

When does live art stick you to the screen? Evidence from audience behaviour towards broadcast content during the first lockdown¹

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Abstract

Framing of the research. *Performing arts organisations have been particularly struck by the Covid-19 pandemic, which induced an almost complete stop to live productions. Within a crisis that has affected both supply and demand in most industries, performing arts have seen dramatic difficulties affecting the entire production chain in a longer and more pervasive way than many other sectors. This context, and especially the lockdown periods, have shown an exponential development in the offer of TV or online cultural content. Most cultural organisations have started broadcasting recorded performances to give continuity to their activities and keep in touch with their audiences, using the available technologies, and to provide a service for the community. This choice can be interpreted in light of the “mediatisation” paradigm, which posits questions on the persistence or not of previous forms of inequality in the access to the cultural offer or if such inequality assumes new forms. The Coccia Theatre (Novara, Italy), after having been among the very first adopters of this approach, has subsequently developed a strategy of product innovation, aimed at tailoring its productions for digital tools, based on the creation of new artistic languages.*

Purpose of the paper. *This work relies on data collected by means of an online questionnaire circulated among the public of the Coccia Theatre immediately after the first lockdown in 2020. The aim of the study is to investigate the choice of the respondents to watch (or not) theatrical performances broadcast on TV or online during the lockdown period.*

Methodology. *We adopt a multinomial logit model to explain the (unordered discrete) choice of watching (or not) theatrical performances on TV, online or mixing the two channels during the lockdown period.*

Results. *The findings show that broadcast performances have been watched more by people who were already frequent attenders of live shows. We can, thus, infer a limited impact in terms of involving new audience segments. Moreover, the amount of leisure time available during the lockdown did not play a role in driving the choice. Additional findings involve the role of age, genre preferences, company preferences and the attitude towards culture and other virtual cultural events.*

Research limitations. *The main limitation of the study is related to the sample composition. Although the number of respondents is considerable, the sample*

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is composed only of respondents who could be reached online. This fact limits the representativeness of the sample, but allows excluding from the analysis the attenders for whom the online content did not represent an accessible option.

Managerial implications. The possibility of broadcasting content is indeed a valuable option. In order to create value in the long term for the existing audience and to reach new segments of potential demand, however, the product offered through remote channels cannot be the same as that performed “live”. The range of opportunities related to the exploitation of digital (but also TV) channels must rely on profound product innovation.

Originality of the paper. To the best of our knowledge, this is the first work studying the drivers of the relationship of the Italian public with remotely accessible theatrical performances during the Covid-19 emergency, accounting for the role of different channels.

Key words: performing arts; broadcast content; innovation; multinomial logit; Covid-19

1. Introduction

Online streaming has become a widespread avenue for the diffusion of performing arts (Ouazzani *et al.*, 2022). As argued by De la Vega *et al.* (2020), this new form of participation may potentially open new opportunities to reach both subjects already interested in cultural entertainment but conditioned by cost and mobility constraints as well as time restrictions and also groups of individuals not considered as passionate (De la Vega *et al.*, 2020).

“Telepresence” (a persuasive sense of “transportedness” in a virtual environment, Kim and Biocca, 1997) can be usefully exploited in the performing arts, not only in the relationship with the public, but also, for instance, by performers for distance rehearsing (Gorman *et al.*, 2019; Sermon *et al.* 2022). Since the very first moments of large-scale reliance on digital tools, however, sector operators developed the clear feeling that products broadcasting would never have been able to replace or be comparable to the live show because of lacking that component that determines its peculiar feature: the social dimension of experience sharing. Even the more consolidated practice of live broadcasting theatrical performances in cinemas has demonstrated that it produces a different experience than live, in-person attendance (Mueser and Vlachos, 2018).

However, the contingency linked to the Covid-19 pandemic crisis (Italy recorded -64.8% of performances and - 77.8% of sold tickets in 2020 compared to 2019; SIAE, 2020, 2021) seemed to boost the exploration of the possibilities embedded in online consumption. Indeed, streaming seemed to perform some useful functions: it became, on the one hand, a very effective tool for operators in the sector, enabling them to continue the transmission of productions, while, on the other, it has represented a channel to reach audiences deprived of live features.

If the pandemic situation was the motivation that definitively led the performing arts system to accept the digital dimension as a possible

resource and not just as a showcase tool, at the same time it highlighted how online content could not be mere reproductions of live performances to the extent that digital products need to have different logics and features based on high artistic quality, a solid tradition (musical, theatrical, lyric) and excellent technical quality developed with creativity. In short, this period gave the input to create a new awareness in terms of the generation of new artistic languages.

Several aspects are worth noting here. First, digital tools and in general the remote access to cultural content have been crucial during the lockdown period to maintain the relationship with the audience, thus continuously pursuing the cultural organisations' social mission. Second, the exponential growth in the broadcasting of cultural content has represented a unique opportunity to reach new segments of the public, also thanks to the sudden increase in free time that (unfortunately) involved several categories of workers. Third, innovations started to be introduced as required by the goal of reaching an audience made up of non-regular theatregoers, such as younger people, and by the purpose of maintaining the effectiveness of the remote channels after the restart of live performances. In this last perspective, if digital content had been conceived as a mere reproduction of live performances, and its value for the public would have become questionable with the risk of it creating a sort of artistic by-product.

