

THE CURRENT AVAILABILITY OF INFORMATION TECHNOLOGY IN THE TOURISM INDUSTRY

Nderim Zeqiri

University of Tetova, Faculty of Applied Sciences, R.N. Macedonia,
nderim.zeqiri@unite.edu.mk

Fauzi Skenderi

University of Tetova, Faculty of Natural Sciences and Mathematics, R.N. Macedonia,
fauzi.skenderi@unite.edu.mk

Abstract: The level of availability of information technology has a positive impact on enhancing the quality of the management of various geographical resources for the context of the tourism industry. The paper focuses on the aspect of presenting and deploying better information technology operation capabilities, which impacts on: the optimization management prices, efficiency improvement, benefits for improved communication, service to support system, etc. To relate to all these activities, it is required to put in place characteristic platforms for putting these requirements into a consistent communication system, such as: internet marketing, tourism business presentation; or tourism industry, experiences; the online shopping process, key activities, announcements of new tourism developments, the flexibility of using websites etc. To meet these requirements, there is the need to use computer systems, to communicate at different locations, then, mobile communication etc. This paper builds on the strategy of interconnecting information technology as a key basis for successful tourism. All these activities for relevant operation are included through a characteristic block diagram, where all elements are presented through integrated platform, system interfaces, communication. Through the development of tourism business with website -marketing, the demand and visibility increases, as well as data tracking can be facilitated and new opportunities are offered. A scheme that links these functionalities is also provided for this view, in order to successfully manage tourism and business with the help of information technology (with concrete applications, block schemes etc.). All of these organizations are the result of the establishment of a sustainable system for the industry as a distinct segment in the creation of business opportunities, trade and other innovations that coincide with this activity, which is currently a specific objective of the of our society.

Keywords: Information Technology, Availability, Tourism Industry, Internet, Web Site.

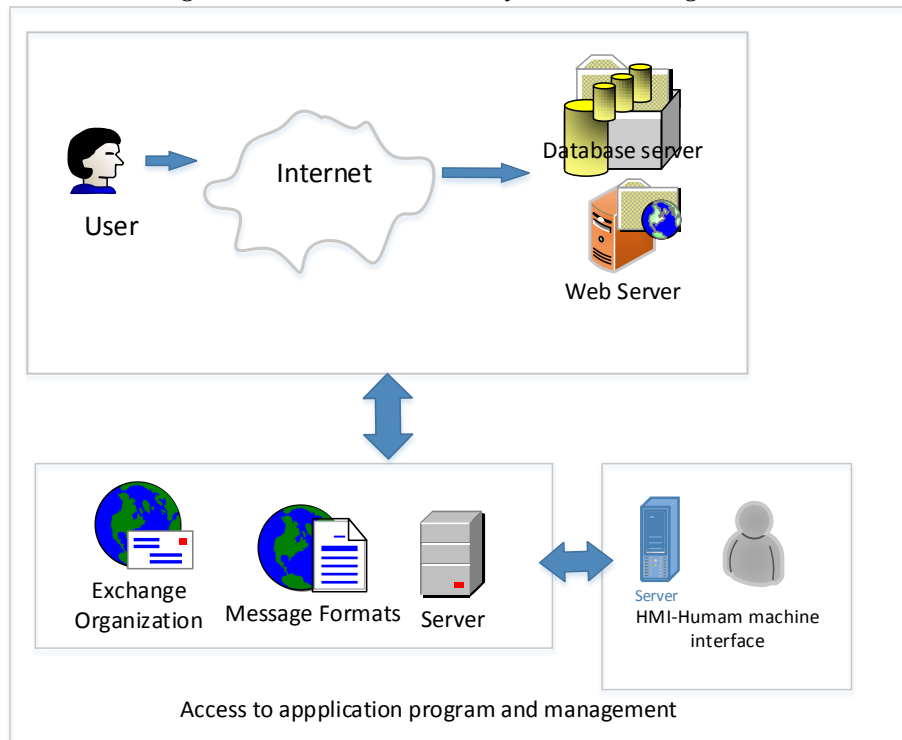
1. INTRODUCTION

In practical life, the access to different systems is a fundamental principle for finding new opportunities in terms of implementing information technology. Information technology has found practical application in every aspect of life in different fields. The effort of many experts focuses on finding common intersections in terms of rebuilding the more integrated system. However, business life, and planning relevant projects, requires the ability to put data into relevant applications to create an information, marketing, trading, business system, etc. Therefore, in this paper, we present an overlap between the information system and the tourism industry. When we say information technology we mean all the resources involved, for creating communication lines between clients, people through the computer system. This communication is made possible through electronic platforms, such as: the Internet, computer networks; as well as installing applications that support information that is informative and business-friendly.

