

# Online music performance consumption in times of crisis

A quantitative study of the impact of online music concert consumption during the Covid-19 period  
on future physical attendance

Master Thesis

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## Abstract

The Covid-19 period presents an unprecedented moment in history, where all cultural organisations and concert venues had to close their doors to the public. Consequently, the live music sector faces high uncertainties of supply and demand for the future, and heads into a precarious economic and cultural situation. In turn, artists, organisations and venues increasingly turned online to provide online concerts and music performances. The online consumption of these also considerably increased in the two and a half months of lockdown. In this research, we analyse the online consumption and its effects on future attendance. We set out to look at drivers and barriers and how they affect future attendance. We find that economic drivers and barriers are significant to understand the relation to future attendance and anticipation. Through a mediation analysis, the research studies how online consumption mediates this relationship. We find that the effects of economic drivers and barriers are mediated through how much audiences increased their online consumption during the lockdown period. Furthermore, we draw general implication of online consumption. Firstly, we show that both the frequency of online consumption, and how much audiences increased their online consumption have positive effects on the future increase of physical attendance and the anticipation towards attending concerts again. Secondly, we detect specific types of online consumption. Significant results show that the more audiences engage socially online, the more they plan to increase their attendance post Covid-19. Then, online engagement, online discovery, online education and online access show significant positive effects toward the anticipation of audiences for physical concert. Lastly, we draw important implication for cultural organisations to become more resilient for the post Covid-19 era.

Keywords: Covid-19, online music concerts, audience studies, mediation analysis, cultural organisations

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## 1. Introduction

On the 11<sup>th</sup> of March, the WHO (World Health Organisation) officially declared the Covid-19 virus outbreak as a pandemic. Consequently, globally, nations implemented lock-down and social distancing measures to decrease the spread and get the virus under control. Notably, the closing of all kinds of cultural organisation and venues was part of the strategies, putting the cultural sphere on ice for an indefinite period. Meaning that, among other, no concerts or live music of any form could take place with public. In efforts to adapt to the official measures and still provide cultural offerings to the public, organisations, artists, and initiatives increasingly turned to the online provision of concerts and musical performances. This led to an unprecedented time in the history of the arts and culture, where audiences were deprived of live music, and the only possible way of consuming and supplying music performances was through the internet.

Indeed, the music sector is one of the first that was hit by the Covid-19 crisis and will be one of the last to recover. The immense live-music ecosystem is constituted of a vast array of jobs and functions, and unemployment is rising. Even after all the restrictions are elevated, the sector will need considerable time to come back to normal, while the forecasts range wide into 2021. There will be a hyper-saturation of events, and demands will be even more unpredictable. Consequently, the sector will face less job opportunities, unstable participation and less risk-taking (DMA, 2020). Statistics show that digital sales fell by 11%. And over 50% of the revenues in the music sectors come from ticket sales of live performances, meaning that half of the revenue fall away during the lock-down period (Hall, 2020).

On the other hand, it reminds us how crucial the cultural sector is and its immense implications. Music concerts play a vital role for solidarity and bringing people together. As a response to the crisis, artists and venues have increasingly organized online concerts. Cultural operators and artists provide online content through streaming platforms (eg. YouTube, Vimeo, Twitch), social media (eg. Facebook, Instagram) or their own websites. At the same time, the public also engages increasingly in streaming concerts and watching them online. Indeed, Facebook (Wong, 2020) reports for March 2020, an increase of almost 50% in the number of people who engage in live videos. With the increased online consumption of music concerts, and the restrictions on physical attendance, we face thus an unique moment in history, which leaves a lot of uncertainties for the future of both demand and supply of cultural offerings.

Rapidly, scholars have turned to researching music during the Covid-19 time. For instance, researches gathered by the Max Planck Institute for Empirical Aesthetics (2020) show that researches are looking into how individuals use music to cope with the situation, the social impacts of streamed concerts, the impact of Covid-19 measures on virtual music collaborations, streaming of operas or emotional impacts. However, questions about the future of live music also arise. The music sector faces enormous challenges in how to revive the cultural sphere after the lockdown period.

It is uncertain how concerts can be held in the future, what the economic situation looks like or how Covid-19 will affect the demand for live music.

As in these times, individuals are actively watching, sharing and listening to online concerts, it is also of interest to understand which impact this has on their future consumption.

In this research, we are set out to understand the impact of consuming online concerts, during Covid-19, on the future attendance, once the Covid-19 period has passed. Therefore, we will perform an audience study (for the period of March until end of May 2020).

Audience studies in arts and culture have a long tradition since the 1960s (Baumol & Bowen, 1966), looking at the intrinsic and extrinsic characteristic of audiences and understanding the relations to their consumption patterns. Whereas socio-demographic factors were long at the core, in the past two decades, psychological factors also became relevant. Including the study of what drives individuals to attend or what holds them back. Thereby, bringing forward drivers/motivational factors and barriers to attendance for the performing arts. Segmenting audiences based on their motives and drivers, we are interested to understand the impact of their online consumption on future physical attendance.

As online music concerts are a relatively recent phenomenon, research on it is limited. Consequently, we base ourselves on literature on the use of digital media from the cultural organisations and venues perspective. Showing that organisations use streaming and online provision of material for various audience development strategies, promotion, engagement, education discovery and access.

Hence, leading to following research question:

**How does the online consumption of music performances impact the future physical attendance of various audience segments? And what implication can be drawn for audience development strategies?**

## **Academic and social relevance**

The Covid-19 pandemic presents an unprecedented moment in history to analyse and understand the dynamics and impacts of arts and culture during crisis times. We are interested in studying audiences' use of online music performances and concerts and the impact on future physical attendance. Firstly, we base ourselves on a variety on academic literature and approaches, to propose a new innovative mediation model. This adds to the academic audience studies discourse and looks at audiences from the driver and barrier perspectives. Secondly, this research is part of researching cultural phenomena in a moment of crisis, which will eventually pass, and therefore brings valuable academic information in studying an ephemeral time period that will have long lasting effects on everyone's life.

In addition, the analysis and findings will provide important knowledge for cultural venues and organisations that can be used for effectively approaching the future. On the one hand, the results will help venues to understand what effect and impact the online provision of music concerts have on various audience segments and their future consumption. Thereby, being able to better understand the future demand and also shape marketing strategies accordingly. On the other hand, it will provide a unique historical account of online consumption in times of crisis.

## **The research**

In this thesis, we study literature and previous research on audience studies, audience development, performing arts experience constructs and the digital provision of performing arts. From there, we bring forward different hypotheses on the effects of online consumption during Covid-19 on future attendance post Covid-19. Furthermore, we set out to understand the effects of driver and barriers on future attendance. From there, we propose a mediating model, by which we suggest that online consumption of music performances mediates the expected future attendance for various audiences, that have diverse motivations and barriers for attending physical concerts. The results will provide information to inform audience development strategies for cultural organisations and concert venues.



## **2. Theoretical Framework**

### **2.1 Audience studies in the performing arts**

#### **Audience studies**

Audience studies in the performing arts originated as an academic research method in the 1960s, notably with Baumol & Bowen (1966), who investigated the sociodemographic factors influencing consumption, in order to understand, for instance, how income is related to performing arts attendance. Later, Bourdieu (1979) brought forward his theories on the relation between social classes and consumption. Dividing the arts into high and popular culture, he found that people from the higher social classes pertaining more toward high arts and vice versa.

Bourdieu's (1979) theory laid the foundation for years of sociological audience research. A disruptive notion to Bourdieu's theory is that of the cultural omnivore, a term first brought forward by Peterson (1992). Showing that people attaining to higher social classes also tend to consume popular culture. This led the way to look at audiences in a different light, and while socio-demographic factors are still important for audience studies, increasingly, scholars have taken more variables into account for study of cultural participation.

#### **Motivational factors**

Next to socio-demographic factors, scholar brought forward that internal motivations are strong determinants in the consumption of cultural products for attending the performing arts are of an equal importance when analysing attendance (Mathur, 1996; in Swanson et al, 2008). The underlying assumption is that different individuals satisfy different needs by attending live performing arts and that internal motivation affect consumption (e.g., Swanson et al., 2008; McCarthy et al, 2001).

Notably, Swanson et al. (2008) criticize the omission of psychological and individual factors for attendance, because, so they argue, internal motivations play a major role for cultural consumption. Accordingly, Rooij & Bastiaansen (2015) explain that the way audiences experience art events is heavily influenced by their consumption motives, and that it is valuable for organizations and cultural operators to understand these elements in order to better adapt their program and marketing strategies. Furthermore, the NEA (2015) show that socio-demographics should be a starting point to analyse audiences, but that the inclusion of motives and barriers bring forward a more valuable understanding of why people attend. With this in mind, a study by Novak & Brown (2011) on arts attendance

shows that less than twenty percent of the attendance variation can be demonstrated by socio-demographic variables, and that more complex factors need to be taken into account. Throughout this study, we will refer to drivers and motives interchangeably.

Given these points, numerous scholars have recognized that individual drivers and barriers have a strong impact on cultural participation and consumption. Thereupon, different approaches to researching these motives have emerged and scholars have been categorising drivers and barriers in various ways.

In their forward-looking and innovative paper, Swanson et al. (2008) suggest that “the creation of motivationally based profiles may be a way to better understand distinct segments in the live performance consumer market” (p.320). Based on survey data of 442 performance attendees, in combination with including an extensive range of arts research, they bring forward six different categories of motives that have a strong effect on attendance. The identified motives are: aesthetics, education, escape, recreation, self-esteem management and social interaction. Aesthetics refers to the beauty, grace and pleasure someone derives from consuming a cultural product. Education entails the ‘desire to learn and know more about the arts’ (Swanson et al., 2008, p.302). When people are motivated by escape, they are seeking diversion from routines or personal problems. Recreation refers to being entertained. Self-esteem enhancement comes up when people desire to attain and maintain a positive social attitude to life. And lastly, people might attend to satisfy their social needs. In their study, they find that four motives (aesthetic, educational, recreational, and self-esteem) have especially significant effect on the amount of attendance. More specifically, to how many times people attended in the past year, but also for how many years they already participate. Hence, through this framework, they show how important it is to consider motives, and how these relate positively to attendance and the way audiences engage in live performances

In like manner, the National Endowment of the Arts (NEA), performed research on audiences for more than three decades, and in the last ten years they started to recognize the importance of drivers and barriers to attendance for studying cultural participation. It allows for a more in-depth analysis to understand why people attend the performing arts, but also what role arts play in people’s lives. Inspired by Ostrower’s (2005, in NEA,2015), they studied following main drivers (NEA, 2015, p.9): Socialising with family and friends; visiting a specific location or venue; learning something new; experiencing high quality art; supporting community events; seeing a specific performer or works by a specific individual artist; low cost; learning about or celebrating their families heritage

The respondents were asked to indicate if the drivers are minor or major reasons for attendance. Their results brought forward that the social motivations were the most dominant for explaining performing arts attendance. Closely followed by the driver to see a specific performance or artist and gaining new knowledge. The findings from the NEA (2015) report are summarized in Figure 1.

Socializing with family or friends	72.9%
Seeing an exhibit or performance at this particular location	65.8%
Gaining knowledge or learning something new	64.1%
Experiencing high-quality art	63.2%
Supporting a community organization or community event	51.2%
Seeing a specific individual artist's performance or artworks	41.2%
Low cost or free admission	40.9%
Celebrating or learning about one's own cultural heritage	24.2%

*Figure 1: NEA (2015) Percentage of US adults who attended the Visual Arts and/or Performing Arts in the past 12 months, by motivations for attending*

In similar fashion, Boerner et al. (2011) studied German cultural organisations and also identified four different motivational factors for attendance. Social hedonism refers to the fact that people look for social interaction. Intellectual enrichment implies that audience members look for educating themselves and develop themselves intellectually. In 'arousal of emotions', the emotional experience is at the forefront. And entertainment refers to the quality time, that audience members seek.

A rather recent study by Rooij & Bastiaansen (2015) reports that experiences and the type of performing art consumption is heavily influenced by consumption motives. They themselves claim that "there is no common understanding on categorizing, conceptualizing and measuring consumption motives in the performing arts" (p.1). Based on a rigorous literature review on consumption motives, the scholars bring forward their own classification. They depart from the idea that it is important to consider multiple motives for attendance. Their motives relate to (Rooij & Bastiaansen, 2015, p.3-5): Aesthetics; cognitive stimulation; reduction; transcendence; entertainment; variety and novelty; bonding; distinction

In contrast to the NEA (2015), their study shows that the aesthetic component is the

most prevalent driver for attendance, meaning that audiences look for the intrinsic characteristics of the arts and the enjoyment of beauty. While transcendence, entertainment, bonding and reduction also scored considerably high, reduction and distinction seem not to be considered important motives to attendance. Furthermore, this study compares groups with different degrees (frequency) of attendance, and shows that their motives, especially social and aesthetic, considerably differ. Consequently, this shows how motives have also significant impact on the frequency of attending performing arts.

In sum, academics increasingly take drivers and motivations into account when researching audience attendance. Whereas scholars classify and operationalize these drivers of attendance in various ways, common themes are social, intellectual, aesthetic, entertainment and economic. Table 1 summarizes the various approaches in relation to these four broad categories.

Additionally, we see that the results to how drivers are related to performances vary, as the researches differ in their geographic and also performance type scope. In the light of this, it becomes even more interesting to study how these relate to music concerts in times of crisis, where the physical attendance is not possible and audiences' only way of consuming performances is through online mediums.

The NEA's approach is the most feasible for this research, as the variables are clear, objective, and understandable. Also, they seem to be most comprehensive for a survey, and have the least degree of subjectivity. Consequently, it allows for better categorisation of the motives and drivers into four categories without major overlap: social, intellectual aesthetic and economic.

<b>Category</b>	<b>Motives</b>	<b>Author</b>
Social	Social hedonism	Boerner et al. 2011
	Social reasons	NEA Research report 2015; 2004 National Survey on Cultural Participation, the Urban Institute; Ostrower (2005)
	Social interaction	Swanson et al. 2008
	Bonding Distinction	De Rooij & Bastiaansen 2015
Intellectual	Intellectual enrichment	Boerner et al. 2011
	Learning something new Learning about cultural heritage	NEA Research report 2015; 2004 National Survey on Cultural Participation, the Urban Institute; Ostrower (2005)
	Education motivation	Swanson et al. 2008
	Cognitive stimulation	De Rooij & Bastiaansen 2015
Aesthetic/Cultural	Arousal of emotions	Boerner et al. 2011
	Specific location or venue Experiencing high- quality art Seeing specific performer or works by a specific individual artist or group	NEA Research report 2015; 2004 National Survey on Cultural Participation, the Urban Institute; Ostrower (2005)
	Aesthetic motivation	Swanson et al. 2008
	Aesthetics Variety and novelty Transcendence	De Rooij & Bastiaansen 2015
Entertainment	Entertainment	Boerner et al. 2011
	Recreation Escape and diversion	Swanson et al. 2008
	<i>Entertainment</i>	De Rooij & Bastiaansen 2015

Economic	Low cost	NEA Research report 2015; 2004 National Survey on Cultural Participation, the Urban Institute; Ostrower (2005)
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Table 1: Summary of motives/drivers to attendance

### Barriers to attendance

In a similar fashion, audience studies have increasingly taken barriers to attendance into account, next to motivational drivers. This allows to not only understand what makes people attend performing art events, but also holds them back. Notably, Pandora et al. (2009) published one of the ground breaking studies that highlighted the importance of taking barriers to attendance into account for studying cultural participation.

