

Information Technologies as a Key Element in Increasing Labor Productivity in Tourism

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Abstract

Nowadays, information technology is a "synthesis of electronic and computational technologies from telecommunications" that enables effective communication and data processing in time and space. Online environment is an ideal mean of promotion of tourism product, a global environment of disseminating information that anyone can access from anywhere in the world at affordable prices. The main objective of this paper is to examine the impact of modern information technologies on the growth of labor productivity in tourism and as a secondary objective, the availability of Moldovan tourism market in regard to E-commerce and E-tourism. A relevant aspect of the research is the need to automate the work processes and optimization of staff, as payroll expenses of labor is an expenditure category with a very large share in total revenues generated by a tourism company.

Key words: information technologies in tourism, human resources in tourism, labor productivity, E-commerce, E-service, E-tourism, CRM applied program (Customer Relationship Management).

JEL: M1, O

Actuality of the investigated theme

In the last 10 years electronic commerce has caught scale and tourism business successfully joins this trend. Implementation of information technologies in tourism is so vast that the industry structure and the way it operates are continuously changing. Currently, internet is used not only to get information about tourism destinations, but it is also a way of ordering, reservation and on-line sell of tourism services.

Reducing production costs of the tourism company, increasing competitiveness, enhancing labor productivity, speeding up the transfer and retrieval of information, facilitation of communication with consumers - tourists, introducing the innovative E-service platform, argues the need to investigate this issue.

The research methodology consists in studying the problem, data and information collection on the usage of information technologies in the field of human resources in the tourism branch, proposal of a number of recommendations to improve the management of the human factor and conclusions.

The aim of research is to study the impact of information technologies in increasing labor productivity in tourism companies from the Republic of Moldova, trends that are registered in this field, and the formulation of proposals that would help to improve the performance of tourism companies with the implementation of new information technologies by scientific reasoning. A relevant aspect of the research is the need to automate the work processes and optimization of

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staff, as payroll expenses of labor is an expenditure category with a very large share in total revenues generated by a tourism company.

Theoretical - methodological support of the researched subject will be provided by the work of scientists who have conducted research in this area.

Relevance of the article. Investigating and developing this theme will enable the author to generalize conclusions on this subject, and therefore, to propose the tourism business environment some solutions and recommendations, capable of enhancing efficiency of tourism companies with the implementation and use of new information technologies.

Modernization as a continuous process

Online environment is an ideal mean of promotion of tourism product, a global environment of disseminating information that anyone can access from anywhere in the world at affordable prices.

Thus, the online media market becomes more attractive to consumers-tourists and their interests coincide with the aims of the majority of tourism businesses to improve service quality and reduce costs by maximizing the use of information technologies.

Analysis of the use of labor force is an important step in deciding to increase the efficiency of a tourism company. In order to use at a maximum efficiency the capacities of human resources of the company, it is necessary for an optimum use of available time fund.

In its paper "Human potential of the company", Petru Radu mentions that "in order to be effective, it is necessary to go two levels represented by highlighting extensive elements, reducing losses of time and intensive through reducing labor costs for a product, which is reflected in the labor productivity growth".

Thus, tourism enterprises must be in constant development and modernization. In the action plan, they must allocate a growing volume of financial, material and human resources for the activities of: modernization, production of ideas, development of new tourism products and services, implementation of new information technologies, implementation of effective management methods.

Modernization lies in the permanent connection of tourism enterprises to the latest achievements of world's scientific and technical revolution, in the use of modern equipment and technology, in retooling and upgrading of companies, in management activity.

Modernization must be a complex, continuous and permanent process that aims to modernize equipment and software to provide quality travel services, thus reducing expenses for developing tourism products and enhancement of new tourism destinations.

In our opinion, modernization as an action should include:

a) *technical modernization*, which involves the use of technique with high operating parameters when developing new tourism destinations;

b) *software modernization*, which consist in the use of IT programs and software of the latest generation;

c) *technological modernization*, which consists of the group of processes, methods and scientific processes, according to which establishment, promotion and distribution of tourism products take place;

d) *organizational modernization* involving a series of economic, technical and organizational measures, that refer to: organization of tourism company, recruitment and selection of staff, training and development of staff, staff motivation through the use of incentives, which would increase labor productivity;

e) *logistics modernization*, which requires the use of information technologies in the design, development and launch of new tourism destinations, facilitating the exchange of information between tour operators and retailer travel agencies, optimal transmission across time and space of tourism product to the consumer-tourist.

f) *management modernization* that covers the entire business and leadership organization for the adoption of optimal decisions.