The use of online tools has been referred to by some scholars by returning to the concept of the "mediatisation" of culture (Gemini *et al.*, 2020; Timplalex, 2020). Although, in an optimistic view, the mediatisation process can be regarded as an opportunity to create complementarity between online and live participation, Mihelj *et al.* (2019) has warned about the possibility that the use of digital platforms may risk exacerbating, rather than ameliorating, inequalities in access to culture. Two potentially conflicting points of view may arise in this regard: one is based on a potential substitutability effect between live and online participation, which would end up reproducing existing models of inequality in access to culture, and the other concerns new forms of inequality due to the so-called digital divide, essentially linked to differences in human capital and socio-economic characteristics (Van Deursen and Van Dijk, 2014).

In order to discern between these different visions, a major concern deals with the determinants of online consumption of cultural productions. Despite the importance of identifying levers able to incentivise or hurt online consumption, the contributions in the literature on this topic are rare, with De la Vega *et al.* (2020) being a noticeable exception. The determinants they identify are described by people's socio-economic characteristics, attitudes, cultural interests and constraints to live participation.

Benefiting from a questionnaire built with a cultural organisation, namely the Coccia Theatre, and circulated online among its audience just after the first lockdown brought about by Covid-19 pandemic crisis, this study focuses on the identification of the profile that characterises potential participants in remote theatrical performances, as well as focusing on the role of free time in the decision to participate. In addition, the questionnaire represents a unique attempt to engage with comprehending the propensity to attend broadcast performances since the concept of

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broadcasting embraces more than one possible media and the propensity is explained also by some novel variables. Indeed, data may be regarded as a valuable source of information allowing two contributions to the literature with respect to issues rarely considered before. Such contributions deal with (i) the identification of the impact of the so-far-unexplored lever based on the usual way with which cultural participation takes place (i.e. with family/partner, friends or alone) and (ii) the separation within the remote tools' domain among pure online consumption and consumption conveyed through the more traditional TV channel, thus taking account of specificities embedded in these two different types of media. This last feature allows to evaluate the choice to remotely attend a theatrical performance by isolating the issues related to the digital divide.

The rest of this contribution develops as follows. Section 2 provides the review of the literature supporting the hypotheses development. Section 3 presents the methodology. Section 4 describes the empirical setting and the data, while Section 5 provides the results and the relative discussion. Section 6 concludes the work.

2. Literature review and hypotheses development

Section 1 mentions how the pandemic, and especially the lockdown period, has shown an exponential development of the offer of virtual cultural content. Such an exponential spread of remote access opportunities has provided an unprecedented stimulus to an already established debate focused on the opportunities represented by the broadcasting of theatrical performances. The TV distribution of theatrical, opera and concert performances is a consolidated practice, dating back, for Italy, to the origin of national TV; more recently, digital tools and social networks diffusion have also supported the spread of such content through the internet.

The mobilisation thesis (Norris and Inglehart, 2009; De la Vega *et al.*, 2020) supports the possibility that digital tools may contribute to broadening possibilities of fruition capable of restoring social equity. In the field of cultural services, this view may be used to predict how the expansion of access possibilities could favour the attraction, from the point of view of cultural organisations, of market segments otherwise more difficult to involve in the enjoyment of cultural activities. Some reasons that could be at the basis of the positive role of digital tools and of the production of content transmitted on digital platforms are the cultural offer at lower prices as well as individuals' participation directly from home, thus avoiding transfer times. Ideally, these factors could act as incentives to attract different segments of the population. For example, the containment of prices could incentivise participation in lower-income segments, while time savings could incentivise the involvement of high-income segments characterised by higher opportunity costs related to time.

However, this vision clashes with some phenomena described in the literature, such as the "learning-by-consuming" (Garboua and Montmarquette, 1996) and the "rational addiction model" (Stigler and Becker, 1977; Castiglione and Infante, 2016) in addition to the fact that

cultural consumption requires pre-existing cultural skills (Borgonovi, 2004). Such paradigms of behaviour establish a sort of “inertia” in the fruition of cultural productions. In fact, while the learning-by-consuming paradigm underlies the idea that future consumption depends on the learning processes linked to current consumption, the rational addiction model establishes how current consumption in some way depends on a consumption action carried out in the past. Taken together, these two behavioural orientations could lead to the belief that the channel through which the offer takes place (live or remote) could be irrelevant in determining a process of attracting new segments of demand.

The literature on the topic of cultural offer and, in particular, on the preference for in-person rather than online participation is fairly scarce. Some references are Chen (2015) and De la Vega *et al.* (2020), in which a complementarity between online and face-to-face participation is referred to. However, as pointed out in De la Vega *et al.* (2020), this complementarity could lead to perpetuating forms of inequality in the attendance of cultural services to the extent that the aforementioned combination of supply channels is exploited by the same segments of users. Empirically, Mihelj *et al.* (2019) tended to confirm this conclusion to the extent that they noted how online cultural production seems to be an option only for those who already consume culture, even if there is a change in the access method.

