

The preference for Music as a Service as opposed to Download to Own

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Preface

This thesis is the concluding assignment of my study Master of Marketing at the Vrije Universiteit Amsterdam. It is the product of lots of reading, a few moment of inspiration, and most of all *hard labor*. It took over three months from start - first draft - to finish, the final document. The work has produced over hundred pages of paper, of which I hope a few are noteworthy, some new insight in my determination, and a steep learning curve in terms of research.

I would like to thank a few people that have proven to be a great support over time.

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Abstract

In the past ten years, music consumption has witnessed a dramatic shift from the predominant consumption of music via physical music carriers, toward a consumption pattern that excludes the employment of a music carrier. This form of consumption has been called Download to Own (DtO). In recent years, a third variety of music consumption has emerged in the form of streaming music without having to download the songs. This form of music consumption has been called Music as a Service (MaaS); it provides music streaming as a service without transferring the ownership for the content. Users of these services consume such music without transferring any content for storage on their devices.

The purpose of this research is to effect a clear understanding of the relationship between personal traits of users and their preference for music consumption through either MaaS or DtO modes. The research question is stated as follows: *What personal traits determine the preference for MaaS versus DtO?*

We have hypothesized six reasons that could influence the choices music consumers make, we theorized that certain people traits guide music consumers in their preference for MaaS over DtO, or vice versa. These personal traits are *Music Involvement*, *Need for Ownership*, *Extended Self*, *Curatorship*, *Connectedness* and finally we consider *Age* and *Gender* as influences.

Through an online questionnaire we measured these hypotheses. In total 411 respondents were included in the analysis. The hypothesis *Connectedness* and *Curatorship* showed a significant influence on the preference for DtO or MaaS. The other hypotheses were rejected. Three additional questions at the end of the survey were used to discover other personal motives for why respondents used DtO or MaaS. MaaS users have a preference for this music service

because of *Abundance of Choice*, *Ease of Use* and *Price*. DtO users regard *Ownership* as the main reason for preference, followed by *Ease of Use* and *Offline Use*.

Respondents indicate no expected change in music consumption behavior. The managerial implication for artists, content owners and intermediaries who distribute the music, is that users of DtO and MaaS services are satisfied with their current practice and the service performance of their providers of music products. This could be a sign of a two-tier non tangible music consumption pattern that will remain steady for the coming period. Based on these findings, all parties involved could adjust their strategies accordingly.

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1. Introduction

In February 2012, the New York Times reported¹:

“Three musical touchstones that have probably never been associated with President Obama are country, “raw choral pop” and REO Speedwagon. Yet those are three of the revelations of a Spotify playlist created by the president’s campaign staff, released via a Twitter message Thursday morning. As Mr. Obama heads toward a re-election campaign, those songs, along with others by Electric Light Orchestra (“Mr. Blue Sky”) and Raphael Saadiq (“Keep Marchin’”), convey themes of persistence, patience and a light at the end of the tunnel”.

The metaphor, “a light at the end of the tunnel” is not only befitting President Obama, but also valid to the music industry, that after ten years of steady sales decline, now sees a rise in annual sales because of a new emerging pattern in music consumption. Music streaming services such as Spotify and download-to-own platforms like iTunes are becoming the preferred ways of consuming music. Although the music sounds the same – regardless of the mode of consumption -- music aficionados seem to have a strong preference for either streaming or downloading.

This thesis tries to identify what personal traits determines this mode of preference, and by doing so hopes to contribute to a better managerial understanding of music consumer behavior in the digital era thereby contributing, in turn, to the expanding body of knowledge on music consumption.

¹ <http://mediadecoder.blogs.nytimes.com/2012/02/09/the-obama-spotify-playlist-a-little-bit-country-a-little-bit-indie-plus-reo-speedwagon/>

1.1. Problem Description

In the past 10 years, music consumption has witnessed a dramatic shift from the predominant consumption of music via physical music carriers toward a consumption pattern that excludes the employment of a music carrier (IFPI, 2012). This form of consumption has been called Download to Own (DtO) (Doerr, Benlian, Vetter, & Hess, 2010). As a result, download platforms like iTunes have become the largest distributors of music (IFPI, 2012). In recent years, a third variety of music consumption has emerged in the form of streaming music without having to download the songs. This form of music consumption has been called Music as a Service (MaaS); it provides music streaming as a service without transferring the ownership for the content.

Users of these services consume such music without transferring any content for storage on their devices, which is also called the *uno acto* principle.

1.2. Streaming Music

Streaming has quickly gained a firm foothold in the music consumption niche. From a content ownership perspective, paid DtO music consumption generates more revenues (see Appendix VIII, Artist revenue estimates per music carrier), but there is a clearly perceptible shift towards MaaS. According to Mark Mulligan (2012a), 32 percent of consumers across the globe are now using streaming services. In a sense, streaming services are a 21st century usage example of music consumption. In some territories, streaming income is becoming the dominant form of revenue. In Sweden, for example, 89 percent of all digital revenue comes from streaming (GLF, 2012). The streaming mode has not been uniformly adopted, across the globe; Norway and Sweden are respectively the 1st and 3rd most active streaming markets, globally. In the US,

because of early streaming companies, such as Pandora and Rhapsody, streaming has a longer history than in most other markets. However, the US market remains outside the top ten of streaming markets, with its streaming penetration of 32 percent. This is largely due to the strongly established paid download market (Mulligan, 2012a). According to a recent study by Ministerie van Economische Zaken, Landbouw en Innovatie (2012), the Dutch market is lagging behind, in terms of digital music consumption. The researchers measured music consumption through either DtO or MaaS, and concluded that only 50 percent of respondents used either of these services.

A large number of streaming music services have appeared, recently, and these services come in many forms. Some function in a manner similar to radio stations, while others deliver on-demand streams, analogous to old jukeboxes. Recently, with the introduction of iTunes *Match*, Amazon *Cloud* and Google *Music* (Kushida, Murray, & Zysman, 2011), some services serve to stream your own acquired music back to you from the cloud (Greenwood, 2010). As a result, many companies are investing in these cloud music services; their interest can be attributed to the tremendous monetization possibilities that streams offer (J. Anderson, 2011).

MaaS can be separated into two groups: live streams (which are only available at specific times) and on-demand streams (which allow individual consumers to choose music to listen to at any time and place). This makes each on-demand stream essentially exclusive to the listener. These music streams are, in essence, transient: after the music is passed on to a consumer, the audio vanishes; in other words, there is no local storage medium. In this sense, Anderson (2011) compares on-demand digital music streams to mechanical musical instruments. He describes this difference akin to that between hearing a pianist playing a song (on-demand stream) and possessing a recording of the pianist performing the song. If the music consumer owns the piano,

it is similar to Amazon *Cloud*, iTunes *Match* or Google *Music*. If another person owns the piano, it is similar to Spotify, Deezer, Rdio or Rara Music. If a listener cannot choose which piano roll to listen to, it is similar to Pandora or Last FM.

A key feature of most MaaS services is the ability to create and share playlists. A playlist is a group of songs, often in a specific order, meant to be listened to together, or otherwise consumed as a group. Boer et al (2011) argue that a person's music preferences represent a value-expressive attitude that helps create social bonds via expressed value similarity. Spotify and other MaaS has built-in capabilities that allow this creation and sharing of playlists. Many MaaS platforms emphasize this sharing capability, as a key feature, and Spotify, with its integration into Facebook, lays particular emphasis on this attribute (Stanford-University, 2012). This sharing feature is particularly appealing as it is a characteristic missing from most DtO listening methods.

Within the MaaS domain, Spotify has become the dominant player. Spotify uses the “freemium” model (C. Anderson, 2009) a term that refers to a combination of an ad-funded free-access model and a premium subscription model. Spotify is not the only player, as new initiatives are emerging from various parties². Currently, there are over 20 on-demand music streaming services available (see Appendix VI, Available music streaming services and Appendix VII, Music Streaming Services in the Netherlands) and numerous music cloud storage services, such as Google Music, and iTunes Match. The reason for Spotify's success is not its vast music catalogue on offer, or its relationship with the right owners. Wikstrom (2010) sees the real reason for Spotify's success, as the ease of use of its features and structure. He claims that Spotify's competitive advantage lies

² <http://www.futureofcopyright.com/home/blog-post/2011/10/30/dutch-provider-ziggo-to-launch-own-streaming-music-service.html>

in context rather than content. According to Wikstrom, the music consumer's main concern is not access to content but how to manipulate the music available in the cloud.

1.3. Music Downloads

Download to Own is a concept related to downloading music to a computer by using a broadband Internet connection. DtO music has the advantage that one can listen to downloaded content without having to rely on the use of music carriers such as CDs. Ten years after the first online stores emerged, the music download sector continues to expand. Download stores account for a large proportion of digital revenue, and the 500 legal services, worldwide, are estimated to hold up to 20 million tracks, in their databanks. Many major markets are still seeing an expansion of single track download sales. In 2011, the U.S. market reported an increase of ten percent (Nielsen SoundScan) while the U.K. market grew by eight percent, during that period. iTunes, the market leader, is growing at a particularly steady rate. However, despite this growth in DtO music, the music industry has, on balance, lost revenue over the years (IFPI, 2012). With the introduction of online stores, such as iTunes, music is now sold in the form of individual tracks, as opposed to albums of a dozen or so songs. Elberse (2010) investigated this phenomenon of unbundling of music and concluded that revenues tend to decrease significantly as digital downloading becomes more widespread.

Despite this imbalance, the music industry has few other options, as previous technologies have become obsolete. According to Knopper (2009) the only winner in this technological shift has been Apple; pricing songs low on iTunes doesn't boost record-company profits but it does help Apple sell more iPods.

In contrast to “music like water” models, a phrase used by Kusek and Leonard (2007) to describe the MaaS model, DtO is the current, or established, digital music consumption model (Wikstrom, 2010). The International Federation of the Phonographic Industry (IFPI, 2012) has estimated the number of legal download platforms as exceeding 500. Nonetheless, iTunes is the dominant player in the DtO section of the market. A user can purchase and manage audio and video within the iTunes application. iTunes is required to order and manage audio files on iPods and other portable devices from Apple. If users choose, they can organize their music into playlists and share these over multiple devices. The iTunes store offers the possibility of sharing playlists via Ping, a built-in service, but thus far this service has not been successful and Apple is considering the discontinuation of Ping because of its lack of success.³

Apart from legal download stores, a wide variety of alternative peer-to-peer networks make file swapping possible. According to Berlatsky (2012); Waldfogel (2010), the availability of a la carte songs through an appealing interface such as iTunes does not reduce the level of file sharing. Waldfogel’s research reveals that even in the iTunes era, file sharing continues to enjoy popularity among a connected population. According to Waldfogel, students’ libraries usually include more “stolen” than purchased songs.

1.4. Ownership Versus Access

One would be led to believe that DtO is an outmoded heritage of the analog era. Based on technological evolution, one could argue that it is so. On the other hand, adaptation of new technologies takes time and the pace may vary, based on demographics and culture (DeLone & McLean, 1992). As discussed, Northern Europe has emerged as the front runners in streaming

³ http://www.macworld.com/article/1167045/ping_what_went_wrong.html

music, while Southern Europe is following in a much slower pace. Mulligan (2012a) argues that countries, such as Spain, which witness a high penetration of illegal downloads, will be much slower in adapting alternative modes of music consumption.

Mulligan (2012b) isolates two key dynamics that determine the speed of the shift from ownership to access: technological-led change and generational-led change. Arguably, the latter is the slowest moving, but may give the impression of being quicker than it actually is. Much of the attention (Weda et al., 2012) focuses on the relatively small subset of the total population; these ten to twenty percent of consumers are not representative of the total music consumer base.

But the early stage of new technology adaptation is nearly always driven by young male-skewed audiences. Marc Prensky coined the term “digital native” (2001), referring to a person who was born during or after the general introduction of digital technologies and has been interacting with digital technology from an early age. Mulligan (2012b) argues that these consumers have grown up in the digital age without having learned the habit of buying physical media. He expects them to have an entirely different idea about ownership and he sees them as the front runners of the shift towards MaaS based models. In combination with their current expected status of being cash poor, they are opting for free music choices, such as YouTube, Pandora, and Spotify. When they start to acquire increased spending power he expects them to start to be a dynamic force in the adoption of paid access-based services. This notion is supported by data that shows a peak usage of streaming services primarily by 16 to 34 year olds. The average usage of streaming music is 32 percent among males (29 percent among females); the peak usage of 47 percent is among 16-24 year olds, reducing to 39 percent for the 25-34 age group (Mulligan, 2012a). Meanwhile, the majority of the total population, comprising the digital hold outs, remains more

or less loyal to ownership. In their world view, one buys music and owns it, or you listen to it on the radio or TV (Weda et al., 2012).

These are technological changes that support Spotify's conversion of 2.5 million paying customers⁴. It is also technological change that made it possible for Pandora to have over a 100 million users (Grossman, 2010). Better technology and better connectivity, including, among others, WI-FI and 3G availability, are rendering the restriction of access-based services less noticeable.

From a technological perspective DtO and MaaS have various pros and cons. Mulligan compares the cost and availability of access and ownership and concludes that DtO holds a few advantages over MaaS.

Pay once: MaaS subscription fees are hidden or premium, users know that access to content ends when the subscription does; by contrast, DtO consumers know that they have guaranteed lifetime ownership of product.

Play on anything: Subscription services are primarily available via smartphone apps, but non-smartphone users have reduced access as do non-paying streaming users. MP3, the common currency of digital music, can be played on virtually every connected device consumers have and thus ownership gives a greater chance of device ubiquity.

Play anywhere: consumers can take their MP3 playing devices with them to most places and not have to worry about network connectivity. Access users still have to rely on network connectivity and may bear the costs of over usage of networks.

⁴ <http://www.spotify.com/nl/blog/archives/2011/11/23/spotify-reaches-two-and-a-half-million-paying-subscribers/>

Play everything: download stores and CD stores have vast catalogues, but access is metered. To fill ones iPod with paid downloads could cost thousands of Euros. Subscription music usually costs less than €10 a month. Unlimited access to a vast catalogue is among the most appealing features of MaaS.

Play with everyone: Ownership of music does not mean unlimited distribution of music (Koedooder, 2009). Music sharing among friends involves making or lending individual copies. Copyright holders do strongly object to this practice and enforce penalties (Hong, 2011). This is because streaming services, playlists, and the allowance of APIs and Facebook integration, combine to place social interaction at the nucleus of the streaming experience (Bauer, Jansen, & Cirimele, 2011). Mulligan (2012b) concludes that ownership and access will co-exist for years to come.

In sum, consumers have an abundance of options to choose from in terms of which service to download or stream from. However, it remains unclear as to what criteria they use for selecting a predominately DtO or MaaS music consumption mode.

1.5. Research question

Despite the different techniques and software programs that need to be used, employment of MaaS or DtO is not an either/or situation. Young music consumers in particular employ a hybrid consumption pattern; sometimes they buy physical music carriers, at times they own music through downloading and at still other times they stream content to their music interfaces (Cockrill, Sullivan, & Norbury, 2011). Ownership, in this context, implies that they have downloaded the music and stored it on their devices; it does not necessarily mean that they have paid for said content (Chen, Shang, & Lin, 2008).

The purpose of this research is to effect a clear understanding of the relationship between personal traits and the preference for music consumption through either MaaS or DtO modes. Do these relationships exist, and if so, which personal behavior characteristics correlate most with the choice of music consumption? Thus, our research question is stated as follows:

What personal traits determine the preference for MaaS versus DtO?

In regard to this, we subdivide this central problem into three more specific sub questions:

- *What types of Music Involvement can we define?*
- *What determines a consumer's predominant preference for MaaS music consumption?*
- *What determines a consumer's predominant preference for DtO music consumption?*

In the following chapters, we will unravel these subjects, put them into a theoretical framework and add new data while aiming to reduce the knowledge deficiency in this area.

1.6. Delimitations

DtO is interpreted as downloading music from the Internet to an owned device. This also includes illegal downloads. There may be a behavioral difference between the two groups, comprising those paying for downloads and those not paying for downloads (Chen et al., 2008).

