the cloud platform without any degradation or interruption. On the other hand, the providers need to minimize the cost and waste of resources not used or needed by trial users [13]. This demands a resource provisioning mechanism that is adaptable and streamlined, capable of modifying resource distribution according to users' demands and usage trends during the trial period.

C. User Onboarding and Training

Effective guidance and support need to be provided for users to learn and explore the platform's features and functionalities, weighing the balance between user independence and support. Platform providers need to provide enough instructions and information for the trial users to understand and navigate the cloud platform and be able to complete common tasks or scenarios on the platform [1]. Consequently, they need to avoid providing complex information or instructions. The information should allow users to discover and experiment with the platform at their own pace and style. To achieve this, platform providers need a user-friendly and intuitive interface design that can offer various user onboarding and training methods, such as interactive tutorials, contextual help, and guided tours.

D. Conversion and Subscription Management

One of the main aims of the trial process is to persuade and facilitate the users to convert from trial users to paying customers, considering the trade-off between user loyalty and churn rate. Therefore, they must provide enough benefits and incentives for the trial users to subscribe to their online platforms, such as rewards, discounts, and referrals. Conversely, they should refrain from inundating trial users with excessive or overly forceful marketing communications or calls-to-action that could lead to annoyance, and they should uphold their users' decisions and preferences [12]. Achieving this goal demands implementing a conversion strategy centered around customer needs and backed by data insights, enabling the customization of subscription proposals and messages based on user conduct and input throughout the trial phase [9].

E. Gathering User Feedback

Another challenge arises in gathering and assessing user input during and after the trial phase. The platform providers require input to assist in decision-making. Similarly, there must be a balance between safeguarding user privacy and ensuring data accuracy [1]. Consequently, they must gather sufficient user feedback to gauge and enhance the quality of the trial experience, user interaction, customer contentment, conversion metrics, and more [11]. Conversely, they must uphold user data security and privacy and adhere to pertinent legal frameworks governing data collection and processing. To achieve this, they require a candid and ethical user feedback mechanism that employs diverse methods and tools for feedback compilation, including surveys, ratings, reviews, comments, suggestions, grievances, and the like [10].

IV. METHODS TO STREAMLINE USER ONBOARDING PROCESSES

The user onboarding process is a very critical endeavor for cloud platform providers. The process ensures that the users can effectively and swiftly learn and use a cloud platform. The process affects customer satisfaction, engagement, and retention [3]. Cloud platform providers employ various methods to streamline user onboarding processes. Some of the methods are highlighted below.

A. Guided Tours

Guided tours are step-by-step instructions and demonstrations that direct the trial users to actively participate in and accomplish routine tasks and scenarios in the platform. They serve as effective tools for swiftly comprehending the fundamental attributes and capabilities of the platform, enabling users to realize their intentions and aims efficiently [1]. For instance, Microsoft Azure offers a QuickStart Center, housing guided tours designed to aid users in initiating their engagement with diverse platform services and features, such as generating virtual machines, launching web applications, and establishing database connections [6].

B. Interactive Tutorials

Interactive quizzes and exercises help users practice and test their skills and knowledge on the platform. They facilitate experiential learning for users, allowing them to acquire knowledge through practical engagement and receive prompt feedback and direction. For instance, Amazon Web Services extends a Free Tier encompassing interactive tutorials, videos, labs, and comprehensive documentation, enabling users to acquire insights and engage in hands-on experimentation across various services and functionalities on the platform [18]. These opportunities include constructing serverless web applications, conducting in-depth analysis of large datasets, and crafting chatbot solutions [2].

C. Contextual Help

Contextual help involves using cues and relevant tips that users can readily access and use whenever they confront complexities and uncertainties while utilizing the platform.

They serve as effective aids in surmounting obstacles and dilemmas, as well as in locating responses and remedies [3]. For instance, Google Cloud Platform furnishes a Cloud Console comprising contextual support, comprehensive documentation, instructional videos, practical labs, and code samples. These resources equip users to navigate through and oversee a diverse array of services and functionalities offered by the platform, such as executing queries, overseeing job progress, and addressing errors through debugging.

V. VARYING TRIAL DURATIONS AND USER CONVERSION RATES

Trial durations represent when users can avail themselves of complimentary access and utilization of a cloud platform before being required to subscribe and pay [8]. These durations impact user conversion rates, denoting the proportion of users transitioning into paying clientele after the trial phase. As per pertinent surveys or preceding customer studies, trial durations can yield diverse ramifications on user conversion rates within cloud platforms [2]. These effects hinge on variables like user requirements, anticipations, and the intricate decision-making process.

