

Sustainability Analysis of Subscription Economy Business Model on Platform Streaming Amidst Fierce Competition

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Abstract

The development of the digital economy has driven the adoption of the subscription economy as a primary revenue source for streaming platforms. This model offers revenue stability through recurring payment mechanisms, but amidst increasingly fierce competition between platforms, the sustainability of the subscription business model faces serious challenges. High churn rates, content homogeneity, and increasing user price sensitivity demand more adaptive and long-term sustainability strategies. This study aims to analyze the factors influencing the sustainability of the subscription business model on streaming platforms amidst intense competition, with a focus on customer retention, perceived value, pricing strategy, content differentiation, and user experience. This study uses a quantitative approach with an explanatory design. Data were collected through an online survey of active users of subscription-based streaming platforms using a purposive sampling technique. Data analysis was performed using the Structural Equation Modeling method using the Partial Least Squares (SEM-PLS) approach. The results show that customer retention is the most dominant factor in maintaining the sustainability of the subscription business model. In addition, perceived value, adaptive pricing strategy, content differentiation, and user experience have a significant influence on reducing churn and increasing customer loyalty, thus supporting the sustainability of streaming platforms.

Keywords: subscription economy; streaming platforms; business sustainability; customer retention; customer churn

INTRODUCTION

The digital economic transformation has driven significant changes in the business models of platform-based companies, particularly through the adoption of the subscription economy (Chekole Tekle & Siva Kumar, 2025). This model emphasizes recurring revenue as a source of long-

term financial stability over one-time transactions (McCarthy et al., 2021; Osterwalder & Pigneur, 2010; Tzuo, 2019). This model enables firms to generate stable recurring revenue while building long-term relationships with customers. However, the rapid growth of streaming platforms, including digital video and music services, has intensified market competition, characterized by an increasing number of providers and content homogeneity. This condition has led to higher customer churn rates and increased price sensitivity among users, posing serious challenges to the sustainability of subscription-based business models. This phenomenon is crucial to examine, as long-term sustainability depends not only on acquiring new customers but also on retaining existing ones. Industry reports indicate that switching behavior among users is becoming more prevalent, requiring adaptive strategies to maintain revenue stability and customer loyalty.

Streaming platforms such as digital video and music services are a key example of the subscription economy, where users pay a recurring fee to access content. This model allows companies to build long-term relationships with customers while continuously collecting user behavior data (Cusumano et al., 2019; Lobato, 2019; Parker et al., 2016).

While the subscription model offers revenue stability, the streaming industry faces increasing competition due to the proliferation of platforms offering relatively similar content. This increases subscriber *churn rates* and puts pressure on companies' profit margins (Deloitte, 2023; Lotz, 2017)

The sustainability of the subscription business model is a crucial issue because the growth of new subscribers does not always match the ability to retain existing subscribers. Without a proper sustainability strategy, streaming platforms risk financial stagnation or decline ((McCarthy et al., 2021; Teece, 2018; Tzuo, 2019).

In the context of digital business, sustainability is measured not only financially but also by a company's ability to create long-term value for customers, stakeholders, and the platform ecosystem. This requires continuous innovation in content, pricing, and user experience (Elkington, 1997; Laudon & Laudon, 2020; Teece, 2018).

Subscription economy theory emphasizes the importance of *customer lifetime value* (CLV), customer retention, and loyalty as key indicators of business model sustainability. In a highly competitive environment, customer retention becomes more important than simply acquiring new customers (Kumar & Reinartz, 2016; Tzuo, 2019).

The shifting behavior of digital consumers toward platforms increases the sustainability challenges of subscription models. Factors such as price, content quality, exclusivity, and ease of access play a significant role in a customer's decision to stay subscribed or churn (Kotler & Keller, 2016).

Table 1. Key Factors Influencing the Sustainability of Streaming Platforms

Main Factors	Impact on Sustainability
Customer retention	Income stability
Churn rate	Risk of loss of income
Content differentiation	Competitive advantage
Pricing strategy	Customer value perception
User experience	Long-term loyalty

Source: Tzuo (2019) McCarthy et al. (2021)

The table shows that the sustainability of streaming platforms is greatly influenced by the ability to retain customers amidst intense competition (Kumar & Reinartz, 2016; Teece, 2018).

