Key Success Factors for Implementation Quality Assurance of Information Technology in Tourism Industry

Shuen-Huei Yao
*Department of Accounting and Information Systems, Chang Jung Christian University,
No. 1, Changda Rd., Gueiren District, Tainan City, 711301, Taiwan*

Cheng-Chung Yeh
*Center for General Education, National University of Tainan,
No.33, Sec. 2, Shu-Lin St., Tainan City, 700301, Taiwan*

Wen Jung Tsai
*The Ph.D. Program in Business and Operations Management, College of Management,
Chang Jung Christian University,
No. 1, Changda Rd., Gueiren District, Tainan City, 711301, Taiwan
E-mail: shyao@mail.cjcu.edu.tw, nutn06099@gn.edu.tw, m2.nuttsai@ctbc.edu.tw*

Abstract

With the constant change nowadays, various enterprises are facing such a fierce competition that they have to seek for competitive advantages and core competitiveness. With respect to consumers, the implementation quality assurance based on the technology system platform in tourism industry. In order to figure out for implementation quality assurance of information technology in tourism, the Delphi method is applied in this research. For the weights and priorities of various measurement indicators are compared through AHP. According to the results, "training professional tour guides", "foreign language and translation skills" are the most critical success factors for the implementation quality in tourism industry. Besides, it hoped results can provide suggestions for the actual implementation and management of the platform.

Keywords: Key Success Factors (KSF); Delphi Method; Analytic Hierarchy Process (AHP); Quality Assurance

1. Introduction

Generally speaking, the larger the number of tourists, the longer the travel time, and the higher the consumption amount, thereby creating tourism output value, bringing about local job opportunities and promoting national economy. As for the information technology in tourism industry, a proper business operation is both significant to the tourism industry and critical for exploring the key factors for implementation quality assurance. Therefore, it is a great help to tourism industry.

1.1 Research Background and Motivations

Tourism is one of the important industries to a country. At present, information technology is developing vigorously in tourism industry around the world, which means that all countries are actively promoting the high-tech of tourism industry. From an economic perspective, the technological development in tourism contributes to gaining foreign exchange income, accelerating economic prosperity, and increasing employment opportunities. In recent years, the improvement of people's living quality has highlighted the importance of tourism quality in tourism industry.

However, due to the lack of business philosophy and direction, the tourism market in Taiwan only focuses on the business amount rather than look into the factors determinant to the operating performance of travel agencies. Thus, for the sake of finding out the key factors for the implementation quality assurance of travel technology, the domestic travel agencies in tourism industry are taken as the research object. It is also expected that the research results can help the tourism industry to create a targeted enterprise operation information technology strategy.

Based on the above-mentioned motivations and background, this research aims to not only study the key success factors of implementation quality assurance of information technology in the tourism

industry, but also provide reference for future business strategies of relevant government agencies, tourism industry and researchers through travel agencies. Specifically, the research objectives include: 1. analyzing various information business strategies and technology implementation status in tourism industry; 2. learning about the key success factors of tourism practitioners' implementation quality of information technology in tourism industry; 3. improving tourism practitioners' mastery of key success factors and business performance of tourism industry.

2. Literature Review

By means of discussing the previous literatures, this chapter sorts out the relevant methods and results, which are regarded as a reference to this research.

2.1 Introduction to Key Success Factors in Tourism

As the significant factor influencing and leading the long-term competitiveness of an enterprise in its engaged fields, Key Success Factor (KSF) or Critical Success Factor (CSF) was initially proposed by (Daniel, 1961), and it current has many different interpretations and definitions. Commonly used methods for assessing key success factors include Delphi, Factor Analysis, Regression analysis, and Analytic Hierarchy. The research on the key success factors for business strategy of travel agency indicates that "development of e-commerce" in terms of costing is considered as an important factor. The research results can provide reference for travel industry players in learning about the industrial environment as well as enterprises in formulating business strategies.

