



## Music Industry and the determinants of cultural consumption in live music in Colombia

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### ABSTRACT

This research aims to determine the variables that influence the choice of attending live music events. For this purpose, the Cultural Consumption Survey (ECC), developed in Colombia by the National Administrative Department of Statistics (DANE), is used to find a descriptive profile of the attending individual and develop an econometric probit model that explains the influence that the different variables have on attendance probability. The results do not differ from other studies in that there is a high probability that young and single individuals attend this type of event. However, it is highlighted that all levels of education are positive and significant, people attend in all regions of the country, they engage in all activities, and there is participation from minority ethnic sectors.

**Keywords:** music industry; cultural industry; cultural consumption.

**JEL classification:** C225, L882, G338.

**MSC2010:** 62P20, 91B42.

# La industria musical y los determinantes del consumo cultural en la música en vivo en Colombia

## RESUMEN

Esta investigación tiene como objetivo determinar las variables que influyen en la elección de asistir a eventos de música en vivo. Para ello, se utiliza la Encuesta de Consumo Cultural (ECC), desarrollada en Colombia por el Departamento Administrativo Nacional de Estadística (DANE), para encontrar un perfil descriptivo del individuo asistente y desarrollar un modelo probit econométrico que explique la influencia que las diferentes variables tienen sobre la probabilidad de asistencia. Los resultados no difieren de otros estudios en que existe una alta probabilidad de que personas jóvenes y solteras asistan a este tipo de eventos. Sin embargo, se destaca que todos los niveles de educación son positivos y significativos, las personas asisten en todas las regiones del país, se involucran en todas las actividades y hay participación de sectores étnicos minoritarios.

**Palabras clave:** industria de la música; industria cultural; consumo cultural.

**Clasificación JEL:** C225, L882, G338.

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## 1. Introduction

Music is an important part of cultural consumption and assumes a leading role in creating and diffusing meanings for young people. Thus, studying music has become fundamental to understanding the way it creates one's identity and shapes one's lifestyle. A mere involvement with music ensures the accumulation of cultural capital, cognitive development, emotional control, and social empathy (Rivera & Carriço, 2015; Gómez-Zapata et al., 2021).

After more than 10 years of continuous growth, global trends reflect that the global music industry is on the way to recovery mainly by means of the digital market for recorded music (this aspect indicates streaming, digital, physical, synchronization, and performance rights). Moreover, live music events (with higher ticket sales and show sponsorships) are the largest source of income in the industry. In recent years, trends in the music sector in Colombia are no different from the trends worldwide. Data from the Culture Satellite Account revealed a reconfiguration of the music business model and indicated a sustained growth in income from live musical entertainment that was more than that from the music recording industry (Barrero & Machicado, 2015; Cámara de Comercio de Bogotá, 2018).

A great surge has been observed in the cultural activities, such as live music events, in Colombia as a means of entertainment and way of spending leisure time. Therefore, we are witnessing peculiar musical events such as the "Hay festival" in Cartagena, "Rock to the park" in Bogotá, or "Salsodromo" in Cali (Pérez & Rodríguez, 2017). In recent years, the Colombian government has constructed new laws to enable the promotion, development, and protection of the creative and cultural sectors. Specifically, Law 1493 of 2011 aims to recognize, formalize, promote, and regulate the public performance industry of the performing arts, within which are the live performances of musical expressions. Furthermore, Law 1834 of 2017, known as *Ley Naranja* [Orange Law], aims to develop, promote, encourage, and protect creative industries based on intellectual property (Ministerio de Cultura, 2019).

The present study may, thereby, provide an opportunity for institutions in charge of the cultural activities in Colombia (such as universities, nongovernmental organizations, governments, and ministries and cultural industries) to formulate a database to support and sustain the gathering of evidence and development of public policies that enable and encourage the consumption of live music and, thereby, improve the management of resources allocated for the music industry.