Modernization should have as finality the creation of a managerial, operational and motivational climate promoting innovation process and to satisfy three criteria: effectiveness, efficiency, productivity.

The modernization process must also provide and develop strategic programs to implement innovations characteristic for the technical progress, as well as funding of own research on trends that are recorded on the tourism market.

Acceleration of restructuring and modernization processes, by massive incorporation of advanced information technologies, will be reflected in the evolution of main indicators that characterize the economic activity of tourism company.

Growth in labor productivity of employees using CRM applied program

Customer relationship management has become, in conditions of development of information technologies, a focus area for researchers worldwide. Currently, design of information systems for customer relationship management has become a priority for all tourism companies that want to survive and develop in the E-business environment. Thus, development of information technology and the availability of a great number of applications were the impetus for the deployment of CRM applied program in the tourism environment.

Customer relationship management known as CRM has developed into a major element of the business strategy of many tourism companies and is based on creation and development of personalized relationships with customers, aiming to facilitate communication with them. Tourism enterprises are investing significant sums in collaboration with specialized consulting firms and suppliers of IT solutions, for the creation of information customer relationship management structure.

Currently, CRM is specific software that allows the tourism company to measure and control contact with clients, thus increasing employee productivity. The collected and processed data by the application program can be used to: store information, study the tourists' preferences, tourism market research and analysis, design and launch of new tourism destinations, etc.

The CRM concept is seen as a modern tool through which the relationship of tourism companies with clients is managed, using for this purpose information and communication technology. The connecting element in the development of customer relationship is the flow of information used by internal and external data, obtained during each type of contact with tourists.

Labor productivity is increasing in tourism only when performing managers quickly get the information they need to substantiate their decisions oriented to tourism market, in order to meet the full needs of customers.

CRM applied program has certain characteristics:

- can track and create a report at every interaction with the consumer-tourist;
- can describe the interests and demands of tourists for a specific tourist destination;
- can report on the changing preferences of tourists;
- can serve as a tool for collecting data on applications for new tourism products and services;
- can facilitate work processes by emphasizing best practices and exclusion of those negative in relation to tourists.

CRM is designed as a business strategy that enables tourism companies to understand the client, to make loyal own tourist by offering the best possible experience, while attracting a new category of customers. But the most important aspect generated by this software is to reduce management costs in the activity tourism enterprises.

CRM is based on technology, thereby ensuring the implementation of management processes and tactics for establishing and maintaining customer relationships. To this end, tourism companies are frequently looking for the opportunity to personalize contact online experiences with suppliers and customers, using different IT applications.

A CRM strategy enables rapid adaptation of organizational behavior to changes occurred in the tourism market. Tourism company that uses this option can better meet the wishes and requirements of its customers throughout the lifecycle of the tourism product.

Currently, customer relationship management was turned into a business philosophy, representing more than a management project and an information infrastructure, intended to increase customer value and their motivation in order to become loyal.

The main objectives followed by the tourism company within CRM programs are as follows:

- understanding the needs of consumers, tourists and their anticipation;
- decrease in the rate of migration of customers to other businesses by increasing their level of satisfaction;
- motivation of clients to become loyal customers through special tourism offers and discounts;
- attracting new customers through online means of communication;
- use of E-service information technology in marketing tourism products and services for consumers-tourists.

In the hotel sector, current developing tools of the CRM applied programs play a very important role. Hoteliers use CRM tools to improve conventional programs of reward of customers in order to make them more attractive to tourists and to become more efficient in terms of profitability.

Major hotel chains attract their customers through CRM tools being focused mainly on "loyalty" programs. They help hotels and resorts to determine which customers regularly attend the same brand hotel. These frequent customers accumulate points that can be exchanged for rewards, most often being materialized by discounts in case of extended stays or subsequent booking.

Building customer relationships is a long process. In our view, the implementation of automated CRM program allows tourism companies to save substantial financial resources related to organizational management, thus increasing employee's productivity. The economic effects of CRM can be presented as follows:

- Lower costs in attracting potential tourists. Customer attraction costs will decrease since tourism companies and hotel chains will use CRM applications, in adjusting the marketing programs.
- Eliminating the need to recruit more employees to maintain constant communication with customers. Online communication with customers through automated CRM software allows the implication of one person, the IT manager.
- Use of large premises will not be a necessity, thus decreasing the cost of rent. By changing to on-line sales, benefiting from electronic commerce, tourism companies will no longer need large staff members because tourists will purchase tourism products without entering the offices, which were served in the past.
- Effective instrumentation in enhancing economic performance. CRM technology that can discover frequent customers with high purchasing potential, as well as the tools that help to set goals and measure results, provide greater economic performance for the tourism company.