Through a thorough analysis of academic literature of barriers, the authors established a typology of barriers (Table 2). Consequently, cultural participation and audience studies progressively try to understand the non-attenders. The NEA (2015), also included these elements in their study by including both perceptual and practical barriers. In total, six main barriers are of interest for the NEA (2015), summarised in table 2. Findings show that time, cost, social and access are the most prevalent barriers to attendance (NEA, 2015), while the location and program accounted for less than 10 %.

For a better understanding of each barrier, we label them to four overarching categories: economic, practical, social and aesthetic. Table 2 summarizes the various approaches to studying barriers to attendance

Category	Barriers	Author
Economic	Time	NEA (2015)
	Cost	
	Cost	Pandora et al. (2009)
	Time and timing	
Practical	Access	NEA (2015)
	Physical access	Pandora et al. (2009)
Location		
Aesthetic	Program	NEA (2015)

	Product	Pandora et al. (2009)
Social	Social needs Socialisation	NEA (2015)
Emotional	Peer group Socialisation and understanding	Pandora et al. (2009)

*Table 2: Summary barriers of attendance*

## **2.2 Audience development**

Audience development strategies have been long at the forefront for cultural organisations and venues to attract, retain and deepen new and existing audiences. Cultural venues are mostly faced with three distinct problems: first, maximising returns when full capacity is reached; second, maximising return when full capacity is not reached, and, third, the diversification of markets (Mueser & Vlachos, 2018). Initiatives to respond to these problems are often linked to audience development and widening strategies. Lindelof (2014) analyses different approaches to audience development and brought forward a definition, namely “audience development is an umbrella term that covers the financial, artistic, social and educational aspects of institutional efforts to address the audience in new ways” (p. 203). Thereby, the author indicates that audience development is about ways of interacting and approaching (new) audiences in various ways. As Walmsley (2016) adds, audience development is not only about the cultivation of new audiences but extends to improving the experience of existing ones. Furthermore, the Arts council England (2010) sees audience development as means of strengthening existing relationships with audiences. Roger (1998) looks at audience development as a strategic mix between marketing and the education of audiences, while deepening their consumption patterns.

Scholars have been exploring audience development from various angles. Kawashima (2000) extends the analysis in a nuanced way. What differentiates her analysis from other studies, is that she expands the process by “identifying the different functions and purposes involved” (Kawashima, 2000, p.7). In view of exploring different strategies by looking at the targeted audiences and purposes, she identifies four distinct categories to audience development strategies, namely Cultural Inclusion, Extended Marketing, Taste Cultivation and audience education.

When applying audience development for Cultural Inclusion (CI), venues have as

goal to attract audience segments that do not attend because of economic or social reasons (Kawashima, 2000). As we have seen previously, two of the major barriers of attendance are linked to economic and social reasons (Pandora et al., 2009). These strategies aim at included the potential audience segments that refrain from attending because of high cost or social differences.

Extended Marketing is directed to people that have a high probability of attendance but are not yet attending an organization's activities (Kawashima, 2000). The underlying marketing logic prevails here, by trying to get the audiences to actually physically attend, meanwhile improving the quality of the experience. Here, the aim is to contour the aesthetic barriers (Pandora et al. 2009) that potential audiences can have.

Taste Cultivation focuses on existing audiences, with efforts to cultivate their tastes, with the aims to expose them to new art forms, widen their understanding and appreciation of a wide variety of artforms and consumption capacity (Kawashima, 2000). The main difference with extended marketing is that Taste Cultivation focuses more on existing audience members. The net result of taste cultivation strategies should be that the existing audiences attend more frequently.

Lastly, audience education, which overlaps to some extent with extended marketing, entails efforts to improve the audience experience of existing audience members (Kawashima, 2000). It differs from taste cultivation in the sense, that audience education is focused on educating audiences on existing products, while taste cultivation focuses on new cultural offerings. These educational attempts have as a goal to improve the understanding, contemplation, and aesthetic pleasure of existing audience members. At the core lies the quality of the art experience for the audience, thereby ensuring that audiences will return to the venue. For instance, audience education activities could be public talks about concerts or Q&A sessions between musicians and public.

Hence, the audience development strategies differ in their audience target, the way they are conducted and around what kind of cultural product it evolves (form) and its ultimate purpose in terms of values. Table 3 summarizes these.



<b>Audience development</b>	<b>Target</b>	<b>Form</b>	<b>Purpose</b>
Cultural Inclusion	People least likely to attend, eg low-income	Outreach	Social
Extended Marketing	Potential attender, Lapsed attender	The same product offered, but with improvement to cater for the target	Financial, Artistic
Taste Cultivation	Existing audience	Introduction to different art forms and genres	Artistic, Financial (and educational)
Audience Education	Existing audience	The same product offered with extensive education	Educational (and financial)

*Table 3: Audience development strategies (Kawashima, 2000)*

Thus, different types of audience development strategies are targeted at different audience segments, have distinct intrinsic features and purposes. In the following section, we will take a closer look at the nature of online provision of musical performances and concerts, and the way they are implemented for audience development strategies.

### **2.3 Online music concerts and performances**

Recent technological developments make it possible for artists, organisations and venues to record and transmit performing arts performances digitally via the internet and television broadcasting. This lead a new pathway for reaching audiences, interacting with them and facilitate access (Throsby & Bakshi, 2014). Different studies have looked at the digital consumption of performing arts. Handke & Towse (2013) explain that the online provision of cultural products, changed its characteristics from being rival and excludable to being quasi public goods. Furthermore, they show that digital audience development can help

increase attention for and attendance of the performing arts. Correspondingly, venues have increasingly used their website and social media in efforts of promotion, widening and deepening their audiences (Pable et al. 2019). More specifically, 81% of performing arts venues post videos or streaming online (Thompson et al., 2013). In the following section, we will explore different types and purposes of online provision and consumption, namely promotion, engagement, education, accessibility and discovery.

### **Promotion**

In the literature about using digitally transmitted performances for promotion, the question appears if this acts as a substitute for or a complement to physical attendance and consumption (eg. Bakshi & Throsby, 2014; Mueser & Vlachos, 2018; Handke et al., 2013). Whereby, the question is if audiences prefer certain consumption characteristics that come with the streaming, in contrast to physical performance. The online performances allow audiences to get close-ups of the artists, arrange their comfort at homes or enjoy the lower or free admission. These could have negative impacts on physical attendance, if audiences are going to prefer this option over the physical one. However, Bakshi & Thosby (2014) in their study, show that it affects physical attendance positively. Mueser & Vlachos (2018) argue that this is because digital transmissions do not have the same level of authenticity and that the physical experience cannot be replaced. Here, the element of liveness is in contrast with the digital, whereas the latter remains mere representations of the original (Bulut, 2018). Equally, Thompson et al. (2013) did not find any evidence for the substitution effect in their studies.

Various scholars have researched how the digital transmission of performances can be used as promotion tools. Thereby, they are looking at how it impacts current and potential audiences, in their frequency of attendance, anticipation and reach. Mueser & Vlachos (2018) find that live-streaming of theatre has positive effects on the physical attendance. In other words, they bring forward that streaming can be used as an effective tool for marketing purposes. Furthermore, the digital provision of live recordings and streaming can help reaching new audiences, increasing revenue streams and positively affect audience developments strategies (Mueser & Vlachos, 2018; King, 2016). Accordingly, De La Vega al. (2019) shows that online transmission can be used for gaining new audiences. A major finding is that people who actually access websites of venues have a higher level of satisfaction because of the elevated information of the artist and art. Based on a study of arts organizations and their use of digital technologies, Thomson et al. (2013) show that organizations perceive the importance of online technologies very high for promoting the arts.

Accordingly, Nguyen et al. (2014) studied how to the consumption of music through streaming services impacts the physical music consumption of live performances. While the authors find no significant effect of streaming on record sales, they do find a positive correlation to physical concert attendance. This is especially significant for international and national stars, and less significant for classical music. Nesta (2010, in Handke et al., 2013) especially analysed live streaming performances, and find that it is a possible way of attracting new audiences and increase frequency of existing ones. Forthwith, Aly-Tovar et al. (2018) show the positive externalities of free streaming on the live music market, by strengthening the relationship between artists and consumers.

In sum, increasingly more, academic researchers analyse the use of online performances for increasing audience attendance and reaching new audience segments. In general, the results show a positive correlation, and present it as an effective marketing tool. On the question of why and how this holds, four major elements come into place: engagement, accessibility, education and discovery.

### **Audience engagement**

Audience engagement entails the involvement and participation of audiences, especially in the artistic exchange. Walmsley (2016) defines engagement as 'to interlock, to involve, or to cause' (p.68). Through various strategies, organisations and artists can interact with audiences and make them feel more part of their practice. This increased emotional and engaged bond will have positive effects on the audience experiences and their future attendance/anticipation (Brown & Ratzkin, 2011). Thompson et al. (2013) find that performing arts organizations find it very important to use digital technology for increasing audience engagement.

In the cultural sphere, we see a growing culture of participation, both digitally and physically. In particular, audiences embrace co-creation and being part of the discourse (Walmsley, 2016). The engagement act as linking the audience closer to the organisation and the art, thereby enhancing the experience, emotional attachment and social dynamics. The digital sphere provides space for audiences to socialize and negotiate group identities, that were before online possible in physical spaces (Meyrowitz, 1985). Acting as a sort of public sphere, where audiences can partake in various activities, that enhance both their social and cultural experiences (Walmsley, 2016).

More specifically, the online audience engagement takes form through participatory initiatives that can span over a variety of elements, and there is no limit. Organisations and artists must be creative as to how to engage audiences. However, the main goal of

engagement efforts are networked activities which interconnect audiences. This includes online forums, discussions, comments, sharing and interactive games.

Hence, online audience engagement evolves around interacting with audiences and involve them in various processes. It shows that online engagement is most effective for facilitating creative exchange, dialogue, and enhance the co-creation of meaning and value' (Kahneman, 2011, in Walmsley, 2016, p.68). Consequently, this has positive impact on the anticipation, and future physical attendance frequency (Brown & Novak, 2007). The notion of engagement is closely linked to the education of audiences, which we will explore in the following section.

### **Audience Education**

When looking at audience education, scholars talk about the processes that enable the education, enriching activities and mediations that provide audiences with knowledge and understanding that will enhance their consumption experience (Walmsley, 2016).

Kawashima (2000) shows that education strategies are directed to existing audiences and have as goal to improve the cultural experience and understanding of performances. Here the quality of the experience is at the forefront, with the assumption that the greater the knowledge and understanding of audiences towards the art in question is, the greater their enjoyment.

Thomson et al. (2013) show that almost a third of all cultural organization provide digital educational material on their websites. Accordingly, De La Vega et al. (2019) explain that through the online environment, audience can better reach and navigate through the information. These can take various forms, such as webinars, instructional content or information around the artists and the art itself. Thereby, providing their audiences with material that will inevitably lead to a more cultivated taste and a deeper enjoyment of the arts.

### **Accessibility**

The notion of accessibility for audiences entails different aspects, closely related to barriers of attendance. There can be physical/practical barriers to attendance, such as that the venue or location is too far away or not reachable by public transport. It can have economic origins, in that the ticket prices are too high, or social origins, in that audiences do not want to attend because of social distinctions (Pandora et al. 2009). The digital transmission of music performances can help to overcome these barriers and make the content more accessible (De la Vega, 2019; Handke et al., 2013).

Firstly, the online provision of performances allows disadvantaged groups with

lower economic capital to access performances easier (De La Vega, 2019; Chen, 2015). Not all consumer groups can afford to attend performances of all kinds and are therefore often left out. While numerous initiatives with reduced entry prices for specific socio-demographic groups are in place, not everyone feels comfortable to make use of these. The online content is often provided for free, or for at low cost, making it easier to access for disadvantaged groups, without needing to worry about being excluded.

Secondly, social barriers stand often in the way for disadvantaged groups to attend music performances (Chen, 2015). They fear that they will not be socially accepted, or that they will feel alienated because of their extrinsic characteristics. By being able to consume performances online, these groups can contour these barriers, and get the benefits of the performances. Furthermore, this process can familiarize them with the cultural offerings, cultivate their tastes and encourage them to physically attend performance in the future.

Thirdly, live performances take place on a specific time at a specific location, so for potential audiences that live too far away or cannot reach the venue because of transportation issues, online concerts can act as a way to still enjoy the show (De La Vega, 2019).

Hence, online streaming of music performances can have positive effects on the accessibility of performances, by contouring economic, social and practical barriers. Relating this to Kawashima's (2000) audience development strategies, we see fit with the cultural inclusion category, which is directed to the people that have the lowest probability of attending, because of the aforementioned barriers.

## **Discovery**

Another stream of literature looks at the digital provision of music and concerts and how it affects consumer behaviour, and more specifically the discovery of new music and artists (Aly-Tovar et al. 2019; Datta et al. 2018). Different scholars find that the digital consumption of music not only increases how much is consumed, but also has positive effects on the variety consumed (Aguilar, 2017; Datta et al., 2017). Henceforth, this indicates that it can act as a discovery tool for new artists and music.

Datta et al. (2018) show that the online performance environment allows audiences to reduce search cost for new music. When looking at the supply side of music, it is known that a relatively small share of artists receives a major share of audiences. Through online platforms and digital environment, this has shifted as people have increasingly easier access to the middle and long-tail (Anderson, 2006). Not only can artists and labels provide their

cultural products at a lower cost, through practically zero marginal cost, but they can also engage in platforms and websites that reach a broader audience. From the demand side, the access and navigation through the vast amount of online music gets facilitated through search engines, recommendations, intermediaries, and peer-to-peer sharing. Thus, these processes make it more effective for the demand and supply to meet, and thereby widening the consumption patterns of audiences.

Aly-Tovar et al. (2019) analyse why artists would engage in streaming their music online. One of their main findings is that artists use the online environment to reach new audiences and widen their reach. This is possible, as consumers use platforms, social media, and other websites as a discovery tool by which they search for new music, . It allows them to move beyond the consumption of superstars, and also engage in niche markets. Consumers find new music, artists and genres online, and keep up to date with new releases of known artists.

The discovery aspect of the digital streaming of music concerts and performances can be linked to Kawashima's (2000) extended marketing segment on audience development strategies, which is directed at potential attenders, focusing on existing products to reach wider audiences.

