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Influence of Digital Era on the Music Industry from the Consumer Behavior Perspective

Yanxin Zheng[1,*]

[1] *Shanghai Pinghe School, Shanghai, China, 201206*
[*]*Corresponding author. Email: billzyx37@gmail.com*

ABSTRACT
The music industry has long been regarded as a unique sector of the economy. The behaviors of consumers in this industry show strong implications that contradict with traditional economic theories. In this essay, some phenomena in the music industry are discussed from the perspective of behavioral economics, including altruism in the consumption of music, price discrimination in the sales of music, and the formation of super-star economy in music. Mainly qualitative tools are used to deduce the back-up theories for consumer behaviors, and some quantitative analyses are also utilized for support. All the analyses in this essay are based on second-hand sources and on a case-by-case way. The essay reaches a conclusion showing that consumers in the music industry has a distinctive consumption pattern, and the coming of digital era do have a great impact on consumers.

Keywords: *consumer behavior, music industry, behavioral economics, marketing, business*

1. INTRODUCTION

1.1. Background of music industry and digital era

Music is not only a form of art, but also a business. In fact, the music industry has long been an intriguing object for economists to study. Moreover, the music industry has experienced tremendous change in the last few decades, mainly due to the coming of digital era. For example, the distribution channel of music has changed drastically. By now, the Beatles has sold more than 500 million records [1]. This put them onto the position of the best-selling artist. On the contrary, the song "Shape of You" by Ed Sheeran holds the world record of streaming with a total stream of more than 3.3 billion times [2].

The change does not stop at the distribution channel. It has a prolonged impact on the industry as a whole: from consumer to artists, and then to agents and music companies. The discussion of economic implication from the music industry emerged years ago. However, it did not attract much attention and the not enough research has been done, partly due to the confidential nature of the data in the industry. This paper will mainly talk about how consumer behaviors in the digital era alter the music industry as a whole and the underlying theories for these behaviors. All the sources used in this essay are second-handed. It gives a brief overview of the application of consumer behavior theories in the music industry.

1.2. The perspective of behavioral economics

Most part of the modern economics is based on the assumption of rational decision making. Formally, the assumption is known as the *Rational Choice Theory*. It suggests that a person, after potential cost and benefit analysis, tend to make the choice that leads to the best situation for himself or herself [3].

For decades, the rational choice theory has been the fundament of economics study. Many classic economics models and theories are derived from this fundamental hypothesis, including rational actors, self-interests, and the invisible hand. A perfect example would be the famous utility maximization theory developed by Jeremy Bentham and John Stuart Mill, which proposes that people tend to consume "the greatest amount of good for the greatest number" with the reasonable constraints such as budget [4]. The theory is intuitively plausible since people always want to maximize their happiness. A boy would eat as much ice-cream as he can until he runs out of money or get full.

However, the theory has also long been challenged for the underlying flawed hypothesis. In studies, economists find out that people do not actually obey the rule of rational choice theory. With the desire to develop a more practical theory to realistically investigate and predict an individual's behavior, the field of behavioral economics was born. In 2017, psychologist Richard Thaler won the Nobel Prize in Economics for his contribution to behavioral economics.

Richard, considered as the father of modern behavioral economics, established the field in his book "Nudge" back in 2008. He supports the view of traditional economists that people act according to some rules. However, the rules are far from being rational. A famous experiment in behavioral economics, called the ultimatum game, is the best evidence for such irrationality. In the game, one person, called the proposer, has the power to divide a certain amount of money between him and another person. The other, called the acceptor, one has the power to reject or accept the offer. According to the rational choice theory, the later one would accept any offer greater than 0. However, it turned out that people in many cases would reject unfair offers. On the other hand, when people make divisions, they tend to provide fair offers, around 40% to 50% [5]. Such irrationality is explained as altruism, where people value fairness and consider others' interests. They may sacrifice part of their own interests for the wellbeing of others. Likewise, people are likely to punish unfair behaviors even at the cost of their own benefits.

The field of behavioral economics, although being argued as "far from being a monolithic theory" by economists Luca Zarri, has actually a history as long as tradition economics [6]. Early in the 18th century, Adam Smith had proposed something other than self-interest that motivate people's behaviors: a "partial spectator" [7]. More recent studies related to the field include the nudge theory and auction theory, where both won the Nobel Prize of Economics. Behavioral economics have been widely used as guidance for business-planning and policy-making. This paper will investigate the application of behavioral economics theories, particularly through the perspective of consumer behavior, in the music industry under digital era.

