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MEASURING VARIABLES THAT AFFECTING LISTENER'S WILLINGNESS TO SUBSCRIBE PAID STREAMING MUSIC APPLICATION BY YOUNG-ADULT IN JAKARTA AND BANDUNG

Kevin Antonio and Reza Ashari Nasution
School of Business and Management
Institut Teknologi Bandung, Indonesia

Abstract. Listen to music is a habit that for some people it already becoming their primary needs, but since declining damage physical form music and the increasing of music piracy make a anxiety for listeners and for music industries. And paid streaming music application, become the solution of that phenomenas. To help this research the author use secondary data from website and paper study for the theoretical foundation. And in variables affecting listener willingness to subscribe paid streaming music application section that a part with 5 variables the author make one hypotheses in each variables, so there are 5 hypotheses in this research. This study will focus on undergraduate student in Jakarta and Bandung as the object of the study and the toatal population is 883.334 with using slovin sampling technique this reseach need 100 sample that will ask using quantitative questionnaire and will be analyze using conjoint analysis. After gather data and process it with conjoint analysis the author analyze each table of the result especially utility and average importance table in first combination package and second combination package. And after analyze each category the author compare the user and know group of respondents in each variable and end with overall discussion. And the findings are for the user the most important is application quality and for know the most important is price. Finally, the result of this research for the customer the ideal streaming music application is minimum in price variable and maximum in another variable, but the streaming music application company still can make trade off with all the combination and not must to set it like the customer ideal combination.

Keywords: Music Piracy, Paid Streaming Music Application, Conjoint Analysis, and Willingness to Pay

Introduction

1.1 Background

Music has become important part for human living and sometimes its just not that easy to leave music behind. The segment that identic with music is young adult segment; how can writer jump into that conclusion? Phenomena of young-adult that always put on their headset while doing their activity to maintain their mood are the background for the conclusion. Diversity in music is very subjective, we can say the more people the more variant of music, it depends on their taste, so that's the reason why we can hear different song, playlist or even genre in every different person's gadget. But, how they can fulfill their needs about music that very specific to their self. The answer is using streaming music application that can help them to set their playlist and give music recommendation for them.

1.2 Problem Statement

The most popular way for listening music is using physical form and its sustain for a long time, but as the time flies music found problem within the declining damage physical form music and this phenomena make many music store that sell physical form music are closed.

The next problem in music industry is music piracy, because music piracy is a big challenge for artist and music industries to solve. And paid streaming music application comes as one of the solution to face it. But this solution didn't really optimize

1.3 Research Objective

The objective of this research is to measure the effect of the variables that impact to listener for choosing paid streaming music application as the media to listening music. And find the preferences of each group of listeners.

1.4 Research Question

There are two questions that the author wants to know through this research that are:

RQ1: To what extent each variable affects the Listener willingness to use streaming music application?

RQ2: From the variable and the relationship between it what is the must thing that streaming music application do to fulfill listener wants and increase their willingness to use streaming music application?

1.5 Research Implication & Limitation

1.5.1 Implication

The implication of this research will feel for more than one party. First Listener/ Customer, second for the artist, third the National Music Industries, and last for the Paid Music Streaming Application.

1.5.2 Limitation

The limitation of this research is time of the research that relative short and the scoop of the research is also limited that are only Young-adult in Jakarta-Bandung. The reason of the author chose young-adult as the respondents of this research, because according to the data from Guvera (one of streaming music application) 57% of the user is young-adult with age equal and under 25 years old.[1]

THEORETICAL FOUNDATION & HYPOTHESIS

2.1 Music

For start the author want refer the definition about music by the New Oxford Dictionary of English that said, "The art or science of combining vocal or instrumental sound (or both) to produce beauty of form, harmony and expression of emotion. But now days, music is not only about art. Music has become a potential business. And many personal or company that already consider for it. It can see by the amount of new incomers join music business.

2.2 Digital Music

For many years physical becoming the main profit for music business, because now days there followed with the declining of physical, digital music becoming the new big power in music business and save the declining in music business. The fact start from 2003-2014 digital music sale is constant increasing, and from 2008 the trend of streaming music started growing[2].

2.3 Paid Music Streaming Application

Streaming Music, or more accurately streaming audio, is a way of delivering sound without the need to download files of different audio formats. Music services like Spotify, Google Music, and Apple Music use this method to provide songs that can be enjoyed on all types of different devices (Mark Harris,2016).

