

Streaming Apps - A Study on Consumer Satisfaction Toward the Usage of These Platforms During COVID-19 in Kolkata, West Bengal

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Abstract

In today's world, virtual streaming platforms are the primary source of entertainment. People gradually shift from traditional entertainment channels to online streaming platforms as they offer more improvised services. During the COVID-19 period, the streaming sector saw massive growth in the number of users. As a result, streaming platforms are now widely seen as the entertainment industry's future. From offering high-quality material to connecting individuals through various streaming platforms, OTT platforms have gained prominence recently, particularly during the pandemic.

Purpose : To identify the factors influencing users' satisfaction with a streaming platform in Kolkata, West Bengal, and to establish how these attributes and different streaming platforms are related.

Methodology : Kolkata, West Bengal, was selected for the survey, and it was undertaken with the help of a structured questionnaire and casual interaction with the users.

Findings : This study discovered that consumer satisfaction was primarily determined by two critical factors: "Fringe Benefits" and "Refreshment." The factor "Fringe Benefits" was found to be substantially influential. In addition, users' satisfaction could also correlate to the quality of services provided to the streaming platforms using correspondence analysis. Various online streaming platforms were discovered to be popular, delivering high-quality material with a wide range of alternatives, limited advertisements, and high-quality and extensive features at a reasonable price. Furthermore, we used cluster analysis to discover three clusters that influenced consumers of various ages when watching online on various streaming sites. These clusters were "Gen Z Socializing," "Gen Y Entertaining," and "Gen X Quality Essence."

Keywords : streaming platform, satisfaction, entertainment, COVID-19

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The emergence and expansion of technology and its rapid advancements in almost every field resulted in the convenient and hassle-free attainment of people's needs and desires. As a result, an upsurge in business marks the entertainment and the digital platform industry due to increasing satisfied customers over the

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platforms. These platforms provide content for the users to consume and enjoy and offer a wide range of ideas, concepts, amusement, etc., at a reasonable cost. In addition to covering their content and media, these platforms also showcase the contents of television, attracting maximum users. However, it has been found in a study (Spangler, 2018) that there has been a 26% decline in viewership of standard television amenities in the U.S.

Streaming platforms provide a wide range of services for users to choose from and enjoy. Some contents and selected services over the platform are free, but users can upgrade their services by switching to the premium version of the platform (Mäntymäki et al., 2020). Regarding the audience growth of these platforms, the urban areas have already experienced growth, and other parts of the world are experiencing the same. The millennium and young people are the ones who demand and watch streaming platforms because the contents and the features meet their varied tastes and preferences, while the elderly and adults like to watch T.V. (Bulsara & Vaghela, 2022). This is because adults and the elderly are accustomed to watching television with their families over longer durations. During the COVID-19 pandemic, when we were all stuck in our houses, online channels for food, medicines, groceries, and others witnessed two folds usage surge along with streaming platforms (Sen, 2022). The streaming platforms were no longer constrained to video content only; they had additionally unfolded their reach to voice calling features, electronic communications, and music streaming applications (Hu et al., 2017). Service providers made regular new launches to engage the audience with an increase in the audience on these platforms. A study (Kagan, 2017) showed that as many as 800 new streaming sites were launched in 2016. There has been an abrupt increase in the quality and quantity of content on various platforms like YouTube and Twitch. According to a survey by Katz (2020), streaming music platforms, like Spotify, witnessed a growth of 90% during the pandemic when individuals worked from home.

Video streaming sites like YouTube contain abundant content of various categories. Students can gain new skills and knowledge to build and upgrade themselves (Nath et al., 2019). This facility helps students from the lower-income bracket to explore and benefit from these streaming platforms at a nominal price (Lohmann & Frederiksen, 2018) and universities worldwide with better understanding and management (Smolağ et al., 2016). While devastating effects occurred due to the closure of schools and colleges worldwide, in such situations, streaming platforms acted as a relief for students (Arora & Srinivasan, 2020).

Literature Review

With time, social media platforms, such as Instagram, Facebook, and TikTok, have witnessed an increase in content creators and viewers. There are two types of streaming platforms: one that focuses on streaming self-made content created by users, such as YouTube, and the other focuses on streaming content authentically created by the site itself, such as Netflix, Amazon Prime, and so on. Hence, we used the expectation confirmation theory (ECT) to understand users' perceptions and confirmation of their expectations with content available on streaming platforms.

Expectation confirmation theory (ECT) is a widely used theory in marketing, management, sociology, psychology, and other domains to explain consumer satisfaction, pre and post-purchase intents, and expectations (Jomnonkwao et al., 2015). As human nature is unique, appropriately comprehending and satisfying it is difficult. ECT proved to be a boon to researchers and academics in their pursuit of learning people's various perspectives. Previously, this theory was focused on consumer post-purchase expectations, followed by positive and negative perceptions (Rahi & Abd. Ghani, 2019). To achieve the intended results, customers must first create an image and a list of expectations for a given product or service, which comprises pre-purchase beliefs and expectations that they want a product to meet (Fu et al., 2018). After that, the actual judgment is formed upon using or consuming the goods or services. Furthermore, customers compare pre-purchase expectations to post-purchase performance of a product or service to determine how well their expectations were met, creating favorable or unfavorable opinions

about the product or service. This, in turn, aids in identifying the gap between pre-purchase and post-purchase experience.

