TOURISM INFORMAITION SYSTEM FOR INDEPENDENT TRAVELLERS — BASED ON INFORMATION REQUIREMENT[1]

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Keywords: Tourism information system, Independent travellers, Information requirement.

Abstract: In the last twenty years in China, people's leisure time increased quickly, and tourism facilities and service quality were improved steadily. What's different with the former tourism development is Independent Travelling has been the major style and possibly will take the place of the Group Travelling. Independent Travellers have different tourism demands, and tourism information is the most important factor within tourists' decision making program. On the basic of tourist information collection through a questionnaire, this paper analyzed the Independent Travellers' information demands and designed an information system for independent travellers.

1 INTRODUCTION

Independent travelling plays an increasingly large share of the tourism market. This kind of travel, with free and strong character, could easily gain an outstanding travel experience. However, it always turns to be rough because of retardation and translucent of our domestic tourism information. Therefore, Tourism Information System for Independent Travellers which possessing navigational and self-help function is necessary. The system can not only redound to tourism industry informationizing, but also offer the effective support for the independent travellers.

2 LITERATURE REVIEW

Domestic scholars have already done relatively researches on the establishment of the tourism information system. Chen Jing's (2002) researched tourism information system of Fujian province. He put functions such as management, space control and analyze, multimedia, and decision-making support into practice. Yang Chunyu (2002) indicated that local tourism information system should be consisted of basal tourism information system data base, basal tourism service data base, native status data base, basal geographic data base, and Web station data base which was based on internet. Zhou Xinwei, Wang Fusheng, Wang Ying (2005) made use of MapObjects to develop a tourism information system for Beijing. The system accomplished the integration of fundamental geographical feature of special field information and tourism specialized information, which included information acquirement and tourism planning. They provided the all-direction tour information service dyadic, taking electron map as information owing to the network. Zhou Xinwei, Gong Huili, Zhao Wenji, Yu Mengliang, Wang Ying, Yang Lingli (2006) exploited Beijing tourism information system, which realized the functions of the artwork displaying , the data acquirement, valuation.

However, the development of the tourist's information system basic especially for Independent Travellers is still blank in present researches. Therefore, this paper tries to focus on exploiting a tourism information system for the special tourists.

3 METHODOLOGY

Based on the construction flow of the geographic information system (GIS), this paper develops the system construction from such dimension: the user's needs the system designing and the details designing, the system implementation and the

[1] supported by "the Fundamental Research Funds for the Central Universities"

Yin P. and Chen L..
TOURISM INFORMAITION SYSTEM FOR INDEPENDENT TRAVELLERS — BASED ON INFORMATION REQUIREMENT.
DOI: 10.5220/0003489503800383
In *Proceedings of the 13th International Conference on Enterprise Information Systems* (ICEIS-2011), pages 380-383
ISBN: 978-989-8425-55-3

maintenance research.

The third part of this article summarizes analyzes the special information requirement of Independent Travellers by a questionnaire. The fourth part builds up an information system from User determination, System disposition, Data base designing, System function, funds and management; and the fifth part is the conclusion.

4 INDEPENDENT TRAVELLERS INFORMATION DEMAND

4.1 Information Survey

4.1.1 The Basic Information of Survey

In order to analysis the Independent Travellers' demand of software and hardware in traveling process, we design a "Independent Travellers demand questionnaire" and carried out on-site at three famous tourism attractions in Beijing including the Forbidden City, Heaven Temple and Shicha Hai Park during January, 2008.

The survey, which contained 22 questions, was made available in Chinese. The information was gathered from 200 tourists. The survey was conducted using a face-to-face survey method level and obtained a response rate of approximately 95.5%, which means that there were 191 effective questionnaires.

The respondents were selected randomly. Besides the multiple choice, there was an open ended section for the respondents to choose and write down their suggestion for the development of independent travel industry.

