

# The Impact of Subscription-Based Business Models on Consumer Loyalty in E-Commerce & Retail (Amazon Prime, Flipkart Plus)

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**Abstract**—The Indian e-commerce industry has grown quickly to bring subscription-based business models such as Amazon Prime and Flipkart Plus to the centre of customer retention models. This research examines the real influence of such subscription patterns on consumer satisfaction and loyalty in the context of India's online retail market, with special reference to Indian users in Trichy. With the aid of descriptive research design and convenience sampling technique, primary data were gathered through surveys among active and inactive users of Amazon Prime and Flipkart Plus. Independent Sample T-tests and ANOVA were used to analyze the data and determine if there exists any meaningful difference between the two websites with regards to loyalty, satisfaction, and subscription influence. The results show that there is no notable disparity in consumer loyalty among Amazon Prime and Flipkart Plus users. Further, subscription length does not seem to play a crucial role in influencing customer satisfaction. Rather, product range, price, and customer support were shown to play a more critical role in influencing consumer behavior and platform choice. The research concludes that although subscription models are convenient and provide value-added benefits, they don't rank highly as key drivers for satisfaction or loyalty. Increasing service quality and perceived benefit value could be more effective in customer retention. The findings will prove to be insightful for e-commerce players in improving their loyalty initiatives and highlight the need for more research in different geographies and platforms.

**Index Terms**—E-commerce, Amazon Prime, Flipkart Plus, consumer loyalty, customer satisfaction.

## I. INTRODUCTION

The fast-paced development of online commerce in India has profoundly shifted the way consumers shop, and terms Amazon and Flipkart are now more a part of everyday language than ever before. In their quest to attract and retain customers, however, both companies have launched subscription programs—Amazon Prime and Flipkart Plus—offering more efficient shipping, special offers, and entertainment content. The purpose of these plans is to establish brand loyalty and maximize satisfaction in an extremely competitive and price-conscious market. Nonetheless, while they have been exposed to much hype, it is still not certain whether the subscription models have any effect on consumer satisfaction and loyalty or if there are significant differences between the two platforms. These programs offer value-added services like faster delivery, exclusive deals, and entertainment, aiming to retain customers in a highly competitive market. However, it is not clearly established whether these benefits significantly influence consumer loyalty or if differences exist between the two platforms. Furthermore, the relationship between the duration of a subscription and consumer satisfaction remains underexplored. This study aims to analyze the comparative impact of Amazon Prime and

Flipkart Plus on consumer loyalty and examine how the length of subscription affects user satisfaction. Furthermore, how the duration of subscription affects user satisfaction has not been fully explored. This research endeavours to fill these loopholes by investigating the impact of Amazon Prime and Flipkart Plus on consumer loyalty and satisfaction, with specific focus on Trichy. The objective of the study is to analyze consumer loyalty and subscription programs and to assess customer satisfaction with subscription benefits. The following hypotheses were tested: whether there is a significant difference in loyalty between customers of the two platforms, and whether subscription duration has a significant relationship with customer satisfaction. The research will assist e-commerce firms in fine-tuning their subscription models and fine-tuning their services to meet better consumer demands.

## II. LITERATURE REVIEW

Anjaria and Patel (2023) discovered that increasing subscription durations boosts spending and loyalty among customers due to service quality and satisfaction, while Iyengar and Park (2012) proved that subscription initiatives considerably enhance buying frequency and customer involvement, affecting long-term profitability. Kassim and Abdullah (2010) reasoned that customer satisfaction, trust, and e-commerce loyalty are directly affected by perceived quality of service, and Srinivasan et al. Kanimozhi, S., & Sundar, S. (2017) has elucidated that with the growing technological dependence in everyday life, academicians, industry professionals, and researchers have increasingly focused on understanding consumer adoption intentions toward subscription-based models, which offer continuous access to services over traditional ownership. (2002) found emotional and functional bases, except for convenience, to be significant drivers of e-loyalty. Aslam et al. (2020) pointed out that quality of an interface, privacy, and awareness create trust and loyalty in new e-commerce markets, while Gefen (2000) noted the importance of trust and reliable service in maintaining customer loyalty in online subscription models. Urdea (2023) found that digital experience factors such as interactivity and sensory attractiveness have a significant influence on customer loyalty, and Gladilina et al. (2022) identified that gender, income, and personalization of services influence subscription adoption and retention. Hoogland (2017) demonstrated that more e-service quality in self-service contexts results in higher satisfaction and loyalty, and Tan and Chen (2018) found that gambled price discounting increases customer satisfaction, especially in replenishment subscription schemes. Oliveira and Diniz (2019) concluded that perceived value, system quality, and content richness have a great effect on streaming subscription loyalty, but Wang and Ye (2022) asserted that perceived value, convenience, and fairness propel consumers to pay for subscription content. Anudeep et al. (2021) proposed an RNN model with attention that predicts subscription churn accurately, and Mäntymäki et al. (2022) established enjoyment and price value motivate upgrades, whereas accessibility and content discovery facilitate retention in freemium models. Lastly, Kim et al. (2021) learned curation, surprise factors, and price discounts maximize satisfaction and loyalty in periodic subscriptions.