The performance of a product or service shapes expectations and confirmation (Oghuma et al., 2016). If a product's performance meets the consumer's expectations, they acquire good perceptions and satisfaction (Venkatesh et al., 2011; Zhang et al., 2015), but a gap between expectation and confirmation produces negative perceptions and feelings of discontent (Lin et al., 2012). Therefore, ECT has been used in many research studies. For example, Hsu et al. (2015) stated that customer happiness is critical in encouraging re-purchase intentions, while Chiu et al. (2012) proposed that excessive consumption affects lower re-purchase intentions to a certain level. Furthermore, published studies illustrate the benefits of derived pleasure when a product meets the consumer's expectations (Tsai et al., 2014).

Researchers, such as Bründl and Hess (2016), have shown that various motivating factors influence individuals' decision to participate in “user-generated content” bodies. Azzahro et al. (2020) discovered that the sole basis for examining a customer's genuine demeanor is the purpose. According to studies by Matikainen (2015), various factors motivate people to upload their clips to these sites. With the rising popularity of these platforms, numerous studies have been conducted to understand consumer preferences and satisfaction with them (Khatri & Kale, 2022). The study claimed that paying money to listen to and download music was a significant research element (Sridhar & Narasimha Murthy, 2017). A similar survey by Azzahro et al. (2020) discovered that the amount of money required to upgrade paid services ranks higher than screen time consumption, the range of services offered, ease of payment, quality of the content, and other factors. Netflix began as a home delivery service, but later, in 2007, the company launched a digital platform (Voigt et al., 2017). These digital platforms, like Netflix, have effectively moved consumers' focus away from membership costs toward the available variety and quality of content. There are various new types of study based on students, librarians, or a combination of the two (Cleary et al., 2014), but none are based on educators and lecturers. Although Otto (2014) shed some insights on visual media by incorporating queries from the professor's perspective, questions explicitly related to the introduction of this media in the library to aid students academically were not asked.

Surfing the internet has numerous advantages and drawbacks (Kastiya & Sharma, 2020). Regular users may develop an appetite for it or show signs of mental illness (Singh et al., 2021). The sudden rise in popularity of the live streaming industry is not only due to its engaging content, but also because users can easily interact with other users, giving them a sense of belonging. Oyedele and Simpson (2018) stated that a plan of action modification affects one's behavior. People who watch energetic sports are likelier to have higher human fulfillment, social, intellectual, and substantial comfort and security (Chen & Lin, 2018; Hilvert-Bruce et al., 2018).

The software innovation of the streaming platform is the only thing that keeps it growing. Smarter mobile phones, quick network identity, increased use of a non-proprietary forum, ingenious customer satisfaction tactics, and other breakthrough features are a few reasons for their success (Gadhiya & Panchal, 2021; Kulshrestha & Jain, 2018). Several major factors contribute to the success of streaming platforms, the most important of which is the quality of available content.

Research Gap

As analyzed, the literature includes research on streaming services from across the world in various aspects. The studies examined user behavior on different streaming platforms, user satisfaction with the quality and amount of content accessible to them, and the attitude and perspective of users worldwide. However, most of this research is restricted to industrialized nations, with only a few studies on consumer satisfaction in emerging countries like India. As there is a wide cultural gap between industrialized nations like the USA and developing nations like India, it posits varying facets concerning Indian customers or users.

The present study is noteworthy since it is conducted in Kolkata, West Bengal. However, no such studies are being undertaken in Kolkata, West Bengal, to determine consumer satisfaction. As a result, we attempted to overcome the gap by studying Indian users' perception of OTT platforms by learning about user behavior and satisfaction with streaming platforms in Kolkata, West Bengal, India.

Research Objectives and Proposed Hypotheses

- ✎ To identify the factors influencing the choice made by consumers in selecting a streaming platform in Kolkata, West Bengal.
- ✎ To establish how attributes and different online streaming platforms are related.
- ✎ To identify the clusters influencing different consumer age groups while using OTT platforms.

Hypotheses:

- ✎ H_0 : There is no relationship between the dependent variable (OTT user satisfaction) and the independent variables: fringe benefits and refreshment.
- ✎ H_1 : There is a relationship between the dependent variable (OTT user satisfaction) and the independent variables: fringe benefits and refreshment.

Methodology

The present study incorporated a cross-sectional research method and approached the users of a streaming platform in Kolkata, West Bengal, to achieve the aim of the study. Therefore, Kolkata, West Bengal, was selected as the data collection point for the survey. Thus, 700 responses were collected, following the convenience sampling method, from different parts of Kolkata with the help of a structured questionnaire. The structured questionnaire was based on prior literature review, which we modified as per the requirements of the present study and used the 5-point Likert scale method. In addition, informal discussions were held with the participants. Finally, with the help of SPSS software, collected data, after cleaning and validation, were used for several multivariate, correspondence, and cluster analyses to attain the study's objectives. The details of the demographics of the collected data from the respondents are presented in Table 1.