[1] ***http://selular.id/news/2015/12/40576/***

[2] *http://www.analysysmason.com/About-Us/News/Newsletter/Digital-content-distribution-Apr2015/*

2.4 Willingness to Pay

Willingness to Pay (WTP) can be defined as the economic value that a consumer is willing to sacrifice in order to acquire a certain utility (Shogren et al, 1994). Another commonly used definition of WTP is that it is the maximum amount of money that a customer is willing to spend for a product or service (e.g. Cameron and James, 1987). Accurately estimating consumers' WTP for a product or service is important to be able to (for instance) formulate competitive strategies, develop new products and implement distinguishing pricing tactics (Miller, et al, 2011).

2.5 Variable Affecting Listener to Use Paid Streaming Music Application

For streaming music application business, the author found there are five variables that really important and must be the concern of streaming music application company. Those are price, application quality, platform, trial period, and song database (Van, 2012).

2.5.1 Price

H1: Price significantly influences the willingness to pay, because listener will chose the streaming music application with reasonable price and affordable for them.

2.5.2 Application Quality

H2: Application quality significantly influences the willingness to pay, because one of the most important reason use streaming music application they have better quality of sound if compare others music source (Like illegal music website).

2.5.3 Platform

H3: Platform significantly influences the willingness to pay, because the customers will choose the streaming music application that can support by their gadget platform.

2.5.4 Trial Period.

H4: Trial period significantly influences the willingness to pay, because some of the customers want to have experience to use the streaming application before finally they enroll them self to be a member.

2.5.5 Song Database

H5: Song database significantly influences the willingness to pay because the completeness of song in the application will give satisfaction for the customers, and in if they experienced can't find the song that they want to hear they will feel dissatisfied.

METHODOLOGY

This section will explain about the step by step of this research

3.1 Problem Identification

In this part, most the source of the author comes from the secondary data from the website. And from the data the author found that piracy issues are already common things that happened in the world. One of the sectors that struggling with this issue is music industries and with their many efforts to eradicate it, in fact the piracy still exists in music industries.

3.2 Literature Review

To help this research the author uses some secondary data from website and paper study.

3.3 Data Collection

A structured quantitative questionnaire was conducted in order to gather quantitative data about the customer willingness to use paid streaming music application.

3.3.1 Data Population & Sample

The target population of this research is university students (S1) in Jakarta and West Java., according data from forlapdikti the total of S1 university students in Jakarta is 510.536 and in West Java is 372.848.[3] So the total population research is 883.334.

To determine the number of samples that appropriate based on the number of the population the researcher used Slovin formula with error term (e) of 0.1. Result the minimum sample is 100 for this research, but the author will find 150 respondents to increase the confidence of the result.

3.3.2 Sampling Technique

The author use judgmental techniques to find the respondents. The respondents are undergraduate students in Jakarta and Bandung with range age between 16-24 years old that loves and interest in music. The author will create online questionnaire and ask the respondents to fill it, by sharing the link of the questionnaire from social media.

3.4 Questionnaire Design & Operational Variable

This section will explain about how the author create the questionnaire and what variables that use to make the questionnaire.

3.4.1 Questionnaire Design

The questionnaire will be separate in three parts. First is demographic part, second is independent variable part that consist five variables, and the third is same with the previous variables combination, but in this time the price variables level will substitute with 3 prices level.

3.4.2 Operational Variables

For the operational variable the author separates it to 2 sections there are: demographics and independent variable.

3.4.2.1 Demographics

For demographics people that able to be the respondents are in range 16-24 years old.

3.4.2.2 Independent Variables

For the independent variables there are 5 variables that are: price, application quality, platforms, trial period, and song database. And in each variable there are 4 options

And for the third chapter of the questionnaire the number of price change with only 3 number of price, different with the previous that use range of each option this option use fix price.

3.5 Data Analysis

The data collected will result in forms of quantitative data, and the data will analyze with conjoint analysis.

Conjoint analysis is one of the most widely used quantitative statistical techniques used in market research to determine how people value different attributes (feature, function, benefits) that make up an individual product or service.[4]

3.6 Conclusion

The conclusion of this research is to answer the research question number one and number two.

DATA ANALYSIS

4.1 Demographics

This section is the first filtering of the questionnaire respondents, because if the age and institution is out of the target the answer is automatically disqualified. And listener music

[3] *www.forlap.dikti.go.id*

[4] **http://www.seriouslyanalytical.com/statistics/33-conjoint-analysis**

habits are only optional question to make the author more familiar with the respondent habits.

