



ASERS

The Challenges of Sustainable Tourism Development in the Times of Climate Change

Proceedings of the ASERS Second on-line Conference on

*“The Challenges of Sustainable Tourism Development
in the Times of Climate Change”*

Editors

Cristina BARBU
Marin CRUCERU



STOP



ASERS Publishing

EDITORS

Cristina Barbu
Marin Cruceru
Spiru Haret University, Romania

International Program Committee

Huseyin Arasli
*Eastern Mediterranean University,
North Cyprus*

Mădălina Constantinescu
Spiru Haret University, Romania

Omran Abdelnaser
University Sains Malaysia, Malaysia

Harjeet Kaur
HELP University College, Malaysia

Nodar Lekishvili
Tbilisi State University, Georgia

Piotr Misztal
*Technical University of Radom,
Economic Department, Poland*

Andreea Marin-Pantelescu
*Academy of Economic Studies
Bucharest, Romania*

Rachel Price-Kreitz
*Ecole de Management de Strasbourg,
France*

Dan Selișteanu
University of Craiova, Romania

Andy Stefanescu
University of Craiova, Romania

Laura Ungureanu
Spiru Haret University, Romania

Hans-Jürgen Weißbach
*University of Applied Sciences -
Frankfurt am Main, Germany*

Contents:

1	Romania as a Future Destination for Tourism Cristina Barbu Marin Cruceru	...3
2	Ecotourism as a Model for Sustainable Development in Latvia Eriks Leitis	...19
3	Developing Heritage Architecture on Tourism Marketing Eko Nursanty	...31
4	Novel Nitrogencontaining Coordinative Compounds for Human and Environment Protection Madona Samkharadze Nodar Lekishvili <i>et al.</i>	...44
5	Investment in Tourism – Use of the Integrated Marketing Communications to Promote Them Fatos Ukaj Fetije Ukaj	...53

ROMANIA AS A FUTURE DESTINATION FOR TOURISM

Cristina, BARBU

Spiru Haret University, Romania

Faculty of Faculty of Financial Management Accounting, Craiova

cristina_barbu2000@yahoo.co.uk

Marin, CRUCERU

Spiru Haret University, Romania

Faculty of Geografy, Bucharest

dancruceru@spiruharet.ro

Abstract:

Covering 238,391 km² (92,019 square miles) Romania is situated in the south-east of Europe, bordering with Hungary, Serbia, Bulgaria, the Black Sea, Republic of Moldova and Ukraine. Romania has a harmonious and diverse landscape and could be considered one of the most beautiful and resourceful places in Europe. Despite all these attributes, until now the country has not become, as was intended, a well known tourist destination. However, Romania can become one.

Tourism in Romania focuses on the country's natural landscapes and its rich history. Despite the rich tourism potential presented above, Romania is not a well-known tourist destination. Serious environmental problems include soil erosion and water and air pollution from unregulated industrial development. Because of economic hardship, the government has been slow to enforce laws that place restraints on industry.

This paper aims not only at identifying the main strategic elements of development for the touristic sector in Romania, but also at making a short review of the environmental infrastructure, of the access roads to the most important touristic destinations, and because the tourism is based on pure nature, we want to identify the level of pollution, the main sources of pollution, the national and the regional environmental and touristic politics.

Keywords: Romania, tourism, pollution, environment, infrastructure.

1. Introduction

Romania is located at the crossroads of Central and Southeastern Europe, on the Lower Danube, within and outside the Carpathian arch, bordering on the Black Sea. Romania shares a border with Hungary and Serbia to the west, Ukraine and Moldova to the northeast and east, and Bulgaria to the south. At 238,391 square kilometers, Romania is the ninth largest country of the European Union by area, and has the seventh largest population of the European Union with 20.2 million people. Its capital and largest city is Bucharest. Romanian climate is temperate continental.

The official language is Romanian, a Latin origin language. Administratively, Romania has 40 counties. The capital, Bucharest, is situated in the south-eastern part of Romania and has over 1.9 million inhabitants.

Romania became a NATO member in 2002 on January 1st, in 2007 became a member of the European Union and is also a member of the Latin Union and of the United Nations. Today, Romania is a unitary semi-presidential republic.

The historical names of provinces: Wallachia, Oltenia, Dobroja, Moldova (including Basarabia and Bucovina), Transylvania (including Maramures) and Banat are still in use when referred to various Romanian regions.

In 2007, Pop *et al.* consider that tourism in Romania focuses on the country's natural landscapes and its rich history. The number of tourists is growing every year and tourism is

becoming an increasingly important source for Romania's GDP with 7-9 million people now visiting yearly. Romania's economy is characterized by a huge potential for tourism. Number of tourists grew from 4.8 million in 2002 to 8.9 million in 2008. The revenues grew from 400 million in 2002 to 607 in 2004. Tourism in Romania attracted €880 million in investments in 2005 (Pop *et al.* 2007).

Tourism is a significant contributor to the Romanian economy. In the 1990s the government heavily promoted the development of skiing in the Romanian Carpathians. Domestic and international tourism generates about 4% of gross domestic product (GDP) and 0.8 million jobs. Following commerce, tourism is the second largest component of the services sector. In 2006 Romania registered 20 million overnight stays by international tourists, 4% higher than in the previous year and an all-time record. Two-thirds of all major trade fairs from Central Europe are held in Romania, and each year they attract 2 to 3 million business travelers, about 20% of whom are foreigners. The four most important trade fairs take place in Bucharest, Cluj-Napoca, Iasi, and Timisoara¹.

In 2009, Ungureanu considered that the economic and social development will not be viable in the long term if we don't take measures to stop the pressure exercised upon the environment and to preserve the natural resources as part of the sustainable development global strategy (Ungureanu 2009).

Romania destinations such as Constanta and Mamaia (sometimes called the *Romanian Riviera*) have become very popular among European tourists.

Romania has a harmonious and diverse landscape. Romania could be considered one of the most beautiful and resourceful places in Europe. Romania also has a rich tradition and culture. The combination of both creates inspiring variety and ever-happening action. It is generally agreed that Romania has a huge potential for tourism.

Romanian tourism can be divided into 3 major segments (Pop *et al.* 2007):

- Ecotourism, including: cultural and religious tourism, rural and ethnographical tourism, mountain tourism;
- Aqua tourism, which includes the Danube Delta, Black Sea Coast and spa tourism;
- Business tourism including meetings, incentives, conference and events (MICE), and urban tourism.

The potential of *ecotourism* is shown by the fact that 8.5% of the country's surface is protected in various ways through:

- 3 Biosphere Reservation: the Danube Delta; Retezat mountain area, and Rodna mountain area;
- 26 national and natural parks;
- 55 scientific reservations;
- 851 other natural reservations and protected natural areas.

Valuing these national treasures, Romania has subscribed to the main European and international conventions and programs in the field of environmental protection.

Pop *et al.* in 2007 said that a great variety of old Orthodox churches, monasteries and cathedrals reflects the importance these places have in preserving a part of the Romanian cultural heritage during the ages. This portfolio is even more diversified, mainly in Transylvania, by the Catholic, Calvinist, and Lutheran churches and cathedrals. All of these contribute to the area's great potential for religious and heritage tourism.

The Romanian potential for cultural tourism is represented by over 27,000 places of interest or locations grouped under different categories, and 151 monuments and archaeological sites of

¹ http://en.wikipedia.org/wiki/Tourism_in_Romania

special value. Numerous architectural styles are present: Romanic, Gothic, Renaissance and Baroque, Rococo, and Art Nouveau. Romania has also a specific architectural style named Brancoveanu. It is present mainly in castles, palaces and houses belonging to the province of Wallachia. A Moldavian architectural style can be identified as specific to Romania.

In a mixture of images and legends, the castles, palaces and houses from Romania tell the story of the period between the 12th and the 20th century inside the preserved medieval towns and in the modern towns which protected their historical heritage. Together with other symbols of Romanian culture, most of the architectural achievements are now included in the international UNESCO heritage list.

For those searching for alternatives like rural, mountain and/ or adventure tourism, Romanian outdoor landscapes provide excellent opportunities. Secular woods, ozone rich air, mysterious caves, glacial lakes, waterfalls and peaceful countryside make the Carpathian Mountains a perfect place for relaxation. For restless spirits, hunting, fishing, mountaineering, sightseeing, alpine climbing, and skiing are available.

Tourism is one of the world's largest industries (WTTC 2002). For developing countries it is also one of the biggest income generators. But the huge infrastructural and resource demands of tourism (e.g. water consumption, waste generation and energy use) can have severe impacts upon local communities and the environment if it is not properly managed.

2. The Romanian regions in terms of tourism

2.1. Wallachia – South Muntenia

Wallachia is located in the South part of Romania, with a surface of 34,453 km² (14,45% from the country' surface), composed by 7 counties (Arges, Calarasi, Dambovita, Giurgiu, Ialomita, Prahova and Teleorman). In the South, the region has an external border with Bulgaria. The relief is characterized by the predominance of the low altitude relief: plains and watermeadows-70.7%, hills-19.8% and about 9.5% mountains².

Wallachia's unique mix of historical and natural attractions promises a different experience each day. Discover heritage buildings and museums in the capital city, enjoy day trips to a royal palace or century-old monastery, hike the mountains or follow Brancusi's art trail - the choice is yours.

First documented in 1459 by Vlad Tepes, Bucharest is the main city of the region and the capital of Romania. Bucharest and its cultural scene is going to surprise everybody: 37 museums, 22 theaters, 18 art galleries, opera houses and concert.

The complex functions, the position in the country and numerous objectives with historical value, architectonic and other nature make Bucharest one of the main historical touristic centre of Romania. Bucharest remarks by eclectic mix of architectural styles.

The best way to explore Bucharest is to take a stroll along Calea Victoriei to Piata Revolutiei, site of the Romanian Athenaeum and the former Royal Palace, now the National Museum of Art. The old city center (near Lispcani) is a must to understand why Bucharest was known as 'Little Paris' in the 1920s. Also, another place to be visited is the Palace of Parliament, the second largest building in the world.

² South Muntenia Region, Demo-geographic characteristics, available to www.mdrl.ro/documente/regiuni/1.S

Through historical and architectonic monuments are counting down churches and monasteries, having, usually, few centuries old: The Old Court and Mihai Voda, Radu Voda and Sf.Gheorghe Nou, Coltea, Antim, Kretzulescu, Patriarhia Romaniei etc³;

- palaces (The Royal Palace from ensemble The Old Court, Ghica-Tei, Sutu, Cotroceni - today the official residence of the Romanian President, Cantacuzino - now, The Romanian Musical Museum, The Justice Palace, National History Museum, Royal Palace, Romanian government headquarters etc.);
- houses and other edifices: Melik House, Manuc's Inn, Lahovary's Castle, Vernescu House, Central School for Girls, the University, the Romanian Athenaeum etc.;
- modern edifices like the People House or the Parliament Palace, symbol of grandeur, Sport's Palace, Romanian Television, National Theatre, Intercontinental Hotel.

Bucharest is equally, a city of museums, art collections and memorial houses: The Old Court Museum - the oldest princely ensemble kept in Bucharest, National History Museum, Porcelain and Glass Museum, Romanian Music Museum, Village Museum, Peasant Museum, 'Grigore Antipa' History National Museum, Geologic Museum, 'Engineer D. Leonida' Tehnic Museum.

There is also, a large number of tourists' attraction for the surroundings of Bucharest: palaces (Mogosoia and Potlogi), churches and monasteries (Cernica, Snagov - with the tomb of Romanian Voivod – Vlad Tepes also known in Occident as Dracula), forests and lakes which constitute together, agreements places (Snagov, Cernica, Pustnicul, Baneasa).

A main attraction point also represents parks - Herastrau, Cismigiu, Tineretului, Triumph Arc, Botanic Garden.

Beyond Bucharest, the foothills of Wallachia give way to the Carpathian Mountains. Just an hour and a half north of Bucharest is the beautiful Prahova Valley, where the popular ski resorts of Predeal, Busteni and Sinaia are located. Sinaia is also home to the magnificent Peles Castle - a masterpiece of German new-Renaissance architecture, considered one of the best-preserved royal castles in Europe. The castle of Peles, fancifully built in 1883 at the foot of a mountain side for King Carol I, in Sinaia. This resort was first made popular by the King and it is worth a stay either in summer for its glorious mountain scenery, hiking and riding, or in winter for skiing, not to mention health cures. In the summer time, these resorts are starting points to hiking trails in the nearby Bucegi Nature Park.

2.1.1. Pollution in Wallachia

The southern part of the region (Călărași, Giurgiu, Ialomița and Teleorman) is traditionally underdeveloped, representing the second poverty area in Romania (the first being in North East Region). This area is characterized by the predominance of the population occupied in agriculture².

The main problems that affect the environment in East Wallachia County regard the air quality in Bucharest and in Prahova Valley.