Table 1. Description of the Sample Used in the Study

	Frequency	Percentage
Gender		
Female	328	46.9
Male	372	53.1
Age (in years)		
18 – 25	207	29.6
26 – 30	179	25.6
31 – 35	102	14.6
36 – 40	100	14.3
> 40	112	16

Income (in ₹)		
Less than 10,000	94	13.4
10,000 – 20,000	153	21.9
20,000 – 30,000	109	15.6
30,000 – 40,000	143	20.4
More than 40,000	201	28.7
Occupation		
Service	266	38
Business	310	44.3
Others	124	17.7
Educational Qualification		
Graduate	342	48.9
Post-Graduate	195	27.9
HS	108	15.4
Others	55	7.9

Table 2. Description of the Survey – Region Wise

Places	No. of Responses
North Kolkata	120
South Kolkata	165
East Kolkata	140
West Kolkata	125
Central Kolkata	150

The convenience sampling technique was used to obtain responses in the study. A sample of persons or respondents from a large group of people is used in this approach. This sample represents the entire population and includes those who are easily approachable. The convenience sampling approach is ideally suited for market and business studies since it helps to understand consumers' perspectives better. This study was carried out during the COVID-19 period, that is, from April 2020 to May 2021, from different regions of Kolkata, West Bengal. The areas covered in the survey are presented in Table 2.

The reliability of the questionnaire used in the study determines the extent to which the study is conducted without errors. Cronbach's alpha is the reliability test, measuring the reliability scale for internal uniformity. A higher value of Cronbach's alpha signifies greater consistency in the quality of the methodologies adopted for conducting the study. In the study, the value of Cronbach's alpha was calculated to be 0.850, which is consistent.

Analysis and Results

As per objective 1, we need to identify the factors influencing the choice made by consumers in selecting a streaming platform in Kolkata, West Bengal.

The Kaiser-Meyer-Olkin (KMO) sample adequacy scale ranges from 0 to 1. Closer values to 1 are ideal; whereas 0.5 is considered the bare minimum. The KMO number in Table 3 is 0.891, more than 0.5. Similarly, the strength of the association between the variables and the factors is determined using Bartlett's test of sphericity. The significant value (*p*-value) of Bartlett's test of sphericity is less than 0.05, as shown in Table 3 (that is, 0.000). These tests, taken together, act as the prerequisites for conducting factor analysis.

Table 3. Results of KMO and Bartlett's Test (EFA)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.891
Bartlett's Test of Sphericity	Approx. Chi-Square	8601.870
	<i>Df</i>	120
	Sig.	0.000

Table 4. Results of Total Variance Explained (EFA)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.383	52.395	52.395	8.383	52.395	52.395
2	1.613	10.083	62.478	1.613	10.083	62.478
3	0.994	6.210	68.688			
4	0.825	5.157	73.845			
5	0.725	4.534	78.379			
6	0.613	3.834	82.213			
7	0.539	3.367	85.580			
8	0.510	3.185	88.765			
9	0.375	2.345	91.110			
10	0.348	2.176	93.286			
11	0.263	1.642	94.928			
12	0.219	1.366	96.294			
13	0.195	1.219	97.513			
14	0.186	1.159	98.672			
15	0.122	0.762	99.435			
16	0.090	0.565	100.000			

Each component or factor has a quality score or an eigenvalue, represented under the column “Total” of “Initial Eigenvalues” in the table: total variance explained (Table 4). Components with high eigenvalues represent true and real values. The research considers and selects components having an eigenvalue of 1 or more. Thus, it can be deduced from the table that the first two components or factors have an eigenvalue above 1. As shown in Table 4, Factor 1 accounts for 52.395% of the variation, Factor 2 accounts for 10.083%, and the two factors combined account for 62.478% of the total variance.

The rotated component matrix (Table 5) shows the association between the factors and the variables taken for the study with the help of values (or factor loadings) ascertained by the variables. Technically, a factor represents a common feature that all the variables possess, while factor loading signifies the correlation between the factor to its variables. It can be seen from the table that the variables representing the perks and services offered by the streaming platforms hold higher loadings toward Factor 1. These variables together constitute Factor 1, which can be termed as “Fringe Benefits.” In contrast, the variables representing recreational facilities and other additional services offered by the streaming platforms have higher loadings toward Factor 2. These variables together constitute Factor 2, which can be termed as “Refreshment.”

Model summary defines the fitness of the regression model to the data. In a model summary, *R* or multiple

Table 5. Results of Rotated Component Matrix (EFA)

	Component	
	1	2
OTT has good customer service.	0.801	
OTT platform contents are good.	0.790	
You have a feeling of control by using an OTT service.	0.788	
OTT platforms are cost-efficient.	0.774	
Using an online streaming service is very easy.	0.772	
OTT platform gives a thrilling experience.	0.729	
You have scheduled freedom by using the OTT platform.	0.701	
Having an OTT platform subscription is a social trend.	0.701	
OTT platform is to enjoy with family and friends.	0.648	
OTT platforms are giving tough competition to traditional modes of entertainment.	0.607	
OTT platforms will take over in the near future.	0.532	
OTT platforms are only for the young generation.	0.448	
Watching an OTT service passes the time.		0.814
We can watch movies or T.V. shows on an OTT platform alone.		0.791
Using an OTT service, we have the choice of time and place.		0.782
Using an OTT platform service entertains you.		0.712

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

^a Rotation converged in 3 iterations.

Table 6. Results of Model Summary (Regression Analysis)

Model	R	R Square	Adjusted R Square	Std. error of one Estimate
1	0.804 ^a	0.647	0.646	0.446

^a Predictors : (Constant), Refreshment, Fringe Benefits.

correlation coefficient measures the quality of prediction of the dependent variable concerning independent variables. From Table 6, the value of *R* or the multiple correlation coefficient is 0.804, indicating a good degree of prediction. On the other hand, the *R* square value or the coefficient of determination shows the variance proportion which the independent variable can describe. The *R* square value is 0.647, indicating that the independent variables account for 64.7% of the variability of the dependent variable.