An economic approach provides a clear view of the patterns and decisions of the cultural consumption of Colombians. This study, thus, established and determined the factors of consumption of live music; it provided evidence for future research on the music industry, thereby contributing to the limited existing empirical literature in Latin American countries on this subject. Further, the 2016 anonymized microdata extracted from the Cultural Consumption Survey (ECC) were used. The Colombian Administrative Department of Statistics (DANE) collated the data to estimate the participation equation through a binomial probit model.

Overall, the study results established a high probability of the attendance of young, single individuals from all educational levels and professions belonging to various regions of the country. A socioeconomic variable measuring wealth does not seem to influence the attendance, thus facilitating varied live music events and highlighting the great taste that Colombians possess for these events.

The remainder of the study is organized as follows. Section 2 reviews the extant literature concerning the determinants of live music consumption. Section 3 introduces the empirical analysis using the binomial probit model. The study results and conclusions are presented in Sections 4 and 5, respectively.

## 2. Literature review

Throughout history, due to its versatility, music has had the ability to influence and summon crowds in an agglomeration of the masses who have common interests and practices, thus giving this cultural industry a particular characteristic (Miranda, 2019).

In Colombia and Latin America, studies on cultural industry are limited, and all its components need to be analyzed (Alonso & Gallego, 2011). For example, the consumption of live music by individuals can be driven by social and personal characteristics. It can help develop their identities, establish stable social relationships, and influence their moods (Castro et al., 2021; Marín-Liévana et al., 2021; Guerzoni & Nuccio, 2014). In addition to gender, race, and class, aspects that are vital in cultural consumption analysis include age; understanding contemporary goods, spaces, and consumer practices; and the relationships and differences between generations and various age groups (Aristizabal, 2010). Hence, future studies need to consider and focus on these aforementioned aspects.

Thus, the economic theory becomes crucial in such scenarios wherein we try to solve the problems arising in different sectors of the economy through empirical analysis. Today, some studies are being conducted on the available cultural resources and their demands; the results of investment in a certain activity and cultural programs and policies are also assessed (Palma & Aguado, 2010). However, economic analysis in cultural affairs is not new; its appearance dates back to the mid-60s when Baumol and Bowen (1966) observed an economic dilemma that was later called the “cost disease,” typical of the scenic arts such as theater, opera, and dance (Palma & Aguado, 2010). Later, Blaug (1977) justified the development of public policies in art, and Towse (2005) highlighted that it is possible to apply economic analysis to the production, distribution, and consumption of cultural goods and services.

Live music is within the scope of the cultural industry because it is considered as goods and services for mass consumption; it is motivated and highly associated with recorded and reproducible music (Aguado et al., 2017). Cultural industry comprises sectors related to the creation, production, and commercialization of goods and services based on intangible content generally protected by copyright; hence, the promotion of cultural entrepreneurship policies is pivotal. Moreover, it is important to democratize access to culture such that it loses its historically elitist character (Ministerio de Cultura, 2017).

García (1990) introduced the term “cultural consumption” in Latin America in the 1990s; he summarized six models around which consumption was analyzed, placing special emphasis on symbolic value. His study highlighted the need to promote future research around cultural consumption. However, his models were not self-sufficient, which made it difficult to construct theoretical and methodological principles (Ortega, 2009).

Sunkel (2004) observed that there is a deep connection between economy and culture, particularly when consumption is a social act. Economy and culture intertwine because consumption implies satisfaction of the present needs and meeting the future needs at the individual or group levels; such needs can be satisfied through goods or services (Ortega, 2009). Live music is considered a cultural service because such a service is facilitated through an artist’s performance at live concerts. Now, thanks to the technology of fixation and reproduction, these services have become goods (Thompson, 1990).

From the studies conducted by García (1995) and Sunkel (2004), it is possible to build bases for current and future works, considering that they provide us with sociological and anthropological theories wherein internationalization and globalization suggest that the effects of opening up geographical borders need to be considered to facilitate the incorporation of material and symbolic goods from other societies.

According to the previous evidence found on this subject, most studies focus on investigating the consumer profile and the relationship between the consumption of live music events and demand for

recorded music. Previous studies are classified into those that do not show econometric evidence, which reflect on people's characteristics in a descriptive way along with the obtained statistical data, and those that show econometric evidence that quantify the effects of the variables with regression models using the statistical data found in the cultural consumption decision (Aguado & Palma, 2015).