The number of respiratory diseases has increased from 3.9 to 48.8 / 1,000 people in the past 15 years because of the pollution⁴.

People who live in Bucharest have a lower life expectancy (by 4 years) because of the polluted air. The 1,5 million vehicles which invade the Capital's streets everyday produce an enormous quantity of dust and CO₂, which people inhale.

³ http://en.wikipedia.org/wiki/Category:Development_regions_of_Romania

⁴ [20.000 people killed by pollution in Bucharest > EVZ.ro](http://www.evz.ro/detalii/stiri/20.000%20people%20killed%20by%20pollution%20in%20Bucharest%20%26%20EVZ.ro), available to: <http://www.evz.ro/detalii/stiri/>

Dragos Stan, the president of Eco-Europe says: ‘Bucharest is the Capital of anger, smoke, noises and vibrations, the city of congestion and lack of space’.

Every year now, the same poor infrastructure which was designed some 20 years ago, must face 130.000 more vehicles more. Some 30% of these vehicles run with led based fuels, which were forbidden by the European Union ten years ago.

By inhaling led particles, people could get sick with respiratory and heart diseases and the number of children that are born with led intoxication have reached an alarming level, according to studies carried out by Eco - Europe experts. One out of eight children suffers from asthma.

The environmental impact of transport is evident in urban air quality. As cities continue to grow in size and in their share of the growing global population and economic wealth, their environmental impacts will of necessity continue to be a central theme in the move towards global sustainability. Urbanization brings with it many transformations of nature including pollution. Every city will have a crucial role to play in the minimization of activities contributing to ozone depletion and global warming. The environmental sustainability of cities requires looking both outward and inward in managing the processes of change (Apăscăriței, Popescu, and Ionel 2009).

Experimental determination of the content of Pb and Cd in soil samples taken from DN1 and from 100m distance away from the road, in Prahova County, between Potigrafu and Azuga, reveals the fact that the highest Pb pollution is recorded at the entrance in Campina, followed by Ploiesti, Sinaia and Azuga, and Cd content is highest at the entrance in Baicoi, followed by Busteni and the exit of Prahova County (Trîmbițasu, Neagoe, and Mateescu 2006).

2.1.2. Infrastructure

The region has a well-developed public, European, national and county roads network, comprising 11,999 km (15.1% from the total length) and a railway network with 1703 km (15.4% of the national network). Danube, European fluvial corridor, facilitates the links of this region with other cities, which belongs to this hydrograph basin.

As it regards road transport, the region has a well-developed network, ensured by 5 European roads (E574, E81, E70, E85 and E60) and by the motorways A1 (București - Pitești) and A2 (București – Constanța, partially exploited), but only 29.1% of the total public roads are modernized. The region benefits from the advantage offered by the main European navigation river corridor, the Danube, but is less used both because of reducing the industrial capacity of the city-ports and the lack of the passenger navy transport.

The main international airport from Bucharest is: Bucharest’s Henri Coanda (Otopeni) Airport. It is the largest and busiest; it has flights to nearly all the major cities in Europe, to a few Middle Eastern capitals, to all other Romanian cities.

Environmental infrastructure. The drinkable water for localities supply is ensured by surface and underground water, 29.7% from the localities benefiting from water system supply (out of which 43 cities). The wastewater sewerage networks are presented in 4.6% of the total number of localities, including the 43 cities of the regions, but most of them are underdeveloped, under dimensioned and degraded.

2.2. Oltenia County

Oltenia County has a great touristic potential not yet fully exploited. *Oltenia* (Lesser Wallachia in antiquated versions) is a historical province and geographical region of Romania, in western Wallachia. River Olt, which spring from Transilvania and carries its waters toward the Danube, into the field, gives the name to this old region of Romania, on whose territory rich valleys, harmoniously

mingle fertile plains and proud mountains. Oltenia entirely includes the counties: Gorj, Dolj and parts of the counties: Mehedinți, Valcea, and Olt. Oltenia's main city and its seat for a long period of the middle Ages is Craiova.

Particularities of the architecture in Oltenia are the *kulas* – **cule** – fortified dwellings where boyars used to hide from enemies and watch over their domains, built beginning with the 17th century.

These constructions have a unique character conferred by the restraint of the comfort walls in favor of the defense walls and also by the fact that they are to be found on the territory of Romania only in Oltenia and Arges, while similar constructions in Europe can only be encountered in the Balkans. The houses and manors are an important part of the civil masonry architecture that has gradually begun to emerge in the architecture of market-towns and small towns in Gorj since the end of the 17th century.

Since the 14th century, Oltenia has been the centre of this southern Romanian kingdom. No wonder that Oltenia was always a place of major importance, politically, as well as spiritually. Across the centuries, Wallachian kings, as well as local rulers, used this beautiful natural set-up to build churches and establish monasteries. They did this in moments of great importance for the country, usually to thank God for an important military victory or to celebrate a prosperous period. This way, Oltenia became also an important cultural centre, mainly because of the books printed in most of these monasteries, in the middle Ages. Also, they were a spiritual refuge for the Romanian people during the murky times when Wallachia had to fight for its autonomy against the powerful Ottoman Empire.

The Monasteries of Oltenia are still standing, as beautiful as ever. Monasteries on the Olt Valley are: Cozia, Stanisoara, Bistrita, Frasinei, Hurezi, Surpatele, Govora, Turnu, Cheia, Arnota – in Valcea County, Tismana, Lainici, Polovragi, Stramba and Crasna – in Gorj County. Cozia Monastery has a great spiritual significance for the Romanians, as the founder is one of the brightest figures of our history. Mircea 'The Wise' ruled Wallachia in the 14th century and was the first to defeat the mighty Turks, relieving the country from the danger of foreign occupation. Today he is regarded as a hero. The monastery was built in 1388 in the Byzantine style.

But the largest and architecturally the purest and most beautiful of all Oltenian monasteries is still farther to the west. It is called Horezu and it's the creation of the master builders of King Constantin Brancoveanu in 1694. Many of the most impressive buildings in the south were made in Brancoveanu's time, and the carved stone decorations that are specific to that time now bear his name. Nowadays Horezu is still one of the most important monasteries in the country and many Romanian writers, poets and painters come here to spend a few days in search of inspiration.

Nature has endowed the land of Oltenia with numerous beautiful features: the wild gorges of the Oltet featuring The Polovragi Cave and The Paring Mountains to the north, and the Women's Cave. Apart from these monuments of nature, in Oltenia everyone can be charmed by the numerous crafts still preserved by the inhabitants of the villages from these territories (6). An age-old craft developed on the hills of Oltenia, modeling clay becomes a real art in the hands of old masters, inhabitants of a few villages around Hurez. Everything in this job is a family secret, from the choice of the clay to modeling, to painting, cooking and finally glazing. The resulting plates, mugs, pitchers, and even toys and flutes, display specific colors (especially white, rich browns and grays, and sometimes green) and a specific design. Often symbolic drawings appear on these works. One of the most popular is the Rooster, and another one is the Fish. These motifs also appear in the other artefacts traditionally made in the region (rugs, painted Easter eggs). But most of the earth ware is

decorated in delicate, yet powerful geometric patterns, skillfully painted by the masters' wives using age-old tools such as cows' horns and goose feathers.

Hobita, the native village of the great sculptor Constantin Brancusi, and Tg. Jiu – where his well-known works (The Infinite Column, The Silence Table, and The Kiss Gate) are exhibited in open-air are real pilgrimage sites for the art lovers. In 2007, the Ensemble entered the European Cultural Heritage List, which comprises the objectives related to the ideas and principles that underlie the European Union.

The Danube is an important regional resource and runs along the border with Bulgaria and Serbia on a distance of 417 km. Close to the Danube and to the town of Drobeta Turnu Severin, up in the mountains lies the resort of Herculane. Legend says that Hercules himself used to come here and enjoy the famous mineral water springs.

Archaeological discoveries show that the rich mineral waters at Herculane were known well before the Romans conquered the region, in the first century AD. But since they were great engineers, the Romans developed the region, building public baths for everyone to enjoy. Today, little remains of the original constructions, but nevertheless the tradition is carried on.

The modern resort at Herculane is beautifully placed in majestic scenery, and can be a great place to relax away from the busy towns. The city square proudly displays a large statue of Hercules. Baile Herculane is also, the oldest spa in Romania, dating from Roman times, recommended in the treatment of degenerative rheumatic pains, inflammatory diseases, diseases of the peripheral nervous system and other related diseases;

Oltenia County is one of the counties rich in natural resources, in terms of both quantity and diversity. These resources can be identified at the level of agricultural and forest lands, as well as at the level of surface and underground mineral resources. The water resources are also important, as Oltenia County is situated in a hydrographic basin with internal resources superior to the country average. The ground water, however, has a high degree of vulnerability in the central-western part of the county, due to pollution risk generated by the extractive activities in the area.

Oltenia has rich tourism potential, topography and natural resources constitute the economic development of the premises of region. These are on 2nd place in Romania, after Moldova.

2.2.1. Oltenia's Environment

The main problems that affect the environment in Oltenia counties regard mainly the soil erosion and the danger of desertification within Dolj and Olt counties, the soil quality due to mining activities within Gorj and Mehedinti counties and chemical substances in Valcea, the air quality in Olt County and the danger of land slide in Valcea County.

Main industries existing in Gorj are: coal (lignite) mining in basins in Rovinari, Motru, oil and natural gas extraction in ranges Hurezani, Ticleni, Stoina, producing electricity from thermal power plants Turceni and Rovinari, producing electricity in hydroelectric plants (the rivers: Jiu-Cerna-Oltet and Motru Tismana). construction products (Tg. Jiu, Tg. Carbunesti), exploitation and wood processing (Tg. Jiu Novaci, Baia de Fier, Tismana Pades), construction machinery, mining equipment (Tg. Jiu, Rovinari, Motru Jilt).

Like in the entire area, industry and agriculture are the key economic components, which point low flexibility of the companies. Although services have to account for a larger share of the Gross Domestic Product in the past few years, the larger part of the population is still working in the industry – 30% of the total workforce (110,000 people). Rural tourism in Oltenia has been practiced for a little time. There are houses and hostels in the region that have adapted to the specific needs of this type of tourism. Rural areas offer a genuine hospitality based on unpolluted environment, quality

wines and cuisine, and well-known folk traditions of Oltenia. Given the generally low level of basic rural infrastructure such tourism meets some difficulties in terms of international competitiveness.

Oltenia area has a high risk of desertification; therefore the 'agro-forestry' concept that has to achieve an equilibrated ratio between the agricultural agro-ecosystems (including pastoral ones) and forestry ecosystems, and unitary norms for environment protection has to be started. The usage in a rational way of the tourism in this area involves a global development.

Tourism can cause a negative impact on the environment through: intensive use of water and land by recreational facilities, provision and use of energy resources, the natural changes occurring after construction of infrastructure, air pollution and waste disposal, compaction and soil sealing (destruction of vegetation), disrupting wildlife and residents of the area (because of noise).

2.2.1. Infrastructure

Oltenia region has a relatively well developed transport infrastructure. Three European Roads cross the region, one of them (E 70) links the Capital to Timisoara, the doorway towards the Occident, and by 2 of 3 Pan – European corridors, namely: the IVth corridor Berlin/ Nurenberg-Praga- Budapesta –Constanta– Istanbul -Salonic and the Danube River corridor VII).

Craiova airport, which could represent a real push for the economic development and could contribute to the activity development, is used only periodically⁵.

The traffic on the navigable routes is almost exclusively realized on the Danube. The European roads ensure efficient links with the 5 ports within the region: Drobeta Turnu - Severin, Orsova, Calafat, Bechet and Corabia, this ones being poorly equipped with expensive transshipment and insufficiently managed.

Environmental infrastructure. Regarding the utilities infrastructure, the region has a weak endowment with drinkable water installations (16.5% of the total localities connected to a delivery drinkable water system, compared to the national level of 21%) and sewerage (2.8% from total localities compared to the national level 4.4%). The analysis by counties reveals a low utility endowment in Dolj County (only 3.6% of the localities were connected to the drinkable water network and 2.1% to the sewerage network)⁵ (7).

