Can Social Come to the Rescue? Monetizing Music in the World of Free

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Can social media transform the online music industry? A look at shared value and shared social responsibility

Abstract

The music industry is facing a challenging time where, due to information technology, artists are striving to succeed in an environment where consumers can obtain music for free. To survive in this environment, online music providers must rethink the way they do business. Incorporating into their strategies a greater involvement in social progress by allowing a charitable partner to get a share of the revenues may facilitate this transformation and provide a solution to the problem of "free" currently faced. Pairing this with the adoption of a pay-what-you-want pricing scheme, the challenge to music providers becomes understanding what will appeal to the consumer, create value, and drive them to pay for music that they consume. With this in mind, we explore the role of social media features, change in the distribution of revenues including a charity partner, social influence for price, and the artist's success in increasing consumers' willingness to pay. Results of our conjoint analysis demonstrate that—independent of the social features implemented—the most important factor that impacts willingness to pay is the inclusion of a charitable partner in the distribution of revenues; consumers were also willing to pay more for artists that are not well-established. In terms of social media features, we found, through a multi-level analysis, that status building increased willingness to pay but displaying a user's payment did not. Altogether, this study provides important implications for online music providers as well as the artists themselves for operating in the current music environment. It provides an important step towards understanding what drives consumers to pay for music, a good that can also be found for free.

Keywords: Digital Goods, Music Industry, Business Transformation, Social Media, Shared Social Responsibility, Shared Value.

Introduction

E-readers (e.g the Amazon Kindle), mobile music players (e.g. Apple's iPod) and the related online distribution mechanisms of content for these devices (e.g., Amazon.com and iTunes) are only a few examples of the trend towards digitization occurring in many industries, and evidence of the digital economy that producers and consumers are currently operating in. While this move to the provision of digital goods has facilitated the distribution of such products to a broader audience, it has also increased the supply of free products (music, books and movies), through both legal and illegal channels. This has had a significant impact on the music, book and movie industries as can be observed by the widespread

failure of physical retailers (selling physical goods) such as Tower Records, Borders books and Blockbuster Video, because they could not compete with free digital goods. Thus, the question becomes: how can digital goods industries face this new challenge of operating in an environment where their products may be available for free? We examine this question in the context of online music.

We suggest that the solution lies in industries embracing the principle of shared value. Shared value involves the creation of not only economic value but also value for society—including consumers—to enable social progress (Porter and Kramer 2011). Reconnecting company success with social progress not only helps in achieving global growth but can also "give rise to the next major transformation of business thinking" (Porter and Kramer 2011, p.64). To achieve this transformation towards greater shared value, organizations can draw on the principles of shared social responsibility and show a greater involvement in social progress is by allowing a charitable partner to get a share of the revenues (Gneezy et al. 2010). Paired with the adoption of a pay-what-you-want (PWYW) pricing scheme, where consumers can choose the price that they pay for a good, the shared social responsibility model enables an organization to pursue both its social and economic objectives—to increase the overall revenues of an organization (Gneezy et al. 2010).

PWYW is a payment scheme used in contexts ranging from fund-raising donation drives by public radio stations, to choosing what to pay in restaurants, to our context, payments for music (see e.g., Mak et al. 2010). The option to PWYW is appealing to consumers as it provides them an opportunity to pay exactly their valuation of the good, which has been shown to vary significantly across songs (Shiller and Waldfogel 2009). An example of this is the music group Radiohead's famous experiment where they released their "In Rainbows" album under a PWYW pricing scheme. Though this scheme was initially criticized, almost 40% of people who downloaded the album paid and these payments averaged to approximately six dollars per album (Elberse and Bergsman 2008).

To achieve the creation of greater shared value, it becomes important to understand what may drive consumers to pay an amount different from $0 under this PWYW scheme. We examine a series of factors that can motivate consumers to pay for the music they consume. First, based on the concepts of

shared value and shared social responsibility, we examine whether altering the traditional distribution of revenues between the artist and the music provider (which is 10% to the artist and 90% to the music provider) affects willingness-to-pay. In addition, we include a charitable partner in the distribution of revenues, which may influence the consumers' willingness-to-pay.

We also examine the role that social features enabled through social media play in influencing a consumer's willingness-to-pay under a PWYW pricing scheme in an online music community. Recent online business models for distributing music have been community-oriented and have implemented technology-enabled social features including social recommendation systems, social playlists, and in general, a social experience by enabling users of a site to interact with each other.[1] However, while these sites incorporate social features into their business models, it remains unclear what value the consumers and the site can extract from such features.

Prior work has shown that social media and social influence impact consumers' decisions about what music to consume (Dewan and Ramaprasad forthcoming, Salganik et al. 2006) as well as the decision to pay for a subscription. In the context of the online music community last.fm, the level of a user's community involvement is shown to be a stronger driver of his decision to pay for a subscription than his volume of content consumption (Oestreicher-Singer and Zalmanson 2011) and this member's willingness to pay for a subscription is strongly influenced by his peers' willingness to pay for a subscription (Bapna and Umyarov 2011). Both of these papers examine willingness to pay in the context of a "rental" or subscription model for music, a model that is emerging and gaining momentum as a complement to owning, but not likely to replace it (Feinberg 2010). Building on these studies, we specifically examine the ability to improve one's reputation, through increasing status and displaying one's payment history, and observe others' payment behavior as social media enabled-features that motivate the consumers to pay for greater shared value.

[1] Take as an example the online music community rdio (www.rdio.com), which allows users to create and share playlists, comment on songs and interact with other users through these contexts, and which incorporates a recommendation system based on listening history.

Finally, we examine the role that the power of the artist (struggling or successful) plays in a consumer's willingness to pay. Brynjolfsson et al. (2003) demonstrated that a large portion of sales in online marketplaces, specifically Amazon.com, are from goods that would not have been available in bricks-and-mortar stores due to limited shelf space and the desire to stock only the most profitable goods. Anderson (2006) describes this phenomenon as The Long Tail, and argues that two forces—democratization of production and democratization of distribution—have enabled suppliers to supply, and consumers to access, a large number of previously inaccessible or difficult to access goods. Combining these forces with product digitization, as is the case in online music, we see that music websites have enabled less established musicians to distribute their music and allowed consumers to access a larger variety of music. Anecdotal evidence suggests that successful artists have less of an emotional appeal to consumers. That is, consumers who are inclined towards altruism or pro-social behavior may have a desire to support emerging artists, more so than supporting well-established, successful artists. Given this, we examine whether the power of the artist is an additional mechanism towards the creation of greater shared value by influencing the consumer`s willingness to pay more money for artists that are less established.

To empirically assess the impact of these factors on the consumers' willingness to pay, we conduct a survey-based experiment manipulating distribution of revenues, artist power and social influence, under different social media contexts. We use a utility-maximization framework, but our manipulations should be understood to be less rational than Homo-Economicus-type strategic behavior. Indeed, Homo Economicus, when faced with a PWYW scheme, should be expected to pay $0. Under the shared value perspective, egoistic motivations should give way to more altruistic, socially responsible motives. Therefore, our experimental framework aims at tapping more affective processes, trying to maximize shared value, at the risk of favoring a complete business—and possibly an industry-wide—transformation.