If the above arguments point to the existence of inequalities in access to culture due to some “inertia” phenomenon, other scholars have posited that other forms of inequality may hold to the extent different transmission channels convey different types of audience. In this sense, findings from Van Deursen and Van Dijk (2014) and Van Deursen *et al.* (2015), with respect to internet usage, have empirically shown that activities carried out online differ across people, and internet usage is unable to overcome the inequality issues affecting offline reality. In addition, the same authors show that differences in internet usage are strongly linked to age, with younger people tending to be more intense users (even if the role of age differs among activity categories). This effect could be linked to the digital divide between generations and the relative disadvantage of elderly people. Indeed, in developed countries, the digital divide issue is no longer linked to physical access to the network or devices. The problem, rather, involves motivation (in terms of willingness to use the media) or, more relevantly, skill and usage access (Van Dijk, 2006). These issues are likely to still apply to older segments of the population. For this reason, it is likely that the cultural offer, although targeting the widest possible share of demand, is actually enjoyed by different segments of users, depending on the media employed. This study considers separately online and TV offers (the latter is easily accessible by all the user categories). This choice allows to account for the potential effect of the digital divide but, at the same time, avoid that this effect limits the interpretation of the empirical findings.

On the basis of the aforementioned arguments and given that in the literature on cultural services, evidence is well established regarding the complementarity between offer channels, we come to hypothesise that those who benefit from forms of entertainment by exploiting virtual

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channels are the same who enjoy face-to-face interaction. Specifically, our first hypothesis is formulated as follows:

Hypothesis 1 (H1): Attendees of remote cultural productions are the same as those who attend live shows.

The aforementioned contribution by De la Vega *et al.* (2020) reflects on the opportunity represented by online consumption for overcoming potential attendance-related restrictions, such as high ticket prices and possible inconveniences linked to supply and time restrictions. With respect to time, indeed, it is relatively less likely that people facing higher opportunity costs related to time (high per-hour wage) engage in time-intensive leisure activities, such as attending performing arts performances. In line with some authors (Throsby, 1994, Krebs and Pommerhene, 1995), the choice to consume performing arts could depend more on the opportunity cost of leisure time than on the ticket prices. Although De la Vega *et al.* (2020) did not explicitly test for time restrictions in their model, the results showed that being employed presents a weakly significant negative effect on the probability of attending musical performing arts online, (with respect to the base case represented by a housewife). On the contrary, being retired or a student increases the probability of online and live attendance of musical performances, and being a student also increases the likelihood of frequenting live theatrical performances. The authors have suggested that such effects can be related to having more available time. This finding is consistent with the results reported in Ekelund and Ritenour (1999) who showed through an OLS regression supported by the Beckerian theory of time allocation (1965), that the demand (attendance) for symphony orchestra concerts is negatively related to the real per-hour wage rate. Thus, the authors argue that as income increases, the potential positive effect on demand for performing arts can be countered by the negative impact of higher opportunity costs related to time. In this vein, Zieba (2009), in estimating a demand function for German public theatres, found much higher elasticity regarding the price of leisure time than for ticket prices (with respect to the latter, the demand is inelastic). In addition, the author demonstrated in one model that theatrical attendance shows a positive elasticity to disposable income. Thanks to a second model, it was demonstrated that this effect is net since it combines two opposite elements. The first one is the negative impact of the opportunity cost related to time that reduces the demand for theatrical products, while the other one is an extremely high positive elasticity to an “enlarged” measure of income, including disposable income and a monetary estimate of the value of leisure time. With respect to this last point Zieba (2009) confirmed that performing arts “are a luxury good, time-intensive in consumption” (p. 104).

The Covid-19 pandemics and the consequent lockdowns have, however, generated a sort of shock in the distribution of time between work and leisure (and arguably in the related opportunity cost) at least for some categories of workers. For many people, the amount of leisure time suddenly increased, combined with a reduced range of leisure

opportunities (Bond *et al.*, 2021), inducing a shift in the choice of leisure activities, which in that period were largely based on social media.

Based on this evidence, it is reasonable to hypothesise that people enjoying a larger amount of leisure time during the first lockdown engaged more in remote cultural consumption. In particular, we formulate our second hypothesis as follows:

Hypothesis 2 (H2): Not being engaged in work activities during the lockdown increases the probability of attending remote performing arts shows.

At this point, it is relevant to recall the huge economic effects driven by the pandemic. The crisis affected both supply and demand in most production sectors, where activity preservation and recovery required enormous efforts in terms of innovation and resilience (Heinonen and Strandvik, 2020; Ferrigno and Cucino, 2021; Martinelli *et al.*, 2021). Therefore, the main economic effect on individuals cannot be thought of in terms of leisure time; rather, as suggested by an anonymous reviewer, enormous economic consequences involve household disposable income (Almeida *et al.*, 2021), likely narrowing individuals' budget constraints. The aforementioned contribution by Zieba (2009) in addition demonstrated that (live) theatrical attendance shows a positive elasticity to disposable income.

In light of this reasoning, it could be reasonable to hypothesise that a reduction in disposable income could even favour the consumption of the (cheaper or often free during that period) remote cultural options, also considering that the “in person” option (that in principle could result itself in being more viable after an increase in leisure time) was not available in the lockdown period. This reasoning would reinforce H2, if we could assume that the absence of work activities during the lockdown surely implied a reduction in income. Unfortunately, we cannot assume a priori this relationship since our questionnaire, which will be described in Section 4.1, did not explicitly ask interviewees about their individual income dynamics (we cannot know, for instance, if they benefitted from subsidies, if work activities were indeed their main source of income or, rather, if the respondent or the household could rely on alternative sources). Therefore, we cannot directly infer the role of income from our data. Since our definition of engagement in work activities is strictly related to leisure time, we have defined as “not working regularly” also those who were unemployed and retired people.

