A Study on Impact of On-Demand Digital Media on Traditional Entertainment Services in India

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ABSTRACT

Online video streaming platforms have taken the world by storm. The paradigm of the entertainment industry is shifting from traditional means of entertainment such as television to on-demand services such as Netflix and Amazon Prime Video, among others. These services have proved to be a major competitor to the television industry and broadcasting industry in general. With high-quality original productions from such content providers, in addition to the convenience that they offer, the demand for regular television broadcasting is starting to diminish. Thus, in the research conducted, there is an attempt to study the impact of such services on the traditional sources of entertainment, most prominent being television. By conducting a survey pertaining to the audiences' watching habits, the information gathered about their choice of content consumption based on different factors. The focus of the study was on the audience viewership of both these alternatives as an indicator of the popularity of both these entertainment platforms and base the audience as a sample with different factors such as their lifestyle, their content preferences and their adaptability to name a few. The study helps in

inferring the preferences of the people with regards to their entertainment consumption and hoping the study conducted can provide insights into the same.

Key Words: *On-Demand Digital Media, Traditional Entertainment Media, Binge-Watching*

INTRODUCTION

Online streaming services are becoming a successful phenomenon among Millennials and Gen Z generations around the globe. With some of the leading giants such as Amazon Prime, Netflix, Eros Now, Hotstar, Hulu, etc. providing not only some of the greatest movies and television series but also their own original content in the form of various web series. With these streaming services becoming more and more ubiquitous, they are introducing challenges for the familiar, more structured broadcasting and television industry. 'Binge-watching' is a term that became colloquially recognized in 2013, thanks to Netflix, which introduced the concept of making all episodes of various television series available at once on its platform. Since, nowadays, convenience is everything the concept of anywhere and anytime television is becoming more widely sought after than the traditional television broadcasting, and rightfully so.

Due to the availability of these services on various electronic devices, they are inherently able to attract more viewers who form a major chunk of the television audience. Via facilities such as mobile applications, online video streaming on the computer and even gadgets that allow users to access their streaming platform provider of choice, consuming content have become easier than ever.

The aim of this article is to focus on and study the impact of streaming services on traditional television audiences in India. With streaming service companies targeting Indian audiences with originals such as Netflix's Sacred Games and Amazon Prime's Mirzapur, etc. the focus from traditional television seems to be shifting since regional content is not just on television anymore. The online streaming platforms possess not only competition but also a threat to television broadcasters. With this article, it can be assessed what are the kind of challenges being faced by these television broadcasters, in India, and what measures they take to keep the competition alive.

LITERATURE REVIEW AND OBSERVATIONS

There is ample amount of studies conducted in the west on the watching habits of various generations and how the introduction of online streaming services or Subscription-Based Video on Demand (SVOD) services i.e. the likes of Netflix, Amazon Prime Video, Hotstar, Hulu, etc., have influenced the entertainment industry. Burroughs B. (2018) discussed the impact of emerging streaming services on the existing entertainment industry by researching on the factors like Netflix as quality streams and Cord-Cutters & Cord-Nevers. Wayne M. (2017) concluded in his research that "New media forms do not replace the old ones" based on how SVOD services like Amazon and Netflix were branded against traditional media forms.

As per an article released by Business Insider (2015), the period 2013-14 saw tremendous growth in SVOD services. One of the major contributors to this growth is Netflix. While Netflix started its business as a DVD rental service it slowly changed its model to online streaming and later on started producing in-house media content to provide Netflix Originals to its user. This grew popular amongst the teenagers and they saw Netflix as a better option instead of traditional television series. Binge-watching, as the new term goes, has become increasingly famous within the Gen Y and Gen Z. Matrix S. (2014) in her research paper has termed this as the Netflix effect. Likewise, Panda S. (2017), in her paper talks about the influence of binge watching and subsequent gratifications on the viewing habits of the college students. Merril K. and Rubenking B. analyzed the difference between the frequency and the time dedicated by an undergraduate college student for binge watching and their consequential habits because of the same. Kim K. and Shim H. on the other hand, conducted a survey to identify the psychological traits of the viewers and their influence in motivating binge-watching. The major difference between traditional services and SVOD is content delivery. While traditional services are more scheduled i.e. the shows have a fixed timing and they release new episodes every week (in US) and/or every day (in India), SVOD services releases all episodes of a series at once. Thus people can watch them anytime and anywhere as per their convenience. This is one of the major reasons as to why such services are increasing to popularity. People also watch the episodes consecutively. In 2013, 10% of the subscribers watched the entire series of Arrested Development within 24 hours of its release. Matrix S. also talked about how this is changing the dynamics of relationships of today's youth and how binge-watching is becoming a social norm.

