

CONTRIBUTION TO THE RESEARCH OF TOURISM DEVELOPMENT OF ISTRIA (CROATIA) IN THE CONTEXT OF TECHNOLOGICAL ADVANCEMENT

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Technological advancement did not spare or steer clear of tourism. From the economic point of view, new techniques and procedures introduced within the field of tourism resulted in positive trends. However, when examined from the tourists point of view and their needs, the development effects remain controversial. The aim of this paper is to provide insight into the question of whether the effects of technological advancement on tourism can be considered beneficial or harmful, and to what degree. This paper also examines how technological advancement reflects on tourism, using the County of Istria (Croatia) as an example. It also outlines the situation in tourism in the past and in the present within this context.

Keywords: development, Istria tourism, technological advancement, economic effects

JEL Classification: *L83, M1, O1*

INTRODUCTION

Technological advancement represents introduction of new production processes or a new production organization. It is introduced for the purposes of increase in productivity and reduction in unit cost. Technological advancement brings more free time and, by means of production process change, work on abolition and disappearance of some jobs and professions.

We distinguish non-objectivized technological advancement, whose purpose is a better combining of the existing production factors, and

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objectivized technological advancement which gravitates towards better quality equipment and machinery or a better qualified employee structure. As a measure of technological advancement, a total factor productivity index is normally mentioned, which indicates the ratio between the production factor and pondering average.

Most frequently technological advancement relies on new technologies, information, computing, mechanical, construction, video, audio, lasers and other work techniques. New technologies create new products, they change the environment by artificially created values. The latest on the scene is plant, animal and human cloning. Simply said, competition for something new, productive, commercial, accelerated obsolescence and time-wise short term verification. Taking into account the listed advantages, possible consequences of technological advancement for human life and survival, as well as for life and survival of animal and plant species are neglected and, in that sense, the dilemma “technological advancement – solution or collapse of the Earth” occurs in scientific circles.

By technological advancement, apart from positive impacts, negative impacts on life and survival of plant and animal species and also humans have been created (Kočović, 2012). The following problem areas have particularly been identified: drinking water, unpolluted air, all kinds of waste, ozone layer holes, global warming, heaps of nuclear weapons, etc.

With its good and bad sides, technological advancement did not spare or steer clear of tourism. From the economic point of view, new techniques and procedures introduced within the field of tourism resulted in positive trends. However, when examined from the tourists point of view and their needs, especially human ones, they have produced a controversial effect in that segment.

The purpose and goal of this paper is to provide a wider insight into the question of whether the effects of technological advancement benefit or harm tourism, and to what degree, i.e. how is this reflected on the example of the tourism of Istria (Croatia), on which the research was conducted.

THEORETICAL BASIS AND RESEARCH METHODOLOGY

Technological advancement in tourism

Technological advancement in social and economic activities has, of late, evolved into a permanent phenomenon. This is the case in tourism too; due to tourists’ increased needs and wishes (Poon, 1994),

technological advancement frequently occurs (Stipanuk, 1993). First of all, the technological advancement in tourism spread to the business activities of kitchens and restaurants, reception, followed by room equipping, integration of additional features into accommodation facilities (swimming pools, wellness centers, etc.), and in camp sites land subdivision is being carried out.

Reception business is computerized. By means of computers, records are kept, reservations made, etc. (Lituchy and Rail, 2000). In this way, time is saved and records are of a better quality. Information technologies are also being introduced for business monitoring (Buhalis, 1998; O'Connor and Murphy, 2004; Buhalis and O'Connor, 2005; Chathoth, 2007; Buhalis & Zoge, 2007; Buhalis and Law, 2008), improvement of organization (Wang and Qualls, 2007), and process and destination management (Law et al., 2010).

Equally, technological advancement is also evident in hotel restaurants by introduction of the so-called Swedish smorgasbord table, on which food selection is displayed in the central position in a restaurant, with tourists helping themselves to it. With such a style of service, there is no waiting, food preserves the required properties, appearance and corresponding temperature, which, in the classic manner of service in hotel restaurants, was a special problem, often inviting criticism. With such a way of food service, large savings have been achieved concerning staff, however, an opposite effect can also be noticed; food and drink service has turned into self-service and the guest has been deprived of the hosts' attention.

