

Need to Build a Water River Tourism Information System for Tourism Students in Ho Chi Minh City

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NEED TO BUILD A WATER RIVER TOURISM INFORMATION SYSTEM FOR TOURISM STUDENTS IN HO CHI MINH CITY

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1. INTRODUCTION

In recent times, information technology has been developing very rapidly in the world, affecting indirectly and directly all areas of human life (Rockart, J. F., & Morton, M. S. 1984), (Dertouzos, 1997; Khasawneh and Ibrahim, 2012). In the field of training, an information system is a knowledge system that is scientifically collected, processed, stored and distributed. (Pentland, B. T. 1995). In fact, the information system plays a very important role in improving the quality of teaching and learning (Barr, R. B., & Tagg, J. 1995). Therefore, many countries and in particular, the education and tourism sectors have also built and developed information systems for destinations to meet the goals not only for tourists but also for tourism majored students (Sheldon, P. J. 1993). It is generally agreed that IT can assist both students and professionals to learn effectively (Connolly & Lee, 2006; Downey & DeVeau, 2005; Feinstein, Dalbor, & McManus, 2007). Training knowledge in general and tourism in particular need to be digitized and updated regularly (Arms, W. Y. 2001). In addition, the information system, particularly the information system to serve tourism courses is in serious shortage in the third world country (Mayaka, M., & Akama, J. S. (2007). Information systems help save costs for learners and increase profits for schools, helping exchange information among employees (Zakrzewski, Sammons, &Feinstein, 2005). That reason why E-tourism is growing, and schools have to change training programs (Elliot & Joppe, 2009) then must build a practical -oriented training program and apply information technology in the world competitive labor market (Bull et al., 2008; Sefton- Green, 2004; Selwyn, Gorard, & Furlong, 2005).

This study is designed as a quantitative study. The tourism college students are participated in this study together with tourism lecturers. Data is accumulated with the closed end questions during this research. According to the results, learners' perception of using IT in tourism education is quite satisfactory. Most students agree that using IT and computers, equipment can positively enhance their tourism learning. The Ho Chi Minh city's river tourism information system is needed for learning and practical experience.

Keywords: Information system; River tourism information system; Need to build input information; Saigon river tourism

2. RESEARCH OVERVIEW

2.1. Information system in tourism

The information system includes inputs, processes and outputs. The input section covers data collection, data preparation, and data entry stages. The storage, retrieval, classifying and updating procedures identified in the processing should be performed on these data. By taking advantage of the information system in the output section, retrieval is used by questioning categorization and enumeration activities or transferring to other information systems in the form of data (Kurt, s. s., & Kurdoglu, B. Ç. (2016). The main function of the information system is to ease and shorten the visitor's decision-making process (İlhan, 1999; Yomralıoğlu, 2000). Final developments in information and communication systems affecting work related to the preparation of tourism products in the process of collecting, processing and analyzing data for products and destinations (figure 1). Furthermore, it brings new opportunities to the marketing, management and promotion sectors for establishments in the tourism sector and tourism destinations. As one of these systems, Computer Booking System (CRS), Global Distribution System (GDS), Destination Management System (DMS), Geographic Information System (GIS) and internet is the information system used in tourism activities today (Yılmaz & Oncuer, 2002; Ahipaşaoğlu & Kaya, 2005).



Figure 1. Process information systems (Lardbucket, 2016; Buzzle, 2016)

