Research on the Factors Affecting the Willingness to Pay for Digital Music

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Abstract

Based on the theory of planned behavior and the theory of legal deterrence, this study takes consumers' willingness to pay for digital music as the research object, investigates the consumers who have digital music consumption channels and behaviors, and discusses the willingness of consumers to pay for digital music and its influencing factors. The study attempts to achieve the following research purposes: First, explore the influencing factors of willingness to pay for digital music using domestic and foreign literature research and related content analysis. Second, we want to examine the effect of Attitude, Collective Specifications, Quality Sensitivity and Music affinity on willingness to pay. Third, Legal deterrence and resource availability tries to verify whether there is a moderating effect between Attitude, Collective Specifications, Quality Sensitivity and Music affinity and willingness to pay.

The research data was collected in 2019 between April 6th to May 8th. Questionnaires were randomly distributed in fixed places, mainly in Hubei Province, China. A total of 393 questionnaires were selected for data analysis.

Based on the previous theoretical review and empirical analysis, the study draws the following conclusions: Firstly, attitude, collective specifications, quality sensitivity and music affinity have an impact on the willingness to pay. Second, Legal deterrence has a regulatory effect on the relationship among quality sensitivity, musical affinity and the willingness to pay. Last the resource availability has a significant impact on the willingness to pay. It also has a regulatory effect on the relationship among quality sensitivity, music affinity and the willingness to pay.

Keyword: Digital Music, Attitude, Collective Specifications, Resource availability, Legal deterrence, Willingness to pay

I. Introduction

While information technology benefits consumers, it also brings challenges to related industries. Music copying has always existed in music industry. When such behavior is not approved by record companies or other copyright holders, it is called "unauthorized" activities or "piracy", and the related products are "pirated products". In the early days of cassette tapes and CD, the copying procedures were complex and the copying cost was relatively high, and consequently, piracy could naturally be controlled within a certain range; after entering the Internet age, consumers can access music resources stored in digital form, namely "digital music", merely by performing simple computer operations in a network environment. Replication and transmission of digital music features simple operation and low cost, and the quality of the music does not change significantly after multiple
downloads, replications and playbacks. Compared with traditional music product consumption, consumer costs for digital music have dramatically decreased, and the physical music industry has been hit hard consequently. However, the contradiction between music industry and the Internet has become increasingly apparent, and it has become increasingly apparent that the music industry and the music industry are illegally seeking music and music to protect the rights and interests of copyright infringement. According to a 2011 report by China’s Ministry of Culture, domestic users with willingness to pay (WTP) only accounted for 1% among them, wireless music users who were willing to accept monthly payment and pay to download music merely accounted for 0.3%. Until 2014, the output value of China’s digital music industry had reached up to 49,100,000,000 yuan; digital music users had exceeded 478,000,000, and the annual growth potential of China’s Internet Music Market shows that the user’s willingness to pay higher taxes is expected to increase. Since 2008, Chinese musicians have advocated paid digital music almost every year. However, who is responsible for the charge, how do you charge it and by what standard do you charge it, none of these problems have been solved yet. Consequently, “the charging problem of digital music” has become an issue that must be solved in the development of music market in China, but no one knows when it can be solved.

The government advocates the development of tertiary industry and cultural industry, and by the end of “the 13th Five-Year Plan”, the output value of the entire music industry will achieve 300 billion, and meanwhile, the copyright law will be revised for the third time to protect the copyright of digital music products and stimulate more people to create good works. The National Copyright Administration issued a notice at the end of 2015, ordering all web site music service providers to remove all music works that had not been licensed by record companies from their own web sites before July 31; the National Copyright Administration would severely punish those network music providers who continued to disseminate unauthorized music works after that date. However, whether the digital music industry can eventually achieve a smooth transition depends on whether consumers accept the trend of paid digital music and whether they can change the current concept and habit of free music enjoyment.