In truth, our approach finds attributes which can more than double the amount of shared value (in terms of the level of payment for songs). In doing so, however, the firm using the solution (a site which

offer the ability to increase one's status within the community, and a distribution of revenues which sees 45% of the revenue go to the artist, 50% to charity) would only get to keep 5% of the "shared value" generated, which is about eight times less than it would get without creating this shared value in the first place. For this to be profitable, therefore, the music provider must eventually bring in eight times more paying customers out of the "free" market. Of course, this firm would take on a substantial portion of the responsibility typically associated with government—to assist the needy through charity and support the growth of the cultural sector—by supporting "struggling" artists. In a way, the shared value perspective becomes an industry-wide prisoner's dilemma with consumers defecting by paying $0, or firms defecting by keeping a larger proportion of the revenues.

The rest of the paper is organized as follows. We first discuss the context of digital goods and the music industry in which this study takes place. We then present our model and hypotheses followed by a description of our methodology and presentation of the results. We conclude with a discussion of our results, managerial implications, and plans for future research.

Context of Digital Goods

For digital goods industries, operating in a digital economy means recognizing and understanding the two main information technology driven shifts in the industry: 1) the digitization of the good itself; and 2) the internet as a distribution channel (Lam and Tan 2001). These two changes have affected multiple players in these industries, from the content creators to the consumers. The impact of technology has been noticeable in the music industry largely because music is an information good, i.e. a song can be reproduced (by virtually anyone) at zero marginal cost (Shapiro and Varian 1998), as can books, magazines, newspapers and movies (Clemons and Lang 2003).

For the music industry in particular, these changes have resulted in the unbundling of music (Elberse 2010), which has enabled consumers to easily consume individual songs and not just entire albums, and disintermediation (Bakos 1998) of the traditional distribution channel, where artists now have the opportunity to reach their consumers directly without necessarily going through record labels

and retailers.[2] This is exemplified again by Radiohead (and other artists) who have chosen to distribute their music direct to consumers in a PWYW scheme as well as often lesser known artists who share their music on social networking sites such as MySpace. Over the last two decades, music distribution has evolved from album purchases (at a physical retailer), to sharing songs through an online network of individuals (e.g. Napster), to music on the cloud (e.g. rdio and Spotify) where users stream (without owning) music online through their computer or mobile device. Given these technology-enabled shifts in the production and consumption of digital goods, the underlying challenge facing the players in the music industry is to understand the factors that will drive consumers to pay for a good that is available for free.

Historically, the revenue model for artists (musicians) has been tied to the sales of their music. Given the increased ease for consumers to find and consume music for free and the subsequent reduction in legitimate sales (Waldfogel 2010), it has become important to identify other mechanisms for artists to make a living from their music. While some artists have found alternative methods of generating revenues through complementary offerings such as live performances and merchandise sales, not all artists can leverage these mechanisms as their demand is dependent upon their prior success. Thus, many artists still rely on consumers purchasing their music to be able to make a living from their music. In the environment of free digital goods, the question of how to price music is salient.

Until recently, the dominant online model for the legitimate purchase of music was Apple iTunes, allowing consumers to purchase—and own—individual songs at a uniform price. Now, there are multiple options for online music consumption, though many of them revolve around a subscription-based "freemium" model, where users can stream music for free (advertiser supported) or for a small monthly fee if they wish to listen to music without advertisements[3]. Different subscription services offer different perks with paid subscriptions including more listening time, mobile access, better paid support, multiple

[2] Although we recognize that technology has impacted all members of the value chain, this study focuses on the interplay between the artist and the consumer, with all other members grouped together, which we refer to as "music provider."

[3] This model varies depending on the online music site, but the "Freemuium" model encompasses the general model that has been implemented.

device support and more. While these "rental" (streaming) models for music have become pervasive[4] they are seen as complement to owning and not likely to replace it (Feinberg 2010).

In the midst of the emergence of such online platforms, artists have experimented with distributing their music themselves, often through a PWYW model. Some notable examples of this are Radiohead, Girl Talk and Trent Reznor (from the band *Nine Inch Nails*) in his collaboration with Saul Williams. While the PWYW model is not unique to music in that has been used in other contexts including video game sales and even restaurants (Mak et al. 2010), it provides a unique appeal to consumers as they are given the flexibility to choose the amount they would like to pay for a song based on their individual valuation. Indeed, it has been shown that individuals' willingness to pay for music varies depending on the individual and the song, and that uniform pricing is not necessarily profit-maximizing (Shiller and Waldfogel 2009).

The environment for organizations working in the digital goods space has and is evolving. These changes present new challenges for the players in such industries and call for major changes in the way that they operate.

Research Model

This paper explores a business model based on shared value and shared social responsibility approaches that allows digital content providers to appropriately address the challenges of the current environment, in a PWYW context. We propose a model where the provider shares the creation of greater value and the social responsibility with the consumer of a digital good—music. In this model consumers can determine the extent to which they want to help not only the music provider but also the artist and a charitable partner by deciding exactly what amount they want to pay depending on the distribution of revenues amongst these three constituents. If the music provider's offering appeals to consumers, this model

[4] See for example, the list provided on Wikipedia:
http://en.wikipedia.org/wiki/List_of_online_music_databases#On-demand_streaming_music_services

increases the likelihood of superior revenues and allows for the creation of a greater shared value (Gneezy et al. 2010, Porter and Kramer 2011).

The fact that consumers can decide the amount they want to pay for the good, including not paying at all, makes the provider vulnerable, signalling to the consumer that the firm has a clear intention to share social responsibility. The vulnerability of the provider serves to reduce the perception by the consumer that the firm has suspicious underlying motives, as there can be a lack of complete transparency in the ultimate distribution of revenues. In making non-zero payments, the consumer can ensure the viability of the firm and produce more shared value. In other words, it sends the signal that they are "in it together." Thus, we seek to identify the factors that will motivate consumers to pay an amount greater than $0.

Our study examines factors relating to distribution of revenues, the addition of a charity partner, social media features and artist's success as potential mechanisms motivating one's willingness to pay. Implementing each of these factors require changes in the fundamental business model of the music provider, from the pricing strategy to the social features enabled on the sellers' sites. We discuss each of these factors below.

Distribution of Revenues and Addition of a Charity Partner

According to Porter and Kramer (2011), the underlying assumption of shared value is that strengthening the working relationships in a socially conscious manner between an organization and its suppliers will provide greater social and economic value. In the music industry, enabling the distributor (the organization) and the artist (the supplier) to work more closely together can create overall greater value to both parties. Historically, the distribution of revenues amongst the members of the music value chain has been perceived to be unfair to the artist. Redistributing revenues to provide a greater share to the artist is a first step towards motivating the consumer to pay an amount greater than zero, thus creating shared value and ultimately increasing the organization's social engagement.