The total regression model's fitness to the data is tested using ANOVA. As shown in Table 7, independent variables predict the dependent variable statistically well. The model is also significant ($p < 0.05$), indicating that the regression model is a good fit for the data. Therefore, the null hypothesis (H_0) is rejected (and the alternative hypothesis (H_1) is accepted), which signifies a significant association between the independent variable, OTT user satisfaction, and the dependent variables, Fringe Benefits and Refreshments.

The coefficients table (Table 8) shows the required information to predict the dependent variable from the independent variables and to decide whether the independent variables contribute to the model statistically (with the help of a significant value). From Table 8, it can be inferred that “unstandardized coefficients” signify the

Table 7. Results of ANOVA (Regression Analysis)

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	253.918	2	126.959	638.106	0.000 ^b
Residual	138.677	697	0.199		
Total	392.594	699			

^a. Dependent Variable: OTT_User_Satisfaction.

^b. Predictors: (Constant), Refreshment, Fringe Benefits.

Table 8. Results of Coefficients (Regression Analysis)

Table 1. Descriptive Statistics of Dependent Variables (Regression Analysis)						
Model		Unstandardized		Standardized	T	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	2.897	0.017		171.844	0.000
	Fringe Benefits	0.546	0.017	0.729	32.387	0.000
	Refreshment	0.254	0.017	0.339	15.077	0.000

^a. Dependent Variable: OTT_User_Satisfaction.

extent to which the dependent variable varies with an independent variable when all other independent variables are held constant. Hence, H1 is accepted [H1: $B = 0.546$ ($p < 0.000$); H1: $B = 0.254$ ($p < 0.000$)]. Since the model is a good fit for the data, the regression equation is formed as:

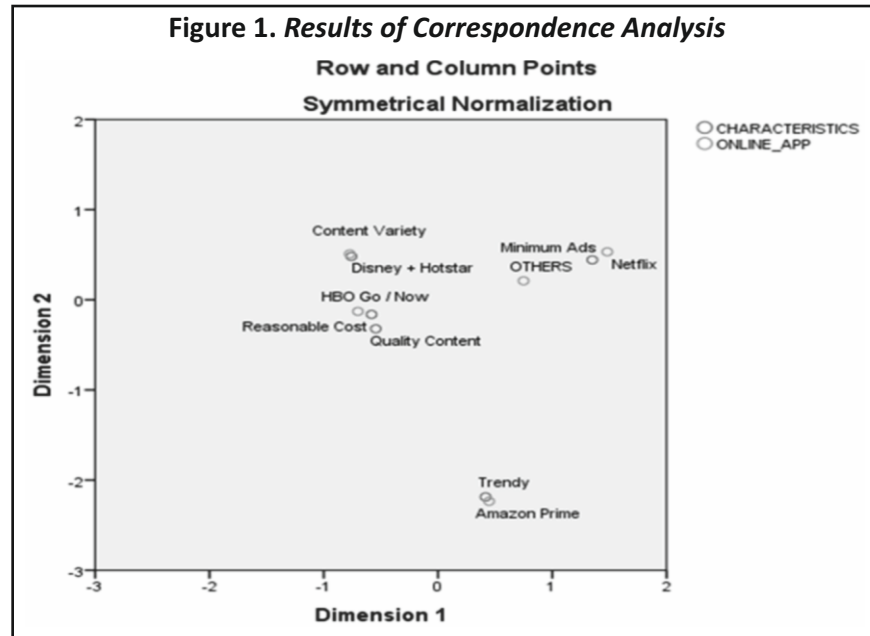
$$OTT_User_Satisfaction = 2.897 + 0.546 * Fringe\ Benefits + 0.254 * Refreshment$$

As per objective 2, we must establish how attributes and different online streaming platforms relate.

Users can associate the attributes of streaming platforms with different streaming platforms, as represented in the diagram (Figure 1). For example, it may be deduced that the platform, Netflix, and others like Zee5, SonyLiv, etc. provide fewer advertisements while streaming, which attracts more users to their services. Similarly, Disney + Hotstar offers a variety of content alternatives for their viewers to select from and stream. Furthermore, HBO Go/Now provides customers with high-quality content at affordable rates, attracting users from all socioeconomic classes. In comparison, Amazon Prime is trendy over time as it maintains track of its members' requirements and desires. As per objective 3, we need to identify the clusters influencing different consumer age groups while online streaming.

Cluster analysis is among the most practical and successful analysis techniques. It is done to subset big data sets into small portions, or clusters, to study and discover the set or group that is similar and readily comparable internally while being distinct and non-comparable to other sets or groups externally (Malhotra & Birks, 2007). This strategy has applications in numerous disciplines, including management and marketing (Francioni et al., 2013). While a few criticized this approach for its extensive use, many spoke about adding new features or methods to improve it.

We used K-means clustering to generate effective results since we sought to identify and classify streaming platform users based on specific parameters. Next, we minimized the squared Euclidean distance between the cluster analysis variables. Finally, given individual users' tastes and preferences demographically vary when it



comes to surfing OTT platforms, the ratings we received from diverse users in the study were normalized to eliminate any distinction or partial findings. Based on the study's results, we have discovered three separate clusters.