This research was conducted in the Netherlands. The music consumption patterns in this country may differ from other neighboring countries; therefore, this research will only have direct meaning for the Dutch music market (NVPI, 2012) (IFPI, 2012).

We will measure *Music Involvement* using *Music Involvement* scales, and not by employing WTP measurements, as suggested by Doerr et al (2010).

Internet streaming services such as Last.fm, Pandora, iTunes *radio* or Spotify *radio* will not be considered as MaaS services and nor will internet radio (web radio, net radio, streaming radio, e-radio webcasting). Also, podcasting will be left out of categorization as MaaS music consumption (Kozamernik, 2005).

1.7. Relevance

1.7.1. Theoretical Contribution

Although a vast amount of literature has been written on consumer preferences for music products and music tastes, only a small percentage of studies have focused on the correlation between *Music Involvement* and preference for music carrier. In that respect, this study makes several theoretical contributions.

Doer et al (2010) have documented the WTP for Music as a Service and Music as a Download, and this new research contributes to the existing theories by establishing a link between consumer *Music Involvement* and the choice of music carrier. Prior research by Styven (2007) established the correlation between the level of *Music Involvement* and the choice of music carrier, but this new research tries to establish a relationship between personal traits and preference for DtO or MaaS. No prior research has provided this insight.

Music possessions and *Extended Self*, a construct researched in great detail by Belk (1988), has been documented by Hirschman and Holbrook (1982), but this current research tries to look beyond the boundaries of physical products and takes the construct of possessions into the realm of digital products and beyond; it takes it into the context of streaming music without ownership of content by the user. It tries to establish the connection between feelings of *Extended Self* for

products that only have a virtual ownership with the user. No prior research has focused on these relationships and established any such links.

Andersen and Frenz (2010) have measured correlations between DtO and purchases at the micro level, this study provides insight in the reasons why music consumers, within the current choice set, prefer DtO over MaaS or vice versa. In addition it creates a perspective of intentions users of both music consumption platforms have on future music consumption plans.

Reb and Connolly (2007) have examined the distinction between factual and subjective feelings of ownership. The need for possessions and psychological ownership can provoke affective reactions, as demonstrated by Shu and Peck (2009). The current research seeks to add to the current body of knowledge by establishing a correlation between people with a higher need for possessions and their preference for DtO music consumption.

Boer et al (2011) have argued that a person's music preferences represent a value-expressive attitude that helps to create social bonds through expressed value similarity. More recently, designers, disc jockeys, club promoters and bloggers have viewed curate as code for "I have a discerning eye and great taste" (Williams, 2009). This research tries to establish – for the first time – the relationship between music consumers with a high perceived level of *Curatorship* and their preference for MaaS over DtO.

Harrington and Bielby (2010) described the link between fans - "someone who interacts with a community of people with similar interests and who creates new products derivative of the primary narrative" - and artists or band. The *Connectedness* to any single artist and the preference for DtO music consumption is with this study, subject of research for the first time.

Some research (Favaro & Frateschi, 2007) has shown that gender differences influence the consumption of popular music. Makkonen (2011) examined the effects of gender, age, and income on the WTP for music downloads. Prior to this current study, no research has established correlations between gender or age and the preference of either DtO or MaaS music consumption.

1.7.2. Managerial Contribution

From a managerial perspective, the composite of this study has practical implications that may shed light on the strategies that artists and their representatives might need to adopt in order to keep their business models viable. No other research has tried to establish this relationship, and if the trend towards MaaS music carriers is not disrupted, artists and their agents might need to change their attitude towards music streaming.

A significant research contribution is the increased managerial awareness of the shift towards music as a service. Not only is this change likely to have monetary consequences for the parties involved, but it could also lead towards a different relationship between listeners and performing artists. An apparent change in business models has seen artists more and more reliant on these secondary streams of income, even as their revenue from recorded music has decreased steadily (Williamson & Cloonan, 2007). The industry's dominant logic considers music consumption through streaming (MaaS) to be a loosely explorative attitude towards the artist rather than a strong predictor of *Music Involvement*. With the unremitting decrease in CD sales and the continuous rise of digital downloads, the question that begs answering is whether digital ownership of music carriers (DtO) can still function as a predictor of *Music Involvement*, or

whether streaming music (MaaS) can also be seen as an indicator of artist-listener connections (Cockrill et al., 2011).

Technology and economics are double-edged swords; progress in technology creates easier access to the masses, but simultaneously, it may also dilute the intensity of the relationships between artists and listeners.

This research will contribute to a better understanding of the influence that the choice of music carrier will have on the dynamics of the listening experience. The research outcome will give management, artists and all relevant parties in the music industry the opportunity to adjust their current business approaches accordingly.

While this industry is a complex system of many agents, all acting independently, all of these would be affected by the changes the research describes. Among the many individuals and organizations are the musicians who compose and perform the music.

Their artistic work is marketed and distributed by companies and professionals, including retail and online music stores (Passman, 2008). Despite the changes already witnessed in infrastructure and music distribution, the majority of participants in the music industry continue to fulfill their traditional roles. The change in choice of music carriers will have a significant impact on all stakeholders, in the industry. Therefore, it is essential to understand how these implications will impact on the relevant players and thus provide these agents with the justification needed to change their current business practices.

1.8. Structure of the Thesis

After the introduction and background, in chapter two, we aim to explore theoretically seven factors that may influence the preference for either DtO or MaaS. Chapter three describes the methodology used for this research, and the results are presented, in chapter four. In chapter five, we close with discussion and conclusions.

2. Theoretical Framework

We will hypothesize as to what inspires a dominant preference for DtO over MaaS music consumption, while using existing literature. Six hypotheses will be formulated and a conceptual model will be presented.

2.1. Music Choice Decisions

Music is an information-based product, which, in its core, may be considered a public good (Hougaard & Tvede, 2010), with the characteristics of non-rivalry: sharing with others does not reduce the consumption utility of the product. When music was still primarily distributed as physical products, such as LPs, music-cassettes, eight-track, or CDs, consumers could do little other than select from the various available formats and/or choose from different retail outlets. These products had the characteristics of a private good with the economic behavior of a rival good. Right holders could create an artificial supply deficit and, by doing so, control the distribution, and uphold the consumer price. The current music choice set is vast and expanding. The celestial jukebox (Auslander, 2001) is now at every consumer's disposal. Many researchers have hypothesized over this new abundance of music choices, with some focusing on the technical aspects of the new possibilities (Goldmann & Kreitz, 2011; Kreitz & Niemela, 2010), others focusing mainly on investigating the legal aspects of it (Rochelandet & Le Guel, 2005), and still others concentrating on the business aspects of the age of abundance (Greenwood, 2010) (Williamson & Cloonan, 2007) (Warr & Goode, 2011). Only a few (Jeong & Lee, 2010) (Coyle, Gould, Gupta, & Gupta, 2009) have focused on the reasons of how and why the consumer will choose his/ her preferred music delivery systems. Some have established a correlation between *Music Involvement* and need for tangible music carriers focused on the meaning of owning and

possessing (Feinberg, 2012). This current research considers the perspective of the music consumer and tries to discover the reasons music consumers have to prefer one music delivery system over another.

We have hypothesized six reasons that could influence the choices music consumers make. In the process of formulating these hypotheses, and prior to this research, we have had panel discussions with students. The purpose was to explore and identify preferences of music consumption either through DtO or MaaS modes, and their underlying motives. Based on these findings, and on prior research, we theorized that there are certain people traits that guide music consumers in their preference for MaaS over DtO, or vice versa.

The first behavioral reason we have hypothesized is the level of *Music Involvement*, the level up to which the consumer is actively involved in music consumption. Involvement is an apparent trait that may lead to passionate music consumption. Earlier research by Pucely (1988) showed that enduring *Music Involvement* was positively associated with the time an individual spends listening to music.

We have then theorized the *Need for Ownership* -- to have and to hold the music consumed in one's possession. Previously, Styven (2010) provided evidence of a positive relationship between *Need for Ownership* and subjective knowledge about music.

We also assume that some consumers regard their music collection as an extension of themselves. Many scholars (R. W. Belk, 1988) have already explicated that the goods we own have an explanatory manifestation of the self and help to define and maintain the self-concept of its owner. We presume a correlation of *Extended Self* and preference for DtO or MaaS.

Also, the level of knowledge about music or the reverse -- the need to be guided in the choice of music -- is hypothesized. Earlier, McCourt (2005) concluded that the disappearance of physical musical goods intensifies the transition from a world of cultural goods to cultural services. The result is that ‘value’ is not an intrinsic character of the product, but, instead, is the way it reaches the consumer.

The level of fandom and *Connectedness* to certain artists is assumed to correlate with the choices we make when we consume music. Some scholars believe (Casero, 2010) that “fan mentality” is eroding because of the lack of physical nature of the current musical media.

And finally, we look at age and gender as possible predictors of the preference for MaaS or DtO. In the following paragraphs, these concepts are further explained and tested later, in a consumer setting.

2.2. *Music Involvement*

A few studies have explored the relationship between music purchasing and *Music Involvement*. In general, the involvement in a product can be defined as the level of personal importance the user places on that product (Hightower Jr, Brady, & Baker, 2002). In the case of hedonic consumption, such as that of music products, involvement explains the personal importance of a product or service, which is sometimes referred to as the power of the preexisting relationship between a consumer and a product or brand or in the case of music, the power of the consumer’s relationship with the artist. This involvement is based on past experiences with the product and is stored in memory (Hirschman & Holbrook, 1982).

Various studies have demonstrated this link between *Music Involvement* and music consumption behavior. North and Oishi (2006) found a positive correlation between the need to control and be

involved with music, and the number of CDs owned. The authors suggest that consumers with a high need to control and be involved with music might desire the high quality packaging of legally bought CDs. Earlier, Walsh et al. (2003) found that the level of *Music Involvement* can influence the choice of music carrier used, as for instance, choosing CDs over DtO.

Additionally, Mizerski et al. (1988) investigated this relationship between *Music Involvement* and purchase behavior. Participants were questioned about their behavioral involvement with music, and had to choose between active and passive involvement. These choices were then compared with attendance at music events and the number of discs purchased and a positive correlation was demonstrated between level of *Music Involvement* and purchase behavior.

In addition to measuring buying behavior and active *Music Involvement*, Flynn, Eastman, and Newell (1993) demonstrated that *Music Involvement* correlated positively with opinion leadership, i.e. the extent to which participants tended to share their information concerning music with other consumers. A level of perceived and actual knowledge of rock music made participants more vocal in sharing this knowledge with others.

It has therefore been assumed that involvement with music functions as a predictor of ownership of physical music carriers (Styvén, 2010). This involvement could also result in the purchase of other artist related products, such as concert tickets and merchandise.

Looking at it from a different perspective, Casero (2010) argues that the plethora of listening options in the current environment, both indoors and outdoors, has led to fragmented listening rather than deep, extended engagements with a particular piece of music. Music choices that are made as a result of the decision-making processes occurring in the brain will lead to more active involvement, whereas passive, or fragmented listening, leads to lower involvement.

Based on these findings we hypothesize that:

H1: Consumers with a high Music Involvement prefer DtO music carriers over MaaS.

2.3. Need for Ownership

Copyrighted songs and recorded music, in general, have complex ownership structures. While buying a CD, or downloading a song through iTunes, you would expect to own the product and its content. This is only partially true; the physical product is owned by the buyer but the copyrighted content is owned by the composer, the artist and the owner of the recordings (Koedooder, 2009). However, the act of paying for music or downloading the music can create an elusive feeling of ownership in the possessor. This feeling of ownership has been studied extensively.

Richard Thaler (1979), in particular, made a substantial contribution in our understanding of how ownership plays a role in our evaluation of products. He coined the term “endowment effect”; it is the phenomenon whereby people demand a higher price for a product that they own than they would be prepared to pay for it if they were not to have owned it. A famous example of this is a study by Kahneman, Knetsch & Thaler (1990) wherein participants were given a mug and then offered the chance to sell it for an equally priced alternative. Participants were found to demand twice the price for selling the mug than they were prepared to pay for it. Current studies show that this endowment effect can affect the assessment of a good even before actual ownership takes place. Reb and Connolly (2007) have examined with this role of subjective ownership. They have found that there is a distinction between factual and subjective feelings of ownership, and have proposed that the endowment effect may be driven, first and foremost, by biased feelings rather than accurate feelings of ownership.

Not under every circumstance do people show a higher need for attachment to possessions.

Attachment, in this case, is defined as “the extent to which an object is owned, expected to be owned, or previously owned by an individual. Possessions with low attachment are likely to have little emotional significance; on the other hand, possessions with high attachment tend to gain emotional significance, over time. And as the length of time of ownership increases, so does the emotional importance of the object. This emotional significance of a possession is the total strength of associations that a person has with the object (Dwayne Ball & Tasaki, 1992).

McCracken (2005) uses the term “de-commodified” to describe how over time, particular goods tend to become irreplaceable. In particular ownership extracts meaning from, and gives meaning to these goods held in possession. This meaning associated with a possession in combination with the strength of the attachment, does not remain static but tends to evolve over time (Myers, 1985). Plasketes (1992) explains that this emotional significance may be a reason why owners of vinyl records have such difficulty in parting with their collection, even after they have adopted a new music carrier format.

This feeling of ownership is context-dependent. Age studies find older people relating to special possessions in a different way from the manner in which younger people do. Studies also find predictable differences in the attachment to possessions between men and women. Women and men pay attention to different things in the environment (Kamptner, 1991). During an interview setting in their homes, women acknowledged sculptures, photographs, plants, plates, glass objects and textiles more than men did. A possible explanation could be that these possessions are more reflective of women’s expressive home-oriented roles. In a similar interview, men tended to identify televisions, stereos, tools, sports equipment, and vehicles as possession attachments, which could reflect the action oriented-role of men.

Again, ownership does not always have to mean actual ownership, in this respect; proprietary rights can be replaced by pseudo-ownership. Pierce, Kostova and Dirks (2003) define this psychological ownership as the feeling that something is “mine.” Psychological ownership can provoke affective reactions, as demonstrated by Shu and Peck. Their studies show that people who experience psychological ownership relate positively to feelings of emotion and attachment to objects, in particular. Peters, Slovic and Gregory (2011) demonstrated that these affective feelings toward a product or object can have monetary values and have a positive correlation to WTP.

In sum, we expect to establish that people with a higher need for possessions have a preference for DtO music consumption.

H2: Consumers with a Need for Ownership prefer DtO music consumption.

2.4. Feeling of *Extended Self*

Consumer researchers have suggested that possessions perform the function of preserving and supporting the consumer’s self-concept and identity (R. W. Belk, 1988). Possession attachment reflects the way some people value goods. A central issue from a consumer behavior perspective is the extent to which an owned object helps define and maintain the self-concept of its owner. Studies investigating the concept of the *Extended Self* have suggested that the objects closest to an individual are treasured more dearly and continue to have an important meaning within a person’s life. They can help the individual explore his or her identity, attitudes, and beliefs. Furthermore, things such as clothing, collection of tangible music, housing, and other visible goods are tacit expressions of our values, success, and personality. One could say that having is

seen as an index of doing. These goods function as a visual manifestation of our accomplishments, and therefore as tangible symbols of success (Belk, 1988).

If a car, an iPhone, or a piece of clothing constitute part of a consumer's identity, you could expect more protective behavior, greater effort spent on maintaining the object, and greater emotional pain arising from the loss of the object than if the article were not so much a part of someone's identity. Building on this theory, Ferraro, Escales, and Bettman (2010) assessed the level of expression of the self (the identity marker) of a product by measuring the felt grief if the product was lost. Loss of possessions because of burglary induces strong feelings in respect of goods closely related to the self. These psychological losses are felt even more intensely than financial losses.

This was confirmed by studies by Burris and Rempel (2008), who state that humans have distinct boundaries between self and not-self, and consequently, also between mine and not-mine. This means that individuals are capable of viewing objects symbolically.