2. INFLUENCE ANALYSIS OF DIGITAL ERA ON THE MUSIC INDUSTRY

2.1. Radiohead: a musical economist

In 2007, the famous band Radiohead ended its contract with EMI, their former record company. The band made a bold experiment with their seventh album, "In Rainbows": they decided to publish the album through digital download only available at the band's website. Moreover, the download would be free for everyone. The only potential revenue source is from voluntary payment to the band, but it's completely viable to pay nothing and go straight download it.

It was an unprecedent trial, so critics and skeptics were inevitable. Many industry observers speculated that the experiment may cause Radiohead to go "off-label". [8] Nicky Wire, bassist of the famous band Manic Street Preachers, claimed that the experiment "demeans music". He was opposed to all kinds of free downloads as he believed that such offer was "ruining the music industry" [9]. Besides, the Fortune magazine listed the experiment in its article "101 Dumbest Moments in Business" [10]. Either surprised or doubtful, people were waiting for the result of this enormous social experiment.

The mechanism of this experiment is interesting: the whole offer can be viewed as an alternative ultimatum game. The proposers are the audience: they have the power to decide how much to give Radiohead, the acceptor in this case. However, the difference between this experiment and the traditional ultimatum game is that Radiohead did not have the right to reject any offer given the voluntary payment system. In other sense, this situation can be viewed as a "Dictator Game", as only the proposer has the say.

Intuitively, people would not pay anything simply because it's not required. After all, everyone loves free stuff. So how could Radiohead make this experiment a profitable business rather than a free give-away? The answer is altruism. As discussed before, people don't act completely selfishly in reality and they tend to consider others' interests. Many of the listeners are fan of Radiohead, and that even increase the probability and amount that they are willing to voluntarily pay, for reasons like supporting the band to make better songs, showing loyalty or simply just making themselves feel better by paying something. The result support the idea of altruism: 38% of the people paid for download. Among them, the average payment is about $6 [11]. The ultimatum game proves itself to be applicable in the musical industry.

Some other surprising results also took place. The sales of In Rainbows was claimed to be "instantaneous 3 million" [12]. According to Thom Yorke, the band's lead vocal, the album made more money than "all the other Radiohead albums put together" [13]. It's a miracle how this album, with over 60% of the people not paying for it, made a lot of money for Radiohead. The band gave the world a lesson: people are altruistic, and businesses can take advantage of such psychological implication.

2.2. Price discrimination in the sales of music

Price discrimination is a widely used, although considered to some degree unethical, pricing strategy for producers. The seller sets up different prices for essentially the same product. For those who have lower price elasticities, they would still purchase the product if the price is higher than the equilibrium set by demand and supply. Likewise, those who are more price elastic would be more likely to purchase something facing a lower price. Setting different prices for different groups of people is a way for the sellers to gain a revenue as high as possible.

However, price discrimination cannot simply be used anywhere. To achieve so, the seller must have some control over the supply, and it needs to make sure that buyers have different price elasticity. With the constraints, price discrimination is mostly used in monopoly markets that face a whole market and has strong pricing power. Music industry did not have much to do with price discrimination in the past. Most people buy a record or tape of the new song or album when they are released. MP3 is a fairly more modern development, but it has a similar function with record, tape, or CD. The old medium of music had one thing in common: they build some sort of barriers for music. People must pay to buy a record to listen to the music in it, no one is in exception.

However, such pattern did not last long. Coming together with digital era was a great revolution in the music industry: streaming. Music does not have to be carried by those old mediums. All someone needs is a smart phone or laptop to play music online. Most of the platforms offer free music streaming, so fewer people buy records nowadays. Nevertheless, there are still record and CD shops even though streaming offers high quality and free music. Reasons vary: someone prefer listening to CD or vinyl for the emotional appeal besides the music, someone purchase records just for their tastes, but one of the most important reasons behind is the loyalty of customers, or listeners, for their beloved artists. These loyal fans became a differentiated group from the general listeners. Companies and artists, the producer of music, were therefore able to exploit price discrimination.