Also, Jenner M.(2014) talks about the shift from traditional TV services (TV III) to SVOD services(TV IV) due to change in watching patterns in Germany. Similarly, Mikos L. discusses the various factors which are contributing to wider acceptance of the SVOD services among German audience. Ernst and Young in their research "Digital Opportunity Indian media and entertainment" discussed how videos and music currently represent the highest proportion of consumer preferences within the entertainment category, collectively aggregating over 90%. They forecasted India to become the second-largest video viewing audience globally by 2020. According to EY analysis, consumers have shown increased preference towards short-form content; with the average length of video viewed in India being around 20 mins. In addition, 62% of the content consumed on YouTube is short-form content. This trend has led content producers like Eros International, Viacom 18 and Star India to focus on exclusive and snackable content. After the launch of Netflix's SVOD service in 2010, 50 mainstream SVOD services were launched; of which India had, at the time, over five SVOD platforms examples: Eros Now, Hotstar, YuppTV, nexGTv, Ditto. Steiner E. & Xu K. (2018) used 'Uses and Gratifications' theory to understand how binge-watching culture is changing ways, the viewers interact with television.

Most of the aforementioned studies analyze, how the introduction of online streaming services or SVOD has proved to be a disruptive innovation. Therefore, the focus is more on how services like Netflix, Amazon Prime, etc. have changed the existing business models in entertainment services. However, there are certain shortcomings in their work, namely, lack of inferential analysis from

primary data collection, SVOD's issues in overwhelming the traditional media and comparative analysis among the several existing 'on-demand digital media' services. This research project intends to include these elements and work on them while considering India as its extent. These factors will provide a thorough observation of the advent of on-demand digital media in India and how it has affected the traditional entertainment services.

In the aforementioned studies, while they give an idea of how the entertainment paradigm is changing with respect to the shift towards online streaming platforms, they fail to highlight the effect of the same on the traditional spectrum of the entertainment industry, especially in the Indian context in a direct manner. Therefore, in this study one will see the impact of online streaming services on traditional television in India.

METHODOLOGY AND HYPOTHESIS DEVELOPMENT

Independent Variables

Based on the literature studied, to conduct the study, a few independent variables were identified Demography of an individual gives a glimpse of their decision-making process, which is also relevant when it comes to their content consumption choices. These decisions made are based on sub-factors such as age, gender, profession, and income. The content library of the services in question also serves an important role in the viewers' decision of subscribing to a particular service since it is the direct necessity of the audience to find what they're looking for in any entertainment service. Also, considering the diverse regional communities, Indian viewers prefer to have content available in their native languages. The technical infrastructure serves as a factor when the viewers decide which services to opt for. Considering sub-factors such as the strength and availability of the network connection, the devices on which the particular streaming services are available and the payment options necessary to actually subscribe to them. Lastly, Indian viewers are characteristically priced sensitive. Thus, this along with the aforementioned factors play an important role in influencing the viewership of the audience.

Dependent Variables

The study identifies viewership as an indicator to determine the effect, the on-demand digital media has had on the traditional entertainment services. Viewership can precisely quantify the predilection for the new and emerging online streaming services as opposed to the established traditional entertainment services like television shows, movies, etc. The demography indicates a pattern in which these services are consumed dictated by the individual's age, gender, profession, and income. The content library highlights the quality and variety in the provided content influencing the consumer into choosing or repudiating a particular service. Similarly, the availability of preferred language as a part of the service can be quantified in relation to viewership.

The infrastructure, as the founding factor, provides access to the consumer into using these services. Thus viewership, as a determinant, gives an unclouded judgment of the impact of this topical service on the existing service system.