Previous research has largely discussed subscription business models from the perspective of revenue strategy and digital innovation. Several studies have found that subscription models are effective in increasing *customer lifetime value*, but are vulnerable to market saturation and content competition (Cusumano et al., 2019; McCarthy et al., 2021; Tzuo, 2019)

Other studies specifically examine the streaming industry and highlight the importance of content differentiation and exclusivity strategies for retaining subscribers. However, the research focus is often limited to marketing aspects and has not addressed the holistic sustainability of business models (Lobato, 2019; Lotz, 2017; Parker et al., 2016).

Most previous research still views the subscription economy as a relatively stable model, without thoroughly examining the impact of intense competition on the long-term sustainability of streaming platforms. Furthermore, integration between business perspectives, consumer behavior, and sustainability is still limited (Laudon & Laudon, 2020; Teece, 2018).

Based on a literature review, there is a research gap regarding the sustainability analysis of subscription business models on streaming platforms in an increasingly competitive environment. The limited research linking the subscription economy to the concept of business sustainability and competitive dynamics suggests the need for further study (Cusumano et al., 2019; Teece, 2018; Tzuo, 2019).

The novelty of this research lies in its analysis of the sustainability of subscription business models by integrating perspectives from the subscription economy, consumer behavior, and streaming industry competition. This study aims to analyze the key factors influencing the sustainability of subscription business models on streaming platforms and provide strategic implications for platform managers in the face of intense competition.

This study is expected to provide both theoretical and practical contributions. From a theoretical perspective, this research enriches the literature on the subscription economy by integrating perspectives of business sustainability, consumer behavior, and competitive dynamics in the streaming industry. It offers new insights into the role of key factors such as customer retention, perceived value, pricing strategy, content differentiation, and user experience in sustaining subscription-based business models. From a practical perspective, the findings of this study can serve as strategic guidance for streaming platform managers in designing long-term

business strategies, particularly in improving customer loyalty and reducing churn rates. Furthermore, this research provides policy implications for regulators in fostering a healthy, competitive, and sustainable digital ecosystem.

METHODS

Type of Research

This study uses a quantitative approach with an explanatory research design. This approach aims to explain the causal relationship between factors influencing the sustainability of subscription business models, such as customer retention, perceived value, content quality, pricing strategy, and user experience, and the sustainability of streaming platforms. An explanatory design was chosen because the research focuses on testing hypotheses derived from the theories of *the subscription economy* and digital business sustainability.

Population and Sampling

The population of this study is active users of subscription-based streaming platforms (e.g., video or music streaming services) who are currently or have previously subscribed to a particular platform. The sampling technique used was purposive sampling, with the following respondent criteria: (1) at least 17 years old, (2) having subscribed to a streaming platform for at least three months, and (3) having experience using more than one streaming platform. The sample size was determined using a *rule-of-thumb approach* for multivariate analysis, namely a minimum of 200 respondents to ensure adequate statistical power.

Research Instrument

The research instrument used was a structured questionnaire based on indicator development from literature related to *the subscription economy*, business sustainability, and digital consumer behavior. The variables measured included customer retention, *churn rate*, perceived subscription value, content quality and differentiation, pricing strategy, and user experience. All indicators were measured using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The instrument was tested for validity and reliability before being used in primary data collection.

Data Collection Technique

The research data is primary data collected through online questionnaire distribution. Distribution was conducted through social media, streaming platform user communities, and relevant online networks. Respondents were provided with an explanation of the research objectives, data confidentiality, and informed consent *before* completing the questionnaire.

Research Procedure

The research procedure was conducted in several stages. The first stage was a literature review to formulate a conceptual framework and research variables. The second stage was the development and *pilot testing of research instruments* . The third stage was the collection of primary data through an online survey. The fourth stage included data processing and analysis using established analytical techniques. The final stage was the interpretation of the results, drawing conclusions, and formulating strategic implications related to the sustainability of the subscription business model.

Data Analysis Technique

The data analysis technique used was Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach. SEM-PLS was chosen because it is capable of analyzing complex relationships between latent variables and is suitable for use in research with predictive models and data that does not have to be normally distributed. The analysis was carried out through evaluation of *the measurement model* (convergent validity test, discriminant validity, and construct reliability) and *the structural model* (path coefficient test, R² value, and hypothesis testing based on *the t-statistic* and *p-value*). All analyses were performed using relevant statistical software.