A survey by [Cloudability] unveiled that 72% of cloud clients allocate over a month to assess various cloud platforms before reaching a purchasing verdict. This insight implies that extending trial periods could prove more productive in enticing and retaining potential patrons who require an extended period to compare alternatives, gauge performance, ensure reliability, assess security, evaluate scalability, and ascertain usability [17]. Elongated trial durations might foster user contentment and allegiance by substantiating the platform's worth and merits over an extended span.

In a comprehensive study carried out by [Zuora], it was determined that shorter trial durations could yield heightened conversion rates for subscription-based cloud services. The research, drawing from data encompassing more than 600 subscription enterprises, showcased that those adopting trial periods lasting fewer than 14 days exhibited an average conversion rate of 66%. In contrast, entities employing trial durations surpassing 14 days registered an average conversion rate of 25% [15]. This suggests that shorter trial durations can evoke a sense of urgency and scarcity among prospective customers, compelling prompt decisions and deterring diversion to other alternatives. Moreover, curtailing trial durations may minimize resource wastage and expense tied to underutilized resources within the trial context. Analyze how the quality of trial experiences influences customer satisfaction and long-term retention.

The quality of trial experiences is the degree to which the trial users are satisfied and impressed by the features and functionalities of the cloud platform [4]. The quality of trial experiences can influence customer satisfaction and long-term retention in cloud platforms based on relevant surveys or prior customer research.

According to a survey by [IDC], 83% of cloud consumers prioritize ease of use as a pivotal determinant while selecting a cloud platform. This underscores the potential impact of delivering a trial experience marked by exceptional quality, user-friendliness, clarity, and seamless navigation. Such a positive and effortless trial experience could potentially foster

heightened customer contentment and unwavering loyalty [16]. Customers who undergo a trial encounter that is both favorable and streamlined may be more inclined to place trust in and advocate for the cloud platform, alongside demonstrating sustained usage in the future.

Further insights from a study by [Totango] revealed that 90% of cloud patrons who encountered a positive trial experience remained active even after 90 days. In stark contrast, only 25% of those who underwent a negative trial experience remained active after the same period [17]. This dichotomy underscores the potential of delivering a trial experience of superior quality that is engaging and pertinent and provides tangible value. Such an experience can yield higher customer retention rates and mitigate churn rates. Customers who are offered a meaningful and gratifying trial experience may be more inclined to recognize the cloud platform's intrinsic value and merits, thereby committing to a long-term subscription.

VI. MEASURING THE QUALITY OF TRIAL EXPERIENCE

Quantifying the excellence of trial experiences in cloud platforms is very important. It involves evaluating the extent of contentment and astonishment of trial users in response to the platform's attributes and functionalities [9]. The two most important metrics used are data analysis and user feedback.

User feedback is the direct and subjective input trial users present after interacting with the cloud platform. It involves collecting viewpoints through various means, such as comments, suggestions, surveys, ratings, grievances, and reviews [13]. By offering a direct line of insight, user feedback is pivotal in gauging the quality of trial experiences. It casts light on user requirements, anticipations, inclinations, contentment, allegiance, and more. On the other hand, Data analysis refers to the structured and impartial examination of the data amassed from trial users throughout and after their interaction with the cloud platform [13]. This process is facilitated through diverse tools such as analytics, dashboards, and reports. Data analysis plays a pivotal role in quantifying the quality of trial experiences by furnishing metrics and benchmarks that shed light on user conduct, engagement, conversion, and retention, among other aspects [6].

A. Gathering User Feedback

Cloud platform providers can implement various methods and tools to collect user feedback during the trial period. One of the methods is by using surveys. Surveys are questionnaires that require answers and comments on various aspects of the trial experience, such as performance, security, reliability, ease of use, usability, and scalability [9]. The surveys help the providers to measure user preference, loyalty, satisfaction, and expectations. For instance, Cloudability implements the Qualaroo survey tool to collect user feedback on their cloud cost management platform. Another method is by receiving reviews [2].

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These verbal or written evaluations ask users to express their opinions and experiences with the trial platform, such as pros and cons, likes and dislikes, suggestions, and complaints. They help to capture emotion, user sentiment, attitude, etc. Google Cloud, for instance, implements a Trust pilot review tool to collect reviews on their cloud services.

The platforms can also use comments to gather information. Comments are short and informal messages that prompt users to provide feedback on specific features or functionalities of the trial platform, such as tips, hints, answers, and questions [8]. These attributes help to facilitate user interaction, collaboration, and communication. For instance, Microsoft Azure uses a User Voice tool to collect user feedback. Similarly, suggestions are ideas or proposals that ask users to provide ideas on how the providers can improve or enhance the trial platform by using new services, features, and functionalities [15]. They help to enhance user engagement, creativity, and innovation. One example is the Amazon Web services that use AWS Idea Portal to collect user feedback. Lastly, providers can use complaints to gather information. These are frustrations or dissatisfactions the user provides regarding problems or issues encountered with the trial platform. They might include errors, failures, or bugs. Complaints help providers identify and resolve user pain points, difficulties, and challenges [7][23]. IBM Cloud uses the IBM Support Portal tool to collect complaints on their cloud platforms.