Moderating and Controlling Variables

While considering all the above-mentioned aspects, customer satisfaction is the factor, which undeniably influences the viewership of online streaming services. Customer satisfaction acts as a catalyst to factors like content library, language preferred, infrastructure and price sensitivity, which further consequences into a shift in the viewership of the media services.
The viewership measured will be limited to India as a geographical constraint. It is to make sure the focus is not diverted from the objective and the precise conclusion is drawn from it.
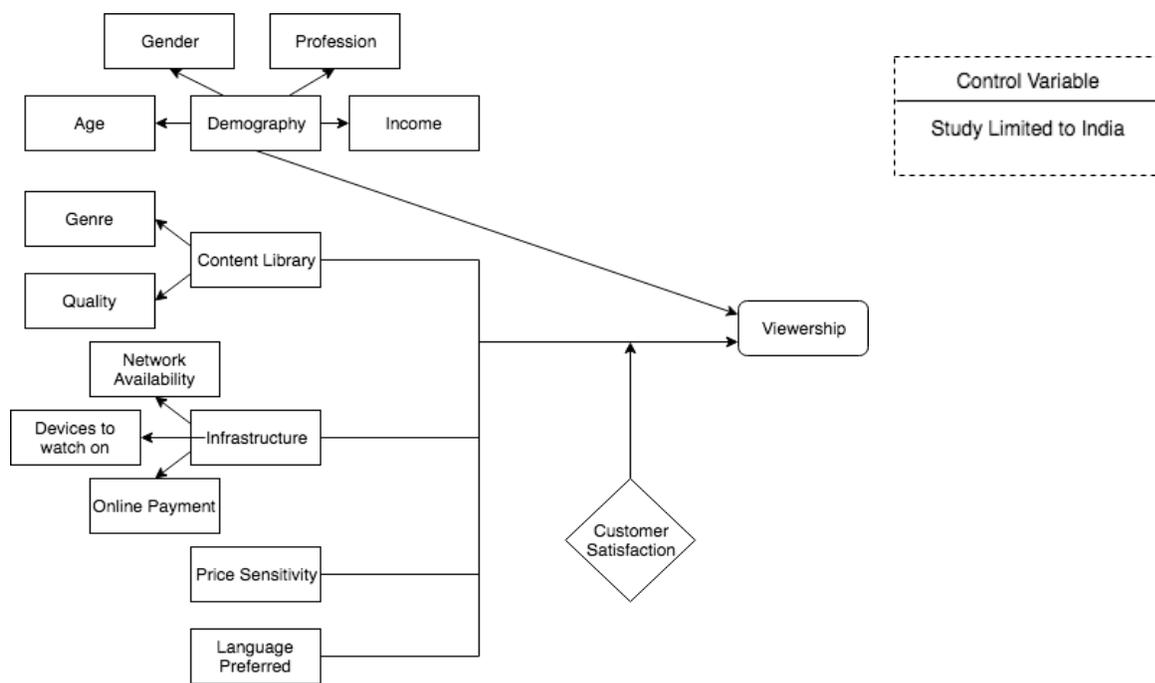
THEORETICAL FRAMEWORK AND METHODOLOGY

Figure 1: Theoretical Framework

HYPOTHESIS DEVELOPMENT

Demography

The demographic characteristics of the audience act as an important indicator of their entertainment consumption habits. It gives a rough estimation of what their inclinations are based on their background. The age of the audience may bring forth their watching habits and what kind

of content they prefer as well as for how long they use a particular platform to consume that content. Their age and professions may display the different variety of entertainment art forms they may choose to view based on how well they relate to it. The income of the audience gives an idea of which services they prefer to subscribe to more, and whether or not they choose to subscribe to one or more services at a time. All these factors combined give a holistic view of the demography of the audience and this demography acts as the independent variable in determining the viewership.

Content Library

One of the other indicators of consumption habits is the Content Library. The selection of titles based on genre plays an important role for the audience to choose a streaming service. The paucity of content for any genre will drive the consumers away and the density of the same will draw them in. The quality of content made available on both platforms is different in a way that the mainstream media is alarmed about the shift in the interests of the audience.

Infrastructure

The infrastructure available plays a key role in the viewership of online streaming services. With a boom in technology, it has become easy to get on board with such services, but the experience may be marred because of inconsistencies in the availability of these services. The paramount points to consider in infrastructure are the various devices on which these services are available, since they may be consumed via mobile apps or websites or other streaming hardware, then comes the network connectivity and its robustness and reliability since a weak network connection can hamper the viewing experience to a great extent and lastly the option of online payments as these services rely on online transactions in order to sign on the viewers. The degree to which these factors are available and the inconvenience caused by their unavailability, thus, impacts the viewership of these services.

Price Sensitivity

For any given industry, there are standard prices for a certain quality of product or service. Similarly, media services have a general range of costs for particular types of subscriptions. These subscribed services should convince the customer that the amount paid is not wasted on the content provided. Thus, the customer's willingness to pay for the subscription of these services plays an important role in the viewership statistics.

Language Preferred

One another indicator is the availability of the preferred language. Different demographics have different inclinations for the language in which they would prefer to watch their shows or movies, some like the regional or native tongue while some would rather choose to watch them in international languages. The serviceability of this factor can influence the viewership of these services.