2.2. The role of the information system in tourism education

Today, information technology is playing an extremely important role in all aspects of humanity and all countries in the world. For many decades, most developed countries in Europe have viewed information and communication technology as one of the most important factors in enhancing destination competitiveness (Petrović, et al., 2017). Over the past four decades, tourism has become an important field of higher education from research to teaching. With the development of information technology, the training programs in this field are also updated and innovated appropriately to best meet the educational goals. Therefore, proper strategic management and planning to suit the specific patterns and circumstances of each country (Airey, et at., 2015). In fact, almost all educational programs in most countries aim to apply technology and information systems to meet the needs of teaching and learning. A faculty study on this issue confirms the need for information systems and the application of information technology to education in Africa. For example, the use of digital learning games by teachers in tourism education stimulates the learning of students in South Africa (Adukaite et al., 2017). Many studies have confirmed that future initiatives in tourism education will trigger a change in tourism education (Sheldon, et al., 2011; Airey. Et al., 2015). There are many recent studies on human resource training in the travel and accommodation sector that have given us a clear overview of changes in training forms and recruitment needs (Hsu, et al., 2017), (Femenia-Serra ,2018) In a study on tourism education in Spain posed a question, now more and more authors are talking about smart destinations, smart travelers have been managing and training tourism personnel. Smart and are we ready for new comprehensive solutions? Tourism personnel, particularly graduate students after graduation, will obviously make a useful contribution to the training and knowledge that students should learn (Gross & Manoharan, 2016). In tourism education, the development of information technology creates a unique, non-reproducible education (Davis and Wong, 2007). To survive and develop, information technology must be educated and applying to work and life at a high level (Khasawneh et al., 2013). Competitive advantage in tourism and tourists' satisfaction increasingly depends on information technology and technology experts (Ramos, A. S. M. 2009). As organizations recognize the importance of information systems, the role of information technology in education is increasingly important (Margavio et al., 2005). In order to provide sufficient knowledge and information technology for tourism training, trainers must regularly update new knowledge (Cheung & Law, 2000). Qualified IT staff is a competitive advantage in the tourism industry (Chan & Coleman, 2004). Moreover, tourism is flexible and quite sensitive to the environment. Therefore learning to change is essential for the tourism development (Pilar, R. A., Jorge, A., & Cristina, C. 2013). Information systems, information technology knowledge can help human resources adapt to all changing circumstances (Buhalis & Law, 2008). Tourism is a hospitable industry so besides educated staffs, it depending a lot on human factors, communication, salary, culture, shape, language, enthusiasm...,(Baum, T. 2007).

2.3. The role of the information system in tourism business

For many decades, most developed countries in Europe have viewed information and communication technology as one of the most important factors in enhancing destination competitiveness (Petrović, et al., 2017). One of the characteristics of travel products is that they are invisible, they cannot see and have no chance to try them, by recognizing them in the light of the information provided to them. Such a feature requires accurate, fast, reliable and cheap information exchange, which is the formation of a common and comprehensive information network between tourist establishments operating in tourist areas, production and sales of tourism services and consumers (Sarı, Y., & Kozak, M. 2005). Comprehensive tourism information can be efficiently stored and managed with special purpose information systems. Basically, tourism is an integrated economic sector with related, inter-regional characteristics, including accommodation, destination and people traveling from one place to another. However, the number of applications in tourism planning is not as much as in other fields of technology, despite ensuring the necessary infrastructure of GIS (Farsari & Prastacos, 2004). The lack of GIS applications in tourism has made sustainable tourism applications uncertain for many years (Hunter & Green, 1995; Butler, 1998). Besides, IT can also assist with travel trend checking and marketing research. (Lau & McKercher 2006) used Geographic Information Systems (GIS) to track tourist movements within a destination. This technique can be of great benefit for travel marketers to understand consumer behavior on arrival and develop strategies for creating travel experiences. Through research on tourists when searching for travel information; The need to search for information to explore and choose the destination varies widely depending on gender, age, nationality, education level and lifestyle. From there, the information displays different types of searches (Kim, Lehto, & Morrison, 2007; Hallab & Gursoy, 2006). Finding useful information helps tourists become familiar with and understand more about a tourist destination before deciding to book a tour (Cheyne, Downes, & Legg, 2006). In a study of sources searching for destinations through an analysis of visitors from different countries. (Bahar, O., & Kozak, M. 2007) concludes that visitors from different countries have requests for different information sources, news differently both at different times before traveling. For example, prior to departure, the availability of information can affect travel planning while they may later seek assurance from review sites that they have selected the right product (Lehto, Kim, & Morrison, 2006).

Besides the opportunities, the development of Information and Communication Technology (ICT) has changed business environment and caused many problems about users' security. It has led to the new information economy that is digital in nature. ICT is a wide range. Terminology refers to many

communication technologies from simple to complex namely the Mobile Phone (SMS), Digital Camera, Internet, Wireless (WiFi and WiMAN) applications, VOIP, GPS, GIS, Convergence (data, voice, media), Digital Radio (Shanker, D. 2008). Although tourism inspires many tourist activities, huge tourism consumption can harm sustainable tourism development and the local economy. (Pan, S. Y., Gao, M., Kim, H., Shah, K. J., Pei, S. L., & Chiang, P. C. 2018). In recent years, a number of security problems with the internet have become apparent. News and existing internet users need to be aware of the potential for a security problem (Jung, B., Han, I., & Lee, S. 2001). Recent news on financial losses due to lack of information security has created certain awareness of its importance among computer users. (Xavier, U. H. R., & Pati, B. P. 2012, November).