These three clusters, which represent the preferences of different users (based on various demographic factors)

Table 9. Results of Final Cluster Centers

	Cluster		
	1	2	3
V1. OTT platforms are cost-efficient.	3	2	3
V2. OTT has good customer service.	3	2	2
V3. Having an OTT platform subscription is a social trend.	1	3	2
V4. OTT platform contents are good.	3	2	3
V5. OTT platform gives a thrilling experience.	3	2	3
V6. You have scheduled freedom by using the OTT platform.	3	2	3
V7. You have a feeling of control by using an OTT Service.	3	2	3
V8. Using an OTT platform service entertains you.	3	2	3
V9. OTT platform is to enjoy with family and friends.	3	1	3
V10. Watching on an OTT Service passes the time.	3	2	3
V11. Using an OTT Service, we have the choice of time and place.	3	3	3
V12. We can watch movies or TV shows on an OTT Platform alone.	3	1	3
V13. OTT platforms are giving tough competition to traditional modes of entertainment.	1	2	3
V14. OTT platforms will take over in the near future.	3	2	3
V15. OTT platforms are only for the young generation.	2	2	3
V16. Accepting advertisers to pay less for the required OTT platform and share your data.	3	2	3

Table 10. Results of Distances between Final Cluster Centers

Cluster	1	2	3
1		3.977	2.241
2	3.977		2.578
3	2.241	2.578	

toward an OTT platform, can be named Gen Z Socializing, Gen Y Entertaining, and Gen X Quality Essence.

Table 9 of the final cluster centers represents the mean values of the variables under three different clusters discovered in the study. This, in turn, highlights the mean values of the variables we used in the study under the final groups or the clusters to proceed further.

Table 10 displays the Euclidean distances between the final cluster centers, as indicated by the distance values in the table — the greater the distance value between the clusters, the greater the difference between them. Furthermore, descriptive univariate *F* tests are adequately represented for each variable employed in clustering (Table 11). The samples are distributed evenly throughout the cluster groups so as to increase the distance between the variables used for clustering. As shown in Table 11, all the variables are significant at 0.05.

The ANOVA table (Table 11) demonstrates the variables significantly influencing the cluster solution. Cluster separation is best achieved with variables with high *F* values. Similarly, at the 0.05 threshold, all factors are significant.

Table 11. Results of ANOVA

	Cluster		Error		<i>F</i>	Sig.
	Mean Square	<i>Df</i>	Mean Square	<i>Df</i>		
V1. OTT platform is cost-efficient.	95.484	2	0.329	697	290.142	0.000
V2. OTT has good customer service.	89.040	2	0.315	697	282.265	0.000
V3. Having an OTT platform subscription is a social trend.	45.835	2	0.358	697	127.931	0.000
V4. OTT platform contents are good.	69.840	2	0.235	697	296.613	0.000
V5. OTT platform gives a thrilling experience.	95.761	2	0.288	697	331.947	0.000
V6. You have scheduled freedom by using the OTT platform.	88.157	2	0.205	697	431.060	0.000
V7. You have a feeling of control by using an OTT service.	119.913	2	0.195	697	614.903	0.000
V8. Using an OTT platform service entertains you.	48.756	2	0.284	697	171.698	0.000
V9. OTT platform is to enjoy with family and friends.	80.172	2	0.223	697	359.046	0.000
V10. Watching content on an OTT Service passes the time.	15.950	2	0.262	697	60.988	0.000
V11. We have the choice of time and place while using an OTT service.	14.645	2	0.286	697	51.218	0.000

V12. We can watch movies or T.V. shows on an OTT platform alone.	26.064	2	0.288	697	90.351	0.000
V13. OTT platforms are giving tough competition to traditional modes of entertainment.	75.038	2	0.286	697	262.211	0.000
V14. OTT platforms will take over in the near future.	72.515	2	0.330	697	219.918	0.000
V15. OTT platforms are only for the young generation.	56.564	2	0.684	697	82.683	0.000
V16. Accepting advertisers to pay less for the required OTT platform and share your data.	77.349	2	0.665	697	116.234	0.000

Note. The *F* - tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and, thus, cannot be interpreted as tests of the hypothesis that the cluster means are equal.

Table 12. Number of Cases Calculated in Each Cluster

Cluster	1	400.000
	2	174.000
	3	126.000
Valid		700.000
Missing		.000

From Table 12, of the number of cases in each cluster, three clusters have been discovered in the study. Out of the three clusters, the first cluster (Cluster 1 in the table) consists of 400 responses or the values, the second cluster (or Cluster 2) consists of 174 responses or the values, and the third cluster (or Cluster 3) consists of 126 responses or the values, out of 700 responses being used in the study.

Table 13. Results of Mean Values of the Variables

Variables	Age				
	18 – 25	26 – 30	31 – 35	36 – 40	> 40
V1	3.11	2.75	2.69	3.13	2.9
V2	2.9	2.74	2.75	2.87	2.76
V3	3.02	2.68	2.73	2.98	2.79
V4	3	2.92	2.59	3.07	3.04
V5	3	3.02	2.78	3.05	3.02
V6	2.93	2.95	2.75	2.88	2.9
V7	2.99	2.89	2.75	2.94	2.94
V8	3.01	3.10	2.80	3.22	2.9
V9	3.24	3.09	2.86	3.10	3.11
V10	3.01	3.12	2.78	2.97	2.98

V11	3.17	3.19	2.85	3.09	3.15
V12	3.26	3.21	2.84	3.23	3.27
V13	3.27	3.21	2.98	3	3.15
V14	3.11	3.11	2.53	3.13	3.17
V15	3	2.82	2.63	2.98	2.93
V16	2.14	1.77	2.1	1.98	1.97
V17	2.54	2.7	2.51	2.58	2.58

