

Article

From Fragmentation to Integration: An Analytical Framework for Evaluating Official Tourism Websites

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Abstract

Official tourism websites play an important role before travel, when potential visitors look for information and begin to form expectations about a destination. However, studies of these websites have often followed separate lines of analysis, treating marketing, communication, and tourism management as distinct fields. This article proposes a framework for examining these dimensions within a single analytical structure. The study is qualitative and exploratory, and is based on documentary analysis of institutional tourism websites. The framework draws on three theoretical foundations: established website evaluation criteria from international tourism organizations, a communicational and participatory approach to digital media, and the integrated 7Cs + 1C marketing model. From these sources, dimensions, categories, and indicators are defined for the analysis of official destination websites. The findings suggest that these portals shape destination image before travel through content, images, navigation, interaction resources, and institutional discourse. The illustrative application of the framework suggests weaknesses in direct interaction, multilingual provision, and international reach. The proposed framework can support comparative research on digital tourism and future assessments of official tourism websites. As an exploratory and qualitative proposal, however, it should be understood as an initial analytical structure that still requires further testing and validation.

Keywords: digital tourism; tourism websites; digital marketing; communication; user experience



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1. Introduction

Information and communication technologies (ICTs) have reshaped the ways in which tourism is imagined, organised, promoted, and experienced. In this context, digital environments have become one of the first and most influential points of contact between destinations and potential visitors (Castells, 2017). The internet now works at several levels: it informs, connects, and helps shape the image that users form of a destination. For this reason, it influences consumer behaviour and decision-making across the tourism value chain (Buhalis & Jun, 2011; Gabriel, 2010). As digital platforms have expanded and more users have become connected, websites have gained a stronger role in the promotion of tourist destinations.

Official tourism websites, often managed by Destination Management Organisations (DMOs), concentrate institutional information aimed at promoting destinations and shaping

the tourism image of countries, regions, and cities (UNWTO, 2005). UNWTO stands for World Tourism Organization. These digital environments do more than store content. They take part in the tourism experience itself, influencing how users perceive a destination, what they expect from it, and the choices they eventually make. They operate as surfaces of symbolic mediation, structuring and anticipating meanings associated with the destination (Aguilar & Barsotti, 2017; Melo, 2013). Recent studies further show that tourists' engagement with DMO digital platforms has a positive effect on both the cognitive and affective components of destination image, which in turn directly influences visit intention (Mariani et al., 2016; Martínez-Sala et al., 2020).

By symbolic mediation, this article understands the process through which official destination websites selectively organise, frame, and project cultural meanings, visual representations, and institutional narratives, shaping the image of the destination before the visitor has any direct experience of it (Aguilar & Barsotti, 2017; Melo, 2013).

However, analysing these digital environments is complex, since tourism websites simultaneously and interdependently incorporate dimensions related to marketing, communication, and technology (Kotler et al., 2011). The intangible nature of tourism products further reinforces the need for strategies that take information and symbolic representation into account, both in the construction of meaning and in the reduction of consumer uncertainty (Hatschbach, 2008; Swarbrooke & Horner, 2002). Moreover, the context of digital tourism requires models capable of capturing experiential dimensions that go beyond technical functionalities, integrating communicational, relational, and visual aspects within a systemic perspective (Li et al., 2023).

In this regard, analyses of tourism websites often tend to examine technical functionalities, information quality, or levels of interactivity in isolation, without adequately bringing these elements together within an integrated model capable of accounting for the multiple dimensions that structure such environments (Túñez-López et al., 2016). Such fragmentation makes it harder to treat websites as complex, interdependent systems. It also weakens the basis for comparative analyses that need to be consistent, theoretically grounded, and useful for both academic research and destination management. This constitutes a relevant gap both for academic research and for the practical management of digital destinations (Martínez-Sala et al., 2020; Moscardi & Shizue Massukado Nakatani, 2022).

There is a growing need for integrated structures capable of relating website characteristics, forms of interaction, and user responses in order to capture the complexity of these digital environments (Li et al., 2023). However, there is still no standardised and widely accepted model for evaluating tourism websites. Although some studies have advanced the integration of dimensions such as usability, design, and navigability (Martínez-Sala et al., 2020), others have incorporated user experience and technology-related dimensions (Daryanani et al., 2026), while others have highlighted the effects of digital content marketing on travel intention (Souza et al., 2025). These contributions nevertheless remain sectoral and do not bring together, in an integrative manner, the spheres of marketing, communication, and tourism.

Complementarily, research on online experiences on DMO websites during the pre-trip stage indicates that experiential marketing tools, such as emotionally engaging images, immersive content, and visual narratives, can positively influence travel decisions. However, knowledge of how to structure experientially rich websites remains limited (Christou et al., 2025). Similarly, studies on digital destination branding have proposed frameworks centred on presence, content, and digital services, but these remain confined to specific platforms and do not fully address the multidimensional nature of institutional tourism websites (Daryanani et al., 2026). Analyses focused on personalisation, informativeness, and credibility in digital marketing environments have also advanced the understanding

of tourist behaviour, yet they operate within partial analytical scopes and overlook the communicational and symbolic dimensions that characterise destination promotion (Souza et al., 2025).

Against this background, the central theoretical gap identified in this study is the absence of integrative frameworks that are both multidimensional and operationalisable, and that can guide the analysis of official tourism websites in a structured, theoretically coherent manner, and that can potentially serve as a transferable instrument once subjected to further independent testing. This gap is particularly critical at a time when digital tourism is incorporating new technological layers, artificial intelligence (AI), algorithmic personalisation, and immersive environments, all of which increase the complexity of digital interfaces and call for more robust analytical instruments (Christou et al., 2025; Li et al., 2023). This paper therefore proposes an integrative analytical framework for evaluating official tourism websites. It connects digital marketing, communication, and tourism studies through a structured set of dimensions, categories, and indicators. The empirical application is used to show how the framework works when applied to comparable institutional websites, rather than to offer an updated performance audit of the selected portals.

Against this background, this article is guided by the following research question: How can the dimensions of digital marketing, communication, and tourism management be integrated into a single, operationalisable analytical framework for evaluating official tourism websites? The study pursues three specific objectives: (i) to identify the theoretical contributions that can serve as complementary pillars for such a framework; (ii) to develop and operationalise an integrative set of dimensions, categories, and indicators; and (iii) to illustrate the application of the framework through a comparative analysis of official destination websites.

2. Theoretical Background

Tourism is an information-intensive activity, mainly because its products and services are intangible and consumers rely on communication processes that help reduce uncertainty and support decision-making. The information that tourists access, therefore, influences not only their choice of destination, but also the expectations they form before travelling (Swarbrooke & Horner, 2002). In digital settings, however, this relationship is mediated by the user's ability to locate, understand, and interact with information through interfaces that are usable, responsive, and coherent with their expectations (Daryanani et al., 2026; Li et al., 2023).

Tourism information therefore has a representational function as well as an informative one. It does not merely describe what a destination offers; it helps potential visitors form an image of the place, anticipate the experience, and incorporate that expectation into their travel decisions (Christou et al., 2025).

The expansion of ICTs has altered the place of websites in tourism communication. Destination portals can no longer be read only as digital brochures or promotional showcases. They help organise the user's first encounter with a destination: some information is made more visible, some images are given prominence, and content is arranged in ways that suggest a particular reading of the place. Their role is therefore broader than information provision, since they also contribute to destination image and may influence travel-related decisions (Buhalis & Jun, 2011; UNWTO, 2005).