2.3. Dobrudja County

The Southeastern part of Romania, bordering the sea, is called Dobrudja. Dobrudja covers an area of 200 km from north (the border with the Ukraine) to south (the border with Bulgaria), and almost 160 km from west (the Danube) to east (the Black Sea). Because of its location exploiting the strategic advantages of both the Sea and the Danube, this has been a region of intense political and military turmoil since the dawn of time. Centuries later, the whole of Dobrudja is a live archaeological site, and the ongoing discoveries help shed more light on the facts of the past and on the incredible ancient prosperity of this region. The all of this started when the Greeks began colonizing the Black Sea Shores in the late 7th century BC, looking for new trading grounds. The Greeks were an evolved society, and they contributed quite a lot to the economic and cultural development of the local people. The colonists were interested in gold and natural products such as honey, oil and resin, which they would exchange for fabric and fine pottery, which they brought from Greece. The business was good, and soon the newly created colonies became large and prosperous settlements. A few kilometers North Constanta, Histria was the first of the Greek colonies. It was followed by Callatis, now Mangalia, and Argamum, on the shore of Lake Razelm. Although it started as a small,

⁵ South-West Region, Demo-geographic characteristics, available to www.mdrl.ro/documente/regiuni/1.SV

secondary colony, the city of Tomis soon became the most important Greek settlement and the military capital, and centuries later turned into the modern city of Constanta.

Dobrudja is defined by three main characteristics:

- it is the place where you encounter some of the oldest mountains on the Earth (Macin Mountains, included in the Hercinic chain, 400 million years old) and also the youngest territory in Europe (the Danube Delta);
- it is an insular land, almost completely surrounded by waters (the Danube river in the west and north, the Danube-Black Sea Canal in the east);
- it is a historical, artistic and natural mosaic with very strong landmarks: Neolithic traces, Getic and Dacian vestiges, and ruins of Greek, Roman and Genoese strongholds, Ottoman vestiges, perfectly intermingling with the culture of the place.

The main attraction of Dobrudja is the Black Sea Coast, with its fine sands, mild climate, few rains, mild winters and winds. Located in the south-east of Romania, the Black Sea Coast has a length of 245 km (152 miles), between Chilia, in the Danube Delta, and Vama Veche, at the border with Bulgaria. The length of the beaches is 80 km (50 miles) and their breadth varies between 50 and 250 meters (between 55 and 273 yards).

The Black Sea is a continental sea and the advantage of being tide less. Its salinity is much lower than other seas. A range of summer resorts with names inspired by Roman mythology (Olimp, Neptun, Jupiter, Venus, Aurora, Saturn) was developed at the end of 1960s and early 1970s near the old resorts Mamaia, Eforie Nord, Eforie Sud and Mangalia. These were known since the early 1900s. A local attraction is the Techirghiol Lake, for its therapeutic black mud. The treatments available cover a range of diseases from the central and peripheral nervous system problems to dermatological diseases.

The Danube Delta, the third wet zone of the Earth (after the deltas of the Amazon and of the Nile) is formed by channels, banks, gulfs, marine and river natural dunes that continuously change the geography of the Natural Reserve. The three main branches - Chilia, Sulina, and Sfantu Gheorghe/Saint George - enclose the largest natural reserve in Romania (approximately 50,000 hectares). In 1971, the Danube Delta was declared a Biosphere Reserve by UNESCO and is one of the most important areas included in the Convention of Wetlands signed at Ramsar, Iran.

Being the third largest Delta in Europe, the Danube Delta hosts 98% of the European aquatic fauna. The Danube Delta covers a territory of 3,446 km² (1,610 square miles). Hosting more than 3,400 bird species, some of them unique in the world, the Danube Delta can be considered the European birds paradise.

The ionized air, the unpolluted climate, the fine sands and the hospitality of the people are good reasons to come here over and over again (Source: www.worldtravelguide.net/romania).

Constanta is also a centre of art and culture, with several museums and theatres. The archaeological museum has an important collection of ancient treasures discovered along the Black Sea coast, among which the remains of a large Roman mosaic tile floor. The museum's richness is no surprise. The most prized exponents are marble mythological statues, one of a serpent with an antelope's head, human ears and a lion's tail. Outside the museum, some ancient tombstone epitaphs almost bring their possessors back to life with their clever rimes. Apart from the museum, evidence of the city's Greek, Roman, and Byzantine past is scattered around the city park, huge amphorae and ancient wall remains.

The Art Museum, hosted in a modern bulging on the main boulevard, has a rich collection of 20th Century Romanian paintings by Petrascu, Aman, and Iser.

A few km from Constanta is the big Mahmudie Mosque, a landmark of the Turkish influence over the region. The mosque is the residence of the Mufti, the spiritual leader of Romanian Muslims.

2.3.1. Environment in Dobrogea

In this County, agriculture is the dominant activity while the coastal zone and the continental shelf offer various conditions to tap underground deposits (oil, natural gas), to turn to advantage aquatic resources and seashore tourism (Dogaru 2007).

Industrial development, diversification and location had cascading effects, bringing about changes in the other economic sectors, in social life and the environment. Thus, the agricultural sector evolved simultaneously with the industrialization process, benefiting by the automation of agricultural works and production, and the creation of a large irrigation system.

Urbanization was boosted not only by the higher concentration of people and activities in sea-towns, but also by the expansion and diversification of the urban landscape. As a result, the agricultural area shrank, infrastructure developed (e.g. transport networks - the construction of the Danube-Black Sea Canal (1984), dykes were built at different angles against the cliff with negative impact on the accumulation of sea sediment and on the transport and circulation of water currents, etc.). Also in this case there are clear-cut differences in the degree of urbanization (72.9 % vs. 51%) and economic development between Constanta County in the south and Tulcea County in the north.

Although industrial development brought about economic progress for the whole region, and particularly for the coastal zone, the environmental effects of locating and conducting economic activities were little considered.

2.3.2. Infrastructure

The area is connected to all the regions of the country by a road and railway network. 20% of the road network has been renewed recently. Galati and Braila cities allow the fluvial transit of ships and barges.

Environmental infrastructure. The drinking water distribution network covers 71% of the population. Investments for enlarging the aqueducts are in progress. A waste water purifying system exists only in Braila City. The sewage system needs fulfillment and maintenance actions. The electrification and natural gas distribution network covers the entire region.

2.4. Moldavia and Bucovina County

Moldavia (*Moldova*) is a geographic and historical region and former principality in Eastern Europe, corresponding to the territory between the Eastern Carpathians and the Dniester river. An initially independent and later autonomous state, it existed from the 14th century to 1859, when it united with Wallachia as the basis of the modern Romanian state; at various times, the state included the regions of Bessarabia (with the Budjak), all of Bukovina and (under Stephen the Great) Pokuttya. The western part of Moldavia is now part of Romania and the eastern part belongs to the Republic of Moldova, while the northern and south-eastern parts are territories of Ukraine.

Bucovina - the north-eastern province of Romania - is renowned for the beautiful exterior frescoes on the walls of its monasteries. These triumphs of Byzantine-influenced art reflect a development of Moldavian civilization in the 15th and 16th centuries, under the patronage of Stephen the Great (1457-1504).

Moldavia has an extensive countryside of forests and hills, with many lesser known delights to discover, especially in the region of Tg. Neamt. Tg. Neamt is the access point for a remarkable group of monasteries and fortresses that are definitely worth a detour.

Iasi is the home of Romania's oldest University and a centre of intellectual life.

Many well-known Romanian writers' houses are preserved as memorials. The best known monument of the city is the Trei Ierarhi Church, dating from 1639. In Suceava, which has direct airline and rail links with Bucharest, it is worth going up to the ruins of Stephen's princely citadel on the heights near the city.

Moldavian cooking and local wines are widely appreciated. Moldavian wines have been known for five centuries.

The 18th century convent of Agapia gleams as white as if it stood on a Greek Island. The Monastery in Neamt is the oldest in Moldavia, while the Neamt fortress used to be a key to the region's defense. A little to the west is the mountain and ski resort of Durau.

The Monasteries in Bucovina. The decorated monasteries are the major attraction in Bucovina because of the vivid frescoes on their churches. The latter depict Biblical and other religious scenes, designed in segments almost like strip cartoons to stir the imagination of the local people and so educate them in the Orthodox spirit. The churches stand in the centre of the monastery complex and all of them have high pitched roofs and little sunlight comes inside.

Humor, founded in 1530, is quite small. Its paintings include illustration of a poem on the 'The Siege of Constantinople', which shows the feelings of the Romanians towards the Turks. The aim was to maintain the Christian faith among Romanians. On other walls are the 'Return of the Prodigal Son' and the Devil amusingly pictured as a greedy woman. Centuries ago the monks here at Humor ran a school where calligraphers and miniature painters learnt their craft.

Voronet. This 'Sixtine Chapel of the East' was built by Stephen the Great in 1488 and the vivid colors of its frescoes added later. The paintings show an adaptation of classic Byzantine art to Moldavian realities. Thus the archangels' trumpets take the shape of the local shepherds' horn or 'bucium' and souls doomed to hellfire wear the turbans of the Turkish enemy.

The *Sucevita* Monastery complex, set in a beautiful green valley, is fortified like a citadel with watch towers at its four corners. Thousands of pictures decorate the walls of the church. In fact they outnumber the pictures at any of the other monasteries, yet the western wall is blank. Legend says it that the artist fell off the wall scaffolding and was killed, so it remained undecorated.

This tourism destination also hosts many memorial houses of some personalities such as: Ion Creangă (Iași), Mihai Eminescu (Ipoțești), Vasile Alecsandri (Mircești), George Enescu (Liveni), Nicolae Labiș (Mălini), Ciprian Porumbescu (Stupca). Along with the religious tourism, the recreation and the cure are sporadically practiced, in the suburban areas (entertainment) and in the areas with mineral water (medical spa activities), a widespread form of tourism being represented by the transit tourism practiced by many external tourists coming from the Republic of Moldova and Ukraine (Cocean 2010).

2.4.1. Environment in Moldavia

The region has 6 counties: Bacău, Botoșani, Neamț, Iași, Suceava and Vaslui.

The North – East development region is the most underdeveloped region in Romania (in 2003 the GDP/capita was 72.3% of the national average).

The Western part of the region, which in the 60s and 70s has been the subject to a forced industrialisation (metal manufacturing, furniture, chemistry, construction materials, car manufacturing, textiles), has started a des-industrialization process for the past 10 years (chemical industry, petrochemistry, machinery, furniture, textile), which has aggravated the economical situation, whereas the Eastern part of the region is traditionally underdeveloped.

The natural environment in Moldova suffers from the heavy use of agricultural chemicals (including banned pesticides such as DDT), which have contaminated soil and groundwater. Poor

farming methods have caused widespread soil erosion. Climatic changes, erosion phenomena, desertification, water pollution, air pollution, soil pollution, cutting forests and especially rain forests, raw materials crisis, all these negatively affects the social-economic development and the quality of human life.

Moldavia's economy includes a mixture of industry and agriculture. Iasi is the principal center of industrial activity in Moldavia. Located in North Eastern Romania, Iași is one of the largest cities in Romania, with about 300,000 inhabitants. Until 1989 it was highly industrialized (chemicals, pharmaceuticals, metallurgic and heavy equipment, textiles, food, energetic and furniture industry). The city showed a slow decrease of industrial activities during 1991-2008 period. In the same time, the number of cars increased, and the extension of the residential areas as well (Apostoaie, and Iancu 2009).

Another big problem is the industrial wastes along the Prut.

In this region the main environmental problems are linked to: poor management of the industrial and housing waste (non-selective collection, decreased level of revalorisation and/or treatment of waste, inadequate depositing, existing sawdust deposits on river shores alongside roads); The derelict former public enterprises; Deforestation, with implications in amplifying the land slips; Soil erosion phenomena which affect, mainly, the east side of the region.⁶

2.4.2. Infrastructure

Due to the fact that the region is crossed by a number of European roads (E85, E576, E574, E581, E583) the public roads density is 36.3 km/km², exceeding the country average (33.1 km/km²), higher in Iasi, Botoșani, Vaslui and Bacău counties. There are few modernized public roads, their percentage being smaller than the country average (25.3%), Botoșani and Iași counties having 16.7%, respectively 17.6%. Due to the predominant mountain relief, Neamț and Suceava counties are confronting accessibility problems. Within the region there are three airports (Bacău, Iași and Suceava) that host internal and occasionally external flights. The existing infrastructure does not allow any of the airports to perform regulate passengers and cargo flights⁵.

Environmental infrastructure. The roads, water and sewerage infrastructure networks raise problems in the majority of the counties, the most affected being Botoșani, Iași and Vaslui. They are also confronted with an obvious lagging behind of the industrial and agricultural technology, a low level of people qualification, as well as with environmental problems, caused by the lack of water resources, deforestation, considerable earth glides and a deep phreatic layer. Both the water supply and sewerage networks are insufficiently developed: the percentage of localities with water supply is only 17% as compared with national average (20.2%), Iași and Vaslui counties have only 2.8%, respectively 2.9% sewerage networks. Moreover, both the residual water cleaning capacity, and the waste dump capacity are insufficient comparative with the current needs. Only 2.1% of the total number of localities is connected to the gas distribution network with the highest percentage in Bacău, Iași and Neamț counties. It was observed a continuous drop in the number of localities connected to the thermal energy network. 6.9% of North East localities are connected to the thermal energy distribution network, higher values been registered in Bacău, Suceava and Neamț Counties. Moreover, these are also confronted with environmental problems, caused by the lack of water resources (consequence of a deep phreatic layer), deforestation and considerable glides (earth flows)⁵.