DATA COLLECTION

To conduct this study, data needs to be collected on the basis of the identified variables. For this purpose, a survey was conducted including all the affecting independent variables and find out its relationship with the dependent variable. The people sought out for this survey will belong to many different categories to assure that the survey is conducted with precision. The survey questionnaire will focus on determining the preference of the individual between the cable and the online streaming services. The questions are guided along the independent variables to find out their significance for the dependent variable. Questions based on demography are to identify the individual and classify them based on the input. Content Library based questions is to match the requirements of the individual to their demographic categories. Questions based on infrastructure and price sensitivity are to check for the availability of the services to the individual. The questionnaire is a combination of scaling and multiple-choice questions to allow the analysis to be quantified. The scaling questions are based on Likert scale which will measure people's inclination towards a particular factor and will help in deciding whether the factor contributes to the viewership pattern. Lastly, in primary data collection, apart from inferences drawn from the survey, interpersonal communication will also assist this study in deducing precise conclusions. Whereas, secondary information sources will include past research papers, news reports, etc. in order to predict upcoming trends. There will also be company reports such as Deloitte, EY and TRAI which would be used whenever the need arises. Thus, the analysis will be conducted after considering the above-mentioned resources as an integration of both primary and secondary data to come to a definite result.

DATA ANALYSIS TOOL

To analyze how the independent variables are affecting the dependent variable in the presence of the moderating variable, regression analysis as the tool was used. Regression analysis will help understand how the dependent variable changes when one of the independent variables varies and allows to mathematically determine which of those variables really has an impact. According to the theoretical framework formulated above along with the hypotheses, incorporation of the primary data gathered from the survey of viewing habits and checking the data set in order to avoid and eliminate any bias. The sample size was 185 distinct responses. This study focuses specifically on the entertainment industry for the following reasons:

1. The current trends in the watching habits of people are changing dynamically.
2. Due to the aforementioned change, media companies are not only facing immense growth but also facing equally numerous challenges in the market.

Thus, identifying the factors which influence the viewing habits of the media service users is the testing scenario that the study aims to pursue.

Limitations of The Work

- In the study conducted thus far, it was able to gather a sizable amount of primary data for research purposes. However, due to a few constraints the study was limited towards the urban audience and therefore the sample size was also quite limited. Thus, the kind of responses gathered from this study only depict the perspective of audience from one sect of the society. Further the sample size of the audience mostly consisted of Millenials and Gen X hence the number of which watching television is significantly lower due to which the inference drawn for cable section can vary if relatively higher responses are analyzed. The responses also could have been dependent on the state of mind of the individuals in that particular instant and thus there may have been slight biases in the responses which were out of control and difficult to rectify from the study's end.
- Also, the study conducted an analysis of three different scenarios in isolation. This caused the sample size to be different for each scenario. Thus, the reliability metrics for each of the scenarios were different in each case. This limitation can be alleviated by increasing the number of responses and including more sub-dimension i.e. the questions pertaining to each of the independent variables. As the method of gathering information of the independent variables were the same as the collection of data related to the dependent variables (viewership), the study faces common method bias.

DISCUSSIONS AND RESULTS

SCENARIO A: FREQUENCY OF WATCHING ODD MEDIA (DV01) AND FREQUENCY OF WATCHING CABLE SERVICES (DV02)

This study finds the Partial Least Squares (PLS) method most suitable to assess the measurement model. Table 1A shows all measurement items having weights. Thus, constructs measured by these items can be used to evaluate the model and associated hypotheses.

Independent Variable	Items ID	Items	Weights
Demography	DM01	Age	0.702
	DM02	Occupation	0.804
	DM03	Monthly household income	0.648
	DM04	Region	0.048
Content Library	CL01	Satisfaction on ODD Action Genre content	0.651
	CL02	Satisfaction on ODD Drama Genre content	0.622
	CL03	Satisfaction on the ODD Comedy Genre content	0.702
	CL04	Satisfaction on ODD Horror and Thriller Genre content	0.572
	CL05	Satisfaction on ODD In-house production content	0.718
	CL06	Satisfaction on ODD Other Genre content	0.699
	CL07	Satisfaction on Cable Action Genre content	0.577
	CL08	Satisfaction on Cable Drama Genre content	0.682
	CL09	Satisfaction on Cable Comedy Genre content	0.661
	CL10	Satisfaction on Cable Horror and Thriller Genre content	0.548
	CL11	Satisfaction on Cable Reality Shows Genre content	0.668
	CL12	Satisfaction on Cable Other Genres content	0.525
Infrastructure	IF01	Discontent on commercial breaks on Cable	0.720
	IF02	Frequency of buffering on ODD services	-0.720

Source: Primary Data   Table 1A

Factor Analysis

First and foremost, **factor analysis** was performed. It was found that, the items under DM, CL and IF resulting in multiple sums of squared loadings values. Hence, by rotating those variables by using varimax rotation and based on the results, the items DM04, CL01, CL02, CL03, CL04, CL05, and CL06 were discarded from further analysis. The final measurement items taken into consideration are listed in Table 1B:

Independent Variable	Items ID	Items	Weights
Demography	DM01	Age	0.701
	DM02	Occupation	0.804
	DM03	Monthly household income	0.651
Content Library	CL07	Satisfaction on Cable Action Genre content	0.727
	CL08	Satisfaction on Cable Drama Genre content	0.835
	CL09	Satisfaction on Cable Comedy Genre content	0.817
	CL10	Satisfaction on Cable Horror and Thriller Genre content	0.757
	CL11	Satisfaction on Cable Reality Shows content	0.696
	CL12	Satisfaction on Cable Other Genres content	0.747
Infrastructure	IF01	Discontent on commercial breaks on Cable	0.720
	IF02	Frequency of buffering on ODD services	-0.720

Source: Primary Data   Table 1B

Reliability Check and Descriptive Statistics

Now with the refined set of variable items, the study proceeded to perform a reliability check for the selected variables. The results of the reliability check are as follows in Table 2:

Number	Variable ID	Variable	No. of Scales Items	Reliability
1	DM	Demographics	3	0.553
2	CL	Content Library	6	0.855
3	IF	Infrastructure	2	0.73

Source: Primary Data   Table 2

With fairly consistent scores of reliability for the measures, descriptive statistics on the data was performed.

In order to do so, though, it was first needed to compute a variable score of all the measures. This helps in achieving a standard average value of the independent variables to compare against the dependent variables in viewership which in this scenario is a frequency of watching ODD media (DV01) and frequency of watching cable services (DV02).

The results of the same are as follows:

- For **DV01**, the Kolmogorov-Smirnov and Shapiro-Wilk test both result in significant levels greater than 0.05. It gives the skewness and kurtosis measures between -1 and +1 with the values being 0.026 and -0.049 respectively. These values are smaller than 3 times the standard error of each of these statistics.
- For **DV02** as well, the Kolmogorov-Smirnov and Shapiro-Wilk test both result in significant levels greater than 0.05. The skewness and kurtosis measures lie between -1 and +1 (-0.165 and -0.092 respectively). These values are smaller than 3 times the standard error of each of these statistics.

Thus, the normality checks result in satisfactory results to perform further analysis.

Linear Regression - Frequency of Watching Odd Media (DV01)

a. Regression on DV01

The next step is to repeat the same process with the same criteria for dependent variable **DV01**. The following results were obtained after performing the regression analysis:

- The Durbin-Watson statistic has a value of 2.480, which is just shy of 2.5. Also it gets a positive value for the adjusted R-squared statistic which is 0.049.
- The value of significance of model fit is greater than 0.05, thus it does not match the criteria.

- The significance levels of the independent variables except for DM are greater than 0.05. DM has a significance level of 0.025. VIF values of all independent variables are below 20.
- The scatterplot has nodes lying between -3 and +3 and hence matches the criteria.

Based on the above observations, the linear regression process is repeated, this time by considering only DM as the independent variables. By doing so the following results are obtained:

- The Durbin-Watson statistic has a value of 2.334 and the adjusted R-squared statistic gives a value of 0.040.
- The significance value of the model fit is less than 0.05 with a value of 0.047.
- The significance value of DM is 0.047, which is less than 0.05 and hence matches the criteria.
- The scatter-plot does not indicate any outliers with the nodes lying between -3 and +3.

Thus, on the basis of the above results, with a slight alteration in the criteria, by keeping the acceptable significance value of 0.05 for the independent variables, it can be inferred that the DM dimension has a substantial influence on the DV01 variable.

Linear Regression - Frequency of Watching Cable Services (DV02)

b. Regression on DV02

Firstly, the linear regression for the dependent variable **DV02** is carried out and the following results are obtained:

- The Durbin-Watson statistic has a value less than 1.5 and the value of adjusted R-squared statistic is negative, which does not match the criteria.
- The significance level of the model fit is also greater than 0.05 and does not match the set criteria.
- Moreover, for the independent variables, the significance levels of all the independent variables are greater than 0.05 and do not match the criteria. However, the values of VIF are less than 20 each, which do match with the set criteria.
- Lastly, the scatter-plot showed that all the nodes lie within the bounds of -3 and +3. Thus, it can be inferred that there are no outliers that could have had any significant impact on the study.

In order to overcome the discrepancies, another iteration was carried out by removing the independent variables with the highest levels of significance, in an attempt to obtain the desired results.