3. RESEARCH METHODS

The research is done in two phases, preliminary by qualitative methods and formal by quantitative methods. Interview, group discussion with 20 management officers, lecturers and visiting lecturers in Ho Chi Minh City. The results of this interview will then be referenced to design a (quantitative) survey questionnaire for tourism students. The stages are conducted as follows:

Stage 1: Qualitative preliminary research

The research team conducted in-depth interviews with five river tourism operating tour managers in Ho Chi Minh City. Five administrators at the school that have tourism training and peer discussion with ten tourism lecturers. The role of preliminary research is to perfect unknown problems, identify risks, help researchers to perfect research models and survey questionnaires before going into official research. (LeCompte, M. D., & Schensul, J. J. 1999).

Stage 2: Formal quantitative research

Quantitative study encompasses a wide range of methods that involve the systematic investigation of social phenomena, using either statistical or numerical data. Quantitative research is therefore concerned with measuring and assuming that the phenomena under study can be measured. It sets out to analyze data for trends and relationships and verify measurements taken (Watson, R. 2015). Accoding to (Wikipedia Open Encyclopedia,2005).Quantitative research is numerically representative and observational manipulation for descriptive purposes and explain the phenomena that those observations reflect. It is used in many types of natural and social sciences, including physics, biology, psychology, sociology and geology. Based on the results of in-depth interviews and group discussions, the research team built a questionnaire to survey students who majoring in tourism at 3 tourism training institutions in Ho Chi Minh City: Nguyen Tat Thanh University, Van

Lang University, Hong Bang University (with 80 votes per school). In addition, the questionnaire was also sent to research experts, tourism experts to get ideas for better science, expertise, logic and wording. The questionnaire content is designed according to Linkert questionnaire divided into 5 big questions corresponding to 5 needs of tourism students - The purpose of quantitative research is to test research hypotheses. Data collected from the questionnaire will be analyzed step by step through SPSS software to check the reliability of the scale with Cronbach's alpha coefficients to check the set of values according to the Likert scale.

To measure river tourism activities in Ho Chi Minh City, the study uses five independent variables, using the Likert 5 scale to measure respondents' consent with 1 being "Not important", 2 is "Less important", 3 is "Satisfy needs", 4 is "Important" and 5 is "Very important". All scales have been adopted from previous research and revised to suit the situation of river tourism activities in Ho Chi Minh City. The study gives 5 factors including: (1) Information about the attraction; (2) Information on guiding; (3) Information and entertainment; (4) Internship and employment information; (5) Information about the service provider and organization. Evaluate the students' information needs with those factors. Quantitative questionnaire design: The questionnaire is designed to collect the necessary data for quantitative research, the questionnaire consists of 2 main parts: general information section and evaluation of factors that affect river tourism.

The general information section (from question 1 to question 4 and the last part of the survey) is designed in order to collect information of the tourism industry students participating in the survey. Building river tourism input for tourism student training. In addition, the group of authors use the method of directly participating and observing the activities of river tourism, selectively collect information for the purpose of teaching and learning. The sample number (n = 240), the sample approach (directly in the classes of students majoring in tourism) is calculated to ensure reasonableness and represent the majority of tourism students studying. In Ho Chi Minh City. Interview time is from January 6th / 2021 to January 15th, 2021.

4. RESEARCH RESULTS

A total of 240 people was surveyed, 9 votes are invalid so there were 231 legal votes

4.1. Evaluating the role of developing river tourism information system in Ho Chi Minh city

River tourism information system in Ho Chi Minh City to meet the following roles: Serving students' learning; Serving the research and development of river tourism in Ho Chi Minh city; Serving the planning of river tourism development policies in Ho Chi Minh city and serving the needs of tourists who need to learn and expand their knowledge about river tourism in Ho Chi Minh City.

Opinion on the role of	the river tourism	information system in	Ho Chi Minh city
1		2	2

Role of River tourism data	Count (number of respondents)	Column N% (Percentage of	
base		respondents	
For Learning	177	77	
River tourism research	174	75.7	
Tourist demands	187	81.3	
Goverment poplicy making	191	83	
Planning for tourism	164	71.3	
development			
Others	46	20	

Through the survey by distributing questionnaires to students, after removing the invalid votes and answers, the author got ideas about the role of the tourist information system. Ho Chi Minh City river schedule as follows: Serving learning 77%, river tourism research, 75.7%, Demand for tourists 81.3%, Serving policy planning 83% and Planning for tourism development 71.3% are similar and high, so the role of the river tourism information system is important for many fields, as shown in the chart below:



Contribution about the role of the river database in Ho Chi Minh City

Figure 2: Source: Analysis results from SPSS 22.0

Survey results show that the majority of students majoring in tourism want a river tourism information system in Ho Chi Minh City, as shown in the table above and the chart below. 172

people said that should have a river tourism information system (74.5%), 9 respondents said no (3.9%) and 50 cases said that they do not know (21.6%).