Some of these studies conducted by European and American authors are mentioned in Table 1. It illustrates noneconometric and econometric evidence, studies with their objectives, methodologies, and results.

**Table 1. Evidence studies.**

<b>Noneconometric evidence studies</b>				
<b>Title</b>	<b>Details</b>	<b>Objectives</b>	<b>Methodology</b>	<b>Results</b>
On File Sharing with Indirect Network Effects Between Concert Ticket Sales and Music Recordings (2011)	<b>Author:</b> Dewenter, Haucap, and Wenzel, <b>Publication:</b> Düsseldorf Institute for Competition Economics (DICE), Heinrich-Heine-Universität Düsseldorf, <b>Country:</b> Germany	To explain and understand some relationships in music trends.	A Hotelling line is conducted with two different bands or brands that are located at the end points of these lines and managed by two independent companies. Here, we assume that an integrated company sells records and show tickets, that is, we assume that artists sign the so-called 360-degree offers (offline and online marketing).	File sharing can actually lead to higher profits by way of a higher demand for concert tickets if the indirect network effects are robust.
<b>Econometric evidence studies</b>				
Music or hi-tech lovers? An empirical analysis of the digital music market in Italy (2009)	<b>Author:</b> Francesco Balducci. <b>Publication:</b> Università Politecnica delle Marche, Dipartimento di Economia <b>Country:</b> Italy	To perform a descriptive analysis on the consumption of students from the Universidad Politecnica delle Marche and Universito di Bologna and to propose a segmentation of the music market.	Perform descriptive statistical analysis to develop a correlation matrix based on a structural econometric model, with a sample of 634 students at the Politécnica delle Marche and Rimini campus of the Universito di Bologna during April and May 2007.	The new fragmentation of technology has provided a proportional effect within the music market by increasing the attendance at live concerts; in other words, recorded and live music complement each other. Furthermore, the high level of interest in music induces consumers to legally buy music.

Live and prerecorded popular music consumption (2011)	<p><b>Authors:</b> Juan D. Montoro-Pons and Manuel Cuadrado-García.</p> <p><b>Journal:</b> Journal of Cultural Economics.</p> <p><b>Country:</b> Spain</p>	To analyze the demand for the popular music sector considering its double dimension as provider of live concerts and prerecorded music.	We estimate a bivariate probit model for attendance and music purchase in two different time frames using the database found in Spain's Survey on Habits and Cultural Practices conducted in 2006 and 2007.	There are similarities in the pattern of participation in both markets: women have a negative effect on attendance and purchases, and cultural capital exerts a positive effect, but there are also some differences, namely, time restrictions, the use of technology, and variables related to the individual's economy have an asymmetric effect on participation. Furthermore, the demand of both markets complements a direct causal link.
Supply responses to digital distribution: Recorded music and live performances (2012)	<p><b>Authors:</b> Julie Holland Mortimer, Chris Nosko, and Alan Sorensen.</p> <p><b>Journal:</b> Information Economics and Policy.</p> <p><b>Country:</b> United States</p>	To explore the possibilities of the broad, illegitimate distribution of a digital good that can have offsetting effects on the demand for complementary nondigital goods.	Using a multilevel DMA model, to examine the impact of file sharing on recorded music sales and the demand for live music concerts, with 1,806 artists for whom we observed concert revenues and CD sales.	File sharing reduced album sales while increasing the demand for concerts. This effect is more pronounced for small artists because file sharing increases awareness of such artists. The impact of file sharing on live performances by large and well-known artists is negligible.
Analyzing the popular music audience: Determinants of participation and frequency of attendance (2013)	<p><b>Authors:</b> Juan D. Montoro-Pons, Manuel Cuadrado-García, and Trinidad Casasús-Estellés</p> <p><b>Journal:</b> International Journal of Music Business Research.</p> <p><b>Country:</b> Spain</p>	To identify the profile of the consumer in the live music market, as it is an increasingly attractive market for artists and to segment the market and see the different patterns of behavior, where appropriate, between different demand groups.	Use of a representative survey on culture and participation of the Spanish population over 15 years of age. Using a model with count data to find the consumer profile in the popular live music market.	It is found that the profile of the average live music consumer is male, young, with a higher education, and a high availability of time, who actively participates in the consumption of recorded music media and buying, recording, copying, and downloading music files and full records. It shows that as long as there is a latent demand, there is room to increase live popular music audiences. The key issue is how to relax restrictions on potential attendees, which is beyond the scope of this document.
Are streaming and other music consumption modes substitutes or complements? (2014)	<p><b>Authors:</b> Godefroy Dang Nguyen, Sylvain Dejean, and François Moreau.</p> <p><b>Journal:</b> Journal of Cultural Economics.</p> <p><b>Country:</b> France</p>	To identify consumption through streaming services, such as Spotify or YouTube, to determine if they complement or substitute other means of music consumption such as CDs,	A binary model is constructed based on a representative survey of 2,000 French people. The study monitors music taste and various sociodemographic characteristics as well as habitual determinants of music consumption.	The results indicate that consuming streamed music has no significant effect on the purchase of CDs, but it is complementary for online music, and the use of recorded music is positive for live music attendance but only for national music.