In this second iteration, CL with significance values less than 0.3 but more than 0.1 were considered as the only independent variables. The results of this iteration were as follows:

- The Durbin-Watson statistic had a value less than 1.5 which did not satisfy the criteria yet again, however, the adjusted R-squared statistic had a positive value of 0.003.

- The significance level of the model fit was yet again greater than 0.05 and fails to match the criteria.
- For the independent variables, the levels of significance are greater than 0.05 with VIF values less than 20.
- The scatter-plot remains the same with the nodes lying between -3 and +3.

Therefore, after multiple iterations, it can be inferred that the independent variables representing the dimensions **do not** have a significant enough effect on the DV02 variable.

SCENARIO B: FREQUENCY OF WATCHING CABLE SERVICES

Partial Least Squares (PLS) method was most suitable to assess the measurement model. Table 2A shows all measurement items having weights. Thus, constructs measured by these items can be used to evaluate the model and associated hypotheses.

Independent Variable	Items ID	Items	Weights
Demography	DM01	Age	0.871
	DM02	Occupation	0.884
	DM03	Monthly household income	0.127
	DM04	Region	0.210
Content Library	CL01	Preference for Action Genre	0.628
	CL02	Preference for Drama Genre	0.573
	CL03	Preference for Comedy Genre	0.680
	CL04	Preference for Horror and Thriller Genre	0.497
	CL05	Preference for Reality Shows	0.532
	CL06	Preference for Other Genres	0.311
	CL07	Satisfaction on Cable Action Genre content	0.721

	CL08	Satisfaction on Cable Drama Genre content	0.665
	CL09	Satisfaction on Cable Comedy Genre content	0.805
	CL10	Satisfaction on Cable Horror and Thriller Genre content	0.589
	CL11	Satisfaction on Cable Reality Shows content	0.672
	CL12	Satisfaction on Cable Other Genres content	0.451
	CL13	Preference to watch re-telecast shows	0.326
	CL14	Preference to record favorite shows	0.392
	CL15	Preference to surf through channels during commercial ads	0.494
	CL16	Preference to skip advertisements if the show is pre-recorded	0.339
Infrastructure	IF01	The convenience of getting cable subscription	0.647
	IF02	Period of using cable subscription	0.807
	IF03	Package subscription	0.468

Source: Primary Data   Table 2A

Factor Analysis

First and foremost, **factor analysis** is performed. It is found that the items under DM, CL and IF resulting in multiple sums of squared loadings values. Hence, by rotating those variables by using varimax rotation and based on the results, the items DM03, IF03, CL02, CL04, CL05, CL06, CL10, and CL12 to CL16 were discarded from further analysis. The final measurement items taken into consideration are listed in Table 2B:

Independent Variable	Items ID	Items	Weights
Demography	DM01	Age	0.874
	DM02	Occupation	0.877
	DM04	Region	0.248
Content Library	CL01	Preference for Action Genre	0.642
	CL03	Preference for Comedy Genre	0.739
	CL07	Satisfaction on Cable Action Genre content	0.854
	CL08	Satisfaction on Cable Drama Genre content	0.789
	CL09	Satisfaction on Cable Comedy Genre content	0.795
	CL11	Satisfaction on Cable Reality Shows content	0.705
Infrastructure	IF01	The convenience of getting cable subscription	0.786
	IF02	Period of using cable subscription	0.786

Source: Primary Data   Table 2B

Reliability Check and Descriptive Statistics

Now with the refined set of variable items, a reliability check is performed for the selected variables. The results of the reliability check are as follows in Table 3:

Number	Variable ID	Variable	No. of scales items	Reliability
1	DM	Demographics	3	0.538
2	CL	Content Library	6	0.835
3	IF	Infrastructure	2	0.380

Source: Primary Data   Table 3

As can be seen, the reliability score of the IF variable is relatively low. It could be further improved by increasing the number of sub-variables in a particular variable.

Despite the inconsistency between the reliability score of the three independent variables, and the reliability of IF being significantly low, descriptive statistics is carried out next. However, due to the constraints in the sample size and responses of the TV audience, it was not possible to maintain the confidence level of 95% in the data.

In order to do so, though, it was first needed to compute a variable score of all the measures. This helps in achieving a standard average value of the independent variables to compare against the dependent variables in viewership which in this scenario is the frequency of watching ODD media (DV).

The results of the same are as follows:

- For **DV**, the Kolmogorov-Smirnov is more than 0.05 and the Shapiro-Wilk test results in a significance level greater than 0.05. The skewness and kurtosis with the values being -0.54 and 0.543 respectively.

Based on these tests, it can be found that the data is normally distributed. However, regression analysis is performed to find a distinct relation between the independent and dependent variables, in case there is any.

