# Level of Recommendation and Satisfaction after an event: the NOS Primavera Sound case study 

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#### Abstract

Purpose: This paper aims to evaluate the level of recommendation and satisfaction related with sociodemographic characteristics of visitors and the loyalty they show regarding the festival. Methodology: Data from a random sample of 1397 visitors were collected from an online questionnaire after the festival occurred. In univariate analysis with application of the ANOVA test, we observe that the global satisfaction is influenced by age, marital status, educational degree, residence, if they participated in the previous edition, type of ticket and intention to return for the next edition. In the application of the factorial analysis, three distinct factors emerged: the recommendation of the festival, the satisfaction with the organization and the satisfaction with the stages. In the econometric models we highlight simultaneously the gender and the intention to return that influence the recommendation and the satisfaction.

Findings: The results will be important for the framework of management and marketing of the event NOS Primavera Sound in the sense that they can be used for the visitor segmentation through the identification of sociodemographic characteristics of


 visitors, the levels of recommendation, satisfaction and loyalty towards the event.Originality/Value: This is the first time a post-event analysis is applied to NOS Primavera Sounds, in Portugal.

Keywords: Factorial Analysis, Musical Festival, Customer Satisfaction.

## 1. Introduction

Recent years have presented an exponential growth of festivals and events at a global level. These include the attraction of visitors, the improvement of the destination's image and the increase of leisure and cultural options for local residents. This growth has been accompanied by an increase of academic research in this area (Vinnicombe \& Sou, 2017). The academic findings in the festivals' area can potentially provide event

[^0]and festival organizers with practical information to improve their planning and promotion to better attract first time and repeat visitors (Vinnicombe \& Sou, 2017).

This study aims to contribute to this subject by evaluating the main determinants of the level of recommendation and satisfaction with the musical festival after it occurs. This choice is based on the idea that the customer satisfaction is the key for the achievement of goals in service environment (Javed \& Chemma, 2017).

This is the first time a post-event analysis is applied to NOS Primavera Sounds, in Portugal.
A post-event analysis is typically more general in nature and relates to the attendees' overall experience (Holste, 2014).
This can bring a new view regarding the visitors's perception of the event and their own level of agreement and satisfaction, because the "excitement" of being in a festival has already passed. According to relevant literature, the post-event response comprises recall, awareness and favourability (Lobo, Meyer \& Chester, 2014).
In this sense, this information will allow the identification of the best way to specialize the offer according to different sociodemographic data as well as the profile of the visitors and their expectations.

In this article we started by establishing the framework of the importance of such events in the tourism sector, then we will describe the event, explain the methodology developed and the results obtained. Finally, we discuss the implications of the results and the limitations of this work.

## 2. NOS Primavera Sound

In recent years, destination marketers have focused on event marketing. There has been increasing awareness of the potential financial benefits of events to local tourism marketing development (Li, Song \& Collins, 2014).

The music festival NOS Primavera Sound started in Barcelona in 2001, and it has achieved, over the last 16 years, a strong demand from the public and a growing role among the media.

In 2017, the festival took place in Porto and it lasted for 3 days - from the $8^{\text {th }}$ to the $10^{\text {th }}$ of June. The event received around 90000 people, being one of the main festivals performed in this city. The option for the city of Porto can be explained by its historical heritage and by the cultural growth that the city has been experiencing, being elected for the third time, in 2017, the "Best European Destination".

## 3. Methodology

### 3.1. Data and Structure of the questionnaire

The online survey was conducted after the musical festival NOS Primavera Sound and it was published in the social networks of the organization and of ISAG-European Business School during two months.
The online surveys have the advantage of being flexible, fast and timeless (Gao, House \& Xie, 2016). In order to avoid biases related to the questionnaire structure, we
performed a pilot survey. The purpose of the pilot test was to refine the questionnaire in order to ensure that there wouldn't be any problems in answering the questions (Sauders, Philips \& Adrian, 2009).
The respondents were informed that the research had a scientific aim. So, the impartiality of the analysis was ensured. We got 1397 useable questionnaires, which is a sample representative of the population under study because giving the population of 90000 visitors in the festival, the sample should have a minimum of 659 respondents, with a $99 \%$ confidence interval and a sample error of $5 \%$. The survey was organized in different sections taking into account the sociodemographic characteristics, the statements that evaluated the level of the recommendation and the statements that assessed the satisfaction factors, the global satisfaction and the festival loyalty taking into account the participation in the previous edition, type of ticket and intention to return.

### 3.2. Method

The quantitative analysis was performed through SPSS (21) at a significant level of 5\%. We started by the descriptive statistics of the variables. The parametric test ANOVA was used to describe the variables that influence the global satisfaction. The data relating to the fourteen statements of the satisfaction and eight statements of recommendations were subjected to a principal components analysis with varimax rotation in order to identify the main factors in both cases. The pre-tests included the determinant of the correlation matrix, Cronbach's alpha coefficient, a Kaiser-MeyerOlkin (KMO) test of sampling adequacy and Bartlett's test of sphericity, which confirmed the factorability of the factorial analysis. To identify the factors that influence the main variables of recommendation and satisfaction with the event considering the sociodemographic characteristics and the festival loyalty, we used a multiple regression analysis.

## 4. Research findings

### 4.1. Descriptive Analysis

Our sample contains $49 \%$ females and $51 \%$ males and it has the following age range: $15-24(32 \%), 25-34(40 \%), 35-44(22 \%)$ and $45-54(6 \%)$. With respect to the marital status, we have $80 \%$ single, $16 \%$ married and $3 \%$ divorced. Regarding the educational degree, $1 \%$ have the basic level, $22 \%$ the secondary education, $77 \%$ have a higher level (bachelor degree or more). The majority, $74 \%$, of the respondents are employed and have residence in Portugal. Regarding the loyalty of the visitor to the musical festival, it was clear that $59 \%$ participated in the previous edition and that $74 \%$ of the respondents bought a complete ticket that corresponds to the three days of the festival. In the intention to return, $64 \%$ plan to come in the next edition, $33 \%$ don't know yet and $2,62 \%$ did not intend to return (see table I).