From the achievement of maximum cost-effectiveness and production rationalization point of view, technological advancement "a lot is ruthlessly stereotyped and simplified" (Muljević, 2006).

Other researchers also talk about the uncertainty of the technological advancement effects on human society, drawing attention to its influence on the tourist environment, threatening tourism survival and development in a specific area or destination (Sabban, 2013; Jakić et al., 2012). This postulate can be supported by numerous cases, of which some are listed below:

- Emergence of ozone holes and harmful cancer genic radiation, created as a technological advancement by-product. These occurrences have changed the tourists' habits. Until 30 years ago, tourists loved sunbathing, staying on the beach, a suntanned look and dark skin color. Nowadays, they stay in the shade more and keep away from the sun.

- Productions which release harmful waste waters or gases are particularly dangerous for tourism, as well as nuclear power productions and similar. Tourist destinations situated in the vicinity of such plants (nuclear power stations, plants for production of uranium, etc.), are no perspective for tourism. Tourists bypass such destinations and, when an incident occurs, such as Chernobyl or recent leakage of uranium from a power station in Japan, tourist destinations located nearby overnight lose in importance.
- Apart from the aforementioned, waste, which is, on a daily basis, released in the form of waste waters, waste gases or are accumulated in waste tips by settlements, made of various, organic and non-organic, degradable or non-degradable, very harmful and less harmful waste, also endanger tourism. This by-product of an aggressive technological advancement affects the development and threatens the survival of tourism in the destinations which do not ensure suitable solutions.

RESEARCH METHODOLOGY

The research in this paper is based on primary and secondary sources, as well as on the approach based on attitudes of domestic and foreign researchers. Since the fundamental goal in the paper is detection of specificities of the Istria tourism development in the context of the technological advancement, the starting point in the paper is founded on technical and technological achievements and their acceptance in tourism in the last 60 years.

Theme of this paper was not researched/developed for the territory of Istria, as well as in Croatia, and this paper should be seen as a contribution for systematic research of the subject theme in Croatian scientific literature. That was the reason why research in this paper is based on small amount of available literature by rare domestic and foreign researchers/authors, who were working on the problem areas of technological advancement in tourism, statistical data on tourist trends and tourist capacity growth, as well as on interviewing tourist workers who, in the last and this century, participated in the development of tourism in Istria. This is how the picture of tourism in Istria in the past and today was formed in the context of technological advancement, which provides the answers to the following questions:

- What was Istria tourism in the past like?

- What was the application of new techniques and technologies in equipment of tourist facilities like?
 - In what segments was the technological advancement most pronounced in the Istria tourism development?
 - Apart from desirable, has technological advancement also produced some undesirable effects in the tourism of Istria?
 - What is the tourism of Istria like today?
- Fundamental research goals in the paper are:
- deepen the knowledge about how much and to what degree technological advancement is useful or harmful to tourism,
 - determine reflections of technological advancement on the example of tourism of Istria, and
 - within that context, determine its appearance in the past and today.

According to the listed goals, a hypothesis is set, by which it is stated that technological advancement transforms tourism with good, but possibly also undesirable consequences. Proving of the set hypothesis is conducted on the example of tourism of Istria.

RESEARCH RESULTS

Tourism development of Istria related with technological advancement

After World War II, tourism in Istria was found to be in a very poor condition. All the facilities for receipt of tourists, i.e. hotels and restaurants, were mainly damaged from the war devastation and what little was left intact, technologically speaking, was furnished using elementary equipment for provision of the most basic accommodation and food services to tourists. By the year 1960, damage from the war was recovered and tourism development commenced in Istria, which, from the technological aspect, can be considered in three phases.

First phase

The phase of tourism development in Istria, which started in 1960, lasted until 1980, and was marked by intensive development of capacities for tourist accommodation, provision of food service and entertainment.

