PRACTICE ARTICLE

Price estimation for Amazon Prime video in India

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Abstract

There has been considerable changes in consumer sentiments toward over-the-top media services during COVID-19 Pandemic and after that. Following the changes in the consumer sentiments, marketers have repositioned there offerings aligning with the consumer willingness to pay. Accordingly, knowledge about consumers' willingness to pay has become vital for success of the media service firms. The purpose of the paper is to estimate the price of subscription to Amazon Prime Video in India in the emergent context by gaining insights into the consumers' willingness to pay. "Van Westendrop Price Sensitivity Model" was used to estimate the prices. The findings suggest an optimal price point of ₹1300/- per annum with a range of acceptable price between ₹1000/- and ₹1500 per annum. The estimated prices are consistent with prevailing prices.

Keywords Customer willingness to pay · Price sensitivity · Over the top applications · Price estimation

Introduction

Market positioning is based on four key elements, known as marketing mix elements, such as the product/ service/ solution, placement/ distribution, promotion, and price (McCarthy 1960). Profile of product, place, and promotion determine the firm's value in the targeted segments. Price represents firm's attempt to capture value. While product, place, and promotion are similar to be sowing the seeds of business success, pricing is the harvest. Value-based, proactive, and profit-driven pricing strategies are essentials of a successful pricing strategy (Nagle and Georg 2016).

Pricing strategies in relatively straightforward and less dynamic markets have included cost-based pricing (pricing based on what it costs you to produce the product), customer-based pricing (letting your customers determine your pricing policy), and competition-based pricing (determining your pricing strategy solely based on what your competitors do). As markets become complex and dynamic, a new approach to manage price through creating value, calibrating value, communicating value, and capturing value has emerged. From a study of pricing approaches adopted by a large number of companies that delivered sustainable results, McKinsey identified four pricing strategies based on primary impact objective (sales growth and margin improvements) and degree of innovation (incremental/ radical). The identified pricing strategies are (a) margin expanders, (b) profit disruptors, (c) revenue drivers, and (d) sales and pricing pioneers (Chan et al. 2015).

Internet has become an essential part of life. Particularly, during the COVID-19 pandemic, there has been a quantum jump in the time spent on internet for education, work, and entertainment. Globally, the largest component of online consumption is video. The online video consumption is expected to be 82% of internet traffic globally by 2022. Content providers like Netflix, Amazon, YouTube, etc. have come up with subscription-based video on demand services through over-the-top (OTT) applications to harness the massive growth potential in online video consumption.

OTT simply indicates the online streaming video services, which has replaced the DVD and the CD players. Currently, in most of the countries, the television also has an access to these online video streaming service facilities. OTT can be bifurcated into 4 types as follows:

- Television—Apple TV, Amazon Fire Stick
- Video—Netflix, Amazon Prime, Hotstar
- Messaging—WhatsApp, Facebook messenger
- Voice calling—Skype, WhatsApp, WeChat

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It was in 2008 when Reliance Entertainment in India launched its first OTT platform, named as BIGFlix. By the time India launched its first OTT in 2008, Netflix had already spread its wings around the world. Following that, Ditto TV by ZEE and Sony Liv were launched in 2013, which helped in gaining momentum in India. Soon in 2015, Disney Hotstar was launched which was a huge success and is one of the highly watched OTT platform in India. Thereafter, in January 2016, Netflix began its operation in India and since then it has become one of the most admirable OTT platform. Amazon started its OTT platform as Amazon Prime Video on Sept 7, 2006, in US. After gaining its momentum, it was launched in India in 2016. It is one of the most reasonable OTT platform providing a large variety of versatile contents, which covers all the genres. The key characteristics of some of the popular OTT platforms in India are as follows:

- Amazon Prime- Available in six Indian languages.
- Netflix- three types of subscription plan to make it affordable for everyone. The plans are Basic, Standard HD and Premium Ultra HD.
- Disney + Hotstar—Featuring 2 subscription plans like VIP and Premium, it is owned by Novi Digital Entertainment.
- VOOT—only available in India and was launched in 2016.
- ZEE 5—Launched in 2018, it comes in 12 languages
- Sony Liv—It is owned by Sony Pictures Network India Limited. It is the first Indian OTT platform which produced the music content for the Hollywood featured film called passengers.
- Alt Balaji—Available across 32 interfaces to its viewers, owned by Balaji Telefilms Ltd.