RESULTS AND DISCUSSION

Evaluation of Measurement Model and Respondent Characteristics

The results of the measurement model analysis show that all indicators of the subscription business model sustainability variables have *loading factor values* above 0.70. This indicates that the indicators used are able to adequately represent latent constructs such as customer retention, perceived value, and user experience (Ghozali & Latan, 2015; Hair et al., 2019; Sarstedt et al., 2021).

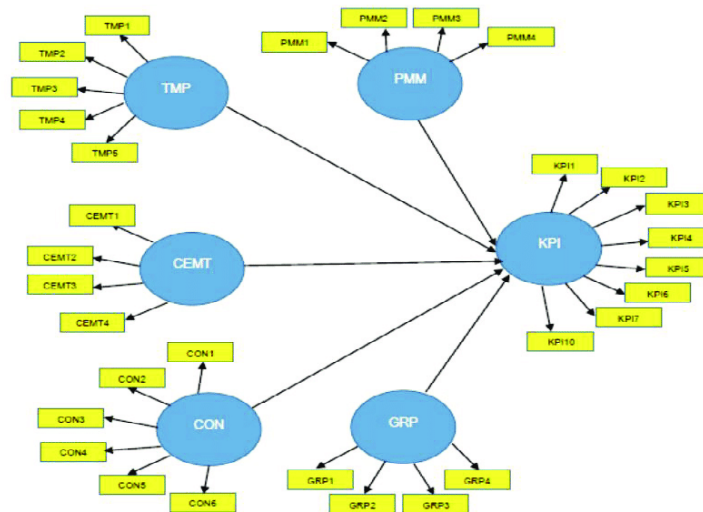


Figure 1. PLS-SEM Measurement Model

The *Average Variance Extracted (AVE)* value for each construct was above the minimum threshold of 0.50, indicating convergent validity. This finding confirms that more of the indicator variance is explained by the latent construct than by measurement error (Hair et al., 2017). Reliability tests showed *Composite Reliability* and *Cronbach's Alpha values* above 0.70 for all variables. This indicates good internal consistency and instrument stability in measuring user perceptions of subscription streaming platforms (Sekaran & Bougie, 2016). (Hair et al., 2019; Nunnally & Bernstein, 1994) Respondent characteristics indicate that the majority of users have subscribed to more than one streaming platform in the past two years. This reflects the high level of competition and low switching costs in the streaming industry (Lobato, 2019; Lotz, 2017). Most respondents stated that subscription decisions were influenced by a combination of price, content quality, and user experience. This finding aligns with literature that places customer value as a key determinant of subscription model sustainability (Kotler & Keller, 2016; Kumar & Reinartz, 2016; Tzuo, 2019). Discriminant validity tested using the Fornell–Larcker criteria shows that each construct has distinct characteristics. This is important to ensure that sustainability factors are analyzed separately but interrelated (Fornell & Larcker, 1981; Hair et al., 2017; Henseler et al., 2015). With all the measurement model criteria met, the analysis can be continued on the structural model to test the influence of each factor on the sustainability of the subscription business model.

The Impact of Customer Retention on the Sustainability of Subscription Business Models

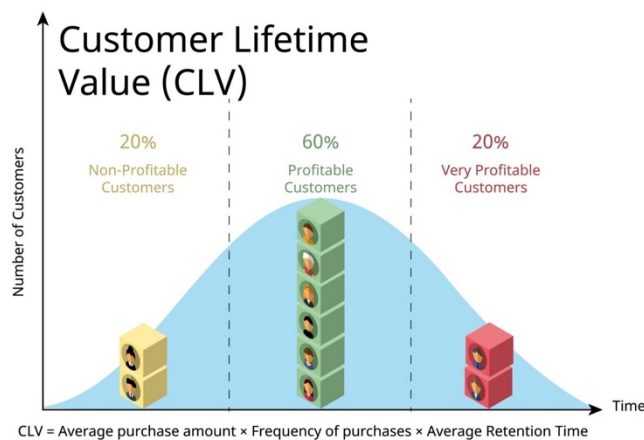


Figure 2. Customer Lifetime Value (CLV)

Structural analysis results show that customer retention has a positive and significant impact on the sustainability of subscription business models. The higher the retention rate, the more stable the streaming platform's revenue in the long term. Customer retention is a key indicator of sustainability because the cost of retaining existing customers is lower than the cost of acquiring new ones. This finding is consistent with the *customer lifetime value theory* in the subscription

economy (Kotler & Keller, 2016). In a highly competitive context, customer retention reflects a platform's ability to create sustainable value. Platforms that fail to retain customers tend to experience high revenue fluctuations (Teece, 2018; Tzuo, 2019).