3. Methodology

The aim of this work is to provide insights useful for understanding the choice of attending (or not) performing arts shows online or on TV during the first lockdown period. In particular, we want to model a choice with four options: not watching any theatrical performances, either online or on TV; watching performances (mainly) on TV; watching performances (mainly)

online; and watching performances using both channels. Since the discrete variable representing this (unordered) choice will be correlated with a set of explanatory variables which are respondent-specific but constant across the choices, we will rely on a multinomial logit model (see Franses and Paap, 2001 or Wooldridge, 2002, whose notation has been maintained).

In a multinomial logit model, the dependent variable y is a random variable taking one of the J integer values representing the available choice options $\{0,1,\dots,J\}$. In the case considered in this work, we have $J=3$ (although no order is imposed on the different choices), where not watching anything can represent the case $J=0$, which serves as the base case. Notice, however, that the choice of the base case does not affect the final outcome of the model.

The discrete choice described by the dependent variable must be explained by a set of regressors, or conditioning variables, represented by the vector \mathbf{x} . The final aim of the estimate is to model how changes in one element of \mathbf{x} affect the probability of choosing a certain option, all other things being equal. This probability is defined as

$$P(y=j|\mathbf{x}), j=0,1,\dots,J \quad (1)$$

In the multinomial logit model, the response probabilities are defined as

$$P(y = j|\mathbf{x}) = \exp(\mathbf{x}\boldsymbol{\beta}_j) / [1 + \sum_{h=1}^J \exp(\mathbf{x}\boldsymbol{\beta}_h)], \quad j = 1, \dots, J \quad (2)$$

where \mathbf{x} is a $1 \times K$ vector with unity as the first element, and $\boldsymbol{\beta}_j$ is a $K \times 1$ vector of parameters referring to the alternative j .

Moreover, since the probabilities must add up to one, for the base case, the response probability is defined as

$$P(y = 0|\mathbf{x}) = 1 / [1 + \sum_{h=1}^J \exp(\mathbf{x}\boldsymbol{\beta}_h)] \quad (3)$$

The described model is non-linear; therefore, the interpretation of the parameters is not straightforward and does not allow any immediate quantification of the effects of changes in the independent variables on the response probability. Useful information, in this sense, is provided by computing the partial effects of the dependent variables that express the impact of a unit change in each regressor on the response probability related to a certain option. Given the non-linearity of the model, the partial effects are not constant but vary depending on the value that the independent variables can assume. Therefore, not only the magnitude but also the direction of each partial effect is not completely determined by the magnitude and by the sign of the related parameter. Thus, it can be useful to compute the partial effects for any relevant value of the dependent variables, depending on the target of the analysis. It is relatively common to evaluate them at the sample mean, which is the approach upon which we will rely.

4. Empirical setting and data collection process

4.1 *The Coccia and the first lockdown*

The empirical part of this work was developed by relying on a questionnaire built with the Coccia Theatre², located in Novara, Italy. The questionnaire was circulated online to the theatre's public, relying on the theatre's newsletter.

This organisation appears to be an optimal empirical setting for the proposed analysis for a number of reasons. First, relying on an online questionnaire requires a high level of engagement on the part of the public, which could be difficult to attain in a period of almost complete cessation of live spectacles. However, thanks to intense social media activity and the strategy based on virtual broadcasting described below, the relationship between the theatre and its public could be judged as solid even after the first lockdown. Second, the target of the study is an exploration of the public's attitude towards virtual broadcasting, and the Coccia's online offer ensured that its habitual spectators had this option available. Finally, the theatre has developed during the first lockdown, and immediately after that period, it started to implement a diversification strategy based on the development of products specifically designed for broadcasting in response to the feeling that remote performance production is valuable for the public, especially for new segments of the public, to the extent that it is not limited to the simple reproduction of live shows, an idea that has supported the reasoning behind the development of our *Hypothesis 1*.

To better understand these points, it is useful to briefly retrace the path followed by the theatre during the first phase of the pandemic emergency. The Coccia Theatre was one of the first theatres at the beginning of March 2020 to establish a streaming schedule of its opera repertoire and contemporary opera works. Beside this first step, it soon felt the need to experiment with new approaches, paying attention to new perspectives to renew the relationship with its audience, to strengthen and support the

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² The Coccia Theatre is one of the most important historical buildings among the rich cultural heritage in Novara. Coccia Theatre has been acknowledged as a "historical national building", and in 1967 it was one of the first theatres in Italy to be awarded the designation of "traditional theatre" under the national Italian law which governs musical institutions. Over the years, the Coccia Theatre has been the one and only in the Piedmont Region among the 29 traditional theatres in Italy. The name "Theatre of Tradition" is given to institutions that through ongoing activities, promote, develop and take care of the coordination of musical activities to foster and enhance the cultural and artistic tradition. Since 1888, the Coccia Theatre has been focused first on the production of lyric opera, breathing new life into forgotten masterpieces, establishing a reputation for high-quality productions and balancing tradition with bold innovation that every year brings thousands of opera lovers to attend the shows. Besides its opera and concert season, the Coccia Theatre hosts lots of different events, shows and performances and the average number of performances produced and hosted is 60–70 a year. In recent years, Theatre Coccia's opera productions and the works done by innovating the sector have received wide public and critical acclaim, thanks also to the high level of the staff and technical team and the artistic direction (www.fondazioneteatrococcia.it).