It is necessary to build a	Frequency	Percent	Valid Percent	Cumulative
river tourism				Percent
information system in				
HCM City				
X	170	72.0	745	74.5
Yes	172	73.2	74.5	74.5
No	9	3.8	3.9	78.4
No ideas	50	21.3	21.6	100.0
Total	231	98.3	100.0	
Missing System	4	1.7		
Total	235	100.0		

Know that there is a river database in Ho Chi Minh City





4.2. River tourism information system requirements

The content of the river tourism database should ensure the following criteria: Full information on tourist destinations, activities of river tourism products in Ho Chi Minh City from short-range, mid-range and long-range route. Exact departure time, price and necessary additional services. In addition, the river tourism database is required to be easily presented, updated with news and information and published on the internet.

River tourism information	Count	Column N % percent of respondent
system Request	(respondents)	
Complete	190	81.5%
Accurate	186	79.8%
Easy to understand	162	69.5%
Published on Internet	174	74.7%
Frecuently update	193	82.8%
Others	17	7.3%

The survey results show that the requirements for the river database are focused on: Complete (81.5%), Accurate (79.8%), Easy to understand (69.5%), Published on Internet (74.7%), Frequently update



Figure 4: Source: Analysis results from SPSS 22.0

5. DISCUSSION

Through the survey results above, most students affirmed the importance of information technology, it is necessary to build a river tourism database system. The rapid development of digital platforms helps students easily access information, reduce costs, increase learning efficiency. Now the practice of e-tourism and digitalized tourism and hospitality activities is in the rise such as online reservation, flashpackers, travel blogs, e-tour guides, online platforms for services and so on (Khatri, I. 2019). Training programs are also updated and renewed appropriately to best meet educational objectives. Accordingly, proper strategic planning and management to suit the specific patterns and circumstances of each country (Stergiou, D. P., & Airey, D. 2017). Information must be stored on the internet, accurately and regularly updated to meet the learning needs of students and tourists, through interviews with teachers, tourism students rarely to go to the library to read books, often use smartphones to search for learning materials via google... They find it necessary to apply information technology to tourism majors such as: filmmaking, power point presentations... This will help them have better opportunities for after-school jobs, more opportunities and promotion. Working as a lecturer, through reviewing and re-evaluating the specialized subjects for final year tourism students at 3 universities that have students were surveyed, the author found that the training program at these universities have specialized subjects, general subjects schedule but the knowledge is still academic, heavy in theory, not close to the actual work. So training institutions need to build a suitable training program, to develop an appropriate training program, a useful and in-depth information system for each type of tourism, each region. exploiting tourism areas, avoiding the case of relying on unverified online resources, creating a competitive advantage between

students, training institutions together, providing the market with a high-quality workforce. serving the needs of national development. Through the above survey and analysis, the author found that tourism management and teachers have high hopes for the Ho Chi Minh City tourism information system. Especially tourism students. In Ho Chi Minh city, the river tourism information system will help provide a rich source of data, practically serving the training of students in order to acquire knowledge about river tourism the most convenient and up-to-date and convenient scientific way. Hopefully, a small study will open up scientific gaps for the next research on Vietnam's road, sea, island tourism information system in the future. Creating invaluable resources for learning materials not only for tourism students but also as references for tourists and leaders in development policy making. Initially information can be stored online in Vietnamese and then translated into other popular languages because students in general and tourism students in particular are a powerful tourism force while studying or after graduation. (Huang, R. 2008). From information obtained through schools, the internet, and personal travel experiences will shape the intention of a tourist destination (Phau, I., Shanka, T., & Dhayan, N. 2010).

6. CONCLUSION

This study has shown the importance of information technology, the application of information technology in teaching, particularly in tourism majored subjects. general information and information about river tourism in particular will be of great help to students, training institutions, policy makers, management agencies. The application of information technology to tourism teaching is an inevitable trend. This is reflected in many studies on the benefits that information technology brings to training and tourism. Therefore, it is necessary to build an in-depth training information system, associated with practical learning needs, to meet the increasing needs of students and tourists. The case study here is a need to build a Ho Chi Minh river tourism data base. This study has many limitations such as; the number of samples is not large enough, time is limited but the research will suggest other studies to research more about tourism leaners and tourism teachers, applying technology in tourism training schools in the future.

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