For a long time, profit-creating mode of China’s industrial chain is relatively simple which gives priority to advertising, and there are problems in profit distribution in the industry. Copyright protection of digital music in China is weak, while copyright protection and charging mode of digital music in European and American countries are experiencing continuous innovation, for instance, paid on demand, paid downloads, listening before buying, etc. At present, Notice from the government and relevant crackdown enable copyright protection to be regulated, and the payment mode of digital music is developing. All these are the foundation of the era of paid music which has long been advocated by musicians and copyright protectors. Therefore, it is of great practical significance for the government’s feedback on relevant actions as well as the industry development to study whether consumers are willing to pay for digital music and how much and in what form they are willing to pay, namely consumers’ Willingness to Pay (WTP), in addition to the influencing factors of consumers’ willingness to pay (WTP).

Thus, taking the theory of planned behavior and the theory of legal deterrence as the theoretical basis and taking consumers’ willingness to pay (WTP) for digital music as the research subject, this study investigates and studies consumers with consumption ways and behaviors of digital music, probes into consumers’ willingness to pay (WTP) for digital music and the mechanism of action of the influencing factors, and puts forward relevant revelations and suggestions to enhance consumers’ willingness to pay for digital music and to establish reasonable charging mode based on the research results.

Based on this, this study aims to achieve the following objectives: first, to probe into the influencing factors of consumers’ willingness to pay for digital music based on domestic and foreign literature research and related analysis; second, to explore, through empirical analysis, what factors will influence consumers’ willingness to pay for digital music and lead to the differences of consumers’ willingness to pay on the basis of the data obtained from the questionnaire survey; third, to put forward relevant countermeasures and suggestions to enhance consumers’ willingness to pay for digital music and stimulate consumers’ payment behavior for digital music based on the results of empirical analysis.

II. Theoretical literature

1. Hypothetical Statement of the Impact of Attitudes on Consumers’ Willingness to Pay (WTP)

Attitude is a comprehensive assessment of individual matters and behavior, including judgments from practical
consequences and moral judgment. The higher the attitude, the higher the behavioral intentions, and attitudes toward behavioral intentions are the biggest impact on behavior. When consumers assemble their attitude towards digital music, the behavior is better suited to satisfy their musical needs, giving them more satisfaction to satisfy their demands.

H1: The positive attitude of consumers has a positive impact on their willingness to pay.

2. Hypothetical Statement of the Impact of Collective Norms on Consumers' Willingness to Pay (WTP)

In rational behavior planning theory, subjective norms of behavior are second only to attitudes, but the prediction of subjective norms is not consistent, and often ineffective. Research on the theory of software piracy Aguiar and Martens(2016) has not significantly relation to the concept of "subjective norms" (including the perception of parental and university environment) and the control of copyright piracy and download behavior. The consumer behavior of digital music is different from that of ordinary consumer behavior. In the meantime, the subjective norms in the theory of planning are smaller than the role of the Western culture in the context of Western culture. The subjective norm in the theory of planning behavior is reduced.

Therefore, this study uses collective norms to replace subjective norms and seek their influence. Collective norms are a manifestation of norms of beliefs, and the main sources of belief are the behavior and behavior of persons close to the individual. Personal behavior codes are influenced by the behavior of the group, and according to the classification theory, whether individuals will show their own behavior to the behavior of a group of behaviors, the collective norms of behavior, and that the collective norms of behavior are likely to influence the behavior of behavior.

H2: Consumers' collective norms have a positive impact on their willingness to pay.

3. Hypothetical Statement of the Impact of Quality Sensitivity on Consumers' Willingness to Pay (WTP)

Mass sensitivity refers to the quality of product, which indicates the quality of products, and the quality of the product, and the quality of the product is higher than that of the product. Whether the product quality is the most important factor, but because piracy and positive editions are not very different, the price of pirated copies is normal. Customers are more likely to enjoy higher quality music, with greater sensitivity to quality, or higher quality consumers, more sensitive to quality and higher quality. In the early stages of the ROC's digital music market, however, the reason for the difficulty of paying customers is that the quality of the musical resources is not so much different from the quality of the free musical resources. The quality of high-quality music has been restricted to higher quality music, and the quality of music is limited, so the quality of high-quality music is higher than that of consumers.

H3: Consumers' quality sensitivity has a positive impact on their willingness to pay.