⁶ North-East Region, Demo-geographic characteristics, available to www.mdrl.ro/documente/regiuni/

2.5. Transylvania County

Transylvania (*Ardeal* or *Transilvania*) is a historical region in the central part of Romania. Bounded on the east and south by the Carpathian mountain range, historical Transylvania extended in the west to the Apuseni Mountains; however, the term sometimes encompasses not only Transylvania proper, but also the historical regions of Crişana, Maramureş, and Romanian part of Banat.

Transylvania has been dominated by several different peoples and countries throughout its history. It was once the nucleus of the Kingdom of Dacia (82 BC–106 AD). In 106 AD the Roman Empire conquered the territory and after that its wealth was systematically exploited. After the Roman legions withdrew in 271 AD, it was overrun by a succession of various tribes, which subjected it to various influences.

The Habsburgs acquired the territory shortly after the Battle of Vienna in 1683. After the Ausgleich of 1867 the Principality of Transylvania was abolished and its territory was absorbed into Transleithania or Hungarian part of the newly established Austro-Hungarian Empire.

Transylvania is by far the most romantic and inspiring of Romania’s provinces. Its very name brings to mind visions of mountain peaks rising up to the sky above wooded valleys and sparkling streams, visions of high-roofed wooden churches, legendary castles and a troubled history. But there is much more to it: ski resorts and health spas, hiking trails and the Retezat National Park, fascinating medieval towns, art museums and good hotels.

Brasov and Romania’s Mountain Resorts. This medieval city, picturesquely situated nearby the Postavaru Mountain, is both fascinating in itself and is close to Transylvania’s major mountain resort area. Look for its old Saxon architecture around the 14th century Black Church, the ruins of the citadel, and the 18th century Old Town Hall.

The Bran Castle and the Royal Resort of Sinaia. A trip to take from Brasov is to the castle of Bran, supposed to have been the home of Prince Vlad Tepes, who inspired Dracula’s legend. Transylvania is often associated with *Dracula* (Bram Stoker’s novel and its film adaptations), and the horror genre in general, while the region is also known for the scenic beauty of its Carpathian landscape and its rich history.

Sibiu. Sibiu, also Saxon in origin, is a very pretty town, with cobbled streets and pastel colored houses. The open air Museum of Folk Technology in woodland by a lake is a ‘must’ to visit, just as the Brukenthal Art Museum. The town is well placed for excursions to mountain villages, such as Sibiel, where there is a fascinating museum of icons.

Further away near Deva stands the Corvin Castle, rebuilt in the 15th century in Gothic style by Prince Iancu Corvin, who gave it a sumptuous Knights Hall and towers and buttresses that remind one of the Chateaux de la Loire.

Banat. This south-western corner of the country has a drier, more Mediterranean climate than most of Romania and is also slightly different from the cultural point of view.

Habsburg rule until 1918 gave it an Art Nouveau architecture, while almost 1,900 years earlier the Romans had established a spa at Baile Herculane that is still one of Romania’s most fashionable ones.

Nearby Mount Domogled is a 60,000 ha protected area, while the Semenic Mountains have a few small ski resorts. Finally, the capital of Banat, Timisoara, is the city where the 1989 Revolution started.

Medieval Sighisoara. Originally a Roman town, Sighisoara is one of the greatest medieval cities left in the world. The city has a walled citadel on the hilltop, secret gateways and passages, a 14th century Clock Tower and the house where Prince Vlad Tepes lived.

Festivals and Folklore. Everywhere in Transylvania, the tourists will discover rural traditions that are a real part of everyday life. Shepherds produce large round cheese which you will see for sale by the roadside.

The house doors are intricately carved. Colourful traditional costumes are worn on Sundays and for weddings and festivals because they have special meaning.

The *Merry Cemetery (Cimitirul Vesel)* is a cemetery in the village of Săpânța, Maramureș county, Romania. It is famous for its colorful tombstones with naïve paintings describing, in an original and poetic manner, the persons that are buried there as well as scenes from their lives. The Merry Cemetery became an open-air museum and a national tourist attraction. The unusual feature of this cemetery is that it diverges from the prevalent belief, culturally shared within European societies – a belief that views death as something indelibly solemn. Connections with the local Dacian culture have been made, a culture whose philosophical tenets presumably vouched for the immortality of the soul and the belief that death was a moment filled with joy and anticipation for a better life (Stăncioiu *et al.* 2011).

2.5.1. Transylvanian Environment

Transylvanian areas, is known as mining, chemical or metallurgy industry centres. The main characteristics of the pollution centres included into analysis were as follows:

- Târnăveni, situated on the Târnava Mica River, an important chemical industry centre. To date, the acetylene is the only product of the chemical industry, but the previous activities must also be considered. Nitrogen S.A. factory was built in 1916 and the main chemical produced were mercury, gold, bismuth, barium salts, copper sulphate, sodium and potassium dichromate, sulphuric acid.

- Copșa Mică, situated on the Târnava Mare River, the most polluted area in the Sibiu County, was classified as an environmental disaster area. The town is best known in Europe for its status (in the 1990s) as one of the most polluted in Europe. The S.C. Sometra S.A., a non-ferrous metallurgical factory, is the main industry responsible by the pollution. The emissions coming from the others economic agents from the industrial platform of Mediaș city (S.C. Emailul, S.C. Vitrometan, and S.C. Geromed) is add to the pollution in this area.

- Zlatna, a west Carpathians mining region, particularly known due to its old polymetallic ores processing enterprises. Zlatna town is known as of the top 10 pollution 'hot spots' in Romania. The town is also a chemical centre preparing different mineral salts. The soil structures in the area consist of cambiosols, luvisols and regosols, with high and moderate vulnerability to the pollution. Due to the pollutant industries in Zlatna, the mean annual atmospheric emissions were of 41 000 tones SO₂ and 2715 tones dust (Pb: 44%, Zn: 26%, Cu: 21%) in 1999. It is known that Zlatna soil (around the industrial complex) is loaded with Pb, Cu, Zn and Cd at content levels exceeding up the maximum allowable limits.

- Câmpia Turzii, situated on the inferior course of the Arieș River, in the proximity of the Turda city, in an area where the brown soils prevail. The Industria Sârmei S.A. is the main economic agent (one of the biggest metallurgical units in Romania, manufacturing 41% of the production of wire drawing with a low concentration of carbon). Other two important contributors are CERCOM S.A. (ceramic products), and Chemical Independent Group S.A. (chemical industry).

To date, there are no surveys referring to the pollution generated in the city's neighbouring area of above cities and areas even if it is known that are important polluting centre (Suciu *et al.* 2008).

2.5.2. Infrastructure

The sub-region includes the territory of Timiș and Arad counties with early, complex and diversified industrial development (light industry, machinery industry, electro-technical industry) is currently the favorite area for foreign productive investments in Romania. Against the background of numerous jobs created that require a highly qualified workforce and of massive population migration during the past years (German population migration has accentuated this phenomenon), the sub-region is facing a more and more pronounced lack of needed labor force. The new investments in the area are confronted with the lack of appropriate infrastructure for development (water supply and communication means)⁷.

West Region is crossed by two of the three pan-European corridors – corridor IV Berlin /Nurnberg – Praga – Budapesta, which on Romanian territory has two branches, respectively Nădlac-Arad-Calafat-Vidin and Nădlac-Arad-București-Constanța, and corridor VII – the Danube, by five European roads and three international railways.

In 2004, West Region had a railway network of 2007 km, representing 18.15% of the national total. The roads network is well developed and with a relatively balanced territorial coverage of public roads of 10,205 km (12.84% of the national total) out of which 1,882 km are national roads and 8,323 km county and communal roads. Out of the total public roads, 26% are modernized, whilst at national level 26.3% is covered. The public roads density, of 31.9 km/100 km², is very close to the national average (33.3 km/100 km²). By counties, the differences are significant between Hunedoara (44.2 km/100 km²) and Caraș-Severin (22.8 km/100 km²). The road infrastructure at the frontiers is partly modernized and needs new investments.

Environmental infrastructure. The length of the water network of West Region is 5,274 km, representing 11.72% of a national total of 44,987 km. 84 of West Region localities have sewerage networks. The total simple length of the sewerage pipes in West Region is of 2,189 km, representing 12.49% of the national sewage length at national level (17,514 km). They cover mainly towns, with a concentration in the blocks' neighborhoods. Many of the sewage networks are highly damaged, physically and especially morally. The length of the natural gas provision system, of 2,917 km, represents 11.27% of the length of natural gas network in the country (25,879 km).

3. Conclusions

In Romania new vistas and leisure activities appear everywhere. Attractiveness of tourism resources Romania's tourist attractions give this country one of the most diversified tourism products worldwide, as a consequence of twinning the natural resources it holds, the unique biodiversity of flora and fauna in Europe, with the anthropic resources.

But, in some areas from Romania, there are serious problems relating to the disposal of wastewater and rainwater, with a significant negative impact on the environment. Romania has many problems regarding polluted soils and air, because the industrial activities don't have adequate equipments for the waste water or burning gases treatment.

A special problem is the waste storage, the all regions having only a few adequate waste deposits that are located especially within the urban centres. The lack of investments for the modernization of

⁷ West Region, Demo-geographic characteristics, available to www.mdrl.ro/documente/regiuni/1.W

public sewerage and drinkable water networks affects the quality of the water provided with consequences on the population health.

A poor transport infrastructure, high unemployment, low incomes, too high dependence on agriculture, a low level of industrial activities, lack of quality training, environmental issues, have all led to a decrease in tourism in Romania in 2009. In the same time, the poor infrastructure of Romania which features the lowest railway density, hardly any trade relations over the Danube and business consultancy, low hotel standards, bad endowed ports, a low productivity of the agricultural sector and poverty effects are problems which decrease the number of tourists in Romania but, unfortunately the Strategic Plans for Tourism Development in Romania remained, only on paper.

4. References

- [1] Pop, C., Cosma, S., Negrusa, A., Ionescu, C., and Marinescu, N. 2007. *Romania as a Tourist Destination and the Romanian Hotel Industry*. Cambridge Scholars Publishing.
- [2] Ungureanu, L. 2009. A dynamical model for the pollution of water. *Journal of Environmental Protection and Ecology*, No.1, pp. 23-32, Volume 10/2009.
- [3] World Travel and Tourism Council, World Tourism Organization and the Earth Council: Agenda 21 for the Travel & Tourism Industry: Towards Environmentally Sustainable Development, 1996.
- [4] Apăscăriței, M., Popescu, F., IoneL, H.I. 2009. Air pollution level in urban region of Bucharest and in rural region. Proceedings of the 11th WSEAS International Conference on Sustainability in Science Engineering, ISSN: 1790-2769 330 ISBN: 978-960-474-080-2.
- [5] Trîmbițasu, E., Neagoe, S., and Mateescu, C. 2006. Investigation of soil pollution with Pb and Cd. *Analele Universității din Bucuresti – Chimie, Anul XV (serie nouă), vol. II, pag. 15-19.*
- [6] Regional Development Plan 2004 - 2006 South-West Oltenia ([Planul de Dezvoltare Regională Sud-Vest Oltenia 2004 - 2006](#)).
- [7] [www.mdrl.ro/ documente/regiuni/4.SW](http://www.mdrl.ro/documente/regiuni/4.SW)
- [8] www.worldtravelguide.net/romania
- [9] Dogaru, D. 2007. Population and economic activities in the Dobrogea Plateau and the Black Sea coastal hinterland. Proceedings of the 4th Romanian-Turkish Geographic Seminar, Galati 2006: 'Environment and Society Present-day Diversity and Dynamics', Ed. Universitară, București, ISBN 978-973-749-198-5, p.185-194.
- [10] Cocean, P. 2010. *Heritage Tour of Romania (Patrimoniul turistic al României)* (in Romanian). Editura Presa Universitară Clujeană, Cluj-Napoca.
- [11] Apostoae, L., and Iancu, O.G. 2009. Heavy metal pollution in the soils of Iași city and the suburban areas (Romania), *Studia Universitatis Babeș-Bolyai, Geologia*, 2009, Special Issue, MAEGS – 16.
- [12] Stăncioiu, A.F., Pârgaru, I., Teodorescu, N., Vlădoi, A.D., Rațiu, M.P. 2011. Moldavia and Maramureș – Micro-destinations for Relaunching the Romanian Tourism. *Theoretical and Applied Economics*, Volume XVIII (2011), No. 10(563), pp. 45-56.
- [13] Suci, I., Cosma, C., Todică, M., Bolboacă, S.D., and Jäntschi, L. 2008. Analysis of Soil Heavy Metal Pollution and Pattern in Central Transylvania. *Int. J. Mol. Sci.* 2008, 9.

