

Impact of Individual's Income on Music Piracy and It's Purchase

Chirag Patwari, Vibhor Jain

Abstract- Music piracy has been an important concern for companies as well as singers all over. Digital piracy or any kind of piracy in that matter usually harms the sales of original content and effects the company of the artist. Through this research paper, the aim is to find out its impact and analyse if how individuals react to music piracy.

Index Terms- Illegal music, moods of individuals on various music, Music Piracy, age groups, Music purchase, individual's income, perception on music piracy

1 Introduction

Digital piracy and digital file sharing have been major issue for all kinds of software and entertainment industries. Digital piracy or any kind of piracy in that matter usually harms the sales of original content and effects the company of the artist. According to Muso, an antipiracy consulting firm user made around 300 billion visits to piracy websites. Its distribution was 106.9 billion visits on TV shows, 73.9 billion on music and 53.2 Billion on films. The music industry is no different and has suffered a lot because of piracy. Also, music piracy jumped 14.7% from 2016 even after shutdown of major piracy sites. The study focuses on the effects of income of individuals and online sharing on digital music piracy.

3 Hypotheses

H0: monthly income has an impact on paid or unpaid music

H1: monthly income does not have an impact on paid or unpaid music

Limitations

Although this research paper is aimed to achieve the research objective in full earnest and accuracy, but there prevail certain limitations. The respondents are undergraduate students of a university and working professionals so this study may have been subjected to respondent's bias. The major respondents were from Christ (Deemed to be University), so this may limit the generalizability of the findings. The research was done in a much-specified time span so it became a limitation with respect to the size of sample subjected to the survey.

4 Review of Literature

Bhattacharjee, D. Gopal, Sanders (2003) studies the influential factors relating to online digital music sharing. The paper concludes that Price of music and available bandwidth are found to have significant effects on piracy. The data was collected by surveying 200 respondents during 2000–2001 as part of an ongoing study of consumer attitudes toward online music. Ages ranged from 19 to 54 years, with 61% males. A total of 52% of the respondents reported a very high level of interest in music, while another 37% listened to music regularly. It also highlights that Females display a significantly lower tendency to freeloading music than men. The survey also found out that compressed music quality as almost the same or very good compared to CD quality. The paper provides a further scope of study in the

2 Objectives

1. to study the income levels of individuals and their expenditure on music
2. to find out the seriousness of music piracy in various age groups
3. to determine the effects of music piracy on individuals
4. to study the perception and behaviour of various individuals towards music piracy
5. to analyse the moods of individuals on various music types

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field of other industries that produce digital music.

According to Eyun-Jung Ki, Byeng-Hee Chang and HyoungKoo Khang (2006), their paper finds the factors which cause music piracy across the globe. Research found that piracy of music has hampered the growth of music industry and has led to fall in revenues of the industry to a great extent. Regression, hypothesis testing and path analyses were used in the data. The paper concludes that size of market, GDP, property protection, inequality in income, all these are major factors in identifying piracy levels across various countries. The study using path analysis concluded that the price of legal music CDs and the levels of education have an effect indirectly on music piracy rates with respect to intellectual property. This study also finds that music market size is negatively associated with music piracy rates, concluding that countries with bigger music markets have lower music piracy rates than those with smaller markets.

Bonner and Higgins (2010) finds that the respondents illegally download despite viewing the act as immoral. Respondents prefer to virtuously separate from the non-ethical nature of the act in a shot to avoid feeling guilty regarding illegal downloading and additionally to avoid any blame being attributed to them in person. Several respondents feel the act of illegal downloading is solely today's reality which there's nothing wrong or immoral regarding black-market downloading. {the information the info the information} collected was Primary data. The survey used a 20 item questionnaire and the sample space was a set of 84 respondents. 71 out of 84 respondents belonged to the age group 21-24. Spearman rho method was the best possible method which was used to analyze the data for accuracy. The scope for further research can be based on experimental conditions whereby illegal downloaders were forced to confront the nature of activities.