4.1.2 Sample Characters

Table 1 indicates the basic information of the respondents in this survey.

4.2 Analysis of Independent Travellers' Information Requirement

"Drive tourist demand questionnaire" has 22 questions, of which 21 are enclosed option questions, and the other is open style. Through these answers of the questionnaire, we can achieve the primarily information of the Independent travellers' demand, and offer information basement for the design of information system.

Table 1: Sample character analysis.

demographics		respondents	Percent (%)
Sex	Male	95	54
	Female	81	46
Age	16-20	12	6.9
	21-25	46	25.6
	26-30	57	32.3
	31-40	39	22.1
	41-50	19	10.8
	>51	4	2.3
Educational level	Associate degree	7	3.9
	College diploma	41	23.3
	Bachelor degree	78	44.4
	Master degree	35	19.9
	Doctor degree	15	8.5
career	clerk	86	48.9
	Technologist	11	6.4
	businessman	14	7.9
	Official	29	16.3
	student	36	20.5
Income per month	<3000	49	27.9
	3001-6000	57	32.3
	6001-10000	42	23.9
	10001-20000	19	10.8
	>20000	9	5.1

4.2.1 Information Demanded by Independent Travellers

It can be inferred that independent travellers are eager to know five kinds of information, which are tourism attraction information, transportation information, geographical information, social service information, and lodging information. The five kinds of information can be segmented to 12 information. Table 2 gives the evidence.

Table 2: Information demand of the independent travelers.

Kinds of information	Information segment
tourism attraction information	Tourism attractions
	Recreation spots
transportation information	External transportation
	Internal transportation
geographical information	Location of destination
	Climate of destination
social service information	Communication service
	Medical service
	Security service
	Language service
lodging information	Star-level hotels information
	Other hotels information

4.2.2 Importance Order of the Information

In the survey, the respondents are asked to mark the information they required, and the highest mark is 5, the lowest is 1. The average value for every information required by the respondents is shown in Table 3.

Table 3: Inportance of the information.

Information segment	mark	rank
Tourism attractions	4.11	4
Recreation spots	2.45	11
External transportation	4.21	3
Internal transportation	4.08	5
Location of destination	3.68	6
Climate of destination	4.23	2
Communication service	3.39	7
Medical service	3.21	9
Security service	4.47	1
Language service	2.97	10
Star-level hotels information	2.28	12
Other hotels information	3.37	8

Therefore, when system designing, we must pay more attention to the information of drive-tourists demands to guarantee the information practical and comprehensive.

4.3 Conclusion

According to the diagnosis results presented above, we can orient the tourism information system for independent travellers as following: to satisfy the independent travellers main demands in their journeys, such as tourism attraction information, transportation information, geographical information, social service information, and lodging information.

5 TOURISM INFORMATION SYSTEM FOR INDEPENDENT TRAVELLERS ESTABLISHMENT

5.1 System Users and Information Requirement

"Tourism Information System for Independent Travellers(TISIT)" is a system mainly facing the independent travellers; simultaneously it also can be applied to Government's area development planning, tourist business's development planning, and various social organizations' activities planning. Different users have different information demand, as shown in figure 1.