In digital settings, tourism communication is less linear than in traditional institutional promotion. Users do not simply receive messages from destination bodies; they comment on them, share them, reinterpret them, and place them within their own social and cultural contexts. This gives tourists a more active role in the communicative process (Castells, 2017). The meaning of a tourism message is therefore shaped not only by what the website says or

how it is structured, but also by the references, expectations, and social environments that users bring to the interaction. This is consistent with the view that complete and reliable tourism information can reduce uncertainty and influence consumer behaviour (Passarelli et al., 2014).

This complexity is also visible from a digital marketing perspective. A tourism website is expected to do several things at once: provide information, support relationships with users, persuade, and, in some cases, facilitate transactions. If the analysis focuses on only one of these functions, much of the website's role remains unexplained. Kotler et al. (2011) provide a useful basis for this broader reading through the 7Cs model, later expanded as 7Cs + 1C. The model considers context, content, community, customisation, communication, connection, and commerce. The additional element, constant change, is particularly relevant for tourism websites, which need to adapt to seasonality, campaigns, changes in services, and new forms of online interaction.

Each dimension captures a different part of the user's encounter with the website. Context concerns the layout and organisation of the website; content refers to the information made available to users; community captures the possibilities for interaction among users; customisation relates to the adaptation of the experience; communication covers the exchange between users and the platform; connection refers to links with other digital environments; commerce involves transactional possibilities; and constant change stresses the need for regular updating (Gabriel, 2010; Kotler et al., 2011; Rayport & Jaworski, 2001). Read together, they allow websites to be approached as evolving, multifunctional systems.

However, despite its relevance, the 7Cs + 1C model presents limitations when applied to the tourism context. First, it was originally developed for corporate and commercial environments and does not specifically address the particularities of tourism promotion, such as the centrality of image and symbolic experience. In addition, its application is often descriptive, lacking an operationalisation that would allow for systematic analysis and comparison (Buhalis & Jun, 2011; Kotler et al., 2011). These limitations suggest that the model needs to be adapted and read alongside other theoretical approaches.

Tourism websites have been analysed through different models and sets of criteria. Among these, the criteria proposed by the UNWTO (2005) are particularly useful, as they focus on functional and informational aspects such as accessibility, interactivity, and content quality. These criteria provide guidelines for evaluating tourism websites in terms of their capacity to inform and guide users. Complementarily, Túnñez-López et al. (2016) incorporate communicational and interactive dimensions, which are essential for understanding the evolving relationship between tourists and destinations. In this regard, they highlight the emergence of the "tourist 2.0", characterised by active participation in content creation and sharing, which in turn demands new formats of communication and interaction in digital environments (Castells, 2017).

Despite these advances, many models remain fragmented, at times privileging technical aspects and at others communicational dimensions, without integrating the different elements that constitute tourism websites. Although existing studies have incorporated dimensions such as usability and user experience, they often do so only partially or within specific analytical scopes (Daryanani et al., 2026; Martínez-Sala et al., 2020). Similarly, approaches grounded in digital marketing emphasise factors such as personalisation, informativeness, and credibility, highlighting their effects on tourist behaviour but without engaging with the communicational and tourism-specific dimensions of destination promotion (Souza et al., 2025).

As a result, this fragmentation hinders the understanding of websites as complex environments in which information, communication, technology, and experience are closely intertwined (Buhalis & Jun, 2011; UNWTO, 2005). This difficulty becomes more evident as

digital tourism evolves and incorporates new technological and interactive layers, which add further complexity to these environments (Christou et al., 2025; Li et al., 2023).

Bringing digital marketing, communication, and tourism into the same analytical frame, therefore, increases the explanatory value of existing models. It also makes it possible to understand official tourism websites as environments where information, experience, and meaning are continuously organised and negotiated. On this basis, the present study develops an analytical model that combines different theoretical contributions and turns them into dimensions, categories, and indicators for the evaluation of official tourism websites (Castells, 2017; Kotler et al., 2011; UNWTO, 2005).

In sum, the literature on tourism website evaluation can be organised into three broad thematic clusters. The first encompasses technical-functional models, focused on usability, navigability, and accessibility (Martínez-Sala et al., 2020; UNWTO, 2005). The second brings together UX-centred approaches, which incorporate user experience, digital emotions, and interaction design (Christou et al., 2025; Li et al., 2023). The third includes branding and experience-oriented frameworks, concerned with digital destination image, symbolic communication, and promotional discourse (Daryanani et al., 2026; Souza et al., 2025; Tüñez-López et al., 2016). The present study draws on all three clusters, but unlike most existing proposals, it seeks to articulate them into a single, operationalisable analytical structure.

3. Methodology

This study adopts a qualitative, exploratory, and integrative approach, drawing on documentary analysis of institutional digital environments (Bardin, 2016; Flick, 2009). This approach is appropriate because official tourism websites bring together textual, visual, functional, and symbolic materials that cannot be fully examined through purely quantitative procedures (Creswell, 2014). The exploratory nature of the study is justified by the lack of a consolidated framework for this type of evaluation, as discussed in the literature review. Its integrative character derives from the need to bring several theoretical perspectives into a single analytical structure (Li et al., 2023; Martínez-Sala et al., 2020). Operationally, the analysis compares official tourism destination websites in order to identify patterns, differences, and gaps in digital marketing, communication, and user experience, with the aim of proposing an analytical framework whose structure and indicators can serve as a basis for future research in digital tourism, subject to further testing and independent application before its replicability can be fully assessed.

Data were obtained through the systematic observation of three official tourism websites: Visit Brasil (www.visitbrasil.com), managed by Brazil's Ministry of Tourism; Atout France (www.france.fr), maintained by the French national tourism development agency; and Holland.com (www.holland.com), administered by the Netherlands Board of Tourism & Conventions (NBTC). The cases were selected according to two main criteria. The first was the existence of regular air connections between Fortaleza (Brazil) and Paris (France) and Amsterdam (The Netherlands), which gives the comparison practical and contextual relevance, especially from the perspective of Brazilian outbound and inbound tourism. The second criterion was that the portals had to be institutional in character, that is, official websites used by the corresponding destination bodies to communicate and promote their destinations. They provide informational and promotional content and include digital features related to interaction, personalisation, and decision support. Taken together, these criteria ensure sufficient functional comparability while maintaining diversity in geopolitical context, cultural setting, and level of digital maturity (Yin, 2021). The empirical corpus analysed in this study was collected between December 2017 and May 2019 and should therefore be understood as a historical dataset. Its purpose is not to audit the current state of the portals, but to support the development and illustrative application of the proposed

framework. The findings reflect a specific period in the trajectory of these institutional websites and are discussed in that light throughout the article.

From a theoretical standpoint, the three cases also represent different positions within the global digital tourism ecosystem. Brazil constitutes a large semi-peripheral market with known asymmetries in digital maturity and international reach. France and the Netherlands represent mature European destinations with extensive international visibility and well-resourced national DMOs. This combination allows the framework to be applied across contexts with structurally different levels of digital investment and international orientation, increasing the scope and illustrative value of the comparative exercise.