Linear Regression: Regression on DV

The next step is to repeat the same process with the same criteria for dependent variable **DV**. The following results were obtained after performing the regression analysis:

- The Durbin-Watson statistic has the value 1.125 and it gives a positive value for the adjusted R-squared statistic which is 0.184.
- The value of the significance of model fit is less than 0.05, thus it does match the criteria.
- The significance levels of the independent variables except for DM are greater than 0.05. VIF values of all independent variables are below 20.
- The scatterplot has nodes lying between -3 and +3 and hence match the criteria.

Based on the above observations, the linear regression process is repeated, this time by considering only CL as the independent variables. By doing so the following results are obtained:

- The Durbin-Watson statistic has a value of 0.947 and the adjusted R-squared statistic gives a value of 0.146.
- The significance value of the model fit is less than 0.05 with a value of 0.021.
- The significance value of DM is 0.021, which is less than 0.05 and hence matches the criteria.
- The scatter-plot does not indicate any outliers with the nodes lying between -3 and +3.

Thus, on the basis of the above results, with a slight alteration in the criteria, by keeping the acceptable significance value of 0.05 for the independent variables, it can be inferred that the DM dimension has a substantial influence on the DV variable.

SCENARIO C: FREQUENCY OF WATCHING ON-DEMAND DIGITAL (ODD) MEDIA

Partial Least Squares (PLS) method is most suitable to assess the measurement model. Table 3A shows all measurement items having weights. Thus, constructs measured by these items can be used to evaluate the model and associated hypotheses.

Independent Variable	Items ID	Items	Weights
Demography	DM01	Age	0.805
	DM02	Occupation	0.886
	DM03	Monthly household income	0.680
	DM04	Region	0.076
Content Library	CL01	Preference for Action Genre	0.572
	CL02	Preference for Drama Genre	0.665
	CL03	Preference for Comedy Genre	0.587
	CL04	Preference for Horror Genre	0.568
	CL05	Preference for Other Genres	0.438
	CL06	Satisfaction on ODD In-house production content	0.500
Infrastructure	IF01	Preference for Binge watching	0.767
	IF02	Preference for Ad-free watching experience	0.421
	IF03	The device used to watch shows	0.760

| | IF04 | Frequency of buffering due to discontent internet connection | -0.129 |
| | IF05 | Preference for subtitles | 0.468 |

Source: Primary Data   Table 3A

Factor Analysis

Factor analysis is performed. The items under DM, CL and IF resulting in multiple sums of squared loadings values. Hence, by rotating those variables by using varimax rotation and based on the results, the items DM04, CL05, CL06, IF02, and IF04 were discarded from further analysis. The final measurement items taken into consideration are listed in Table 3B:

Independent Variable	Items ID	Items	Weights
Demography	DM01	Age	0.806
	DM02	Occupation	0.885
	DM03	Monthly household income	0.683
Content Library	CL01	Preference for Action Genre	0.666
	CL02	Preference for Drama Genre	0.753
	CL03	Preference for Comedy Genre	0.661
	CL04	Preference for Horror Genre	0.493
Infrastructure	IF01	Preference for Binge watching	0.730
	IF03	The device used to watch shows	0.797
	IF05	Preference for subtitles	0.577

Source: Primary Data   Table 3B

Reliability Check and Descriptive Statistics

Now with the refined set of variable items, it is proceeded to perform a reliability check for the selected variables. The results of the reliability check are as follows in Table 4:

Number	Variable ID	Variable	No. of scales items	Reliability
1	DM	Demographics	3	0.682
2	CL	Content Library	4	0.522
3	IF	Infrastructure	3	0.483

Source: Primary Data   Table 4

With fairly consistent scores of reliability for the measures, it is then proceeded to perform descriptive statistics on the data.

In order to do so, though, firstly there is a need to compute a variable score of all the measures. This helps in achieving a standard average value of the independent variables to compare against the dependent variables in viewership which in this scenario is a frequency of watching ODD media (DV).

The results of the same are as follows:

- For **DV**, the Kolmogorov-Smirnov is less than 0.05 and the Shapiro-Wilk test results in significance level greater than 0.05. The skewness and kurtosis values were 0.026 and 1.266 respectively.

Based on these tests, it is found that the data is not normally distributed and may contain bias. However, regression analysis is continued to be performed to find a distinct relation between the independent and dependent variables, in case there is any.