ECOTOURISM AS A MODEL FOR SUSTAINABLE DEVELOPMENT IN LATVIA

Eriks LEITIS

University of Latvia, Riga, Latvia
Faculty of Geography and Earth Sciences
eriks.leitis1@lu.lv

Abstract:

It should be recognized as a matter of fact that ecotourism promotes sustainable development in general and conservation of biodiversity in particular. This form of environmentally sound tourism is able to carry out projects demonstrating good environmental management, social responsibility, and sustainable economics and to provide a positive example for the entire tourism industry- not only in protected nature territories - but also throughout the country as a whole.

Ecotourism in Latvia is still a novelty, thus making it a necessity to develop an effective ecotourism model, which will then serve as an important tool for protecting the environment and to promote the welfare of local residents. It will also serve to build awareness of ecotourism through further discourse. This study which serves as the basis for the creation of the ecotourism model covers the Natura 2000 territories in Latvia in the context of the appropriate national legal acts and strategies, the development of the definition of ecotourism and with the co-operation of the parties involved.

Keywords: Biodiversity, environmental management, legal acts, ecotourism, protected nature territories, heritage, Latvia

1. Introduction

Tourism is a growing industry and it is anticipated that in the future an increasing number of activities will be arranged in attractive, but highly-sensitive *Natura 2000* areas. For this reason, an appropriate management system must be developed for *Specially Protected Nature Territories* to minimize the environmental impact caused by the tourist industry and others. The principal aim of the Latvian Environmental Policy is to provide the community with an opportunity to live in a clean and harmonized environment by implementing sustainable development, maintaining environmental quality and biodiversity, by ensuring the sustainable use of natural resources, as well as by providing up-to-date environmental information and encouraging public participation in decision-making processes. The protection of biodiversity is a difficult but essential process to ensure ecosystem services and to guarantee sustainable development. In modern society economic activities increasingly tend to deplete natural resources and to degrade the environment, the restoration of which will ultimately be disproportionately expensive. Once scientific research has been conducted on environmental impact assessment and the capacity of ecosystem services these activities need to be developed. Ecotourism in Latvia is seen as a possible opportunity for better nature conservation and for sustainable development.

2. Background information

In most cases, as global experience has shown, environmental degradation tends to be irreversible (Millennium Ecosystem Assessment 2005). To avoid this possibility and to develop a balanced approach between environmental protection and economic development it is necessary to undertake a policy analysis of the appropriate sector and to study the situation *in the field* in order to

identify factors such as e.g. anthropogenic pressure and to reduce their impact by developing recommendations for policy improvement and implementation.

As a result of the overall decreasing importance of agriculture in Latvia, the development of tourism in rural areas is becoming an important alternative and ecotourism, due to its attractiveness and flexibility, is now considered to be one of the most effective forms of small and medium business development for local economies in the municipalities to be found within protected nature territories. Local governments and communities are constantly seeking to promote alternative models of tourism, such as ecotourism, which is regarded in Latvia as being the most viable option for continued environmentally supportive economic development. The directions of planning and development in ecotourism, according to definition - ecotourism: responsible travel to natural areas that conserves the environment and improves the well-being of local people are characterized by the following principles: minimize impact; build environmental and cultural awareness and respect; provide positive experiences for both visitors and hosts; provide direct financial benefits for conservation; provide financial benefits and empowerment for local people; raise sensitivity to host countries' political, environmental, and social climate (TIES, Our Mission 2009). The purpose of this research is to analyze environmental and tourism policy, practice of ecotourism, as it influences the impact on biodiversity caused by tourism - one of the most intensive social - economic activities on a protected nature territories and to propose recommendations for sustainable management in form of ecotourism as well as for a lessening of the impact of anthropogenic footprint for these territories.

Latvia has ratified several international conventions and passed many laws and regulations with regard to biodiversity protection in protected nature areas. Environmental policy and biodiversity protection is guaranteed by national legislation, including the *Law on Specially Protected Nature Territories*, the *Law on the Conservation of Species and Biotops*, the *Environmental Protection Law*, the *Cabinet Regulation No. 264 (16.03.2010) „General Regulations on Protection and Use of Specially Protected Nature Territories’* and a number of other Cabinet Regulations that determine aspects of governing planning, management and environmental impact assessment procedures. It should be added that the *Latvian Ecotourism Development Strategy* is still the most complete ecotourism policy-planning document in our country and as such is the first detailed ecotourism planning document that also takes into account global experience and the prospects for ecotourism in Latvia. The document prescribes a development strategy and has identified measures that need to be taken to implement this strategy.

3. Literature review

A philosophy of Environmental Ethics, as well as of Cultural Environment is at the core of ecotourism because of the close relationship between the values orientation of a consumer society that is also in accord with the principles of sustainability. The results of studies from around the world reveal that ecotourism, if properly planned and implemented, has a minimal impact and does not carry with it any long-term residue on the wildlife in protected nature territories (Kridler *et al.* 2010; Perkins, Grace 2009). Bearing in mind that ecotourism is generally more associated with the exploration of nature, it is important to take note that these general definitions and concepts are enhanced by aspects of living indigenous cultural and national heritage. Many experts have called for an increased emphasis on cultural sensitivity and on the universal nature of ecotourism, pointing to the diversity of culture, values and ethics. (Cater 2006; Donohoe, Needham 2006; Holly 2010). More than a few experts have also raised the issue of environmental ethics within the development of ecotourism (Fennell 2000; Weaver 2001). An integration of environmental ethics and philosophy in the theory and practice of ecotourism provides for a deeper understanding of the age-old human – environment relations, the necessity for nature conservation and for the introduction of a model of

sustainable consumption - which is considered to be an innovative concept not only for local, but also for the broader range of ecotourism activities in Latvia.

The newest ecotourism research is employing innovative methodologies such as the *socio-ecological-systems* approach to identify and to study in-depth the links between ecotourism and environmental awareness in the context of local culture. No less effort is being implemented in the study of the benefits of economic investment in areas of natural ecosystem protection and in the social well being of local people. This hierarchical approach allows for the differentiation of the impact of ecotourism at different levels and for various areas of potential public engagement with the environment (Dredge 2006).

An increasing number of scientists have pointed out that any and all hypothetical eco-environmental protection plans will make a greater contribution if more public participation is facilitated and that this will only serve to strengthen the local authorities and councils in the sustainable management and development of their property (Stronza, Gordillo 2008; Hunt, Stronza 2009). There is already sufficient evidence to prove that the involvement of local people in ecotourism projects has promoted environmental education and awareness of the non-consuming exploitation of resources.

Local governments are now most closely associated with ecotourism. They can influence ecotourism development processes with the following action:

- the development of programs and spatial area planning, involving local residents and businesses,
- the funding ecotourism development,
- the authorization of use of natural resources for ecotourism purposes.

The analysis of the definition of ecotourism by many researchers has clearly indicated that objects of cultural significance are the second most important resource after natural objects (Fennell 2001; Buckley 2003; Weaver, Lawton 2007; Anderson 2009; Fletcher 2009). A high quality of education and training in the discipline of ecotourism can only serve to increase not only the idea of cultural identity, but also awareness and support for the protection of our environmental resources (Monteros 2002; Sheng-Hsiung, Tsaur *et al.* 2006).

The condition of welfare for local communities included in the definition of ecotourism is that quality which differentiates ecotourism from other related forms of tourism - *green* tourism, *nature* tourism, *rural* tourism and others. Experts have argued the case that ecotourism ensures an income for local communities and allows them to control their own development processes (Loon, Polakow 2001; Honey 2008). Ecotourism has in fact launched a broad debate in the context of support for local economy and community prosperity, but little attention has been devoted to any research on how these investments would need to be identified, measured and implemented for specific environmental goals. (Krüger 2005; Zambrano *et al.* 2010).

An environmental philosophy that includes more comprehensive and holistic considerations, the well-being of future generations, environmental restoration, natural aesthetic values of conservation, environmental protection, as well as the debate on nature and human relationships (Belshaw 2001; Vide un ilgtspējīga attīstība 2009) provides a philosophical justification for the ecotourism strategy (Butcher 2008). In terms of environmental management, it is important to explore the financially less-intensive, environment-friendly and more intensive models of the existing human –environmental equation (Atstāja *et al.* 2011).

4. Methods

Policy content analysis and examination of policy planning documents, spatial plans and development programs of municipalities as well as statistics employed qualitative and quantitative methods that are recognized as among the most significant tools in research practice. These techniques have contributed to the explication of the problem and to the development of the best possible solution. The policy analysis focused on sustainable development indicators and reviewed the activities of officials, entrepreneurs and NGOs with regarding to possible benefits and/or barriers to policy implementation.

A survey methodology was applied to target groups and occasional respondents through the process of seven case studies in the area of ecotourism in protected nature areas and in the adjacent counties that served as case study territories - as well as in other potential *Natura 2000 sites* in Latvia. There were 379 individual respondents of various backgrounds, interests and ages who answered survey questions during the period 2010 - 2011. Questionnaires and structured interviews were carried out on the following target groups - tourism management institutions, NGOs, entrepreneurs and with members of the local population so as to fully assess the types of *tourism-introduced* impact on protected nature territories. Interviews and questionnaires were designed so as to identify the role of tourism within the local economy and to evaluate prospects for the industry, for the improvement of environmental protection, for a reduction of the existing anthropogenic impact, as well as to develop a capacity to elaborate a sustainable model for good ecotourism management including installations of green technologies, development of ecotourism in the protected nature territories.

The survey questionnaire covered nine areas of evaluation (a total of 53 questions):

1. participation of various interested parties in ecotourism;
2. tourism activities in the local surroundings;
3. forms of tourism that could be developed;
4. tourism entrepreneurship;
5. the importance of tourism resources;
6. factors affecting tourism as a business;
7. types of tourism education;
8. specialisation of tourism education;
9. environmentally friendly approaches and technology proposals.

Data collected by the surveys and interviews provided information on the current state of ecotourism awareness and on the interpretation, capacity for development and management of ecotourism routes and destinations, and educational development. It also allowed for the drawing of conclusions and the making of recommendations for the further development of ecotourism.

A significant contribution to the acquisition of necessary research materials was provided by the case study into the state of ecotourism as observed in selected protected nature areas. The methodology of observation and recording methods used was critical for the assessment of tourist attractions, for the availability and technical conditions as well as for an assessment of environmental impact as a result of tourism through emissions, the erosion of subsoil and other factors leading to a degradation of the environment. The assessment also revealed the conditions of the existing infrastructure and its compliance with the core principles of ecotourism. It also suggested opportunities for the improvement of the infrastructure via the integration of environmentally friendly technologies and approaches in existing and future potential ecotourism sites.

The analysis of statistical data provided additional information on existing tourist flows and on potential trends in growing risks to protected nature territories. It also revealed the necessity for good

environmental management in the reduction of these risks. The resultant data provides an opportunity for the detailed exploration of the current state of ecotourism development and its management by local governments and to be able to draw sufficient conclusions for further research possibilities.

5. Data and results

In accordance with state law there are 334 protected nature territories in the European category of *Natura 2000* significance and in which tourism activities are an intensive part of daily life (Table 1.) This presents a particularly strong argument in favor of ecotourism taking a leading position in the minimization of the impact of industry on protected nature areas.

Table 1. Categories of Protected Nature Territories in Latvia

Categories of protected nature territories	Number of protected nature territories (<i>Natura 2000</i> included)	Number of <i>Natura 2000</i> territories	Ecotourism opportunities
Strict Nature Reserves	4	4	not permitted, excluding separate zones
National Parks	4	4	high priority, excluding separate zones
Biosphere Reserves	1	1	high priority, excluding separate zones
Nature Parks	42	37	high priority
Nature Monuments	355	9	permitted
Nature Reserves	259	237	limited
Protected Landscape Areas	9	9	high priority
Protected Sea Territories	7	7	permitted, excluding separate zones
Micro-reserves	1959	24	limited
Total	682	332	

Source: Ministry of Environmental Protection and Regional Development of Latvia:
http://www.varam.gov.lv/lat/darbibas_veidi/ipasi_aizsargajamas_dabas_teritorijas/natura_2000/

Another significant resource for ecotourism development is a heritage including cultural diversity (Table 2).

Table 2. Categories of Cultural Monuments in Latvia

Categories of Cultural Monuments	Number of Cultural Monuments	Ecotourism opportunities
Architectural monuments	3401	high priority
Archaeological monuments	2493	high priority
Industrial monuments	10	high priority
Monuments of art	2454	high priority
Monuments of urban development	45	high priority
Historical monuments	129	high priority
Total	8532	

Source: State Inspection for Heritage Protection of Latvia <http://www.mantojums.lv>

The results of the analysis of these most important national environmental and tourism policy-planning documents allow for the conclusion that they fully support the development of environmentally-friendly tourism in Latvia. The *Latvian National Development Plan (2007 - 2013)* points out that the natural, cultural and historical heritage offers an opportunity to develop tourism more rapidly and to create new jobs in rural areas, because the tourism resources are available throughout the country.