Table 1. Development of facilities and capacities in the tourism of Istria between 1960 and 1980

Year	Total accomm. capacities	Pitches in campsites	Moorings in marinas	Rural tourism beds	Maritime tourism		Rural tourism		Total	
					Visits in 000	Overnights in 000	Visits in 000	Overnights in 000	Visits in 000	Overnights in 000
1960	38,600	19,428	-	-	397	3,497	-	-	397	3,497
1970	111,400	46,120	-	-	744	6,556	-	-	744	6,556
1980	198,300	102,332	-	-	1,708	16,237	-	-	1,708	16,237

Source: Rijeka Municipal Community Statistical Almanac, 1986: 82-87.

This development was accompanied by an elementary level of technical and technological equipment and its basic goal was to construct as many as possible facilities and capacities for tourist accommodation, provision of food service and, partly, entertainment. The situation was the same with the complementary accommodation in campsites, which were equipped with sanitary points and shops with basic provisions. The fundamental characteristic of this phase is construction of large accommodation facilities of between 400 and 1,500 beds of elementary technical and technological equipment.

Second phase

The phase between the years 1980 and 1990 is known for implementation of new technical and technological achievements into the facilities for tourist accommodation and boarding, directed towards improvements in business conduct and satisfaction of ever increasing tourist demands and needs (Garver, 2002; Magnini et al., 2003; Koutroumanis, 2011).

Table 2. Development of facilities and capacities in the tourism of Istria between 1980 and 1990

Year	Total accomm. capacities	Pitches in campsites	Moorings in marinas	Rural tourism beds	Maritime tourism		Rural tourism		Total	
					Visits in 000	Overnights in 000	Visits in 000	Overnights in 000	Visits in 000	Overnights in 000
1980	198,300	102,332	-	-	1,708	16,237	-	-	1,708	16,237
1990	245,815	126,420	4,030	-	2,094	17,467	-	-	2,094	17,467

Source: Ivošević, 1995: 75.

In this phase innovations are introduced into accommodation facilities, especially into the sector of food and drink service to tourists, abandoning the old method of table service and transfer to the Swedish smorgasbord table, on which dishes are displayed and guests help themselves to it. Equally, in this development phase, increased attention is paid to tourists, their needs for entertainment, sport and recreation, equipping hotels with additional facilities. In this phase, apart from hotels, sports centers with terrains for different sports are built, tennis being especially popular, as well as entertainment and animation centers, etc. Equally, in this phase the first marinas for nautical tourism are built and, in campsites, the land sub-division process is carried out and additional facilities for sport and entertainment for tourists are constructed.

Third phase

This phase begins in 1990 and is still in progress to date. In this phase numerous technical and technological achievements have been introduced, with which an attempt is made to raise the quality of accommodation and service of food and drinks (Lee et al., 2003). Equally, the tendency is to perfect business conduct and management, introducing into business modern information technology systems for process monitoring and management in accommodation units and destination (Piccoli, 2008). In this phase, hotels are being refurbished by joining of two rooms into one, with full equipment (air conditioning, television, video, etc.). Hotels are being fitted with swimming pools, wellness facilities, etc., in order to satisfy tourists' every wish and need.

Table 3. Development of facilities and capacities in the tourism of Istria from 1990 to 2010

Year	Total accommodation capacities	Pitches in campsites	Moorings in marinas	Rural tourism beds	Maritime tourism		Rural tourism		Total	
					Visits in 000	Overnights in 000	Visits in 000	Overnights in 000	Visits in 000	Overnights in 000
1990	245,815	126,420	4,030	-	2,094	17,467	-	-	2,094	17,467
2000	217,924	106,067	11,000	2,920	2,080	14,284	-	-	2,080	14,284
2010	230,122	113,525	16,606	27,510	2,514	17,363	223	1,678	2,737	19,041

Source: County of Istria, Administrative Department for Tourism (data provided by authors personal correspondences/contacts with County of Istria)

Also in campsites, apart from land sub-division, new accommodation forms are being introduced (mobile homes); campsites are being equipped

with swimming pools and other facilities for maximal fulfillment of tourists' wishes and needs. Tourism is being developed not only along the coastline, but also in rural areas. Small accommodation facilities are becoming increasingly popular and can be noticed in the structure of accommodation facilities.