The extent that the product can serve as a symbolic expression of our inner "I" to others plays an important role in this construction of the *Extended Self*. Kleine, Kleine and Allen (1995) showed that possession attachment reflects the extent of "me-ness" that is linked with a particular possession. Possessions to which there is an attachment help describe a person's life story as they imitate "my life." However the type of object attachment should vary with respect to the type of object: people tend to use hedonic products, such as a music collection, more for the purposes of self-concept maintenance than they use utilitarian products for the same purpose. Mittal (2002) investigated this relationship and among other reasons, he recognized investment of time and post-acquisition time as important determinates.

Object attachment can also have more extreme forms, as for example when one is a collector of goods. Belk (1995) researched this behavior extensively and concluded that our culture generally regards collecting goods as being less self-indulgent than many other types of consumption, such as materialism. Materialism can have significant negative correlations with feelings of envy, non-generosity, and happiness in life (Belk, 1985). Collections are found to be perceived as non-human rivals and are also regarded as a cultural legacy of material artifacts. Additionally, Brown, Geelhoud, and Sellen (2001) have found that music collections act as presentations of individual tastes in music and expressions of self. Music collectors use their collections as a way of standing out and gaining respect from others.

Based on these findings, we formulate our hypothesis as under.

***H3:** Consumers who see their music preferences as an extension of their self image prefer DtO music carriers.*

2.5. Level of Curatorship

“Freedom of choice is what you got. Freedom from choice is what you want” The above is a line from a popular DEVO song from the eighties. In the realm of music abundance, this lyric has special significance. Both in terms of *what* music consumers’ use and *how* they consume it, the number of choices that each consumer encounters has significantly increased in a small number of years. The paradox of music choices is that while owing to shrinking shelf space, the number of options that a consumer has, in the physical world, has been reduced, online, the amount of music has exploded. This abundance of variety can lead to choice paralysis. As such Iyengar (2010) believes that only professional practitioners, such as chess masters, are capable of making conscious decisions when choosing from an unlimited number of options. Consequently, their

social statuses reflect their outstanding competence. But Schwartz (2004) argues that eliminating consumer choices can greatly reduce anxiety for shoppers.

In the context of abundance of musical choices, Bylin (2010) believes that overwhelming choice has the potential to cause consumers to opt for old songs in order to avoid facing limitless options and to rely on filters or curated playlists instead of deciding for themselves. This is likely to make them more passive participants, in their own cultural lives. However, Thaler (2008) demonstrates how choice architecture can nudge consumers in beneficial directions without restricting freedom of choice. This nudge can be given by opinion leaders, agents that interpret the meaning of media content for lower end media users. Opinion leaders possess a substantial amount of power as they select the information from the sources and pass this on to the followers. Opinion leaders are found among genders, all social classes, income levels and age groups. They are monomorphic, implying that they are only leaders in a specific product category (Bertrandias & Goldsmith, 2006). Normally, the opinion leader is held in high regard by those who accept his or her judgment.

This musical opinion leadership can be easily shared by putting together a playlist and as such can be considered a music recommendation system, wherein the creator acts as a curator of good tastes. Boer et al (2011) argue that a person's music preferences represent a value-expressive attitude that helps to create social bonds through expressed value similarity. The word "curate," once only used in the context of museums, has become a fashionable word among the aesthetic minded, and is used in the context of any activity that involves culling and selecting. More recently, designers, disc jockeys, club promoters and bloggers have viewed curate as code for "I have a discerning eye and great taste"(A. Williams, 2009). Through technical innovations, the sharing of curated playlists has become a one-click execution. A Jeong & Lee study (2010)

clearly shows that perceived ease of use is a significant positive predictor of music sharing intentions. In the early digital music era, playlists were used to personalize the listening experience by selecting a song set that was suited for specific listening situations. In later years, playlists re-emerged as potent vehicles for sharing songs. Spotify and other MaaS providers have built-in capabilities that allow the creation and sharing of playlists. This sharing feature is particularly appealing as it is missing from most DtO listening methods. Some MaaS providers are using their curated playlists as a way of distinguishing themselves from other music service providers⁵.

Based on this, we formulate our hypothesis as under:

H4: Music consumers with a high perceived level of *Curatorship* prefer MaaS over DtO.

2.6. Connectedness

When a person identifies with an artist or style of music, a certain sense of *Connectedness* is perceived. This *Connectedness* leads to loyal behavior and positive word of mouth. In the context of sports and music, such person that perceives a high level of *Connectedness* is described as a fan — an abbreviation from the Latin word *fanaticus*, which means a devotee. Harrington and Bielby (2010) describe this fan as “someone who interacts with a community of people with similar interests and who creates new products derivative of the primary narrative.” In present-day society, a fan is regarded as someone who is fascinated by an artist or band. C. Williams (2001) distinguishes between “ordinary” music listeners, fans, and subcultures, resulting in splitting up of music consumers into passive and active users. Active consumers are those that carry out music related behavior in the social context of a fan group or community.

⁵ <http://paidcontent.org/2012/07/18/interview-raras-new-ceo-aims-to-out-do-spotify-on-curation/>

Additionally, Harrington and Bielby (2005) recognized that this fandom is active music related behavior and is carried out within the social context of a fan group or community.

Casero (2010) believes that “fan mentality” is eroding because of the insignificance of the physical nature of musical media. Music has become less defined by its physical nature and so the presence of any particular piece of music on the cognitive state has become less significant. Also Scaruffi (2008) and Casero (2010) argue that as we begin to develop more sophisticated “mental maps” of the musical scenery, we become less disposed to single out any performer as exemplary. As a substitute, we start viewing them as a small part of a greater musical scene and a particular musical piece no longer creates the strong cognitive associations that it once did.

Based on these findings we hypothesize as under:

***H5** The Connectedness to any single artist is positively related to a preference for DtO music consumption.*

2.7. Gender and Age Effects

Pop and rock music are mainly young-oriented cultural products. Some research (Favaro & Frateschi, 2007) has shown that gender differences influence the consumption of popular music. Makkonen (2011) examined the effects of gender, age, and income on the WTP for music downloads. His findings suggest that there are differences between the examined consumer segments, in the WTP for album and track downloads. For instance, women expressed a higher WTP for both albums and tracks, and the WTP for tracks was also found to increase with age and income. Weda et al. (2012) found that in the Netherlands paid and non-paid downloaders are predominantly men, who constitute 65 percent of downloaders as against women who are 35 percent. But then van Eijcks’ (2001) work on Dutch audiences finds that consumption of popular

music has a negative correlation with age, education and active music participation, while gender or occupational status having no significant effect. Then again, in his findings, omnivores are mainly men, relatively young and typically educated.

We do not have any *a priori* hypothesis on the specific impact of gender or age on popular music consumption, but we include these demographic attributes to see if any correlation occurs.

So we formulate the hypotheses as under:

H6a Consumers' gender influences the preference of either DtO or MaaS music consumption.

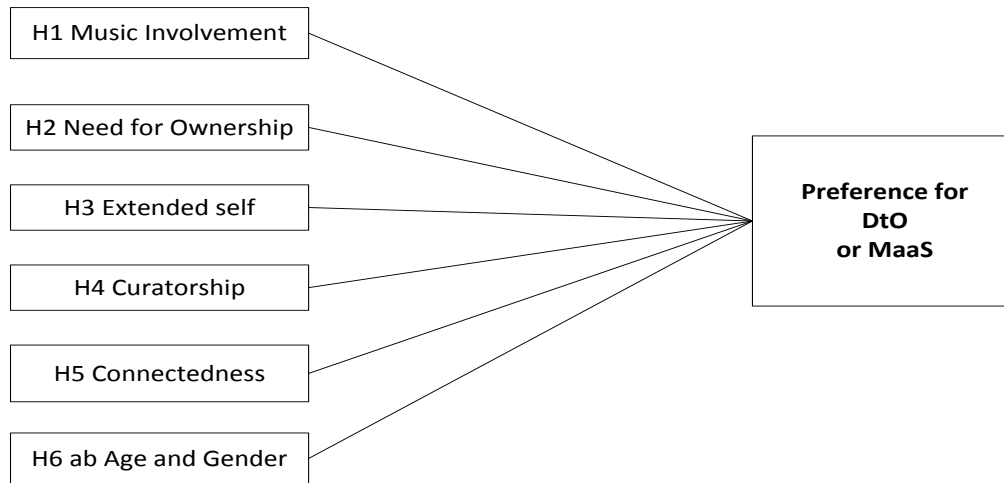
H6b Consumers' age influences the preference of either DtO or MaaS music consumption.

2.8. Conceptual Model

Having clarified the concepts in the previous sections, the proposed hypotheses are visualized within the conceptual model (figure 1).

Figure 1

Conceptual Model



H1: Consumers with a high Music Involvement prefer DtO music carriers over MaaS.

H2: Consumers with a Need for Ownership prefer DtO music consumption.

H3: Consumers who see their music preferences as an extension of their self image prefer DtO

H4: Music consumers with a high perceived level of Curatorship prefer MaaS over DtO.

H5: The Connectedness to any single artist is positively related to a preference for DtO music consumption.

H6a: Consumers' gender influences the preference of either DtO or MaaS music consumption.

H6b: Consumers' age influences the preference of either DtO or MaaS music consumption.

3. Methodology

In this chapter, we present the research design. First, we discuss the research objective, and the data collection methodology. This is followed by a discussion of our sample selection, and the scale used to test the hypotheses, including the validity and reliability of the data. The final section describes the techniques and methods used to analyze the data in order to test the hypotheses.

3.1. Research Objective

We chose a quantitative research design in order to prove and verify the formulated hypotheses. In quantitative research, the eventual goal is to determine the relationship between an independent variable, as formulated in the hypotheses, and a dependent variable, which is the observed behavior. This descriptive study attempts to establish associations between the chosen variables. The quantitative approach utilizes standardized measurement and sampling procedures to enhance the reliability of observations, make replication studies possible, and allow generalizations to a larger population. This research methodology necessitates the gathering of relevant data from music users in order to analyze and identify factors that determine a preference for either DtO or MaaS music consumption.

3.2. Data Collection

3.2.1. The Sample

The study sample consists of 632 Dutch subjects. The main criterion for inclusion in the sample is based on the age demographic; we sampled gender independent participants between the ages of 16 and 34. We selected this cohort based on its music consumption intensity (IFPI, 2012). A

second criterion is music consumption. To be part of the sample, participants need a threshold music consumption of at least one DtO music case and/or be a user of a MaaS service. MaaS providers are all services that stream music and allow users to choose the music (à la carte).

We refer to the previous section, “Delimitations” (paragraph 1.6), for further explanation.

3.3. Data Collection Techniques

We used both snowball sampling and stratified sampling as recruitment techniques. In stratified sampling the researcher divides the entire population into different subgroups or strata, and then randomly selects the final subjects proportionally from the different strata. We used MSI⁶ Advanced Customer Insights in Amsterdam for this stratified distribution. They produced 314 respondents.

The snowball sampling technique uses existing study subjects to recruit future subjects from among their acquaintances. The sample group grows in a similar fashion to a rolling snowball. As the sample builds up, sufficient data is gathered such as to be useful for research. Because the referrals will have demographic and psychographic characteristics more similar to the persons referring them than would be the case if selection occurred by chance, this is a non-probability sample (Malhotra & Birks, 2007).

The invitations for participation in the snowball sample were sent through the Inholland school database, through three websites that focus on music and technology (see Appendix XI, Survey request pages), as well as through various social media sites and friends and relatives. We have chosen this technique solely for pragmatic reasons. As an incentive and to stimulate

⁶ <http://site.msi-aci.com/>

participation, respondents were promised they could win one of three iPod shuffles by leaving their email address.

All questionnaires were processed through the Qualtrics survey research software. Three different links were used, a standard version, a smartphone version and a MSI version. For all three links the questions were similar.

3.4. The Sample Size

According to the CBS (2011), there are 3.8 million people between the ages of 16 and 34 living in the Netherlands. As a benchmark, to help determine the percentage of people who were actively consuming music by using DtO and/or MaaS, we used online search behavior for music-related content, as published in the Sociaal en Cultureel Planbureau report, “Hoe cultureel is de digitale generatie?” (Schols, Duimel & Haan, 2011). Sixty-nine percent of the population between the ages of 12 and 18 years searches for music in this manner.

Even though this age group only partially represents the demographic for our study, we have used this percentage as an indicative number for our research. We have assumed that active music consumption does not increase with age, and therefore we have estimated that 65 percent of our research group can be classified as active music consumers; this points toward a cohort of 2.5 million people.

Two criteria were used to determine the appropriate sample size for this study. Thereafter, we needed to determine the level of precision, and the appropriate confidence level.

The *level of precision* is the range that the true value of the population is estimated to lie within. This range is often expressed in percentage points. For this research, we have set the level of

precision at six. A lower precision number would yield more accurate results, but for pragmatic reasons (the need to find a large enough sample) we opted for six as a reasonable compromise.

The *confidence level* is used to indicate the reliability of an estimate. The key idea is that when a population is repeatedly sampled, the average value of the attribute, as measured by those samples, is equal to the true population value. We have chosen a confidence level of 95%, which means that 95 out of 100 samples will represent the true population value, within the chosen range of precision.

In order to calculate the sample size, we used the following formula:

$$n \geq \frac{N \times z^2 \times p(1-p)}{z^2 \times p(1-p) + (N-1) \times F^2}$$

n = number of respondents needed for accuracy

z = the z -value for the chosen confidence interval. We used the 95% interval, so $z=1.96$

N = total size of the population (2,500,000)

p = the expected ratio (0.5)

F = margin of error (6)

Based on these assumptions, the recommended sample size is 267 valid respondents.

3.5. Description of the Research

The sampling period lasted two weeks during July 2012. The questionnaire was in Dutch, since the respondents were expected to be native Dutch residents. Ultimately, 850 respondents completed the survey.

The online questionnaire consisted of 25 questions. The first was a screening question, asking for respondents' age. All respondents below sixteen and above 35 were excluded. 632 *Respondents* filled in the remaining questionnaire.

The first part, questions five to eleven, measured the *Music Involvement*. Question twelve measured the level of *Extended Self*. The third part, questions fourteen and fifteen, measured the *Need for Ownership*. Question seventeen measured *Connectedness*. The fifth part, question eighteen, measured *Curatorship*. The dependent variable, preference for either Maas or DtO when consuming music, was measured in question twenty. Three options were offered to choose from; music consumption through DTO, MaaS, or “neither”. Respondents who chose “neither” were excluded from the research and data analysis.

A few days after the start of the online questionnaire, we discovered an error in the responses to the questionnaire, resulting in an omission of question eight. About 300 answers on question eight were missing. We corrected the oversight but have excluded question eight from the data analysis.

By checking for time spent on the research, we concluded that the responses of some respondents, to the time spent question (38 seconds and below), were outliers and not reliable. These responses have been excluded from the research.

All questions, with the exception of 26, had forced responses. In total, 411 *respondents* were included in the analysis, 221 *males*.

3.6. Questionnaire Scales

In order to test the hypothesis, we used existing and validated scales. Most of these scales were taken from the Handbook of Marketing Scales (Bearden & Netemeyer, 1999). To measure whether or not the local adaptation fitted the original scale, we used the forwards-backwards translation technique to measure the quality of the adaptation. Emphasis was placed on conceptual rather than literal translation (see Appendix I – V).

To measure *Music Involvement*, we used the *Music Involvement* scale based on “Suggested scales for the measurement of musical involvement and genre tastes” by Richard D Dixon (1980). His 1979 research among UNC-Wilmington students measures both *Music Involvement* and musical genre tastes. For the purpose of our research we only used the involvement measurement. We reduced the nine original questions to seven and adapted the questions to current music carrier standards. Appendix I contains the original questions and the Dutch adaptations.