The empirical corpus consisted of content available on these websites between 20 December 2017 and 31 May 2019. Data collection was carried out in two complementary phases. During the first phase, from December 2017 to July 2018, the three websites were accessed monthly to carry out a preliminary exploration of the digital environments, map their structural organisation, and identify initial patterns. During the second phase, from August 2018 to May 2019, screenshots were systematically collected to record content, interfaces, continuities, changes, and discontinuities over time. This procedure was necessary because web pages are dynamic and may be updated, modified, or removed. Visual records, therefore, helped ensure the traceability and consistency of the corpus (Flick, 2009).

In total, 18 monthly access sessions were conducted for each website across both phases (December 2017 to May 2019), generating an archived set of screenshots and textual records per session. The photographic image corpus comprised 247 images for Visit Brasil (www.visitbrasil.com), 198 for Atout France (www.france.fr), and 223 for Holland.com (www.holland.com), all retrieved through multiple access sessions conducted between 20 December 2017 and 31 May 2019. These were selected from the main navigational and promotional sections of each portal; decorative elements (icons, background textures, buttons) and images that appeared identically across three or more consecutive sessions were excluded as duplicates. Images containing more than one thematic category were classified according to the dominant visual element, with the secondary category noted in the shared annotation record. Regarding updating frequency, the following criteria were applied: low was assigned when content and images remained unchanged across three or more consecutive monthly sessions; moderate when changes were observed in some sections but not others during the same interval; and frequent when substantial content renewal was observed at least once per month. These criteria are documented in the annotation record and are applied consistently throughout the analytical application. In total, monthly records were collected and archived for each website, forming a chronological set of visual and textual evidence.

The corpus should therefore be understood as a historical and analytical dataset rather than as a current audit of the three destination websites. Its purpose is to support the development and illustrative application of the framework by providing a traceable set of digital materials collected over time. The findings derived from the Brazilian, French, and Dutch cases are not intended to describe the present state of these portals. Instead, they show how, within the historical corpus, the proposed framework can identify differences in structure, content, interactivity, visual strategy, and digital management across comparable institutional websites.

The analytical framework was developed through three progressive layers, linking theoretical foundations, empirical evidence, and their operationalisation into indicators. In the first layer, three complementary theoretical frameworks were mobilised: (i) the criteria proposed by the UNWTO (2005), with an emphasis on functional and informational aspects of websites, particularly accessibility, content quality, navigability, and interactivity; (ii) the communicational and participatory dimensions proposed by T^uñez-L^ópez et al.

(2016), which incorporate the perspective of the “tourist 2.0” and the mechanisms of interaction and co-creation in digital environments; and (iii) the 7Cs + 1C model proposed by Kotler et al. (2011), adopted as the overarching structure for organising digital marketing dimensions, context, content, community, customisation, communication, connection, commerce, and constant change. The integration of these three frameworks is justified by the complementarity of their focus: while the UNWTO (2005) prioritises management and tourism functionality aspects, T_uñez-López et al. (2016) emphasise communicational and participatory dimensions, and Kotler et al. (2011) provide a comprehensive digital marketing structure applicable to web interfaces. In the second layer, these frameworks were applied comparatively to the empirical corpus, encompassing interface organisation, content typologies, interaction mechanisms, personalisation features, and communicational functionalities across the three websites. In the third layer, the results of this application were reorganised and abstracted into dimensions, categories, and operational indicators of the framework, following the principle of analytical transferability (Flick, 2009).

The first stage of the analytical process consisted of a preliminary exploration of the websites, guided by a floating reading approach, a technique recommended by Bardin (2016) for initial familiarisation with the material, supported by content analysis as the structuring method. At this stage, the aim was to map the overall organisation of the digital environments, identify relevant units of analysis, and recognise initial patterns across textual, visual, functional, and interactive content. As a result, recurring dimensions in the composition of the websites were identified, including information architecture, content typology, interactive features, external connections, transactional functionalities, and visual elements. These dimensions subsequently informed the definition of the units of analysis.

In the second stage, the units of analysis were defined based on the dimensions identified during the preliminary exploration phase. These units included elements such as the homepage, page structure, general destination information, interaction features, accessibility functionalities, content typologies, and photographic images. For the purposes of systematisation, the units were grouped into four categories of analytical evidence: (i) structural evidence, related to navigation, menus, page hierarchy, and layout; (ii) informational evidence, associated with textual content, language availability, completeness, and relevance of information; (iii) relational and functional evidence, involving interactivity, external links, commercial functionalities, and customisation mechanisms; and (iv) visual evidence, referring to photographic images, videos, and other multimedia elements, with an emphasis on their thematic diversity and organisation. This categorisation enabled the systematic organisation of data collection and ensured analytical coherence in the application of theoretical criteria to the empirical evidence (Bardin, 2016).

In the third stage, corresponding to material exploration, the criteria proposed by the UNWTO (2005) were systematically applied to the elements identified in the corpus, with a focus on accessibility, content quality and updating, navigability, and interactivity. Subsequently, the communicational and participatory dimensions proposed by T_uñez-López et al. (2016) were incorporated, particularly with regard to interaction mechanisms, the active role of the user, and integration with social media. The sequential and complementary application of these two frameworks made it possible to extend the scope of the analysis beyond technical functionalities, incorporating the perspective of digital communication and the participation of the “tourist 2.0” as constitutive dimensions of contemporary tourism websites.

In the fourth stage, the criteria and indicators derived from the previous stages were reorganised and integrated based on the dimensions of the 7Cs + 1C model, context, content, community, customisation, communication, connection, commerce, and constant change, which served as both an organising macrostructure and an interpretative lens (Kotler et al., 2011). This model was selected for its capacity to provide a comprehensive and

operationalisable framework for analysing digital interfaces, despite certain limitations in the tourism context, which were addressed through its articulation with the other theoretical frameworks. In the interpretation phase, the three websites were read through this integrated model. This made it possible to regroup the data, identify patterns and differences across the cases, and refine the framework by moving back and forth between theoretical criteria and empirical evidence.

Analytical consistency was addressed through repeated cross-checking among the authors. Once the units of analysis and the initial categories had been identified, the classification of website elements was reviewed collectively and adjusted where necessary. Particular attention was given to ambiguous cases, especially those related to interactivity, visual content, external links, and commercial functions. Because the study is exploratory and interpretative, the purpose was not to calculate statistical inter-coder reliability. Rather, the aim was to apply the same analytical criteria consistently across the three websites.

To further strengthen analytical consistency, the authors maintained a shared annotation record documenting the rationale for classification decisions. Three types of cases required explicit resolution: features combining commercial and informational functions; social media integration buttons (classified under Community rather than Connection); and seasonal image galleries (addressed under both Visual Content and Constant Change). Although this procedure does not replace formal inter-coder reliability testing, it provides a documented basis for the analytical decisions made.

A manual Web Content Mining procedure, following the conceptual approach proposed by [Chakrabarti \(2003\)](#), was applied to the selection and classification of photographic images present on the three portals. Images were identified and extracted through systematic navigation of the promotional and thematic sections of each portal during each monthly access session. No automated image extraction or classification software was used; the term Web Content Mining is employed here to describe the structured retrieval and organisation of content from web environments. Images were included when they appeared within the main navigational and promotional sections of the portal. Decorative elements, including icons, background textures, and navigation buttons, were excluded, as were images identified as duplicates (i.e., appearing identically in three or more consecutive sessions). Images containing more than one thematic category were classified according to the dominant visual element, with secondary categories noted in the shared annotation record. The total number of images analysed per portal is reported in the corpus description above. The categories were defined from two sources. The first three—urban settings, natural landscapes, and human presence—were adapted from [Perinotto's \(2013\)](#) typology. The other categories, tourism facilities, gastronomy, regional products, and culture and/or history, were added because they appeared repeatedly in the corpus and were relevant to the aims of the study. This procedure gave greater consistency to the visual content analysis and made it possible to compare the iconographic strategies used by the three destinations.