In 2015, India witnessed a major revolution in the field of internet. The revolution came after the introduction of cheap internet plans by Reliance Jio. With the introduction of high-speed 4G services and drastic fall in internet prices, India witnessed an increasing number of smartphone and internet users. As per the annual report of the Telecom Regulatory Authority of India (TRAI), the smart phone users grew at 23%, making India the 2nd largest smart phone market after China.

In India, 35% of the users spend 0–3 h of their time on OTT platforms per week. Similar percentage of users spend around 3–9 h while around 7% of users spend more than 21 h on OTT platforms per week and India has the second largest share of OTT video subscriptions via Telco Bills accounting for a total of 28%, next to Thailand (*OTT Media Services Consumer Survey & OTT-CSP Partnership Study What's inside* 2020). While the most preferred app and content language is English and Hindi, the regional languages still have a fair value. The salaried persons belong to the top group of users followed by students, entrepreneurs, and others. Among the OTT operators, Sony Liv accounts for 50% followed by VOOT having a share of 38% and Amazon Prime having a share of 25%. As per India's Media and Entertainment Report, 2019, published by KPMG, India registered the strongest retention rates after bundling the prices.

As per India's OTT Market Landscape Report, 2020, Amazon Prime Video has around ten million users in India, out of which only forty percent of the users pay for their membership while others are members because of bundled subscriptions. The report also noted that thirty percent of the users buy prime membership for videos instead of ecommerce. While India has the strongest user acquisition and retention through bundling, there are still 30% who are willing to churn because of some better options available with more content and reasonable price.

If we look at the other side of the coin, the remaining percentage of people who have not subscribed to any of the OTT platforms perceived that television is good enough for their entertainment and the OTT platforms are still unaffordable for them. That's why even when an average video streaming platform costs ₹306, 59% of Indians are still out of the range to be able to purchase it (Sundaravel and N 2020).

This paper aims to estimate the willingness to pay for OTT platform- "Amazon Prime Video." The data are collected from 263 respondents through Google form and are analyzed using the Van Westendorp model to estimate yearly subscription price. After this introduction, literature on pricing is reviewed. The literature review is followed by methodology adopted for the study. The final section covers results, discussion of results, and conclusion.

Literature review

Economic value for a firm is a function of sales, unit cost, and price (Milgrom and Roberts 1992). Pricing decisions are critical to ensure alignment of sales based on price sensitivity and cost that can be incurred (Nagle and Georg 2016). Conventional approaches, such as a) cost-plus pricing, b) customer-driven pricing, and c) share-driven pricing focus on a price to cover cost and make a profit. Cost-plus price, the most common pricing procedure, faces inconsistency due to difficulty in estimating cost, based on assumption on sales. Considering limitation of cost-plus pricing, many firms use customer-driven price. In this approach, pricing reflects market conditions. In practice, many firms have used the customer-driven pricing to achieve short-term sales objectives undermining future profitability. In share-driven approach to pricing, the primary objective is to gain market share using pricing as a tool. Since rivals can match a price cut, such an approach often lead to short-term market advantage at the expense of long-term poor margins. Contemporary pricing

approaches focus on an achievable price in a market and considers what cost can be incurred to make a profit (Kumar et al. 2021).

Customers' willingness to pay (WTP) is critical to setting price as it sets the maximum amount which customers are willing to pay for a good or a service. Ureta et al. (2022) studied more than 1500 residents of South Carolina, to assess their willingness to pay for ecosystem services improvements, and concluded that the mean WTP is in the range of $0.3 and $6.39 and established a model for payment for ecosystem services. Schuermann & Woo (2022) assessed the WTP for reusable food containers in South Korean market and concluded that food companies are willing to pay up to $2.18 per container. This has the potential to contribute to environment sustainability significantly. Bansal et al. (2021) estimated Indian consumers' WTP for electric vehicles with improved attributes and concluded that WTP for fast charging feature to be $7–$104 depending upon average driving distance. Chindarkar et al. (2021) studied residents in six Indian states, which are deprived of access to affordable energy and concluded that residents are willing to pay 15–20% higher price than the subsidized price for reliable LPG for cooking. Kim et al. (2020) studied the consumer behavior in South Korea related to public electric bicycle service and estimated that WTP for consumer is 329 won for five minutes and 1,000 won for 15 min.