To measure the level of *Extended Self*, we used “A scale to measure the extent of object incorporation in the *Extended Self*” by Eugene Sivadas and Karen Machleit (1994). In developing their measure of objects incorporated into the *Extended Self*, Sivadas and Machleit draw primarily from Belk’s (1988) analysis of the *Extended Self*. Their scale is composed of six items scored on a 7-point agree-disagree scale (Bearden & Netemeyer, 1999). We have reduced this to six questions. Appendix II contains the original *Extended Self* questions and the Dutch adaptations and the forwards-backwards translation.

To measure the level of ownership, we used “The role and measurement of attachment in consumer behavior” by Ball and Tasaki (1992). The attachment scale is composed of nine items, scored on 6-point Likert scales, ranging from disagree to agree. One sample of 331 adults was

used for all facets of scale development and validation (Bearden & Netemeyer, 1999). We have personalized the question by asking respondents to name an object in their possessions that they are particularly fond of. This object was then automatically included in the questions.

Appendix III contains the original attachment to possessions questions and the Dutch adaptations and the forwards-backwards translation.

To measure the level of *Connectedness*, we used a scale based on “Understanding the bond of identification” by Bhattacharya, Rao & Glynn (1995). Their research proposes that customers in the role of members identify with organizations. They adapted Mael and Ashforth’s (1992) members identification with a focal organizations scale. We have adapted the Bhattacharya, Rao & Glynn six question scale to the personalized music preference of the participants, by asking about their favorite music artist. Their preferred artists was then automatically included in the questions.

Appendix IV contains the original *Connectedness* scale questions and the Dutch adaptations and the forwards-backwards translation.

To measure the level of *Curatorship*, we used a scale, based on “Overlap of opinion leadership across product categories” by King and Summers (1970). The original scale consists of seven items; five operationalized using a dichotomous response. The revised opinion leader scale by Childers (1986) contains a modified set of items, each operationalized via a 5-place bipolar response formats (Bearden & Netemeyer, 1999). We reduced the seven items to five and have placed all questions in the context of respondents’ music collection. Appendix V contains the original *Curatorship* scale questions and the Dutch adaptations and the forwards-backwards translation.

These five scales were pretested using a small ($n=19$) sample of students and after a few adjustments included in the questionnaire.

3.7. Validity

We tested for validity in order to establish that the measurement represents characteristics that exist in the phenomenon under investigation (Malhotra & Birks, 2007). It answers the question "Are we actually measuring what we think we are measuring?" For this purpose, we used two validity checks: content validity and construct validity.

3.7.1. Content Validity

Content validity is a simple and subjective form of validity wherein we determine whether or not the test appears to measure what it is intended to measure -- the correlation between the formulated hypothesis and the use of predominant MaaS or DtO music services. In the analysis of the results, we looked for patterns that confirmed our hypothesis.

3.7.2. Construct Validity

Construct validity establishes whether or not the scale measures or correlates with the theorized construct that it purports to measure. In other words, it is the extent to which the thing being measured is actually measured.

The *Music Involvement* scale is based on Richard D. Dixon's (1980) "Suggested scales for the measurement of musical involvement and genre tastes." Cronbach's alpha values were unknown; therefore, a scale analysis was conducted to determine whether or not the chosen scale elements are suitable and have a good fit with the model. The results .621 (Appendix XVIII) suggest a good fit.

The *Extended Self* scale “A scale to measure the extent of object incorporation in the *Extended Self*” by Sivadas and Machleit was composed of six items scored on a variety of 7-point scales, with responses ranging from strongly disagree to strongly agree. The original scale showed adequate levels of fit ($n=127$), suggesting a one-dimensional measure.

The ownership scale is based on “The role and measurement of attachment in consumer behavior” as identified by Ball and Tasaki (1992). Their scale was composed of nine items scored on a 6-point Likert scale; the responses ranged from “disagree” to “agree”. Factor analyses of the nine items revealed that a single factor accounted for 87 percent of the common variance in the data.

The *Connectedness* scale is based on “Understanding the bond of identification,” as discussed by Bhattacharya, Rao and Glynn (1995). Their scale was composed of six items scored on a 5-point Likert scale, with responses ranging from “disagree” to “agree”. The Cronbach’s alpha for the scale used was .87.

The *Curatorship* scale is based on an “Overlap of opinion leadership across product categories” (King and Summers, 1970). King and Summers’ (1970) scale was composed of seven items, that are worded in a manner such as to allow alternative product categories to be inserted in the model. Little evidence of validity was offered in their original article; therefore, we conducted a scale analysis to determine whether the chosen scale elements are suitable and have a good fit with the model. The Cronbach’s alpha for the scale used was .90, which indicates an excellent fit (see Appendix XVIII).

3.8. Reliability

In the context of this research, reliability refers to the extent to which the scales produce consistent results when repeated measurements are made. A test-retest approach can be used to establish a reliable measurement. For this purpose, we have pretested the scales with a group of students and repeated this process ($n=19$). Respondents were administered identical sets of scale items under near-equivalent conditions. The degree of similarity between the two measurements was determined by computing a correlation coefficient. The higher the correlation coefficient, the higher is the reliability (Malhotra & Birks, 2007).

3.9. Analysis

Because we are using a dichotomous dependent variable (DtO or MaaS), and are using metric independent variable (scales), a logistic regression analysis seems most appropriate for examining the results of our research. Logistic regression is a specialized form of regression used to predict and explain a two group categorical variable. The probabilities describing the possible outcome of a single trial are modeled, as a function of explanatory variables, using a logistic function (Hair, Black, & Babin, 2010). The dependent variable is predominant preference for either MaaS or DtO when consuming music.

For the use of logic regression, the following assumptions need to be met:

Independence of errors, meaning that cases of data should not be related, violating this assumption produces over dispersion. This assumption can be tested with the Durbin–Watson test, preferable outcome between none and three.

Multicollinearity: predictors should not be too highly correlated. This can be checked with tolerance and VIF statistics. Preferable outcome with VIF between one and six and most values are around three or four, which is perfect.

4. Results

In this chapter, we present the outcome from the data analysis. First, we explain the results of the factor analysis, followed by the assumptions and results of the logistical regression. We perform additional data analysis using MANOVA, present the results of the additional questions and finish off with the analysis of the results in the light of the formulated hypothesis,

4.1. Descriptives

Table 1

Case Processing Summary gives an Overview of the Respondents Included.

Unweighted Cases ^a		N	P
Selected Cases	Included in Analysis	411	65.0
	Missing Cases	221	35.0
	Total	632	100.0
Unselected Cases		0	.0
Total		632	100.0

a. If weight is an effect, see classification table for the total number of cases.

4.2. Factor analysis

We perform a factor analysis to analyze interrelationships among the questions within the used scales and to explain these variables in terms of their common underlying dimensions (factors). The aim is to find convergent validity, meaning that the scale items in a given construct move in the same direction and thus highly correlate. In this factor analysis, we would expect to see the items loading together on one factor and not cross load on another constructs. However we would expect the presence of discriminant validity that the scale items in the constructs being compared do not move in the same direction and, thus, do not highly correlate. If the lack of correlation is as expected by the formulation of these constructs, we have established discriminant validity. In the rotated factor solution in Table 2 each of the variables has a loading above .700 with the exception of the *Music Involvement* questions 5, 6,7,10.

Table 2
Factor analysis Pattern Matrix^a

	Component				
	1	2	3	4	5
Curatorship V17 "Others follow my music advise"	.820				
Curatorship V17 "Frequently talk with others about my music collection"	.819				
Curatorship V17 "Others follow my music advise"	.819				
Curatorship V17 "Others often ask my opinion about music"	.809				
Curatorship V17 "I follow others advise"	.777				
Connectedness V16 "Press critique feels personal".		-.869			
Connectedness V16 "Artist success feels like mine success"		-.868			
Connectedness V16 "Praise feels like compliment".		-.855			
Connectedness V16 "Critique feels like personal insult"		-.808			
Connectedness V16 "I say we instead of him/her"		-.784			
Connectedness V16 "I'm interested in what others think of him/her"		-.723			
Ownership V13 "If my <gadget> gets destroyed. I feel hurt"			.827		
Ownership V13 "When my <gadget> gets ridiculized I feel irritated"			.813		
Ownership V13 "If my <gadget> gets admired I feel admired"			.806		
Ownership V13 "My <gadget> helps me remind me who I am"			.761		
Ownership V13 "If my <gadget> gets lost. I feel lost"			.714		
Extended Self V12 "My music collection is part of who I am"				-.793	
Extended Self V12 "Part of my identity is formed by my music collection"				-.731	
Extended Self V12 "My music collection fits my identity"				-.722	
Extended Self V12 "When music collection gets lost. creates identity loss"				-.709	
Extended Self V12 "My music collection helps me shape my identity".				-.707	
Music Involvement V11 "Hours a day listening to streaming"					.782
Music Involvement V7 "Hours a day listening to music"					.697
Music Involvement V10 "Days a week listening to streaming music"					.622
Music Involvement V5 "Gone to concert past twelve months"					.411
Music Involvement V6 "No days listening to music"					..350

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.
a Rotation converged in 8 iterations.

As expected, the Pattern Matrix shows five components corresponding with the scales *Music Involvement*, *Extended Self*, *Need for Ownership*, *Curatorship*, and *Connectedness*.

4.3. Reliability

The five scales are based on the studied literature, but they are adjusted for this research (See Appendix II – VI) and therefore Cronbach's alpha is also computed for these questions. All scales have reliability higher than seven, with the exception of *Music Involvement*. therefore, it can be stated that scale items *Extended Self*, *Need for Ownership*, *Curatorship*, and *Connectedness* are internally consistent ([Hair et al., 2010](#)).

Table 3
Reliability Statistics
Cronbach's alpha

	Reliability Statistics		
	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Curatorship	0.905	0.903	5
Connectedness	0.893	.897	6
Extended Self	0.867	0.867	5
Need for Ownership	0.854	0.855	5
Music Involvement	0.623	0.633	6

The twenty-seven items for measuring the various scales were assessed for suitability for factor analysis. The Kaiser-Meyer-Olin value was .891, exceeding the recommended value of .6 and Bartlett's Test of Sphericity reached statistical significance, supporting the factorability of the correlation matrix (see Appendix XIX).

4.4. Results Logistic Regression

Logistic regression was performed to assess the impact of a number of factors on the likelihood that respondents would report a preference for DtO or MaaS. The model contained seven independent variables (*Music Involvement, Need for Ownership, Extended Self, Curatorship and Connectedness, Age and Gender*).

The full model containing all predictions was statistically significant, both the Omnibus Test (.000) and Hosmer and Lemeshow (.278) indicate that the model is performing as expected.

As shown in Table 3, only two of the independent variables made a unique statistically contribution to the model (*Curatorship, Connectedness*). The strongest predictor for DtO or MaaS was *Curatorship*, recording an odds ratio of 1.547. This indicates that respondents who have a high level of *Curatorship* were 1.5 times more likely to prefer DtO over MaaS. The odds ratio of .703 for *Connectedness* was less than 1, indicating that respondents with a high level of *Connectedness* were .703 times less likely to favor MaaS, controlling for all other factors in the model.

Table 3
Variables in the Equation

Variables in the Equation							95% C.I. for EXP(B)	
	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Music Involvement	.641	.435	2.172	1	.141	1.899	.809	4.456
Ownership	.138	.099	1.956	1	.162	1.148	.946	1.393
Extended Self	.078	.114	.475	1	.491	1.082	.865	1.352
Curatorship	.437	.115	14.384	1	.000***	1.547	1.235	1.939
Connectedness	-.352	.129	7.486	1	.005*	.703	.547	.905
Age	-.041	.097	.180	1	.671	.960	.793	1.161
Gender Male	-.112	.275	.166	1	.683	.894	.521	1.533

Variable(s) entered on step 1: *Music Involvement, Ownership, Extended Self, Curatorship, Connectedness, Age, Gender*.

Note *** $p < .001$, * $p < .05$

To more precisely establish which independent variables have a significant contribution to DtO or MaaS, we discuss the variables separately.

Music Involvement; The *Music Involvement* scale has no significant predictive value on the use of DtO and MaaS: ($b = .641$, $Wald\ 2.172$, $p = .141$), the odds ratio 1.899, meaning that the higher the *Music Involvement*, the chances in a preference for DtO increase.

Need for Ownership; The *Need for Ownership* scale has no significant predictive value on the use of DtO or MaaS: ($b = .138$, $Wald\ 1.956$, $p = .162$). The odds ratio is 1.148, meaning that the higher the *Need for Ownership*, the chances in a preference for DtO increase.

Extended Self; *Extended Self* scale has no significant predictive value on the use of DtO or MaaS: ($b = .078$, $Wald = .475$, $p = .491$). The odds ratio is 1.0821, meaning that with a higher *Extended Self*, the chances in a preference for DtO increases.

Curatorship; *Curatorship* scale has a significant predictive value on the use of DtO or MaaS: ($b = .437$, $Wald = 14.384$, $p = .000$). The odds ratio is 1.547, meaning that with a higher *Curatorship*, the chance for preference for DtO increases.

Connectedness; *Connectedness* scale has a significant predictive value on the use of DtO or MaaS: ($b = .352$, $Wald = .7486$, $p = .005$). The odds ratio is .703, meaning that with a higher *Connectedness*, the chances in a preference for DtO increases.

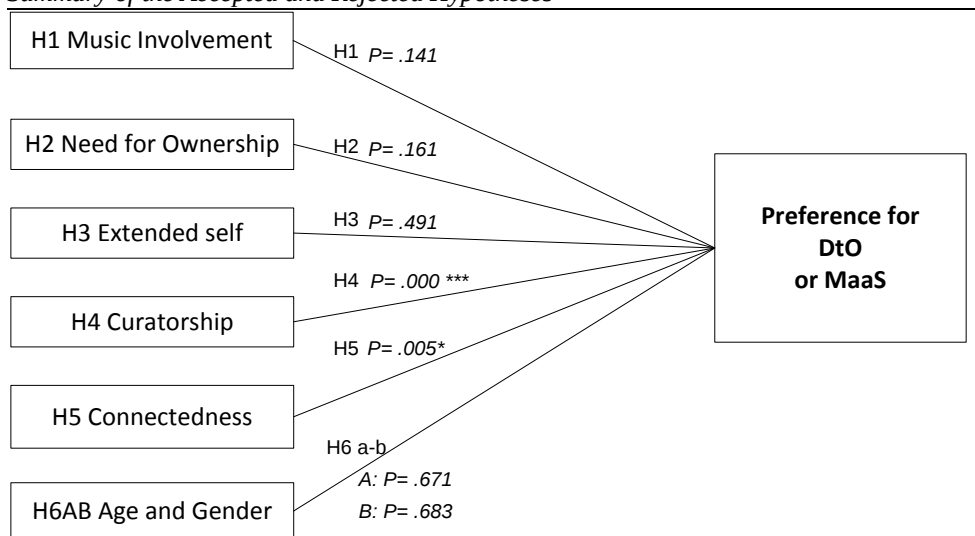
Age; Age has no significant predictive value on the use of DtO or MaaS Q1: ($b = -.041$, $Wald = .180$, $p = .671$). The odds ratio is .960, meaning that with a higher *Age*, the change in preference for DtO increases.

Gender; Gender has no significant predictive value on the use of DtO or MaaS. Q4: ($b = .112$, $Wald = .166$, $p = .683$). The *odds ratio* is .894, meaning that with a male gender, the change in preference for DtO decreases.

In sum, if we look at the contribution of each variable, we establish that only *Curatorship* and *Connectedness* have a significant value in the prediction. The other five variables did not have a significant relationship in predicting a preference for DtO or MaaS.

The Conceptual Model in Table 4 summarizes the accepted and rejected hypotheses.

Table 4
Summary of the Accepted and Rejected Hypotheses



Note *** $p < .001$, * $p < .05$

4.5. Additional Analysis

A one-way between groups multivariate analysis of variance was performed to investigate age and gender differences in relationship to five personal traits. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted. The Box

Test of Equality of Covariance Matrices was not significant (.302), so the equality of the covariance matrices is supported (see Appendix XXI). The Levene's Test for Equality of Variances determines if the variability in the two conditions is not significantly different. All independent variables are significant with the exception of *Music Involvement*. For this variable the null hypothesis of equal variances is rejected. This scale also had a low Cronbach's Alpha (<.7) and this is probably linked to the Levene's Test results.

