

## EXTENDED ABSTRACT

### WEBSITE MATURITY ANALYSIS: APPLIED TO HOTEL CHAINS

*Juana María Padilla-Piernas*

Universidad Católica de Murcia

Jmpadilla@ucam.edu

<https://orcid.org/0000-0002-6075-3114>

*María Concepción Parra-Meroño*

Universidad Católica de Murcia

mcparra@ucam.edu

<https://orcid.org/0000-0002-0457-4613>

*Miguel Ángel Beltrán-Bueno*

Universidad Católica de Murcia

mabeltran@ucam.edu

<https://orcid.org/0000-0002-3899-2397>

*Maria D. De-Juan-Vigaray*

Universidad de Alicante

mayo@ua.es

<http://orcid.org/0000-0002-1763-6481>

#### 1. INTRODUCTION

There is no doubt that the development of the Internet has affected society as a whole, at a personal, professional, and business level (Dentzel, 2013; Ayala and González, 2015). Therefore, within the tourism industry, and more specifically in the hotel sector, both companies and consumers have adopted new ways of communicating for the marketing and consumption of hotel products (Radde, 2017; Infante, 2017).

Additionally, the hotel sector faces an extremely competitive and ever-changing landscape due to various factors, including the emergence of new technologies, an increasingly globalized and interconnected environment, changes in consumer behaviour, which are becoming more demanding, and those factors arising from the pandemic (Parra and Beltrán, 2013; Giner, 2017; Zulkifli, *et al.*, 2022). In just a few years, a true digital revolution has taken place in the hotel sector, both on websites and social media platforms, transforming how hotel establishments interact with their customers and how hotel products are marketed (Suau, 2012; Gretzel *et al.*, 2020).

Taking into account the characteristics of the new digital tourist (Radde, 2017), hotel chains must offer websites that are user-friendly, adaptable to various devices, and ensure a favourable user experience when accessing information, making reservations, or contacting them (Wilson, 2011; Gretzel *et al.*, 2020; Sobaih *et al.*, 2021). Over the years, nume-

rous studies have been conducted within the tourism and hotel sector, evaluating websites in different phases or focusing on the number of features that hotel websites should have (Ip, Law, and Lee, 2011). However, none have focused on analysing the degree of development based on the type of information and features provided by the website, creating a gap in the literature, which is addressed in this research.

Therefore, the main objective of this study is to determine the level of technical maturity of hotel websites and identify the elements they need to implement in order to become more efficient and competitive. To achieve this, an adapted eMICA (extended Model of Internet Commerce Adoption) will be applied to the hotel sector.

To achieve the proposed goal, this study includes the following specific objectives:

1. Analyse the characteristics and functionalities of hotel websites according to the adapted eMICA for the hotel sector.
2. Identify hotel websites that have achieved a high level of maturity according to the model.
3. Examine the relationship between the maturity level of hotel websites and their efficiency in terms of marketing and distribution.
4. Propose recommendations to improve the maturity and efficiency of hotel websites based on the findings of the study.

Based on the literature review, the following propositions are offered for consideration:

Proposition 1: Hotel websites that incorporate a comprehensive set of features and functionalities have a higher level of maturity.

Proposition 2: Hotel websites with a higher level of maturity are more effective in attracting and engaging customers.

## 2. METHODOLOGY

This study, of an exploratory nature, involves a content analysis of the maturity level of hotel websites in the region of Murcia (Spain) based on the data available in November 2020. The sample consists of 73 hotels categorized as 3, 4, and 5 stars out of a total of 80 hotels registered in the Murcia region according to data from the Murciaturistica.com portal. Out of the 80 hotels analysed, 7 did not have a website at that time due to two reasons: the website was under construction, or the hotel establishment was closed.

The content analysis was conducted manually by the authors and validated by three expert judges in methodology and social media. They determined the most relevant variables that make up web 1.0, 2.0, and 3.0. Two university professors and a professional from the hotel industry were involved in the validation process, updating the original model while respecting the phases and layers proposed in the eMICA.

As stated in the introduction, this research has involved an adaptation of the original eMICA by Burgess *et al.* (2000) to the hotel industry, building upon the work of Burgers *et al.* (2011) and Daries *et al.* (2016). The original eMICA was designed to measure the maturity level of e-commerce websites.