4.1.1 Age

All of the respondents that taken was range from 16 until 24 years old, if there are some respondents that out of the age range, their data is invalid and not used for the research. And from the data gathering process the author found there are 14 respondents that must to be eliminated because over the age range for filling this questionnaire.

4.1.2 Institution

The respondents must be undergraduate students at DKI Jakarta and west java or around of it. Same with the age if the respondent institution is out of the scope of the author research, the answer will eliminate from this research. And after the data gathering the author found that the institution of the respondents was very variative.

4.1.3 Listening Music Habit

All of the respondents that fill the questionnaire are loves music. But to know a little bit about their habits the author put optional question that not must to fill by the respondents, in fact most of them share their listening music habits the duration is range from 30 minutes/ week until 70 hours/ week.

4.2 Filtering

With the question "Were you ever heard about paid streaming music application" this question becoming the final filter for the questionnaire, because if they say no they are not capable to fill the next question. And from the data gathering there are 15 respondents said no, and make their answer sheet to be eliminated.

4.3 Grouping Respondent

The author make two separation group of respondents first is users and second is known.

4.3.1 Users

After the previous question there is another question that separate the respondents that use or not use the streaming music application. The question is "Are you a member or pay for access the service of paid streaming music application?" And the respondents with yes answer for that question will categorize at user group of respondents, this group member by 99 respondents.

4.3.2 Know

With the same questions "Are you a member or pay for access the service of paid streaming music application?" respondents with "no" answer will categorize to this group of respondents, the member of this group of respondents is the rests or 71 respondents.

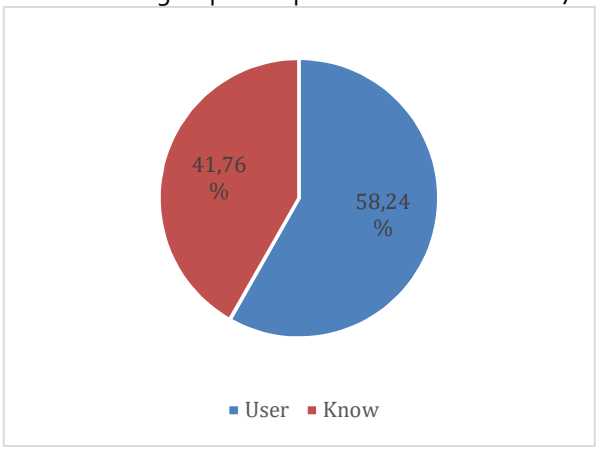

Figure 4. 1 Respondent Grouping

4.4 Conjoint Analysis

4.4.1 First Combination Package

First combination package is combination of 5 variables that are: price, application quality, platforms, trial period, and song database which each variable has four options that combined automatically use SPSS and create 16 combinations.

4.4.1.1 User

Table 4. 1 Averaged Important Score (Package 1 - Users)

	Importance Values
Price	20.703
Application Quality	25.321
Platform	13.193
Trial Period	18.008
Song Database	22.775

Averaged Importance Score

Base on Table 4.1 we can conclude for user group of respondents H1, H2, H3, H4, and H5 are accepted, because all the variable has percentage of important that affecting customer to selecting paid streaming music application.

And the interesting thing in this group is the top 3 of average importance score, first is application quality follow by song database, and price. So if paid streaming music application can provide best level in application quality and song database, its possible for them to make trade off increasing the price level from level 1 to level 2 the reasons are the price is only the third important for this group

4.4.1.2 Know

Table 4. 2 Importance Value (Package 1 -Know)

	Importance Values
Price	24.923
Application Quality	23.699
Platform	14.910
Trial Period	18.700
Song Database	17.767

Averaged Importance Score

Base on Table 4.2 we can conclude for user group of respondents H1, H2, H3, H4, and H5 are accepted, because all the variable has percentage of important that affecting customer to selecting paid streaming music application.

Different with the previous group the top 3 of average importance score are price follow by application quality, and trial period. For this group price and application quality is cannot be trade off because that two variable are the top 2 important with really close percentage. If the company set price in the lowest level and application quality in the highest level, its possible to trade off trial period decrease it one level or song database that also can decrease one or two level

4.4.2 Second Combination Package

Second combination package is similar with first combination package, but in this package the level of price variable was change from 4 level of price interval to 3 number of price that are 25.000,50.000, and 75.000.

4.4.2.1 User

Table 4. 3 Averaged Importance Score (Package 2 - User)

	Importance Values
Price	23.085
Application Quality	24.133

Platform	14.365
Trial Period	17.116
Song Database	21.301

Averaged Importance Score

Base on Table 4.3 we can conclude for user group of respondents H1, H2, H3, H4, and H5 are accepted, because all the variable has percentage of important that affecting customer to selecting paid streaming music application.