Table 5
Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Age	Need for Ownership	1,853	3	,618	,360	,782
	Extended Self	4,572	3	1,524	1,065	,363
	Curatorship	1,608	3	,536	,316	,814
	Connectedness	4,272	3	1,424	1,302	,273
	Music Involvement	1,065	3	,355	3,128	,025*
Gender	Need for Ownership	3,505	1	3,505	2,040	,154
	Extended Self	3,569	1	3,569	2,495	,115
	Curatorship	46,434	1	46,434	27,365	,000***
	Connectedness	11,510	1	11,510	10,522	,001***
	Music Involvement	2,665	1	2,665	23,478	,000***

Note *** $p < .001$, ** $p < .01$, * $p < .05$

The Test of Between-Subjects Effects in Table 5, indicate that for *Age* only *Music Involvement* has a significant value ($p = .025$). For gender, *Curatorship* ($p = .000$), *Connectedness* ($p = .001$) and *Music Involvement* ($p = .000$) all have significant values.

Table 6 summarizes the results and lists the mean scores for the age and gender in correlation with the five personal traits.

Table 6
Age and gender in correlation with the five personal traits

Age	Need for Ownership	Extended Self	Curatorship	Connectedness	Music Involvement
16-20	3,322	3,883	3,002	2,313	1,627
21-24	3,291	3,805	3,009	2,133	1,578
25-30	3,336	3,718	3,11	2,031	1,508
>30	3,195	3,945	2,98	2,117	1,516
Gender					
Male	3,368	3,921	3,325	2,298	1,629
Female	3,203	3,755	2,725	1,999	1,485

An inspection of the mean scores show that males reported slightly higher *level of Curatorship* ($M_s = 3.325$ and 2.725), *Connectedness* ($M_s = 2.298$ and 1.999) and *Music Involvement* ($M_s = 1.629$ and 1.468), than females.

The mean scores of younger respondents point to a higher *Music Involvement* that older respondents ($M_s = 1.627$ and 1.516).

4.6. Additional Questions

The questionnaire included four additional questions which sought to discover the respondents' motivations for preferring either DtO or MaaS (included in Appendix X). The question was placed after determining preference for DtO or MaaS (Question 20). Respondents were given eight possible reasons for choosing their preferred music consumption selection and could indicate their agreement with the statements on a six-point Likert scale (included in Appendix XIII).

Table 7
Reasons for Preference MaaS and DtO

	Preference for MaaS			Preference for DtO		
	M	SD	V	M	SD	V
Sound Quality	3.04	1.477	2.183	3.88	1.607	2.583
Owning Music	2.41	1.477	2.182	4.88	1.261	1.590
Can't Lose Music	3.95	1.662	2.764	4.12	1.658	2.750
Better Sharing with Others	3.91	1.589	2.525	3.47	1.626	2.643
Sharing Playlists	4.2	1.491	2.223	3.09	1.583	2.507
Less Expensive	4.36	1.646	2.71	3.57	1.683	2.832
Listen Outdoors	3.99	1.684	2.834	4.86	1.378	1.899
More Choice of Songs	4.53	1.512	2.287	3.67	1.652	2.728

Users of MaaS rated *More Choice of Songs* ($M = 4.53$), *Less Expensive* ($M = 4.36$) and *Sharing of Playlists* ($M = 4.2$) as the main reasons for their preference for MaaS. DtO users found *Owning Music* ($M = 4.88$), *Listen Outdoors* ($M = 4.86$) and *can't lose Music* as their main reasons for using DtO.

Next was an open question without forced response, asking respondents to indicate which reasons they have for preferring either DtO or MaaS. These responses have been manually grouped into eight categories in Table 8 (original questions included in Appendix XIII).

Table 8
Frequency Table Preference for DtO or MaaS

	Preference for DtO				Preference for MaaS		
	F	P	Cumulative Percent		F	P	Cumulative Percent
Ownership	63	24.3	24.3	Ease of Use	70	46.1	46.1
Ease of Use	58	22.4	46.7	Better Choice of Music	41	27	73.1
Off-line Use	50	19.3	66	Price	28	18.4	91.5
Mobility	30	11.6	77.6	Quality	5	3.3	94.8
Price	25	9.7	87.3	Mobility	4	2.6	97.4
Better Choice of Music	14	5.4	92.7	Ownership	2	1.3	98.7
Quality	10	3.9	96.6	Unfamiliar with other Possibilities	1	0.7	99.4
Unfamiliar with other Possibilities	9	3.5	100	Off-line Use	1	0.7	100
Total	259	100		Total	152	100	

For DtO users *Ownership* (24.3%), *Ease of Use* (22.4%) and *Off-line Use* (19.3%) were the main reasons given for their preference for DtO. MaaS users mentioned *Ease of Use* (46.1%), *Better Choice of Music* (27%) and *Price* (18.4%) as their reasons for their liking of MaaS.

Finally we asked respondents about their future intentions regarding DtO or MaaS. They could express more/less or equal use in the coming twelve months. The results are grouped in Table 9.

Table 9
Future intentions

		MaaS			DtO		
		<i>F</i>	<i>P</i>	Cumulative Percent	<i>F</i>	<i>P</i>	Cumulative Percent
Valid	Ik ga vaker muziek via streaming/download beluisteren.	40	24.4	24.4	30	10.7	10.7
	Ik ga minder vaak muziek via streaming/download beluisteren.	4	2.4	26.8	14	5	15.7
	Ik verwacht geen verandering in hoe vaak ik muziek via streaming/download beluisteren.	120	73.2	100.0	237	84.3	100
	Total	164	100.0		281	100	

A clear majority of MaaS and DtO users did not expect a change in their music consumption behavior (73.2% and 84.3%). In comparison, more MaaS users expected an additional intense use of their preferred service in the future (24.4% versus 10.7%).

5. Conclusions and Discussion

This final chapter discusses the research conclusions. First there is a summary of the research, followed by conclusions based on the various research questions. We then discuss some of the findings of both the significant and non-significant hypothesis, followed by additional findings. We conclude with paragraphs on the theoretical and managerial implications of these findings, discuss the limitations of this research and offer suggestions for further research.

5.1. Summary

The purpose of this research is to arrive at a clear understanding of the relationship between personal traits and preference for music consumption through either MaaS or DtO modes. We establish whether these relationships exist and if so, which personal behavior characteristics best correlate with the choice of music consumption. We answer the research question *what personal traits determine the preference for MaaS versus DtO?* In doing so we subdivide this central problem into two more specific sub-questions: What types of *Music Involvement* can we define, what determines a consumer's preference for MaaS music consumption or DtO music consumption?

We first reviewed the current literature on these two forms of music consumption. We then formulated hypotheses that give a theoretical understanding of a predominant preference for either of these forms of music consumption. Six hypotheses are formulated and summarized in Table 10.

Table 10
Summary of Hypothesis and Expected Outcomes

Hypothesis	Driver	Expected sign
H1	<i>Music Involvement</i>	+
H2	Need for Possessions	+
H3	Extended Self	+
H4	<i>Curatorship</i>	+
H5	<i>Connectedness</i>	+
H6a	Age	+/-
H6b	Gender	+/-

5.1.1. Conclusions Research Question

In this section we draw conclusions based on the findings of both literature and empirical research. The first sub-question we will answer is *which types of Music Involvement can we define?* Based on the research of Richard D Dixon (1980), we constructed a *Music Involvement* measurement. We reduced the nine original questions to seven and adapted the questions to current music carrier standards. This resulted in six measurements: the frequency of attending music concerts and festivals, the number of days per week listening to music, the number of hours per day listening to music, the quantity of music purchases and music downloads, the number of days per week listening to MaaS providers, and the number of hours per day listening to MaaS providers. After factor analysis (included in Appendix XIV) we conclude that *Music Involvement* is best measured by the *amount of music downloads and purchases per week*, the *frequency of listening to music during the week* and the *frequency of attending concerts and festivals*. Two of these involvement measurements require active movement from the music consumer (*concerts, downloads*) while the third is more passive. We included an additional question in the research regarding the amount of active listening, but because of a questionnaire design mistake this question did not yield reliable results.

To conclude, *Music Involvement* can be defined by the amount of music people download or stream, the frequency with which users listen to music, and the rate of recurrence in attending concerts and festivals.

The second sub question we answer is *what determines a consumer's preference for MaaS music consumption?* To answer the question we formulated six hypotheses dealing with personal traits that, based on literature review, should correlate with preference for either DtO or MaaS. We postulate that *Music Involvement*, *Need for Ownership*, *Extended Self*, *Connectedness to artists* and *Curatorship* all influence preference for either DtO or MaaS. We measured *Music Involvement* through six questions. The *Music Involvement* scale did not result in significant results. We also asked for the main reasons why respondents preferred MaaS over DtO. Two questions were asked to learn about their motivations. The open question asking about motives for MaaS usage revealed three main reasons for MaaS usage. *Ease of Use* (46%), *Better Choice of Music* (27%) and *Price* (18%) were the main reasons given. This was later tested by an additional question where respondents could indicate on a Likert-scale their agreement with given pro's for MaaS. This in part supports the earlier findings, although *Ease of Use* was not a reason given, so no score on this could be recorded. The main reasons for using MaaS are: *selection of songs* ($M = 4.53$), *price* ($M = 4.36$) and *playlist sharing* ($M = 4.20$). The sharing score indicates support for the *Curatorship* hypothesis; this could possibly be researched again using a different measurement technique.

To conclude, the reasons people prefer MaaS over DtO are: a combination of *Abundance of Songs*, *Price*, *Ease of Use* And *Playlist Sharing*. This last one may be linked, although not proven, to *Curatorship* level.

The third sub question we answer is what determines a consumer's predominant preference for DtO music consumption? Again we answer this question by measuring various levels of *Music Involvement* against the preference for DtO or Maas. The *Music Involvement* scale did not result in a significant result. We also asked for the main reasons why respondents preferred DtO over MaaS. This open question about usage of DtO created insights that to some extent confirmed the formulated hypothesis. *Ownership* (24%) was the most frequent given answer, followed by ease of use (22%). Off-line usage, a characteristic not obviously associated with MaaS, was the third reason (19%). Again these answers were later tested by the additional question where respondents could indicate on a Likert-scale their agreement or disagreement with reasons given for preferring DtO. *Owning Music* ($M = 4.88$) was the main reason, followed by *Listening Outdoors* ($M = 4.86$) and *Can't Lose Music* ($M = 4.12$). This result seems to support the *Ownership* hypothesis, but regression analysis did not demonstrate a significant correlation ($p = .161$) to support the hypothesis.

To conclude, the reasons people prefer DtO over MaaS are a combination of *Owning Music*, *Outdoor Use* and avoidance of *Lose Music*.

Finally, we will answer the main research question: *which personal traits determine preference for MaaS versus DtO?* For this, we formulated six hypotheses that were all personal trait-related and could indicate which personal attributes could explain preferences for either of these two music consumption forms. Based on the hypotheses tested and the additional data gathered, we can conclude that *Level of Curatorship* and *Connectedness* to artists are the personal traits that influence preference for either MaaS or DtO music consumption.

5.2. Discussion

In this section we summarize the results and try to find the rationale behind the findings. We hypothesized as to what inspires a dominant preference for DtO over MaaS music consumption, while using existing literature. Out of the six hypotheses tested, two had a significant correlation with preference for either DtO or MaaS music consumption. We will first discuss the significant factors and then the non-significant ones.

We theorized *Curatorship* – sharing music playlists with others, would have an influence on the preference for DtO or MaaS. The existing literatures support such a correlation. After analyzing the results, we conclude that the hypothesis for level of *Curatorship* and preference for MaaS is accepted; a significant relationship was revealed ($p = .000$).

We theorized that *Connectedness*, the level of feeling connected to your preferred artist, would have an influence on the preference for DtO or MaaS. We tested this hypothesis by measuring *Connectedness* to the preferred artist of choice, we conclude that the hypothesis for *Connectedness* to artists and preference for MaaS or DtO is accepted; a significant relationship was revealed ($p = .005$).

The other hypothesizes, also based on a vast quantity of literature were not supported. We expected to see that the level of Music Involvement, the level to which the consumer is actively involved in music consumption would correlate tot a DtO or MaaS preference, but this hypothesis was not supported ($p = .141$). Also we assumed that some consumers regard their music collection as an extension of themselves and would have preferences for DtO. We were not able to demonstrate such a relationship exists and also this hypothesis is rejected ($p = .491$). In addition we theorized that the Need for *Ownership*, to have and to hold the music consumed in

one's possession, would have an influence on the preference for DtO or MaaS. Also this hypothesis is rejected ($p = .162$). These results partly contradicts the findings in the later section of the questionnaire, where respondents indicated through two separate questions that Need for *Ownership* is a key feature of DtO ($M = 4.88$ and 24%). Finally, we expected age and gender to be possible predictors of the preference for MaaS or DtO. Both Age and Gender hypotheses are rejected ($p = .671$ and $p = .683$).

The additional questions at the end of the survey revealed some personal motives for why respondents used DtO or MaaS. These findings support the formulated hypothesis for Need for *Ownership*, most DtO respondents agreed that *Ownership* was the main benefit of DtO ($M = 4.88$). These later finding also support the *Curatorship* hypothesis because in all cases, the reasons given were personal trait related to *Ownership* and *Curatorship*.

The lack of support for the rejected hypothesis is disappointing, because the literature is quite definite about these constructs, in particular *Ownership* and Music Involvement. One explanation for the lack of support could be the current adaptation of the scales, in particular the Music Involvement scale. A different translation or adaptation would perhaps produce different results.

Also the sample selection may have had influence on the result. Inspecting the three different streams, a clear dissimilarity was visible between the MSI sample and the other two. MSI (stratified random sample) yielded lower interest in both DtO and MaaS, meaning the other two samples are skewed. Despite the large n , this makes the results less reliable.

Some additional analysis did result in some further findings. The MANOVA analysis of the personal traits in correlation with age and gender did result in some new insights. Although we did not a priori look for supportive theoretical foundation for the premises, this outcome looks

intuitively correct. The mean scores show that males reported slightly higher *level of Curatorship* ($M_s = 3.325$ and 2.725), *Connectedness* ($M_s = 2.298$ and 1.999) and *Music Involvement* ($M_s = 1.629$ and 1.468), than females. This interesting finding could be researched further to discover the underlining reason behind this. This also applies for the mean scores of younger respondents, that point to a higher *Music Involvement* than older respondents ($M_s = 1.627$ and 1.516).

The final question of the research was *future intentions*. Most respondents indicated no change in behavior (DtO 84%, MaaS 73%) MaaS users did express more service use than DtO users (24% versus 10%). One explanation for this steadfast behavior could be that users of DtO and MaaS services are satisfied with their current practice and the service performance of their providers of music products. This could indicate that this two-tier non tangible music consumption pattern will remain steady for the coming period.

5.3. Theoretical Implications

The theoretical aim of this research was to add to the still limited body of knowledge in the field of consumer behavior in the context of preference for music carrier. Although a vast amount of literature has been written on consumer preferences for music products and music tastes, only a small percentage of studies have focused on the correlation between *Music Involvement* and preference for music carrier, and more specifically in their preference for DtO and MaaS. DtO is a phenomenon that has been around for over twenty years, but with the increase of bandwidth and abundance of smartphones and portable music players, MaaS is a relatively new phenomenon that has not been the subject of focus by academia. This current research aims to create a better theoretical understanding for why consumers behave the way they do in their choices of preference for music carrier.

This theoretical perspective let us to assert a series of hypotheses explaining consumer behavior in consuming music, whether online or through download. The correlation between *Music Involvement* and preference for tangible music carriers was established by Maria Styven ([2007](#)), but no research has established this in the context of DtO versus MaaS. We have in small part succeeded in this aim.