Estimating WTP in multiple market has greatly helped managers to set prices that are not too low (not missing on high margin) and that are not too high (not missing on potential customers).

Methodology

The Van Westendorp model

The Van Westendorp model was introduced in 1976 by a Dutch economist—Peter H. Van Westendorp (Westendorp 1976). This model is also known as pricing sensitivity meter because it is a direct method of measuring the price sensitivity of consumers based on their willingness to pay for new products and services (Kunter 2016). Various studies based on the psychological aspects of pricing formed the basis of VW model. In 2002, Lyon and Wang et al. in 2007 suggested using VW model as an exploratory method to understand an appropriate price range as it gives the point estimates for the willingness to pay and hence proved to be more meaningful and accurate than other methods. The model is considered to have good predictive accuracy and often illustrates market reactions to too low and high prices. Salamandic, Alijosiene, & Gudonaviciene (2014) used this model to assess the optimum price for preserving the valuation of the brand. It overcomes the problem of restriction (reaction to present prices)

and bias (reporting a single figure) responses by posing a series of questions that help to define the WTP. The Van Westendorp model assumes that the respondents know about the worth of the product or service and the following four open-ended questions are asked to them in order to measure the price sensitivity:

i. Is the price at which you would deem the good or service to be too pricey for you to consider purchasing it? *(Too Expensive)*
ii. At what point would you consider the good or service to be beginning to get expensive yet still be worth purchasing? *(Expensive)*
iii. At what price do you believe the good or service is an excellent value for the money? *(Bargain)*
iv. At what price would you deem the good or service to be so cheaply priced that you would doubt its quality and rule out purchasing it? *(Too Cheap)*

After plotting the responses in a graph, we will be able to determine the following four points:

(a) **Point of marginal expensiveness (PME)** PME is the point where a costumer considers that the product or service too expensive for the value they get from it. It is normally shown in the higher end of the acceptable range of prices. The PME is the intersection point between the respondents who think the product or service is "too expensive" and the respondents who think that the product or service is "a bargain." At this point, too expensive responses are equal to the bargain responses. PME gives us the highest reasonable price.

(b) **Point of marginal cheapness (PMC)** PMC is the point where sales would lose due to questionable quality. It is normally shown in the lower end of the acceptable range of prices. PMC is the intersection point between the respondents who think the product or service is "too cheap" and the respondents who think that the product or service is "getting expensive." At this point, too cheap responses are equal to the getting expensive responses. PMC is the lowest amount that must be charged for any product or service that is being tested.

(c) **Indifference price point (IPP)** IPP is the intersection point between the respondents who think the product or service is "getting expensive" and the respondents who think that the product or service is "a bargain." IPP refers to the price at which an equal number of respondents rate the price point as either "expensive" or "cheap." This is the point where most customers are indifferent to the price.

(d) **Optimal Price Point (OPP)** OPP is the intersection point between the respondents who think the product or service is "too expensive" and the respondents who

think that the product or service is "too cheap." The OPP price point is located between PMC and PME.

(e) **Indifference price point (IPP)** IPP is the intersection point between the respondents who think the product or service is "getting expensive" and the respondents who think that the product or service is "a bargain," IPP refers to the price at which an equal number of respondents rate the price point as either "expensive" or "cheap." This is the point where most customers are indifferent to the price.

(f) **Optimal Price Point (OPP)** OPP is the intersection point between the respondents who think the product or service is "too expensive" and the respondents who think that the product or service is "too cheap." The OPP price point is located between PMC and PME.

Sampling and data collection

The data from the respondents were collected in disguised form during webinars through an online survey. The aim of the questionnaire was to use the Van Westendorp model in order to access the acceptable price range as well as the optimal prices for various OTT services in India. It was also helpful in understanding the consumers' willingness to pay. The respondents are all subscribers of OTT services like Amazon prime video, Netflix, Hotstar, etc. After the data were entered and cleaned, 263 data points were obtained for analysis.