Generalizing the above, a CRM applied program must be implemented so as to contribute to the increase of economic results of a tourism company in the context of rational use of employees, thereby increasing labor productivity. It must be built in such a way as to generate high quality information about customers and potential customers, in order to design launching, promotion and distribution activities of tourism products and services.

Regulation of electronic commerce in the Republic of Moldova

Law no. 284 of 22.07.2004 *"On electronic commerce"* with amendments, provides for the creation of the legal framework for conducting electronic commerce, establishment of regulatory principles and state support of business in electronic commerce, as well as establishment of the legal status of contracts and electronic communications on sale of goods, execution of works or

services. The legislation requires that electronic commerce is entrepreneurship of individuals and businesses selling goods, works or service, performed with the use of electronic communications and / or electronic contracts.

Commercial communication in tourism business environment is the electronic commercial communication designed to promote, directly or indirectly, goods, or services, company or trademark of the company, as the subject of electronic commerce. Information that provides for direct access to the activity of tourist firms, in particular a domain name or e-mail address, communications related products, or services, when we are made without any commercial interest. There are commercial communications information allowing direct access to the activity of tourist firms, in particular a domain name or e-mail address, communications related to tourism products or services, when are made without any commercial interest are not commercial communications.

From the legal point of view, having as basis *Article 5* of Law no. 284 "On electronic commerce", e-commerce agents' activity is not subject to prior authorization, and is conducted in accordance with the principles of free and fair competition, compliance with the legislation. Natural and legal persons have equal rights in the conduct of business activity in the electronic commerce. Granting certain priorities or limitation of rights and interests of e-commerce agents, except as required by law, is not allowed.

The activity of natural and legal persons involved in electronic commerce are not limited to certain areas or categories of goods, works or services, and activity of electronic commerce business agents, including those who carry out intermediary activity, established in other countries is carried out under international agreements to which the Republic of Moldova is a party and the legislation of the country where e-commerce agent is located.

Under *Article 8* of Law no. 284 "On electronic commerce", e-commerce objects are:

- a) assets that can be disposed of according to law;
- b) work;
- c) services.

In providing tourism services, online communication is inevitable. To be aware of its consequences, there is necessary to document on the legal effect. According to Law no. 284 "On electronic commerce" *electronic communication* after legal and evidential power is equivalent to the information in writing. Where the law requires information to be presented in writing, this requirement shall be deemed enforced through electronic communication, with the condition that the information contained therein is accessible for repeated use. Electronic communication can not be without legal force or power just because it made only in electronic form. The responsibility for the content of electronic communication is bearded by the person making the electronic communication.

The greatest impact of electronic communication is over marketing and distribution functions, thus reducing human factor involvement.

The exchange of information is very important at every stage of the sales cycle of the tourism product. Information must flow quickly and securely between the client, intermediaries and each of tourism service providers involved in meeting the customer's needs. As a result, information technology (IT) by electronic communication has become the future of the tourism industry. Its powers allow information to be used more efficiently and move through the online environment almost instantly.

In these circumstances, once a tour operator creates its own database of tourism products in an online environment using IT inventor, it must inform partners about this opportunity. The next step is to create access for travel agents directly into IT inventor, so that agencies would have a full understanding of tourist destinations, tourism products offered, availability and prices. IT inverter tour operator acts as a single interface, so the travel agency can quickly and easily identify the most appropriate solution for tourist holidays.

Beyond the technical advantage of IT inverter, the use of such systems positively influence how they perceive the tour operator, the professionalism with which he treats the situation, and ultimately, sales of tourism products through online offers. If he will spend less time in searching

for deals in the systems and will be rather dedicated to inform the client about the conditions of travel, destination, airlines or hotels, other optional excursions or services will definitely increase labor productivity and prevail in front of an operator standing just staring at the computer, entering dozens of systems to find the best option. Mechanism of the tourism market functioning in the Republic of Moldova with the support of IT applications is presented in Annex 1.

The online offer can be another product of electronic commerce through which a tourism company proposes a contract and sent consumer-tourist the contract text containing contractual clauses. Offer is valid during the period indicated in it. Offer may be withdrawn till receipt by the sender in the accepted manner prescribed by law. Withdrawal of offer is made by sending the recipient a notice of withdrawal of the offer, in the form of electronic document where the reasons for the withdrawal should be indicated.