Another change to the distribution of revenues is suggested based on the shared social responsibility concept (Gneezy et al. 2010), according to which including a charitable partner allows consumers to identify directly with the cause supported, unlike what is commonly done under the *corporate* social responsibility framework. The underlying assumption in shared social responsibility is that consumers who are socially conscious are likely more willing to pay for goods offered by companies that clearly demonstrate sympathy towards a social cause. In addition to changing the distribution of revenues amongst the current players, organizations in the music industry can achieve an important transformation towards a higher social responsibility by also including a charitable partner in the distribution of revenues; doing this would likely generate overall greater revenues. A mechanism that enables organizations to evaluate whether consumers perceive a change in the organization's social responsibility is to give the consumers the flexibility to determine the price to pay for the good using the PWYW model. Indeed, giving consumers the option to determine the price to pay, including 0, allows the organization to understand whether the changes in the distribution of revenues—between the organization, its suppliers, and charities—are of importance to the consumers.

Following the principles of shared social responsibility, Gneezy et al. (2010) found that the PWYW pricing scheme was most profitable when participants were told that half of the proceeds would go directly to charity. Shared social responsibility may provide a way to increase a company's well-being in addition to the well-being of its customers and society in general. The current state of affairs in the music industry sees the artist making only 10% (or less) of proceeds from song sales. The most common complaint from users of the popular site Spotify is the feeling that artists do not get paid enough (Carey 2011). Indeed, emerging models such as vibedeck.com allow artists to keep 100% of revenues; however, the impact of this model for the distribution of revenues on sales has not yet been identified. Thus, our first hypothesis posits that aligning the distribution of revenues with the principles of shared social responsibility will increase the shared value, as reflected by the price consumers will pay for the product in a PWYW model.

Hypothesis 1a (H1a): *A greater share of revenue to the artist will increase the amount of shared value generated.*

Hypothesis 1b (H1b): *A share of revenue to charity will increase the amount of shared value generated.*

Social Media features

From the consumers' perspective, it is expected that social features, such as information about the prices paid by other users or friends, and the possibility to be conspicuously identified as an important supporter or contributor to an artist should contribute positively to the economic performance of the proposed information goods sales paradigm (Ganley 2011). In other words, social features should be value-adding characteristics for the consumer. Businesses that seek to succeed in the current digital environment have learned to create value through social media and social features. This study looks at three features enabled by social media that can play a role in motivating consumers to pay an amount greater than zero.

First, we look at the influence of a reference price on a consumer's willingness-to-pay that can take place in the social context of the community developed by the music provider. The other two variables can be seen as contributing towards the development of the consumers' reputation, first through enabling consumers to gain a greater status within the community, based on the contribution they make in terms of reviews or recommendation for music. The second mechanism for reputation building refers to the payment history of the consumers. Indeed, by displaying this information for other members to see, a consumers can build the reputation of being a good (or not) payer. These three social features are described below.

Social Influence—Reference Price

Online social influence has been studied as it occurs through social networks (e.g., Aral and Walker 2011) or through the ability to observe prior consumers' decisions in aggregate (Duan et al. 2009, Salganik et al. 2006). It has been shown that information transparency about listening (music) or downloading (software) influences other consumers' decisions (Duan et al. 2009, Salganik et al. 2006), and that social media

provides a mechanism for this information transparency. That is, social media provides a means for consumers to observe others' decisions and, potentially be influenced about what music to consume in an online music community (Dewan and Ramaprasad forthcoming), what products to buy on an online bookstore (Chevalier and Mayzlin 2006) or what videos to watch (Susarla et al. forthcoming).

Here, we look to see if this social influence occurs when making decisions about what price to pay for a song. Recent work has looked at the role of social influence on subscription behavior in the context of the emerging subscription-based online music models, finding that that a member's willingness to pay for a subscription is strongly influenced by his peers' willingness to pay for a subscription (Bapna and Umyarov 2011) and that the level of a user's community involvement is a stronger driver of his decision to pay for a subscription than the volume of content consumption (Oestreicher-Singer and Zalmanson 2011). Regner and Barria (2009), when documenting the success of voluntary payments on the web site Magnatune, found that the recommended payment (in their case $8 for an album) served as a large source of social influence on actual payments, with the recommended payment being observed 55% of the time. Though they looked at voluntary payments, it was not a true PWYW context because of a required $5 minimum payment, paid by 14% of the consumers.

Together, this research demonstrates that online social influence, through social networks and social media, plays a role in decision-making about music and willingness-to-pay. Thus, we first argue that providing a socially determined reference price, calculated by the average price paid by others, will influence willingness to pay in a PWYW pricing scheme, which includes $0 and thereby signals the inherent vulnerability of the provider (Gneezy et al. 2010).

Reputation building—Status

Prior research has demonstrated the desire for status-seeking in online communities, particularly linked to contribution to and involvement in online communities and social media. While explanations for participating and contributing to online communities range from pure altruism to reciprocity (Chiu et al. 2006), status-seeking has been shown to be a significant driver of participation as well (Lampel and

Bhalla 2007). Indeed, such non-economic motivators have also been shown to play a role in subscription decisions in online communities as well (Ganley 2011).

Status is "an actor's relative standing in a group, when this standing is based on prestige, honor and deference," (Lampel and Bhalla 2007, p.103). Status in online communities is usually elicited through such indicators such as the level of participation and the relevance and helpfulness of the contributions, and users who are status-seeking adjust their behaviors appropriately. Indeed, there are online businesses that try to encourage participation by more explicitly incorporating status-seeking and reputation-building mechanisms into their models. As consumers are theorized to respond to non-economic motivators like pride and respect, providing an opportunity for users to acquire a status within the community may increase the value consumers extract from being involved in the community. The website FourSquare has harnessed this status-seeking desire in creating their business, allowing people to "check-in" to locations such as restaurants and gain status based on frequency.

Building on this, we argue that incorporating the ability for a consumer to build status within the community will increase the value they derive from participating in the community and increase their willingness to pay.

Reputation building—Payment Display

One may also be concerned with maintaining a particular reputation within the community that is not necessarily related to status, but related to the perception that members of the community have of them independently of being compared to others (Lampel and Bhalla 2007). Building a reputation within an online community has been shown to be important driver of participation in professional communities (Wasko and Faraj 2005). In an online community where goods can be purchased, perceptions of reputation may be linked to purchase decisions made, not only regarding the products purchased but regarding the price paid. While in many contexts, research has shown the consumers enjoy gaining a reputation for being able to find "deals," in a PWYW context consumers may not want to have a reputation of being "cheap."