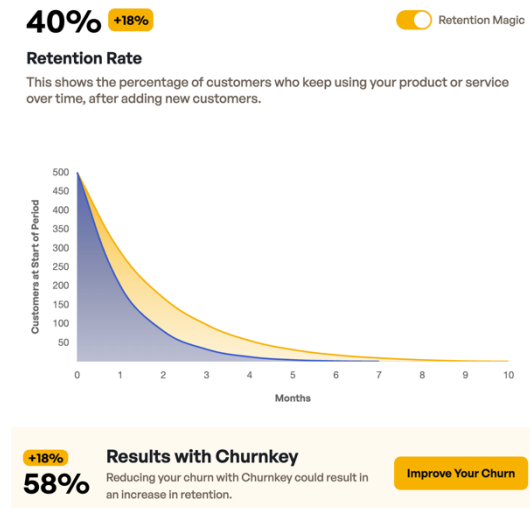


Figure 3. User Retention Rate

Research shows that customers who are satisfied with content and services tend to extend their subscriptions. This confirms the close relationship between satisfaction, loyalty, and business sustainability (Kotler & Keller, 2016). These findings reinforce the view that the sustainability of subscription models cannot be separated from long-term oriented retention strategies (Cusumano et al., 2019; McCarthy et al., 2021; Tzuo, 2019). From a managerial perspective, these results emphasize the importance of investing in customer experience to reduce *churn rates* (Laudon & Laudon, 2020; Teece, 2018). Thus, customer retention has been proven to be a key pillar for the sustainability of the subscription business model on streaming platforms amidst intense competition (Kumar & Reinartz, 2016; McCarthy et al., 2021; Tzuo, 2019).

The Role of Value Perception and Pricing Strategy in Reducing Churn

The analysis results show that perceived value significantly influences customer retention intentions. Customers who perceive price as commensurate with the benefits received tend to demonstrate higher loyalty (Kotler & Keller, 2016; Kumar & Reinartz, 2016). Pricing strategy is a sensitive factor in the streaming industry because customers have many alternative platforms. A mismatch between price and perceived value can increase *churn rates*. This finding is in line with customer value theory which states that subscription decisions are based on subjective evaluations between benefits and costs (Dodds et al., 1991). This research shows that flexible pricing packages and service differentiation can increase customer perceptions of value. This is crucial in the face of increasingly homogeneous competition. From a sustainability perspective, an

adaptive pricing strategy enables platforms to balance profitability and customer satisfaction (Cusumano et al., 2019; Kotler & Keller, 2016; Laudon & Laudon, 2020).

These findings indicate that the sustainability of the subscription economy is not only determined by low prices, but by consistent and sustainable perceptions of value (Kotler & Keller, 2016; Kumar & Reinartz, 2016). Thus, perceived value and pricing strategy play a crucial role in reducing *churn* and maintaining the sustainability of the subscription business model (Teece, 2018).