		Pay-downloads, or live music.		
Explanatory factors of university student participation in flamenco (2019)	<b>Authors:</b> Luis Palma Martos; Jesús Manuel De Sancha-Navarro; María Dolores Oliver-Alfonso. <b>Journal:</b> Economics & Sociology. <b>Country:</b> Spain	To explore the cultural participation of students of the Universidad de Sevilla and the frequency with which they attend live flamenco performances.	For this study, a sample of 452 students from different fields was taken, based on the statistical yearbook of the Universidad de Sevilla. Survey and binomial logit and ordered logit models were developed.	The results show that 43% of the students of Universidad de Sevilla have never attended a Flamenco concert or show, with one of the main variables of nonattendance being the human and cultural capital of the individual.
Determinants of attendance frequency to flamenco shows in Spain. A cultural economic approach (2020)	<b>Authors:</b> Jesús Heredia-Carroza; Luis Palma Martos; Alejandro Marín. <b>Journal:</b> Revista de Métodos Cuantitativos para la Economía y la Empresa. [Journal for Quantitative Methods for Business and Economics] <b>Country:</b> Spain	To determine the variables having an effect on the frequency of attendance in live flamenco shows.	Interviews were conducted with flamenco and music industry experts to obtain the variables used in the analysis, in addition to consumer surveys and the development of different economic models.	The results show that variables such as the educational level, the way in which the music is listened to, or the appreciation of the performer, mainly influence the frequency of attendance in live flamenco shows.

Source: Own elaboration based on the studies mentioned in this table.

In addition to the aforementioned studies, it is crucial to highlight the factors that influence cultural consumption participation and expected effects according to Gray (2003, 2011), Falk and Katz-Gerro (2016), and Porro-Gutiérrez (2014).

Table 2 shows that age has a positive effect when consuming cultural goods; young people show the greatest interest in this type of consumption because it is in this age group that young individuals (aged 17-30 years) develop their interests and tastes (Chaparro & Guzman, 2017). Education and the level of income or revenue produce a positive or negative effect depending on whether the level is high or low in the consumption of cultural goods. An increase in the level of education boosts the level of income or revenue and, hence, this aspect has a positive effect on cultural consumption, thereby indicating that there is a direct relationship between education and income (Prieto et al., 2005).

When a society is plagued by inequality, it is reflected in the cultural consumption. Moreover, social order carries weight and, therefore, the highest hierarchical positions in the economic, social, political, and professional areas create greater possibilities of developing an eclectic and omnivorous taste (Porro-Gutiérrez, 2014).

This music industry is composed of a large number of people, and it is creative and dynamic (Arango & Álzate, 2019). It is also a seasonal and contractual industry that depends on cultural and economic forces (Zendel, 2020). It seeks to become a competitive industry at the national and international level, where both the public and private sectors participate, creating areas for leisure and entertainment (Cruz, 2019).