tradition and identity through a comparison with the contemporary world and thanks to technological media and interactivity. This need must tell the emotions of this particular period but at the same time bringing a sense of lightness was shared by artists and creatives. And so, a new way of performing was born: the first opera entirely produced in smart working during the first lockdown of 2020, *Alienati-Opera Smart Working*, was conceived and produced by the Coccia Theatre Foundation.

Divided due to the pandemic that has hit the world, and united by their love of music, all the stars of this project wanted to imagine and create a new form of opera based on video interaction, transforming virtual communication into theatrical reality to give a strong signal: even in times of difficulty, theatre and music are able to draw on their own resources of creativity and imagination, communicating with audiences even if at distance, and assuring artists since there are so many ways to write, play, sing, create and share.

The ideation of a product such as *Alienati* was an innovation, and the success of the first 72 hours of streaming programming (17,000 impressions) was confirmed by data and the analysis of the questionnaires, which stimulated the scientific research object of the paper as well as a feasibility study of models for streaming broadcasts and the experimentation of related products: audiovisual assets focused on *online fruition*.

The need to cope with new expectations (both to preserve the work of many professionals and to stay connected and communicate with audience) and the desire to make the theatre a lively and welcoming place able to grasp the spirit of the times gave the input for the creation of Sipario Virtuale (a virtual space), conceived not only as a simple container but also, and above all, as a mirror of society and its theatre to enhance activities to encourage live attendance.

Sipario Virtuale is an incremental innovation that does not replace the traditional live performance and opera but that becomes, in this period more than ever, functional in pursuing main objectives, such as the maintenance of work, artistic quality and the relationship with the audience. Sipario Virtuale offers an alternative mode of access with products designed specifically for online viewing, a space for inclusive participation, a place to enjoy multimedia and interactive tools. Thus, it integrates artistic production and training projects for the audience and for young people with the broader purpose of involving citizens balancing the different levels and dimensions of the theatre: cultural, artistic, economic, educational, social, local, national and international.

The theatre therefore opens its doors a full 360 degrees, intercepts new needs, uses technology that enables equal access to forms of entertainment that don't replace participation in person but diversify the enjoyment without physical and time barriers. In this way, the Coccia Theatre fulfils its institutional role as a theatre of tradition first of all, open to the future, to welcome and create innovative ways of communicating and enhancing opera and music through technology and virtual dimensions.

4.2 Data and variables

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From the empirical point of view, this work aims to test the hypotheses introduced in Section 2 by analysing the preferences stated by spectators, by applying the multinomial logit model described in Section 3 in order to obtain insights on the choice of watching (or not) virtual theatrical performances and by which media. To reach this goal, we have relied on data gathered from the Coccia Theatre's group of spectators. The data have been collected by means of a questionnaire, prepared using a Google form, which has been circulated online among Coccia's customers, relying on the theatre's newsletter. The total number of newsletters sent on 18 June 2020 was 8,136. The total number of responses to the questionnaire, collected between June and July 2020, was 538, corresponding to a response rate equal to 6.61%. However, some of the responses were incomplete; therefore, the total number of observations included in the dataset for the estimates was 521.

The questionnaire included 22 questions focused on different themes:

- a first group of questions considered the socio-demographical characteristics of the respondent: age, area of residence, employment status and work activity during the first lockdown;
- a second group of questions involved the cultural consumption habits of the respondent before the pandemic crisis: the type of shows attended at the Coccia Theatre; whether or not the respondent attended performances in other theatres and where they were located; with whom and how often the respondent usually attended theatrical performances and which elements mainly raised their interest; and the general importance recognised regarding cultural activities;
- a third group of questions involved the respondent's behaviour with respect to culture during the lockdown: attendance at TV or online broadcasting of theatrical performances, provided either by Coccia or by other theatres; attendance at TV or online broadcasting of other cultural organisations' offers; some questions aimed at qualitatively understanding the sentiment towards these kinds of virtual offers, also in comparison with live shows not available at that moment, and the preferences towards new or known spectacles;
- a final group of questions focused on the relevance of culture after the pandemic crisis and on the attitude towards the restarting of activities, which in that moment represented a relevant issue.

Although all the information could be relevant to understanding the attitude and reaction of the public with respect to the new situation the cultural sector was facing, the variables relevant to test our hypotheses have been isolated, together with some potentially helpful control variables.

The dependent variable, *remote_watching*, is categorical and assumes a value equal to zero if the respondent did not attend any virtual performance during the first lockdown. The other values indicate some forms of remote performance watching (referring to the productions of any theatre). The wide offer of theatrical performances on TV during the lockdown, indeed, led us to consider not only the online channel but also the (more consolidated) TV channel. Since we cannot assume a priori that the two

options are equivalent from a consumer perspective, also in light of the digital divide issue discussed in the theoretical sections, in the questionnaire we have also allowed them to be considered separately. Therefore, the value of one indicates that the respondent preferred to watch performances on TV; the value of two indicates that the main form of attendance was online; the value of three indicates a mix of TV and online attendance.

