Analysis of tour values to develop enablers using an interpretive hierarchy-based model in Taiwan

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A B S T R A C T

Tourism experiences in natural landscapes are considered an integral component of tourism value. Tourism experiences can also create a link between an individual and his or her spiritual needs. Thus, this study aims to utilize an effective approach to interpret individual, subjective human experiences in natural environments using interpretive structural modeling. This technique is used to build a hierarchy-based model and determine the mutual relationships among the enablers of tour value. In addition, this study uses the Cross-Impact Matrix Multiplication Applied to Classification (MICMAC) analysis to analyze the degree of influence of these factors and their degree of dependence on each other. To collect the empirical data, questionnaires were distributed to visitors at Grand Gangshan, a tourist destination in northeastern Kaohsiung, Taiwan. The results show that particular enablers (Internet marketing, the establishment of sales locations and planning for travel information services) have a high degree of influence and exhibit low dependence. These enablers require a great deal of attention because of their strategic importance to tourism development. The approach employed in this study provides a very useful tool for travel authorities to use to differentiate between the independent and dependent variables affecting tour value and to identify the relationships among those variables. Using this approach will allow the actors in this industry to focus on the most important variables for promoting the visitor experience in natural settings.

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1. Introduction

Today, the tourism industry is regarded as both a non-smokestack industry and a star industry by nations around the world because of its high level of effectiveness in terms of job creation and foreign exchange earnings. According to the World Travel & Tourism Council (WTTC) in 2010, the global tourism industry will increase in size from US\$ 4.89 trillion to US\$ 9.32 trillion during the next ten years, increasing its share of the gross domestic product (GDP) from 1.8% to 3.6% and increasing its employment figures from 211 million to 296 million people. Therefore, the tourism industry will play a critical role in global economic development.

In recent years, the urban population has grown rapidly, and as a result, facilities and space for leisure and recreation in densely populated metropolitan areas are often insufficient. Given these factors, the busy and tense pace of life and the popularity of public transportation and private vehicles, participation in recreational activities in the countryside have increased. This change has allowed people to experience a sense of leisure and a 'return to nature' and to release physical and mental stress (Chhetri, Arrowsmith, & Jackson, 2004). Ballantyne, Packer, and Hughes (2009) maintained that tourists mainly participate in rural tourism to become closer to nature, seek physical and mental relaxation and enjoy rural scenery. Thus, the types of tourism promoted in the industry have gradually begun to take into account local human and material resources and local cultural heritage. Moreover, particular tourist destinations have begun to attract tourists for short stays that allow them to participate in local cultural art activities (Chhetri & Arrowsmith, 2002).

Crompton and Love (1995) believed that tourism and travel authorities must understand the enablers of tourism value if they are to successfully promote themed tours and develop tourist destinations. The enablers of tourism value include the sensory, esthetic and emotional dimensions of space and are often based on contradictory emotions (Crompton & Love, 1995) because tourism has diverse aspects such as religious culture, recreation and leisure experiences and tour groups are combined in many travel situations. Because these connections are private and depend on the individual consciousness of tourists, it is very difficult to quantify the degree to which the factors involved influence the cognitive

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preferences of travelers (Appleton, 1975; Li, 2000; Ryan, 2000; Tuan, 1974). Thus, tourism and the various actors in the travel industry must carefully evaluate the relationships among these enablers to increase the attractiveness of local identity to tourists. In addition, the authorities can arrange a variety of activities to assist tourists with recreational experiences.

Sage (1997) and Warfield (1974a, 1974b) suggested that interpretive structural modeling (ISM) can be used to identify the relationships among specific variables and to examine complex situations and interactive influences. Furthermore, ISM can allow us to better understand both direct and indirect relationships among complex variables using maps of hierarchical structures (Jharkharia & Shankar, 2004, 2005; Ravi & Shankar, 2005). Accordingly, this study uses ISM to examine the interactive influences and hierarchical relationships among the factors that enable the development of tourist destinations. The study will then classify and discuss these enablers. The objectives of this study are (1) to identify the structure of enablers that facilitates the development of tourist destinations, (2) to analyze the interactive relationships among these factors using ISM and (3) to discuss the implications of the findings for tourism and travel management.

Using the specific example of the Grand Gangshan tourist destination, this study attempts to use ISM to model the critical enablers in the development of tourist areas. This method constitutes a previously unexplored application of ISM. The study examines the linkages between various relationships and the relevant enablers. Our research indicates the need for travel agencies to offer a variety of activities and demonstrate initiative by adopting more "sensitive and responsive" regulatory frameworks. Such efforts would influence other critical enablers and would improve leisure activities and the tour experiences. This study highlights the hidden relationships between various elements of tourism and provides clear indications of areas of travel in which real action must be implemented rather than simply being planned in a flow chart.