## III. METHODOLOGY

The research employed a descriptive research approach to gain an in-depth understanding of consumer loyalty and behavior in e-commerce subscription services, with a focus on Amazon Prime and Flipkart Plus. Data was gathered through a structured survey from online shoppers who have experience using these services, both active and inactive subscribers. The sampling process that was utilized was convenience sampling, where respondents who were readily available and willing to answer were targeted. An Independent Samples T-Test was used to compare consumer loyalty between Amazon Prime and Flipkart Plus customers for analysis, while a correlation analysis with SPSS was used to analyze the relationship between consumer satisfaction and loyalty.

## IV. DEMOGRAPHIC PROFILE

The sample comprised 105 participants, with a response of 51.4% male and 48.6% female. There were 63.8% aged 18–25, 20% aged 26–35, and smaller shares across other age ranges. All participants were

members of an e-commerce membership scheme, with 75.2% accessing Amazon Prime and 24.8% accessing Flipkart Plus. Most of them had subscribed for less than 6 months (35.2%), while 24.8% had 1–2 years and 6 months–1 year, respectively. The rest of them (15.2%) had more than 2 years of subscription. Concerning loyalty, 79% expressed being loyal to their subscribed platform, 15.2% were somewhat loyal, and 5.7% were focused on price and offer. When asked about satisfaction, 52.4% were satisfied, 34.3% were very satisfied, 12.4% were neutral, and only 1% were dissatisfied.

## V. RESULTS AND DISCUSSION

**Table 1: Consumer loyalty between Amazon Prime and Flipkart Plus subscribers**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2 - tailed)	Mean Diff	Std. Error Diff	95% Confidence Interval of the Difference	
									Lower	Upper
Loyalty	Equal variances assumed	.045	.832	-.027	103	.979	-.003	.127	-.255	.249
	Equal variances not assumed			-.026	39.457	.980	-.003	.134	-.273	.267

Independent Samples t-Test used to test the difference in consumer loyalty of Amazon Prime and Flipkart Plus subscribers indicates that there is no statistically significant difference between the two groups. The calculated t-value is  $-0.027$  having 103 degrees of freedom, and p-value is 0.979, which is well above the traditionally accepted significance level of 0.05. This large p-value means that the difference observed in loyalty is not statistically significant and might have happened by chance. Therefore, the null hypothesis ( $H_0$ ) that there is no difference in consumer loyalty between Flipkart Plus and Amazon Prime customers cannot be rejected. In fact, the average difference in the loyalty scores between the two groups is merely  $-0.003$ , which is tiny. 95% Confidence Interval for the difference between the means is between  $-0.255$  and  $0.249$ , including zero, thus supporting the conclusion that no real difference does exist. Overall, the analysis verifies that both Amazon Prime and Flipkart Plus members have equivalent consumer loyalty, with neither platform showing a significant advantage.

**Table 2: Relationship between Duration of Subscription and Consumer Satisfaction**

Correlations			
		Service	Loyalty
Duration of Subscription	Pearson Correlation	1	<b>0.080</b>
	Sig. (2-tailed)		0.414
	N	105	105
Consumer satisfaction	Pearson Correlation	<b>0.080</b>	1
	Sig. (2-tailed)	0.414	
	N	105	105

The analysis examined the relationship between Duration of Subscription and Consumer Satisfaction using Pearson correlation. The results indicated a very weak positive correlation ( $r = 0.080$ ) between the two

variables. This suggests a slight increase in consumer satisfaction as the duration of subscription increases; however, the strength of the relationship is minimal. The significance value ( $p = 0.414$ ) exceeds the conventional threshold of 0.05, indicating that the correlation is not statistically significant. Therefore, it cannot be concluded that a longer subscription duration has a meaningful impact on consumer satisfaction. The analysis was conducted based on a sample of 105 respondents, which is a moderate sample size. Despite this, the weak and non-significant correlation suggests that Duration of Subscription does not have a substantial influence on Consumer Satisfaction. It is likely that other factors—such as service quality, pricing, exclusive benefits, or overall user experience play a more significant role in shaping consumer satisfaction levels. Hence, there is no significant relationship between the duration of subscription and consumer satisfaction.

## VI. CONCLUSION

The study explored the influence of Amazon Prime and Flipkart Plus subscriptions on customer loyalty, satisfaction, buying behavior, and platform preference. Findings revealed no significant difference in customer loyalty between users of the two services, suggesting that the subscription model alone does not play a major role in shaping consumer loyalty. Instead, elements such as competitive pricing, product variety, and the quality of customer service were found to have a stronger impact on platform preference and purchasing behavior.

Moreover, the analysis showed no meaningful relationship between the length of subscription and customer satisfaction. This indicates that service quality and the perceived value of benefits offered through the subscription are more critical to satisfaction than the duration of membership. Overall, customer loyalty appears to be driven more by product offerings and service standards than by the subscription models themselves.

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