Figure 1 provides a schematic representation of the analytical process described above, illustrating how the three theoretical references, [UNWTO \(2005\)](#), [Túñez-López et al. \(2016\)](#), and [Kotler et al. \(2011\)](#), converge through the five analytical stages into the integrative framework proposed in this study. Table 1 summarises the methodological pathway followed in the study, from the preliminary exploration of the websites to the interpretation and development of the framework.

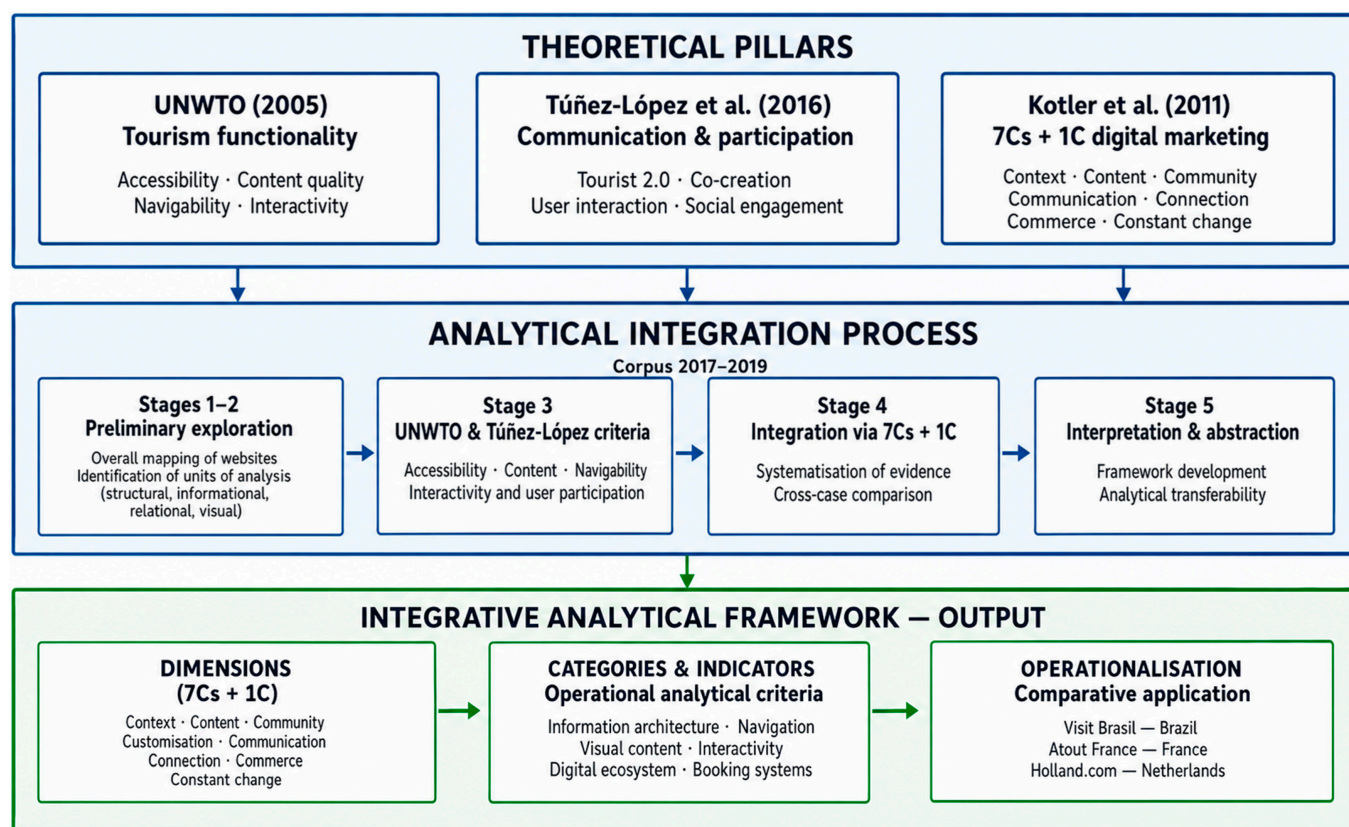


Figure 1. Framework development process: convergence of three theoretical pillars into the integrative analytical framework. The model incorporates the tourism functionality criteria of the World Tourism Organization (UNWTO, 2005), the communicational and participatory approach developed by Tùñez-López et al. (2016), and Kotler et al.’s (2011) 7Cs + 1C digital marketing model. Source: elaborated by the authors, 2026 based on UNWTO (2005), Tùñez-López et al. (2016), and Kotler et al. (2011).

Table 1. Methodological pathway of the study.

Stages	Description
Stage 1: Preliminary exploration of websites	Floating reading guided by content analysis; mapping of overall structure; identification of initial patterns (textual, visual, functional, and interactive)
Stage 2: Definition of units of analysis	Selection of website elements (homepage, structure, content, interactivity, accessibility, images); grouping into categories: structural evidence, informational evidence, relational and functional evidence, and visual evidence
Stage 3: Material exploration (theoretical criteria)	Application of UNWTO criteria: accessibility, content, navigability, and interactivity; incorporation of Tùñez-López et al. (2016): user interaction and participation
Stage 4: Analytical integration	Systematisation of data in tables; organisation according to the 7Cs + 1C model (context, content, community, customisation, communication, connection, commerce, and constant change) (Kotler et al., 2011)
Stage 5: Data interpretation	Analysis of websites through the model; regrouping and abstraction of data; framework development

Source: elaborated by the authors, 2026 based on UNWTO (2005), Tùñez-López et al. (2016), and Kotler et al. (2011).

As shown in Table 1, the analytical process is organised into five connected stages. The sequence moves from an initial, more open exploration of the corpus (Stages 1 and 2) to the systematic use of theoretical frameworks (Stages 3 and 4), before reaching the interpretation and abstraction of the framework (Stage 5). This sequence follows the logic of qualitative content analysis, in which categories are adjusted as the researcher moves between theory and empirical material, rather than fixed in advance as a closed scheme (Bardin, 2016). Table 1 also shows the role played by Kotler et al. (2011), Túnñez-López et al. (2016), and UNWTO (2005) in the research process. These references played different roles throughout the process: they framed the theoretical discussion, guided the observation of the websites, and supported the later comparison and synthesis of the empirical material.

4. Analytical Framework Proposal

The framework is built around broad analytical dimensions. These dimensions provide the first level of the model and reflect the way tourism websites bring together information, communication, interface organisation, interaction, and technological functionality. These elements are often studied separately, but on tourism websites they work as part of the same digital environment. Table 2 shows how the model moves from general dimensions to analytical categories and operational indicators. The dimensions correspond to the 7Cs + 1C model, while the analytical categories result from the articulation between the criteria of the UNWTO (2005), the communicational dimensions proposed by Túnñez-López et al. (2016), and the 7Cs + 1C model by Kotler et al. (2011). In addition, data derived from the systematic observation of the websites were incorporated, including information architecture, content typologies, interaction mechanisms, personalisation features, integration with external platforms, and the use of visual elements. The operational indicators guide the application of the model. This structure makes it possible to analyse websites as complex digital environments in which informational, functional, relational, and visual aspects are closely intertwined.