Table 14. Results of Variables with High Mean Values

18 – 25	26 – 30	31 – 35	36 – 40	> 40
V12	V12	V11	V12	V12
V9	V11	V9	V8	V11
V11	V12	V12	V14	V14
V14	V10	V11	V1	V9
V13	V14	V10	V11	V14
V3	V8	V8	V9	V4

Table 13 discusses the mean values of all the variables used for clustering. Table 14 shows that the variables V3 and V13 are associated with age groups 18 – 25. This cluster group can be named “Gen Z Socializing.” The variables V8 and V10 are associated with age groups 26–30 and 31–35. This cluster group can be named “Gen Y Entertaining.” The variables V1, V4, and V5 are mostly associated with 36–40 and greater than 40 age groups. This cluster group can be named “Gen X Quality Essence.”

Gen Z or the younger generation are reportedly more sociable than the other age groups. They seem more active and engaging in increasing and improving their bonds and connections. They spend more time over social media and OTT platforms communicating with their friends, families, peers, and others, expanding their reach, and linking up with as many people as possible.

Gen Y or adults have been identified as entertainment and fun-loving individuals. They tend to spend and enjoy their life well, as this is the stage when they need to manage both their personal and professional lives. As a result, they seek entertainment, humor, and fun in everything, including content, over the OTT platforms.

Gen X or older people seek quality and richness in everything. They are less likely to easily be influenced by materialistic things and prefer uniqueness and quality over quantity and materialism. Thus, in terms of OTT platforms and their services, Gen X is more likely to prefer quality services and content.

Managerial Implications

This research has significant consequences to consider. To begin with, streaming platforms and content providers must examine the requirement for specific and high-quality services for their subscribers. For example, users prefer various services over recreational facilities. Therefore, content developers must pay close attention to establishing and sustaining high-quality services. Secondly, customers look for specific features before streaming, such as minimal commercials, the quality and quantity of accessible material, the cost of premium services, and so on. As a result, it is recommended to give enhanced services at a budget-friendly price with additional benefits.

These platforms and content providers must also keep adverts and ad-supported content to a minimum for their users. To attract and retain adults or Gen Y, they should be consistent and fresh with their material and strike a balance between quality and quantity to engage older users or Gen X. It is also advisable to analyze the usage patterns by gathering data on their streaming habits to understand their wants and preferences. It will help content providers understand how consumers' tastes and usage patterns are evolving so that they may implement improvements to increase user satisfaction.

Theoretical Implications

As observed in the study, users who watch videos on streaming services have different likes and inclinations. Young users favored platforms that offered a blend of services, such as streaming videos, a forum for engaging with people worldwide, low-cost membership, exciting content, and user convenience. Consequently, content providers can regularly add new services and upgrades to attract and maintain users. Many millennials, for example, are switching from Facebook to Snapchat since the latter provides daily updates and various other features (Oyedele & Simpson, 2018). In addition, such platforms can provide consumers with offline and online content access. Finally, it was discovered that older users prefer quality and authenticity above materialism. Thus, content makers should consider this and cater to them accordingly.

The expectation confirmation theory was employed in this study to explore how consumers' expectations about streaming platforms and services were confirmed. ECT, however, although being widely used and utilized in research, has limits. According to Hossain and Quaddus (2012), ECT encompasses pre-purchase expectations, post-purchase perceptions, and re-purchase intentions among consumers. However, it excludes qualitative components of a product such as a system, quality, and information (especially AI-based products) and different aspects of satisfaction derived by the users. In addition, it examines consumers rather than customers, who differ in terms of consumption habits.

Furthermore, according to this theory, customer satisfaction leads to re-purchase intent; whereas, commodities lacking replacements are acquired and consumed regardless of whether the consumer is satisfied. Similarly, it asserts that the smaller the gap between a customer's anticipation and experience with a product, the greater the satisfaction. However, in some instances, consumers found happiness despite a product failing to satisfy their expectations, which ECT does not cover.

Conclusion

Virtual/streaming platforms are being hailed as a game-changer in modern society, with most people preferring them over traditional media. As people could not leave their homes during the pandemic and theatres were closed, most movies, series, and other types of content began to be released across virtual and streaming platforms. Thus, OTT platforms took over traditional media or television. According to the findings, the “Fringe Benefits” factor has a stronger influence than “Refreshment,” indicating that individuals are content with virtual and streaming platform services. As per the findings, OTT platforms impact consumers based on age groups and may be divided into three distinct clusters or age groupings. Users of various age groups watch content based on the characteristics of OTT platforms.

Limitations of the Study and Scope for Future Research

Despite its informative results, this study has certain limitations that can be identified in future research. First, this research is confined to a specific zone or metropolis, namely Kolkata, West Bengal. Secondly, the study has

encountered resistance from the elderly, as most of this demographic either lacks access to cell phones or the internet or is disinterested in utilizing smartphones to stream. This obstacle opens the path for further study on the perceptions and attitudes of senior citizens regarding streaming platforms, as well as how they might be improved. Similarly, it emphasizes that most streaming platform users are millennials who take things a step further by streaming and socializing often. Finally, there is always room for development to attract more users and distinguish content producers from their competition.