## **2.4 Hypothesis development**

In the present section, we argue that the digital provision and consumption of online concerts can affect the future consumption of audiences positively in numerous ways. Firstly, online concerts can act as a promotion tool, to reach new audience segments and increase the sizes and types of existing ones. Secondly, through engaging audiences in participatory activities, both creative exchange and social values can be enhanced. Thirdly, by educating audiences, tastes can be cultivated, leading to a better understanding and appreciation of the artforms. Fourthly, various barriers relating to access, such as social and economic ones, can be contoured, giving the chance to disadvantaged groups to consume concerts that they did not have access to before. And lastly, it can act as a great discovery tools for potential audiences to find new music and artists.

The literature has indicated that the online consumption of concerts and performances can have an impact on future physical attendance. However, unclear until today, is the extend of this impact, and how various types of online consumption affect this. Relating these to the audience development strategies by Kawashima (2000), we can identify which forms of consumptions are the most effective for which type of audience. The audiences are

segmented by drivers and barriers. Below, we develop a number of hypotheses that bring forward relationship between, firstly, drivers/barriers and future attendance, and secondly, between online and physical consumption. For the sake of simplicity, at this stage, we include only a general conception of online consumption. In the detailed description of the mediating variable (online consumption) in the methods section, we explain our choice for the specific measures that we include, and bring in some additional nuances to the general model.

**H1: Drivers and barriers for attending music concerts and performances affect the physical attendance for post Covid-19 times.**

In the above, we have highlighted a number of drivers and barriers, including social, economic, intellectual and aesthetic ones. Based on the literature, we assume that individuals who experience high levels of drivers would be inclined to physically attend music concerts and performances (also in the future), more than individuals with low levels of drivers; inversely, we expect that individuals with higher levels of barrier are more refrained to attend physical concerts in the future. Furthermore, the literature suggests that the extent of the relationship between drivers/barriers to future attendance differs per driver or barrier. Therefore, we will individually analyse the effects of each driver and barrier on the future attendance.

**H2: The frequency of online consumption of music concerts during Covid-19 has an impact on the future physical consumption and anticipation.**

The literature review brings forward that online music concerts can be used as promotion tools. Scholars have shown that online concerts do not act as substitutes to physical concerts, but enhance the physical attendance. In an effort to understand this relation in times of Covid-19, we look at two components of frequency: how much audiences actually consumed online concerts, and how they have increased their consumption in comparison to pre Covid-19 times. We expect, thus, a positive effect of frequency of online consumption on the future attendance and anticipation.

**H3: The type on online consumption of musical concerts during Covid-19, effects future physical attendance and anticipation post Covid-19.**

Generally, based on studies highlighted above, it could be expected that individuals that consume online music through types of engagement, access, discovery and engagement, will be more inclined to attend physical concert. In this part, we specifically want to analyse the different effects between the various types and the future attendance and anticipation around the Covid-19 period. While the literature suggests positive effects, the extent of the effects needs to be tested.

**H4: The effect of drivers/barriers on physical future attendance and anticipation post covid-19, is mediated through audience's online consumption.**

During the Covid-19 lockdown period, no physical concert attendance was possible due to the measurements put into place by governments. Whereas, hypothesis 1 shows the effect of drivers and barriers on future attendance, and hypotheses 2 and 3 analyse the effects of online consumption on future attendance, the question arises how these effects relate to each other. As this is a new approach to analysing these relationships, and scholars have not yet provided academic theory on these effects, we take a general deductive approach. Kawasima (2000) shows that different audience development strategies are direct towards different audience segments, evolving around social, financial, artistic and educational purposes. Accordingly, we find different types of online consumption that can be related to audience developments strategies. Henceforth, we can expect that the type of online consumption affects audiences differently, depending on what motivates or holds them back to attend physical concerts. Aligned, with the promotional theories, we expect to find variations in how the types and frequencies affect the relationship between various drivers/barriers and the future physical attendance post Covid-19.



### **3. Data and Methods**

#### **3.1 Choice of method**

This research departs from audience's drivers and barriers for attending music performances, by looking at how their online music consumption could impact their future online and physical concert attendance. We apply a deductive approach, as we start with theory and developed hypotheses that we want to statistically test. Quantitative research methods apply best in deductive approaches and for the testing of theories (Bryman, 2008). Furthermore, we aim at reaching objective and valid results. The quantitative research method allows to collect numerical data, and analyse the relationship between different variables. Consequently, this enables to formulate objective conceptions of social reality (Bryman, 2008).

When conducting an audience research, it is important to use the most relevant data collection method. In this research, we develop an innovative model for looking at the influence of online consumption of music performance on future consumption, by departing from audience drivers and barriers. Through various steps, we will identify the variables that could potentially mediate the relationship between the drivers/barriers and the future attendance. To collect relevant data objectively and fully, we opted for a quantitative online survey. Quirk et al. (nd) argue that quantitative surveys lend themselves especially well for studying respondents' motivations, attitudes, satisfaction, and consumption.

#### **3.2 Sampling**

In this research, the target population are existing and potential audiences for live music concerts and performances, and more specifically, audiences that also engage in the online consumption of music performances and concerts during the Covid-19 period. Therefore, the sampling selection entails individuals that attended, or were interested in attending, physical concerts before March 2020, and that simultaneously engage in the online consumption of concerts and music performances in the two and a half months after the measures on Covid-19 have been put into place. We develop an online survey that was distributed via various online communication means, including social media and email channels. The data collection period went from 16<sup>th</sup> of May until the 27<sup>th</sup> of May. This period presented itself as especially well to gather valid results. The lockdown was already two weeks in place, so respondents could answer questions about their online consumption of the past two months. Furthermore, the survey closed a couple of days before the first de-confinement steps were set in place. Thereby, the data was not impacted by the sudden

change in deregulations.

In order to attain a sufficiently high number of respondents (to obtain a sample with features corresponding to that of the targeted population), we reached out to numerous cultural organisations, concert venues, event platforms and cultural agenda platforms. By distributing the survey through these intermediaries, a high degree of validity would be achieved, as the survey would reach the right audiences. However, most of the requests were either declined or not responded to. In a next step, the survey was then shared on social media. More specifically, the survey link with an introductory text was shared on numerous Facebook groups, event pages and groups that have as focus to share online concerts and performances during the covid-19 period. This second step was more successful, as there was a good response and interest. Then, the social media platform 'LinkedIn' was used in the same fashion and yielded a high number of responses. Such a combined sampling strategy has the advantage of a rather wide reach; however, by no means we can state that it is representative of the target population. Indeed, there may be bias related to the self-selection of respondents (only those with a specific interest in the matter), and the overrepresentation of individuals belonging to small networks, as that of the researcher and his peers. Still, for our goal to examine the role of online consumption in relation to the drivers and barriers to physical attendance of music concerts, the sample is adequate, even if the results should not be generalized. Data collection always comes with a trade-off between accuracy and costs (including time). In the case of the present research, the fairly large number of respondents ( $n = 302$ ) alleviates the risks that are associated with sampling strategies that are not random or representative (which is hardly possible in our case, where the specific socio-demographic) features of the target population are unknown.

In our sample with 302 respondents, we have a majority of female respondents. The age groups of 18-24 and 25-34 are well represented, and more than 50% of the respondents have a yearly income of below 20.000 Euros. In turn, more than 60 % have at least an education level of a university degree. Figure 2-3 visualize the socio-demographic characteristics of the sample.

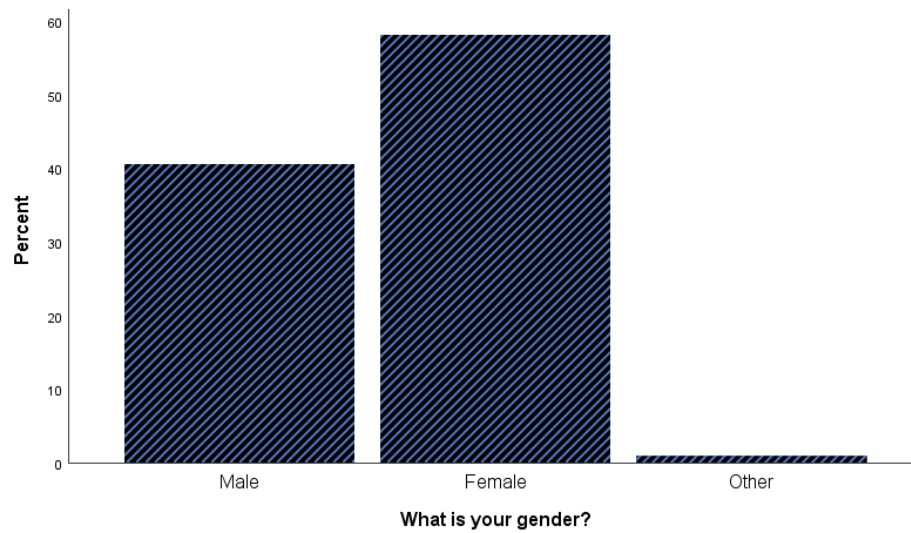


Figure 2: Barchart Gender distribution

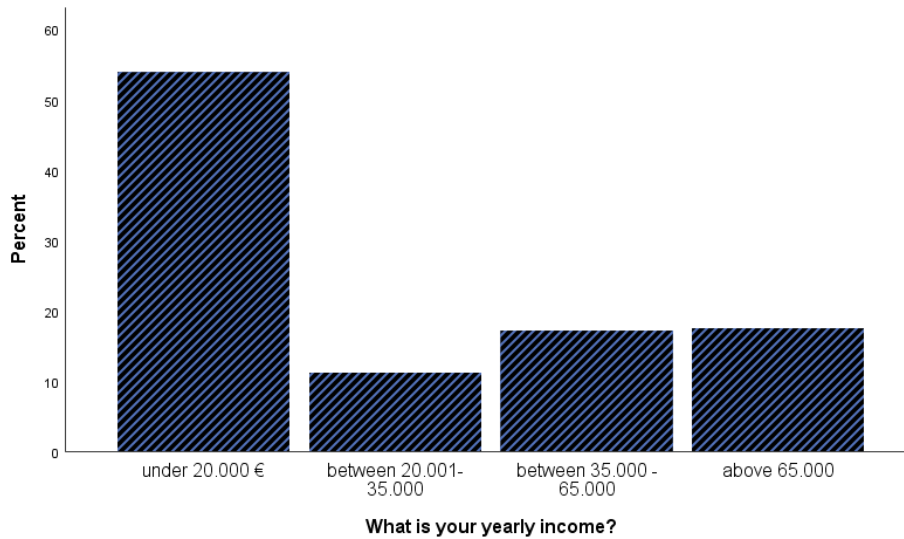


Figure 5: Income sample distribution

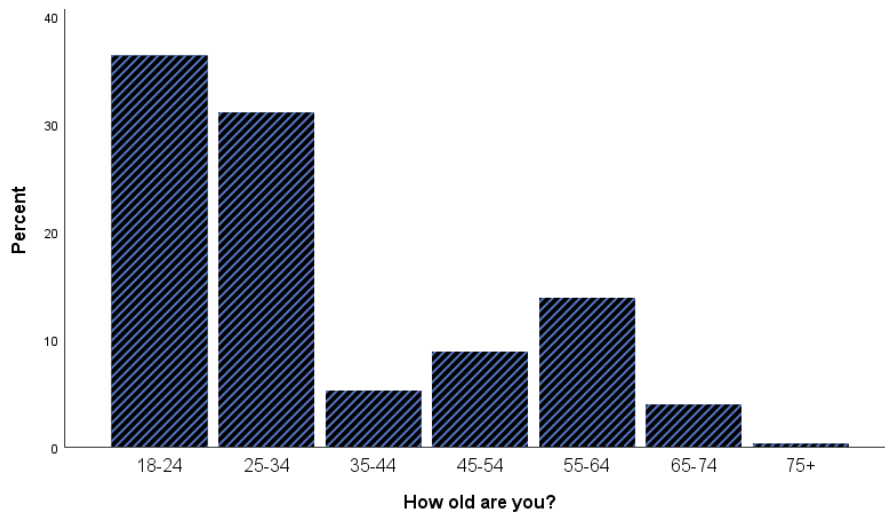


Figure 4: Age sample distribution

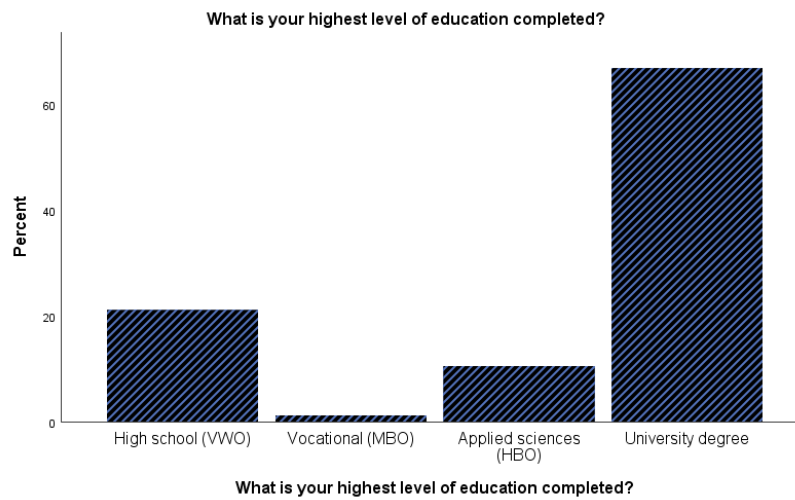


Figure 3: Barchart Education sample distribution

### 3.3 The model

In this research, based on the literature, we suggest a mediating model for the analysis of future consumption of music performances. A mediating model entails that a relationship between an independent variable and a dependent variable can be affected by the impact of a third variable, which is the mediating variable (Figgou & Pavlopoulos, 2015; Hayes, 2012). In our model, we depart from the drivers and barriers to physical music performance attendance as independent variables. The dependent variables are the physical music performance attendance and the anticipation to attend physical concerts again post Covid-19, and the mediating variables evolve around the online consumption of music performances during Covid-19.

Baron & Kenny (1986, in Figgou & Pavlopoulos, 2015) bring forward three conditions that must hold for a mediating relationship to be in place.

Firstly, the independent variable should be able to significantly affect the dependent variable. In our model, the independent variable are drivers and barriers, and as we have seen in the literature review, they have strong impacts on future attendance and consumption (Swanson et al., 2008 ; Boerner et al., 2011; NEA, 2015,2014; De Rooij & Bastiaansen, 2015; Pandora et al., 2009). We will test this condition specifically for each driver and barrier during the Covid-19 period through hypotheses 1, in the first part of the result section. Thereby, we can determine which drivers and barriers qualify for a mediation analysis.



Figure 6: Second condition visualization

The second condition puts forward, that the mediating variables need to have a significant effect on the dependent variable. In our analysis, the mediating variables evolve around the online consumption of music (in terms of frequency, access, discovery, education and engagement). The literature shows that various scholars have analysed the effects of online consumption and that it has effects on physical consumption (eg. Bakshi & Throsby, 2014; Mueser & Vlachos, 2018; Handke et al., 2013; Thomspson et al., 2013; King, 2016; Nguyen et al. 2014, Walmsley, 2016, Brown & Novak, 2007; Kawashima 2000; Aly-Tovar et al., 2019; Ateca-Amestoy and Castiglione, 2016; Datta et al., 2018.) As we are uniquely

interested in the time frame during the Covid-19 lockdown period, we will analyse the effects of the various possible mediators on the PCA increase and anticipation. These calculations will be provided in the testing of hypotheses 2 and 3. Each variable that has a statistically significant effect on the dependent variable, will qualify to be included as possible mediators in the mediation analyses.