The eMICA, as originally proposed by Burgess *et al.* (2000), consists of three phases or stages: promotion, provision, and processing. This model has been widely used in the literature across various sectors of economic activity. Burgess *et al.* (2011) themselves

conducted the first adaptation of the eMICA to the tourism sector and suggested that, for a website to transition from one layer to another, it should contain a minimum number of attributes. Therefore, this study takes into account the adaptations made to the tourism sector in general or to different tourism activities (Ting, Wang, Bau, & Chiang, 2013; Daries *et al.*, 2016; Álvarez-Díaz, 2014; Sepúlveda *et al.*, 2015).

Our work adapts the attributes in the hotel sector and adds more variables to the model in its different stages, as well as other ad-hoc items introduced and validated by experts.

According to the adaptations of the eMICA to the tourism sector, the first stage, Promotion, corresponds to Information (web 1.0), where two levels are distinguished, ranging from basic information to rich information (Daries *et al.*, 2016; Álvarez-Díaz, 2014).

The second stage, Provision, corresponds to Dynamic Information (web 2.0 and 3.0). This section is further subdivided into three categories based on the degree of interactivity. The final stage, Processing, corresponds to Functional Maturity (Burgess and Cooper, 2000; Sepúlveda *et al.*, 2015; Daries *et al.*, 2016; García-Lastra and Escalera-Izquierdo, 2016). In this phase, the presence of mechanisms for secure transactions on the websites is analysed. It is important to note that to move from one level to another, a minimum number of attributes established by the researcher must be achieved. If this minimum requirement is not met, the analysis for that particular hotel is discontinued.

### 3. CONCLUSIONS

According to the conducted analyses, it has been verified that the eMICA is a comprehensive measurement instrument that evaluates the level of development of the elements comprising a website. It encompasses basic elements such as static information (web 1.0) to the more interactive elements found in web 2.0 and 3.0.

From the study conducted on the maturity level of hotel websites, it is possible to observe the shortcomings that managers should address. In response to the question of whether hotel establishments are prepared for digital commerce, the answer is in the affirmative. Therefore, based on the analyses, it can be concluded that hotels in the Region of Murcia have surpassed the promotion stage where web 1.0 (static information) is situated and also meet the requirements of web 2.0, as shown in phase 2.

In the second phase, there is still a pending development and implementation of web 3.0 tools on their websites, such as chatbots, mobile applications, and metaverse. In the final phase, it is observed that the majority of the websites have the tools to provide secure transactions, track reservations, and have cancellation policies and conditions in place. However, Blockchain technology has not been implemented (Buhalis and Cheng, 2020).

Regarding Proposition 1, which states that hotel websites containing a minimum number of attributes according to the eMICA have a higher level of maturity, it is worth noting that 4 and 5-star hotels show a higher degree of development, with slightly over half of the establishments implementing these tools. Additionally, it is observed that both national and international hotel chains are the ones more inclined to include web 3.0 tools. Therefore, there are arguments to support Proposition 2, which suggests that hotel websites with a higher level of maturity according to the eMICA exhibit greater efficiency in terms of marketing and distribution.

Lastly, it should be noted that this study presents a new model for analyzing websites, complementing existing models that focus more on technical aspects. It pays greater attention to the type of information provided and its characteristics. Furthermore, the parameters developed for adapting the eMICA to the hotel sector can be extrapolated to other regions and countries, ensuring the replicability of the study.

Therefore, this study establishes, on one hand, a comprehensive model that allows measuring the maturity level of hotel websites, and on the other hand, provides information to managers to implement the necessary elements that enable them to reach their full potential or address the identified shortcomings. By improving the user experience, hotel websites can increase their sales and become more competitive in the industry.

It is recommended for hotel establishments to gradually implement web 3.0 elements such as apps and chatbots. Once these elements are well-integrated, they can consider exploring the possibilities of Metaverse and augmented reality.

Some limitations to consider are that while the sections of the model remain constant, the parameters to be analysed must be adapted to the specific sector and time of study. Additionally, since the study was conducted with hotels from a single region, the results may not be generalized. However, the research can be replicated in other regions and countries, which can be considered as a future line of investigation. It would also be interesting to explore potential differences in the maturity level of hotel websites based on different segmentation criteria, such as geographic location (urban, rural, coastal, etc.) or dependence on hotel groups, among others.