Among the regressors, two dummy variables aimed to capture the intensity of consumption of live performing arts by the respondent and were strictly related to Hypothesis 1:

- the *dummy_other_theatres* assumes a value of one if the respondent frequented other theatres, in addition to the Coccia Theatre, and zero otherwise;
- the *dummy_h_frequency* assumes value of one if the respondent was a frequent attendee, who went to the theatre at least once per month or owned a subscription.

If Hypothesis 1 is confirmed, these variables should show positive and significant effects on the probability of remotely attending performances during the lockdown period.

With respect to Hypothesis 2, the binary variable *job_regular* indicates that the respondent was employed and had worked without significant reductions (or perhaps more intensely) during the lockdown³. If hypothesis 2 is confirmed, we expect a negative and significant effect of this variable on the probability of attending TV or online performances.

In addition, as mentioned, some relevant control variables were considered among the regressors:

- *age* is a continuous variable indicating the age (in years) of the respondent;
- the variables *drama*, *opera*, *ballet*, *family*, *variety* and *concerts* indicate the genres that the respondents usually attended at the Coccia Theatre before the lockdown. Each respondent could choose more than one option;
- the variables *dummy_couple*, *dummy_family* and *dummy_friends* indicate with whom each respondent usually attended live theatrical performances (with their partner, with their family or with friends, respectively). The remaining category, subsequently omitted from the estimates to avoid collinearity, was related to the variable *dummy_alone*, assuming value of one if the respondent did not usually have company at the theatre;
- the variable *culture_imp_scale* is a 5-point scale indicating the perceived importance of culture in the respondent's life;
- finally, the variable *other_virtual* is a binary variable equal to one if the respondent stated he watched, online or on TV, other forms of cultural offers (different from theatrical performances) during the first lockdown.

Table 1 reports the summary statistics of the described variables.

³ Since the aim of this variable is to verify the effect of leisure time, we have defined as “not working regularly” also those who were unemployed and retired people.

Tab. 1: Summary statistics

VARIABLES	N	mean	sd	min	max
remote_watching	521	0.823	1.052	0	3
dummy_other_theatres	521	0.774	0.419	0	1
dummy_h_frequency	521	0.474	0.500	0	1
job_regular	521	0.415	0.493	0	1
age	521	55.56	11.22	20	88
drama	521	0.440	0.497	0	1
opera	521	0.443	0.497	0	1
ballet	521	0.255	0.436	0	1
family	521	0.121	0.326	0	1
variety	521	0.390	0.488	0	1
concert	521	0.338	0.473	0	1
dummy_couple	521	0.438	0.497	0	1
dummy_family	521	0.209	0.407	0	1
dummy_friends	521	0.232	0.423	0	1
dummy_alone	521	0.121	0.326	0	1
culture_imp_scale	521	3.497	0.967	1	5
other_virtual	521	0.574	0.495	0	1

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Source: our elaboration

From the summary statistics, some interesting information emerges. With respect to the variables linked to H1, about 77% of the respondents frequented more than one theatre, and 47% of them showed a high attendance frequency. The variable related to H2 highlights that 41.5% of the respondents were working (at least with a regular amount of activity) during the lockdown period. The respondents were on average 55 years old, although the age presents relevant variability (from 20 to 88 years old). The genres most attended by respondents (at the Coccia Theatre) were opera and drama, while shows for the family were least preferred. Respondents tended to go to the theatre more frequently with partners (43.8%), less with family (20.9%) or friends (23.2%), and a few respondents preferred attending live performance by themselves (12.1%). In general, respondents tended to assign a relatively high importance to culture in their everyday life, with an average value of 3.5 out of 5 points. Finally, 57.4% of the respondents stated that they had attended other (non-theatrical) virtual cultural events in the period of interest.

5. Results

Table 2 reports the estimates results. The first three columns report the multinomial logit coefficients, referring to the choice of watching theatrical performances mainly on TV, mainly online or using both the channels, respectively, compared to the choice of not watching any performance remotely, which serves as the base case.

The following three columns report the related marginal effects (computed for each regressor at the sample mean of the other variables) in the same order of options.