We can elicit whether or not this is the case by examining the role of payment display—that is, displaying the price that an individual pays for a good—on willingness to pay. An example of this in practice is the website CellarTracker (an online wine cellar management tool), which uses voluntary payments with recommended payments based on usage. A feature of this site is that it allows members to access its user list, where there is an indication of the level of payments for each of the users. Thus we argue that since consumers are interested in maintaining their reputation, displaying their payment history will increase their shared value as reflected in their willingness-to-pay. All together this leads to hypothesize the effect of three features enabled by social media:

Hypothesis 2a (H2a): *Information transparency about the price paid by others will increase the amount of shared value generated.*

Hypothesis 2b (H2b): *Inclusion of a status-building feature will increase the amount of shared value generated.*

Hypothesis 2c (H2c): *Display of consumers' payment history will increase the amount of shared value generated.*

Artist Power

The internet has enabled consumers to access the "tail" of the distribution of goods, including movies, books and music that are less known (Anderson 2006). Prior studies have looked at music consumption decisions for these unknown artists (Regner and Barria 2009, Salganik et al. 2006). Within the PWYW pricing scheme, previous literature makes the suggestion that "the tendency of customers to make voluntary payment should be seriously affected if the artist is a millionaire already"(Regner and Barria 2009, p.405). Thus, a deeper understanding of the relationships between artist power and the distribution of revenues is paramount.

The work on *valuation by feeling* (Hsee and Rottenstreich 2004, Rottenstreich and Hsee 2001) also suggests the possibility that the power of the artist will lead to a difference. In terms of the subjective valuation of a digital good such as a song, the *valuation by feeling* perspective would suggest a difference

driven by emotion. If such a difference was to exist, emotion would probably come from the altruistic motivation to side with struggling artists because of their obvious need for support. Less likely would be the possibility that emotion leads participants to punish successful artists because they already have money. If the *valuation by calculation* perspective was to hold, however, we would expect the effect of the power of the artist to disappear.

Hypothesis 3 (H3)*: Low power artists, compared to high power artists, will increase the amount of shared value generated.*

To summarize, our model suggests that online music providers can achieve greater shared value by going through a significant transformation in the way they operate. More precisely, a change in their pricing strategy by allowing users to choose their price, while altering their distribution of revenues between the industry players as well as a charitable partner may impact a user's willingness to pay. In addition, implementing social features such as displaying a price reference based on average price paid and enabling users to gain a reputation, both through status levels and payment display, may also motivate consumers to change their behavior and pay an amount greater than $0.

Methodology

Factors and Contexts

We designed a survey-based experiment to test our model and analyze it through a mix of conjoint analysis and multivariate hierarchical linear modeling techniques. The distribution of revenues and addition of a charity partner, social influence, and artist's power are modeled as factors in the design of the conjoint analysis, while social media features—status and payment display are used to developed different contexts for the conjoint analysis. This results in three factors and four contexts test in relation to the success of the PWYW pricing scheme.

Operationalization

The three factors are operationalized as independent attributes for the development of the profiles for the conjoint analysis.

The baseline for **the distribution of revenues** uses the current reality, which sees about 10% of revenues going to the artist and the rest to the music provider. To contrast this reality we also use the reverse situation in which 90% of the revenues go to the artist. To represent the shared social responsibility variation with the **addition of a charity partner**, the previous two levels are also created with the inclusion of the charity who receives 50% of the revenues. Our first factor is a four-level distribution of revenues as detailed in Table 1.

Table 1 Levels for the distribution of revenues

	Distribution of revenues		
Level	**Site+label**	**Artist**	**Charity**
1	90%	10%	–
2	10%	90%	–
3	45%	5%	50%
4	5%	45%	50%

To operationalize social influence (reference price), we needed to determine the prices to be used in the experiment that would represent the average amount paid by other users. We use two levels of these average prices as sources of influence on the consumer's willingness to pay. To identify the two levels, we first examined ranges of prices used in the industry. We found that most of the sites use prices between $0.50 and $2.50 per song (e.g. Apple's iTunes and beatport.com). We then ran a pre-test (described below) to ascertain that prices under $1 were seen as significantly lower than prices above $2, thus setting the two levels at $0.76 and $2.24.

We also needed to use reference prices framed as social influence rather than recommended prices (Gneezy et al. 2010) and framed the levels as "average amount paid" for the song by other consumers. As a reference price, the high reference may be perceived as unfair, but as an "average

amount paid" for the song, it might instead function as a social influence, providing information about the choices of others (Salganik et al. 2006). Our second factor was thus the reference price, with two levels ($0.76 and $2.24).

For our third factor—artist power—we considered artist power and made labels emotionally charged by using common stereotypes associated with artists. Artists were described as being either "struggling and travelling in a van" or "successful and flying in a jet." Our third factor was artist power with two levels—low and high.

Pre-test

We examined recommended price levels in a pre-test (n=34) with undergraduate students enrolled in an elective course taught by one of the authors. We found that (on a per-song basis) recommended prices in the range of $2 to $2.50 are perceived to be significantly higher ($p<.01$), and less fair ($p<.01$), than reference prices in the range of $.50 to $1. As a result, respondents reported that they would be less likely to pay if reference prices were in the high range ($p<.01$). Further, we found that using shared social responsibility would increase participants willingness to pay in both the low range ($p<.05$) and the high price range ($p<.01$). Last, we found that the shared social responsibility advantage is significantly larger for the high price range than the low price range ($p<.05$).

Contexts

To operationalize our two social media features—status and payment display— we opted to create four distinct contexts by manipulating the introductory section of the conjoint analysis task. From Doerr et al. (2010), it was evident that using "community feature" as an attribute in the conjoint analysis might not elicit a full understanding of these features. Indeed, in their study, the presence of a community feature was the least important factor and seemed pale in comparison to more pragmatic features such as music quality, offline access or contract duration.

(Ganley 2011) found that a feature for reputation is a successful predictor of subscription to extra web site services. We operationalize two mechanisms of reputation building that can be supported by the

music provider. First the **status** took the form of a website that provides the ability to acquire a higher status within the community. Participants were informed that a ladder system (Lurker, Newbie, Muzik lover, Muzik fanatic, Muzic freak) would be used, where points would be accumulated for recommending music to other members and providing music reviews. The second mechanism—**payment display**—was operationalized through a site that gives users access to the list of members and information about what their payment history for all of their downloads.

This results in the use of four different social media contexts as a between-subject manipulation, as represented in Table 2.

Table 2 Levels for the context

Context	Social media features	Description
A - Baseline	None	Describes a new site (Muzika)
B	Adds status to A	Muzika gives special status to users who participate more in the community; they will list the Top 10 contributors for each artist; contribution can consist of recommending music to other members and providing music reviews to the community. In addition, Muzika has a "ladder" system (Lurker, Newbie, Muzik lover, Muzik fanatic, Muzic freak), where your status is displayed at all times for others to see. Your status is based on the points you've earned from your contributions.
C	Adds payment display to A	A feature of Muzika is the ability to view the list of members, information about what they have downloaded, and their payment history. The number of $$ signs next to a user name is based on payment history. In other words, all users can see the prices paid by all other members for each song
D	Adds B and C to A	

All of these contexts were provided for all the factors in the conjoint analysis. In other words, subjects in any one of the four contexts were asked to determine the price they wanted to pay for eight profiles of songs differentiated based on the distribution of revenues, the addition of a charity, the price paid by others, as well as the artists' power.

We controlled for the potential effect of the quality of songs by asking the participants the price they would pay for songs that they really enjoyed and identified after having browsed through the

collection offered on website and having listened to many songs. Thus the quality of songs was constant across individuals. We also included age and gender variables.