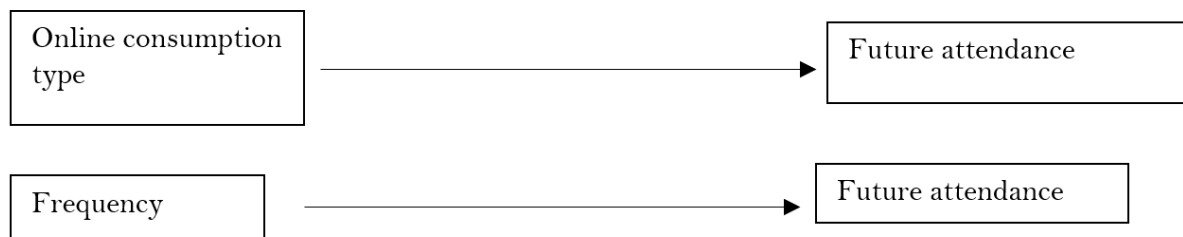


Figure 7: Second condition visualization 2

Thirdly, for a mediation relationship to be in place, the mediator should have a significant effect the dependent variable, “while controlling for the effect of the independent variable” (Figgou& Pavlopous, 2015, p. 549). The literature suggest that different audience segments consume online music performance in various ways, and relating these to Kawasima’s (2000) audience development strategies, we can expect for this condition to hold true. However, as it is a newly suggested model, we will have to test this third condition by looking at the significance level of the mediating statistical analysis. Hence, hypothesis 4 brings forward the mediation relationship. In the last part of the results section, we will perform the actual mediation analyses, with the variables that were proven to have significant effects (Figure 8).

In summary, we want to understand how the effect of various driver and barriers on future attendance post Covid-19 is affected by audience’s online consumption during Covid-19. After having performed the necessary steps that lead to being able to perform a statistically significant mediation analysis, we can identify the mediating relationships. To test hypothesis four, we will perform separate mediation analyses for each driver or barrier (that have shown having a significant effect on future attendance). Figure 8 visually summarizes the possible mediation relationships, while we have to keep in mind that in the end these relationships will be presented in separate models (departing from single independent variables), and not in one.



Figure 8: Mediation model visualization

### 3.4 Conceptualisation and Variables

#### Independent variables: Motives/drivers and barriers

The independent variables of interest are drivers/motives and barriers to physical concert attendance. The literature review provides the theoretical backdrop of audience studies using the variables for audience studies. Through a thorough evaluation of distinct approaches, the most suitable for this research were selected.

The measures for motives/drivers and barriers to physical concert attendance are derived from the NEA (2015) research report. We use their categories and questions to better understand what drives and holds back audiences for attending physical concerts. The variables for drivers are categorised in four distinct categories: social, intellectual, economic and cultural/aesthetic. While the barriers are categorised in: economic, practical, social and aesthetic. The respondents were asked to rank the distinct drivers and barriers on

a 5-point Likert scale, indicating if it they perceive them as minor or major driver/barrier to attendance.

<b>Motives/drivers</b>	<b>Sub-category</b>	<b>Questions</b>	<b>Authors</b>
		On a scale of 0-5, please indicate if it is a minor or major reason for attendance. I go to live music concerts/performances to... /because of..	
Social	Social needs	Q7.1: socialize with friends and family	NEA 2015
Cultural/aesthetic	Specific location or venue Experiencing high-quality art Seeing specific performer or works by a specific individual artist or group	Q7.2: see a performance at a particular location Q7.4: experiencing high-quality art Q7.6: see a specific individual artist/group's performance	
Economic	Low cost	Q7.7: low cost or free admission	
Intellectual	Learning & educating about genres, artists and music	Q7.3: gain knowledge or learn something new	
<b>Barriers</b>			
Social	Social needs	Q8.4: could not find anyone to go with	
Aesthetic	Music program	Q8.6: Program or events not of interest	
Economic	High costs Time issues	Q8.1: could not find the time, including due to work Q8.2: cost too much	



Practical	Physical access Location	Q8.3: too difficult to get there Q8.5: Did not want to go to that location	
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Table 4: Conceptualization motives/drivers to attendance

### Mediating variables: Online concert consumption and impact

In the mediating model, the online consumption act as a mediating variable. In order to capture the heterogeneous dimensions of online consumption, we experiment with a number of takes that we borrow from different previous studies.

Firstly, we look at the online frequency by analysing two distinct aspects. On the one hand, we ask about how much they consume online concerts during Covid-19, and on the other hand how much their online consumption has increased in this period. For the former variable, the answer categories were “Never; once a week; 2-3 times a week; 4-6 time a week; daily”. For the latter, the answer categories went on a 5 point Likert scale from ‘None at all’ to ‘A great deal’. The answer categories were then translated into a five-point Likert scale.

Secondly, we assess how audiences consume online concert, and these types of online consumption include online access (De la Vega, 2019; Handke et al., 2013; Chen, 2015), online discovery (Aguilar, 2017; Datta et al., 2017; Aly-Tovar et al., 2019), online engagement (Walmsley, 2016) and online education (Ateca-Amestoy and Castiglione, 2016). Respondents were asked to rank various items on a five-point Likert scale ranging from ‘Strongly disagree’ to ‘Strongly agree’. Depending on the phrasing of the statement, the sentences started with, among others, ‘Online music concerts/performances allow me to..’; ‘When watching online music concerts/performances...’. For the variables that are constituted of multiple questions, a new variable was computed by mean of the different questions.

Concept	Variable	Questions	Author
Frequency	Online Frequency	Q10: How often have you watched online music concerts/performances (live or not) during the last 2.5 months?	Bakshi& Throsby, 2014; Mueser & Vlachos, Thompson et al. 2013..

	Online Frequency-increase	Q11: How much has the amount of online music concerts/performances that you watch increased in the past 2.5 months?	Nguyen et al., 2014
Type	Online Access	Q13.1 : listen to music performances that I did not have access to before	De la Vega, 2019; Handke et al., 2013, Chen, 2015
	Online Discovery	Q13.2 : discover new music genres Q13.3: discover new artists	Aguiar, 2017; Datta et al., 2017; Aly-Tovar et al., 2019
	Online Education	Q13.4: educate myself about artists Q13.5: educate myself about genres	Ateca-Amestoy and Castiglione, 2016
	Online Engagement	Q13.6: engage in online discussions about the performance Q17.5: I engage in live chats Q17.6: I write comments Q17.7: I tend to share them with friends	Walmsley, 2016

*Table 5: Conceptualization online consumption*

### **Dependent variables**

For the dependent variables, we are mainly interested in the future physical consumption/attendance of music performances and concerts. Therefore, we ask about intended future frequency increase of attendance, and the anticipation to attend physical concerts again post Covid-19. The question explicitly states that the future consumption is meant for a time where it is completely safe to attend again, and where there are no risks of

being contracted with Covid-19. In the model that we want to test, future physical attendance is our main variable of interest. The respondents were asked to rank statements on a five-point Likert scale (None at all-A great deal).

<b>Concept</b>	<b>Variable</b>	<b>Questions, such as</b>
Future attendance	Future physical concert attendance increase (=PCA increase)	Q22.1: I will increase my concert attendance compared with before March 2020
	Anticipation	Q22.5: I look forward to attend physical concerts again

*Table 6: Conceptualization future attendance*

### **3.5 Data analysis methods**

The statistical analysis of the data was performed using the software SPSS. However, like most statistical software, SPSS does not implement straightforward methods for up-to-date mediation analysis without having to write custom program codes (Hayes, 2012). In response, multiple computational tools have been developed to facilitate mediation analyses. Notably, Hayes (2012) published a ‘macro’ (p.2) (an add-on to the existing software), which facilitates to perform statistical mediation calculations in a more rigorously. Haye’s (2012) macro is called PROCESS, and enables, among others, mediation analysis with multiple mediators. It is especially useful for researchers that cannot acquire specialized programs or code additional commands.

In a first step, the data was cleaned and organized. While it is possible in PROCESS to compute mediation analysis with binary independent variables, it is statistically more significant to work with continuous variables. The survey design process ensured that the answer categories for the variables in question could be translated into interval and ration data. In practice, that entails, coding answers in Likert-scales into numerical values. For instance, on a five point Likerts scale from Strongly Disagree to Strongly agree, is

transformed into a variable with values ranging from 1 to 5.

In a second step, the statistical calculations for hypotheses 1 to 3 were performed. In an effort to determine significant effects between the independent and dependent variables, we undertook simple linear regressions. This proved to be the statistically most relevant approach, as the Haye's macro also performs simple linear regressions in mediation analyses. In turn, we could identify the most prevalent and statistically significant effects, and identify the most relevant variables.

Thirdly, Haye's PROCESS macro allowed to rigorously perform mediation analyses. The macro uses the bootstrapping method to determine the level of significance. Bootstrapping uses resampling methods to generate empirical estimates of population distribution. Following Hayes (2012), we use the bootstrap level of 5000, thereby the macro takes a sample of our sample, and repeats this process five thousand times. The output data provides a (90%) confidence interval. In the mediation analysis, we determine the null hypothesis as,  $H_0$ : there is no significant mediation effect through our mediator(s) on the relation between the independent and dependent variable. If the value zero falls within the bootstrap confidence interval, the null hypothesis is accepted, showing that there is/are no mediation effect(s) present. However, if the value zero falls outside of the bootstrap confidence interval, it is statistically shown that a mediation is present. Once, the significant mediation is proven, one proceeds to analyse the coefficients of the indirect effect, which is an unstandardized coefficient. (Hayes, 2012).

### **3.6 Validity and reliability**

The measurement variables have a high degree of complexity and multidimensionality. Therefore, in order to attain high measurement validity, the variables are mainly derived from previous researches, and using the same questions and answer possibilities as the scholar have done. However, the future attendance variables have not been derived from previous research but have been established by the author of this paper, by evaluating which elements are of interest. Furthermore, statistical validity is ensured by putting emphasis on the significance values of the calculation. For hypothesis 1 to 3, we only accept effects at a confidence interval of 95% or higher. Whereby, the mediation analyses are performed at a 90% confidence interval.

The reliability of the data has been touched upon in the explanation of the sample. On the

one hand, the time frame of the data gathering was perfect in order to analyse the online consumption patterns during the lockdown, as after the first of June 2020, many regulations were eased, and even some cultural organisations opened their doors again to the public under hygiene and distancing conditions. On the other hand, the specific socio-demographics of the target population is unknown, and the data collection process might have been subject to self-selection bias. In turn, the socio-demographic characteristics of the respondents shows a good distribution in terms of age, gender and income. Also, the sample is effective, but one needs to be careful to generalize too much.

## 4. Results

### 4.1 Socio-demographics and correlations

Variable	Mean	SD	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
<b>Socio-demographics</b>																					
1. Gender	1.600	0.510	302	1	0.009	-0.001	-0.044	-.122*	-0.039	.132*	-0.061	0.076	0.106	0.020	.124*	0.025	0.026	.142*	0.068	0.033	-0.045
2. Age	2.460	1.594	302		1	.150**	.688**	-0.052	-0.105	-.119*	-0.018	0.051	-.122*	-.175**	-.305**	.149*	0.032	-0.105	-0.043	-0.032	-0.058
3. Education	3.230	0.510	302			1	.223**	-0.084	-0.008	.159**	-0.093	-0.064	-.164**	0.054	-0.062	-0.026	-0.076	.182**	-0.011	-0.006	0.068
4. Income	1.980	1.191	302				1	-.134*	-.236**	-.121*	0.014	0.012	-.208**	-.123*	-.319**	0.037	0.031	-0.092	-0.055	0.015	-0.029
<b>Online</b>																					
5. Online frequency	2.360	1.190	302					1	.523**	0.041	.268**	.204**	.231**	-0.072	0.069	.225**	0.058	0.042	0.060	0.009	0.047
6. Online frequency increase	2.440	1.360	302						1	.130*	0.110	.171**	.237**	0.080	.196**	.236**	.174**	0.101	.176**	-0.004	0.079
7. Online access	3.270	1.167	302							1	.261**	.224**	0.094	0.022	.144*	-0.009	0.039	.148*	0.098	0.063	0.092
8. Online discovery	3.690	0.970	302								1	.521**	.142*	0.008	0.038	.176**	0.107	0.036	0.043	-0.026	-0.017
9. Online education	3.200	0.856	302									1	.303**	-0.021	0.076	.216**	.193**	0.043	0.113	-0.027	-0.030
10. Online engagement	2.090	0.758	302										1	-0.007	.148*	0.118	.144*	-0.006	0.028	-0.008	-0.087
<b>Drivers</b>																					
11. Social driver	3.294	1.290	292											1	.243**	0.012	0.091	.173**	.125*	0.046	0.039
12. Economic driver	1.940	1.385	254												1	.168**	.146*	.319**	.283**	.148*	.197**
13. Intellectual driver	2.263	1.357	273													1	.309**	0.098	0.019	-0.017	-0.003
14. Cultural/Aesthetic driver	3.190	0.831	300														1	.131*	0.118	0.054	0.103
<b>Barriers</b>																					
15. Economic barrier	2.740	1.164	292															1	.306**	.245**	.249**
16. Practical barrier	1.775	1.148	267																1	.481**	.297**
17. Social Barrier	1.737	1.440	251																	1	.219**
18. Aesthetic barrier	2.712	1.483	268																		1

### 4.2. Drivers and barriers

**H1: Drivers and barriers for attending music concerts and performances affect the physical attendance for post Covid-19 times.**

To test for the various drivers and barriers and their relation to future physical attendance (post Covid-19 times), we perform simple linear regressions in SPSS. The choice for simple linear regressions is motivated through the fact, that we want to analyse how the drivers individually affect the future physical consumption, and thereby laying ground for the mediation analyses later in this paper. We want to understand for each driver and barrier if and to what extent they can affect future behaviour on physical attendance. Whereby, we are interested in two distinct dependent variables: future physical attendance increase, and the anticipation for physical concerts (post Covid-19 times). The former shows if audiences plan to increase their attendance or not. The latter expresses a different information on how to look at the future attendance, namely how much people are looking forward to attend

concerts again. The independent variable for each linear regression is the respective driver or barrier.

Table 7 shows the output of the different simple linear regressions, with each having either specific driver or barrier as independent variable. The significant regressions (at a 95% confidence interval) are marked in bold, and we will only elaborate on these models. The other models did not show significant and are thus not applicable for the mediation analysis that we are building upon.

The regression models have low R-squared values, which indicates that there unexplained variation in our models, that cannot be shown through our independent, which is to be expected, as we study human behaviour. As Forst (2018) puts it “people are just harder to predict” (p.1). And we are not looking for prediction in these calculation, but we are seeking significant effects of the independent variables on the dependent one, aligned with the second condition for mediation analysis (Figgou& Pavlopoulus, 2015). And with significant relations, we can draw important conclusion on the correlation of these variable (Forst, 2018).