In comparative terms, the present proposal differs from Martínez-Sala et al. (2020) because it incorporates communicational and symbolic dimensions linked to destination image construction, which that model does not address systematically. It also goes beyond Li et al. (2023) by translating an integrative theoretical discussion into a structured set of operational indicators. Its contribution lies in the structured synthesis and operational adaptation of three complementary theoretical references into a single analytical instrument. This instrument was developed and applied by its authors to three illustrative cases; independent application by external researchers remains a necessary step before claims about consistent replicability can be made.

Each dimension was examined in light of the digital tourism context, taking into account the elements observed in the empirical corpus and their application to official tourism promotion websites. The context dimension refers to how the website is structurally and visually organised. It covers information architecture, structural usability, aesthetics, and accessibility, all of which shape the user's route through the website and the ease with which content can be reached. The indicators therefore include menu organisation, navigation logic, responsiveness, and language availability.

Before presenting the framework, two concepts that recur throughout the table and in the subsequent analysis require explicit definition. Symbolic mediation, as used in this article, refers to the process through which official destination websites selectively organise, frame, and project cultural meanings, visual representations, and institutional narratives, thereby shaping the image of the destination before the visitor has any direct experience of it (Aguar & Barsotti, 2017; Melo, 2013). Digital ecosystem, in turn, refers to the network of institutional platforms, tourism service providers, social media channels, booking systems, and external digital actors connected to or linked from the official destination

website, forming an interconnected set of digital environments through which destination information and services circulate (Buhalis & Jun, 2011; Li et al., 2023). Both concepts are operationalised through specific categories and indicators in Table 2.

Table 2. Framework for the Evaluation of Official Tourism Websites.

Dimension (7Cs + 1C)	Category	Indicators	Operationalisation (How to Analyse)
Context	Information architecture	Menu organisation; page hierarchy; navigation logic	Structural analysis of the website, mapping menus, submenus, and navigation levels
	Structural usability	Number of hierarchical levels required to access destination-specific content; presence and clarity of navigational signposting; mobile responsiveness (observable layout adaptation on different screen sizes)	Systematic navigation of the website recording the number of clicks required to reach regional and thematic content; identification of broken links, absent breadcrumbs, or unclear menu labels; visual inspection of layout at standard desktop and mobile breakpoints
	Design and aesthetics	Consistency of colour palette, typography, and visual elements across pages; ratio of photographic to textual content on the homepage; presence of a visual identity system (logos, icons, recurring design patterns)	Systematic inspection of homepage and main section pages for consistency of visual elements; classification of pages according to whether they present a dominant image, dominant text, or balanced layout
	Accessibility	Available languages; basic accessibility features	Review of language options, readability, accessibility cues, and inclusive navigation resources
Content	Informational quality	Availability of destination information across main thematic categories (geography, culture, practical information, accommodation, transport); completeness of institutional pages (presence vs. absence of expected content sections); consistency between information in different language versions where available	Textual content analysis of institutional pages
	Content typology	Tourism, cultural, and logistical information	Thematic classification of presented content
	Updating	Frequency of content and image updates	Comparative observation across sections and recent content
	Visual content	Images, videos, and multimedia elements	Classification of images and multimedia according to theme, variety, recurrence, and link with destination image

Table 2. Cont.

Dimension (7Cs + 1C)	Category	Indicators	Operationalisation (How to Analyse)
Community	Interaction potential	Presence of interactive and participatory spaces	Identification of comment areas, participatory tools, sharing options, review spaces, and other interaction features
	Social engagement	Integration with social media; sharing features	Mapping of links and sharing tools
Customisation	Personalisation of experience	Personalised suggestions; filters; recommendations	Functional analysis of personalisation mechanisms
	Audience segmentation	Content targeted by profile (family, luxury, adventure, etc.)	Classification of content by target audience
Communication	Institutional interactivity	Chat, forms, contact channels	Verification of available channels and their functionality
	Institutional responsiveness	User feedback; support	Review of support channels, feedback mechanisms, response pathways, and evidence of user follow-up
	Communicational clarity	Use of direct address (second person) and imperative constructions in promotional texts; presence of emotionally charged or experiential vocabulary; balance between descriptive-informational and promotional-persuasive registers	Systematic reading of homepage, destination presentation pages, and campaign texts; classification of sentences according to their dominant communicational register (informational, promotional, or transactional); notation of recurrent discourse strategies
Connection	External integration	Links to services (accommodation, transport, etc.)	Mapping and analysis of external connections
	Digital ecosystem	Integration with platforms and partners	Mapping of links with tourism partners, public institutions, service providers, and external digital platforms
Commerce	Transactional functionality	Service booking; product purchasing	Functional evaluation of transactional tools
	Intermediation	Presence of booking systems	Analysis of integration with commercial platforms
Constant change	Website dynamism	Updates in content and layout	Observation of changes and introduction of new content
	Contextual adaptation	Responses to events, seasonality, and campaigns	Comparison of updates related to seasonality, events, campaigns, crises, or destination-specific changes

Source: elaborated by the authors based on UNWTO (2005), Tüñez-López et al. (2016), and Kotler et al. (2011).

The operationalisation column should be understood as a guide for analysis rather than as a fixed checklist. For each category, the study examined the observable evidence on the website, its position and role within the interface, and its contribution to the communicational, functional, or experiential performance of the portal. This keeps the framework replicable while allowing enough flexibility for comparative qualitative research.

The content dimension examines the quality, diversity, and updating of information. This dimension is important because it mediates the user's first reading of the destination. It includes textual and multimedia content organised by theme and assessed according to clarity, relevance, completeness, coherence, and updating. The community dimension, in turn, looks at the resources that enable interaction and sharing, especially those linked to social media and participatory functions. This shows that, although direct interaction among users was limited on the websites analysed during 2017–2019, there were mechanisms that supported content circulation and social engagement. In this regard, the customisation dimension concerns the adaptation of content to users' preferences, expressed through profile-based segmentation and the thematic organisation of information, using elements such as filters, suggestions, and content targeted at specific audiences. Taken together, these elements indicate an attempt to personalise the way information is presented to users.

The communication dimension refers to the forms of interaction established between the website and the user, including contact channels, clarity of language, discursive strategies, and institutional responsiveness. It therefore includes not only functional elements, but also how meaning is constructed, how clearly messages are presented, and how far the institution is able to respond to users. The connection dimension looks at the extent to which the website is embedded in a wider digital tourism environment. This dimension examines how the website is linked to the wider tourism system, including transport providers, accommodation platforms, institutional partners, and other actors connected with the destination. Commerce refers to a more operational aspect of the portal: whether it helps users move from consultation towards action. This may occur through booking engines, reservation links, commercial partners, or other forms of tourism intermediation. When these resources are available, the website becomes part of the route through which visitors search for services, compare options, and make decisions. Constant change adds a temporal dimension to the analysis by considering whether the website is kept up to date through new content, design changes, seasonal campaigns, event information, or other adjustments linked to the destination context.