4. Hypothetical Statement of the Impact of Music Affinity on Consumers' Willingness to Pay (WTP)

Music affinity refers to the individual's liking for music and affection and music in individual life. Sales of records show that although sales of albums are subject to pirated copies, the popularity of the album is not a factor of piracy, but the importance of entertainment is less important than the past. Only with other activities, consumers still prefer listening to music, and then there will be a willingness to pay more attention to music. Music and music are directly related to music and music, which is directly related to music, and the popularity of new music and various styles of music, such as McKle etc. shows that teenagers do not want to buy music on the radio. More consumers are more likely to have more experience with musical programs than those who do not have a particular preference for music, and the consumer's interest in new music is the important factor for buying and paying services. Consumers explain why some of the music's preferences for some kind of music have been expressed, and the positive feelings for certain musical composers explain why consumers choose to buy. When music becomes a social symbol, music is a social identifier, and consumers will be closer to the target group, and in music consumption is similar to that of a target group or similar behaviors.

When music plays an important role in individual social life, the willingness to download will be stronger.

H4: The level of music affinity of consumers has a positive impact on their willingness to pay.
H5: The legal deterrence perceived by consumers has a regulatory effect on their relationship with their willingness to pay.

H6: The legal deterrence perceived by consumers has a regulatory effect on the relationship between collective norms and willingness to pay.

H7: The perceived legal deterrence of consumers has a regulatory effect on the relationship between quality sensitivity and willingness to pay.

H8: The legal deterrent perceived by consumers has a regulatory effect on the relationship between music affinity and willingness to pay.

H9: The difficulty of resource acquisition has a regulatory effect on the relationship between consumer attitudes and willingness to pay.

H10: The difficulty of resource acquisition has a regulatory effect on the relationship between consumer collective norms and willingness to pay.

H11: The difficulty of resource acquisition has a regulatory effect on the relationship between consumer quality sensitivity and willingness to pay.

H12: The difficulty of resource acquisition has a regulatory effect on the relationship between consumer music affinity and willingness to pay.

II. research method

1. Research Model

Based on the relevant literature and survey results, the relevant research factors are summarized, and the theoretical research model of this research is proposed, as shown in the following figure:

Fig. 1. Research model

2. Data Sources

The research data was collected in 2019 between April 6th to May 8th. The questionnaire was randomly distributed to consumers who have experienced consumption of the design music in Hubei Province, China. A total of 450 questionnaires were distributed, and 430 questionnaires were finally collected. After reviewing and screening the questionnaires, a total of 393 questionnaires were selected for data analysis.

3. Operable Instructions of Variables

The research related to consumers’ willingness to pay for digital music is very rich. There are many research results in the West, and the scale is relatively mature. The related research of Asian scholars draws on the research of Western scholars. This study makes an in-depth analysis of the proposed research model and variable connotation. Based on the reference related scale and related literature at home and abroad, combined with the characteristics of digital music consumption in China today, the digital music and related variables of Chinese consumers are carried out. It can be manipulated as shown below.

The Attitude Scale has 2 items, which are translated according to the scale in Lin et al. (2013). Considering the actual effect, we only keep two items: the collective norm scale has 3 items. It is based on the research conclusions and scale translations of Chang and Woo (2010) and Sang et al. (2015); the Quality Sensitivity Scale has three items, which are used according to Redondo and Charron (2013). The Quality Sensitivity Scale was translated and embodied. The Music Affinity Scale has four items, which are based on the scale used in the study by Jambon et al. (2012) and combined with Andersen and Frenz (2010). Conclusion The translation has been adapted; the legal deterrent scale has two items, which are based on the translation of the scales in the study of Kwong and Lee (2002); the difficulty of resource acquisition has three items, according to Walsh et al. (2003) and Wingrove et al. (2011) study conclusions and the actual situation of China’s music market. The willingness to pay scale is divided into two parts. One is the consumer’s willingness to pay, and there are three items, according to the “Willing Willingness Scale” and Fritze et al. (2019) in the research scale of Tawiah et al. (2017). The translation of the “purchase of willingness” scale: the second is the consumer’s willingness to pay for different forms of music sales. There are three items, based on the main form of trafficking,
combined with Kim et al. (2017) to study the middle scale. And the main domestic fees and discrimination to produce. This article uses the Likert five-point scale.