Sample

Respondents were students enrolled in an undergraduate business program of a large university in North America. The conjoint analysis procedure would not consider respondents who did not include variability, or left missing data. To preserve normality (and realism), all prices exceeding $3 were excluded. All important results were similar if higher prices were included, and the "all-zero" respondents were distributed equally among contexts (as were high prices).Therefore, our sample was reduced to include only complete data, excluding respondents who would not pay (i.e. $0 for all songs). The final sample included 246 respondents (age 18-26, 55% female), with between 49 and 66 respondents for each of the contexts.

Analysis and Results

Conjoint Analysis

A full factorial design for the three factors would lead to a sixteen profile full-factorial analysis (4x2x2). As we wanted to do a within-subject analysis, the cognitive load of these sixteen factors was deemed too demanding. To reduce the number of profiles that each respondent would have to answer, we instead used the conjoint analysis package from SPSS to create an orthogonal design, which saved eight profiles, leaving us with a set of eight songs to test.

The orthogonal design produced for the conjoint analysis included eight different songs differing on four levels of the distribution of revenues i) 90% site+label, 10% artist; ii) 90% artist, 10% site+label; iii) 45% site+label, 5% artist, 50% charity; iv) 45% artist, 5% site+label, 50% charity. Songs also differed on whether the artist was i) successful or ii) struggling, and whether other users of the site had paid an average of i) $0.76 or ii) $2.24. We use the conjoint analyses to test hypotheses H1a, H1b, H2a, and H3.

Model for conjoint analysis

In the case of a full profile or orthogonal design conjoint analysis, the model reduces to ANOVA on an individual basis. As such, the additive model for conjoint analysis reduces to:

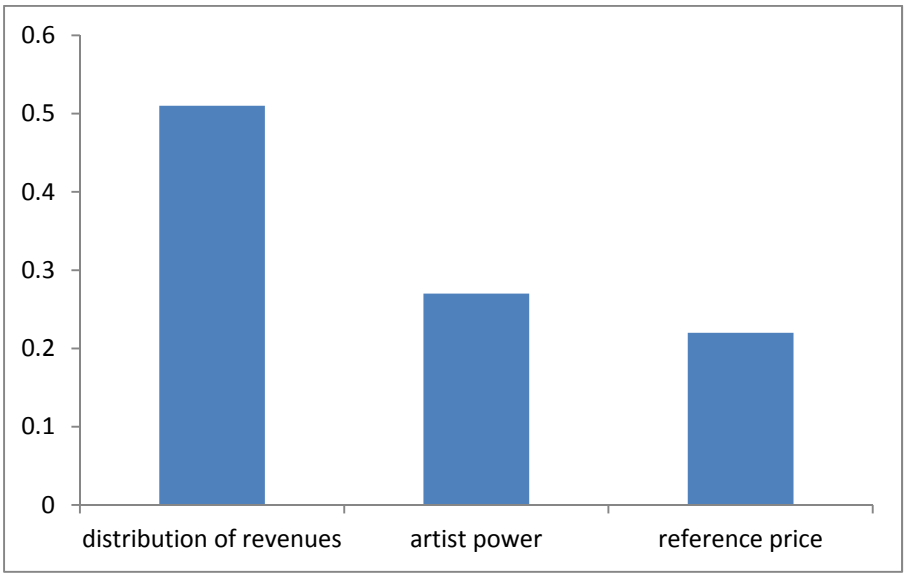
$$y_k = \mu + \sum_{j=1}^{J} \sum_{m=1}^{M_j} \beta_{jm} \cdot x_{jm}$$

With:
y_k : estimated total utility for incentive k
b_{jm} : partial utility for value (category) m of factor j
x_{jm} : 1 if incentive k has value m of factor j; 0 otherwise.

Results for Conjoint Analysis

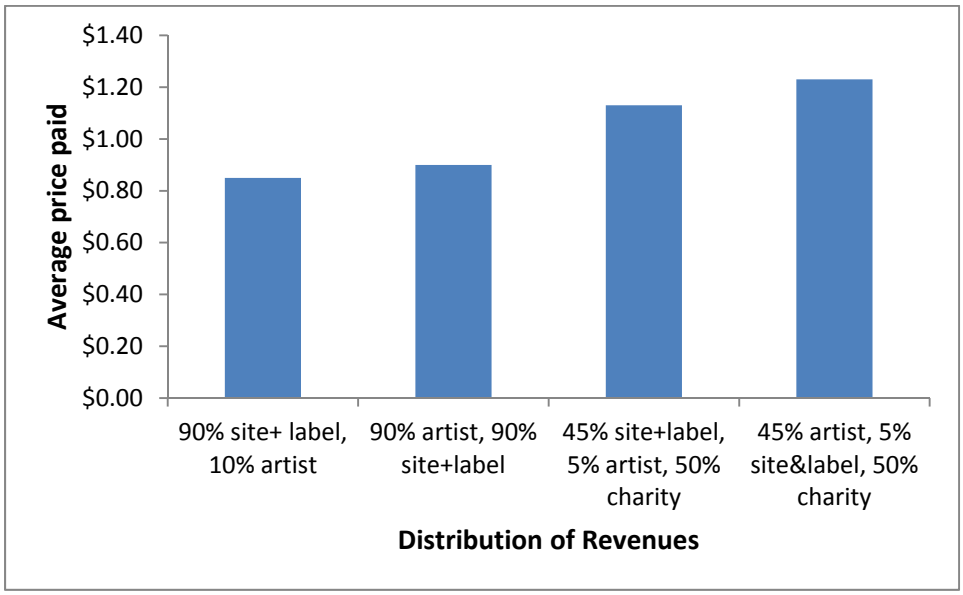
The conjoint analysis procedure in SPSS produces the utilities for all attribute levels, which can be used to compute the importance of the three attributes for all respondents. As expected, the eight songs were priced significantly differently. Average price paid (across contexts) were between $0.61 and $1.24 (with prices between $0 and $3). Figure 1 shows the relative importance of the three attributes, with the most important being the distribution of revenues (51%), followed by the artist power (27%) and the reference price (22%). The distribution of revenues is significantly more important (p's <.01) than the other two, which are only marginally different ($t(227)= -1.752$, $p=.081$). Within the artist power, struggling artists receive more money than successful artists, and a higher reference price ($2.24) leads to higher prices than the lower reference price ($0.76).

Figure 1 Relative importance of the three attributes as determined by the conjoint analysis



Within the distribution of revenues, the average prices decided by the subjects vary significantly from $0.85 to $1.23 as represented in Figure 2. Amount paid for all levels of the distribution of revenues were significantly different from each other (all p's<.01) except for the first two levels (90% artist vs. 90% music site+label; p=.109). Thus, shared social responsibility (when 50% goes to charity) generally leads to significantly higher prices. Within shared social responsibility, when 45% of the revenues go to the artist, even higher prices are obtained.