Linear Regression: Regression on DV

The next step is to repeat the same process with the same criteria for dependent variable **DV**. The following results were obtained after performing the regression analysis:

- The Durbin-Watson statistic has a value 1.847. A positive value for the adjusted R-squared statistic which is 0.129.
- The value of the significance of model fit is less than 0.05, thus it does match the criteria.
- The significance levels of the independent variables except for CL are greater than 0.05. CL has a significance level of 0.003. VIF values of all independent variables are below 20.
- The scatterplot has nodes lying between -3 and +3 and hence match the criteria.

Based on the above observations, the linear regression process is repeated, this time by considering only CL as the independent variables. By doing so the following results are obtained:

- The Durbin-Watson statistic has a value of 1.851 and the adjusted R-squared statistic gives a value of 0.140.
- The significance value of the model fit is less than 0.05 with a value of 0.000377.
- The significance value of CL is 0.000377, which is less than 0.05 and hence matches the criteria.
- The scatter-plot does not indicate any outliers with the nodes lying between -3 and +3.

Thus, on the basis of the above results, with a slight alteration in the criteria, by keeping the acceptable significance value of 0.05 for the independent variables, it can be inferred that the CL dimension has a substantial influence on the DV variable.

Language Preferred and Price Sensitivity

In the case of languages preferred, the responses indicated that the population sample may prefer more than one language for their content to be available. Therefore, this causes multiple responses by a single respondent (such as, the respondent might have selected English, Hindi, etc.). Through examination of raw data, it can be inferred the following with respect to languages preferred:

- All of the respondents chose to have content available in English and Hindi. Additionally, the language preference depended on their ethnic background and subculture. Therefore, people from a particular background chose to have content in their native languages (such as Bengali, Tamil, Telugu, etc).

    For subscription prices, the responses were dichotomous in nature. The respondents were either not willing to pay a premium for higher quality content at all, or those who were willing to pay were not sure of how much they would choose to pay. Graphical representation of price sensitivity is as follows:
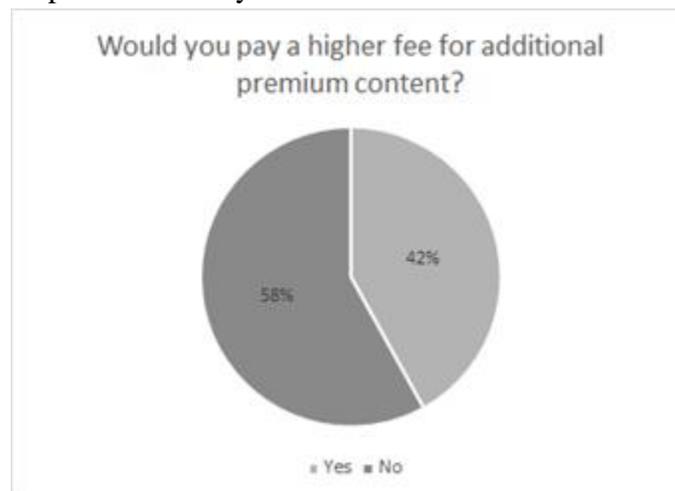
Source: Primary Data -Figure 2: Price Sensitivity

However, by raw data analysis on price sensitivity, it is found that:

- Nearly 42% of the respondents are willing to pay a premium price for higher quality content whereas the remaining 58% of the people are satisfied with the basic tier being offered by the services.

Thus, considering these points, the variables of price and languages preferred were not included in the simple regression analysis as the data obtained for these variables did not match the assumptions required for regression analysis.

CONCLUSION

Based on the regression analysis conducted, it is inferred that people who choose both ODD media services and cable services are inclined more towards ODD media based on their demographics. Whereas, for cable, demographics play the influencing factor for the viewership. People who choose ODD media as their source of entertainment are majorly influenced by the content available on these services, as proven in the analysis conducted above. The reliability of all the above findings is measured using Cronbach's alpha as previously mentioned in the respective tables.

This study was aimed at finding the impact of online video streaming services on the traditional television industry and what causes that impact. Through dimensions such as content library, infrastructure, demographics, language preference, and subscription price, the study intended to measure the influence of these variables on the viewership of online video streaming services as well as television. This study attempts to carry out research based on the collected data using quantitative methods. Using statistical method of regression analysis, it can infer that in case where people own a subscription for both, online video streaming services as well as television, the demographic background of individuals plays an important role whereas the factors of content library and infrastructure have a very little role to play. In case of people owning a subscription to only online video streaming services, the content library is the most important influencer for the individuals. Whereas, for people who prefer cable services, the conclusion drawn was similar to people preferring both services i.e. demographic plays an important role. Thus, it is conspicuous that a robust content library is key in order to impact the viewership of the traditional television services as the preference of the individuals is more towards online services offering better content as per the viewers' convenience, with the analysis providing exploratory evidence of the same.

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