**Table 2. Factors that influence cultural consumption and the expected effects**

Variables		Comments	Expected effect on participation
<b>Explicit price</b>	Admission fee	Several studies suggest that the demand for cultural goods is not flexible on price.	–
<b>Imputed price</b>	Children at home	The number of children in the home is considered to be a “burden” for consuming cultural goods outside the home.	–
<b>Purchasing power</b>	Family income	Once individuals start earning some income, they have a greater ability to pay.	+
	Weekly working day	Longer working hours result in a greater opportunity cost of time but also higher income and ability to pay.	+/-
<b>Investing in consumer skills</b>	Age	New skills for cultural consumption are learned with age.	+
	Education level	Participation and taste for cultural consumption increase with educational level.	+
	Art classes	Individuals who are involved with art from an early age are associated with greater cultural consumption.	+
<b>Sex</b>	Male/Female	Females overall have a higher rate of participation in culture. Males have a higher rate of participation rate in other types of events such as sports.	–
<b>Ethnic origin</b>	Black	This aspect is indeterminate, as it depends on the culture and the art form.	?
	Hispanic		
	Asian		
	Indigenous		
<b>Place of residence</b>	Metropolitan areas	The more cultural offerings there are in metropolitan areas, the larger the likelihood of attendance.	+
<b>Employment status</b>	Part-time employee	Has income and a greater amount of leisure time.	+
	Unemployed	Has no income but greater amount of leisure time.	-/+
	Retired	Has income and leisure time but is an elderly.	-/+
	Disabled	Encounters health, displacement, and income difficulties in developing countries.	–
<b>Profession or occupation</b>	Senior public and private officials	There is a certain lifestyle with higher cultural consumption in more intellectual professions.	+
	Trade work, agricultural work, and operators	Less interest in culture because more hours are spent working and, thus, running out of time for leisure.	–

Source: Own elaboration based on Gray (2003, 2011), Falk and Katz-Gerro (2016), and Porro-Gutiérrez (2014).



### 3. Methodology

In this study, a noneconometric analysis is performed, where the descriptive profile of the study participants is acquired, and an econometric modeling is employed to quantify the effect of the variables that influence the decision of attending live music events. This study, according to the type of study and management of the database, uses the statistical systemic method, consisting of a sequence of procedures for handling the data in qualitative and quantitative ways, thus explaining the variables that impact an individual's decision to attend live music event in a better way.

A qualitative investigation includes the analysis of the individual's profile and interpretation of an event in its natural environment, considering aspects such as age, gender, and ethnicity. A quantitative analysis seeks to measure the influence of each variable on the event. In this case, it is done through the analysis of a binomial probit model.

For this purpose, anonymized microdata from the DANE are employed, which are taken from the ECC conducted in Colombia in 2016 wherein 29,938 people aged 12 years and over were directly surveyed, covering both attendees and nonattendees of live music events in all regions of the country so as to obtain the necessary information to determine the factors influencing the consumption of this type of service available in the cultural industry. The data collection period was from September 1, 2015, to August 1, 2016.

For the estimated model, the participation equation of individual  $i$  at time  $t$  ( $P_i^t$ ) is given by the following expression:

$$y_i^t = P_i^t = F(x_i) = F(\beta_1 + \beta_2 class_i + \beta_3 age_i + \beta_4 educationlevel_i + \beta_5 ethnicity_i + \beta_6 sex_i + \beta_7 maritalstatus_i + \beta_8 region_i + \beta_9 mainactivity_i + \varepsilon_i) \quad [1]$$