2. Literature review

2.1. Relationship linkages

Understanding relationship linkages is important in acquiring new customers and developing new markets. Berry (1995), Berry and Parasuraman (1991), Smith (1998), Williams, Han, and Qualls (1998), and Wilson (1995) identified three different types of relationship linkages that could be used to maintain customer loyalty in relationship marketing: social, functional, and structural linkages. The stronger the relationship linkages are, the greater the competitive advantage of the organization. Social linkages are personal ties or linkages that are forged during interactions at work. This category includes individual friendships, preferences, and common values or viewpoints shared by a buyer and a seller (Fiore & Kim, 2007; Williams et al., 1998; Wilson, 1995).

Social linkages can connect disparate individuals via self-disclosure, closeness, support, advice and empathy. These impulses allow people to respond to, affiliate themselves with, develop attachments to, make contact with and share experience with others. Jensen and Hansen (2007) suggested that social ties can provide personalized service and improve customer relationships via front line employees. Moreover, customer loyalty and preference can also increase due to the perceived enthusiasm and good attitudes of employees. In addition, tourists can be deeply influenced by direct contact with the tour guides in the front lines and the explanations that they provide. These are all important drivers of the activities and reputations of travel agencies (Cohen, 1979; Glasson, Godfrey, & Goodey, 1995; Li, 2000).

Functional linkages involve economics, work, financial performance, and intangible benefits (e.g., individual status). Such factors can create instrumental ties that promote continuity in a relationship (Julian & Ramaseshan, 1994; Wu & Liang, 2005). In other words, any relationship that produces economic benefits or that changes one's perspective is a functional linkage. Gill and Williams (1994) suggested that tourists can experience environmental education through travel and increase their knowledge of local natural scenery. Moreover, travel can help people to escape noisy cities, enjoy quiet environments and find release from the pressures and activity of their daily lives. All of these relational benefits are functional linkages between tourists and tourist destinations (Glasson et al., 1995; Ryan, 2000).

Structural linkages are ties related to the structure, administration and institutionalization of norms in a relationship. Rules, policies, procedures, infrastructures, or agreements become a formal structure within an organization, and these norms or routines informally govern interaction among members (Lee & Bang, 2004; Shieh & Cheng, 2007). For example, organizational systems and technologies such as emails or databases that facilitate psychological, legal, and physical ties with employees make it challenging to consider other exchanges between partners. That is, it is difficult to closely connect customers with both software and hardware and service systems. The tourism industry can amplify tourist destinations by appropriately marketing sightseeing activities and creating websites that introduce the local natural environment. Furthermore, providing package tours and promoting festivals and other sightseeing activities can improve the relationships between tourists and local tourism operators while also maximizing the benefits of marketing (Hull & Stewart, 1995; Spark, Butcher, & Bradley, 2008).

In summary, an evaluative review of the literature reveals the following research gaps: (1) previous studies have ignored the relationships among the enablers of social, functional, and structural forms of tour value, and (2) prior research has been unable to predict the impact of leading factors on lagging factors. This neglect stems from the lack of awareness of driver-dependence relationships in the research on tour values. This paper aims to use ISM to determine the hierarchical and contextual relationships between the various factors in the relationship linkages that influence the development of tourist areas.

2.2. The context of Interpretative Structural Modeling (ISM)

ISM is an interactive learning process in which a set of varied but directly related elements is structured into a comprehensive systemic model (Sage, 1977; Warfield, 1974a, 1974b). This systematic application of elementary notions of graph theory utilizes theoretical, conceptual, and computational tools to construct a directed graph or network representation of complex patterns of contextual relationships. The fundamental concepts of ISM are that of the "element set" and the "contextual relationship" (Malone, 1975). Both individuals and groups use ISM to understand complex situations and generate courses of action that can be used in problem-solving.

ISM is used in complex situations in which the user employs his or her understanding of the elements involved to make subjective judgments about existing or absent relationships between each pair of elements (Malone, 1975). Sage (1977) described this process as one of transforming unclear, poorly articulated mental models of systems into well defined and useful models. The ability of ISM to reflect the cognitive experience of individuals involved in complex situations is pronounced, as indicated by Bolanos, Fontela, Nenclares, & Paster (2005). The method has been interpreted as a group evaluation of whether and how various variables are