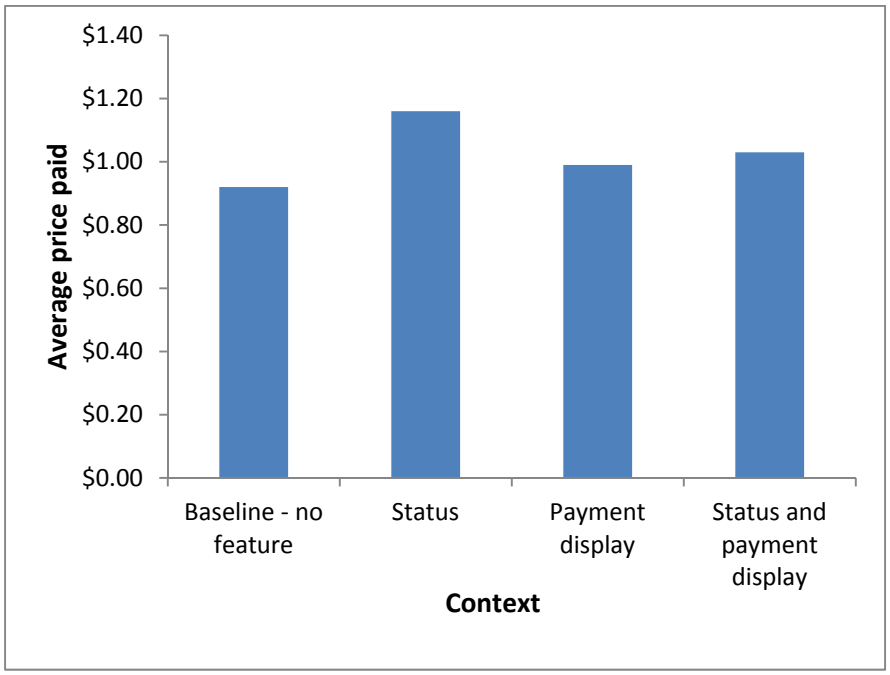
Figure 2 Average prices paid for songs using the four different distributions of revenues



Context effects

The same orthogonal design for the eight songs was used in four different social media contexts. This manipulation resulted in a significant difference in the average price paid across the contexts ($F(3,242)=3.593$, $p=.014$). As shown in Figure 3, average prices varied from \$0.92, \$1.16, \$0.99 and \$1.03. Contrasts reveal that the status feature leads to higher prices than the baseline ($p<.01$) and the payer's reputation feature ($p<.05$). The difference between the status feature and the condition where both status and payment display are included as features is not considered significant ($p=.082$). All other differences are not statistically significant.

Figure 3 Average price paid within each of the social media contexts



Multivariate Multi-Level Modeling (HMLM): Interactions and Covariates

We use multivariate multilevel modeling (Raudenbush and Bryk 2002), to test hypotheses H2b and H2c—by examining potential interactions between the social media contexts and the importance of the attribute levels. This approach allows the simultaneous inclusion of the effects of covariates such as age and gender.

Model for HMLM

The multivariate multilevel model used in HLM 6.0 allows the specification of a level-1 model and a level-2 structural model. Our intent was to explore intercept- and slopes-as-outcomes models, which allow the comparison of the effects size from both level-1 and level-2 variables. Furthermore, the program allows random level-1 coefficients (not examined here), and the specification of different covariance structures (such as unrestricted, homogeneous and heterogeneous errors). The dataset being small, we did not concentrate on the determination of the best covariance structure, but compared models to make sure that our results are robust with regards to the specification of the covariance structure.

Coefficients are from the "unrestricted" covariance structure, except for Model 4 which is presented for the "homogeneous" covariance structure. The intraclass correlations for our variables (the different songs) vary from .36 to .47, which confirms the appropriateness of multilevel analysis.

The first model is as follows:

Level-1 model:

Y = IND1*Y1* + IND2*Y2* + IND3*Y3* + IND4*Y4* + IND5*Y5* + IND6*Y6* + IND6*Y6* + IND7*Y7* + IND8*Y8*

Y* = P0 + P1*(90%_ARTIST) + P2*(45%_ site+label) + P3*(45%_ARTIST) + 4*(STRUGGLING) + P5*(REF_$2.24) + e

Level-2 model:

PO = B00 + R0
P1 = B10
P2 = B20
P3 = B30
P4 = B40
P5 = B50

Results for HMLM

The first model assumes that the vector of prices is determined by an intercept and indicators for struggling artists, the higher price reference, and the three new distributions of revenues. The intercept is assigned to the current distribution of revenues (90% site+label, 10% artist), successful artists, and the lower price reference (Model 1—Baseline). Table 3 presents detailed results for Model 1. We find significant impacts for all the different attribute levels (p=.055). Generally, as the model coefficients can be understood as dollars, we can interpret the results as follows: from a starting point of $.59, one can expect $0.15 more when the artist receives 90% of the revenues (as opposed to 10%). When shared social responsibility is considered (50% to charity), a song which sees 45% going to the site+label should add $0.33 to the baseline, and when 45% goes to the artist, the baseline should be expected to gain an extra $0.46. If the artist is struggling, the song gets an extra $0.08 and if the reference price is $2.24 (as opposed to $0.76), then the song is expected to make an average of $0.32 more.

Table 3 Baseline model with the effects of all attribute levels (Model 1)

Variable	Coefficient	Std. Error	P-value *
Intercept	0.59	.04	<.001
90% to artist	0.15	.03	<.001
45% site+label, 50% charity	0.33	.04	<.001
45% artist, 50% charity	0.46	.04	<.001
Artist is struggling	0.08	.04	.055
Reference price is $2.24	0.32	.03	<.001

For Model 2, we introduce age, gender, and context effects as potential interactions with the intercept (an intercept-as-outcome model). Results are presented in Table 4. The age of the respondents is found to influence the average amount paid for songs at the rate of $0.05 per year (given that the age range in our sample is 18 to 26 we can see a potential difference of about $0.40). If gender had been significant, females would have been expected to pay an average of $0.03 less than males. As previously described (Figure 1), we find a significant effect of the status feature condition, adding a further $0.20 to expected payments.

Table 4 Intercept-as-outcome model with potential level-2 predictors (Model 2)

Variable	Coefficient	Std. Error	P-value *
Intercept	-0.55	.55	.314
- Age	**0.05**	**.03**	**.050**
- Gender	-0.03	.07	.674
- Status	**0.20**	**.10**	**.041**
- Payment display	0.09	.10	.367
- Status + payment display	0.10	.10	.316
90% to artist	0.15	.03	<.001
45% site+label, 50% charity	0.33	.04	<.001
45% artist, 50% charity	0.46	.04	<.001
Artist is struggling	0.08	.04	.055
Reference price is $2.24	0.32	.03	<.001

For Model 3, we look for all potential interactions of age and gender in an intercept-and-slope-as-outcomes model. We find that age interacts with the slope of the advantage obtained when the artist is struggling (Table 5), suggesting that respondents favor struggling artists even more as they get older, at a rate of $0.07 per year. Age is a significant predictor of the slope of the effect of artist power. This

situation is depicted in Figure 4 (Model 4 estimation). Further, this effect takes away the effect of age on the intercept, i.e., age mediate the effect between artist power and willingness to pay.