Ecotourism feasibility studies have been carried out at several *Natura 2000* sites in Latvia. There are findings available on issues such as air and water pollution, on waste, on soil erosion and on other environmental problems that have been revealed by an analysis of the overall situation. These findings are based on the findings of environmental surveys undertaken by local governments as well as from various on-site investigations. Water quality during the summer tourism season is very much influenced by human water consumption needs, which is increased due to an intensification of accommodation and food outlet tourist services (including for personal hygiene, dishwashing and laundry, detergents and rinse water load on the waste water composition and volume). One environmentally friendly solution is the recommendation to increase the installation of biological water treatment systems, separating toilets for ecotourism accommodations including at *eco-lodges*, so as to ensure proper standards and control of waste-water discharge. Legally binding local government regulations are also an effective mechanism that can regulate or restrict activities in municipalities.

There are more than 30 guesthouses in Latvia's rural areas that are participating in the implementation of higher standards of sustainable management. Many of these have received the Ecotourism Award 'The Sower's Award' [Sējējs] issued by the Ministry for the Environment and by the Ministry for Agriculture. During the case study interviews many of the respondents expressed an interest in learning more about renewable energy resources for possible application in their own tourism businesses. One particular case study identified the use of environmental landscape technologies - with the construction of a wetland waste-water treatment plant. With relatively low

operating costs it is able to treat a load of water waste as result of more than 200 visitors per day. This project is being applied by the tourism services at the 'Abava Valley' Nature Park (Vides sakārtošanas koordinācijas centrs 2011).

Most of the project survey respondents suggested that the development of ecotourism was not only a possibility but also that it was really a necessity in Latvia. They highlighted the advantages for nature, for landscapes, to recreational facilities, for coastal and inland waters, for the maintenance of cultural traditions and for holidays. All of these perceived advantages describing the above-mentioned resources only served to enhance the uniqueness of their region. The suitability of protected nature territories for ecotourism was evident to no less than 95% of all respondents. On the other hand the observed obstacles to success included: a short tourism season (94%), lack of investment (82%), lack of ecotourism entrepreneurship (79%), encumbrances on construction possibilities in protected nature territories (76%), the low number of incoming tourists to Latvia (72%), insufficient marketing (66%), high-interest bank loans (61%), lack of environmentally sound technologies (33%). However, these same respondents did not see any major problems in areas such as environmental risks (6%). Only 8% of respondents indicated a lack of tourism products and a low incidence of activity by local government in the area of tourism promotion, a shortage of human resources (15%) and limitations in ecotourism infrastructure (18%). The limitations on the development of tourism as set by environmental protection laws and regulations were welcomed by 55% of respondents, valued negatively - 6%, and 23% of respondents offered no opinion; local government investments in tourism / ecotourism were supported by 14%, were not supported by 6%, and 75% of respondents had no opinion on this issue. In summarizing all of the survey results there is an overall conclusion in support for the argument on the need for quality management and further education and training materials to be developed for ecotourism enterprises.

In many of the spatial planning and development programs, particularly in the case of natural resources management plans, there are to be found many valuable descriptions of local natural and cultural resources that can all serve as the basis for ecotourism planning in municipalities. Studies on the involvement of local government in protection of biodiversity, promotion of economic benefits for local community and planning of ecotourism all point to successful solutions for the conservation of natural resources and cultural traditions and for the strengthening of local communities. The projections for tourist flow increase indicated by several documents may, however, be relative due to the overall tourism sector in Latvia which is presently influenced by the various international financial crises and other global factors. Central Statistical Bureau of the Republic of Latvia data on the tourism flow shows that the number of tourists increased by 9.7% in 2011 compared to the previous year. It is important here to continue to monitor the anthropogenic pressures and environmental capacity with intent to justify the regulation of tourism flow in spite of the potential increase of income to be generated by tourism.

Ecotourism in protected nature territories has already captured the attention of many sectors in Latvia. There are many great expectations on what it is that ecotourism can produce - as well as no fewer concerns about its pitfalls. Survey respondents from all sectors agreed that ecotourism is compatible with conservation efforts and that it has the capacity to increase the well-being of local communities and is a viable conservation strategy in Latvia. Moreover, ecotourism is being seen as an emerging potential local, national and international tourism market in Latvia. Industrialized countries are generally characterized by their high and continually increasing demand for nature-based tourism experiences in protected areas. At the moment Latvia has not yet encountered such a large influx of tourists that might pose any significant threat to the environment in protected nature territories. Also, the particularly popular tourist spots such as Gauja National Park, the Slītere

National Park and the Ķemeri National Park are all able to accommodate the existing tourism flows which are well-managed and controlled. In evaluating the reserve of environmental carrying capacity, it is important to consider the possibility of increasing tourist flow to these areas, thus generating additional income for environmental protection efforts and at the same time promoting sustainable local development.

6. Discussions. Ecotourism development model

The need to establish an *Ecotourism Development Centre* has become evident by the results of research on Ecotourism as an instrument for the cognition and protection of nature in the light of growing international interest in tourism products related to nature. This is further evident with regard to the existing and significant ecotourism resources in Latvia and the growing context for the need for a sustainable management of these resources. The purpose of this centre would be to promote co-operation among the state, local government, private, academic and NGO sectors; to facilitate participation by the public-at-large; to provide information on Latvian ecotourism opportunities with regard to the promotion and integration of environmentally friendly innovative technologies within an infrastructure of ecotourism and, to develop good environmental management practices and further monitoring, research and environmental communication.

Such an *Ecotourism Development Centre* would thus act within the parameters of the 'Latvian Ecotourism Society' and would play a central co-ordinating role in the development of an ecotourism model (Figure 1.) The *Ecotourism Development Centre* is designed to be dedicated in its mission to co-operate with: the Ministry for the Environment and its subsidiary institutions i.e. the Nature Protection Agency and the State Environmental Service for sustainable management and monitoring in the development of the ecotourism product; with the Ministry for the Economy and the State Tourism Development Agency in the promotion of sustainable tourism and particularly ecotourism; with the Ministry for Agriculture in the development of bio products; with the Ministry for Social Welfare with regard to the containment of social issues in rural areas. Local authorities, tourism operators and residents are to be considered as the primary partners in the process of planning and organizing of ecotourism, as well as in the distributing of income for environmental and social needs as generated by ecotourism projects.

A substantial benefit of such an enterprise is also to be found within the opportunities for co-operation among institutions of higher education and science that will serve as a tangible contribution to the improvement of the quality of ecotourism by the stimulation of further research into bio-diversity, into eco-system services, heritage, eco-friendly technologies and approaches as well as to promote further research into ecotourism as a scientific discipline. It is no less important to involve local area museums in the process of ecotourism planning and organizing. The museums often act as a local history centre with an in-built natural, cultural and historical research capacity. These museums, in association with the Tourism Information Centres (TIC), or through integrating some of the functions of the TIC, are very important providers of tourism information and communication. Co-operation with local, national and international NGOs is one of high priorities for the proposed *Ecotourism Development Centre* in its mission to promote environmental protection, to find solutions to social problems, in its attempts to improve environmental education and public awareness, and in helping to facilitate public participation and environmental communication.

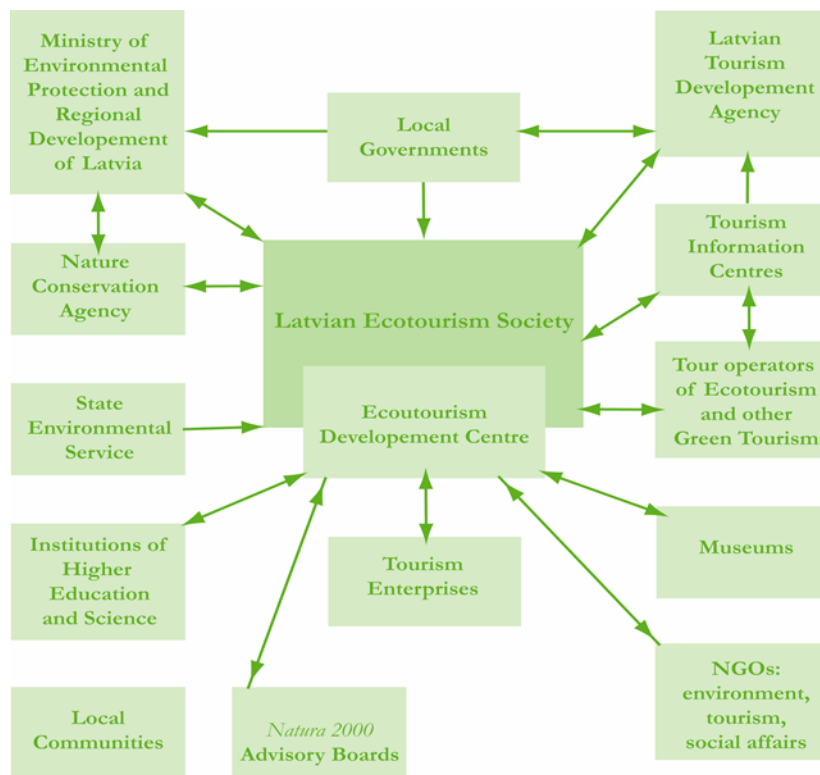


Figure 1. Ecotourism Development Model

These are the principal tasks and issues to be addressed with regard to the existing model of ecotourism development and for its representative executive body – *The Ecotourism Development Centre* to undertake:

1. to incorporate the concept of ecotourism within municipal territorial plans and development programs;
2. to evaluate all ecotourism resources, technical and educational capability, the attraction of investments for ecotourism infrastructure and for product development;
3. to strengthen co-operation between partners within the network;
4. to co-ordinate and maintain all ecotourism activities;
5. to contribute to the creation of an appropriate infrastructure, including the implementation of environmental technologies.

The role of ecotourism within nature conservation processes has been much discussed in Latvia as well as throughout the entire world. There is a genuine necessity to determine the path of ecotourism development and the relative expense of protection of biodiversity as it impacts on the community and on other ecotourism development activities. There are many eco-friendly technologies and approaches and samples of environmentally friendly buildings sewage water treatment systems, heat pumps, solar panels, biogas generators, windmills are now gradually being introduced in ecotourism practice throughout Latvia (Kļaviņš *et al.* 2008; Blumberga *et al.* 2010; Vide un ilgtspējība 2010). The Nature Conservation Agency of Latvia oversees the implementation of

nature protection policy throughout Latvia and maintains a database (geographical location, quantitative and qualitative status, etc) of protected plants species, habitats and micro-reserves. Eco-villages in Latvia may, to some extent, still be seen as incubators of ideas, which serve to concentrate, improve and to develop environmentally friendly thinking and the implementation of the principles of sustainable development within the environmental management of a miniature community. As a result there is an increased opportunity for the further study and approval of environmentally friendly technologies and approaches which can be practiced by these communities.

7. Conclusion

The ecotourism model, with its particular emphasis on appropriate acts of law, on government and local government, on public, private and scientific sector co-operation and on environmentally-friendly technologies, should become a most effective tool in the development of a sustainable tourism industry. In many cases, ecotourism activities are still not sufficient to be able to contribute effectively to environmental management in protected nature territories. The role that ecotourism can play as partner to a conservation strategy depends on the strategies, individual protection and use regulations and the nature protection plans designed for protected nature territories in which the parties involved share the costs as well as the benefits of environmental services.

It is important to expand government and local government, public and private sector cooperation by involving the scientific sector so as to improve the level of qualitative indicators of environmental and tourism policies in order to promote ecotourism at large. It should be recognized that ecotourism promotes sustainable development in general and conservation of biodiversity in particular. More in-depth exploration of ecosystem services is recommended and this should be included as a part of the ecotourism value system for protected nature territories.

8. References

- [1] Anderson, W. 2009. Promoting ecotourism through networks: case studies in the Balearic Islands. *Journal of Ecotourism*, 8(1): 51–69.
- [2] Atstāja, Dz., Dimante, Dž., Brīvers, I., Malzubris, J., Keneta, M., Tambovceva, T., Šīna, I., Līviņa, A., Ieviņš, J., Grasis, J., Pūle, B., Abeltiņa, A. 2011. Vide un Ekonomika. (Environment and Economy). Rīga, Latvijas Universitātes apgāds, 256 lpp.
- [3] Belshaw, Ch. 2001. *Environmental philosophy: reason, nature and human concern*. UK, Canada: Acumen and McGill-Queens University Press, 320 p.
- [4] Blumberga, A., Blumberga, D., Kļaviņš, M., Rošā, M., Valtere, S. 2010. *Vides tehnoloģijas (Environmental Technologies)*. Ed. D. Blumberga. Rīga, Latvijas Universitāte, . 212 p.
- [5] Buckley, R. 2003. Environmental Inputs and Outputs in Ecotourism: Geotourism with a Positive Triple Bottom Line? *Journal of Ecotourism*, 2(1): 76–82.
- [6] Butcher, J. 2008. Ecotourism as Life Politics. *Journal of Sustainable Tourism*, 16(3): 315–326.
- [7] Cater, E. 2006. Ecotourism as a western construct. *Journal of Ecotourism*, 5 (1, 2): 23–39.
- [8] Donohoe, H., Needham, R. 2006. Ecotourism: The evolving contemporary definition. *Journal of Ecotourism*, 5: 192–210.
- [9] Dredge, D. 2006. Networks, conflict, and collaborative communities. *Journal of Sustainable Tourism*, 14(6): 562–581.