2.2 Section 2 Quality Assurance

Quality is to meet the needs of consumers and maximize the consumption satisfaction. In regard to the service industry, quality refers to consumers' positive evaluation on their perceived products or services after comparing with the previous expectations (Murphy et al., 2000). That is to say, if the performance of a product (or service) is equal to or higher than consumers' expectations, the perception of "quality" will be generated (Fick and Ritchie, 1991). In other words, quality is consumers' evaluation on the product or the overall service provided by enterprises.

3. Research Methods

In this research, Delphi method combined with AHP is adopted to explore the key success factors for the implementation quality assurance of information technology in tourism industry, and the expert questionnaire survey is also conducted. Based on the selected variables, this research is divided into three hierarchies. The first hierarchy is "Key Success Factors for Implementation Quality Assurance of Information Technology in Tourism". Through consulting the relevant literatures, the second hierarchy classifies the critical success factor into dimensions including personnel, travel agency, support service, training and counseling, which are used as the theoretical basis for this research and the structure of questionnaire design. The third hierarchy continues the second level and carries out integrated analysis of the expert questionnaires in first and second hierarchies (Saaty, 1980).

With the help of Delphi method combined with AHP, the key success factors for the implementation quality assurance of information technology in tourism industry are studied. By taking the literatures influencing quality assurance as reference, the questionnaire is designed for data collection after consulting industry experts. The key factors are divided into four dimensions and 26 elements. A total of four questionnaire surveys are conducted in this research so as to obtain the weight of the key factor structure, and then to establish an evaluation scale of key success factors for the implementation quality assurance in tourism industry.

4. Research Results and Statistical Analysis

In the first round of statistical analysis based on Delphi method, a semi-open questionnaire survey is applied to comprise the personal views of all participants and allow fully expressing opinions in the questionnaire so as to supplement the deficiencies. With respect to the questionnaire response design, the importance degree is considered and the Likert five-point scale is taken to check the importance of each indicator, and combine with the ranking of key factors of behavior for analysis through AHP. Among the 12 questionnaires collected, 2 are found to fail the verification. Therefore, there are actually 10 valid questionnaires, accounting for 83% of the questionnaires collected. Based on the questionnaire survey and AHP analysis of weights at all

levels, an AHP framework for the key success factors of implementation quality assurance of tourism information technology is established. Under the support of the Delphi expert questionnaire and AHP questionnaire survey results, the structure of the key success factors for the implementation quality assurance of tourism information technology is finally developed, and the weight as well as priority of the key factors at different dimensions and between the measurement indicators are analyzed.

Table 1 Overall Weight Value of Each Key Success Factor for Tourism Implementation Quality Assurance

	Dimension	Key Success Factor	Weight	Ranking of Importance Degree
Key Success Factor for Tourism Implementation Quality Assurance	Cultivation	Training Professional Tour Guides	0.28781	1
	Personnel	Privacy of Tourists' Information	0.12259	2
	Supporting Service	Time for Visa	0.071	3
	Travel Agency	Tourism Healthcare and Safety	0.06105	4
	Personnel	Providing Accurate Consumer Data	0.0524	5
	Supporting Service	Market Survey and Research	0.04717	6
	Travel Agency	Professional Tourism Information	0.04389	7
	Cultivation	Foreign Language and Translation Skills	0.04257	8
	Travel Agency	Tourism Risk Assessment	0.03736	9
	Supporting Service	Promotion of Tourism Products	0.03364	10
	Travel Agency	Realizing Promises to Consumers and Establishing Good Reputation	0.03271	11
	Personnel	Attaching Importance to Consumers' Complaints	0.02728	12
	Personnel	Respecting Consumers	0.02559	13
	Cultivation	Offering Orientation Training and Setting up Staffs' Confidence in Job	0.02394	14
	Supporting Service	Treatment and Avoidance of Travel Disputes	0.01969	15
	Supporting Service	Controlling Tourism Product Quality	0.01925	16
	Cultivation	Enhancing Staffs' Sense of Belonging to Companies	0.0121	17
	Travel Agency	Awards to Staffs	0.00313	18
	Personnel	Friendly Service Attitude	0.00087	19

