

## The Realms Experience of Fishing Tourism: study on Tripadvisor World reviews on the Pine and Gilmore model

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**Keywords** | Fishing tourism, Machine learning, Artificial intelligence, Sustainable tourism, Netnography

**Objectives** | Fishing tourism is an activity that often favours sustainability objectives in the area where it is developed (Ditton et al., 2002; Hall, 2021; Khakzad, 2018; Lontakis & Vassilopoulou, 2022; Romarís, 2016; Zwirn et al., 2005). This work aims to describe the user experience in Fishing tourism through a netnographic analysis of reviews (Martin-Fuentes & Mellinas, 2018) of different Fishing tourism activities where the texts of the reviews are divided into sentences to better relate them to the different variables of the study, for which artificial intelligence (AI) is applied (Huang et al., 2022). The study model is analysed with Machine learning techniques (Hopman et al., 2017; Nilashi et al., 2021; Perles-Ribes et al., 2020), combining different supervised and unsupervised analyses and with great graphical value, which favours decision-making by tour operators and research interpretation for scientists.

Given this context, this study will be based on the questions posed:

- 1). What variables do users of Fishing tourism experiences consider to be the basis of their expectations when enjoying them?
- 2). Is it possible to establish a relationship between the variables of the tourist experience so that we can obtain satisfaction models that lead us to define and improve such experiences?
- 3). What variables do users of Fishing tourism experiences consider to be the basis of their expectations when enjoying them?

**Methodology** | The model of Pine and Gilmore (1998) on experiential marketing is adopted as a reference, in which four variables are dealt with where the experience fits in according to whether the user presents a passive or active attitude in the participation of the experience, whether he/she aborts it or integrates it in an immersive way. The experience can thus be defined as pure entertainment, educational, aesthetic or escapist. The study model extends the relationships with other significant variables in different studies on the tourist experience such as Tourist Satisfaction, Tourist Loyalty and the Professionalism developed by the tourist attraction staff members who carry

out each tourist attraction (Del Chiappa, et al. 2021). These last three variables will be referred to as the extended model for the purposes of this study.

Once the reviews of each destination have been obtained using scraping techniques, we proceed to separate the reviews into sentences using AI, as suggested by Huang et al., (2022) when they state this need to be revealed that there are cases in which the same comment can cover several user needs, which means that the distribution of topics variables depending on the document and the different ways in which the reviewers express themselves.

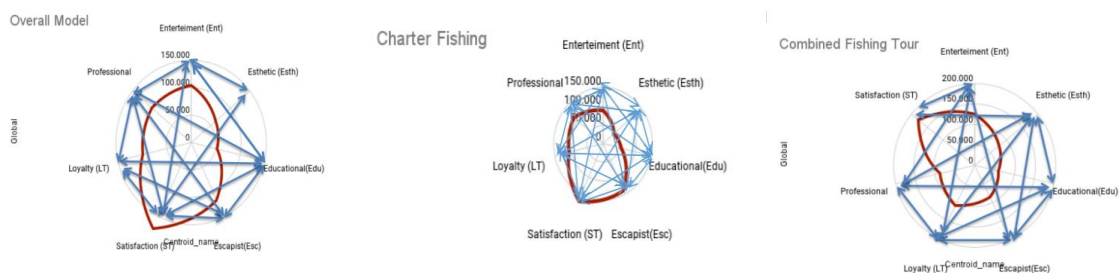
To split the text of the review into the corresponding sentences that compose it, a Python script is used to modify an Excel file. The code starts by importing the openpyxl module, loads the specified Excel file and uses the variable sheet to store the active sheet of the file. Then a supervised analysis is develop and structured as shown in Table 1:

**Table 1 |** Example of mapping review sentences to study model variables

#of Review	Destination	Sentences	Enterteim ent (Ent)	Esthetic (Esth)	Educa tiona l(Edu)	Escap ist (Esc)	Satisfa ction (ST)	Loyal ty (LT)	Professi onal (PT)
1098	SORRENTO II ENG	We had plenty of time to fish and swim to our liking and were surprised with great views and foods	0	0	0	1	0	0	0

Once the dataset is stereotyped, two types of combined analysis are applied: Unsupervised Clustering Analysis with the G-Means algorithm (Arthur & Vassilvitskii, 2006) and Supervised Analysis which relationships between variables are established according to the Pearson coefficients (r) (Oh et al., 2007; Henseler, 2010; Toro-Sanchez et al. 2021).

## Main Results and Contributions |



**Figure 1 |** Graphical results of the analysed experiences

The overall model shows a clear tendency to value user satisfaction with the experience above the rest of the variables. In the case of the Fishing Charter Model, this presence of the satisfaction

variable also stands out, with an accentuated prominence of the entertainment variable within the experiential part of the analysis model. In the case of the combined experiences in Fishing Tourism, the analysis of this classification as a whole shows a more heterogeneous behaviour than in the case of Fishing Charter Model.

**Limitations** | Although 1013 reviews on 5746 sentences have been analysed for English language only, it should be seen whether the results would be the same with other languages and other activities, as well as analysing the inherent differences of each type of activity.

**Conclusions** | In the case of the Fishing Tourism experience this study highlights two alternatives with different types of activities. The first group is defined as tourism activities very much centred on the exercise of the activity of fishing as the main - and almost exclusive - activity in different modalities. In this case, which is called Charter Fishing Tourism, the experience within the model of study is clearly defined and where the escapist sense of escape takes possession of it alienated with entertainment to a lesser extent and closely related to Satisfaction and which results in a subsequent sense of loyalty manifested by the intention to repeat the experience and recommend it. The second group of experiences analysed, the experience of a combined tour, although it follows the tendency of not finding a complete experiential balance, supports satisfaction as a pyramidal variable of the model.

Findings from this study are directly applicable to marketing efforts in other tourism experiences Methodologically, separating the reviews by sentences through the use of IA expands the elements of analysis and at the same time concretised the relationships between the expressions and the variables of study by narrowing and refining the context.

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