- [10] Fennell, D.A. 2000. Tourism and applied ethics. *Tourism Recreation Research*, 25(1): 59–69.
- [11] Fennell, D.A. 2001. A content analysis of ecotourism definitions. *Current Issues in Tourism*, 4(5): 403–421.
- [12] Fletcher, R. 2009. Ecotourism discourse: challenging the stakeholders theory. *Journal of Ecotourism*, 8(3): 269–285.
- [13] Holly, M. D. 2010. Defining culturally sensitive ecotourism: a Delphi consensus. *Current Issues in Tourism*, First article, 1-19.
- [14] Honey, M. 2008. *Ecotourism and Sustainable Development: Who Owns Paradise?* 2nd Ed. Washington, D.C., Island Press, 551 p.
- [15] Hunt, C.A., Stronza, A. 2009. Bringing ecotourism into focus: applying a hierarchical perspective to ecotourism research. *Journal of Ecotourism*, 8(1): 1–17.
- [16] Kļaviņš, M., Nikodemus, O., Segliņš, V., Melecis, V., Vircavs, M., Āboliņa, K. 2008. *Vides zinātne (Environmental Science)* Ed. M. Kļaviņš. Rīga, Latvijas Universitātes apgāds, 599 p.
- [17] Krider, R.E., Arguello, A., Campbell, C., Mora, J.D. 2010. Trait and Image Interaction in Ecotourism Preference. *Annual Tourism Research*, 37(3): 779–801.
- [18] Krüger, O. 2005. The role of ecotourism in conservation: panacea or Pandora's box? *Biodiversity and Conservation*, 14: 579–600.
- [19] Loon, R., Polakow, D. 2001. Ecotourism Ventures: Rags or Riches? *Annals of Tourism Research*, 28: 892–907.
- [20] Monteros, Roberto Lopez-Espinosa 2002. Evaluating ecotourism in natural protected areas of La Paz Bay, Baja California Sur, Mexico: ecotourism or nature-based tourism? *Biodiversity and Conservation*, 11: 1539–1550.
- [21] Perkins, H., Grace, D.A. 2009. Ecotourism: supply of nature or tourist demand? *Journal of Ecotourism*, No. 8(3): 223–236.
- [22] Sheng-Hsiung Tsaur, Yu-Chiang, Lin, Jo-Hui, Lin. 2006. Evaluating ecotourism sustainability from the integrated perspective of resource, community and tourism. *Tourism Management*, 27: 640–653.
- [23] Stronza, A., Gordillo, J. 2008. Community Views of Ecotourism. *Annals of Tourism Research*, 35(2): 448–468.
- [24] Vide un ilgtspējīga attīstība (Environment and Sustainable Development). 2010. Ed. M.Kļaviņš, J Zaļoksnis. Rīga, Latvijas Universitātes Akadēmiskais apgāds, 334 lpp.
- [25] Weaver, D.B. 2001. Ecotourism in the context of other tourism types. In: D.B. Weaver (ed.) *The Encyclopedia of Ecotourism*. New York, NY: CABI, p. 73–83.
- [26] Weaver, D., Lawton, L. 2007. Progress in tourism management Twenty years on: The state of contemporary ecotourism research *Tourism Management* 28: 1168–1179.
- [27] Zambrano, A., Broadbent, E., Durham, W. 2010. Social and environmental effects of ecotourism in the Osa Peninsula of Costa Rica: the Lapa Rios case. *Journal of Ecotourism*, 9(1): 62–83.

Web sites

- [***] Millennium Ecosystem Assessment (2005) Ecosystems and Human Well-being: Synthesis. World Resources Institute, Island Press, Washington, DC.: <http://www.millenniumassessment.org/documents/document.356.aspx.pdf> [28.09.2011].
- [***] TIES, Our Misson (2009) The International Ecotourism Society: http://www.ecotourism.org/site/c.orLQKXPCLmF/b.4835251/k.FF11/Our_Mission_The_International_Ecotourism_Society.htm [16.10.2011].
- [***] Vides sakārtošanas koordinācijas centrs (Environmental Co-ordination Centre) (2011): <http://www.vskc.lv/> [09.11.2011].

DEVELOPING HERITAGE ARCHITECTURE ON TOURISM MARKETING

Eko NURSANTY

University of 17 Agustus 1945 (UNTAG) Semarang, **Indonesia**

Department of Architecture

santy@archuntagsmq.co.cc

Abstract:

Today, architectural heritage tourism has become one of the most popular form of tourism. Countries across the world have welcomed it as an instrument of economic development and advocacy of local culture and heritage. Equalize between heritage consumption and conservation is not an easy role, not only at the system level but also at the all individual level. Sustainable marketing about architecture heritage tourism is a complex idea as it aims to mix many disciplines: sustainability, marketing, architecture and heritage. It is also a relatively new phenomenon with a meager body of work to carry the concept forward, conceptually and in application.

All cultural attractions have an important role in tourism, and give much of tourists in heritage and architecture objects. Cultural architecture and heritage tourism has positive impacts on economic and social but sometime have negative impacts on communities and regions, too. This paper makes link ideas of tourism from sustainable marketing perspectives and embeds it within a heritage management setting.

This paper make links about some ideas of tourism from sustainable marketing perspectives and embeds it within a heritage management setting. And this paper suggests that sustainable marketing of architecture and heritage tourism and its application is not an impossible. Architecture and heritage tourism management needs to adapt to the changing world around it, and as competition grows fast and financial resources become rare, traditional non profit heritage institutions are required to perform often polarized tripartite functions of providing entertainment to the mass audience, and promoting civic engagement, and original function as custodians of both tangible and intangible heritage.

Keywords: heritage, architecture, tourism

JEL Classification: tourism management

1. Introduction

Marketing a heritage product, service or brand might not consider appropriate is profit, because the motive for marketing may be, for example, to enable the regeneration of a locality, conservation of a landscape, preservation of a property or for many other reasons, rather than to generate a profit in the commercial sense. However, some not-for-profit organizations are comfortable with the fact that they must create a ‘surplus’ in order to survive/grow, which is effectively the same as making a profit and, indeed, may be generated from the same types of activities performed by commercial organizations, such as operating shops, bars and restaurants alongside the (possibly free entry) heritage site or attraction. In the context of the marketing of food and drink connected with one or more aspects of heritage, I cannot think of a single example where this product is marketed for reasons other than commercial gain, or profit-making. The essence of the heritage marketing process, then, is to find out what the customer wants and to deliver it, subject to any constraints that might prevail, such as the need to protect parts of a heritage site or historic property because of the increased wear and tear resulting from the extra footfall stimulated through marketing initiatives. This example is typical of the balance that many heritage providers must achieve, particularly in relation to the built environment, i.e., the marketing activities should be

designed to stimulate demand and satisfy the consumer but not to the detriment of that which needs to be preserved for future generations.

2. Heritage and Marketing Process.

The aim of marketing is to know and understand the customer so well that the product or service fits him/her but allows the organization to achieve its goals. (Dibb, and Simkin 2002). During the 1970s conservation became increasingly important to a variety of different stakeholders. Local history societies and amenity groups were raising funds and providing volunteer labor to save places and arte-facts from the fast-disappearing agricultural and industrial landscape in a rapidly changing economic climate.

The customer therefore will be central to our understanding of heritage marketing as we explore how the past is reflected in the present for all types of advantage, commercial and non-commercial or quantitative and qualitative. Figure 1 is a *Heritage Marketing Principles* that will be applied in the context of heritage marketing.



Figure 1. Heritage Marketing Principles

Between 1975 and the early 1980s there was a growing concern by political leaders in many countries about their national heritage, mainly at this time in terms of the built environment, which led to the shaping of policy to begin a large-scale preservation process. In the UK, this gave rise to the National Heritage Act (1980), which in general is concerned with the preservation of that range of property defined therein as 'the heritage', but it also seeks to secure public access to ensure that 'the heritage' is available for cultural consumption and to see that it is displayed as such.

In 2003, the Dealing in Cultural Objects (Offences) Act was passed by the British Parliament, following the UK Government's ratification of the 1970 United Nations Educational, Scientific and Cultural Organisation (UNESCO) Convention; there was also the creation of a new international convention aimed at protecting and promoting the world's intangible cultural heritage (ICH). The 32nd General Conference of UNESCO in 2003 saw governments from around the world voting to adopt the International Convention for the Safeguarding of the Intangible Heritage. Modeled on the 1972 World Heritage Convention, the new treaty is the culmination of efforts aimed at widening the scope of international cultural policy beyond the sites and landscapes covered by the 1972 Convention.

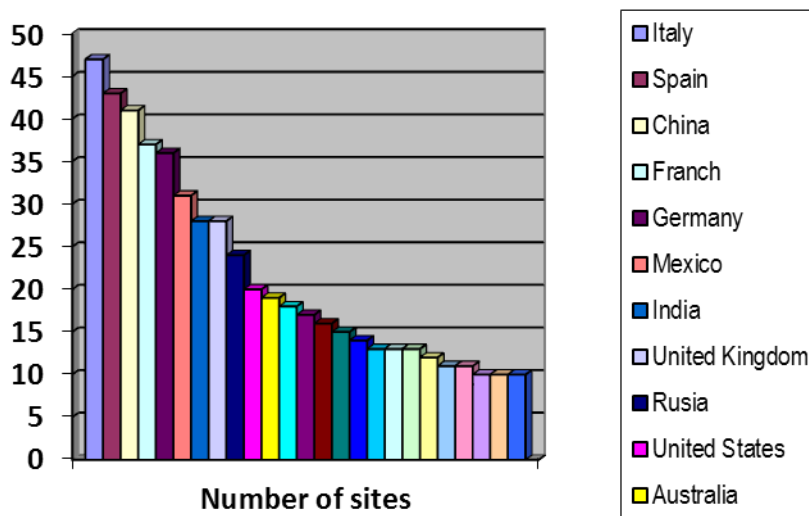


Figure 2. List of countries with 10 or more World Heritage Sites and **Source:** (World Heritage Site 2011)

In summary, the last 30 years in particular have seen ‘an extraordinary and it seems, ever-growing enthusiasm for the recovery of the national past – both the real past of recorded history and the timeless one of tradition’ (Samuel1989). The section above has established that one important driving force in heritage marketing, apart from qualitative reasons (for example, to educate), is to raise revenue. This is because, on the whole, in spite of the funding arrangements that many countries now have in place and the initiatives that many heritage sectors have taken in order to raise revenue, the vast majority of heritage enterprises are still underfunded. Nevertheless, much evidence points to the fact that all around the world, an interest in all aspects of heritage is at an all time high amongst most groups in societies and that, because of the present shape of the external environment, this is set to continue and grow.

Heritage providers whether this is in the heritage tourism sector, the food and drink associated with the heritage sector, sporting heritage sector or any other, just like any commercial business have to appeal to the motivations and aspirations of their customers and all activities must be coordinated customer/quality/relationship marketing with attention to detail. Heritage, in other words a relationship with the past that can be gained in many different ways, is inspirational, i.e., something that someone consumer wants, and marketing is the process by which it can be made available, either at a personal, local, national or international level. (Misiura 2006)

Heritage is created by establishing a number of principles, processes and practices; different academics and experts in vastly contrasting or complementary, fields will produce values that accrue around the concept of heritage, it is not the purpose of this book to represent these views in any great length but to recognize that the overall value created will be of significance in marketing the heritage product or service, a point that we will return to later, both in this chapter and the next. Heritage, however this is defined by individuals or others on their behalf is considered by most people to be an important part of their lives. It is therefore crucial to recognize at the outset that what individuals and groups mean by heritage and what they want to preserve in terms of personal, local, national or international heritage is not necessarily immediately obvious. It can require a great deal of sensitivity to establish the facts, as well as the use of creative techniques that may not be employed to their full extent at present, such as ethnographic approaches as part of a research

methodology; this is partly because heritage as a generic notion is still being understood. 'The past in question – the 'heritage' which conservationists fight to preserve and retrieval projects to unearth, and which the holiday public or museum visitors are invited to experience in many ways a novel one (Hobsbawm 1983).