		PCA INCREASE	ANTICIPATION
<b>DRIVER</b>			
	<b>Social</b>		
	$\beta$	<b>0.11**</b>	<b>0.118**</b>
	B	0.10	0.129
	R <sup>2</sup>	0.012	0.014
	F	3.59	4.09
	<b>Intellectual</b>		
	$\beta$	-0.005	0.098
	B	-0.004	0.101
	R <sup>2</sup>	0.000	0.010
	F	0.006	2.609
	<b>Economic</b>		
	$\beta$	<b>0.164***</b>	<b>0.193***</b>
	B	0.136	0.198
	R <sup>2</sup>	0.023	0.037
	F	6.991	9.793
	<b>Cultural/Aesthetic</b>		

		$\beta$	0.042	0.119
		B	0.059	0.011
		R <sup>2</sup>	0.002	0.202
		F	0.528	4.245
<b>BARRIERS</b>				
	<b>Social</b>			
		$\beta$	<b>0.125**</b>	-0.007
		B	0.101	-0.007
		R <sup>2</sup>	0.016	0.000
		F	3.962	0.013
	<b>Economic</b>			
		$\beta$	<b>0.115**</b>	<b>0.121**</b>
		B	0.114	0.147
		R <sup>2</sup>	0.013	0.015
		F	3.905	4.339
	<b>Aesthetic</b>			
		$\beta$	0.058	-0.034
		B	0.045	-0.032
		R <sup>2</sup>	0.003	0.001
		F	0.885	0.308
	<b>Practical</b>			
		$\beta$	0.019	0.102*
		B	0.019	0.126
		R <sup>2</sup>	0.000	0.010
		F	0.093	2.783

Table 7: Regressions drivers and barriers

\*p<0.1

\*\*p<0.05

\*\*\*p<0.01

\*\*\*\*p<0.001

### Social drivers

The regression model of the extend that audiences plan to increase their physical concert attendance post Covid-19 as dependent variable, and the social driver as independent variable is significant,  $F(1,290)=3.59$ ,  $p<0.1$ . This shows that the regression model is valid for predicting the physical concert attendance increase, while the predictive power is low ( $R^2=0.012$ ). Being socially driven, with  $\beta=0.11$ ,  $p<0.1$ , 90% CI, has thus, a significant, positive, weak correlation with future physical attendance. Taking into account the unstandardized beta ( $b_1=0.10$ ) of the independent variable, we see that with every 1 point increase on the likert scale (minor – major barrier), it augments the expected future attendance increase by 0.10. Hence, the social driver variable presents itself as a variable



that has significant effects on attendance post Covid-19 times, and is statistically relevant for the mediation analyses later in this chapter.

Secondly, the regression model of the extent that audiences anticipate as a dependent variable, and the social driver as independent variable is significant,  $F(1,290)=4.09$ ,  $p<0.05$ . Here again, the model shows itself valid for predicting the anticipation to physical concert attendance, with the predictive power being low ( $R^2=0.014$ ). Here, a 1,4% in the variation of anticipation can be explained through the independent variable of being socially driven to attend physical concerts. The social driver variable, with  $\beta =0.19$ ,  $p<0.05$ , 95% CI, has thus a significant, positive and weak correlation with anticipation. According to the model,  $B=0.13$ , with every 1-point increase in the social driver scale, the anticipation increases by 0.13 (five point likert scale). Thus, the social driver presents itself as a useful variable for the anticipation to attend physical concerts again post Covid-19.

In the literature review, we looked at various academic approaches on the social drivers. Audiences that are socially driven, attend music concerts and performances mainly to socialize with friends and family. The two regression models show a significant relation between these drivers and the attendance for post Covid-19 times. During the Covid-19, people were socially confined, and isolated in their homes. Furthermore, physical social contact was mostly prohibited, and people had to use online tools to interact with their social circles. The results suggest that people who highly value social contact, are especially looking forward to attend physical concerts again. Thereby, being able to fulfil their social needs again, in combination with consuming music live. Furthermore, we see that part of these audience segments even plan to increase their physical attendance in comparison to the pre covid-19 period. In a later step, we will depart from this knowledge, and will see how the online consumption of socially driven audiences mediates the effect of the physical attendance and anticipation post Covid-19.

### **Economic drivers**

The regression model showing the extent to which audiences plan to increase their physical concert attendance post Covid-19 as a dependent variable, and the economic driver as an independent variable is significant,  $F(1,252)=6.99$ ,  $p<0.05$ . The predictive power is low, with  $R^2=0.037$ . The economic driver variable, with  $\beta=0.164$ ,  $p<0.05$ , 90% CI, has a significant, weak and positive correlation on the physical attendance increase. The model shows, with  $B=0.101$ , that with every 1-point increase in the economic driver scale, the future physical

attendance increase augments by 0.101. Hence, the economic driver variable presents itself significant in showing its effect on the physical concert attendance increase post Covid-19.

Secondly, the regression model looking at the extent that audiences anticipate attending physical concerts again post Covid-19 as a dependent variable, and economic driver as independent variable, is significant,  $F(1, 252) = 9.79$ ,  $p < 0.01$ . The model shows itself valid for predicting the anticipation, while the predictive power is low ( $R^2 = 0.023$ ), meaning that 2.3% in the variation of anticipation can be explained through being economically driven to attend concerts. The economic driver variable,  $\beta = 0.193$ ,  $p < 0.01$ , 99% CI, has a significant, weak and positive correlation with anticipation. According to the model,  $B = 0.147$ , with every 1-point increase in the economic driver scale, anticipation increases by 0.147. Hence, the social driver variable present itself as a useful and significant variable for studying the effect on anticipation.

We adapted the economic driver variable from NEA (2015), whereby being economically driven here entails, that these are stimulated to attend concerts and music performances because of low ticket costs or free admission. The results of our regressions provide evidence that the fact of being motivated by these variables has a positive effect of future attendance after the Covid-19 period. Interestingly, most studies looking at drivers do not take the economic variable into account (such as Rooij & Bastiaansen, 2015 or Boerner et al., 2011). However, in line with the NEA (2015) report, our data suggest that it is an important variable to consider in audience studies.

### **Other drivers**

The regression models with the intellectual and aesthetic driver did not turn out significant. Meaning that these motivation to attendance had no significant effect of the future attendance behaviour post Covid-19 times. It may suggest that these audiences have been able to satisfy their consumption needs throughout the lockdown period. Notably, we can say that especially crisis times seem to have effects on the social and economic behaviour, and less on the intellectual and aesthetic components.

### **Social barriers**

The regression model of the extent that audiences plan to increase their physical concert attendance post Covid-19 as dependent variable, and the social barriers as independent variable is significant,  $F(1, 290) = 3.59$ ,  $p < 0.1$ . The predictive power is valid but low, with  $R^2 = 0.016$ . Being held back to attend concerts through social barriers, with  $\beta = 0.125$ ,  $p < 0.05$ , 95% CI, has a significant, weak and positive correlation with the physical concert

attendance increase post covid-19. According to the model,  $B=0.101$ , meaning that with every 1-point increase in the social barrier variable, the PCA increases by 0.101. Hence, the social barrier variable shows itself useful and significant to understand the effect on the physical attendance increase post Covid-19.

Building upon the NEA (2015), the social barrier entails that audiences did not attend physical concerts because they could not find anyone to go with. To put it differently, the higher audiences score on this variable, the more they need social companionship for attending concerts. Similar to the social driver, it emphasizes the need of social contact for these audiences. During the Covid-19 period, audiences were deprived of their social relations. With the significant relation of these needs to the physical attendance post Covid-19, we can illustrate how much concerts provide social spaces and interactions for a considerable part of audiences. The data suggests that the lack of the fulfilment of their social needs, increases how much socially driven audiences look forward to attend concerts post Covid-19, and thus to engage in social relation while attending concerts. The mediation analysis will show how this relation is mediated through their online consumption, and more specifically how we can understand the social aspects surrounding online music concert consumption.

### **Economic barriers**

The regression model of the extent that audiences plan to increase their physical concert attendance post Covid-19 as dependent variable, and the economic barriers as independent variable is significant,  $F(1,290)=9.79$ ,  $p<0.05$ . The predictive power is low, with  $R^2=0.013$ . The economic barriers, which are the high-ticket prices of concerts, with  $\beta=0.115$ ,  $p<0.05$ , 95% CI, have thus a significant, weak and positive correlation with PCA increase. The model shows  $B=0.114$ , meaning that with every 1-point increase on the economic barriers scale, the PCA increase augments by 0.114. Thus, the economic barriers variable shows itself useful and significant to understand the effect on PCA increase.

In the same fashion, the regression model of the extent that audience anticipate to attend physical concert again post Covid-19 as a dependent variable, and economic barriers as independent variable, is significant, with  $F(1,290)=4.339$ ,  $p<0.05$ . The predictive power remains low, with  $R^2=0.010$ . The economic barriers, in which we look at how high ticket prices refrain audiences from attending concerts, with  $\beta=0.121$ ,  $p<0.05$ , 95% CI, have a significant, weak and positive correlation with anticipation. The standardized beta,  $B=0.147$ , shows that with every one-point increase on the economic barriers scale, the anticipation

increases by 0.147. Hence, the economic barriers show as significant variable to understand the relation to anticipation.

Aligned with the finding of NEA (2015) and Swanson et al. (2009), our data suggests that the study of economic barriers is valid to understand its relationship with attendance. Interestingly, however, the regression indicate that the more audiences score high on this barrier, the more they anticipate and plan to increase their future physical consumption post Covid-19. We can argue that the Covid-19 period made them re-evaluate how they perceive the value of concerts and what they mean for them. The fact that people with high economic barriers anticipate going to concerts again, shows that they changed their relation to concerts during Covid-19, and express their need to attend again. The mediation analysis will show how this relation is impacted through their online consumption of music concerts.

### **Sub-conclusion**

The research set out to test eight different drivers and barriers for attendance, and their effect on the physical concert attendance post Covid-19, when it is safe again to attend concerts. Notably, we only found statistically significant correlations with the economic and social drivers and barriers. Thereupon, we partially accept hypothesis 1, as we can only show that the social and economic drivers and barriers have an effect on future attendance.

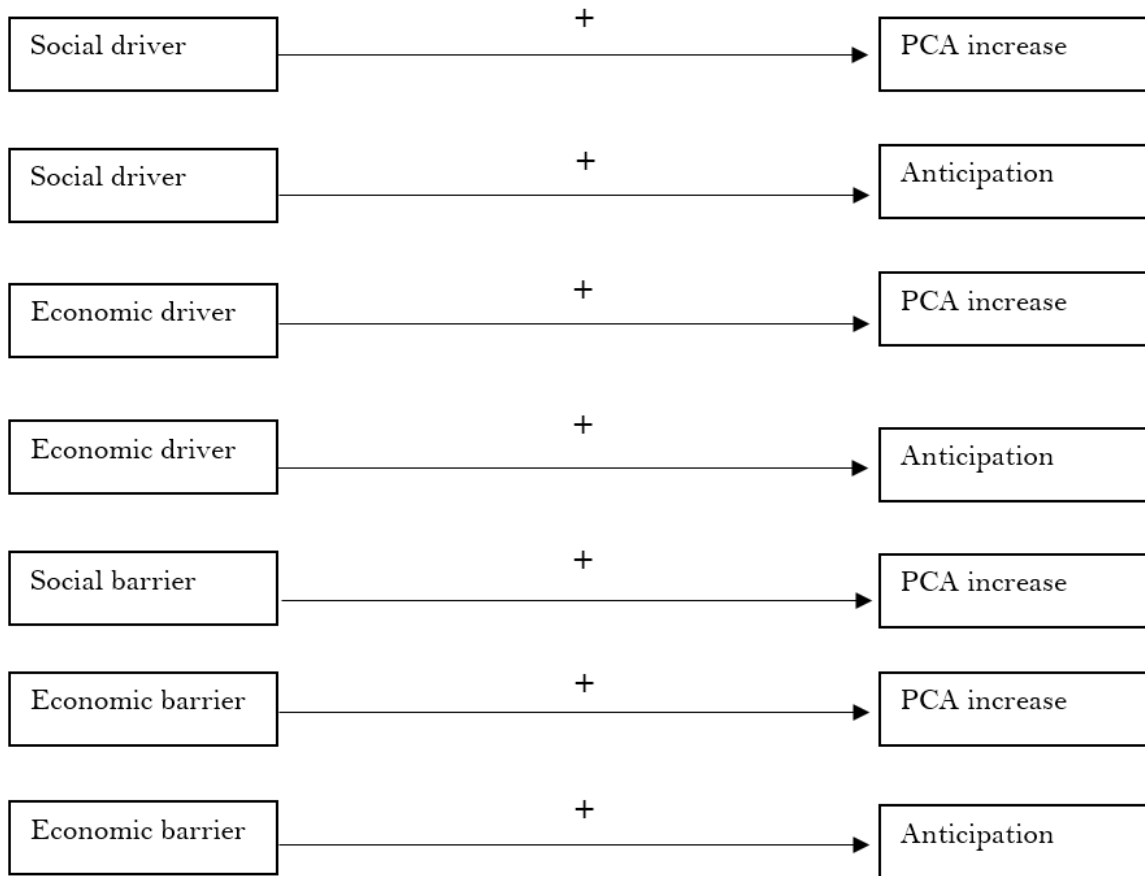


Figure 9: Visualization effect drivers/barriers on future attendance

### 4.3 Frequency of online concert consumption during Covid-19

**H2: The frequency of online consumption of music concerts during Covid-19 has an impact on the future physical consumption and anticipation post Covid-19.**

In the previous chapter, we identified the direct effects between various drivers/barriers towards the future physical consumption post Covid-19. In the second phase of the build up toward the final mediation analyses, we are interested to detect which variables, indicating the frequency of online consumption, have an effect on future physical attendance, and thereby qualify as possible mediators. As we have seen in method chapter, Baron and Kenny (1986, in Figgou& Pavlopoulos, 2015) explain that the mediators need to have a significant effect on the dependent variable. For the study of the frequency of online consumption, we focus on two variables. Firstly, the online frequency, meaning how often audiences consumed online concerts, and the frequency increase, which expresses to what extent their online consumption has increased during Covid-19 in comparison to before Covid-19. Simple linear regression calculation show this relationship, and table 8 summarises the findings.

		PCA increase	PCA anticipation
Online frequency			
	$\beta$	0.096*	<b>0.310****</b>
	B	0.094	0.369
	R <sup>2</sup>	0.009	0.096
	F	2.79	31.90
Online frequency increase			
	$\beta$	<b>0.223****</b>	<b>0.361****</b>
	B	0.190	0.376
	R <sup>2</sup>	0.05	0.13
	F	15.65	44.85

Table 8: Regressions online frequency

\*p<0.1

\*\*p<0.05

\*\*\* $p < 0.01$

\*\*\*\* $p < 0.001$

### **Online frequency**

The regression model on the increase of physical concert attendance post Covid-19 as a dependent variable, and the amount that audiences watched online concerts during Covid-19 lockdown is significant,  $F(1,300)=2.79$ ,  $p < 0.01$ . In turn, we see that the model is significant in predicting the increase, while the predictive power is low ( $R^2=0.009$ ). The amount of having watched online concerts during the lockdown period, with  $b=0.096$ ,  $p < 0.1$ , 90% CI, has a significant, positive and weak effect on future increase. This positive effect suggests that the more people consume online concerts, the more they are planning to increase their future physical attendance post Covid-19.