**IV. Analysis Result**

1. **Demographic Characteristics of the Specimens**

Statistics on 393 investigators’ gender, age, occupation, education level, and family monthly income. Among all respondents, 140 were male consumers, accounting for 35.62% of the respondents; 253, accounting for 64.38% of the respondents: women are slightly more than male respondents. Most of the respondents were in the age of 26–34, accounting for 27.74% of all respondents; followed by consumers aged 35–44, accounting for 26.97% of the total; and consumers aged 19–25 were 93. Name, accounting for 23.66% of the total; 48 consumers under 18 years old, accounting for 12.21% of the total; and 37 consumers aged 45 and above, accounting for 9.41% of the total; undergraduate students by education level A total of 176 people, accounting for 44.78% of the total; followed by 83 high school and college, accounting for 21.12% of the total; and 75 of the junior high school and below, accounting for 19.08% of the total, the consumption of masters There are 48 people, accounting for 12.21% of the total; doctors and above are the least, 11 people, accounting for 2.80% of the total. According to the monthly household income survey, the monthly income of 112 respondents was between 6001–10000 yuan, accounting for 28.50% of the total; 88 households with monthly income of 3001–6000 yuan, accounting for 22.39%; 83 were The monthly household income of the investigators was over 30,000 yuan, accounting for 21.12%; the monthly income of 73 respondents was less than 10001–30000 yuan, accounting for 18.58%; the household income of 37 respondents was less than 3,000 yuan, accounting for 9.41%.

2. **Exploratory Factor Analysis and Reliability Analysis**

In order to ensure the scientific validity of the research, the data quality is required to be good. This study uses the reliability and validity test to test the quality of the data.

The reliability test is a test of the reliability of the questionnaire, which is generally determined by Cronbach’s Alpha reliability coefficient. If the Cronbach’s Alpha reliability coefficient is greater than 0.7, the reliability of the study data is better; the Cronbach’s Alpha reliability coefficient is between 0.35 and 0.7, and the data reliability is acceptable; the Cronbach’s Alpha reliability coefficient is less than 0.35, the reliability of the questionnaire data is not high.

![Table 1](image)

It can be seen from the factor analysis results that the factor load of the items in each variable is more than 0.7, and the result of factor analysis on the data of each variable measurement item is ideal. The reliability analysis results show that the reliability coefficients of each variable are greater than 0.7, and the effect is good.

3. **Research hypothesis verification**

3.1 **Regression Analysis on Moderating Effects of Legal Deterrence**

From regression model 1, attitudes, group norms and quality sensitivity, musical affinity and quality sensitivity, musical affinity is positively influenced by the regression model.

The higher the rate of return, the greater the impact on the willingness to pay for digital music, the higher the willingness to pay for digital music, the higher the willingness to pay. The ratio of the collective norm to the will is 0.29; the greater the impact of the collective norm, the greater the tendency of the customer to act as reference to the customer, the higher the willingness to pay, the higher the...
willingness to pay, the higher the willingness to pay. The quality sensitivity of quality is 0.18, and the regression relation is weak, and the higher the quality of music, the higher the demand for music, the higher the willingness to pay for the digital music. The relationship between musical affinity and willingness to pay will be 0.33, and the regression relation is extremely significant, indicating that musical affinity affects the willingness to pay.

By the model 2 shows, the attitude and collective norm of the individual are positive effects on the willingness to pay for the payment of the "legal deterrent"; and "legal deterrence" is a positive influence on the willingness to pay. There is a strong influence on the willingness to pay for the willingness to pay for digital music, namely, the level of the legal deterrent to consumers.

By using the model 3, the regression coefficient and the magnitude of the variables are changed. The influence of the attitude towards paying will remain unchanged, and the original 0.30 becomes 0.33, the influence of music and the influence of the regression coefficients, and the effect of the regression coefficients of 0.33 to 0.41. Legal deterrence and musical affinity are positive. The regression coefficient is 0.10, and the regression coefficient is weak. At the same time, R² can see the difference between R² and 0.01.