Considering what was stated by Cameron and Trivedi (2005), the decision to attend a live music event is a dichotomous dependent variable that takes the value of 1 if the individual attends live music events and equals 0 if he/she does not attend. In turn, the probabilities ( $p_i$ ) of the decision depend on the characteristics observed in individuals and are calculated through a distribution function whose argument is  $k$ , explanatory variables ( $x_i$ ), and a vector of unknown parameters ( $\beta_{k \times 1}$ ). The conditional probability will then be expressed as below:

$$P_i \equiv \Pr(y_i = 1/x) = F(x_i \beta)$$

If it is assumed that the density function [ $\theta(\cdot)$ ] related to the cumulative distribution function [ $F(\cdot) = \phi(\cdot)$ ] is a standard normal, a probit model is obtained and the above equation is defined:

$$F(x_i \beta) = \phi(x_i \beta)$$

The marginal effect  $\partial p / \partial x_j$  would be given by  $= \theta(x_i \beta) \beta_j$ , where  $j$  denotes the possibilities (attending = 1; not attending = 0). Moreover, the marginal effect varies with the values of  $x_i$ .

A binary model can be analyzed through the use of latent variables that help it to relate to the linear regression model. Distinguishing between the observed result,  $y$ , and the underlying unobserved (latent) continuous variable,  $y^*$ , the following regression equation is obtained:

$$y^* = x_i' \beta + u_i \quad [2]$$

As  $y^*$  is not observed for each individual in the sample, the dependent variable constitutes the following latent index:

$$y = \begin{cases} 1 & \text{if } y^* > 0 \\ 0 & \text{if } y^* \leq 0 \end{cases}$$

The probabilities of its occurrence are expressed according to the distribution function expressed below:

$$F(x_i \beta) = \Phi(x_i \beta):$$

$$\Pr(y_i=1) = \Pr(x'_i \beta + u > 0) = \Pr(-u < x'_i \beta) = F(x_i \beta)$$

$$\Pr(y_i=0) = 1 - F(x'_i \beta)$$

The adjustment measures in the discrete choice models only offer partial information that must be evaluated in the context of the theory that motivates the analysis, results of previous studies, and estimated parameters of the model under consideration (Long & Freese, 2001).

The estimated values of the parameters do not have a direct interpretation. However, the statistical significance and its sign are of interest. If the estimated coefficient associated with a variable is positive and statistically significant, this aspect suggests that such a variable is a factor that increases participation probability. Thus, to facilitate interpretation, the calculations of the marginal effects are shown (Bermúdez et al., 2016). This study only includes the variables that determine attendance in live music events from the Cultural Consumption Survey.

Table 3 presents and describes the variables found in the ECC used for this study (DANE, 2016) to better understand their usage.

**Table 3. Description of the study variables.**

Variable	Description	Type	
<b>Dependent variable</b>			
<b>Attendance</b>	Have you attended concerts, recitals, or live music events in open or closed spaces in the past 12 months?	D	1 = Yes 0 = No
<b>Independent variables</b>			
<b>Class<sup>1</sup></b>	To which social class do you belong?	D	Working class =1,2 Middle class =3,4 Upper class =5,6
<b>Age</b>	How old are you?	D	1=12–17years (Adolescence) 2 = 18–26 years (Youth) 3=27–65years (Adulthood)
<b>Education level</b>	What is the highest education you have obtained?	D	1 = None 2 = Preschool 3 = Primary 4 = Secondary 5 = High school 6 = Graduate 7 = Postgraduate 8 = unknown/not reported

<b>Ethnicity</b>	According to your culture, people, or physical attributes, how do you identify yourself?	D	1 = White/Mixed race 2 = Afro-descendant/Afro-Colombian
<b>Sex</b>	Sex	D	1 = Male 2 = Female
<b>Marital status</b>	At present	D	1 = Living with partner 2 = Widowed/Separated 3 = Single
<b>Region</b>	What region do you live in?	D	Bogotá Atlantic Coast Eastern Colombia Central Colombia Pacific Coast Amazon
<b>Main activity</b>	In what activity did you spend most of your time last week?	D	1 = Work 2 = Looking for a job 3 = Studying 4 = Housework 5 = Disabled 6 = Other activity

<sup>1</sup>In Colombia, a socio-economic stratification method is used based on the physical characteristics of the household and the environment where it is located. Thus, strata one and two correspond to the lowest strata, with lower levels of income, education and employment; strata three and four correspond to the middle strata; and strata five and six correspond to the highest strata. People living in the middle stratum and especially in the upper stratum have greater opportunities for education and income.