Achievements and consequences of technological advancement in the tourism of Istria

Development of tourism of Istria from 1960 to date is accompanied by achievements and undesirable consequences. Consequences and achievements of Istria tourism development in the context of technological advancement are present in all the phases, which are as follows, listed in Table 4.

In the first phase, in which it was insisted upon a high growth in tourist receipt facilities (hotels, campsites) and a large increase in the number of visitors, the problem of disharmony occurred in capacity increase in accommodation facilities and the number of visitors in comparison to the infrastructural growth (water and electricity supplies, telephones, construction of communal and other plants for drainage and filtering of waste waters, traffic infrastructure construction, etc.). The said disharmony caused, in the peak of the season, unpleasant shortages of water and electricity, road traffic congestion, shortage of some items in shops and shortages of petrol at petrol stations.

Furthermore, a big problem of Istria tourism development in almost all phases was insufficient staff profiles. Intensive tourism development required a large number of professional and educated staff. In the 1950's, there were too few highly educated staff in the whole Istria region. This was also the case with qualified staff and staff with completed secondary education. There was also a shortage of staff with lower education and unqualified staff for cleaning and room making, and cleaning of other hotel areas, ancillary staff in the kitchens, etc. As it was not possible to find the necessary staff in Istria itself during the tourist season, staff were recruited from other parts of Croatia and former Yugoslavia. With such staff structure, it was hard to monitor intensive development and achieve good business results, as they had specific cultural backgrounds and habits; they had to be trained and educated very quickly for jobs in tourism.

Additionally, due to great demand by guests who wanted to spend their holiday in Istria and regular lateness in construction and opening of new facilities, capacity overbooking would occur every year, which

would cause big problems with accommodation of all the tourists who arrived. Many tourists would arrive on holiday in Istria, without even seeing the hotel they had booked, as it was not ready for opening in time.

Table 4. Achievements and consequences of technological advancement in the tourism of Istria

Achievements	Consequences
Construction of a large number of accommodation facilities and capacities.	Disharmony in development of accommodation capacities and infrastructure with consequences of shortage of water and electricity and road traffic congestion.
Enrichment of tourist offer by new facilities.	Lateness in making operational newly-built accommodation facilities with a consequence of not being able to accommodate arriving tourists.
Satisfaction of tourists' wishes and needs.	
Employment and possibility of income.	
Increase in business conduct, quality and implementation and perfection of process and destination management.	Disharmony in development of accommodation facilities as opposed to the facilities outside hotel boarding with consequences of queuing in sport centers, non-hotel restaurants, crowded shops, road traffic congestion, etc.
	Fast accommodation facility development was accompanied by a constant lack of staff of all profiles.
	Developmental orientation to maritime tourism has as a consequence neglect of tourism development in rural areas.

Source: Processed by authors

Hotel appearance and equipment is yet another issue. That issue, construction of large hotels with small rooms, equipped only with essential furnishings, i.e. bed and wardrobe, prevails. Equally,

development of other forms of tourist offer was neglected: restaurants for non-hotel boarding service of food and drinks, facilities of entertainment, sport and recreation. There were very few aforementioned non-hotel facilities in comparison with the number of tourists stationed in Istria, and tourists were often forced to wait for a chair or a table to be vacated in a restaurant, they had to queue for sports equipment hire, or for sports terrains.

Tourism development in rural areas of Istria was neglected. Until the 1990's, tourist offer in rural areas was very modest and the only facilities where something was happening and visits were possible, were situated in the village of Krculi near Žminj, and in small town Motovun.