Secondly, the regression with the same independent variable, but with as dependent variable the anticipation to future physical attendance, is also significant,  $F(1,300)=31.9$ ,  $p=0.000$ . This shows that the model is highly valid for analysing the anticipation based on the amount audiences consumed online concerts. The online frequency has a significant, positive and moderate correlation with anticipation, with  $b=0.31$ ,  $p=0.000$ , 99% CI. In turn, this shows that the more audiences watched online concerts during the Covid-19 period, the higher their anticipation is for attending physical concerts post Covid-19.

### **Online frequency increase**

The regression model looking at the increase of physical concert attendance post Covid-19 as a dependent variable, and the online frequency consumption increase as independent variable is significant,  $F(1,300)=15.65$ ,  $p=0.000$ . The regression model is thus useful in showing the effect on physical concert attendance post Covid-19, while the predictive power is low ( $R^2=0.05$ ), meaning that 5% of the future increase variation can be explained through the increase in online consumption during Covid-19. Online frequency increase,  $\beta = 0.223$ ,  $p=0.000$ , 99% CI, has a significant, positive and weak association with PCA future increase. For each point on the likert scale that audiences increase their online consumption, the future attendance increases by 0.19 ( $B=0.19$ ). In other words, the more audiences increased their online music concert consumption during Covid-19, the more they are planning to increase their physical attendance post Covid-19.

In the next regression model, with physical concert attendance anticipation as dependent variable and the online frequency increase as dependent variable, we see that it is significant,  $F(1,300)=44.85$ ,  $p=0.000$ . We can thus say that this model is also useful to

understand the relation of both variables, while the predictive power is low, with  $R^2=0.13$ , 13% on the differences in anticipation can be explained through our independent variable. The online frequency increase comes in with  $\beta=0.361$ ,  $p=0.000$ , 99% CI, meaning that it has a significant, positive, and moderate association. For each point increase on the likert scale asking about the increase of online frequency, the anticipation is increase by 0.38. With this in mind, the more audiences increased their online consumption during Covid-19, the more they are anticipating attending physical concerts post Covid-19.

### **Sub-conclusion**

The results indicate, firstly, the frequency of watching online concerts has positive effects on how much audiences are planning to increase their future attendance, and secondly, that it increases the anticipation towards physical concerts. Thereby, we show that the consumption of online concerts is effective to increase future participation. These findings align with Mueser & Vlachos (2018) and Nguyen et al. (2014), in that we show how the provision and consumption of these online performances stimulate audiences to attend physically. Furthermore, this concurs well with the arguments of Bakshi & Throsby (2018) that online performances do not act as substitutes towards physical performances. In contrary, our data reinforces the complementary effect, and provides evidence that during times of crisis, where people cannot physically attend concerts, they get encouraged through the online environment. Consequently, we confirm that the provision of online concerts have great promotional qualities.

Hence, the regression models indicate that both independent variables (online frequency and online frequency increase) have significant effects on the dependent variables of future physical attendance increase and anticipation. This provides valuable information for the proceeds of the mediation model, as through the significant relation, both variables qualify to be included as mediating variables between the drivers/barriers and the future attendance and anticipation. However, the regression model between the variable 'online frequency' and 'PCA future increase' comes in at a 90% confidence interval, whereas the other three model show results at the 99% confidence interval. Consequently, we will disregard the online frequency as a mediating variable towards the future attendance increase.

Thereupon, we accept hypotheses 2, that the frequency of online consumption of music concerts during Covid-19 has an impact on the future physical consumption and anticipation, and showed that these effects are positive.



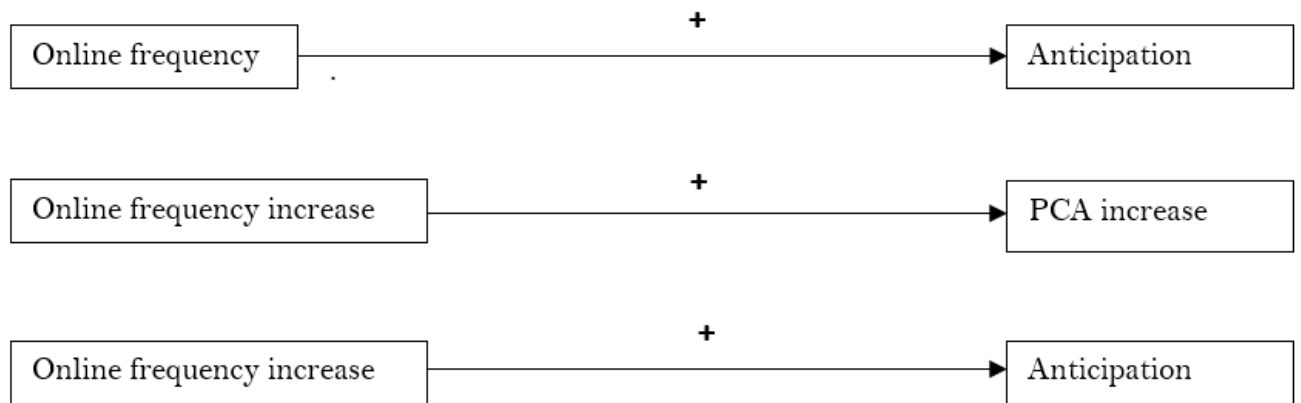


Figure 10: Visualization effect of online consumption frequency on future attendance

### 4.3 Types of online consumption

**H3: The type on online consumption of musical concerts during Covid-19, affects future physical attendance and anticipation post Covid-19.**

The literature review shows that the online provision of music performances is related to various audience development strategies. More specifically, we brought forward four distinct categories of online consumption. Firstly, audience engagement, which refers to the degree that audiences participate in and interact with the online content. The second type is audience education, whereby audiences are educated and intellectually stimulated. Thirdly, we looked at the accessibility, which entails that audiences can contour barriers which prevented their consumption. And lastly, the discovery type shows that audiences find new artists and music online.

In this section, we evaluate these four types as potential mediators for our final mediation analyses. Here again, we follow Baron & Kenny (1986, in Figgou& Pavlopoulos, 2015) second condition for the mediation analysis, that the mediators need to have a significant effect on the dependent variable. Whereas, the previous section evaluated which variable related to the amount or frequency of online consumption, this section will look at variables evolving around how and why people consume online concerts during Covid-19.

In order to evaluate which type of consumption qualifies as possible mediators, we will again perform linear binary regressions with the respective type of consumption as independent variable and either the physical concert attendance increase (PCA increase) or anticipation as dependent variable.

Table 9 summarizes the regressions. The boldly marked values are significant (95%-99% CI), and we will proceed elaborating on each of them.

Driver		PCA increase	Anticipation
	Online engagement		
	$\beta$	<b>0.149**</b>	<b>0.222*****</b>
	B	0.228	0.414
	R <sup>2</sup>	0.022	0.049
	F	6.8	15.5
	Education		
	$\beta$	0.074	<b>0.212*****</b>
	B	0.10	0.348
	R <sup>2</sup>	0.006	0.045
	F	1.67	14.19
	Accessibility		
	$\beta$	0.032	<b>0.176***</b>
	B	0.032	0.069
	R <sup>2</sup>	0.001	0.031
	F	0.312	9.6
	Discovery		
	$\beta$	0.039	<b>0.208*****</b>
	B	0.047	0.303
	R <sup>2</sup>	0.002	0.043
	F	0.463	13.63

Table 9: Regressions types of online consumption

\*p<0.1

\*\*p<0.05

\*\*\*p<0.01

\*\*\*\*p<0.001

### PCA increase

With as dependent variable PCA increase, only the regression model with online engagement as independent variable showed significant. The regression with  $F(1,300)=6.8$ ,  $p=0.01$ , has a R<sup>2</sup> of 0.0022, meaning that 2.2% in the variation of physical concert attendance can be explained through the online engagement variable, this is significant, but has low predictive power. Online engagement, with  $\beta=0.149$ ,  $p=0.01$ , 90% CI, has a significant, weak and positive relation with PCA increase post Covid-19. With every one point increase on the (five point likert scale) of online engagement, the PCA increase augments by 0.228 (on a scale of 5). Meaning that the more audiences engage in online

concerts through live chats, comment section or sharing them friends, the more likely they are to increase their future physical attendance.

Hence, the data shows the social elements surrounding the online concerts have significant positive effects on the future attendance. Audience participate by commenting on the videos, sharing them with friends and engaging in live-chats. This increased participation shows to stimulate audiences to increase their physical attendance post Covid-19. Although, through the study of various literature, we expected that the three other types of consumption would also affect the increase positively. However, the data does not provide any significant evidence to show these effects.

### **Anticipation**

Let us now turn to the regression model looking at the anticipation (as dependent variable). The four regressions turned out significant and we will elaborate on the important values.

Firstly, the regression with independent variable 'online engagement' is significant, with  $F(1,300)=15.5$ ,  $p=0.000$ . The model is thus valid, while the predictive power is low ( $R^2=0.049$ ), whereby 4.9% of the anticipation variation can be explained through online engagement. The online engagement, with  $\beta=0.222$ ,  $p=0.000$ , has a significant, weak and positive correlation with anticipation. The unstandardized beta ( $B=0.414$ ) indicates that with every one point increase in online engagement the anticipation increases by 0.414. The data thus suggests that the more audiences participate in online concerts, by means of commenting, sharing and involving in live chats, the higher their anticipation towards post Covid-19 physical concert is.

Secondly, the regression model with online education as independent variable is significant, with  $F(1,300)=15.5$ ,  $p=0.000$ . Here again, the model is valid in predicting the anticipation, with a low predictive power ( $R^2=0.045$ ), where 4.5% of the anticipation can be explained through the online education variable. The online education, with  $\beta=0.212$ ,  $p=0.000$ , has a significant, weak and positive correlation with anticipation. The unstandardized beta ( $B=0.348$ ) indicates that with every one point increase in online education, the anticipation increases by 0.348. This implies, that audiences' anticipation increases the more they have information on the artists and music genres.

Thirdly, the regression model with online accessibility as an independent variable is significant, with  $F(1,300)=9.6$ ,  $p<0.01$ . The model is thus valid, while the predictive power stays low ( $R^2=0.031$ ), showing that 3.1% of the anticipation can be explained through the online accessibility variable. The online accessibility, with  $\beta=0.176$ ,  $p<01$ , has a significant, weak and positive correlation with anticipation. The unstandardized beta ( $B=0.214$ )

indicates that with every one point increase in online accessibility, the anticipation increases by 0.214. Hereby, we show that if audiences use the online sphere to contour previously encountered barriers to access certain music concert, the more they can look positively forward to physical concerts post Covid-19.

Fourthly, the regression model with online discovery as an independent variable is significant, with  $F(1,300)=13.6$ ,  $p=0.000$ . This model is also valid with a low predictive power ( $R^2=0.043$ ), meaning that 4.3% of the anticipation variation can be explained through the online discovery variable. The online discovery, with  $\beta=0.208$ ,  $p=0.000$ , has a significant, weak and positive correlation with anticipation. The unstandardized beta ( $B=0.303$ ) indicates that with every one point increase in online discovery, the anticipation increases by 0.303. These results provide evidence for a positive relationship between discovering new music, genres and artists; and the anticipation towards physical concerts post Covid-19.

### **Sub conclusion**

The regression models show that the types of consumption each have a very similar effect on anticipation, with the unstandardized betas ranging from 0.214-0.414. Online engagement has the highest effect on anticipation, where the social elements of sharing and commenting are at the forefront. Here again, we see the social aspects and values coming back, seemingly very important for audiences during Covid-19. Then, the extent that audiences educate themselves through online concerts, also has a positive effect. Thereby, they educate themselves about artists, genres, music style and increase their cultural capital, which will make them better equipped to enjoy music in the future. Having access to music that audiences did not have access before, also shows a positive correlation with anticipation, suggesting that the online environment helps contouring certain barriers. And the more audiences discover new music and artists during the lockdown period, the more they anticipate. This indicates audiences are positively affected about widening their music horizon, and also that they discover new artists to anticipate towards.

Hence, all four variables qualify as possible mediators for the mediation analysis looking at how much audiences anticipate attending physical concerts again post Covid-19 times. Their predictive power is very similar and the unstandardized beta also do not vary by more than 0.2. In the next section, we will apply the variables in the mediation analyses, where we will see if there is a mediation happening. Furthermore, the mediation analysis will present which variables mediate the relation between the driver/barriers (as independent variables)

and PCA increase and anticipation as dependent variables.

All things considered, hypothesis 3 is partially accepted.

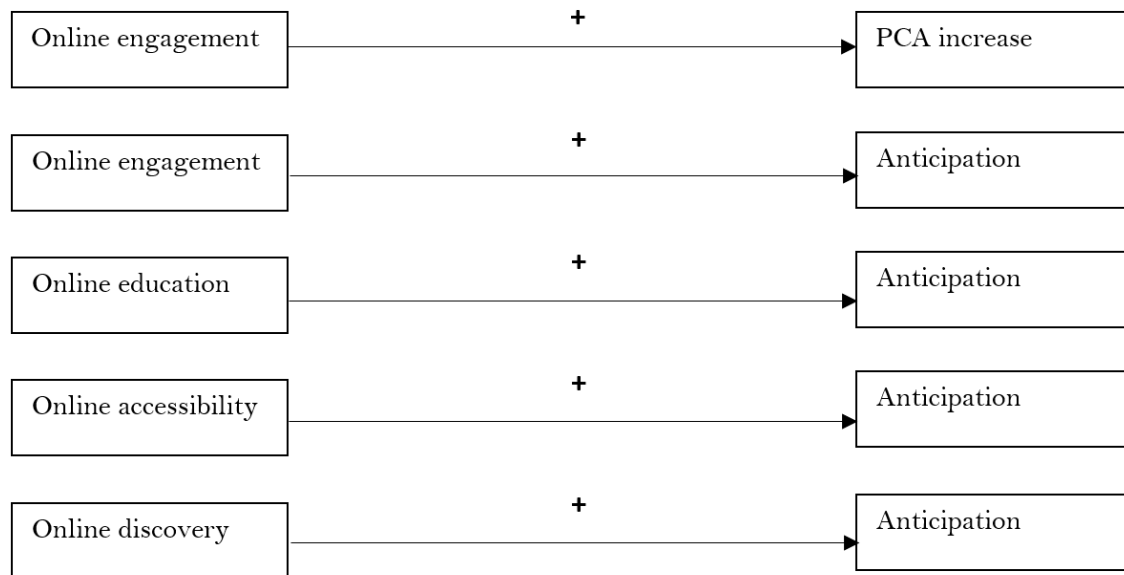


Figure 11: Visualization effect type of online consumption

## 4.4 Mediation analyses

The Hayes Process Macro analysis provides us with the indirect effects of X on Y, mediated through the mediation variables. The table indicates for each variable the mediating effect (=Effect, unstandardized beta). However, to see if this effect is significant, we look at the Bootstrap interval. If the value 0 falls between the lower and upper bound of the 90% confidence interval, then the inference is that the population indirect effect is 0. If 0 falls outside the confidence interval, then the indirect effect is inferred to be non-zero. Which in turn means, that we can only significantly show a mediation effect if 0 is not included in the lower and upper bound of the 90% confidence interval (Hayes, 2012).