Table 5: Intercept-and-slopes-as-outcomes model with age and gender as predictors (Model 3)

Variable	Coefficient	Std. Error	P-value *
Intercept	0.03	.64	.964
- Age	0.02	.03	.440
- Gender	-0.04	.08	.674
- Status	**0.20**	**.10**	**.041**
- Payment display	0.09	.10	.367
- Status + payment display	0.10	.10	.316
90% to artist	-0.47	.52	.367
- Age	0.03	.03	.223
- Gender	-0.01	.07	.902
45% site+label, 50% charity	-0.06	.62	.925
- Age	0.02	.03	.528
- Gender	0.01	.08	.922
45% artist, 50% charity	-0.48	.63	.448
- Age	0.05	.03	.130
- Gender	-0.00	.08	.980
Artist is struggling	-1.27	.63	.043
- Age	**0.07**	**.03**	**.029**
- Gender	-0.02	.08	.832
Reference price is $2.24	-0.05	.43	.909
- Age	0.02	.02	.433
- Gender	0.07	.06	.197

We further explore the slopes with the different contexts, in a manner similar to what was done for Model 3 (all three social media contexts are entered as predictors of the slopes of all of the level-1 variables). We find a significant effect of the "status + payment display" context on the level-1 variables for the reference price. Specifically, we find that the status feature adds about $0.11 and the price display feature adds about $0.10 to the average advantage of the higher reference price, but only the "status + payment display" condition is significant, with a $0.16 advantage (over the baseline which describes the context without the reputation-building features).

As a final model (Model 4), we retain only the significant relationships. Doing so implies that the effect of age is solely on the slope of whether or not the artist is struggling. Further, in line with results in

the previous section, the level-1 variable representing the distribution of revenues where 90% goes to the artist is no longer significant and so is dropped. For the final model (Model 4), we present results from the homogeneous level-1 variance analysis, which require fewer parameters (

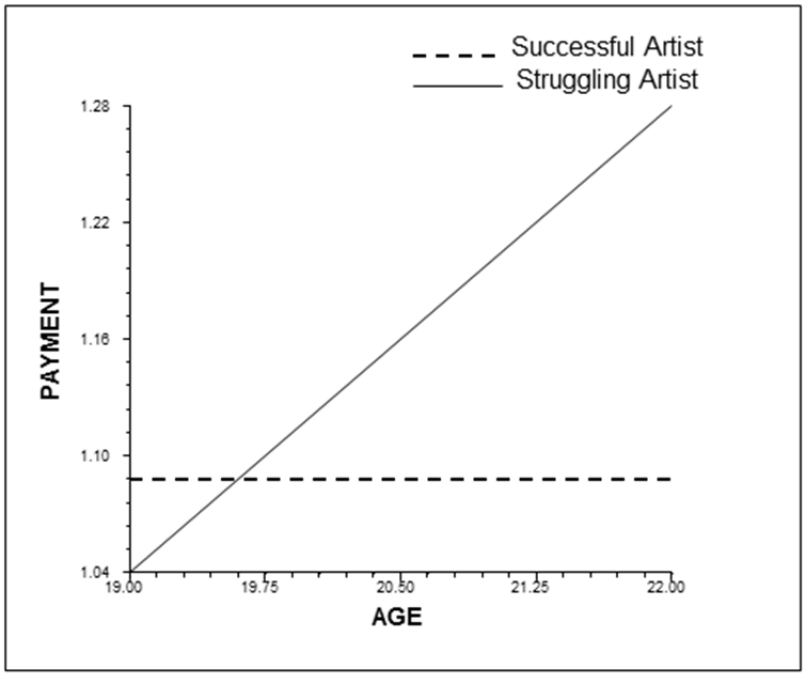
Table 6). Results are similar in the unrestricted analysis. Results show that age is a significant predictor of the slope of the effect of artist power and that the status + payment display significantly interacts with the advantage of a higher reference price.

Table 6 Intercept-and-slopes-as-outcomes model with age and social media contexts as predictors of the slopes (Model 4)

Variable	Coefficient	Std. Error	P-value *
Intercept	0.76	.05	<.001
- Status feature	**0.22**	**.10**	**.027**
45% site+label, 50% charity	0.26	.04	<.001
45% artist, 50% charity	0.40	.04	<.001
Artist is struggling	-1.67	.45	<.001
- Age	**0.08**	**.02**	**<.001**
Reference price is $2.24	0.21	.04	<.001
- Status+Payment display	**0.15**	**.07**	**.024**

Figure 4 presents the relationship between age and the artist power estimated from this final analysis, showing that struggling artists are increasingly favored as respondents get older. Younger respondents are shown to prefer successful artists. The graph depicts respondents between the 10^{th} and 90^{th} percentile of age.

Figure 4 Estimated relationship between age and artist power



Overall, our results support the idea of the creation of greater shared value through the implementation of a shared social responsibility in a PWYW model. In addition, we find that status as a mechanism for reputation building also increases shared value. Though reference price and payment display did not increase the value created. Our results are summarized inTable 7.

Table 7 Summary of Results

Hypotheses:	Method:	Result:
H1a: A greater share of revenue to the artist will increase the amount of shared value generated.	Conjoint	Mixed: Results are split based on the presence of a charity or not. - With charity, a greater share of revenues to the artist significantly increases the amount of shared value - without charity the increase is significant in model 1 and 2, but not in our model (3) or the final model (4).
H1b: A share of revenue to charity will increase the amount of shared value generated.	Conjoint	Supported
H2a: Information transparency about the price paid by others will increase the amount of shared value generated.	Conjoint	Not Supported
H2b: Inclusion of a status-building feature will increase the amount of shared value generated.	HMLM	Supported
H2c: Display of consumers' payment history will increase the amount of shared value generated.	HMLM	Not supported
H3: Low power artists, compared to high power artists, will increase the amount of shared value generated.	Conjoint	Not supported, but interaction with age was identified: -We find that younger participants do not generally share more value with "struggling" artists. As they get older, participants increase the amount of shared value generated, as long as they are contributing to struggling artists.

Discussion

Results were somewhat surprising with regards to our hypotheses. Indeed, whereas H1b is fully supported by a massive increase of shared value under shared social responsibility, we had mixed results for H1a. A greater share of revenues to the artist significantly increases the amount of shared value within the shared social responsibility conditions, but without charity this increase was not significant in the Model 4 (although it was in the first multilevel model). Therefore, we can conclude that H1a is a smaller effect

than H1b. Further, it should be noted that the increase in the amount of shared value generated by the social responsibility approach is not impacted by the social media contexts, or the age or gender of the study participants. The altruistic motive provided by the shared social responsibility thus appears to be fundamental.

Perhaps more surprisingly, H2b is supported but H2a and H2c are not. Indeed, the inclusion of a status feature is shown to increase per-song payments by about $0.21, but the inclusion of the payment display does not. Additionally, the information transparency about the price paid by others (H2a) does not increase the amount of shared value generated. Having this information as a reference price does not significantly improve on the baseline, and its combination with the status-building feature takes away the effect of status found in H2b. To illuminate this finding, Model 4 finds that the combination of information transparency and the status-building feature influences our participants' decision making process. Indeed, we find that the effect of the higher reference price is larger in the "combination" social media context. So the status feature significantly increases the amount of shared value generated, but its combination with a price transparency mechanism drives participants to be more influenced by the payment behavior of others.