### 3.2 Regression Analysis on Moderating Effects of Resource Acquisition Difficulty

In this regression, the model 1 corresponds to the same model in the last segment of the regression model. By means of model 2, we can see this argument after introducing "resource difficulty". Attitude, collective norms, quality sensitivity, music affinity, and paying positive effect on paying will have a significant impact on the willingness of consumers to pay for digital music. By using the model 3, we can see the interaction between variables and variables. The regression coefficient and the significance of the regression coefficients are significant, and the effect of the regression coefficients is 0.53. The effect

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of the contribution to paying the willingness to pay will no longer be apparent (significantly noticeable); the difficulty of obtaining resource difficulty is 0.51, the regression coefficient is 0.51, the regression relation is strong, the regression coefficient is 0.15, the regression relation is weak. Regeneration of resources and interaction between musical and emotional factors is positive, and regression coefficient is 0.15, and regression relation is weak. At the same time, R² can see the difference between R² and 0.01.

V. Conclusions

Based on the previous review and empirical analysis, this study concludes:

First, attitudes are the most important factor affecting consumers' willingness to pay. As a result, the change in the willingness to pay will be crucial to the change in willingness to pay for the willingness of consumers.

Second, the impact of collective norms on paying consumers' willingness to pay their wishes is obvious. Preparations are effective, and the behavior of the surrounding people is the basis of whether consumers decide to pay their bills. Under the cultural background of oriental culture, collective norm may have a stronger forecasting effect than the subjective norm. China's consumers are more used to developing rules based on specific actions and decisions based on specific actions and decisions.

Third, consumers' quality sensitivity and musical affinity are positive. The effect is that the consumers are more concerned about the quality of digital music, and the more willing to pay for high-quality music, the higher the willingness to pay for it in the present environment.

Fourthly, legal deterrence will affect the willingness of consumers to pay for the consumer. Sensitivity, musical affinity and willingness to pay the willingness to pay the willingness to pay will also be adjusted.

Fifth, the difficulty of obtaining difficulty in obtaining financial difficulties has a significant impact on consumers' willingness to pay. Furthermore, the relationship between consumers' quality sensitivity, music affinity and willingness to pay will not be adjusted. This shows that the flood of musical resources and the condition of procuring the popularity of pirated music is an important factor in the development of music industry.

According to research, this study suggests that the willingness to pay higher consumption is not only necessary. Starting from the consumer environment and digital music management mode, we should begin to realize the need to meet the requirements of sales and sales mode. As follows:

First, public opinion should be profited by public opinion and musical fees. Build a good social climate environment, gradually reverse customer attitude, ideas and consumption habits. Consumers' attitude towards piracy is very important and will affect their willingness to pay, so record companies and music platforms and music platforms. Social media should focus on changing consumers' attitude toward the positive version, and consumers' attitude towards digital music is influenced by many factors.

Second, relevant legislation and administrative departments should strengthen and improve laws and regulations. Effective execution shall be carried out to enhance the cost of dissemination of musical resources without authorization. For young people, music has become a mode of life, and the impact of the peers is enormous, so it is necessary to adopt effective methods. While strengthening the relationship between music and consumer life, strengthening supervision of unauthorized reproduction and sharing behavior, paying consumption digital music becomes recognized as a recognized act.

Thirdly, digital music service providers should set up reasonable fee standards and patterns. Feasibility of the illegal personnel and the limits of payment of resources should be realized within reasonable limits of reasonable scope, and the limits of social ethics and business ethics should be achieved within reasonable limits.

In view of the sample quantity and sampling methods of various kinds of samples and various external environments There are limitations on this study, and the following is stated as follows.

First, the method of quantification is mainly used, although it is possible to link up with the best possible method. Synthetic methods, however, can not be further related to the relevant connections and create new theories.

Second, the questionnaire is based on the questionnaire.1. The area is also restricted, so the data and processing results can not be fully displayed; when answering questions, consumers often focus on the subject of the topic, and the difference between the subject and the subject is different. The quality of the test is different, and the quality of the answer is different.

Third, in the research model, the background of researchers' knowledge of background limitations. The
possible selection of pertinent documents from both domestic and overseas literature, however, is included only in scholars' view of important variables, which may be ignored in other researchers.

Fourthly, some questionnaire is adopted in the study questionnaire. In the context of the translation, there are some Insubstantial lailites that may be lost in the context of the translation. According to relevant consumer and media reports, it may be biased in content.

REFERENCES


Authors

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