### **Mediation 1:**

X:social driver

M1: online frequency increase

M2:online engagement

Y: PCA increase

Indirect effect of X on Y

	<b>Effect</b>	<b>BootSE</b>	<b>BootLLCI</b>	<b>BootUCLI</b>
Online frequency increase	0.0139	0.0109	-0.0020	0.0332
Online engagement	-0.0007	0.0070	-0.0130	0.0105

*Table 10: Mediation 1 output*

The first mediation analysis has as independent variable the social driver, dependent variable the PCA increase, and the mediators are online frequency increase and online engagement. The output of the Hayes process macro analysis shows following results.

The indirect effect of social driver via the online frequency increase (IE=0.0139) is positive and statistically non-significant: 90%CI (-0.0020, 0.0332).

The indirect effect of social driver via online engagement (IE=-0.0007) is negative and statistically non-significant.

Hence, the effect of being socially driven to attend concerts on the physical attendance increase post Covid-19 is not mediated through neither the online frequency increase, nor the online engagement.

## Mediation 2

X: social driver

M1: online frequency

M2: Online frequency increase

M3: Online engagement

M4:online education

M5: online accessibility

M6: Online discovery

Y:Anticipation

Indirect effects X on Y

	Effect	BootSE	BootLLCI	BootUCLI
Online frequency	-0.0109	0.0118	-0.0330	0.0036
Online frequency increase	0.0199	0.152	-0.0029	0.0464
Online engagement	-0.0007	0.0076	-0.0137	0.0113
Online education	-0.0011	0.0063	-0.0132	0.0070
Online accessibility	0.0020	0.0076	-0.0095	0.0157
Online discovery	0.0007	0.0081	-0.0127	0.0141

Table 11: Mediation 2 output

The second mediation analysis has as independent variable the social driver, dependent variable anticipation, and the mediators are online frequency ,online frequency increase, online engagement, online education, online accessibility and online discovery. The output of the Hayes process macro analysis shows following results:

The indirect effect of social driver via the online frequency (IE=-0.0109) is negative and statistically non-significant: 90%CI (-0.0330, 0.0036).

The indirect effect of social driver via online frequency increase (IE=0.0199) is positive and statistically non-significant: 90% CI( -0.0029, 0.0464)

The indirect effect of social driver via online engagement (IE=-0.0007) is negative and statistically non-significant: 90% CI (-0.0137,0.0113)

The indirect effect of social driver via online education (IE=-0.0011) is negative and statistically non-significant: 90% CI (-0.0132, 0.0070)

The indirect effect of social driver via online accessibility (IE=0.0020) is positive and statistically non-significant: 90% CI (-0.0095,0.0157)

The indirect effect of social driver via online discovery (IE=0.0007) is positive and statistically non-significant: 90% CI (-0.0127, 0.0141)

Hence, in this model, we do not find any mediation effect between our independent and dependent variable via one of the mediators. This shows that neither the online frequency,

nor the type of online consumption have an effect on the direct correlation between being socially driven to attend physical concerts and the anticipation for post Covid-19 times.

### Mediation 3

X: Economic driver

M1: online frequency increase

M2:online engagement

Y: PCA increase

	<b>Effect</b>	<b>BootSE</b>	<b>BootLLCI</b>	<b>BootUCLI</b>
<b>Online frequency increase</b>	<b>0.0272</b>	<b>0.0142</b>	<b>0.0077</b>	<b>0.0536</b>
Online engagement	0.0131	0.0101	-0.0004	0.0313

Table 12: Mediation 3 output

The third mediation analysis has as independent variable the economic driver, dependent variable PCA increase, and the mediators are online frequency and online engagement. The output of the Hayes process macro analysis shows following results:

The indirect effect of economic driver via the online frequency increase (IE=0.0272) is positive and statistically significant: 90%CI (-0.0077, 0.0536).

The indirect effect of economic driver via online engagement (IE= 0.0131) is positive and statistically non-significant: 90% CI( -0.0004, 0.0313)

Hence, in this model, we find that the effect of economic driver on PCA increase is mediated by online frequency increase, with a coefficient of 0.0272. In other words, this indicates that with every one point increase on the social driver likert scale, the direct effect (unstandardized beta) on future physical attendance increase post Covid-19, is augmented by 0.03 through the online frequency increase. Thereupon, the more economically driven audiences increased their online consumption of music concerts during Covid-10, the more they are planning to increase their physical concert attendance post Covid-19. The online consumption of music concerts is thus, effective for stimulating audiences that are driven by low cost or free admission.



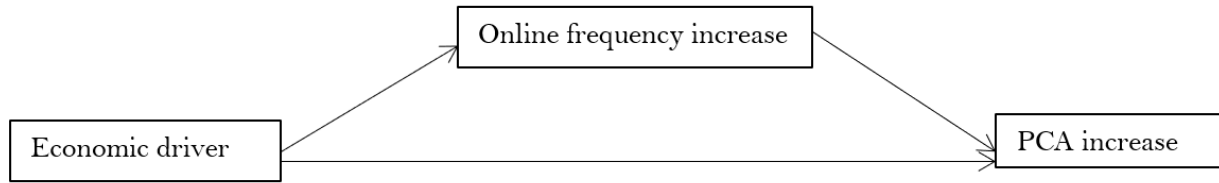


Table 13: Visualization mediation 3

#### Mediation 4

X: economic driver

M1: online frequency

M2: Online frequency increase

M3: Online engagement

M4:online education

M5: online accessibility

M6: Online discovery

Y:Anticipation

	Effect	BootSE	BootLLCI	BootUCLI
Online frequency	0.0078	0.0101	-0.0059	0.0266
<b>Online frequency increase</b>	<b>0.0407</b>	<b>0.0197</b>	<b>0.0129</b>	<b>0.0770</b>
<b>Online engagement</b>	<b>0.0164</b>	<b>0.0118</b>	<b>0.0009</b>	<b>0.0386</b>
Online education	-0.002	0.0071	-0.0127	0.0107
Online accessibility	0.0107	0.0110	-0.0052	0.0303
Online discovery	0.0048	0.0096	-0.0094	0.0224

Table 14:Mediation 4 output

The fourth mediation analysis has as independent variable the economic driver, dependent variable anticipation, and the mediators in question are online frequency ,online frequency increase, online engagement, online education, online accessibility and online discovery. The output of the Hayes process macro analysis shows following results:

The indirect effect of economic driver via the online frequency (IE=0.0078) is positive and statistically non-significant: 90%CI (-0.0059, 0.0266).

The indirect effect of economic driver via online frequency increase (IE=0.0407) is positive and statistically significant: 90% CI (0.0129, 0.0770).

The indirect effect of economic driver via online engagement (IE=0.0164) is positive and statistically significant: 90% CI (0.0009,0.0386).

The indirect effect of economic driver via online education (IE=-0.002) is negative and statistically non-significant: 90% CI (-0.0127, 0.0107)

The indirect effect of economic driver via online accessibility (IE=0.0107) is positive and

statistically non-significant: 90% CI (-0.0052, 0.0303).

The indirect effect of economic driver via online discovery (IE=0.0048) is positive and statistically non-significant: 90% CI (-0.0094, 0.0224).

Thus, in this model we find two significant mediators: online frequency increase and online engagement. The direct effect of economic driver on anticipation is mediated via online frequency increase by 0.0407, and mediated via online engagement by 0.0164. These results highlight that the more audiences, that are driven by low cost and free admission, engage in online music concerts through writing comments, sharing videos and participating in live chats, the more their anticipation for physical concerts is reinforced. Accordingly, the effect of being driven by low cost or free admission on the anticipation of attending physical concerts post Covid-19 is also reinforced by the amount that these audiences have increased their online consumption of music performances.

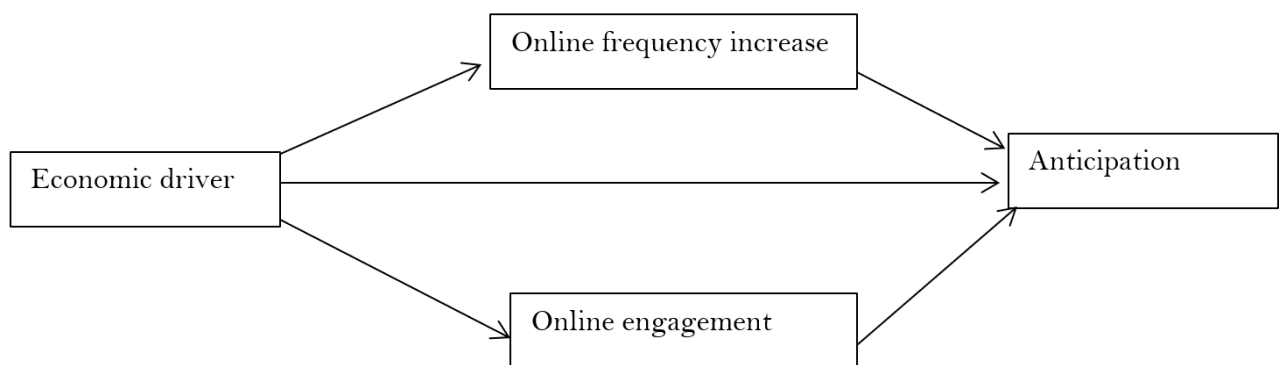


Figure 12: Visualization mediation 4

**Mediation 5:**

X:social barrier

M1: online frequency increase

M2:online engagement

Y: PCA increase

	Effect	BootSE	BootLLCI	BootUCLI
Online frequency increase	-0.007	0.0101	-0.171	0.0160
Online engagement	-0.005	0.063	-0.0106	0.0098

Table 15: Mediation 5 output

The fifth mediation analysis has as independent variable the social barrier, dependent variable PCA increase, and the mediators are online frequency and online engagement. The output of the Hayes process macro analysis shows following results:

The indirect effect of social barrier via the online frequency increase (IE=-0.007) is negative and statistically non-significant: 90%CI -0.0171, 0.0160).

The indirect effect of social barrier via online engagement (IE=-0.005) is negative and statistically non-significant: 90% CI (-0.0106, 0.0098).

Hence, in this model, we do not find any mediation effect between our independent and dependent variable via one of the mediators. Neither the increased amount of consuming online concerts during Covid-19, nor the extent to which audiences, that need social companionship for attending physical concerts, engage in comments, sharing and live chats, have an effect on the direct effect between the social barriers and increase post Covid-19.

### Mediation 6:

X: economic barrier

M1: online frequency increase

M2: online engagement

Y: PCA increase

	Effect	BootSE	BootLLCI	BootUCLI
<b>Online frequency increase</b>	<b>0.0182</b>	<b>0.0131</b>	<b>0.0006</b>	<b>0.0426</b>
Online engagement	-0.0006	0.0075	-0.0141	0.0110

Table 16: Mediation 6 output

The sixth mediation analysis has as independent variable the economic barrier, dependent variable PCA increase, and the mediators are online frequency and online engagement. The output of the Hayes process macro analysis shows following results:

The indirect effect of economic barrier via the online frequency increase (IE=0.0182) is positive and statistically significant: 90%CI (0.0006, 0.0426).

The indirect effect of economic barrier via online engagement (IE= -0.0006) is negative and statistically non-significant: 90% CI( -0.0141, 0.0110)

Hence, in this model, we find that the effect of economic barrier on PCA increase is mediated by online frequency increase, with a **coefficient of 0.0182**. In this model, we find evidence that audiences, who are held back to attend physical concerts because of high ticket costs, the more they have increased their online concert consumption during Covid-19, the

more they plan to increase their physical attendance once it is completely safe to go to music performances again.

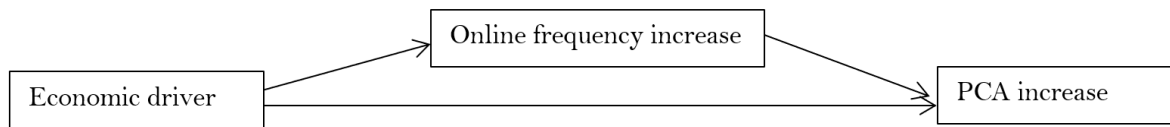


Figure 13: Visualization mediation 6

### Mediation 7

X: economic barrier

M1: online frequency

M2: Online frequency increase

M3: Online engagement

M4:online education

M5: online accessibility

M6: Online discovery

Y:Anticipation

	Effect	BootSE	BootLLCI	BootUCLI
Online frequency	0.0059	0.0359	-0.0086	0.0268
<b>Online frequency increase</b>	<b>0.0279</b>	<b>0.0191</b>	<b>0.0004</b>	<b>0.0621</b>
Online engagement	-0.0007	0.0084	-0.0149	0.0131
Online education	0.0030	0.0075	-0.0064	0.0176
Online accessibility	0.0156	0.0136	-0.0014	0.0413
Online discovery	0.0041	0.0089	-0.0080	0.0205

Table 17:Mediation 7 output

The seventh mediation analysis has as independent variable the economic barrier, dependent variable anticipation, and the mediators in question are online frequency ,online frequency increase, online engagement, online education, online accessibility and online discovery. The output of the Hayes process macro analysis shows following results:

The indirect effect of economic barrier via the online frequency (IE=0.0059) is positive and statistically non-significant: 90%CI (-0.0086,0.0268).

The indirect effect of economic barrier via online frequency increase (IE=0.0279) is positive and statistically significant: 90% CI (0.0004, 0.0621).

The indirect effect of economic barrier via online engagement (IE=-0.0007) is negative and statistically non-significant: 90% CI (-0.0149, 0.0131).

The indirect effect of economic barrier via online education (IE=0.0030) is positive and statistically non-significant: 90% CI (-0.0064, 0.0176)

The indirect effect of economic barrier via online accessibility (IE=0.0156) is positive and statistically non-significant: 90% CI (-0.0014, 0.0413).

The indirect effect of economic barrier via online discovery (IE=0.0041) is positive and statistically non-significant: 90% CI (-0.0080, 0.0205).

Hence, in this model, we find that the effect of economic barrier on anticipation is mediated by online frequency increase, with a **coefficient of 0.0279**. These results provide evidence that the more audiences, who refrain from attending concerts because of high tickets, consumed online concerts during Covid-19, the more their anticipating for attending physical concerts again is reinforced.