In the case of H3, we find an unsuspected interactive age effect. We find that younger participants do not generally share more value with "struggling" artists. However, as they get older, participants increase the amount of shared value generated at a rate of about $0.08 per extra year (within the range of 18-26), as long as they are contributing to struggling artists. Here, the use of multilevel modeling provides a complete mediation of the effect of age on the amount of shared value generally contributed (these effects might have been reported as two separate effects with regular ANOVA analyses).

Age effects are inherently difficult to explain, because of the confounding influence of both developmental and contextual factors. For developmental explanations, it could be argued that 'maturity' develops rapidly within this age range (18 to 26), and the increase in maturity should be expected to replace egoistic motivations with the more altruistic motives necessary to obtain an increasing support for struggling artists. Similarly, participants were born between 1985 and 1993, and events such as the

introduction of the iPod line by Apple (2001) or the launch of Napster (1999) mean that the younger participants literally grew up with digital music and file sharing, whereas the older ones could have been more exposed to other vehicles (CDs and CD players). Whereas a general increase in the amount of shared value generated might have been supported by both the developmental and contextual explanations, we believe that the interactive effect with "struggling" artists appears to be more in line with a developmental explanation (to be illuminated by further research).

Implications

Our study provides an important contribution to the literature as well as relevant implications for the music industry. For online music providers as well as the artists operating in the current music environment, it provides an important step towards understanding what drives consumers to pay for music, a good that is easily available for free. In this work, we examine a coherent and viable mechanism that organizations can implement to operate viably in lieu of the current challenging business environment. Prior research had examined the role of shared social responsibility in increasing willingness to pay (Gneezy et al. 2010) as well as the impact of social influence on consumer decision-making (Salganik et al. 2006) and willingness to pay (Bapna and Umyarov 2011, Regner and Barria 2009). Our paper extends this work by developing a model that suggests a greater transformation in the online music business through the adoption of the shared value and shared social responsibility approaches.

Our results show that we can almost double the amount of value created in the music industry. In doing so, however, we suggest a redistribution of revenues which sees much less of the proceeds going to the business side. Indeed, the shared social responsibility approach replaces corporate social responsibility and involves leaving the business vulnerable to its customers. As Gneezy et al. (2010) argue, however, this vulnerability sends a clear signal to the consumer that the business has a positive altruistic intent in sharing the proceeds with a charitable organization. Within the music industry, there have already been calls for a redistribution of revenues, with more of the money going to artists (and less going to music

providers including labels and retailers). By sharing revenues with charity and artists, our results suggest that the music industry could generate more value, which would be shared between providers, artists and society (charity).

(Porter and Kramer 2011) suggest that focusing on shared value will "give rise to the next major transformation of business thinking" (p. 64). Their conception of shared value, which we used in this study, involves "creating economic value in a way that also creates value for society by addressing its needs and challenges" (p. 64, emphasis is original). Our results support the idea that the shared social responsibility business model favors addressing the needs of society—with large amounts of value being created in support of charity, as well as the support of "struggling" artists. With a new distribution of revenues and a tendency to favor new, emerging (possibly struggling) artists, as well as charitable organizations, the business involved in the distribution of music through shared social responsibility would take on a portion of the load typically associated with government. In the case of a for-profit organization wanting to use of our most shared-value-generating solution, it would keep 5% of higher proceeds, but would need to generate about eight times more sales than if it used a system more consistent with current music industry practices (to achieve similar revenues).

Social media features were involved in the maximization of the shared value generated for the music industry. A reputation-building feature can add value generally. Reputation—through status building—and information about prices paid by others, when combined, was shown to influence decision making, increasing the value obtained for higher reference prices indicated for songs. This leads us to conclude that the effect of social influence on potential customers might be to mimic the behavior of others, an observation which held for the 8 different worlds generated by Salganik et al. (2006). Along with the vulnerability of the pay-what-you-want system, it appears that this business model is also liable to the behavior of initial customers. If the first customers established a low reference price, this level might sustain itself.

Limitations and future research

The use of an orthogonal design in conjoint analysis constrains our analysis to evaluating only main effects. By using multilevel modeling, we accommodate cross-level interactions between the conjoint analysis factors and the social media contexts. However, we could not accommodate interactions between the factors themselves, such as the situation where a particular distribution of revenues could interact with a particular artist power. That is, it remains entirely possible that having 90% of revenues go to a struggling artist generates more shared value than if it goes to successful artists. This distinction could be used in further illuminating participants' motivations, with regards to altruism (pro-social behavior) or moral attitudes.

Similarly, the use of a static design cannot allow us to comment on the probability of visiting the site, the frequency of payments or the quantity of music consumed. Generally, the prices we obtained from participants might index their general motivation to pay, thereby correlating with frequency or probability of payment. Future research should allow a dynamic setting to study reference price effects and social influence, as well as repeat business patterns. Using it as a critique, Cleveland (2010) argues that the shared social responsibility approach can be construed as a way of manipulating customers to consume more. With music as a digital good, however, the industry would encourage widespread altruistic behavior without increasing physical consumption, an important goal suggested by Cleveland (2010).

A dynamic setting could also allow more variation in artist power and reference prices. Our analysis was restricted to two levels for artists' success—struggling and successful—whereas the reality allows all points in between. Similarly, while the reference prices were set at the fair, relatively low price of $0.76 and the relatively high price of $2.24 additional levels could bring more insights into the role of a reference price with regards to a pay-what-you-want pricing scheme in the music industry. Other distribution of revenues could also have been used, or we could have allowed respondents to set their own optimal distribution of revenues. We never named any charitable organization: future research could also address whether charity selection can make a difference.

Conclusion

Addressing the challenges faced by the music industry requires an important transformation in the way organizations within the industry approach selling their product. Incorporating the principles of shared value and shared social responsibility into the organizations' strategies may enable players in the online music industry to go through this transformation and provide a solution to the problem of "free" currently faced.

In the end, social media can support an industry-wide change for the music industry. Our solution, in truth, is a losing proposition for current industry leaders. However, in a new wave of business thinking which would elevate the concept of shared value, it shows how to create twice as much shared value than the current reality in the music industry. As a large-scale prisoner's dilemma, it offers individual customers with altruistic motives the opportunity to obtain more benefits for society, while egoistic customers can "rob the store blind" and get away with it. As grim a prospect as the latter may be, the music industry could still gain from the proper accounting of music downloads. Further, the organization player in the game could gain from keeping a larger portion of revenues. The shared social responsibility and shared value presented here could be profitable if waves of customers migrate away from file-sharing. Similarly, the prisoner's dilemma reduces in complexity if the business player is a non-profit organization. Our research suggests that shared value may work if it creates widespread altruistic behavior; if file-sharing continues to change the music industry, all actors may lose out to "free music".

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