Source: Own elaboration based on DANE (2016).

## 4. Results

### 4.1. Descriptive profile of the individuals who consume live music in Colombia

Table 4 shows the descriptions of the attendees at the live music events. According to the available information, in the age group of 12-65 years, the average age of those who attend live music events is 33 years, with 49% being men and 51% being women. Further, 47% are single, followed by 39% who are married or in cohabitation. A total of 36.8% possess university-level education, and 2.7% of the participants belong to the upper class, 24.7% belong to the middle class, and 72.4% belong to the working class. Moreover, 57% work as their main activity, followed by 22.3% who are looking for a job and 13.3% who are studying; 88% of those surveyed identify as being part of a white/mixed race ethnic group and 11.6% identify as Afro-descendants. In addition, participants come from all regions of the country, mainly from the Atlantic and Pacific Coasts, with 18% participants from each region.

**Table 4. Description of the attendees at the live music events.**

Variables	Live music event attendees			
	Mean	Standard deviation	Min.	Max.
Age	33.2	0.434	12	65
Class	.	.	.	.
Working	0.724	0.446	0	1

Middle	0.247	0.431	0	1
Upper	0.027	0.162	0	1
<b>Education level</b>	.	.	.	.
None	0.011	0.105	0	1
Preschool	0.001	0.032	0	1
Primary	0.099	0.299	0	1
Secondary	0.188	0.391	0	1
High school	0.279	0.448	0	1
Graduate	0.3685	0.482	0	1
Postgraduate	0.050	0.219	0	1
Unknown/not reported	0.000	0.021		
<b>Ethnicity</b>	.	.	.	.
White/mixed race	0.881	0.692	0	1
Afro-descendant/Afro-Colombian	0.116	0.378	0	1
<b>Sex</b>	.	.	.	.
Male	0.488	0.499	0	1
Female	0.511	0.499	0	1
<b>Marital status</b>	.	.	.	.
Cohabiting	0.390	0.376	0	1
Widowed/Separated	0.093	0.373	0	1
Single	0.471	0.499	0	1
<b>Regions</b>	.	.	.	.
Bogotá	0.122	0.327	0	1
Atlantic Coast	0.182	0.386	0	1
Eastern Colombia	0.177	0.381	0	1
Central Colombia	0.158	0.158	0	1
Pacific Coast	0.180	0.384	0	1
Amazon	0.179	0.383	0	1
<b>Main activity</b>	.	.	.	.
Work	0.570	0.495	0	1
Looking for a job	0.223	0.416	0	1
Studying	0.133	0.340	0	1
Housework	0.043	0.204	0	1
Disabled	0.003	0.055	0	1
Other activity	0.024	0.155	0	1

Source: Own elaboration based on DANE (2016).

## 4.2. Model results

Table 5 shows the results of the model used in the study wherein the likelihood of attending live music events is analyzed by reviewing the marginal effects of the variables. Given that there is no direct interpretation of the values of the estimated coefficients, their sign and significance are critical. Moreover, the calculations of the marginal effects provide the effect size of each variable.

The probability of attending live music events with the highest percentage corresponds to young people (basically between 18 and 26 years old), with 54.3%, a value that decreases as the age of the individual increases, but is still significant (adulthood between 27 and 65 years old) with a 7.7% probability of attendance.