Characteristics of Istria tourism in the past and today

The motives for tourist arrival in Istria used to be the sun, the sea and gastronomy. Nowadays, the sun, the sea and gastronomy are not as important as before, as the number of motives has considerably expanded, namely to entertainment, sport, recreation, experiences, etc. Above all, offer quality is insisted upon, whereas, in the past, it was the quantity.

In the tourist structure, Germans, Austrians, Italians and Dutch were in the first place in the past, while the tourists from the then Eastern bloc countries (Czech Republic, Slovakia, Hungary, Russia) were very poorly represented. Today, there are more tourists from those countries, not in the first place, but they are represented in the structure more than ever.

The basic goal of tourism politics used to be realization of a large number of visitors and overnights. Today, the emphasis is on an increased expenditure per tourist per day and numerous offer contents are being included, of which some were unheard earlier. Before, tourist offer used to be very modest and was reduced to the services of accommodation, food and entertainment. Today, that offer is much broader for the tourists, it is versatile and constant attention has been paid to the increase of its quality and all efforts are made to satisfy tourists' every wish and need. In the past, less demanding tourist wishes are today very demanding, especially regarding the quality and level of service prices.

As opposed to the past, nowadays the situation with staff is excellent. Today, selection and testing is carried out in employing educated staff. Previously, employment of educated staff was conducted without testing and they were immediately granted large benefits (salary, accommodation, position, etc.).

Today, the accompanying infrastructure (water, drainage, electricity, telecommunications, and roads) is satisfactory in comparison to the past.

Infrastructure is harmonized and follows tourism development. Today, the shortages of the past are unthinkable.

Previously, prospects for employment and earnings in tourism were better. Employees in tourism used to receive their salaries for regular working hours. At the end of the year, they would receive a “bonus”, three to four whole salaries as reward for achievement of company’s good business results. During the winter months, employees would receive their salaries from reallocation of overtime working hours.

In the past, tourism development was accompanied by great optimism and enthusiasm of employees and the population of Istria. Guests were shown hospitality and respect. In tourism, people used to work with pride, with a lot of sacrifice and great willingness. Today, it is less so.

CONCLUSION REMARKS

From the discussion on the topic of technological advancement and tourism, threats which endanger tourism have been noticed. By technological advancement, together with a positive impact, an opposite impact has also been achieved in tourism, whereby that lively and pleasant atmosphere has vanished in tourist facilities, when guests, upon check-in at reception, were welcomed with a smile and, during their entire stay, were shown their hosts’ undivided attention. By introduction of technical advancements, there is much less of that. Equally, threats from technological advancement are noticeable also in the tourism environment. Those threats emanate from industrial plants and can endanger survival or inhibit further tourism development in the destination.

In Istria, tourism development in the context of technological advancement went through three phases.

The first phase was characterized by the development at elementary level of technical and technological equipment, i.e. only with essential equipment for receipt of as large as possible a number of tourists.

In the second phase, a higher level of technical and technological equipment was introduced, by which attempts were made to improve business conduct in tourism and to satisfy ever increasing and complex tourists’ demands and needs. Swedish smorgasbord tables were introduced in tourist service, sports centers with terrains for different sports were being built and tennis is particularly popular. In this phase, the first marinas for nautical tourism also were constructed and, in

campsites, land sub-division was carried out and additional facilities for tourist entertainment, sport and recreation were built.

In the third phase, numerous technical and technological achievements are being introduced, by which efforts are being made to raise the level of service quality, perfect business conduct and management, introducing into business modern information technology systems for process monitoring and management. Hotels are being refurbished by joining of two rooms into one, with full equipment (air conditioning, television, video, etc.). Hotels are being fitted with swimming pools and wellness facilities. In campsites, apart from land subdivision, new accommodation forms are being introduced (mobile homes). Campsites are being equipped with swimming pools and other facilities. Tourism is being developed not only along the coastline, but also in rural areas. Small accommodation facilities are becoming increasingly popular.

Technological advancement created a large step forward in the tourism of Istria; tourism at the elementary level of technical and technological equipment from before has been transformed into a modern one, with a high level of quality and business conduct, not only in the maritime, but also in the rural field.

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