Content Differentiation and User Experience as Competitive Advantage

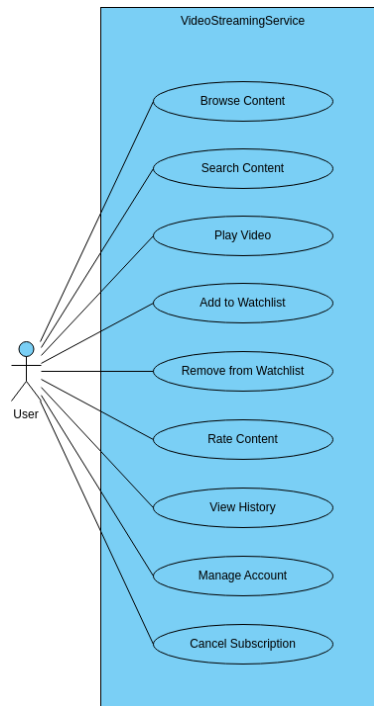


Figure 4. Flowchart of Video Streaming Users

Research shows that content differentiation significantly impacts the sustainability of streaming platforms. Exclusive and relevant content increases customer loyalty (Cusumano et al., 2019). An intuitive and personalized user experience also contributes to the sustainability of the subscription model. Ease of navigation and content recommendations increase customer satisfaction (Laudon & Laudon, 2020; Teece, 2018). This finding is in line with the theory of competitive advantage based on innovation and customer experience (Parker et al., 2016). In tight competition, content differentiation becomes a key differentiating factor that is difficult for competitors to imitate (Cusumano et al., 2019). Positive user experiences also strengthen customer retention through emotional attachment and usage habits. These results indicate that the sustainability of streaming platforms is heavily influenced by their ability to create valuable and consistent experiences (McCarthy et al., 2021; Teece, 2018; Tzuo, 2019). Thus, content

differentiation and user experience serve as key competitive advantages in maintaining the sustainability of the subscription economy.

Sustainability Implications of Subscription Business Models Amid Fierce Competition

Theoretically, the results of this study strengthen the relevance of the subscription economy as a sustainable business model if supported by retention and value creation strategies (McCarthy et al., 2021; Teece, 2018; Tzu, 2019). This research shows that sustainability does not only depend on customer growth, but on the quality of long-term relationships with customers (Kotler & Keller, 2016; Kumar & Reinartz, 2016). From a managerial perspective, these findings provide strategic guidance for streaming platform managers to balance innovation, pricing, and user experience (Cusumano et al., 2019; Laudon & Laudon, 2020; McKinsey & Company, 2022a).

Policy implications also arise regarding the need for regulations that support healthy competition and consumer protection in the streaming industry. This research opens up opportunities for further studies by including algorithmic technology factors and global market dynamics as moderating variables (Cusumano et al., 2019; Parker et al., 2016; Teece, 2018). Practically, the sustainability of the subscription model demands a holistic approach that integrates financial, customer, and innovation aspects (Elkington, 1997; McCarthy et al., 2021; Tzu, 2019). Thus, these results and discussion confirm that the sustainability of the subscription business model on streaming platforms is highly dependent on strategic adaptability amidst increasingly fierce competition (Cusumano et al., 2019; McKinsey & Company, 2022b; Teece, 2018).

Despite its contributions, this study has several limitations that should be acknowledged. First, the use of a cross-sectional design limits the ability to capture dynamic changes in customer behavior over time, particularly in a rapidly evolving digital ecosystem. Second, the data were collected using a purposive sampling technique, which may restrict the generalizability of the findings across different user segments and geographical contexts. Third, this study primarily focuses on key behavioral and strategic factors, without incorporating technological variables such as algorithmic personalization, artificial intelligence, or platform interoperability, which may also influence sustainability outcomes.

Future research is therefore encouraged to adopt longitudinal designs to better understand changes in customer retention and subscription behavior over time. Additionally, expanding the scope of the study to include diverse demographic and cross-country samples would enhance the generalizability of the findings. Further studies may also integrate technological and innovation-related variables, such as recommendation algorithms, data analytics capabilities, and ecosystem integration, as moderating or mediating factors in explaining the sustainability of subscription-based business models.

CONCLUSION

This study concludes that the sustainability of the subscription economy on streaming platforms is significantly influenced by the platform's ability to retain customers amidst increasingly fierce competition. The analysis shows that customer retention is the most dominant factor in maintaining revenue stability and the long-term sustainability of streaming platforms. These findings address the research objective of analyzing key factors in the sustainability of subscription business models by confirming that new customer growth is insufficient without an effective retention strategy. Furthermore, this study found that perceived customer value, adaptive pricing strategies, content differentiation, and the quality of the user experience significantly influence reduced *churn rates* and increased customer loyalty. Customers are more likely to retain their subscriptions when the perceived benefits justify the costs and when the platform offers unique content and experiences compared to competitors. These findings clarify the mechanisms by which customer value and service innovation contribute to the sustainability of subscription models in the streaming industry. Overall, this study confirms that the sustainability of the subscription business model on streaming platforms requires a holistic strategic approach, integrating customer retention, value creation, and competitive advantage. These findings provide theoretical contributions by expanding the study of the subscription economy in a context of intense competition, as well as practical contributions for streaming platform managers in designing long-term and sustainable business strategies.

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