Taylor Swift was the first one to eat the crab. She has been known for maintaining tight control over how fans access her music. In 2017, she released her album “Reputation”. Remarkably, it was not available on any of the streaming platforms until three weeks later. This strategy distinguished between two groups of people: Taylor’s loyal fans and other listeners. The fans were willing to pay for records to hear the new album right after the release, while others do not love Taylor enough to pay for something that could be got free later. Such psychological implication related to loyalty can be found in many other fields. For example, many Star War fans would get a ticket of premiere of a new Star War film even if it cost a higher price than the film next day. People put invisible value on things, and such value is different from people to people, and businesses can take advantage of it: the release method of Taylor resulted in over 1.2 million record sales in the first week, being the biggest hit in 2017 globally [14].

From another perspective, Taylor Swift conducted a price discrimination in the sale of her album. She understood that the consumers are divided into two groups, each with different price elasticities. The late release on streaming is essentially offering a low price to the customers who has high price elasticities (normal audience) while posting high price for fans who prefer to purchase records. Since Taylor, and her agents of course, are the only producer of his album, they essentially become monopoly of this market, the market of Taylor’s songs. This offers them the ability to price discriminate. The behavior of fans implies a crucial concept in marketing: brand loyalty. The celebrities like Taylor Swift can be viewed as brands, and companies are able to identify their most faithful and heavy users as a focused market segment.

This phenomenon also reflects the how influential celebrities could be in this day and age. Digital era gained singers much exposure needed. The media, a video or article, on internet could be spread and read by millions of people in a very short amount of time. Superstars are therefore much easier to be built than 50 years ago. Music industry itself is a market that has much exposure to the public. Once a singer gets attention from a relatively big size of audience, the audience would do a big part of the marketing for the singers. Especially with the help of social media, consumers would share the singer they like on Twitter, Facebook, Youtube and so on. The spread would be viral marketing, and internet makes the spread easy as piece.

2.3. Endowment and Heard effect: how super stars are made

As mentioned in the former part, viral marketing has gain itself a position in the digital era. Internet has been so successful a media for the spread of information. It led to an enormous increase of socialization of people. Consumers are also influenced by this trend: they form different groups and communities based on their usage or interest in a product, named brand communities in behavioral economics. Within the group, consumers influence each other’s purchasing decision. This pattern is also applicable in the music industry. In fact, the super-stars are very much made from this collaborative decision-making process.

Brand communities feel more positive for the products they all love, a phenomenon that can be explained by the endowment effect: people tend to value something more when the hold it compared when they do not. Fans are a kind of brand community, and they are loyal to their idols. Fans would actually do a lot to promote the celebrity they like. In China, Weibo has been a popular social media platform for the promotion of celebrities. Fans participate in numerous events to increase the ranking of popularity of their idols. They are willing to spend their own money to help the idols they love. Such consumer behavior increases the exposure of celebrities to the public. Notably, the more fans a celebrity has, the bigger brand community it would hold. In other words, super stars have more fans advertising for them compared to other small artists. This creates the oligopoly structure of the music industry: a few super stars hold much of the fans, and they are likely to increase their fan base even more.

Advertising is not enough for a successful promotion: potential customers' willingness is also crucial. Research has shown that people are more likely to try something new if people around are all using the same product. In the case of music industry, people share songs or celebrities they like on the social media, where their friends and family would also be informed about the song. The sharing of music is much like advertising, new customers are not likely to directly purchase the product advertised, but the awareness about the product would be made. Likewise, when people see the sharing of a new song, they may not listen to it, let along liking it. However, if one's social media is overwhelmed by the new song, curiosity would urge one to listen to it. This phenomenon is named the herd effect, where people make the choice that is the same as many others do. Being left alone and not following the fashion is not desirable for people. The super stars with more exposure are more likely to attract new audiences. It again shows the strength of a huge fan base.

3. CONCLUSION

This paper examines the application of behavioral economics and consumer behavior in the music industry under digital era through three cases including altruism and its effect on sales, price discrimination and brand loyalty, and herd effect on marketing. Today's business world is much different from thirty years ago. The digital era had a huge impact on consumers decisions, especially in the music industry. Evaluating people's behavior can be helpful on guiding future business planning, and the field of behavioral economics can help combine the traditional rigorous economics analysis and realistic psychological phenomena to better achieve this goal.

AUTHORS' CONTRIBUTIONS

This paper is independently completed by Yanxin Zheng.

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