Authors' Contribution

Dr. Udit Chawla conceived the idea and developed qualitative and quantitative designs to undertake the study. He further verified the analytical methods and supervised the study. Jyoti Shaw and Sonam Choudhary extracted research papers of high reputations and filtered these based on keywords. The interviews were conducted by Jyoti Shaw and Sonam Choudhary, some in colloquial language and some in English. The same was further transcribed and translated into English. Dr. Udit Chawla did the numerical computations using SPSS 20.0. He wrote the manuscript in consultation with both co-authors.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this manuscript.

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References

- Arora, A. K., & Srinivasan, R. (2020). Impact of pandemic COVID-19 on the teaching-learning process: A study of higher education teachers. *Prabandhan: Indian Journal of Management*, 13(4), 43–56. <https://doi.org/10.17010/pijom/2020/v13i4/151825>
- Azzahro, F., Ghibran, J. V., & Handayani, P. W. (2020). Customer satisfaction and willingness to pay on demand entertainment streaming service: The role of service quality and perceived values. In, *2020 International Conference on Information Technology Systems and Innovation (ICITSI)* (pp. 179–184). IEEE. <https://doi.org/10.1109/ICITSI50517.2020.9264953>
- Bründl, S., & Hess, T. (2016, June). Why do users broadcast? Examining individual motives and social capital on social live streaming platforms. In *Proceedings of the Pacific Asian Conference on Information Systems*, 332. <https://aisel.aisnet.org/pacis2016/332/>
- Bulsara, H. P., & Vaghela, P. S. (2022). Millennials' online purchase intention towards consumer electronics: Empirical evidence from India. *Indian Journal of Marketing*, 52(2), 53–70. <https://doi.org/10.17010/ijom/2022/v52/i2/168154>
- Chen, C.-C., & Lin, Y.-C. (2018). What drives live-stream usage intention? The perspectives of flow, entertainment, social interaction, and endorsement. *Telematics and Informatics*, 35(1), 293–303. <https://doi.org/10.1016/j.tele.2017.12.003>

- Chiu, C.-M., Hsu, M.-H., Lai, H., & Chang, C.-M. (2012). Re-examining the influence of trust on online repeat purchase intention: The moderating role of habit and its antecedents. *Decision Support Systems*, 53(4), 835–845. <https://doi.org/10.1016/j.dss.2012.05.021>
- Cleary, C., Humphrey, O., & Bates, A. (2014). Possible, inevitable, or fait accompli? An analysis of streaming video acquisition, acceptance and use in higher education. In A. Kosina (ed.), *Proceedings of VALA2014, the 17th Biennial Conference and Exhibition* (pp. 1–17). VALA-Libraries, Technology and the Future Inc.
- Francioni, B., Musso, F., & Vardiabasis, D. (2013). Key decisions and changes in internationalization strategies: The case of smaller firms. *Journal of Strategic Marketing*, 21(3), 240–259. <https://doi.org/10.1080/0965254X.2013.790466>
- Fu, X.-M., Zhang, J.-H., & Chan, F. T. (2018). Determinants of loyalty to public transit: A model integrating satisfaction-loyalty theory and expectation-confirmation theory. *Transportation Research Part A: Policy and Practice*, 113, 476–490. <https://doi.org/10.1016/j.tra.2018.05.012>
- Gadhiya, P., & Panchal, N. (2021). Young women's continuance intentions to use communication and social media apps. *Indian Journal of Marketing*, 51(3), 41–55. <https://doi.org/10.17010/ijom/2021/v51/i3/158063>
- Hilvert-Bruce, Z., Neill, J. T., Sjöblom, M., & Hamari, J. (2018). Social motivations of live-streaming viewer engagement on Twitch. *Computers in Human Behavior*, 84, 58–67. <https://doi.org/10.1016/j.chb.2018.02.013>
- Hossain, M. A., & Quaddus, M. (2012). Expectation–confirmation theory in information system research: A review and analysis. In Y. Dwivedi, M. Wade, & S. Schneberger (eds.), *Information systems theory. Integrated series in information systems* (Vol. 28). Springer. https://doi.org/10.1007/978-1-4419-6108-2_21
- Hsu, M.-H., Chang, C.-M., & Chuang, L.-W. (2015). Understanding the determinants of online repeat purchase intention and moderating role of habit: The case of online group-buying in Taiwan. *International Journal of Information Management*, 35(1), 45–56. <https://doi.org/10.1016/j.ijinfomgt.2014.09.002>
- Hu, M., Zhang, M., & Wang, Y. (2017). Why do audiences choose to keep watching on live video streaming platforms? An explanation of dual identification framework. *Computers in Human Behavior*, 75, 594–606. <https://doi.org/10.1016/j.chb.2017.06.006>
- Jomnonkwao, S., Ratanavaraha, V., Khampirat, B., Meeyai, S., & Watthanaklang, D. (2015). Factors influencing customer loyalty to educational tour buses and measurement invariance across urban and rural zones. *Transportmetrica A: Transport Science*, 11(8), 659–685. <https://doi.org/10.1080/23249935.2015.1060274>
- Kagan, S. N. (2017). *Global OTT provider database (Excel)*. <https://www.snl.com>
- Kastiya, S., & Sharma, A. (2020). Impact of internet addiction on workplace procrastination: An empirical study on millennial employees. *Prabandhan: Indian Journal of Management*, 13(1), 45–58. <https://doi.org/10.17010/pijom/2020/v13i1/149947>
- Katz, Y. (2020). Interacting for peace: Rethinking peace through interactive digital platforms. *Social Media + Society*, 6(2), 2056305120926620. <https://doi.org/10.1177%2F2056305120926620>
- Khatri, S., & Kale, S. (2022). Social listening as a marketing strategy to analyze beyond consumer buyology in the OTT Industry: A research note. *Prabandhan: Indian Journal of Management*, 15(1), 53–58. <https://doi.org/10.17010/pijom/2022/v15i1/167861>