Robertson, McNeill, Green and Roberts (2011) say that led downloading was prevalent (74.5% of the student sample downloaded), men and women were equally likely to download and the factors characterizing downloading were similar for men and women. The evaluation between people who download and people who don't exposed that the people who download are usually less concerned about the law, and they also showcase this type of

illegal behaviour in other activities. The survey consisted 5 questionnaires. The following were the questionnaires: a brief demographic questionnaire, a questionnaire on their downloading behaviour, on consumer ethical beliefs, engagement in illegal behaviours, and the illegal scenarios questionnaire. The data collected was primary data. Total number of respondents who participated in the survey were 196 and all were college students. This study has a scoop for further research where in the research can be done on the effects of illegal download of music on ethical behaviour of an individual.

Mccorkle, Reardon, Dalenberg, Pryor, and Wicks (2012) says that there is a greater need for (1) lowering prices or adding value to legal music purchasing, (2) providing more buying choices with regard to the levels of sound quality and the purchasing of individual songs, and (3) making it easier and more convenient to do so legally. The purpose of this research is to combine current knowledge and several theories in order to develop and test a series of hypotheses pertaining to the theft of intellectual property and then to address the marketing implications of these research results. The research had a sample of 500 randomly chosen adults who reported acquiring recorded music during the six months immediately before their interview provided the data for the study. The overall model was assessed using fit measures from the confirmatory factor analysis and traditional structural equation fit measures. Further research can more closely examine the demographic effects on downloading intellectual property behaviors (e.g., age, income, gender).

Weijters, Goedertier and Verstreke (2013) says that consumers of all ages clearly and consistently prefer legal and ethical options if available, but favor different ways of making this economically viable. Consumer preference was studied in this research for a broad range of music platform attributes, which includes free versus paying business models, (il)legality of use, artist revenues, downloading versus streaming, and audio quality. The data collected was primary data. Total number of respondents in this study were 764. Marketing engineering software was used to analyse the data. The scope for further research is gaining insight into the rationale of consumers to assess the (il)legality and (un)ethicality of music consumption platforms and practice.

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5 Research methodology

The type of study we did is diagnostic study. Primary data was collected through a self-administered questionnaire which was circulated using Google form. The secondary data consisted of reports, company websites and journal articles published in various online databases such as ProQuest, JSTOR and Google scholar. The sample size we are going to use is of 73 respondents which consisted of school, college students and working professionals. The variables for the research are as follows: Music piracy, file sharing, Income levels, age group, gender, Consumers attitude towards piracy.

Among the respondents, there were 34.7% Females, 62.5% Males and 2.8% preferred not to say.

6 Data classification

Monthly income or pocket money (in INR)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2,000-5,000	46	63.9	63.9	63.9
6,000-15,000	16	22.2	22.2	86.1
16,000-30,000	3	4.2	4.2	90.3
30,000 or above	7	9.7	9.7	100.0
Total	72	100.0	100.0	

Age group

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 15-19 years	55	76.4	76.4	76.4
20-24 years	9	12.5	12.5	88.9
25-29 years	2	2.8	2.8	91.7
35 years and above	6	8.3	8.3	100.0
Total	72	100.0	100.0	

Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid prefer not to say	2	2.8	2.8	2.8
female	25	34.7	34.7	37.5
male	45	62.5	62.5	100.0
Total	72	100.0	100.0	

7 Tools used for analysis

7.1 ANOVA:

Analysis of variance (ANOVA) is a collection of statistical models and their associated estimation procedures used to analyse the differences among group means in a sample. ANOVA statistical significance result is independent of constant bias and scaling errors as well as the units used in expressing observations.

7.2 Chi-square test

It is a statistical hypothesis test where the sampling distribution of the test statistic is a chi-squared distribution when null hypothesis is true. The chi-square test is used to determine whether there are significant differences between income of individuals and their preferences on paid or unpaid music.