Results and Discussion

Sample profile

Table 1 shows the demographic profile of the sample. The results comprised of 51.5% male and 48.5% female respondents. A major portion of the people belongs from the age group of 18–24. About 38% of the respondents were from the age group of 25–34. The remaining 2.5% respondents were from the age group of 35–44. The sample had 68.1% post-graduates, 30.7% graduates, and remaining 1.2% were from 10 and 12th. 58.3% of the people were college students, 33.1% were the working professionals, 7.4% were self-employed, and the remaining 1.2% were home makers.

Table 2 shows the usage profile of the respondents in the OTT platforms covering use by respondents (a respondent can have subscription to multiple OTT platforms), duration of use, time spent, and mode of payment.

Table 3 shows the OTT services based on the content and perceived economy in use.

Table 1 Demographics of the sample

Gender	
Male	51.5%
Female	48.5%
Age	
18–24	59.5%
25–34	38%
35–44	2.5%
45–54	0%
Education	
10th	0%
12th	1.2%
Graduation	30.7%
Post-graduation	68.1%
Occupation	
Student	58.3%
Working professional	33.1%
Self employed	7.4%
Home maker	1.2%

Table 2 Usage behavior

OTT services	
Netflix	64.8%
Amazon Prime Video	73.5%
Disney Hotstar	54.3%
VOOT	21%
Sony LIV	16%
Others	10.2%
No. of years used	
0–6 months	12.3%
1–2 years	35.6%
2–3 years	21.5%
3–4 years	13.5%
More than 4 years	17.2%
Time spent on OTT platforms (daily)	
< 1 h	19%
1–2 h	31.9%
2–3 h	23.3%
3–4 h	17.8%
> 4 h	8%
Payment done	
Monthly	57.9%
Yearly	42.1%

Price sensitivity

The questionnaire included four basic questions of the VW model, which was very helpful to understand the price sensitivity of the respondents. Based on the responses to these four questions, the data were tabulated and cumulative frequency was plotted on a graph. The X-axis includes all the

Table 3 Best OTT service of the basis of content and value for money

The best OTT service on the basis of "content"	
Netflix	71.8%
Amazon Prime Video	22.1%
Disney Hotstar	5.1%
VOOT	1%
Sony LIV	0%
Others	0%
The most economical OTT service	
Netflix	7.4%
Amazon Prime Video	69.9%
Disney Hotstar	19%
VOOT	2%
Sony LIV	1%
Others	0.7%

Table 4 Price points for various OTT services in India

"Point of marginal cheapness"	₹ 1000
"Point of marginal expensiveness"	₹ 1100
"Optimal price point"	₹ 1300
"Indifference price point"	₹ 1500
"Range of acceptable pricing"	₹ 1000–₹1500

Table 4 shows the four price points for the OTT service using the VW model. The consumers' willingness to pay for the OTT service is between ₹1000 and ₹1500. The optimal price point is ₹1100. Thus, the upper range of consumers WTP for an OTT service is ₹1500, the range of acceptable prices is between ₹1000 to ₹1500 and ₹1300 is the indifferent price point.

While the direct approaches of measuring the WTP are very useful and effective, it also has certain limitations. One of such limitation is "price lowballing." In this, the lower estimates of optimal prices are measured as by the model and are compared to the actual prices. In this study, I checked the possibility of price lowballing by comparing the estimates of model with the existing price. Table 5 shows the comparison. From the comparison, we can see that the monthly price for Amazon prime is ₹179 and the annual charge is ₹1499. According to our model, the acceptable range is between ₹1000 and ₹1500, and the optimal price point is ₹1100. From the findings, we can conclude that estimates made by the VW model are quite accurate. This demonstrates the ability of the model to provide useful estimates of the WTP of consumers.

price points and the Y-axis includes the percentage of the respondents. The graph clearly depicts the four points of intersections. These are the points, which helps in deciding the acceptable range of price for the product or service. Figure 1 shows the VW analysis with the "too expensive," "getting expensive," "bargain," and "too cheap" curves for the various OTT services, respectively. The cumulative frequencies for points "too expensive" and "getting expensive" have been plotted inversely.

