

Chapter 9

The Value and Scope of GIS in Marketing and Tourism Management

Mertcan Taşcıoğlu

Istanbul Medeniyet University, Turkey

Dursun Yener

Istanbul Medeniyet University, Turkey

ABSTRACT

Geographical information systems (GIS) are the systems that store location-based data and analyze them. GIS originated from the conventional cartographic techniques of simply drawing maps with a pencil and board. Following the adoption of computer technology, GIS further evolved as a geo-referenced dynamic information system, which can today be considered as a multi-disciplinary instrument that links different disciplines like geography, computer science, remote sensing, civil engineering, statistics, marketing, and other social and behavioral sciences. In this chapter, GIS is defined and its importance and functions are described in detail. Usage of GIS in marketing is explained, especially its development in marketing theory. Also, the value and scope of GIS in tourism management with a view to understand the spread of GIS applications in tourism is explored.

INTRODUCTION

A geographical information system is at its simplest level a technology that enables decision-makers to explore the geographical dimension of data (Grimshaw, 1993). However, it was only after the emergence of GIS software in the late 1970s and

DOI: 10.4018/978-1-5225-5088-4.ch009

1980s that GIS started to be adopted as a useful tool employed by a wide range of disciplines such as environmental planning, property management, automobile navigation systems, urban studies, market analyses, business demographics (Chen, 2007) and quite recently, in tourism industry. Information that is required in marketing activities is gathered through some tools and geographic information systems are one of them. Its usage raises as its importance are realized in marketing activities (Yener, 2017). By means of geographic information system (GIS), collecting tremendous data, storing them in database, updating when required, analyzing, drawing visible maps based on analyses, accessing the necessary information obtained as a result of analyses are possible. A GIS is essentially a digital map linked to a database management system which can be used for the purposes of displaying and querying information, carrying out spatial analysis and assisting in the decision-making process. Although GIS's emergence is not so old, its usage spreads rapidly in many different areas such as geography, criminology, archeology, education, tourism, management and marketing. With combination of geography and marketing disciplines result in emergence of a study area which is called geomarketing. Geomarketing is a recent discipline that combines the geographic visualization and analysis with marketing techniques, aiming at more efficiently attaining the ultimate goal of organizations. Important marketing activities such as segmentation, positioning and research can be performed more effectively through geomarketing.

GEOGRAPHIC INFORMATION SYSTEMS

Geographical information systems (GIS) are defined as an integrated collection of software and data that is used to visualize and organize location-based data for the purposes of performing geographic analyses and creating maps (Wade and Sommer, 2006). GIS is capable of assembling, storing, manipulating, and displaying geographically referenced information (Coyle, 2011). It combines maps, tabular data and analysis capabilities. It allows users to take information, view that information spatially and analyze that information so users can reach conclusions through correlations (Elliot, 2014). As with most technologies, the effective use of GIS depends on the person using it, rather than the technology itself (Fung and Remsen, 1997). GIS is analytical so that able to answer such questions as: "what is adjacent to this intersection?", "what are the conditions like within 15 km. of this point?", "how far is the nearest water line?" (Black, Powers and Roche, 1994).

The first modern GIS system was used in 1962 in Ottawa, by the Canadian Department of Forestry to map land use and data about farming and wildlife. The designer of the system was Roger Tomlinson, who was asked by the Canada Land Inventory project to pursue his idea of using computers to combine maps

21 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/the-value-and-scope-of-gis-in-marketing-and-tourism-management/202689

Related Content

Information Source Before Travelling and Choice of Traveling Mode

Bilal Ahmad Ali Al-khateeb and Asef Mohammad Ali Al-khateeb (2020). *International Journal of Tourism and Hospitality Management in the Digital Age* (pp. 29-41).

www.irma-international.org/article/information-source-before-travelling-and-choice-of-traveling-mode/240703

The Influence of Tourist Characteristics on the Perceived Quality of Hostels in Portugal: An Exploratory Study

Beatriz Fernandes Duarte, Laurentina Cruz Vareiro, Bruno Barbosa Sousa and Victor Figueira (2021). *Rebuilding and Restructuring the Tourism Industry: Infusion of Happiness and Quality of Life* (pp. 221-240).

www.irma-international.org/chapter/the-influence-of-tourist-characteristics-on-the-perceived-quality-of-hostels-in-portugal/281900

Warfare, Oral Tradition, and Tourism: Valorization of the Folk Narratives About the Gallipoli Campaign

Erol Gülüm (2022). *Global Perspectives on Literary Tourism and Film-Induced Tourism* (pp. 87-115).

www.irma-international.org/chapter/warfare-oral-tradition-and-tourism/292592

Impact of Leadership on the Relationship Between Innovation and Performance: Portuguese Hotel Sector

Cláudia Ferreira Leitão, Jorge Gomes, Denise Capela dos Santos and Bruno Melo Maia (2021). *International Journal of Tourism and Hospitality Management in the Digital Age* (pp. 29-49).

www.irma-international.org/article/impact-of-leadership-on-the-relationship-between-innovation-and-performance/269290

Gender Equality in Access to Management in the Tourism Industry

Raquel Santiago Romo, Larissa Paola M. C. Gabrieland Jakson Renner Rodrigues Soares (2019). *Contemporary Human Resources Management in the Tourism Industry* (pp. 85-103).

www.irma-international.org/chapter/gender-equality-in-access-to-management-in-the-tourism-industry/210379