Our research provides a new insight in the relationship between level of *Connectedness* to artists and preference for DtO and MaaS. We suspected this relationship but no other research has confirmed this. Prior research mainly focused on the utilitarian functions of DtO, for example price and ease of use. No other researches focused on the personal traits of users like the level of *Extended Self* the downloaded music collection has for the users.

Playlist sharing is an important feature, and we demonstrate that level of *Curatorship* had an influence on preference for MaaS and DtO. This effect is potent and should be researched further to fully understand the underlying construct. We expect a relationship between level of *Curatorship* and other personal traits in the realm for personality characteristics.

Although a section of this study is exploratory in nature, it still provides some guidance in regard to causal reasons why consumers prefer DtO or MaaS music consumption.

We discovered the link between personal traits in correlation with age and gender. We did not a priori have a supportive theoretical foundation for the premises, but the outcome supports intuitively feelings about such a relationship.

Also the finding that younger respondents have a higher *Music Involvement* than older respondent creates new theoretical insights and provokes further research into this occurrence.

Level of Ownership and preference for DtO has not conclusively been demonstrated by our current research. The data show that *Ownership* is an important feature and again, we may be overlooking an intermediate step. We suggest further research for establishing this link.

Digitalization has fundamentally altered and revolutionized music consumption. The current technology permits consumers to listen to music of their choice at any time and place of their choosing. This current work is relevant behavioral researchers and marketing researchers and managerial audiences because it provides an explanatory perspective on the emergence of a new market of music downloading and streaming and identifies potential drivers for value creation.

5.4. Managerial implications

From a managerial perspective, value creation is an important construct and we will take these current research findings and discuss their managerial relevance for various stakeholders. In the context of the music industry, we will focus now on three specific groups: the artists, content owners and intermediaries who distribute the music.

Artists have a lukewarm relationship with MaaS. As stated in paragraph 1.2 Streaming Music, the revenues artists make from streaming is only a fraction of what they make from selling their works through DtO providers. However, consumers have accepted to a large extent that streaming music consumption and opting out of the service could have serious consequences for other artist-related revenue streams (see 1.7.2, Managerial Contribution). Understanding that levels of *Curatorship* and *Connectedness* relate to a consumer preference for MaaS or DtO creates opportunities for artists and their representatives. Using playlist sharing as an example, artists could use these possibilities to enhance their relationship with their listeners which could enhance the *Connectedness* users feel towards their preferred artists.

For content owners and the music companies, the positive relationship between *Connectedness* and preference for MaaS and DtO reaffirms that both music groups are important users on which to focus. It shows that both groups can co-exist next to each other and each has a confirmed involvement with music. Some prefer content ownership, while others prefer abundance of choices. It shows it is not an either/or decision, and servicing both groups is of eminent importance. For the DtO group, the confirmation of ownerships (after a legal purchase has been made) is important and guaranteed continuous ownership may be a reaffirmation and possibly result in continuous purchasing. Restrictions of ownership (DRM) may have a negative effect on DtO users. Paying-DtO users yield higher revenues per song than MaaS users. *Connectedness* and *Curatorship* are also important marketing opportunities for content owners. Enhancing the *Connectedness* and stimulating playlist sharing could tighten the relationship between users and content providers. MaaS subscribers generate more annual revenue than DtO users (see paragraph 1.41.4, Ownership Versus Access). Some content owners may revisit their reluctance in making their music catalogues available through MaaS services as the users of these services demonstrate active playlist sharing. With the unremitting decrease in CD sales, digital ownership of music carriers (DtO) can still function as a predictor of *Music Involvement*, and streaming music (MaaS) can also be seen as an indicator of the artist-listener connections.

For the intermediaries, the download platforms, and the music streaming providers, this research reaffirms the claims both parties make concerning their products. DtO providers emphasize the owning of music and the portability of the music (in offline use), and MaaS providers emphasize the sharing function of playlists. Respondents stated that in conjunction with abundance of songs, sharing playlists is a key feature of MaaS services. Providers should reemphasize this feature and work on further improvements in this field.

Respondents indicate no expected change in music consumption behavior which could be a sign of those users of DtO and MaaS services are satisfied with their current practice and the service performance of their providers of music products. This could be a sign of a two-tier non tangible music consumption pattern that will remain steady for the coming period. Based on these findings, all parties involved could adjust their strategies accordingly.

5.5. Limitations

Although this research was carefully prepared, we are still aware of its limitations and shortcomings. Some limitations will be discussed in this paragraph.

The first limitation is the selection of the sample. We used three different ways for finding respondents: through market research agency MSI, through email and social networks, and through music platforms. Inspecting the three different streams, a clear dissimilarity was visible between the MSI sample and the other two. MSI (stratified random sample) yielded lower interest in both DtO and MaaS, meaning the other two samples are skewed towards higher *Music Involvement*. Despite the large n , this makes the results less reliable.

The second limitation is the measurement instrument of the questionnaire. Again in hindsight, some of the *Music Involvement* questions produce predictable results. It would have been better to include a second scale to measure the *Music Involvement* levels and compare the two to produce more valid results. Also the measurement through categorical variables is unsuited for scale analysis. It would have been better if we would have used continuous variables. This would have yielded better results.

A third limitation is the description of music streaming and downloading. We would expect that DtO users who pay for their content would differ on some personal traits from non-paying DtO

users. The same would apply for MaaS users; free streaming or subscription-based streaming might have given different results. This also applies for the measurement of the age of the respondents.

In hindsight, we can conclude that some of the scales we have used may not accurately measure the underlying construct, so for future purposes we should pre-test these construct in a more extensive approach.

Finally we could have included more personal traits for measuring the preference for DtO or MaaS. The seven personal traits are somewhat limited and may not give a conclusive analysis of the personal traits that influence these music consumption decisions.

In addition, since the assessment of the pretest was conducted by the author, it is unavoidable that in this study, a certain degree of subjectivity can be found. In fact, it would have been somewhat objective if it had been decided by two or three examiners

We acknowledge that these weak points make the results of this research only interpretable with these considerations in mind.

5.6. Suggestions for Further Research

One of the contradictory findings is that the data shows that ownership is an important feature for the respondents, but we were not able to confirm the related hypothesis. We might be overlooking an intermediate step. *Ownership* is an important construct; we suggest further research in establishing this link.

Playlist sharing is an important feature, but we were not able to demonstrate that level of *Curatorship* has an influence on preferring MaaS. Again, we may be overlooking an intermediate

step. We would suggest that further research would be conducted into the relationship between *Curatorship* and playlist sharing.

We could not establish a link between level of fan base and preference for MaaS or DtO. We suspect that the *Connectedness* scale used is not measuring accurately, so we suggest further research in order to establish conclusively if this suggested link exists.

We established that MaaS users have an active *Music Involvement*. We propose that if this active *Music Involvement* also results in other artist related purchases, this linkage should be researched and quantified.

We found that gender has an influence on some person traits. This interesting finding could be researched further to discover the underlining reason behind this. This also applies for the mean scores of younger respondents, which point to a higher *Music Involvement* than older respondent.

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Appendix I. *Music Involvement Scale*

To measure the level of *Music Involvement*: Suggested scales for the measurement of musical involvement and genre tastes (Dixon, 1980)

Original scale

The number of (non-dance) musical concerts attended during the previous year.

The number of hours spent listening to music –on typical weekdays – oo

Radio

Television

Records and tapes

The number of hours spent listening to music – on typical weekend days – on—

Radio

Television

Records and tapes

The present of listening time spent “really listening”

The total number of records and prerecorded tapes purchased during the previous year.

Adaptation for current research:

V5 Hoe vaak ben je afgelopen twaalf maanden naar een concert en/of naar een muziekfestival geweest?

0 keer (1)

1 t/m 3 keer (2)

4 t/m 9 keer (3)

10 of meer keer (4)

V6 Hoeveel dagen per week luister je gemiddeld naar muziek (bijvoorbeeld via radio, tv, CD, computer, muziekspeler, telefoon etc.)?

0 dagen (1)

1 t/m 3 dagen (2)

4 t/m 6 dagen (3)

Iedere dag (4)

Answer If Hoeveel dagen per week luister je gemiddeld naar muziek (... 0 dagen Is Not Selected

V7 Hoeveel uur luister je gemiddeld op een dag waarop je luistert?

0 uur (1)

1 t/m 3 uur (2)

4 t/m 9 uur (3)

10 uur of meer (4)

Answer If Hoeveel dagen per week luister je gemiddeld naar muziek (... 0 dagen Is Not Displayed

V8 Van alle tijd dat je naar muziek luistert, welk percentage is echt aandachtig/geconcentreerd muziek luisteren?

0 % (1)

1 t/m 10% (2)

11 t/m 30% (3)

31 t/m 50% (4)

51% of meer (5)

V9 Hoeveel muzieknummers koop of download je per week?

0 (1)

1 t/m 10 nummers (2)

11 t/m 30 nummers (3)

31 t/m 50 nummers (4)

51 nummers of meer (5)

V10

_____ Uitleg: Streamen: online luisteren zonder dat de muziek permanent op je harde schijf wordt opgeslagen. _____

_____ Hoeveel dagen per week luister je gemiddeld naar muziek streaming diensten zoals bijvoorbeeld Spotify of andere diensten waar je zelf kan bepalen welke nummers je gaat beluisteren?

0 dagen (1)

1 t/m 3 dagen (2)

4 t/m 6 dagen (3)

Iedere dag (4)

Answer If _____... 0 dagen Is
Not Selected

V11 Hoeveel uur luister je gemiddeld op een dag naar muziek streaming diensten zoals bijvoorbeeld Spotify, Groovespark of andere diensten waar je zelf kunt bepalen welke nummers je gaat beluisteren?

1 t/m 3 uur (1)

4 t/m 9 uur (2)

10 uur of meer (3)

Appendix II. *Extended Self* Scale

To measure the level of *Extended Self*: “A scale to measure the extent of object incorporation th the *Extended Self*” (Sivadas & Machleit, 1994)

Original scale

- My _____ helps achieve the identity I want to have.
- My _____ helps me narrow the gap between what I am and what I try to be.
- My _____ Is central to my identity.
- My _____ is part of who I am.
- If my _____ is stolen from me I feel as if my identity has been snatched from me.
- I derive some of my identity from my _____ .

Adaptation for current research:

V12 Hieronder wordt een aantal uitspraken gedaan. Geef op een schaal van een tot zes aan in hoeverre jij vindt dat deze uitspraken goed bij je passen of helemaal niet bij jou passen. Links is helemaal niet passend, rechts is goed passend.

1. Mijn muziekcollectie past bij mijn identiteit.
2. Mijn muziekcollectie is onderdeel van wie ik ben.
3. Wanneer mijn muziekcollectie verloren zou gaan, zou dat voelen alsof een deel van mijn identiteit verloren is gegaan.
4. Een deel van mijn identiteit wordt gevormd door mijn muziekcollectie.
5. Mijn muziekcollectie helpt mij mijn eigen identiteit te bepalen.

Backwards translation

1. My music collection fits my identity.
2. My music collection is part of who I am.
3. When my music collection would be lost, that would feel like a part of my identity has been lost.
4. Part of my identity is formed through my music collection.
5. My music collection helps me to define my own identity.

Appendix III. Ownerships Scale

To measure the level of ownership: "The role and measurement of attachment in consumer behavior" by Ball and Tasaki (1992).

Original scale

Imagine for a moment someone making fun of your car. How much would you agree with the statement, "If someone ridiculed my car, I would feel irritated."

How much do you agree with the statement, "My car reminds me of who I am."

Picture yourself encountering someone who would like to get to know you. How much do you think you would agree with the statement, "If I were describing myself, my car would likely be something I mentioned."

Suppose someone managed to destroy your car. Think about how you would feel. How much do you agree with the statement, "If someone destroyed my car, I would feel a little bit personally attacked."

Imagine for a moment that you lost your car. Think of your feelings after such an event. How much do you agree with the statement, "If I lost my car, I would feel like I had lost a little bit of myself."

How much do you agree with the statement, "I don't really have too many feelings about my car."

Imagine for a moment someone admiring your car. How much would you agree with the statement, "If someone praised my car, I would feel somewhat praised myself."

Think for a moment about whether or not people who know you might think of your car when they think of you.

How much do you agree with the statement, "Probably people who know me might sometimes think of my car when they think of me."

Imagine for a moment that you have lost your car. Think about going through your daily activities knowing that it is gone. How much do you agree with the statement, "If I didn't have my car, I would feel a little bit less like myself."

Adaptation for current research:

V13 Noem een tastbaar apparaat dat je bezit en waar je erg blij mee bent. Bijvoorbeeld je auto, je computer, je telefoon etc.

V14 De volgende vragen gaan over je XXX. Geef op een schaal van een tot zes aan in hoeverre jij vindt dat deze uitspraken bij jou passen. Links is helemaal niet passend, rechts is goed passend

1. Stel je de situatie voor dat iemand je XXX belachelijk maakt. In hoeverre ben je het eens met de uitspraak: "Wanneer iemand mijn XXX belachelijk maakt, voel ik me geïrriteerd".
2. Stel je voor dat je je XXX kwijt bent. In hoeverre ben je het eens met de uitspraak: "Als mijn XXX kwijt is, ben ik ook een deel van mij kwijtgeraakt".
3. Stel je voor dat iemand jeXXX bewondert. In hoeverre ben je het eens met de uitspraak: "Wanneer iemand mijn XXX bewondert, voel ik mij ook beetje bewonderd".
4. Stel je voor dat iemand je XXX kapot maakt. In hoeverre ben je het eens met de uitspraak: "Wanneer iemand mijn kapot maakt, voel ik mij ook persoonlijk een beetje beschadigd".
5. In hoeverre ben je het eens met de uitspraak: "Mijn XXX herinnert mij aan wie ik ben".

Backwards translation

1. Imagine the situation that someone ridiculous your XXX . To what extent do you agree with the statement: "When someone makes fun of my XXX , I feel irritated."
2. Imagine that you've lost XXX . To what extent do you agree with the statement: "If my XXX is lost, also a part of me got lost."
3. Imagine that someone admires your XXX . To what extent do you agree with the statement: "When someone admires my XXX , I feel too a little admired."
4. Imagine that someone destroys your XXX . To what extent do you agree with the statement: "When someone destroys my, I feel personally a bit damaged."
5. To what extent do you agree with the statement: "My XXX reminds me of who I am."

Appendix IV. Connectedness Scale

To measure the level of *Connectedness*: “Understanding the bond of identification” by Bhattacharya, Rao & Glynn (1995).

Original scale

When someone criticizes the museum, it feels like a personal insult.

I am very interested in what others think of the museum.

When I talk about the museum, I usually say we instead of they.

The museum's successes are my successes.

When people praises the museum, it feels like a personal compliment.

If a story in the media criticized the museum, I would feel embarrassed.

Adaptation for current research:

V16 Wie is je favoriete muzikartiest?

V17 De volgende zes uitspraken gaan over je favoriete artiest. Je dient aan te geven in hoeverre je het eens of oneens bent met de stellingen. Links is niet mee eens, rechts is mee eens.

1. Wanneer iemand XXX bekritiseert, voelt dat als een persoonlijke belediging.
2. Ik ben erg geïnteresseerd wat andere vinden van XXX .
3. Wanneer ik over XXX praat, zeg ik vaak “we” in plaats van “hen/hem/haar”.
4. Het succes van XXX voelt ook een beetje als mijn succes.
5. Wanneer anderen lovend over XXX praten, voelt dat een beetje als een persoonlijk compliment.
6. Wanneer de pers XXX bekritiseert, voel ik mij een beetje bekritiseerd.

Backwards translation

1. When someone criticizes XXX , it feels as a personal insult.
2. I am very interested in what others think of XXX .
3. When I talk about XXX , I often say "we" instead of "them / him / her."
4. The success of XXX feels a bit like my own success.

5. When others speak highly of XXX , it feels a bit like a personal compliment.
6. When the press criticized XXX , I feel a little criticized.