Acceptance of the offer is an electronic document through which the consumer-tourist agrees to conclude the contract under the conditions proposed in the offer. Acceptance will contain the text of the contract proposed by tourism company without changing its terms. If the consumer-tourist is allowed to accept the terms of the contract with changes, such acceptance be deemed as a new offer.

The legal relationship between the provider and consumer on electronic transactions is governed by the Civil Code on contracting, and provisions of Law no. 284 "On electronic commerce".

In order to be possible to implement the electronic commerce products and tourism services it is necessary to change the Law. 352 "On organization and carrying out of tourism activity in the Republic of Moldova", by introducing the concept of electronic travel voucher and recognition of digital signature to individuals, procedures performed by the Center for Special Telecommunications.

Center for Special Telecommunications is a scientific and technical enterprise oriented towards the development of protected information technologies based on the complex approach of the following activity principles:

- ensuring information security in complex with the creation of information and telecommunication systems, ensuring a high level of efficacy and safety;
- integration of specialized means of protection of telecommunication and network equipment;
- ensuring logistics between safety and sufficiency of means of protection;
- compliance with international and national standards;

At present, the Center for Special Telecommunications provides:

- protected exchange of information between public authorities, representatives of the Republic of Moldova from abroad, organizations, institutions and enterprises, public authorities from other states;
- protection of important information for the state;
- creation, management, operation and development of special telecommunication systems;
- development and implementation of advanced information security technologies, including digital signature technologies.

Recommendations

Human resources are the most important category of resources in tourism enterprises. Their existence is vital conditioned by employee attitudes, qualities, motivation and dedication, especially those of the front line, who deal directly with tourists. The survival and growth of tourism enterprise depends on their ability to respond appropriately to their needs, to attract and form a stable and loyal client base. Tourism company employees have a high power of conditioning the sale volumes, as competition in this industry is extremely high.

But the creative capacity of human resources can not be fully exploited without preparation and training, given that tourism is a particularly dynamic field. Various aspects regarding use of material and technical base and information technologies in the course of modernization,

marketing of more complex tourism products, changing preferences in consumer behavior, using new methods and techniques in the design of new tourist destinations, new forms of sales using electronic commerce, tourism legislation changes, etc., are not making only useful the training and development of staff from tourism enterprises, but also absolutely necessary. To increase labor productivity in tourism in addition to training and perfecting, it is necessary to achieve the following actions:

- complex modernization of the tourism company;
- optimization of staff by automating all processes related to human resources that work in the tourist company;
- development and implementation of advanced technologies in customer service;
- use of E-service information technology in marketing tourism products and services for consumers-tourists;
- upgrading tourism products and cancellation of old offers;
- widespread use of CRM applied program;
- reducing the number of intermediaries in the formation of travel packages through the use of global reservation and distribution systems;
- ensuring consumer protection right with the implementation of electronic commerce.

Conclusions

Acceleration of the process of renewal and change is specific, characterizes and distinguishes the current era. We face every day, both as citizens and as professionals in various fields, with the need to improve the way of activities in companies where we are employed. Research has shown that within companies, capabilities available to people who daily come to work both as managers and as ordinary employees, are incompletely used, which is inefficient and inconvenient. It happens that the experience of a group of people who live and work together in a community to be not sufficient to meet the goals without a close cooperation among them.

Such an approach is fully consistent with specific tourist activity expressed by the variety of consumed resources, the many constituent sides, the fact that it addresses to domestic and international consumer, effective evaluation at micro and macro level, the use of information technology in achieving performance.

The continuous development of information technology has profound implications for this sector. Today, information technology is used in many sectors of the tourism industry for a range of activities, from internal organization of the company to external communication with different providers. Information technologies also facilitate the speed and efficiency with which the information is processed, stored, retrieved and distributed.

As penetration of tourism in the information age, both tourism companies and tourism service providers should use the possibilities of new interactive technologies. Tourism enterprises must be aware of the growing interest of tourists to new performance and learn to acquire income from the use of these new channels, whose priorities consist in a global distribution.

Thus, the efficiency of tourism means the rational use of natural and human resources, efficient use of human resources by increasing labor productivity, making full use of the capacities of accommodation and food, as well as increasing the efficiency of use of transport units and leisure structures. The efficiency expresses the opportunity to introduce charges for implementing new information technologies, modernization of tourism production and service capacities on the extent to which the activities will meet the needs of tourists.

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