2. THE PROCESS OF DESIGNING, DATA ACCESS AND MANAGEMENT SYSTEM

To realize a sustainable system, for use in the tourism industry, the idea, scheme, equipment, goals, geographic location, level of information and other interconnections it offers as links should be created for easier access. To recreate such a system the technology and the demand should be known. For these reasons, firstly we need to consult the competent people: experts in the tourism industry, IT experts, and other systems. In our paper we will present the construction of this system through a plan related to technological goals and support of information technology infrastructure. We will also present adequate trial and promotional forms for the equivalence and database system aspects of the database, determining the system visibility, determining the flexibility of using the built web site, and setting up buttons for the purpose of meeting the technology requirements for the requested business and having a leading role, affirmatively providing this business. Clients are what they know best. Clients are the ones who use these systems, thereby giving various companies the opportunity to access this information system.

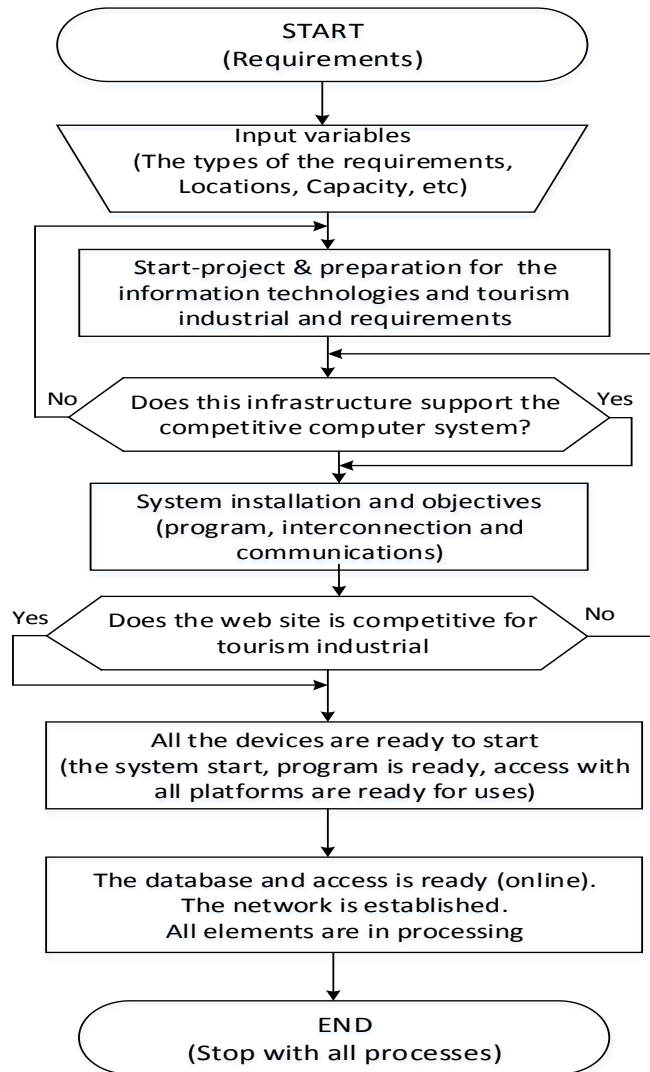
Figure 1: The communication system and management



3. INFORMATION TECHNOLOGY AND TOURISM IN THE PROCESS OF ADEQUATE DATA FLOW STRUCTURE

Tourism is one of the most massive phenomena in modern society, which is associated with meeting people's needs for rest and recreation. Tourism is developed to such an extent that it can have significant effects on the whole economy at national and international level. In these conditions, people are fully conscious of the impact of tourism on enhancing their health and working skills, their cultural level and their general educational level. The further development of automotive and air traffic has further contributed to increasing the number of tourists worldwide. In today's conditions, traffic is developed with the help of modern means of traffic where passengers are provided with safety, speed and enjoyment of the journey. Tourism is a service-oriented economic activity, known in various literature and practice as "tourism industry", "tourism trade", or "travel industry". Tourist services represent complex services because they contain the production and delivery of services, activities and individuals. Today, there are a large number of international organizations in the world that are tasked with acting to create the best conditions for the development of international tourism. Whereas currently a great development of tourism, and very dynamic, is the information technology, based on direct information, through internet system, websites and online access etc. The Internet has made it possible to connect to the same network of electronic devices that are equipped with software that enables them to connect and exchange data in real time. Everything is uniquely identifiable through the computing system and at the same time able to interact with all existing internet infrastructure. Tourism is also affected by the digitization aspect, the digitization of processes and jobs aims to create ever-expanding networks with more and more members and more and more processes integrated into them. Integrating work processes through connectivity between different devices in the form of a chain requires an up-to-date digital infrastructure. The rapid technological change and the rapid development of electronic technology and software at the same time, creates a more suitable model for online communication, and the acquisition of fast and source information.