Tab. 2: Multinomial logit model coefficients and marginal effects

VARIABLES	logit coefficients			marginal effects		
	TV	Online	TV + Online	TV	Online	TV + Online
dummy_other_theatres	0.282 (0.284)	2.316** (1.045)	1.134** (0.491)	0.0128 (0.0540)	0.0634*** (0.0181)	0.0658** (0.0259)
dummy_h_frequency	0.662** (0.267)	1.156*** (0.427)	1.282*** (0.359)	0.0820* (0.0498)	0.0372* (0.0209)	0.0873*** (0.0306)
job_regular	0.0132 (0.261)	-0.0513 (0.389)	0.303 (0.330)	-0.00478 (0.0494)	-0.00373 (0.0161)	0.0259 (0.0268)
age	0.0277** (0.0124)	-0.0289 (0.0177)	-0.000843 (0.0155)	0.00602*** (0.00233)	-0.00163** (0.000812)	-0.000673 (0.00120)
drama	0.0820 (0.254)	0.0976 (0.393)	-0.341 (0.333)	0.0242 (0.0483)	0.00468 (0.0165)	-0.0307 (0.0254)
opera	0.731*** (0.258)	0.395 (0.408)	0.879** (0.342)	0.119** (0.0487)	0.00365 (0.0168)	0.0537* (0.0280)
ballet	0.315 (0.268)	-0.217 (0.443)	0.0461 (0.357)	0.0674 (0.0535)	-0.0131 (0.0163)	-0.00393 (0.0270)
family	-0.871** (0.423)	-0.543 (0.661)	-0.525 (0.527)	-0.137** (0.0598)	-0.0114 (0.0234)	-0.0215 (0.0356)
variety	-0.481* (0.253)	-0.708* (0.408)	-0.818** (0.348)	-0.0670 (0.0464)	-0.0207 (0.0162)	-0.0508** (0.0251)
concert	0.244 (0.249)	0.742** (0.373)	0.0627 (0.329)	0.0372 (0.0479)	0.0325 (0.0199)	-0.00477 (0.0250)
dummy_couple	0.467 (0.436)	-0.787 (0.530)	-0.274 (0.481)	0.113 (0.0837)	-0.0385* (0.0224)	-0.0314 (0.0355)
dummy_family	0.585 (0.487)	-0.775 (0.650)	-0.266 (0.566)	0.143 (0.105)	-0.0332* (0.0190)	-0.0333 (0.0356)
dummy_friends	0.317 (0.462)	-1.131** (0.571)	-0.715 (0.524)	0.0966 (0.0965)	-0.0403** (0.0174)	-0.0553* (0.0301)
culture_imp_scale	0.0228 (0.138)	0.527** (0.220)	0.376** (0.183)	-0.0121 (0.0261)	0.0213** (0.00964)	0.0287** (0.0142)
other_virtual	1.534*** (0.256)	2.081*** (0.449)	2.674*** (0.413)	0.196*** (0.0418)	0.0544*** (0.0192)	0.162*** (0.0279)
Constant	-4.381*** (1.087)	-5.580*** (1.875)	-5.796*** (1.433)			
Observations	521	521	521	521	521	521

Standard errors in parentheses

*** p < 0.01, ** p < 0.05, * p < 0.1

LR chi2 (45) = 222.18

Prob > chi2 = 0.0000

Pseudo R2 = 0.1834

Source: our elaboration

Frequenting more than one theatre significantly increased the likelihood of choosing the online or the mixed (online + TV) options. In both cases, the logit regression coefficient was positive and significant, and the same holds for the marginal effect. In particular, the increase in probability exceeded 6% for both options (marginal effects equal to 0.0634 and 0.0658, respectively). Being a frequent attender of live performances (before the

pandemic) instead increased the probability of choosing all three options (by 8.2%, 3.7% and 8.7%, respectively). The effects of these two variables together provide evidence supporting our Hypothesis 1, highlighting that the choice of enjoying the remote offer provided by theatres during the lockdown characterised significantly more the frequent attenders, i.e. already “addicted” respondents, who, consistent with the literature mainstream, are likely to benefit from higher marginal utility by attending cultural performances, probably also thanks to their larger stock of cultural capital accumulated through their past intense consumption. Therefore, the results indicate that going frequently to the theatre or frequenting more than one theatre fostered the tendency to enjoy spectacles remotely when live performances were not available. On the one hand, this finding indicates that the policy pursued by several theatres during the lockdown was successful with respect to maintaining an active relationship with their public. On the other hand, however, it demonstrates that the virtual offer of spectacles (which during the first lockdown consisted to a very large extent of traditional performances) reached the more passionate (or “addicted”) segments of public rather than broadening the audience basin: the mere change in the access channel, even in the presence of low (or sometimes no) access prices, seems insufficient to reach new segments of demand.

The absence of significance for all the options of the variable *job_regular* represents a surprising result, leading us to reject Hypothesis 2. This finding indicates that the choice of attending theatrical performances remotely was not driven in this sample by the greater or smaller amount of free time available during the lockdown. The indirect meaning of this absence of effect is that the abundant offer of virtual spectacles did not reach people with limited interest in the offer itself, even if they had a lot of free time to spend. This fact does not represent necessarily a negative result, since it also reveals that culture has not been just a way to pass the time and avoid getting bored during a particular period: interest, rather than availability of time, was likely the main driver of the respondents’ choices. In interpreting this result, however, some caution is necessary since (as argued by De la Vega *et al.*, 2020) remote attendance is, in itself, a time-saving option (with respect to live attendance not available during the lockdown), potentially able to reduce the constraints regarding access to culture for the segment of public showing high opportunity costs related to time.