5. Application by Analytical Dimensions

The framework was then applied to the official tourism websites of Brazil, France, and the Netherlands. The purpose was not to rank the portals, but to examine how the proposed dimensions operate when used with concrete institutional cases. This comparative application should be understood as an illustrative application of the framework based on the historical 2017–2019 corpus, rather than as an assessment of the current performance of the selected websites. Table 3 summarises the comparative reading, relating each dimension to its category, indicator, country-level observation, and interpretation.

The qualitative levels used in Table 3 are based on the following decision criteria, applied consistently across the three portals during the 2017–2019 data collection period. High indicates that the feature was present in developed, consistent, and sustained form across the main navigational sections of the portal. Moderate indicates that the feature was partially present, available in some sections but absent or underdeveloped in others, or present in a form that did not appear to be systematically maintained. Low indicates that the feature was absent, vestigial, or available only through indirect external links. These levels are qualitative syntheses derived from systematic observation and do not correspond to numerical scores or quantitative thresholds. Their purpose is to support comparative interpretation across the three cases; they do not constitute an absolute performance ranking.

Table 3. Illustrative application of the analytical framework to the 2017–2019 official tourism website corpus of Brazil, France, and the Netherlands.

Dimension	Category	Indicator	Brazil	France	Netherlands	Interpretation Within the 2017–2019 Corpus
Context	Information architecture	Navigation hierarchy	High depth; multiple sublevels	Intermediate structure; thematic menus	Low depth; direct navigation	Holland.com required fewer hierarchical levels to access destination-specific content than Visit Brasil, which presented multiple sublevels before regional or thematic pages. This was consistently observed across monthly sessions, but no user-testing evidence is available to assess its impact on navigation experience
	Structural usability	Navigation fluidity	More dispersed navigation	Balanced navigation	Fluid and direct navigation	Differences may influence access to content and the navigation experience
Content	Updating	Frequency of updates	Low frequency	Frequent updates	Continuous updating	France and the Netherlands showed more frequent content renewal
	Visual content	Image diversity	Lower Thematic diversity	Moderate diversity	High diversity and categorisation	The Netherlands displayed greater thematic diversity in visual content
Communication	Institutional interactivity	Contact channels	Basic forms	Institutional forms	Forms + greater organisation	Institutional interactivity was limited across the three portals
	Institutional responsiveness	Response capacity	Not observed	Not observed	Not observed	No evidence of direct institutional responsiveness was observed
Community	Interaction potential	Participatory features	Absent	Limited	Limited	Participatory functions were mainly externalised through social media rather than embedded within the native portals
Connection	External integration	Links to services	Low integration	Moderate integration	High integration with services	Holland.com displayed more extensive links with tourism services and partner platforms
Commerce	Intermediation	Booking systems	Limited presence	Moderate presence	Expanded presence	Holland.com presented more structured links to external booking and service platforms
Customisation	Segmentation	Profile-based content	Basic segmentation	Thematic segmentation	More structured segmentation	Profile-based personalisation remained limited across the three portals
Constant change	Dynamism	Website updating	Low	Medium	High	The three portals showed uneven levels of website updating

Source: elaborated by the authors, 2026 based on UNWTO (2005), Túnñez-López et al. (2016), and Kotler et al. (2011). Note on Table 3: The comparative levels recorded in the table derive from systematic observations made during the 2017–2019 data collection period and should be read as qualitative analytical syntheses rather than as standardised scores. Future applications of the framework may benefit from explicit rating scales to increase replicability across different research teams.

Within the historical corpus, Holland.com was observed to present destination content within a shallower information architecture: most regional and thematic content was reachable within two navigational steps from the homepage. Visit Brasil, by contrast, required three to four hierarchical levels in several content sections during the same period. This structural difference was consistent across the sessions recorded between December 2017 and May 2019. Whether this difference affected users' actual navigation experience cannot be established from the corpus alone and would require task-completion or usability testing to evaluate.

In the context dimension, the clearest contrast concerns the route through which users reach information. The Dutch portal gives quicker access to content, with fewer layers between the homepage and the information sought. The Brazilian website requires more exploration, as several contents are placed within deeper menu structures and sublevels. The French case falls between these two situations: it uses thematic subdivisions, but without the same degree of structural depth observed in the Brazilian portal.

Illustrative example: Navigation depth (Context dimension). The contrast in navigation depth is particularly clear when comparing access to regional tourism content. In the case of Visit Brasil, reaching information about a specific destination region typically required navigating through three to four hierarchical levels: from the homepage, through a regional category menu, into a thematic sub-section, and finally to the destination-specific page. The Dutch portal (Holland.com), by contrast, concentrated equivalent content within

two navigation steps from the homepage, reflecting a flatter and more direct information architecture. This difference illustrates how the Context dimension of the framework captures not merely aesthetic organisation but the practical accessibility of destination information, a factor with direct implications for user experience and pre-trip decision-making.

Structural usability follows a similar pattern. The Dutch website makes movement through the portal relatively straightforward, while the Brazilian website requires the user to move across a more dispersed set of pages. The French website again occupies an intermediate position, balancing thematic organisation with a reasonable level of accessibility. Differences are also apparent in the visual treatment of the websites. The Dutch portal presents a more coherent visual identity, while the Brazilian website combines elements that are less uniform in style and organisation. Language provision also varies across the three cases. Although each portal included more than one language, the extent of the translation and the depth of the available content are not equivalent. This suggests different levels of orientation towards international audiences.

Illustrative example: Multilingual provision (Context dimension). Differences in language availability were among the most consistent patterns observed across the three portals. Within the historical corpus, Holland.com offered full or substantial content in at least five languages—English, German, French, Spanish, and Dutch—reflecting the Netherlands' strong orientation towards multiple international source markets. Visit Brasil provided its international content primarily in English, with limited Spanish-language coverage, and no other language options were systematically available. Atout France offered content chiefly in French and English, with a smaller number of additional languages. This asymmetry in multilingual provision is not merely a technical feature; it signals structurally different levels of international market orientation among the three DMOs and directly affects the portal's capacity to function as a genuine instrument of international tourism promotion, as recommended by the [UNWTO \(2005\)](#).

Content is also organised differently across the three websites. The French and Dutch portals offer a clearer route through the information, whereas the Brazilian website, despite including relevant material, distributes part of that content in a more dispersed way. As a result, some types of information are less immediately accessible. The three portals all include cultural, tourism-related, and logistical content, although the Dutch website presents a wider thematic range. Differences are also evident in updating practices. Recent or time-sensitive information appears more regularly on the French and Dutch websites, whereas the Brazilian portal shows less frequent renewal of content. The same tendency can be seen in the visual material: the Dutch website offers greater thematic variety and clearer image categorisation, whereas the Brazilian website presents less visual diversity and a weaker connection between images and text.

Illustrative example: Visual content diversity (Content dimension). Visual content across the three portals was systematically classified into seven thematic categories during data collection: urban settings, natural landscapes, human presence, tourism facilities, gastronomy, regional products, and culture and/or history. Holland.com and Atout France showed a more consistent distribution of imagery across these categories, integrating lifestyle, gastronomy, and urban visual narratives alongside natural and cultural content. Visit Brasil, by contrast, concentrated a larger share of images on natural landscapes and cultural heritage, with comparatively limited representation of tourism facilities, gastronomy, and regional products. This distribution reflects a promotional strategy centred on the country's natural and cultural assets, while leaving other dimensions of the tourism experience, including logistics, services, and daily life, less visible to potential international visitors.