Figure 1 Structure of Research on Key Success Factor for Tourism Implementation Quality Assurance

In this study, the key success factors for the implementation quality assurance of information technology in tourism industry are structured through different approaches such as literature discussion and expert interviews. Based on three times of expert questionnaire surveys by Delphi method, the initial 26 measurement indicators in 4 dimensions are finally summarized into 19 measurement indicators in 4 dimensions. Next, the weight ratio and priority are obtained through AHP questionnaire. In view of too many indicators and for the sake of highlighting the important key factors, the indicators with weight ratio above 0.035 are listed as the key success factors.

5. Conclusions and Suggestions

With the purpose to find out the key success factors for the implementation quality assurance in tourism industry, this research invites experts to assess the importance of each dimension and the implied key factors through Delphi method, so as to establish an AHP hierarchy. Under this hierarchical structure, each key success factor is discussed to obtain the key success factors for the implementation quality assurance of information technology in tourism industry.

This chapter mainly describes the research results and suggestions, and finally proposes suggestions for follow-up research.
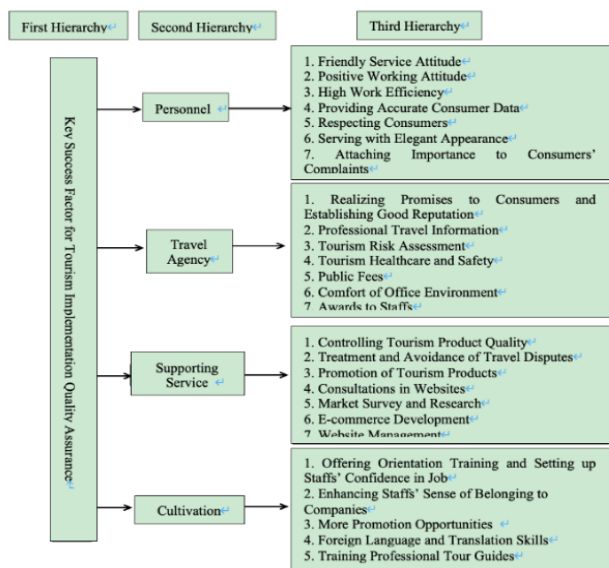
5.1 Conclusions

As concluded in this research, the key success factors for the implementation quality assurance of information technology in tourism industry are ranked based on the importance degree as follows, namely, "Training Professional Tour Guides", "Foreign Language and Translation Skills", "Offering Orientation Training and Setting up Staffs' Confidence in Job", "Time for Visa", "Market Survey and Research", "Enhancing Staffs' Sense of Belonging to Companies", "Privacy of Tourists' Information", "Promotion of Tourism Products", and "Tourism Healthcare and Safety". It is hoped that through the results can help the tourism industry avoid mismanagement during information technology operations. In this way, not only consumers will have greater trust in choosing a travel agency, but also the tourism practitioners can make a difference in management, thereby achieving continuous business.

5.2 Suggestions

Considering that this research mainly focuses on information technology in tourism industry, the samples are limited to a specific range. Thus, subsequent researchers may perform key success factor assessments for quality assurance in other industries if more samples can be obtained from different industries, so that the implementation quality in different industries to key success factors can be studied. Meanwhile, with reference to the more weighted consideration levels or evaluation criteria listed in this research, follow-up researchers can carry out in-depth study so as to not only facilitate the assessment on key success factors for the implementation quality of information technology but also enrich related theories.

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Authors Introduction

Mr. Wen-Jung Tsai

He received his Master's degree from EMBA, Chang Jung Christian University, Taiwan in 2014. He is currently studying for a doctoral program at Chang Jung Christian University in Taiwan.

Dr. Shuen-Huei Yao

He is a Professor of Department of Accounting and Information Studies at Chang Jung Christian University in Taiwan.

Dr. Cheng-Chung Yeh

He is an Assistant Professor at the General Education Center of Tainan University.