- Kulshrestha, V., & Jain, K. (2018). Technology integration in the mobile communication industry: A review. *Prabandhan: Indian Journal of Management*, 11(4), 7–26. <https://doi.org/10.17010/pijom/2018/v11i4/122824>
- Lin, T.-C., Wu, S., Hsu, J. S.-C., & Chou, Y.-C. (2012). The integration of value-based adoption and expectation–confirmation models: An example of IPTV continuance intention. *Decision Support Systems*, 54(1), 63–75. <https://doi.org/10.1016/j.dss.2012.04.004>
- Lohmann, S., & Frederiksen, L. (2018). Faculty awareness and perception of streaming video for teaching. *Collection Management*, 43(2), 101–119. <https://doi.org/10.1080/01462679.2017.1382411>
- Malhotra, N., & Birks, D. (2007). *Marketing research: An applied approach* (3rd European edition). Pearson Education.
- Mäntymäki, M., Najmul Islam, A. K., & Benbasat, I. (2020). What drives subscribing to premium in freemium services? A consumer value-based view of differences between upgrading to and staying with premium. *Information Systems Journal*, 30(2), 295–333. <https://doi.org/10.1111/isj.12262>
- Matikainen, J. T. (2015). Motivations for content generation in social media. *Participations: Journal of Audience and Reception Studies*, 12(1), 41–58. <http://hdl.handle.net/10138/232990>
- Nath, A., Behura, A. K., Kumar, R., Kanak, T., & Sundararajan, M. (2019). Technology advancement, teachers' efforts and know-how as key factors to improve students' creativity for excellence in education management. *Prabandhan: Indian Journal of Management*, 12(11), 7–20. <https://doi.org/10.17010/pijom/2019/v12i11/148408>
- Oghuma, A. P., Libaque-Saenz, C. F., Wong, S. F., & Chang, Y. (2016). An expectation-confirmation model of continuance intention to use mobile instant messaging. *Telematics and Informatics*, 33(1), 34–47. <https://doi.org/10.1016/j.tele.2015.05.006>
- Otto, J. (2014). University faculty describe their use of moving images in teaching and learning and their perceptions of the library's role in that use. *College & Research Libraries*, 75(2), 115–144. <https://doi.org/10.7282/T3DR2SVW>
- Oyedele, A., & Simpson, P. M. (2018). Streaming apps: What consumers value. *Journal of Retailing and Consumer Services*, 41, 296–304. <https://doi.org/10.1016/j.jretconser.2017.04.006>
- Rahi, S., & Abd. Ghani, M. (2019). Integration of expectation confirmation theory and self-determination theory in internet banking continuance intention. *Journal of Science and Technology Policy Management*, 10(3), 533–550. <https://doi.org/10.1108/JSTPM-06-2018-0057>
- Sen, S. (2022). A short communication: Monograph on impulse buying during the COVID-19 Pandemic. *Indian Journal of Marketing*, 52(4), 63–69. <https://doi.org/10.17010/ijom/2022/v52/i4/169110>
- Singh, S., Kapoor, P., Srivastava, S., & Prakash, A. (2021). Impact of media on the health consciousness of the millennial generation. *Prabandhan: Indian Journal of Management*, 14(12), 35–53. <https://doi.org/10.17010/pijom/2021/v14i12/167459>
- Smolağ, K., Ślusarczyk, B., & Kot, S. (2016). The role of social media in the management of relational capital in universities. *Prabandhan: Indian Journal of Management*, 9(10), 34–41. <https://doi.org/10.17010/pijom/2016/v9i10/103072>

- Spangler, T. (2018, July 24). Cord-cutting keeps churning: U.S. pay-TV cancelers to hit 33 million in 2018 (Study). *Variety*. <https://variety.com/2018/digital/news/cord-cutting-2018-estimates-33million-us-study-1202881488/#!>
- Sridhar, G., & Narasimha Murthy, G. (2017). Influence of perceived risk and value consciousness on attitude towards music piracy. *Indian Journal of Marketing*, 47(10), 19–25. <https://doi.org/10.17010/ijom/2017/v47/i10/118694>
- Tsai, H.-T., Chien, J.-L., & Tsai, M.-T. (2014). The influences of system usability and user satisfaction on continued Internet banking services usage intention: Empirical evidence from Taiwan. *Electronic Commerce Research*, 14, 137–169. <https://doi.org/10.1007/s10660-014-9136-5>
- Venkatesh, V., Thong, J. Y., Chan, F. K., Hu, P. J.-H., & Brown, S. A. (2011). Extending the two-stage information systems continuance model: Incorporating UTAUT predictors and the role of context. *Information Systems Journal*, 21(6), 527–555. <https://doi.org/10.1111/j.1365-2575.2011.00373.x>
- Voigt, K.-I., Buliga, O., & Michl, K. (2017). Entertainment on demand: The case of Netflix. In *Business model pioneers. Management for professionals*. Springer. https://doi.org/10.1007/978-3-319-38845-8_11
- Zhang, H., Lu, Y., Gupta, S., & Gao, P. (2015). Understanding group-buying websites continuance: An extension of expectation confirmation model. *Internet Research*, 25(5), 767–793. <https://doi.org/10.1108/IntR-05-2014-0127>

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