Within the communication dimension, the analysis found that, although the three websites provide basic institutional channels, such as contact forms and official information,

they do not offer synchronous interaction mechanisms, such as chats or automated support systems. This is reflected in the institutional responsiveness category, where there is no evidence of immediate response or effective follow-up of user requests, signalling a limited capacity for direct response to users. Regarding communicational clarity, differences emerge in discursive organisation: the French and Dutch portals show greater objectivity and informational standardisation, whereas the Brazilian website reveals greater stylistic and organisational variation.

Consequently, within the community dimension, all three cases show limited or absent spaces for direct participation, resulting in low interaction potential within the native portal environment. The main social engagement strategy is therefore consolidated through integration with social media. This externalises participatory dynamics to third-party platforms and, to a large extent, forgoes the construction of a dialogical space within the institutional domain itself.

With regard to the connection dimension, the external integration category reveals disparities in the density of links directed to complementary tourism services. The Dutch website presents the broadest network of external connections, whereas the Brazilian portal shows a more limited and less extensive pattern of integration. This difference is also reflected in the digital ecosystem category, where the Dutch website demonstrates stronger articulation with partner platforms and sectoral actors, indicating a more organic and strategic position within the digital tourism ecosystem.

Turning to the commerce dimension, the transactional functionality category reveals a common feature across the three websites analysed: the absence of direct sales mechanisms within the native portal environment. This gap is addressed through intermediation strategies. In all three cases, users are redirected to external booking systems and commercial partners, although this practice is more intensive and prominent on the Dutch website.

Illustrative example: Transactional functionalities (Commerce dimension). None of the three portals operated a direct booking engine within the native portal environment at the time of data collection, a finding that itself illustrates a consistent gap in the transactional dimension across all three cases. However, the modalities of external commercial integration differed meaningfully. Holland.com provided the most structured approach, with clearly labelled and consistently positioned links redirecting users to accommodation providers, transport operators, and tourism service platforms. Atout France offered selective links to partner booking platforms, integrated within specific content sections rather than as a systematic feature. Visit Brasil provided informational references to external commercial services, but with fewer direct integration points and less structural consistency, functioning primarily as a content and promotional portal rather than as a commercial gateway. These differences in transactional architecture directly inform the Commerce dimension readings recorded in Table 3.

Within the customisation dimension, the personalisation of experience category reveals the absence of advanced mechanisms for dynamically adapting content to the user's profile. This gap partially contrasts with the findings for audience segmentation, where the three websites adopt a thematic organisation based on types of tourism experience, including culture, nature, and gastronomy. In this respect, the Dutch portal presents the most systematic and explicit structuring of this segmentation.

In parallel, the constant change dimension reveals differences in website dynamism, particularly regarding the frequency with which content and layouts are renewed over time. France and the Netherlands show greater regularity and agility in this process, whereas the Brazilian website is less responsive to temporal variation. This is also reflected in the contextual adaptation category, where the French and Dutch portals demonstrate greater

sensitivity and capacity to incorporate seasonal elements and temporary events, a feature that is less pronounced and less agile in the Brazilian digital environment.

6. Discussion

The comparative analysis carried out in this study illustrates, through concrete cases, how the fragmentation identified in the literature also manifests empirically: each of the three portals combines communicational, technical, promotional, and managerial functions in ways that cannot be adequately captured by single-dimensional models. The framework makes these overlaps visible and analytically tractable.

Research on tourism websites often separates analytical perspectives that are closely connected in practice. Marketing performance, communication, usability, interface design, technological functionality, and destination management are often examined as distinct issues. Yet official tourism websites do not operate in this way. They combine promotional, communicational, technical, and managerial functions within a single digital environment. The framework proposed in this article addresses this limitation by analysing these components together, rather than treating them as independent dimensions (Christou et al., 2025; Li et al., 2023).

The framework draws on three references that address different aspects of website evaluation: the UNWTO's (2005) criteria, Kotler et al.'s (2011) 7Cs + 1C model, and the communicational dimensions proposed by Tüñez-López et al. (2016). Their combination allows the analysis to move from general theoretical criteria to dimensions, categories, and indicators that can be applied empirically. In this respect, the model responds to the need for an operational framework that connects marketing, communication, and tourism in the evaluation of official destination websites.

In the field of tourism website evaluation, studies have progressively moved towards the incorporation of multiple dimensions. Martínez-Sala et al. (2020) propose a model centred on usability, design, and accessibility, showing that the technical quality of interfaces affects users' perceptions and their willingness to remain within the digital environment. In the field of wine tourism, this scope has been broadened through the inclusion of categories such as design, content, and digital services, showing that thematic websites require specific indicators capable of capturing their particular features (Tonini & Lavandoski, 2024). The findings of the present study corroborate these contributions and extend them by showing that an effective evaluation of DMO websites also requires the incorporation of communicational and symbolic dimensions—such as the mediation of the tourism experience through images and visual narratives—which are often absent from predominantly technical-functional models.

The results indicate that tourism websites operate as spaces of symbolic mediation, a finding that resonates with Manovich's work on the language of new media and Castells' approach to networked communication (Castells, 2017; Manovich, 2001). Meaning-making is therefore not generated by information alone. It also depends on how visual elements, navigation, discourse, and interaction mechanisms are combined. Christou et al. (2025) show that DMO-mediated pre-trip digital experiences affect both expectation formation and the emotional intensity of visit intention. Similarly, Souza et al. (2025) identify informativeness, credibility, and personalisation as key factors in tourist trust within digital destination promotion environments.

The analysis also reinforces the importance of visual content in digital tourism promotion. This finding is in line with studies that regard photographic images as relevant resources in the construction of destination image and in the stimulation of travel decisions (Buhalis & Jun, 2011; Perinotto, 2013). The comparison suggests that images are more effective when they are thematically diverse, clearly organised, and regularly renewed. In

the Dutch case, this visual strategy contributes to clearer communication and to a richer informational experience. This is especially relevant for DMOs, since destination image depends not only on information, but also on cognitive and affective components (Baloglu & McCleary, 1999). The growing use of short videos, immersive formats, and visually intensive materials in tourism marketing makes this point even more relevant. In this context, website evaluation cannot be limited to checking whether images or videos are present. It also needs to examine how they are selected, how often they are renewed, where they appear on the website, and how they contribute to the destination narrative (Guo et al., 2025).

Beyond the historical period covered by the empirical corpus, subsequent developments in digital tourism raise additional analytical challenges that the framework is positioned to address in future applications. The elements discussed in the following paragraph fall outside the scope of the present empirical analysis and are offered as forward-looking extensions rather than as findings of the current study.

The same logic can be extended to newer digital resources. AI-supported accessibility and algorithmic personalisation can be read through the dimensions of customisation, accessibility, and communication, because they affect the way content is translated, adapted, ordered, and delivered to different users. Augmented reality and immersive resources, by contrast, are more closely connected with visual content, connection, and constant change: they reshape how destinations are represented, how websites connect with external platforms, and how digital content is updated. This means that the framework can accommodate technological change without losing its original analytical structure.