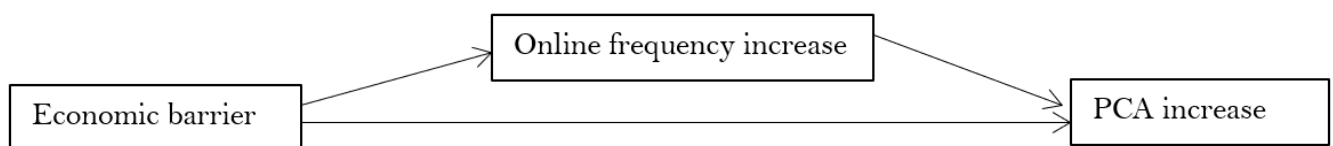


Figure 14: Mediation 7 visualization

### Sub-conclusion

The mediation analyses only showed significant effects of mediation the relationship between economic drivers/barriers and future attendance and anticipation. Especially the frequency increase showed considerable effects. This provides evidence that the more audiences who are either motivated or held back by ticket price reasons re-evaluate their future attendance post Covid-19. We can deduct, that audiences reconsider, during the lockdown, the economic value that they apply to concerts.

## **5. Discussion and conclusion**

### **Drivers and barriers**

The research set out as an audience study that does not depart from socio-demographic characteristic, but would look at drivers and barriers to attendance. Our results, however, only showed the study of economic and social barriers as significant. On the one hand, this relates well to Covid-19 crisis times. Audiences were deprived of their social contacts during the lockdown period. In turn, it relates to that social drivers and barriers were significant in understanding the relationship to future attendance. On the other hand, we are headed towards an economic crisis, and thus, we can understand why the economic drivers and barriers were significant in analysing the effects on future attendance.

However, the fact that we could not find any significant results for the other drivers and barriers brings the question forward if the audience segmentation in drivers and barriers is the most fruitful. It could be said that to get the complete picture, one might have to combine the drivers, barriers and socio-demographic to get a proper audience segmentation.

The mediation analyses yielded significant effects for the economic drivers and barriers, showing that audiences re-evaluate their willingness-to-pay and the value they apply towards concert tickets.

### **Audience development**

The Covid-19 period presents an unprecedented situation for the cultural sphere. Cultural organisations had to close their doors for two and a half months, without knowing when it would be possible to open again. This time of uncertainty led many organisations to re-evaluate their values and cultural offerings, and develop strategies for the post Covid-19 era. In turn, in June, most of the organisations were able to welcome public again, having to impose heavy regulations and restriction. For instance, audiences need to reserve a time slot, have to undergo hygiene measurements and keep physical distance of at least one and a half meter.

The cultural organisations stand, thus, in front of considerable challenges to attract and retain audiences, while providing them with high quality cultural experiences. It is clear that until the governmental measurements are elevated, both the demand and supply of culture will be heavily affected. And at the same time, the period that follows is full of uncertainties. Many organisations, cultural operators, researchers and policy makers make efforts to come up with strategies and projects to overcome these challenges. Increasingly,

the online domain is exploited, new ideas of having more intimate performances come into place, or developments of apps that facilitate experiences and matching supply and demand. In turn, organisations have to take new and adapted approaches to their audience development strategies, that fit the current times.

Our research focuses specifically on music concerts and performances. The gathered data and results provide important knowledge on the behaviour and relationship between the online consumption and future physical attendance. More specifically, we captured data in a time period, where audiences were in lockdown for already two months, whereas the total lockdown came slowly to an end. So, now the question is, how can this research help in informing audience development strategies, and make cultural organisations and concert venues more resilient toward the future, the post Covid-19 era.

Coming back to Kawashima (2000), we explore diverse audience development strategies in the literature review. Whereby, the focus is to attract new audiences and retain existing ones, by means of strategic actions, that are meant for cultivating, educating and stimulating audiences. More specifically, we explored four distinct categories: cultural inclusion, extended marketing, taste cultivation and audience education. Each having a different audience target, nature and purpose. Consequently, our research provides useful data to inform various audience development strategies in the music and concert sphere.

Through hypothesis 2, the research indicates the positive effect of online music concert consumption on the future attendance and anticipation. Especially significant is the fact that the more audiences increased their online consumption of music concerts during Covid-19, the more they plan to increase their physical attendance, and the higher their anticipation levels. In turn, this shows how crucial and effective it is for cultural organisations and concert venues to provide online concerts during these times of uncertainty. This relates to the extended marketing audience development strategy by Kawasima (2000). No one was physically able to attend the concerts, thus the videos are directed toward potential audiences. Organisations provide videos of artists that they were working with in the past, or are strongly affiliated to the organisation. As the data proves, the outcome is an increase anticipation, and for some audiences even an increase of attendance. Thus, it shows the importance for cultural venues to provide online concerts for promotion efforts, and thereby working towards a positive future demand. Although, we find that in absolute terms it is crucial for the resilience of the organisation to provide online concerts, it is also of interest to analyse it more specifically, in terms of content and

types.

Following, in hypothesis 3, the data explored elements surrounding the online concerts and performances. We looked at audience engagement, audience education, accessibility and online discovery. The most striking findings were the effect of these on the anticipation towards physical concerts post Covid-19. Each type showed significant and positive effects. In turn, concert venues should not only provide online concerts to stimulate their audiences, but also put effort into the elements surrounding the concerts, whereby they can strengthen their bond and increase participation.

Kawasima (2000) brings forward the audience development strategy of taste cultivation, whereby audiences are introduced to new art forms, genres or artists. Our data confirms that this way of approaching audiences is effective in times of crisis. Firstly, we find significant evidence that the more audiences ducted themselves about artists and genres, the higher their anticipation. And secondly, the more they discovered new music, the more they looked forward to attend concerts again. Consequently, cultural venues should provide educational content around the music genres or artists they program. In practice, that could take form as to provide informational video material on their future program. Through interviews, documentaries, online Q&A's and general information sessions, the more they cultivate their audiences, the better the chances for high demand in the future.

Furthermore, we see that the more audiences are able to access concerts online that they were not able to physically access, the higher their anticipation. This relates well to Kawashima (2000) cultural inclusion strategy. Whereby venues can reach audience segments that they were not able to reach before. Most organizations have data on the socio-demographics of their audiences. These times provide a good moment to direct online strategies towards the segments that they have failed to include. The online environment allows to better reach, and with good means also stimulate them to attend in the future.

Fourthly, the data provides evidence that online engagement strategies are most effective for increasing the anticipation towards physical concerts post Covid-19. In times of social confinement and staying mainly at home, audiences seem to find social comfort in the social environment evolving around online concerts. Through engaging in live chat, commenting, sharing and being in touch with both the artists and the online audience. In turn, this provides valuable information for cultural venues, to reinforce and facilitate the social aspects. Therefore, the organisations should develop audience engagement strategies and initiatives that not only are directed to the consumption but actually give their audiences a voice, and make them interact with each other.



The above are general recommendation for cultural organisation to design and adapt their audience development strategies in the online environment, in order to become resilient for the future and work toward a strong cultural sector, where both demand and supply can effectively meet. The mediation analyses were set out to more specifically understand specific drivers and barriers and how they are impacted by online consumption.

Interestingly, we find evidence for drivers and barriers evolving around social and economic aspects. The Covid-19 period is changing the social relations of people. And the data provides evidence on how social drivers and barriers are affected by online consumption.

Audiences that are motivated through low cost/ free admission, and audiences that are held back through economic reasons to attend, show to be significantly impacted by their online consumption. In turn, this informs organisations to focus on these audience segments, and adapt their marketing strategies towards them. It also indicates, that the willingness to pay for concert tickets will be affected in the future. By consuming mainly concerts online for free at this moment, audiences might get used to the low cost access. In turn, the economic barrier element shows evidence that some audiences that were usually not ready to pay a price for a ticket, might have reconsidered the value they apply towards the consumption of concerts. Thereby, the data shows that the pricing will be a sensible topic in the future.

Hence, we explored the online consumption of music concerts and performances during the Covid-19 period from a multitude of angles, engaged in the understanding of the role of drivers and barriers, and brought forward important implication for cultural organisations to be more resilient for against the future challenges.

## **6. Further research and limitations**

One part of our research was directed towards understanding the effects of drivers and barriers on attendance. We adapted our categories from the NEA (2015) report. While, we did not significantly prove that this is the best approach to studying the effects on future attendance, in future research this could be further developed. By taking into account different drivers and barriers, and asking the audiences more thoroughly about psychological factors.

Furthermore, one major limitation of this research might be the way the audiences were asked about their future attendance. We looked at future increase and anticipation. There

are other ways to gather more fruitful data on the future attendance, by asking different questions.

For future research on the future attendance for post Covid-19 times, and what cultural organisations can do to become more resilient, researchers need to analyse various strategies of online consumption. Furthermore, it could be interesting to look at the impacts of online concerts on audiences, and what they mean for them.

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## 8. Appendices

### Appendix 1: Full questionnaire

# Thesis PA

---

Start of Block: Block 5

Q34 The current Covid-19 pandemic and the related measures taken by governments and authorities have severe consequences for the creative and cultural sectors. And as concerts and music performances cannot take place, increasingly artists and organisations turn to online provision and streaming of performances. This study analyses the online music performance and concert consumption during the Covid-19 period, and its effects future consumption of physical performances. The first part of the survey analyses your pre-Covid-19 physical concert attendance, the second part your online consumption during this period, and lastly your expected future attendance. This study is done by Jacques Kayser, student at the Erasmus University Rotterdam, and will take you approximately 5-7 minutes. All answers will be administered anonymously. If you have any questions regarding the questionnaire or the research, you can contact me by email: 409846jk@student.eur.nl. Thank you for your participation, Jacques Kayser MA Cultural Economics and Entrepreneurship

End of Block: Block 5

---

Start of Block: Default Question Block

Q1 What is your gender?

- Male (1)
  - Female (2)
  - Other (3)
-

Q2 How old are you?

18-24 (1)

25-34 (2)

35-44 (3)

45-54 (4)

55-64 (5)

65-74 (6)

75+ (7)

---

Q3 What is your highest level of education completed?

High school (VWO) (1)

Vocational (MBO) (2)

Applied sciences (HBO) (3)

University degree (4)

---

Q4 What is your yearly income?

under 20.000 € (1)

between 20.001-35.000 (2)

between 35.000 - 65.000 (3)

above 65.000 (4)

End of Block: Default Question Block

---

Start of Block: live music consumption

**This section analyses your (physical) live music concert/performance attendance for the period BEFORE mid-March 2020**

---

Q5 How often have you attended Music concerts in the year before March 2020?

12 or more times (1)

6-11 times (2)

1-5 times (3)

Never (4)

---



Q6 Which genres of music concerts and performances did you attend the most? (multiple answers possible)

- Classical (1)
  - Electronic (2)
  - Pop (3)
  - Hip-Hop (4)
  - Rock (5)
  - R&B (6)
  - Jazz (7)
  - Latin (8)
  - Reggae (9)
  - World (10)
  - Other (11) \_\_\_\_\_
- 

Q7 On a scale of 0-5, please indicate if it is a minor or major reason for attendance.  
I go to live music concerts/performances to... /because of..

Minor reason			Major reason		
0	1	2	3	4	5

socialize with friends or family ()	
see a performance at a particular location ()	
gain new knowledge or learn something new ()	
experience high-quality art ()	
support a community organization or community event ()	
see a specific individual artist/group's performance ()	
low cost or free admission ()	
celebrating or learning about my own culture ()	

Q8 The following questions are about reasons that prevent(ed) you from going to live music concerts/performances. On a scale of 0-5, please indicate if it is a minor or major barrier for attendance.

	Minor barrier	Major barrier				
	0	1	2	3	4	5
Could not find the time, including due to work ()						
Cost too much ()						
Too difficult to get there (eg. too far, public transport..) ()						
Could not find anyone to go with. ()						
Did not want to go to that location ()						
Programs or events were not of interest ()						

End of Block: live music consumption

Start of Block: Online consumption

**Q9 This section analyses your access and use of ONLINE music performances during the last 2.5 months. Online music performances include recorded concerts, live-streamed concerts, Dj-sets, electronic music performances.. with both video and audio.**

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Q10 How often have you watched online music concerts/performance (live or not) during the past 2.5 months?

- Daily (1)
  - 4-6 times a week (2)
  - 2-3 times a week (3)
  - Once a week (4)
  - Never (5)
- 

Q11 How much has the amount of online music concert/performance that you watch increased in the past 2.5 months?

- A great deal (1)
  - A lot (2)
  - A moderate amount (3)
  - A little (4)
  - None at all (5)
-

Q12 On which platforms/websites have you watched recorded concerts/performances? (multiple answers possible)?

- Social Media (Facebook, Instagram..) (1)
- Online platforms (YouTube, Vimeo, Twitch..) (2)
- Website of specific venues (3)
- Television (4)
- Other (5) \_\_\_\_\_

Q13 Online music concerts/performances allow me to

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
listen to live music that I did not have access to before (eg. because of high ticket cost) (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
discover new music genres (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
discover new artists (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
educate myself about artists (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
educate myself about genres (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
engage in online discussions about the performance (eg. by leaving comments, sharing on social media..) (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
inform myself about specific concert venues (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q17 When watching online music concerts/performances

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
I actively watch (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I actively listen (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I put it as background music (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I inform myself about the artists prior to watching (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I engage in live chats (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I write comments (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tend to share them with friends (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Online consumption

Start of Block: This section is about the intrinsic impacts that online music performances have

Q14 This section is about the impacts that online music performances and concerts have on you.

Q15 When watching online music concerts/performances..

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
I am absorbed in the music (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I inhabit the world of the performers, lose track of time and forget about everything else (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q16 Online music concerts/performances..

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
engage me on an intellectual level (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
cause me to reflect on your own opinions and beliefs (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q18 During online music concerts/performances

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
I have strong emotional response during online concerts (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online concerts are therapeutic for me in an emotional sense (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q19 Online music concerts/performances..

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
leave me uplifted or inspired (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
can be a transcendent experience for me, in the sense of passing into a different state of consciousness for a period of time (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q20 Online music concerts/performances

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
expose me to styles and types of music that are unfamiliar to me (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
make me more likely to follow the work of the artists that I watch (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
cause you to be more creative in your own life, work or artistic behavior (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
make you feel better equipped to appreciate music in the future (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q21 When watching online music concerts/performances

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
I feel belonging or connectedness with the rest of the online audience (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
make me celebrate and sustain my own cultural heritage (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
expose me to one or more cultures outside of your own life experience (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: This section is about the intrinsic impacts that online music performances have

Start of Block: post corona consumption

**Q22** The following questions evolve around your future **PHYSICAL** live concert attendance once it is completely safe to physically attend concerts again.

	None at all (1)	A little (2)	A moderate amount (3)	A lot (4)	A great deal (5)
I will increase my concert attendance than before March 2020 (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will decrease my concert attendance than before March 2020 (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will try to see artists live that I discovered during the last 2.5 months (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will attend concerts of newly discovered genres (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I look forward to attend physical concerts again (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I look forward to attend a specific or newly discovered concert venue (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident that I will enjoy concerts of newly discovered artists (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel more informed about concert venues (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will watch the same amount of online music performances (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Q35** Is there anything else you would like to share or comment?

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End of Block: post corona consumption