From the graph, we can see that at the price point of ₹800, around 40% respondents consider the service to be inexpensive whereas 85% respondents find it to be a bargain. In the same way, at ₹2000, 93% and 72% of the respondents find the service to be getting expensive and too expensive.
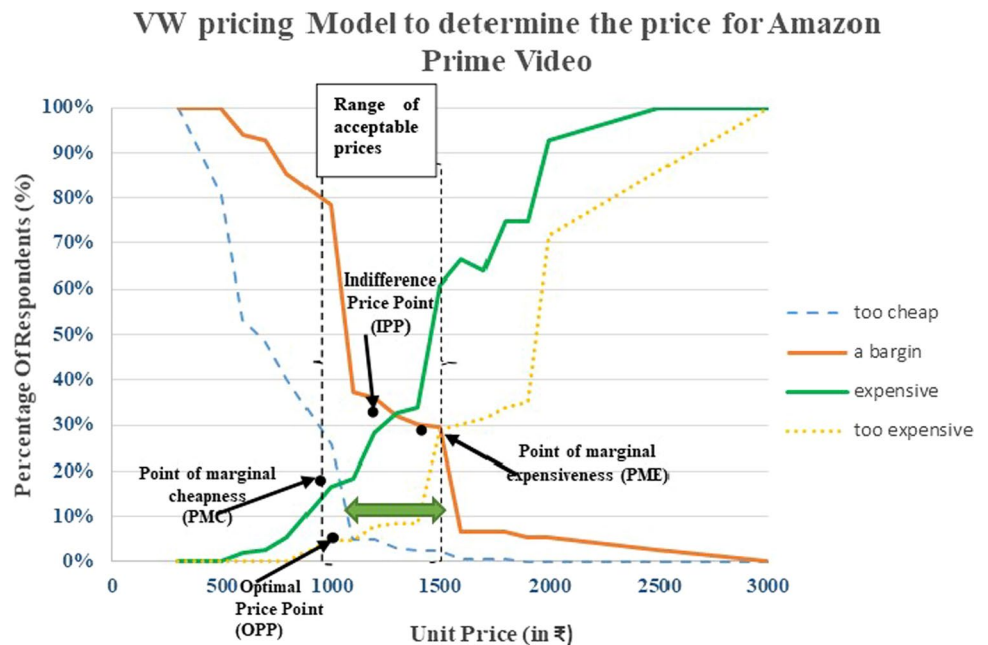
Fig. 1 VW model to determine the price for Amazon Prime Video

Table 5 Comparison of OTT platforms prices as at 01.04.2022 and model estimates

OTT platforms	Monthly (₹)	Annually(₹)
Amazon Prime Video	179	1499

Model estimate (Annual Subscription Charges)

Acceptable price range = ₹1000—₹1500

OPP = ₹1100

Conclusion and Limitations

This study determines the consumer's willingness to pay using the Van Westendorp Model. This model uses open-ended questions combining price and quality. The demographical and behavioral usage data indicate that the sample used for the research work consists of young generation mostly within the age group of 18–24 who use the OTT services for more than an hour on a daily basis. The VW model uses four price points based on the responses received to determine the optimal price points for various OTT services in India. The optimal price point (OPP) which is determined by the model is ₹1300. The acceptable range of prices is between ₹1000 and ₹1500. The higher values of the range indicate the higher threshold that the consumers are willing to pay at an aggregate level. In this case, the point of marginal expensiveness (PME) which comes in the upper threshold comes to ₹1500. This study is very helpful in understanding the consumer's willingness to pay for OTT services. This report also shows the utility of VW model, which is one of the direct approach method for identifying the WTP of consumers. The validation with the actual OTT subscription charges represents that the model is accurate in determining the consumer's WTP.

However, the research has a few limitations such as the assumption that in some cases, one respondents is a subscriber of multiple OTT services, where s/he pay the charges in both monthly and an annual basis. In this case, it is hard for a respondent to answer for the four price points. Another limitation is that, out of all the OTT services, Amazon Prime Video is the single most OTT service, which gives a bundled service. This creates a different perception of the respondents for Amazon. However, with the increase in OTT platforms in India, and rise in OTT prices, the prices estimated using the VW model might not be valid for a long-term purpose. In further research, conjoint analysis can be used to supplement estimation of consumer's willingness to pay for similar services.

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