### 4.2. Degree of Agreement and Satisfaction

During the questionnaire the respondents had to rate the level of agreement and satisfaction within different factors. The statements A1 to A8 assess the degree of agreement in a five point Likert scale. The statements S1 to S16 evaluate the degree of
satisfaction in a five point Likert scale. In table II, we highlight the statement with the highest recommendation, A3: "I will give good references of this event to the others" and the statements with major significance in the satisfaction level are ( $1^{\circ}$ ) S 10 : "I'm satisfied with the local of the event", followed by ( $2^{\circ}$ ) S5: "I'm satisfied with the scenario of the event", ( $3^{\circ}$ ) A8: "I'm satisfied by having decided to go to NPS". The global satisfaction was scored in 4,14 .

### 4.3. The factors that influence the global satisfaction with the event

Looking to the significant statistical differences, the results in table I indicate that the visitors aged between 15 and 24 and more than 55 years old, divorced, basic level, unemployed and students, resident at Portugal, did not participate in the previous edition, and those who reveal the intention to return are the visitors who are more globally satisfied with the event.

### 4.4. Factorial analysis of visitor recommendation and satisfaction

We conducted an exploratory factorial analysis to know the dimensions perceived by the recommendation and satisfaction about the musical festival. The data obtained show that $\mathrm{KMO}=0,834$, the statistical value of $X^{2}=12239,085$, Bartlett's test is significant ( $\mathrm{p}=0,000$ ), thus the correlations between the variables are suitable to make a factor analysis. The factor analysis uses the varimax rotation and no item loaded on more than one factor, supporting the independence of the dimensions.
The criteria to accept the results were the value of each eigenvalue being greater than 1.0 , the variance explained by all factors is greater than $68 \%$ and no variable has significant loading on more than one factor.
We observe that three different distinct factors emerged in the sample which explains $68,1 \%$ of the total variance. Factor $1(\alpha=0.802)$ accounts for $45,1 \%$ of the variance Recommendation of the Festival (recommend and incentive anyone to go to the event). Factor 2 ( $\alpha=0.781$ ) accounts for $12,7 \%$ of the variance - Organization of the Festival (satisfaction with local, scenario, accessibility and duration). Factor 3 ( $\alpha=0.848$ ) accounts for $10,3 \%$ of the variance - Music Stages (satisfaction with NOS, Palco., Pitchfork and Superbock).

### 4.5. The determinants of visitant's recommendation and satisfaction score

In order to identify the factors of significance of the recommendation of the event and the satisfaction score in terms of Organization and Musical Stages - Model I, II and III, respectively, we used a multiple regression analysis (see table I). First, it is important to notice that, in the three models, when the respondent is male (compared to female) and when the visitor has no intention or has some indecision about returning to the event (compared with the certainty of coming back), that fact has a negative impact in the recommendation and in the satisfaction level with the organization and with the stages. We can assume that the intention to return to the next edition could be the proxy to assess the impact of
the event regarding not only the next edition but also the tourism promotion of the city. Our results reveal that the visitors intend to return and have a positive impact in the recommendation and in the satisfaction with the organization and with the stage.

In addition to it, in model I, we can observe that having an age between 35-44 (compared to the range of 15-24); being domestic, looking for the first job or being a working student (compared with the unemployed situation) also has a negative influence on the level of recommendation of the festival. On the contrary, having no participation in the previous editions (compared with participation) seems to positively influence this factor.

In model II, we observe that being married (compared to being single), being domestic (compared with the unemployed situation) negatively influence the Organization of the Festival satisfaction score. In model III, we evidence that foreign residence (compared with a national residence) seem to positively influence the Musical Stages satisfaction score.

## 5. Conclusion

This research reveals an important framework for event managers and for local tourism, being very important for the promotion of NPS and the city of Porto.
Results indicate that the sociodemographic characteristics and the variables that represent the loyalty with the event influence in different significance levels the global satisfaction, the recommendation and the main factors of satisfaction. The key factors for the management of the festival are the organization and the stages, which will allow the visitor's recommendation to the others.

In future researches, it would be interesting not only to see if the results hold but also to further explore the comparison between the results during the event and after the event.

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Table I. Global Satisfaction mean by various factors, ANOVA and predictors of the recommendation of the festival (Model I), Organization of the Festival (Model II) and Music Stages (Model III)

| Variables | Relative Frequency (\%) | Global <br> Satisfaction <br> (mean) | One Way <br> Anova | Model I |
| :--- | :--- | :--- | :--- | :--- | Model II $\quad$ Model III

* Significant at the $\mathrm{p}<0.05$ level; ** significant at the $\mathrm{p}<0.01$; *** significant at the $\mathrm{p}<0.001$ level. | Model 1: Dependent variable: Factor I: Recommendation of the festival: $\mathrm{R}^{2}=0,3412 ; \mathrm{F}=32,05 ; \mathrm{p}<0,000$. Model 2: Dependent variable: Factor II: Organization of the festival: $\mathrm{R}^{2}=0,0774 ; \mathrm{F}=6.03 ; \mathrm{p}<0,000$.| Model 3: Dependent variable: Factor III: Music Stages: $\mathrm{R}^{2}=0,0427 ; \mathrm{F}=3.67 ; \mathrm{p}<0,000$.
Source: Authors.

Table II. Scale application and Descriptive analysis


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