Appendix V. Curatorship Scale

To measure the level of *Curatorship*: "Assessment of the psychometric properties of an opinion leadership scale" (Childers, 1986)

Original scale

In general, do you talk to your friends and neighbors about cable television: *very often never*

When you talk to your friends and neighbors about cable television do you: *give a great deal give very little of information*

During the past six months, how many people have you told about cable television? *told a number told of people.*

Compared with your circle of friends, how likely are you to be asked about cable television? *very likely not at all likely to be asked to be asked*

In a discussion of cable television, would you be most likely to: *listen to your friends' ideas convince your friends of your ideas*

In discussions of cable television, which of the following happens most often? *you tell your friends tell friends about cable you about cable.*

Overall in all of your discussions with friends and neighbors, are you: *often used as a source of advice*

Adaptation for current research:

Je praat met vrienden/bekenden/familie regelmatig over je muziekcollectie.

In vergelijking met anderen, vragen vrienden/bekenden/familie jou regelmatig naar je muziekcollectie.

Wanneer je met vrienden/bekenden/familie over muziek spreekt, is het waarschijnlijk dat jij hun advies opvolgt.

Je spreekt heel regelmatig met anderen over je muziekcollectie.

Wanneer je met anderen over muziek praat, is het waarschijnlijk dat zij jouw muziekadvies opvolgen.

Backwards translation

1. You regularly talk with friends / family / family about your music collection.

2. Compared to others, your friends / family / family regularly ask you about your music collection.
3. When you talk with friends / family / family about music, it is likely that you follow their advice.
4. You speak very regularly with others about your music collection.
5. When you talk to others about music, it is likely that they will follow your music advice.

Appendix VI. Available music streaming services

ALL MY MUSIC

AOL RADIO

DEEZER

GOOGLE MUSIC

GROOVESHARK

JANGO

LAST.FM

MAESTRO.FM

MOG

MUSIC LIST

MUSICGRAF.COM

PANDORA RADIO

RARA

SLACKER RADIO

SONGZA

SONY MUSIC UNLIMITED

SPOTIFY

TURNTABLE

TWEEWOO.COM

WWW.SPLUMP.COM

YAHOO MUSIC

Appendix VII. ⁷Music Streaming Services in the Netherlands

	Deezer	Grooveshark.	Last FM	Rara.com	Music Unlimited Sony	Spotify
Gratis	alleen 30 sec previews, volledige tracks in radio	ja	-	-	alleen 30 sec previews Basis €3,99 maand (alleen radio + eigen bestanden)	eerste 6 maanden, daarna 10 uur per maand
Abonnement desktop	Premium €4,99 maand	Plus \$6 maand	€3 maand	Web €4,99 maand		Unlimited €4,99 maand
Besturingssystemen desktop	Mac, Windows, Linux	Mac, Windows, Linux	Mac, Windows, Linux	Mac, Windows, Linux	Mac, Windows, Linux	Mac, Windows, Linux
Abonnement desktop + mobiel	Premium+ €9,99 maand	Anywhere \$9 maand	n.v.t.	Web+Mobiel €9,99 maand	Premium €9,99 maand	Premium €9,99 maand
Aantal songs	18 miljoen	15 miljoen	12 miljoen	10 miljoen	15 miljoen	18 miljoen
Geluidskwaliteit/bitrate	320 kbps MP3	64 - 320 kbps MP3	128 kbps MP3	48-72 kbps eAAC+	48 kbps AAC	160 kbps en 320kbps (Premium) OGG
Geluidskwaliteit mobiel	320 kbps MP3	64 - 320 kbps MP3	n.v.t.	48-72 kbps eAAC+	48 kbps AAC	320 kbps
Nederlandstalig	ja	ja	-	ja	ja ja (Premium) en max 1000 maar niet op iPhone	ja
Offline opslaan muziek	ja (Premium+) onbeperkt	ja (Anywhere)	-	ja (Web+Mobiel)		ja (Premium) max 3.333 op 3 apparaten
Afspelen in browser	ja	ja	ja	ja	ja	-
Suggesties vergelijkbare artiesten	ja	-	ja	-	-	ja
Delen muziek via Facebook of Twitter	ja	ja	-	-	-	ja
Automatisch delen op Facebook	ja (uitschakelbaar)	-	-	-	-	ja (uitschakelbaar)

⁷ <http://www.digimuziek.nl/streamingdiensten.htm>

Appendix VIII. Artist revenue estimates per music carrier

Solo artists to earn minimal wage of \$1.160

	\$	They must sell (q)	Label	Artist
Self pressed LP	\$14,99	149	\$0,00	\$7,75
iTunes: album downloaded self produced	\$9,99	171	\$0,00	\$6,82
Self pressed CD	\$9,99	268	\$0,00	\$4,34
iTunes: MP3 downloaded self produced	\$0,99	1.706	\$0,00	\$0,68
CD major label	\$9,99	2.320	\$2,00	\$0,50
iTunes MP3 download major label	\$0,99	14.500	\$0,70	\$0,08
Ringtone major label	\$3,00	23.200	?	\$0,05
Rhapsody stream self produced	fixed	127.427	\$0,01	\$0,01
Spotify stream self produced	fixed	232.000	\$0,01	\$0,01

Appendix X. Questionnaire

Questionnaire

Music consumption

V1 Hoe oud ben je?

0 t/m 15 (1)

16 t/m 20 (2)

21 t/m 24 (3)

25 t/m 30 (4)

31 t/m 34 (5)

35 of ouder (6)

If 0 t/m 15 Is Selected, Then Skip To End of Survey
If 35 of ouder Is Selected, Then Skip To End of Survey

V2 Wat is je voornaam?

V3 Beste

* Fijn dat je wilt meewerken aan deze enquête, die gaat over je muziekgebruik.

* Er zijn geen goede of foute antwoorden; beantwoord de vragen graag zo eerlijk mogelijk.

* Je antwoorden zullen anoniem en vertrouwelijk worden verwerkt.

* Het invullen zal naar verwachting tien minuten duren.

* Onder de deelnemers aan deze enquête verloten we drie iPod shuffles.

* Wanneer je kans wilt maken om een van deze fraaie iPods te winnen, laat dan aan het einde van de enquête je email@ adres achter.

* We berichten je zo snel mogelijk wanneer je een prijs gewonnen hebt.

Hennie van Kuijeren

V4 Je bent een

Man (1)

Vrouw (2)

V5 Hoe vaak ben je afgelopen twaalf maanden naar een concert en/of naar een muziekfestival geweest?

0 keer (1)

1 t/m 3 keer (2)

4 t/m 9 keer (3)

10 of meer keer (4)

V6 Hoeveel dagen per week luister je gemiddeld naar muziek (bijvoorbeeld via radio, tv, CD, computer, muziekspeler, telefoon etc.)?

0 dagen (1)

1 t/m 3 dagen (2)

4 t/m 6 dagen (3)

Iedere dag (4)

Answer If Hoeveel dagen per week luister je gemiddeld naar muziek (... 0 dagen Is Not Selected

V7 Hoeveel uur luister je gemiddeld op een dag waarop je luistert?

0 uur (1)

1 t/m 3 uur (2)

4 t/m 9 uur (3)

10 uur of meer (4)

Answer If Hoeveel dagen per week luister je gemiddeld naar muziek (... 0 dagen Is Not Selected

V8 Van alle tijd dat je naar muziek luistert, welk percentage is echt aandachtig/geconcentreerd muziek luisteren?

0 % (1)

1 t/m 10% (2)

11 t/m 30% (3)

31 t/m 50% (4)

51% of meer (5)

V9 Hoeveel muzieknummers koop of download je per week?

0 (1)

1 t/m 10 nummers (2)

11 t/m 30 nummers (3)

31 t/m 50 nummers (4)

51 nummers of meer (5)

V10

_____ Uitleg: Streamen: online luisteren zonder dat de muziek permanent op je harde schijf wordt opgeslagen. _____

_____ Hoeveel dagen per week luister je gemiddeld naar muziek streaming diensten zoals bijvoorbeeld Spotify of andere diensten waar je zelf kan bepalen welke nummers je gaat beluisteren?

0 dagen (1)

1 t/m 3 dagen (2)

4 t/m 6 dagen (3)

Iedere dag (4)

Answer If _____ ... 0 dagen Is
Not Selected

V11 Hoeveel uur luister je gemiddeld op een dag naar muziek streaming diensten zoals bijvoorbeeld Spotify, Groovespark of andere diensten waar je zelf kunt bepalen welke nummers je gaat beluisteren?

1 t/m 3 uur (1)

4 t/m 9 uur (2)

10 uur of meer (3)

V12 Hieronder wordt een aantal uitspraken gedaan. Geef op een schaal van een tot zes aan in hoeverre jij vindt dat deze uitspraken goed bij je passen of helemaal niet bij jou passen. Links is helemaal niet passend, rechts is goed passend.

Mijn muziekcollectie past bij mijn identiteit.

Mijn muziekcollectie is onderdeel van wie ik ben.

Wanneer mijn muziekcollectie verloren zou gaan, zou dat voelen alsof een deel van mijn identiteit verloren is gegaan.

Een deel van mijn identiteit wordt gevormd door mijn muziekcollectie.

Mijn muziekcollectie helpt mij mijn eigen identiteit te bepalen.

V12 *Noem een tastbaar apparaat dat je bezit en waar je erg blij mee bent. Bijvoorbeeld je auto, je computer, je telefoon etc.*

V13 *De volgende vragen gaan over je XXX . Geef op een schaal van een tot zes aan in hoeverre jij vindt dat deze uitspraken bij jou passen. Links is helemaal niet passend, rechts is goed passend*

Stel je de situatie voor dat iemand je XXX belachelijk maakt. In hoeverre ben je het eens met de uitspraak: “Wanneer iemand mijn XXX belachelijk maakt, voel ik me geïrriteerd”.

Stel je voor dat je je XXX kwijt bent. In hoeverre ben je het eens met de uitspraak: “Als mijn XXX kwijt is, ben ik ook een deel van mij kwijtgeraakt”.

Stel je voor dat iemand je XXX bewondert. In hoeverre ben je het eens met de uitspraak: “Wanneer iemand mijn XXX bewondert, voel ik mij ook beetje bewonderd”.

Stel je voor dat iemand je XXX kapot maakt. In hoeverre ben je het eens met de uitspraak: “Wanneer iemand mijn kapot maakt, voel ik mij ook persoonlijk een beetje beschadigd”.

In hoeverre ben je het eens met de uitspraak: “Mijn XXX herinnert mij aan wie ik ben”.

V14. *Hieronder staan vijf stellingen. Geef svp aan in hoeverre je het eens of oneens bent met de stellingen. Links is niet mee eens, rechts is mee eens.*

Ik bewonder mensen die dure huizen, auto's of kleding bezitten.

Ik probeer mijn leven zo simpel mogelijk te houden wat bezittingen betreft.

Het kopen van dingen geeft me veel plezier.

Mijn leven zou beter zijn als ik bepaalde dingen zou bezitten die ik nu niet heb.

Ik zou gelukkiger zijn als ik het me kon veroorloven om meer dingen te kopen.

V15 *Wie is je favoriete muzikartiest?*

V16 *De volgende zes uitspraken gaan over je favoriete artiest. Je dient aan te geven in hoeverre je het eens of oneens bent met de stellingen. Links is niet mee eens, rechts is mee eens.*

Wanneer iemand XXX bekritiseert, voelt dat als een persoonlijke belediging.

Ik ben erg geïnteresseerd wat andere vinden van XXX .

Wanneer ik over XXX praat, zeg ik vaak “we” in plaats van “hen/hem/haar”.

Het succes van XXX voelt ook een beetje als mijn succes.

Wanneer anderen lovend over XXX praten, voelt dat een beetje als een persoonlijk compliment.

Wanneer de pers XXX bekritiseert, voel ik mij een beetje bekritiseerd.

V17 De volgende vijf uitspraken gaan over hoe vaak je over muziek praat. Geef svp aan in hoeverre deze uitspraken in jouw situatie waarschijnlijk of niet waarschijnlijk zijn.

Niet waarschijnlijk (1)	(2)	(3)	(4)	(5)	Waarschijnlijk (6)
-------------------------------	-----	-----	-----	-----	-----------------------

Je praat met vrienden/bekenden/familie regelmatig over je muziekcollectie. (1)

In vergelijking met anderen, vragen vrienden/bekenden/familie jou regelmatig naar je muziekcollectie. (2)

Wanneer je met vrienden/bekenden/familie over muziek spreekt, is het waarschijnlijk dat jij hun advies opvolgt. (3)

Met hoeveel mensen heb je het afgelopen halfjaar over je muziekcollectie gesproken? (5)

Wanneer je met anderen over muziek praat, is het waarschijnlijk dat zij jouw muziekadvies opvolgen. (6)

V18 Wanneer je naar je favoriete muziek luistert, bijvoorbeeld naar XXX , op welke manier doe je dat meestal? In de meeste gevallen via:

CD's, cassettes, vinyl of andere muziekdragers. (1)

Computer, laptop of ander hardware apparaat. (2)

Smartphone, MP3 muziekspeler, tablet. (3)

Andere manier namelijk: (4) _____

V19

_____ Er zijn grofweg twee mogelijkheden om via internet van muziek te genieten: Downloaden: opslaan op je computer; Streamen: online luisteren zonder dat de muziek permanent op je harde schijf wordt opgeslagen.

_____ Wanneer je via je computer, MP3 muziekspeler of smartphone naar je favoriete muziek luistert, bijvoorbeeld naar XXX , heb je die muziek dan gedownload (betaald of niet betaald) of gebruik je een streaming muziekdienst, bijvoorbeeld Spotify of Grooveshark?

Meestal gedownload. (1)

Meestal via muziek streaming. (2)

Geen van beide. (3)

If Geen van beide Is Selected, Then Skip To Wil je kans maken op een van de drie ...

Answer If _____... Meestal
gedownload Is Selected

V20 Kun je aangeven in hoeverre je het met onderstaande uitspraken eens bent: Muziek downloaden is beter dan muziek streamen omdat:

Mee oneens (1)	(2)	(3)	(4)	(5)	Mee eens (6)
-------------------	-----	-----	-----	-----	-----------------

De geluidskwaliteit beter is. (1)

Je de muziek bezit. (2)

Je de muziek niet kwijt kunt raken. (3)

Je makkelijker muziek kunt delen met anderen. (4)

Je makkelijker playlists kunt delen met anderen. (5)

Het goedkoper is. (6)

Je ook buitenshuis muziek kunt luisteren. (7)

Meer keuze van liedjes hebt. (8)

Answer If Wanneer je naar je favoriete muziek luistert, bijvoorbeeld... Meestal gedownload Is
Selected

V21 Wat is voor jou de belangrijkste reden om muziek te downloaden i.p.v. te streamen? (enkele steekwoorden zijn voldoende)

Answer If _____... Meestal via
muziek streaming Is Selected

V22 Kun je aangeven in hoeverre je het met onderstaande uitspraken eens bent: Muziek streamen is beter dan muziek downloaden omdat:

Mee	(2)	(3)	(4)	(5)	Mee eens
-----	-----	-----	-----	-----	----------

oneens (1)

(6)

De geluidskwaliteit beter is. (1)

Je de muziek bezit. (2)

Je de muziek niet kwijt kunt raken. (3)

Je makkelijker muziek kunt delen met anderen. (4)

Je makkelijker playlists kunt delen met anderen. (5)

Het goedkoper is. (6)

Je ook buitenshuis muziek kunt luisteren. (7)

Meer keuze van liedjes hebt. (8)

Answer If Kun je aangeven in hoeverre je het met onderstaande ... Je de muziek bezit. Is Selected

V23 Wat is voor jou de belangrijkste reden om muziek te streamen i.p.v. te downloaden? (enkele steekwoorden zijn voldoende)

Answer If _____... Meestal via muziek streaming Is Selected

V24 Wat denk je dat je de komende twaalf maanden zult doen:

Ik ga vaker muziek via streaming beluisteren. (1)

Ik ga minder vaak muziek via streaming beluisteren. (2)

Ik verwacht geen verandering in hoe vaak ik muziek via streaming beluister. (3)

Answer If _____... Meestal gedownload Is Selected

V25 Wat denk je dat je de komende twaalf maanden zult doen:

Ik ga vaker muziek downloaden. (1)

Ik ga minder vaak muziek downloaden. (2)

Ik verwacht geen verandering in hoe vaak ik muziek download. (3)

V26 Wil je kans maken op een van de drie iPod Shuffles, laat dan hier je e-mailadres achter:

Appendix XI. Survey request pages

Digimuziek⁸

Downloaden of streamen? Onderzoek naar muziekgebruik

0

Posted 14 jul 2012 — by **Hans**

Category **Muziek**

Met het slechte weer van dit weekend heb je vast wel even tijd voor het invullen van een enquête over muziekgebruik. Je kunt er ook nog een iPod mee winnen.