Monthly income or pocket money (in INR) * How do you get offline music? Crosstabulation

Count		How do you get offline music?		Total
		0	1	
Monthly income or pocket money (in INR)	2,000-5,000	2	44	46
	6,000-15,000	0	16	16
	16,000-30,000	1	2	3
	30,000 or above	2	5	7
Total		5	67	72

7.3 Regression

Regression analysis is a statistical **method** that allows you to examine the relationship between two or more variables of interest. Regression analysis helps one understand how the typical value of the dependent variable (or 'criterion variable') changes when any one of the independent variables is varied, while the other independent variables are held fixed. We took age and income of respondents as independent variable and their opinion on the paid media was used as dependent variable.

7.4 Descriptive statistics

Descriptive statistics are brief descriptive coefficients that summarize a given data set, which can be either a representation of the entire or a sample of a population. Descriptive statistics are broken down into measures of central tendency and measures of variability. Measures of central tendency include the mean, median, and mode, while measures of variability include the standard deviation, variance, the minimum and maximum variables, and the kurtosis and skewness.

What is your source for listening to music? (1-lowest,5-highest) [Offline (downloaded music)]

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.0	19	26.4	26.4	26.4
2.0	15	20.8	20.8	47.2
3.0	16	22.2	22.2	69.4
4.0	14	19.4	19.4	88.9
5.0	8	11.1	11.1	100.0
Total	72	100.0	100.0	

8 Data analysis and interpretation

hypotheses

H0: monthly income does not have an impact on paid or unpaid music

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H1: monthly income has an impact on paid or un-paid music

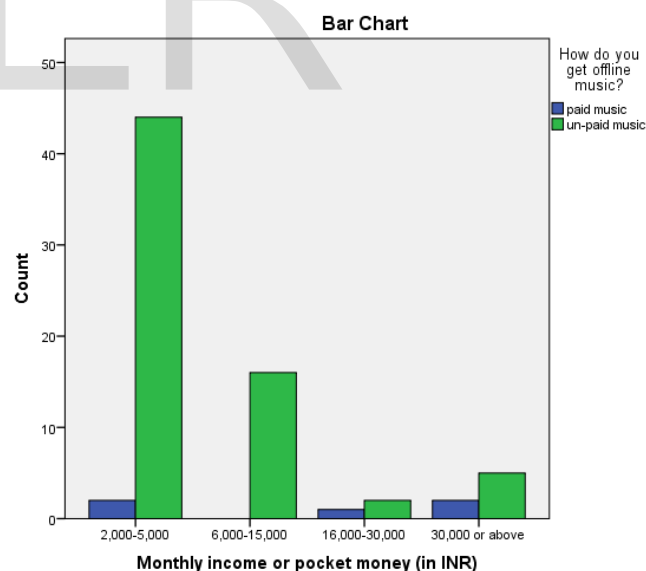
Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.973 ^a	3	.019
Likelihood Ratio	7.668	3	.053
Linear-by-Linear Association	5.873	1	.015
N of Valid Cases	72		

a. 5 cells (62.5%) have expected count less than 5. The minimum expected count is .21.

Functional outcome: as per chi-square test, monthly income and paid or unpaid music shows that the value of "personal chi-square" test is 9.973. A positive value indicates the relationship between the variables in the same direction. Since the p-value (0.019) is lesser than level of significance (0.05), we reject the null hypothesis.

Therefore, through chi-square test, it is proven that H1 is true and monthly income of individuals have an impact on paid or un-paid music.