B. Leveraging User Feedback

User feedback is very important to cloud platform providers because it helps them improve the trial process and the platform. One of the ways cloud providers can use feedback is through identifying and solving user pain points. User feedback acts as a compass for identifying and rectifying underlying user satisfaction and performance issues [14]. For instance, if a user raises concerns about sluggish or unstable network connectivity during the trial phase, the feedback will help the providers diagnose, optimize, and strengthen the network infrastructure and bandwidth for a seamless user experience.

User feedback offers a metric to gauge and elevate trial user contentment. Favorable ratings or reviews, for instance, provide cues for cloud platform providers to further harness and reinforce their strengths and advantages, potentially elevating overall user satisfaction [18]. User feedback can help improve how interested and involved the users are with the trial platform. User-generated suggestions or comments about novel features can stimulate the implementation and testing of new ideas, propelling greater user engagement and active participation.

Consequently, User feedback becomes a guidepost for refining user inclination to subscribe post-trial. Expressed intentions or preferences for subscription can enable cloud platform providers to curate customized subscription plans and incentives, effectively nudging potential users toward conversion. Lastly, User feedback drives the customization of recommendations, ensuring relevance to individual user needs and anticipations [13]. By considering users' preferences or reservations about specific trial platform features, cloud platform providers can tailor

recommendations to offer precisely fitting services and solutions for each user.

Nonetheless, while the quest for feedback is pivotal, it must be executed judiciously to safeguard user engagement. Excessive requests for input can inadvertently erode the fluidity of the trial experience, leading to user fatigue and detracting from the very engagement sought. Hence, an optimal balance must be struck, wherein the frequency and timing of feedback requests respect users' exploration and engagement rhythm [16]. Achieving this equilibrium necessitates a strategic approach. Cloud platform providers must strategically time their feedback solicitations to capitalize on pivotal moments in the user journey, ensuring they do not disrupt the seamless flow of exploration. Providers can maximize engagement by aligning feedback collection with key touchpoints while reaping genuinely valuable insights.

VII. CONCLUSION

Trial experiences are pivotal for cloud platform providers to engage and convert potential customers. Despite presenting challenges in infrastructure provisioning, trial period management, user onboarding, and conversion tracking, they remain a potent approach. The optimization of trial experiences through guided tours, interactive tutorials, contextual support, and flexible trial durations proves paramount in enhancing user engagement and conversion rates. The quality of trial experiences, aligned with ease of use, relevance, value, urgency, and scarcity, significantly influences their effectiveness.

Moreover, the impact of trial experiences extends to user feedback, an invaluable resource for refining these offerings. Insights garnered from user input facilitate the enhancement of trial experiences and contribute to elevated customer satisfaction and prolonged retention rates within cloud platforms. Ultimately, crafting compelling trial experiences that address these challenges and capitalize on the potential strategies can foster an environment where potential customers become active users and loyal subscribers, strengthening the cloud platform's position in a competitive market landscape.

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AUTHORS PROFILE



Prakash Somasundaram is a Lead Software Engineer at Alteryx with a strong commitment to delivering impactful solutions in the field of Data Science and Analytics. He has a master's degree in computer science from Northeastern University and is pursuing a PhD in Information Technology from University of Cumberlands. In his role as a leader responsible for building a unique Cloud analytics platform at Alteryx, Prakash has guided his team to achieve remarkable accomplishments in various domains, including cloud connectivity, multi-cloud support, billing, pricing, and packaging. Prakash's expertise and contributions have garnered recognition, as demonstrated by his featured article in *Programming Insider*, where he shared valuable insights on the critical topic of Cloud Connectivity. He has published papers in reputed national and international journals. He also acts as a reviewer in various international journals.



K Aishwarya Pillai is a Product Manager at Sirius Mindshare. She has a master's degree in project management from Northeastern University and an MBA from ICAI University. She is a highly motivated and self-directed engineer with a deep passion for solving problems. Her interest in conceiving, launching, and managing digital products for a global audience has led her to a career in Product Management. A notable strength of hers is the ability to lead teams effectively towards their goals while collaborating with cross-functional teams, including engineering, UX, and sales. Her experience in the field encompasses various aspects such as product strategy, user stories, prioritizing requirements, analyzing product-market fit, product launches, managing stand-ups, overseeing KPI and OKR, and conducting customer interviews. She is mainly interested in Artificial Intelligence, Product management and SaaS.

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