De link naar de enquête is: https://vueconomics.qualtrics.com/SE/?SID=SV_81Z6YtQMvqqIRu

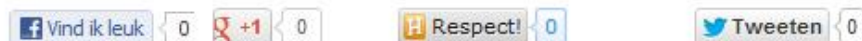
Er is ook een smartphone-vriendelijke versie: https://vueconomics.qualtrics.com/SE/?SID=SV_4GywyckW5hKgde



Het onderzoek is gericht op muzikliefhebbers jonger dan 35. Ben je ouder dan heeft invullen geen zin.

De enquête is van Hennie van Kuijeren in het kader van zijn Masterstudie.

Interessant onderwerp. Doe mee! De resultaten zal ik uiteraard publiceren.



Related Posts :



Spotify onderzoek

Over het Spotifygebruik in Nederland zijn geen cijfers bekend. Spotify is helaas niet zo scheut ...

⁸ <http://www.digimuziek.nl/nieuws/downloaden-of-streamen-onderzoek-naar-muziekgebruik/>



Home | Contact | Prijsvragen en acties | Enquête over muziekgebruik win een iPod shuffle!

[Ads door Google](#) [Apple iPod Shuffle](#) [iPod Shuffle](#) [Muziek](#)

Enquête over muziekgebruik: win een iPod shuffle!



Als onderdeel van zijn masterstudie aan de Vrije Universiteit doet Hennie van Kuijeren onderzoek naar muziekgebruik onder Nederlanders van 16 tot 34 jaar. Het invullen van de enquête duurt ongeveer tien minuten. Antwoorden worden anoniem en vertrouwelijk verwerkt. Onder de deelnemers worden drie iPod shuffles verloot.

[Klik hier om naar de vragenlijst te gaan](#) (smartphone-vriendelijke versie [hier](#))

Met dit onderzoek probeert Hennie de achterliggende motieven voor twee vormen van muziekconsumptie (downloaden en streamen) te achterhalen. Onder de deelnemers aan deze enquête worden drie iPod shuffles verloot. Daarvoor hoef je enkel je e-mailadres achter te laten aan het eind van de enquête. Met de winnaars wordt contact opgenomen.

⁹ <http://nlpop.blog.nl/prijsvragen/2012/07/15/enquete-over-muziekgebruik-win-een-ipod-shuffle>

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Enquête streaming audio



Hennie van Kuijeren doet voor zijn Master studie onderzoek naar het muziekgebruik onder 16 tot 34 jarigen. Met het onderzoek probeert hij te achterhalen welke motieven gebruikers hebben om muziek (soms) te downloaden of muziek te streamen. De muziek is hetzelfde maar het lijkt dat sommige muziekgebruikers een voorkeur hebben voor of muziek "as a service" of muziek die gedownload is en men in bezit heeft. Dit onderzoek is erop gericht de beweegredenen te achterhalen waar de keuze voor één van de twee manieren op gebaseerd is.

Start de desktop versie of de smartphone versie van de enquête.

Select

¹⁰ <http://www.artsexcellence.nl/website/streaming-audio.enquete.php>

Appendix XII. Categorical Variables Coding

			Parameter coding		
		Frequency	(1)	(2)	(3)
What is your age? (U.S. Census. 9 Categories)	1 t/m 20	66	1.000	.000	.000
	21 t/m 24	125	.000	1.000	.000
	25 t/m 30	134	.000	.000	1.000
	31 of ouder	115	.000	.000	.000
21 tm 24	.00	315	.000		
	1.00	125	1.000		
25 tm 30	.00	306	.000		
	1.00	134	1.000		
31 +	.00	325	.000		
	1.00	115	1.000		
1 tm 3	0	248	.000		
	1	192	1.000		
4 tm 9	0	358	.000		
	1	82	1.000		
10+	0	387	.000		
	1	53	1.000		
4 tm 6	.00	359	.000		
	1.00	81	1.000		
iedere dag	.00	120	.000		
	1.00	320	1.000		
geslacht	vrouw	219	.000		
	man	221	1.000		
10 of meer	.00	416	.000		
	1.00	24	1.000		
iedere dag	0	355	.000		
	1	85	1.000		
4 tm 6 dagen	0	381	.000		
	1	59	1.000		
1 tm 3 dagen	0	299	.000		
	1	141	1.000		
51+	0	425	.000		
	1	15	1.000		
31 tm 50	0	427	.000		
	1	13	1.000		
1 tm 10	0	262	.000		
	1	178	1.000		
11 tm 30	0	385	.000		
	1	55	1.000		
4 - 9 uur	.00	284	.000		
	1.00	156	1.000		

Appendix XIII. Question 21-23 Reasons for Preference for DtO or MaaS

Statistics								
	Kun je aangeven in hoeverre je het met onderstaande uitspraken eens bent: Muziek downloaden is bet....-De geluidskwaliteit beter is.	Je de muziek de bezit.	Je de muziek niet kwijt kunt raken.	Je makkelijker muziek kunt delen met anderen.	Je makkelijker playlists kunt delen met anderen.	Het goedkoper is.	Je ook buitenshuis muziek kunt luisteren.	Meer keuze van liedjes hebt.
NValid	281	281	281	281	281	281	281	281
Missing	351	351	351	351	351	351	351	351
M	3,88	4.88	4.12	3.47	3.09	3.57	4.86	3.67
Std.	1,607	1.261	1.658	1.626	1.583	1.683	1.378	1.652
V	2,583	1.590	2.750	2.643	2.507	2.832	1.899	2.728

	.De geluidskwaliteit beter is.	Je de muziek de bezit.	Je de muziek niet kwijt kunt raken.	Je makkelijker muziek kunt delen met anderen.	Je makkelijker playlists kunt delen met anderen.	Het goedkoper is.	Je ook buitenshuis muziek kunt luisteren.	.Meer keuze van liedjes hebt.
NValid	164	164	164	164	164	164	164	164
Missing	468	468	468	468	468	468	468	468
M	3,04	2.41	3.95	3.91	4.20	4.36	3.99	4.53
Std.	1,477	1.477	1.662	1.589	1.491	1.646	1.684	1.512
V	2,183	2.182	2.764	2.525	2.223	2.710	2.834	2.287

Appendix XIV. Factor Analyses

Component Matrix ^a	
	Component 1
Hoeveel dagen per week luister je gemiddeld naar muziek (bijvoorbeeld via radio, tv, CD, computer, m...	.726
Hoeveel muzieknummers koop of download je per week?	.662
Hoeveel uur luister je gemiddeld op een dag waarop je luistert?	.635
Hoe vaak ben je afgelopen twaalf maanden naar een concert en/of naar een muziekfestival geweest?	.610

Extraction Method: Principal Component
Analysis.
a. 1 components extracted.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,684
Bartlett's Test of Sphericity	Approx. Chi-Square	174.743
	df	10
	Sig.	.000

Appendix XV. Frequency Table Questions 22 and 24

Antwoord 22		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Prijs	25	4.0	9.7	9,7
	Kwaliteit	10	1.6	3.9	13,5
	Mobieliteit	30	4.7	11.6	25,1
	Bezitten	63	10.0	24.3	49,4
	Niet Online	50	7.9	19.3	68,7
	Gemak	58	9.2	22.4	91,1
	Keuze mogelijkheid	14	2.2	5.4	96,5
	Onbekend met	9	1.4	3.5	100,0
	Total	259	41.0	100.0	
Missing	System	373	59.0		
Total		632	100.0		

Antwoord 24		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Prijs	28	4.4	18.4	18,4
	Kwaliteit	5	.8	3.3	21,7
	Mobieliteit	4	.6	2.6	24,3
	Bezitten	2	.3	1.3	25,7
	Niet Online	1	.2	.7	26,3
	Gemak	70	11.1	46.1	72,4
	Keuze mogelijkheid	41	6.5	27.0	99,3
	Onkend met	1	.2	.7	100,0
	Total	152	24.1	100.0	
Missing	System	480	75.9		
Total		632	100.0		

Appendix XVI. Multicollinearity

Coefficients			
Model		Collinearity Statistics	
		Tolerance	VIF
1	self-image	.697	1.435
	perceived level of <i>Curatorship</i>	.685	1.459
	<i>Connectedness</i> to any single artist	.800	1.250
a. Dependent Variable: <i>Need for Ownership</i>			

Collinearity Diagnostics							
Model	Dimension				Variance Proportions		
		Eigenvalue	Condition Index	(Constant)	self-image	perceived level of <i>Curatorship</i>	<i>Connectedness</i> to any single artist
1	1	3,748	1,000	,01	,00	,01	,01
	2	,122	5,550	,06	,04	,07	,99
	3	,088	6,526	,31	,03	,80	,00
	4	,042	9,418	,62	,93	,12	,00

a. Dependent Variable: *Need for Ownership*

Appendix XVII. Future Use Intentions

Wat denk je dat je de komende twaalf maanden zult doen:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ik ga vaker muziek downloaden.	30	4.7	10.7	10,7
	Ik ga minder vaak muziek downloaden.	14	2.2	5.0	15,7
	Ik verwacht geen verandering in hoe vaak ik muziek download.	237	37.5	84.3	100,0
	Total	281	44.5	100.0	
Missing	System	351	55.5		
Total		632	100.0		

Wat denk je dat je de komende twaalf maanden zult doen:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ik ga vaker muziek via streaming beluisteren.	40	6.3	24.4	24,4
	Ik ga minder vaak muziek via streaming beluisteren.	4	.6	2.4	26,8
	Ik verwacht geen verandering in hoe vaak ik muziek via streaming beluister.	120	19.0	73.2	100,0
	Total	164	25.9	100.0	
Missing	System	468	74.1		
Total		632	100.0		

Appendix XVIII. Cronbach's Alfa

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	341	54.0
	Excluded ^a	291	46.0
	Total	632	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,621	6

RELIABILITY

/VARIABLES=V14_1 to V14_5

/SCALE('ALL VARIABLES') ALL

/MODEL=ALPHA

.Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	589	93.2
	Excluded ^a	43	6.8
	Total	632	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,854	5

RELIABILITY

/VARIABLES=V15_1 to V15_5

/SCALE('ALL VARIABLES') ALL

/MODEL=ALPHA

.Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	586	92.7
	Excluded ^a	46	7.3
	Total	632	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,718	4

RELIABILITY

/VARIABLES=V12_1 to V12_5

/SCALE('ALL VARIABLES') ALL

/MODEL=ALPHA

.Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	596	94.3
	Excluded ^a	36	5.7
	Total	632	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,867	5

RELIABILITY

/VARIABLES=V18_1 to V18_6
/SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA

.Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	582	92.1
	Excluded ^a	50	7.9
	Total	632	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,905	5

RELIABILITY

/VARIABLES=V17_1 to V17_5
/SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA

.Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	583	92.2
	Excluded ^a	49	7.8
	Total	632	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,863	5

Appendix XIX. Factor Analysis KMO and Barlett's Test

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,891
Bartlett's Test of Sphericity	Approx. Chi-Square	4803,483
	df	351
	Sig.	,000

Appendix XX. LR Omnibus Test and Hosmer and Lemeshow Test

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	38,106	5	,000
	Block	38,106	5	,000
	Model	38,106	5	,000

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	9,819	8	,278

Appendix XXI. Box's M MANOVA and Levene's Test of Equality of Error Variances^a

Box's Test of Equality of Covariance Matrices^a

Box's M	115,723
F	1,067
df1	105
df2	197583,952
Sig.	,302

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + V1.0 + V4.0 + V1.0 * V4.0

Levene's Test of Equality of Error Variances^a

	F	df1	df2	Sig.
<i>Need for Ownership</i>	1,142	7	566	,335
<i>self-image</i>	,753	7	566	,627
<i>perceived level of Curatorship</i>	1,286	7	566	,255
<i>Connectedness</i> to any single artist	1,203	7	566	,299
<i>Music_involvement</i>	2,959	7	566	,005

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + V1.0 + V4.0 + V1.0 * V4.0

Appendix XXII. MANOVA Tests of Between-Subjects Effects

Tests of Between-Subjects Effects							
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	<i>Need for Ownership</i>	5,436 ^a	7	,777	,452	,869	,006
	self-image	14,310 ^b	7	2,044	1,429	,191	,017
	perceived level of <i>Curatorship</i>	55,984 ^c	7	7,998	4,713	,000	,055
	<i>Connectedness</i> to any single artist	15,877 ^d	7	2,268	2,073	,045	,025
	Music_involvement	5,201 ^e	7	,743	6,546	,000	,075
Intercept	<i>Need for Ownership</i>	5563,344	1	5563,344	3238,154	,000	,851
	self-image	7589,838	1	7589,838	5306,278	,000	,904
	perceived level of <i>Curatorship</i>	4716,163	1	4716,163	2779,396	,000	,831
	<i>Connectedness</i> to any single artist	2378,537	1	2378,537	2174,231	,000	,793
	Music_involvement	1249,440	1	1249,440	11007,761	,000	,951
V1.0	<i>Need for Ownership</i>	1,853	3	,618	,360	,782	,002
	self-image	4,572	3	1,524	1,065	,363	,006
	perceived level of <i>Curatorship</i>	1,608	3	,536	,316	,814	,002
	<i>Connectedness</i> to any single artist	4,272	3	1,424	1,302	,273	,007
	Music_involvement	1,065	3	,355	3,128	,025	,016
V4.0	<i>Need for Ownership</i>	3,505	1	3,505	2,040	,154	,004
	self-image	3,569	1	3,569	2,495	,115	,004
	perceived level of <i>Curatorship</i>	46,434	1	46,434	27,365	,000	,046
	<i>Connectedness</i> to any single artist	11,510	1	11,510	10,522	,001	,018
	Music_involvement	2,665	1	2,665	23,478	,000	,040
V1.0 * V4.0	<i>Need for Ownership</i>	1,039	3	,346	,202	,895	,001
	self-image	5,508	3	1,836	1,283	,279	,007
	perceived level of <i>Curatorship</i>	2,908	3	,969	,571	,634	,003
	<i>Connectedness</i> to any single artist	,976	3	,325	,298	,827	,002
	Music_involvement	,377	3	,126	1,109	,345	,006
Error	<i>Need for Ownership</i>	972,422	566	1,718			
	self-image	809,578	566	1,430			
	perceived level of <i>Curatorship</i>	960,406	566	1,697			
	<i>Connectedness</i> to any single artist	619,185	566	1,094			
	Music_involvement	64,244	566	,114			
Total	<i>Need for Ownership</i>	7134,040	574				

	self-image	9226,840	574				
	perceived level of <i>Curatorship</i>	6225,680	574				
	<i>Connectedness</i> to any single artist	3200,960	574				
	Music_involvement	1434,668	574				
Corrected	<i>Need for Ownership</i>	977,859	573				
Total	self-image	823,888	573				
	perceived level of <i>Curatorship</i>	1016,390	573				
	<i>Connectedness</i> to any single artist	635,063	573				
	Music_involvement	69,445	573				

a. R Squared = ,006 (Adjusted R Squared = -,007)

b. R Squared = ,017 (Adjusted R Squared = ,005)

c. R Squared = ,055 (Adjusted R Squared = ,043)

d. R Squared = ,025 (Adjusted R Squared = ,013)

e. R Squared = ,075 (Adjusted R Squared = ,063)