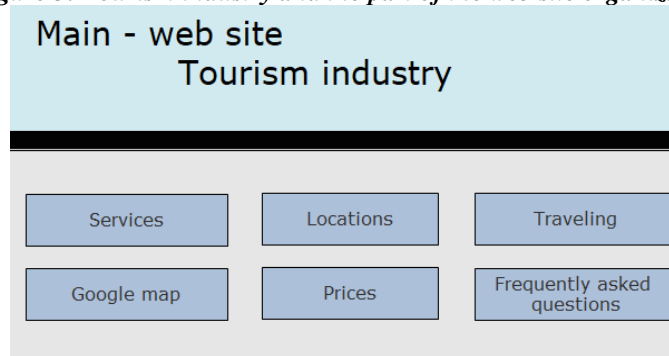
Figure 2: The algorithm for organizational for all platforms and functionality



4. PROGRAM DESIGN FOR TECHNOLOGICAL REQUIREMENTS AND VISUALIZATION IN TERMS OF TOURISM INDUSTRY

For better functionality of all such infrastructure, program design is needed. This section requires professionalism in terms of IT experts, and includes some branches, which eventually integrate and deliver the final product. To create an applicative program with all web site characteristics, there is a need of; programming, the web design, the inclusion of computer networks, etc. Also, for the realization of this complex system, is required relevant application software, the creation of a website, database interconnection, and online uploading of data, and filling data through the online system. But in our paper we will present some sequences of this design, alluding to the adequate performance of the system with the possibility of extension for other uses. In the following figure, a part of a web site is shown. Approximately some of the characteristic buttons are shown, although objectively, the application program also contains additional buttons, additional buttons provided by the relevant industrial tourism technology. This program can be adapted for different activities.

Figure 3: Tourism industry and the part of the web site organization



5.THE CURRENT AVAILABILITY AND RESPECTIVE CALCULATIONS FOR USE IN THE TOURISM INDUSTRY

In order to present some features of availability (in terms of software engineering) we must present some characteristic formulas. These formulas are mainly about: Mean Time Between Failures (MTBF). Mean Time between Failures is the average (expected) time between two successive failures of a component. It is a basic measure of a system’s reliability and availability and is usually represented as units of hours. Mean Time to Repair (MTTR). Mean Time to Repair is the average time taken to repair a failed module. This time includes the time it takes to detect the defect, etc. Just like MTBF, MTTR is usually stated in units of hours. The following equations illustrates the relations of MTBF and MTTR with availability.

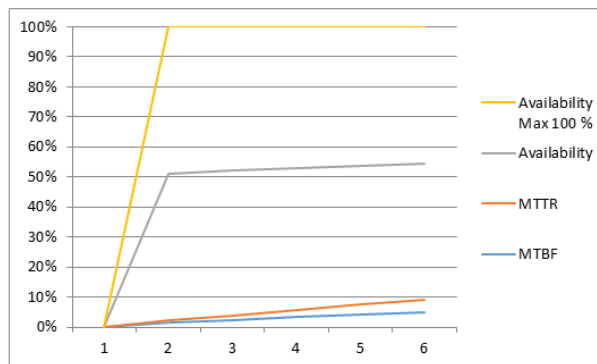
$$Availability = \frac{MTBF}{MTBF+MTTR} \quad (1)$$

In the next step, we will give some characteristics about availability. These features can be analyzed through direct experiments, when the program is loaded with different events, when the program serves multiple users at once. However, the following values obtained, which we have presented, are more illustrative, as this requires extensive analysis of MTBF and MTTR, and also requires more practical verification.

Table 1: Availability for random processes, for the respective web site activity and failure.

N.	MTBF	MTTR	Availability	Availability Max 100%
1	0.02	0.01	0.67	67%
2	0.03	0.02	0.60	60%
3	0.04	0.03	0.57	57%
4	0.05	0.04	0.56	56%
5	0.06	0.05	0.55	55%
...

Graph 1: Graphical representations of the table above (the current availability)



6. CONCLUSION

In the paper, the aspects of interconnection, information technology and industrial tourism are addressed and analyzed. Also, here is given an adequate client communication schemes, with internet infrastructure, as well as access to characteristic web sites, for obtaining source information, for characteristic sites also presented here. It also describes how a technology requirements management algorithm works, in the context of computer resources and affirmative customer requirements for tourism issues.

In the future, as each technological development brings advanced and increasingly automated methods to production, it increases production and/or reduces unit costs simultaneously. These developments are eagerly awaited by business owners and managers, who aim to quickly implement new information technology methods and equipment. The access to Internet-based tourism services and the elimination of some services that have traditionally been provided have accelerated access to many direct information requests, thereby reducing management costs, and customers are confident in meeting their requirements.

The rapid development of tourism requires faster, more successful and time management. Therefore, the creation of relevant applications in terms of information technology service will increase the practical efficiency of managing users who have tourist intentions. Also, this management enables to reduce the cost of using resources, increase performance etc.

The purpose of the paper is also, to link IT and tourism, creating more conducive conditions for efficient, managerial and cost-effective work for both users and different tourism companies. This practice stimulates tourism, provides good service, and facilitates geographical orientation, according to different locations in different countries. The app includes all the data and this app can be further developed and expanded as needed. It can also be modified and adapted for different platforms, etc.

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