And there is a different for user group of respondents in the second combination package, the top 3 of average importance score are application quality, second and third are switch from the first combination package that are price and followed by song database. From this section it show if the level of price is decrease bellow the market price the price variable will become more important than song database, but still under application quality variable with really close percentage can be see in Table 4.3.

4.4.2.2 Know

Table 4. 4 Averaged Importance Score (Package 2 - Know)

	Importance Values
Price	27.869
Application Quality	21.722
Platform	14.150
Trial Period	18.742
Song Database	17.518

Averaged Importance Score

Base on Table 4.11 we can conclude for user group of respondents H1, H2, H3, H4, and H5 are accepted, because all the variable has percentage of important that affecting customer to selecting paid streaming music application.

Still same with the first combination package for know group of respondents in the second combination package, the top 3 of average importance score are price, second and third are application quality and trial period. From this section it show if the level of price is decrease bellow the market price the price variable percentage will become very high. Can be see in Table 4.4 the gap between price and application quality now is quite big. So its possible for paid streaming music application company to trade off application quality with decrease it one level.

4.4.3 Overall Discussion

This section will talk about comparison between user and know group of respondents.

From the findings above show each group of respondents has their own preference, User group is very sensitive to application quality and the know group of respondents is very sensitive to price. So each group of respondents need to treat differently.

CONCLUSION

5.1 Conclusion

After the data analysis process, the author going to have some conclusion that can be grab from this research number one until three will answer research question number one (RQ1) and number 4 and 5 are the answer of research question number two (RQ2).

1. From the combination package that asked to the respondents and answered by them showed the ideal form for them that can increase their willingness to pay paid streaming music application: For price the respondents most like option was the lowest option, that statement supported by the lowest option in price section always get the highest utility, for the application quality section the biggest option was becoming most favorable for the respondents, because the biggest option also

always get the highest utility in every category, next platform the respondents like the medium until high option that can be see that the lowest option always get the smallest utility, for the trial periods the longest trial time also becoming favorable, the reason is most of the long trial period have big utility, last is song database for this section the respondents also prefer choose the most highest option and supported also with the utility of that option always becoming the highest.

2. The entire variable has percentage of important that affecting customer to selecting paid streaming music application, for user and know group of respondents there are some differences of the variable that they think important according to their willingness to pay paid streaming music application. First for user the most important for them is application quality, after that price becoming the second one and followed with song database in the third, forth and the last are trial period and platform. Different with the user, know group of respondents think that price is most important for them, second is application quality, and the third is also different because they prefer trial periods than song database and last is platform.
3. The reason there are still many music piracing activity in Indonesia is, there still a gap between the ideal streaming music application services that the customer or listener wants with the value proportion of the streaming music application company that operated in Indonesia. For examples one of the streaming music application company that operated in Indonesia is Spotify. Their value propositions are: price 49.990, application quality up to 320 kbps, platform 10, trial periods -, and song database >30 million. From the value propositions there are 2 variables that still not full fill the customer or listener expectation, for application quality they only can provide up to 320 kbps and the customer or listeners expected > 360 kbps, for song database the company only able to provide > 30 million but customers expected 40 million. From that fact it can be see the gap that the reason of the listeners still hijacking music and not use paid streaming music application service.
4. The streaming music application company must try to provide their apps to be package the ideal form like the author concludes from this research. But from the overall statistics table they can also not provide all the ideal option for the customer, because in each variable there are more than one option has positive utility so it possible to make tradeoff for example increase the price from level 1 to level 2 but decrease the application quality from level 4 to level 3 it is possible because price level 2 and application quality level 3 still has positive utility.
5. The steaming music application company also must to make a different strategy for user or their member and know or potential customer. For user application quality of the apps is must to be the concern of the company to maintain or if possible increase it, because it was the most important for the user and if the user or their member feel the application quality of the apps is not good enough they will seek another streaming music application company that can give better application quality. Another strategy for the user or member is because for them application quality is most important then price they can make some trade off to increase price but also increase the application quality. For potential customer that very concern about price, the only think that make they want to be a member is the company provide a good price for them. The way like promotion price for new member and family sharing promotion that can make they pay cheaper if they make a group of four or five for the payment methods will be interesting for them.

5.2 Further Research

With the limitation of scope, sample and validity duration of this research the author hope that there is someone that can continue the author findings.

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