Linguistic accessibility also varies across the three cases. The Brazilian portal offers fewer language options, which suggests a stronger focus on domestic or Portuguese-speaking users than on international visitors. This may reduce its reach in foreign markets and place it at some distance from the UNWTO's (2005) recommendations on inclusion and digital accessibility. Previous research on DMO websites has noted a similar issue: when multilingual support is absent or limited, these platforms lose part of their reach and persuasive capacity (Mariani et al., 2016). A similar limitation appears in direct interactivity and institutional responsiveness. Although the three websites provide basic information and contact channels, they still work mainly through a one-way communication model and make only limited use of the participatory and relational possibilities offered by digital environments. This dimension is becoming increasingly important as the "tourist 2.0" demands spaces for co-creation and engagement (Castells, 2017; Túnñez-López et al., 2016).

7. Conclusions

This study proposed an integrative analytical framework for evaluating official tourism websites, bringing together dimensions of digital marketing, communication, and tourism through the integration of the criteria of the UNWTO (2005), Kotler et al.'s (2011) 7Cs + 1C model, and the communicational and participatory dimensions proposed by Túnñez-López et al. (2016). The illustrative application of the framework to the websites of destinations in Brazil, France, and the Netherlands showed how it can be used to capture relevant qualitative differences across cases, organised into dimensions, categories, and operational indicators. The results indicate that tourism websites work as spaces of symbolic mediation, where informational, functional, relational, and visual elements are connected. Differences in the way these elements are combined may contribute to different digital experiences and shape how destinations are perceived.

Methodologically, the article contributes a comparative procedure for examining official tourism websites without reducing them to technical performance or to isolated interface features. The methodological contribution of the article lies in the way it brings

together theoretical references that are usually applied separately. By organising these references into a common analytical structure, the framework offers a more consistent basis for comparing official tourism websites across cases. This is the main response offered here to the fragmentation identified in previous website evaluation models (Li et al., 2023; Martínez-Sala et al., 2020). The framework could also be taken further in future research. Its indicators may be converted into scoring scales, coding protocols, or survey items for users of DMO websites. This would allow researchers to examine, in a more systematic way, aspects such as usability, visual diversity, interactivity, multilingual accessibility, personalisation, and links with external tourism services. These instruments could then be combined, where appropriate, with computational content analysis to study larger samples of official destination websites. The framework should also be applied and tested in a wider range of destinations, including territories with different levels of digital maturity, governance arrangements, and international market orientations. As digital tourism continues to change, the model will also need to remain open to new dimensions, such as AI-supported accessibility, algorithmic personalisation, and integration with augmented reality (AR) platforms. For this reason, the indicators should not be treated as fixed. They should be reviewed periodically as destination marketing practices, platform affordances, user behaviour, and digital technologies evolve.

The present study illustrates how the proposed framework can generate differentiated analytical readings of three comparable institutional tourism websites when applied by its developers. This constitutes a preliminary indication of the instrument's potential; establishing whether independent researchers would apply it consistently and reach comparable conclusions requires formal validation procedures, including independent application by external raters, expert panel review, and pilot testing with a broader sample of DMO websites. These steps are identified as priorities for future research. At the same time, the framework should not yet be understood as a fully consolidated instrument. Its current contribution is exploratory and methodological: it offers an organised basis for analysis that still requires external validation, independent application, and, where appropriate, inter-coder reliability testing. Future studies should therefore prioritise updated website corpora from 2023 onwards and applications carried out by independent research teams.

The article also contributes to ongoing theoretical discussions on digital tourism. It argues that tourism websites should be analysed as systemic objects, not as a mere collection of technical, informational, or communicational features. Usability, content quality, promotional discourse, and technological functionality are all important, but each explains only part of how these platforms operate. Official tourism websites occupy a point of convergence between digital marketing (Kotler et al., 2011), networked communication (Castells, 2017), and tourism as both an informational and experiential activity (Buhalis & Jun, 2011; Christou et al., 2025). Placing technical, communicational, visual, and symbolic aspects within the same analytical frame helps broaden the scope of digital tourism research. It also connects areas of analysis that are still too often discussed separately. This systemic reading is especially important at a time when digital destination promotion is being reshaped by generative artificial intelligence, algorithmic personalisation, and immersive experiences. These developments are changing both the possibilities and the limits of digital destination environments (Daryanani et al., 2026; Li et al., 2023). The main contribution of this study lies in the structured synthesis and operational adaptation of three established theoretical references, UNWTO (2005), Tüñez-López et al. (2016), and Kotler et al. (2011), into a single, operationalisable analytical instrument. The study does not claim to have produced a new theory of tourism website evaluation; rather, it offers an organised and applicable reading of existing contributions, tested through illustrative application to three

institutional cases. This distinction is important for situating the work's contribution accurately within the existing literature.

The findings carry three practical implications for DMO teams, public institutions, and destination marketing professionals. First, visual content can be managed more strategically: images and multimedia resources may be varied, regularly renewed, and organised around explicit thematic criteria, given their role in destination image formation and visit intention (Perinotto, 2013; Souza et al., 2025). Second, stronger multilingual provision and more participatory communication formats would increase international reach and reduce the persistence of one-way promotional models. Third, the differences in digital maturity observed across the cases suggest that digital quality can be considered an important component of destination competitiveness, with the framework serving as a practical tool for identifying priority areas of intervention (UNWTO, 2005).

The study also has limitations. Its qualitative and exploratory design limits the generalisation of the findings and points to the need for validation through larger-scale research. The empirical corpus is restricted to three destination websites linked to Fortaleza through established air connections. For that reason, the findings for Brazil, France, and the Netherlands should be read as case-specific analytical insights, rather than as general conclusions about national destination marketing systems. This does not affect the conceptual value of the framework, but it does delimit the temporal and empirical scope of its illustrative application. The comparison shows how the framework captures differences in digital maturity, content organisation, interactivity, and international orientation. However, it cannot represent the diversity of global DMOs or support broad claims about different levels of digital development and tourism governance. A further limitation concerns the period covered by the corpus, from 2017 to 2019. Since then, the digital ecosystem has changed substantially, with the expansion of mobile use, the rise of short-form video marketing, and the increasing use of AI tools for content personalisation. The framework should therefore be tested again with more recent digital materials, including updated website captures, mobile interfaces, social media integrations, AI-supported functionalities, and emerging immersive or augmented reality resources. Future applications of the framework should also preserve and publish representative visual records of the analysed interfaces whenever possible, thereby strengthening the transparency, traceability, and reproducibility of historical website analyses. Even with these limitations, the study offers a theoretically grounded and methodologically useful contribution. It provides a basis for future research in digital tourism and can support destination managers as they respond to an increasingly complex and competitive environment.

Another limitation concerns the authors' closer familiarity with the Brazilian tourism context, which may have influenced interpretive sensitivity in relation to the national case. To mitigate this risk, the comparative reading was discussed collectively among the authors and anchored in the previously defined analytical categories and shared annotation records, rather than in impressionistic judgements.

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Abbreviations

The following abbreviations are used in this manuscript:

ICT	Information and Communication Technologies
DMO	Destination Management Organisation
UNWTO	World Tourism Organization
7Cs + 1C	Context, Content, Community, Customisation, Communication, Connection, Commerce, and Constant Change
NBTC	Netherlands Board of Tourism & Conventions
AI	Artificial Intelligence
AR	Augmented Reality

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