**Table 5. Binomial probit model.**

<b>R2 = 0.2560</b>		
<b>Dependent variable</b>	<b>Live music attendance</b>	
	<b>Coefficients</b>	<b>Marginal effects p &gt;  Z </b>
<b>Independent variables</b>		
<b>Age</b>	-0,145867***	0,0556638***
Age 2_100	-0.000	-0.000
<b>Age groups: 12–17 years (Adolescence) (Ref)</b>	0	0
18–26 years (Youth)	0,2593775***	0,543197***
27–65 years (Adulthood)	0,2055928***	0,0765612***
<b>Sex: Male</b>	0,077364***	0,0270587***
<b>Marital status: Cohabiting (Ref)</b>	0	0
Widowed/Separated	- 0,0772996	- 0.0210743
Single	0,0848684***	0,0316043***
<b>Race: White/Mixed race (Ref)</b>	0	0
<b>Ethnicity: Afro-descendants/Afro-Colombian</b>	0,0784223**	0,0504403**
<b>Class: Upper class (Ref)</b>	0	0
Middle class	-0,1026882	-0,0387589
Working class	-0,988598	-0,0371723
<b>Educational level: None (Ref)</b>	0	0
Preschool	0,387893	0,1444487
Primary	0,2671825***	0,0994967***
Secondary	0,3477645***	0,1295048***
High school	0,5093065***	0,1896618***
Graduate	0,7801401***	0,2905181***
Postgraduate	1,086882***	0,4047463***
<b>Regions: Bogotá (Ref)</b>	0	0
Atlantic Coast	0,1881975***	0,0700833***
Eastern Colombia	0,3919971***	0,1459767***
Central Colombia	0,3809008***	0,1418445***
Pacific Coast	0,3213408***	0,1196648***
Amazon	0,6556893****	0,2441736***
<b>Main activity: Disabled (Ref)</b>	0	0
Working	0,6228234***	0,2319346***
Looking for a job	0,5993898***	0,2232081***
Studying	0,7220124***	0,2688718***
Housework	0,5748367***	0,2140647***
Other activity	0.5922622***	0,2558851***

Note: \*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1

Source: Own elaboration based on DANE (2016).

Being single increases the probability of participating in these events by 3.1%, compared to people living with a partner, which may be consistent with the fact that the highest attendance is found among young people. Furthermore, the variable being male was statistically significant and positive with around a 2.7% higher probability of attending this type of events.

Next is the education variable, where all levels are significant, only that they increase in percentage as the level becomes higher, starting from elementary school with 9.9%, Secondary school with 12.9%, high school with 18.9 %, graduate 29.0 % and ending at the postgraduate level with 40.4%. Thus, individuals with university and postgraduate degrees have the highest probability of participating.

According to the results, people attend regardless of the activity they are engaged in, whether they are housewives (21.4%), students (26.8%), employed (23.1%), and even those looking for a job (22.3%); all with significant probabilities. Being a student is the variable with the highest probability, which is in line with the higher probability that young people are the ones who most often go to this type of shows.

Furthermore, there is a positive and significant participation from all regions of the country; in comparison to the capital of Bogotá, the Amazon is significantly important, with a probability of 24.4%, followed by the Eastern and Central regions with a percentage of 14% each, and finally the coastal regions, the Pacific coast with 11.9% and the Atlantic coast with 7%.

Belonging to a minority ethnic group, for example, those individuals who identify themselves as Afro-descendants, are associated with a 5% increase in the probability of attending live music events.

Uniquely, although in the model results analysis, only the significant variables are studied, it is worth noting that in the socioeconomic stratum variable, which measures the levels of wealth in the country, no level is significant, unlike the findings of other studies based on the importance of high-income levels for cultural consumption.

## **5. Conclusion**

The present study facilitated a better understanding concerning the consumption of live music in the music industry in Colombia. The descriptive analysis revealed that live music events are consumed by young people who may be single or have a partner, both men and women, and who primarily work for a living; it also showed that people from the coastal areas of Colombia, especially the Afro-descendant population, significantly participate in live music events.

The estimation of the model showed that being male, young, and single increases the probability of attending live music events. Furthermore, there is a high probability of participation from all regions of the country, irrespective of the education level or profession/occupation. The socioeconomic class does not significantly affect the participation in live music events; moreover, ethnic minorities, such as Afro-descendants, have a positive and significant probability of attending live music events.

For some determinants, the study results for Colombia do not differ from other countries, as observed through the review of the extant literature: individuals who attend live music events are characterized by being single and among the youngest. However, in Colombia, in contrast to other countries, live music events are attended by the people belonging to all social classes, regions, and educational backgrounds, regardless of what they do for a living. Therefore, it is evident that Colombians have a good taste for music because of the prevalence of and exposure to variety of live music events.

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