

# Chapter III

## Heritage Tourism Portal Web Page Design with Factor and Correlation Analysis

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### ABSTRACT

*This chapter presents the design of a heritage tourism Web portal. Factor analysis is used to identify how the navigation tools are to be grouped. Correlation analysis additionally identifies methods of grouping the navigation functionalities to substantiate the decision. Statistical analysis lends support to the reliability of the data used in the study. Examples are given about how heritage portal navigation functionality can be developed as hierarchical layered portal pages. Additionally, the perceptual map shows the layout and proximity of the portal functionalities.*

### INTRODUCTION

This chapter demonstrates the design of a heritage Web portal through the use of factor and correlation analysis. Such design approach is used to sequence heritage portal Web pages, and enhances Web browsing with orderly layered portal pages in a manner that reduces information

access time. The main purpose of such a design is to enhance the growth of the tourism industry through the design of an efficient Web navigation portal. The portal functionality related data is collected through **survey** instrument given to tourists and it is used to develop Web portal pages. Factor analysis is applied to group the portal **functionalities** and correlation analysis

validates the grouping. Additionally, perceptual mapping using the factor components shows the layout of the navigation tool.

Of the various forms of tourism, the growth in **heritage/ecotourism** has continued to receive intense attention because of its potential impacts on the environment due to lack of a coherent plan to adequately manage such growth (Sorice, Shafer, & Ditton, 2006). Even though some scholars recommend that **ecotourism** be integrated with cultural/heritage tourism, there is a slight difference between the two. While heritage tourism involves traveling to experience the places, artifacts, and activities that authentically represent the stories and people of the past and present (Hill, Etienne, & Trotter, 2006), **ecotourism** is aimed at the appreciation of both the natural world and the traditional cultures located in natural areas (Neto, 2003; Rugendyke & Son, 2005). Heritage tourism comprises of such items as local handicrafts, language, art and music, architecture, sense of place, historic sites, festivals and events, and many others (Bastmeijer & Roura, 2004). **Ecotourism** is widely perceived as a nature-based form of alternative tourism that embodies the visitor's traits that mass tourism supposedly lacks (Hill, Etienne, & Trotter, 2006).

As with all industries, the use of electronic commerce is essential in facilitating the growth of the tourism industry and optimizing its benefits. Consequently, **e-commerce/e-government** is an important field of application for providing electronic public services. Heritage electronic-tourism concerns the use of electronic media for promotion, site development, interpretation, visitor services, and economic development, and uses historical, cultural, and environmental settings that already exist for **heritage/ecotourism** development (Lu & Lu, 2004; Sorice et al., 2006). With the rapid growth of the tourism industry in recent years, it is necessary for government and the industry to make appropriate use of the Web in facilitating and optimizing the various components of tourism activities. However,

while **e-commerce** initiatives show that tourism information is one of the most accessed data on the Web, a high number of Web users experience long delays in accessing relevant tourism information (Wu & Chang, 2005). It is therefore important to develop user-friendly portals with a focus on usability and easy-to-use requirements (Wimmer & Holler, 2003).

The remaining sections of this chapter are organized as follows: In Section 2, we review the current literature on issues of importance to Internet **portal design**, **e-tourism**, and consumer Web shopping behavior. Section 3 discusses portal function. Section 4 presents the methodology used in the study. In Section 5, we discuss the metric for **portal design**. Section 6 explains how factor analysis is used in design of heritage tourism portal navigation tool. Similarly, Section 7 presents the design of heritage portal navigation tool with correlation analysis. Section 8 discusses future prospects in the tourism industry. Section 9 is the conclusion.

## LITERATURE REVIEW

There is almost universal agreement that Web users are more interested in portals with user-friendly interfaces that provide needed information in a timely manner. It is also widely acknowledged that the use of information technology in the tourism industry enhances the provision of goods and services both by government and the private sector. A number of studies have been conducted on issues of relevance to Internet portals, **e-commerce** initiatives, Internet privacy, and other aspects of consumer Web shopping behavior relevant to the tourism market. For example, Chou, Hsu, Yeh, and Ho (2005) propose a framework for designing efficient portals, and for evaluating industry portal performance through the use of analytical hierarchical process. The framework incorporates both expert's and users' judgments into the performance evaluation process, and

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