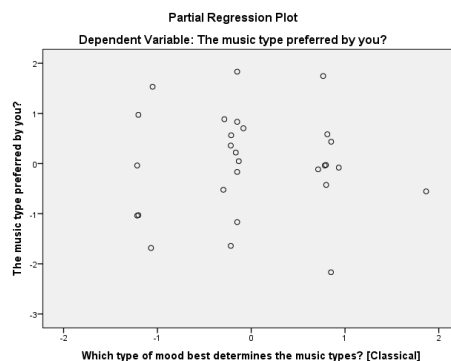
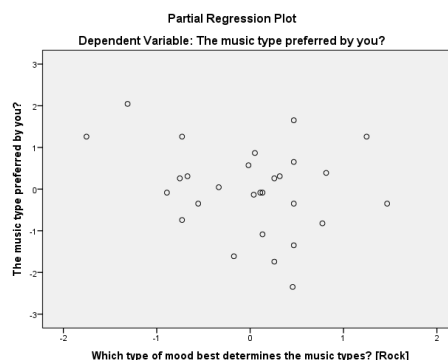
The bar graph states the impact of monthly income on paid or un-paid music. Through analysis, the graph proves that individuals with income ranging (2,000-15,000) are more intended to opt for un-paid music and individuals with income ranging (16,000 and above) opt for paid music.

Regression model

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.502 ^a	.252	.122	1.088

a. Predictors: (Constant), Which type of mood best determines the music types? [Bollywood], Which type of mood best determines the music types? [Classical], Which type of mood best determines the music types? [Rock], Which type of mood best determines the music types? [Pop]
b. Dependent Variable: The music type preferred by you?



This table provides the *R* and *R*² values. The *R* value represents the simple correlation and is 0.502 (the "R" Column), which indicates a high degree of correlation. The *R*² value (the "R Square" column) indicates how much of the total variation in the dependent variable, can be explained by the independent variable. In this case, 25.2% can be explained.

The next table is the ANOVA table, which reports how well the regression equation fits the data (i.e., predicts the dependent variable) and is shown below:

ANOVA^a

Model		Sum of Squares	df	Mean Square	Sig.
1	Regression	9.193	4	2.298	.013 ^b
	Residual	27.235	23	1.184	
	Total	36.429	27		

a. Dependent Variable: The music type preferred by you?
b. Predictors: (Constant), Which type of mood best determines the music types? [Bollywood], Which type of mood best determines the music types? [Classical], Which type of mood best determines the music types? [Rock], Which type of mood best determines the music types? [Pop]

Look at the "Regression" row and go to the "Sig." column. This indicates the statistical significance of the regression model that was run. Here, *p* = 0.138, which is greater than 0.05, and indicates that, the mood of individuals has an effect of the type of music preferred by them.

Statistics

What is your source for listening to music? (1-lowest,5-highest) [Offline (downloaded music)]

N	Valid	72
	Missing	0
Mean		2.681
Median		3.000
Mode		1.0
Std. Deviation		1.3513
Variance		1.826

What is your source for listening to music? (1-lowest,5-highest) [Offline (downloaded music)]

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19	26.4	26.4	26.4
1.0				
2.0	15	20.8	20.8	47.2
3.0	16	22.2	22.2	69.4
4.0	14	19.4	19.4	88.9
5.0	8	11.1	11.1	100.0
Total	72	100.0	100.0	

Functional outcome: mean of 2.6 indicates that, out of sample of 73 respondents, 52% of times people tend to use offline downloaded music

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(music piracy) to listen to music. Mode (1.0) indicates that 26.4% respondents do not use offline downloaded music. 11.1% of the total respondents tend to use downloaded music on a very high rate.

9 Conclusion

From this research, we found out that music piracy prevails among every age group. The study proves that income has a huge impact on music piracy. 52% of respondents irrespective of their income tend to opt for music piracy. The other thing we implicated from this research is that music type preferred by individual completely depends on their mood. There exists positive correlation among them. Also, the research concludes that all the respondents have at least used music piracy (downloaded music) 2.6 times on a scale of 5. The paper also states that more than 50% of people are concerned from the fact that downloading music online is illegal and impacts music industry.

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