With respect to the control variables, we can see that the variable *age* showed a significant positive coefficient in relation to the TV choice, meaning that older respondents were more likely to watch theatrical performances if they were broadcast on TV. This result is consistent with the idea that theatrical performances tend to enjoy greater appeal among older people (Castiglione, 2011; De la Vega *et al.*, 2020). The related marginal effect confirmed this point and allowed quantifying such probability: one year more in age increased the probability of watching a performance on TV by about 0.6%, (with respect to the alternative of not watching any performance remotely). This is an expected finding since TV is generally the preferred media for older people. The coefficient of *age* was not significant for the other choices, although the marginal effects was negative and significant for the online option, indicating a “per year” probability

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reduction of 0.16%, consistent with the fact that in general older people are less interested in (and less familiar with) the use of online tools and confirming the importance of the digital divide issue previously discussed.

With respect to genres, being an opera lover significantly increased the probability of attending spectacles on TV or mixing TV and online. The marginal effects on the choice probability were 12% and 5%, respectively. A preference towards shows for the family and variety shows reduced the probability of choosing the TV option (*family*) or all the options (*variety*), although in the latter case, for the marginal effects, the statistical significance was confirmed only for the choice of mixing the two media. These genres are probably those for which the in-person interaction generated the highest value for the spectators. Finally, the preference for concerts was linked to a positive and significant coefficient for the online option, which is, however, not confirmed by the statistical significance of the marginal effect. In general, respondents seemed to appreciate more the remote options when they preferred genres in which music is a crucial component of the show.

The habit of attending live performances with company (in couple, with family or friends) tended to reduce the probability of watching performances remotely when online tools are involved (negative and significant coefficients or marginal effects). This result indirectly implies that the residual group, people used to attending live performances by themselves, relied more on online tools for remote attendance. This is probably linked to the relative practical inconvenience in using digital devices (smartphones or tablets for instance) “together” with other people, making the online option more valid for attendees not interested in sharing their experience.

Finally, the *culture_imp_scale* variable showed a positive and significant relationship with the online and the mixed options (one point increase in the scale generated a 2.1% increase in the probability of choosing “online” and a 2.9% increase in the probability of choosing “TV + online”, respectively), while the dummy *other_virtual*, indicating whether or not the respondent had attended remotely other (non-theatrical) cultural events during lockdown, showed positive and significant impacts for all the options. The marginal effects were particularly relevant in terms of magnitude (20%, 5% and 16% increase in the probability of choosing the TV, online or mixed option, respectively). Taken together, the impact of these two variables were consistent with the concept of an “omnivorous” consumer of cultural goods: people appreciating cultural activities may tend to consume more types of cultural products with a complementarity effect among the products themselves (Castiglione and Infante, 2016). This tendency towards joint cultural consumption in our sample prevailed with respect to the “competition” effect across products (for instance, in terms of time allocation), which could potentially drive the results in the opposite direction (Bruno, 2020).

6. Conclusions

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The study has focused on the choice of the public to watch (or not) theatrical performances online or on TV during the first lockdown. We relied on data collected by means of an online questionnaire circulated among the public of the Coccia Theatre (Novara, Italy) in the period immediately after the first lockdown due to the Covid-19 pandemic in 2020. Two main hypotheses have been tested. The first one states, on the basis of a consolidated stream of literature, that the huge amount of cultural content accessible in that period through virtual channels was mainly enjoyed by people already used to attending live theatrical performances. The second hypothesis states that having a larger amount of leisure time (i.e. not working) during the lockdown increased the probability of watching such content. While the empirical evidence clearly favoured the first hypothesis, no statistical significance supported the second one.

Additional results showed the role of age, which positively affected attendance at performances broadcast on TV, while it tended to negatively affect online access, consistent with the digital divide literature. Moreover, remote access to performances was linked to the preference for some genres as well as to the preference to share (or not) (live) experiences with other people (before the lockdown). Finally, the role of culture, in general, and the propensity to remotely attend other cultural events in the same period played a positive role, consistent with the idea of omnivorous cultural consumers.

Our results, especially those related to the two main hypotheses, largely support the view that broadcasting existing (traditional) recorded performances represented an important strategy at the very beginning of the emergency in order to preserve and maintain the relationship with the public and to continue pursuing the social mission of cultural organisations in terms of service to the community. Very soon, however, it was clear to sector operators (and the Coccia Theatre, the case study treated in this work, was a pioneer in this sense) that the effectiveness demonstrated by the digital tools could not be limited to the mere reproduction of live shows: such a choice would have prevented the opportunity to involve new demand segments, now more easily reachable, at least potentially. Such segments need to be stimulated by means of products based on different logics and features, thus creating new artistic languages. For the existing audience, in the long term, the challenge involves the creation of value content, designed to be different from (not a tentative substitute of) traditional live shows, whose peculiarities, especially in terms of social interaction and sharing of emotions, are largely considered irreplaceable by the audience itself.

To sum up, the pandemic has shown to both cultural organisations and the public that the possibility of broadcasting content is indeed a valuable option. If the product offered through remote channels, however, is the same as that performed “live”, the scope for value creation is limited to a relatively restricted range of customers and is likely to also be limited in time. The opportunity to reach larger segments of potential demand and to provide a different service rather than a (perhaps low-level) reproduction

of known products for the existing audience must be exploited by means of product innovation. We cannot question the idea supported by some authors that broadcasting content grants access to larger segments of the community by relaxing time, geographical and economic constraints. The results of this study, however, go beyond that idea by showing that even with a low or no access limit, what drives the choice regarding attending a performance (or not) is ultimately personal interest. This represents the main lever that cultural organisations need to utilise.

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