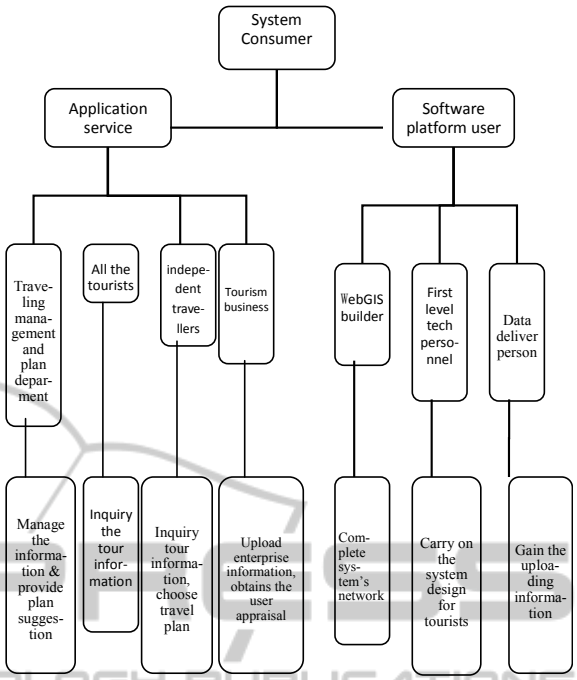

Figure 1: System users and information demand.

5.2 System Comprehensive Structure Design

Based on system users' demand and system objects, this system is constituted by management subsystem, database subsystem, inquiry subsystem, analysis and appraisal subsystem, and output subsystem. The comprehensive structure designing is shown by Fig 2.

6 CONCLUSIONS

This paper has analyzed the theory and the practice research in Tourism Information Systems for Independent Travellers (TISIT). In system analysis part, the authors use innovatively many kinds of network methods to draw a conclusion about the information demand by independent travellers. Based on the demand results, this article has analyzed the comprehensive system designing, the detailed system designing and the concrete implementation, and has obtained the essential method and the practical application function of Tourism Information Systems for Independent Travellers (TISIT).

Realizing the system function which states above, the TISIT can satisfy various part of users' needs. Compared with traditional guidance system or other

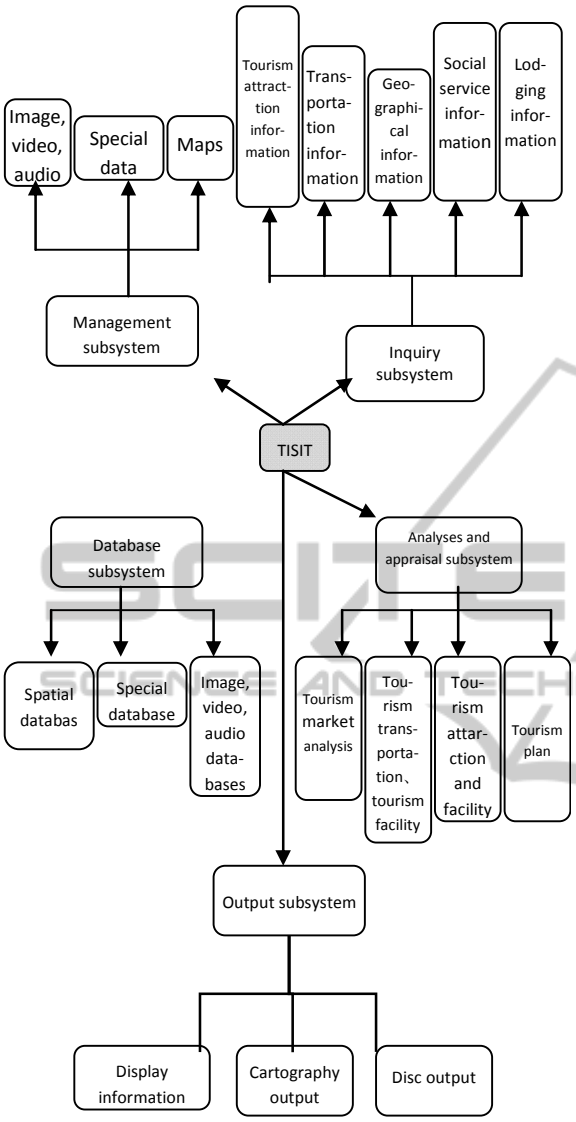

Figure 2: System structure (Subsystem constitution).

general traveling geographic information system, the TISIT has the obvious superiority.

6.1 Defects

With the limitation of software and hardware condition, the authors haven't taken deeper research in programming to realize the TISIT. As development of database is obviously a huge project, the research in the system data base development is needed.

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