The notion of heritage is very contentious and the arguments in the ever expanding literature rage on, notably amongst historians, many of whom have a great distaste for the idea of heritage, although this view has been challenged: 'If historians despise heritage fakery, heritage disdains historians truth fetishes (Lowenthal 1996).

History Part of Heritage Marketing

History is the main academic discipline that recalls and explains aspects of the past and aims to give a factual account based on what is known at the time, whereas heritage marketing, as we have established above is usually about celebrating one or more aspects of the past, which sometimes means leaving out issues that are not appropriate for the nature of a particular type of representation or the needs of the target market; on occasion this has attracted criticism. However, historical accounts and their accuracy have also been called into question from time to time, especially when they have been scrutinized by academics from other disciplines, such as anthropology or sociology.

How a nation and its past (or aspects of it) are recalled, constructed or represented must be key areas of concern for historians, marketers and any other parties involved, in particular because, in creating for a place a temporal existence, there is responsibility in terms of appropriate interpretation and sensitivity to those to whom it belongs. The heritage marketer must understand the people who are connected with the entity, to do this he/she must talk to them, listen to stories and accounts, gather impressions, images, artefacts and points of view.

In effect, the marketer (or an agent) becomes an ethnographer, which could be for a considerable period of time until accounts start repeating themselves and he/she can reasonably assume that this is as good as it is going to get it.

Marketing clearly has a role to play in bringing history and aspects of the past heritage to the people through appropriate targeting of consumers starting from awareness-raising through to purchase and consumption, literal or metaphorical and suitable physical e.g., signage, multimedia interactive displays and verbally, e.g., lectures, demonstrations, audio explanations, use of 'live actors') interpretation. Consumers have never been keener than they are today to increase their personal cultural capital, and certain age/life-stage groups have never had more disposable income and time with which to achieve this.

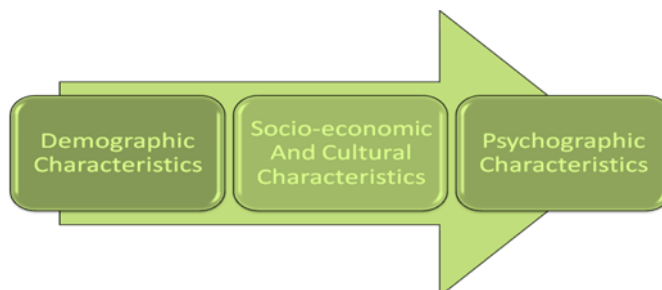


Figure 3. Variable Consumer Market

Branding For Heritage in Marketing

Branding is currently defined as a set of expectations and associations evoked from experience with a company, product or service, i.e., it is about what customers feel and think of the company and/or its products or services. If this perception is positive, it is likely to lead to advances in market share and profitability. The associations made in the minds of consumers, whether positive, negative or neutral, combine to create the brand's equity, which can be measured in financial terms. (Misiura 2006)

The relationships that customers are now seeking with organizations. One way for organizations to respond is by incorporating aspects of their heritage in different types of marketing communications as, at the very least, this usually has the effect of reassuring customers and therefore makes commercial sense. The deeper perspective is that by emphasizing certain values, the organization can build reputation and trust, which has the positive effect on consumers of an increased perceived quality of the firm and its products, brands or services and creates a 'goodwill' bank that leads consumers to become more positively disposed towards it, creating an evoked mind-set that would take some significant 'wrong doings' to change. (Willmott 2002).



Figure 4. The Main Elements of the Heritage Marketing

The concept of trust (often linked to the heritage of an organization) seems to have captured the creative imagination of many in management and is being increasingly used as a point of leverage or differentiation. The soul of a brand, then, is its unalterable essence that incorporates the values of the organization. The vast majority of writers on branding also argue that a brand has a personality, i.e. a character (analogous to that of a human). The brand's personality reflects the organization's culture and heritage. A brand's attributes (again, just like the case of a human individual) are those images or perceptions that people store in their minds and associate with the brand, for example whether it represents and evokes a particular 'section' of society.



Figure 5. Proposition of Brand and Price

There is no standard formula for creating a successful brand but long-term investment and nurturing should pay dividends. However, the reputation of a brand can be destroyed overnight. We have seen above that there are a number of elements to a brand, all of which must work synergistically for the value proposition to be realized, although it may be one or another of these elements that can be identified as having been the key that unlocked the door to the consumer's heart.



Figure 6. The Brand Planning Process

Specifically, marketing communications or advertising tracking can also take place to check that the themes resonate appropriately with the target market and that what the brand represents is relevant to their needs, and finally that the correct combination of media are being used to reach the desired audience.

From all that we have learned above, we can conclude that there are certain associations that consumers make in their minds with respect to a brand that are reinforced by certain 'drivers'. These are as follows (Leiser 2003).

3. Case Studies in Indonesia

Market segmentation is the process of dividing a total market or sub-market using the principles identified above in order to create one or more homogeneous groups or segments that can then be targeted effectively, based on the accessibility of these customers and the resources of the organization. Segmentation research just like many principles in marketing emerged from the academic discipline of economics. Segmentation is the key that unlocks the door to a group of consumers for an organization; it must then be backed by appropriate targeting, choice and combination of media channels to use, packaging, timing of launch, etc. and the wider issue of positioning the organization in the marketplace as either a cost-leader or differentiator.

Almost everyone is in the market for one or more aspects of heritage, directly or indirectly, whether this is gained personally, locally, nationally or internationally. At the very least, the vast majority of people around the world will be exposed at some point in their lives or throughout their lifetime, either through an educational link or tourism or perhaps just stories and rituals that are handed down, to something from the past, no one can really get away from the past.

The most significant feature of the 1972 World Heritage Convention is that it links together in a single document the concepts of nature conservation and the preservation of cultural properties. The Convention recognizes the way in which people interact with nature, and the fundamental need to preserve the balance between the two.

By signing the Convention, each country pledges to conserve not only the World Heritage sites situated on its territory, but also to protect its national heritage. The States Parties are encouraged to integrate the protection of the cultural and natural heritage into regional planning programmes, set up staff and services at their sites, undertake scientific and technical conservation research and adopt measures which give this heritage a function in the day-to-day life of the community. It explains how the World Heritage Fund is to be used and managed and under what conditions international financial assistance may be provided.

The idea of combining conservation of cultural sites with those of nature comes from the United States of America. A White House Conference in Washington, D.C., in 1965 called for a ‘World Heritage Trust’ that would stimulate international cooperation to protect ‘the world’s superb natural and scenic areas and historic sites for the present and the future of the entire world citizenry’. In 1968, the International Union for Conservation of Nature (IUCN) developed similar proposals for its members. These proposals were presented to the 1972 United Nations conference on Human Environment in Stockholm.

Eventually, a single text was agreed upon by all parties concerned. The Convention concerning the Protection of World Cultural and Natural Heritage was adopted by the General Conference of UNESCO on 16 November 1972. By regarding heritage as both cultural and natural, the Convention reminds us of the ways in which people interact with nature, and of the fundamental need to preserve the balance between the two.

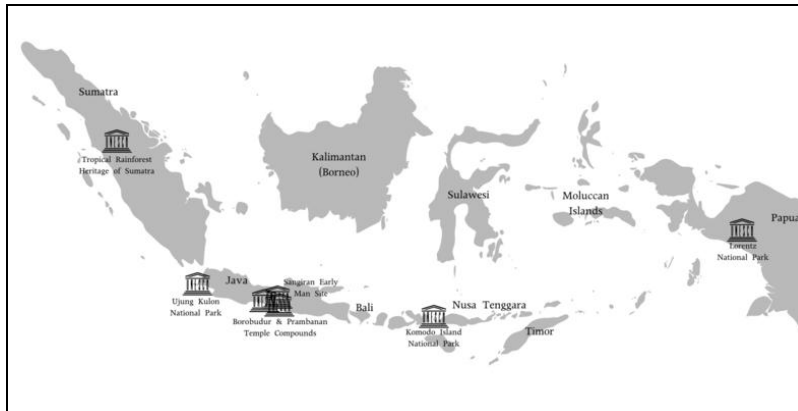


Figure 7. World Heritage Sites in Indonesia. (Indon 2006)

Definition of the cultural and natural heritage is monuments: architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science; groups of buildings: groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science; sites: works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view.

Table 1. World Cultural Heritage List in Indonesia.

No	Name	Year
1	Borobudur Temple Compound	1991
2	Prambanan Temple Compound	1991
3	Sangiran Early Man Site	1996

Source: Ministry of Culture and Tourism, Republic of Indonesia

Borobudur at Cental Java Province, Magelang Regency that has the biggest among 8 tourism Places. From Indonesian Research of Statistic, number of Tourism Guest is: Domestic Guest: 2.900.872 and Foreign Guest: 203.562, totally 3.104.434. (BPS 2009).

This famous Buddhist temple, dating from the 8th and 9th centuries, is located in central Java. It was built in three tiers: a pyramidal base with five concentric square terraces, the trunk of a cone with three circular platforms and, at the top, a monumental stupa. The walls and balustrades are decorated with fine low reliefs, covering a total surface area of 2,500 m². Around the circular platforms are 72 openwork stupas, each containing a statue of the Buddha. The monument was restored with UNESCO's help in the 1970s.



Figure 8. Buddhist marvel of stone standing in the garden of Java, Indonesia.(Budhist Art And Architecture 1996)

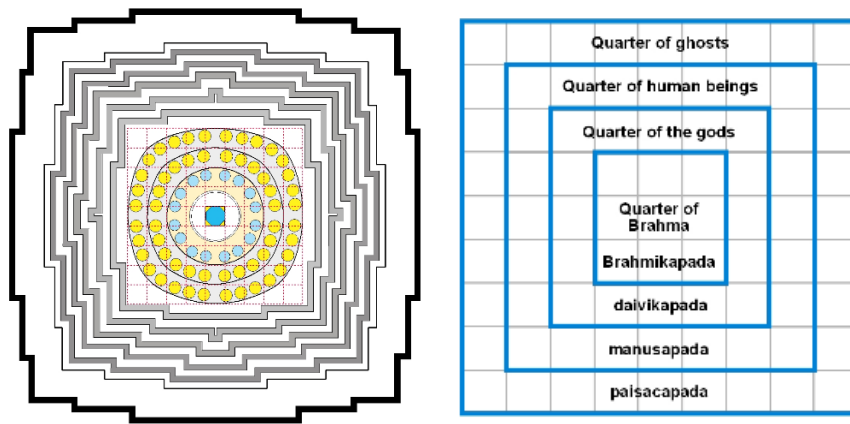


Figure 9 Borobudur’s summit and the paramasāyikin caṇḍita plan. (Borobudur.tv 2010)

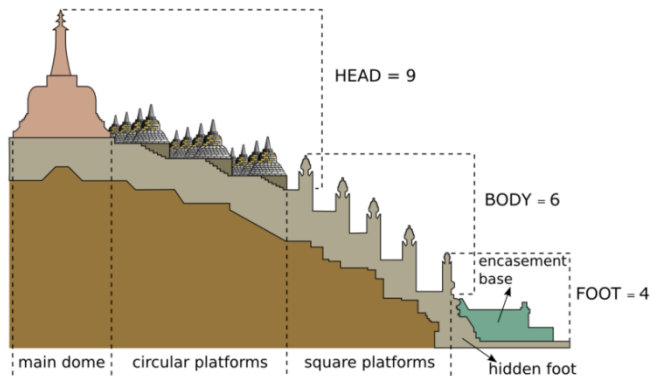


Figure 9 Half cross-section with 4:6:9 height ratio for foot, body and head, respectively. (KDEI Taipei 2010)

Research into segmentation and its application for organizations has advanced considerably over the years. The 'buying proforma' was created by Dibb, and Simkin *et al.* in 1996 to assist marketers in developing a complete understanding of their customers during the process of creating a marketing plan. Broadly speaking, it enables a systematic analysis of customers' buying decision-making processes together with the influencing factors that impact on this, the distinct needs of customers and the profile and characteristics of the customers in a sector or segment.

Simkin describes each of these stages as follows:

- **Stage 1** requires a description of the current customer classification scheme used, whether this is by sector, product groups, geographic territories, geo-demographics, sales volumes or values, etc.
- **Stage 2** requires preferably a cross-functional team to address the buying proforma for each existing customer group or sector.
- **Stage 3** allows for extensive debate on customer profile characteristics and key customer values.
- **Stage 4** at this stage current customer types need to be continued to be split until there is agreement amongst the cross functional team.
- **Stage 5** warrants a thorough examination of the buying decision making processes of the agreed set of customer types and the influencing factors in order to make sure that there are clear distinctions between them.
- **Stage 6** is the final part of the process and requires the team to identify common traits across the proformas that have now been established for the different customer types.

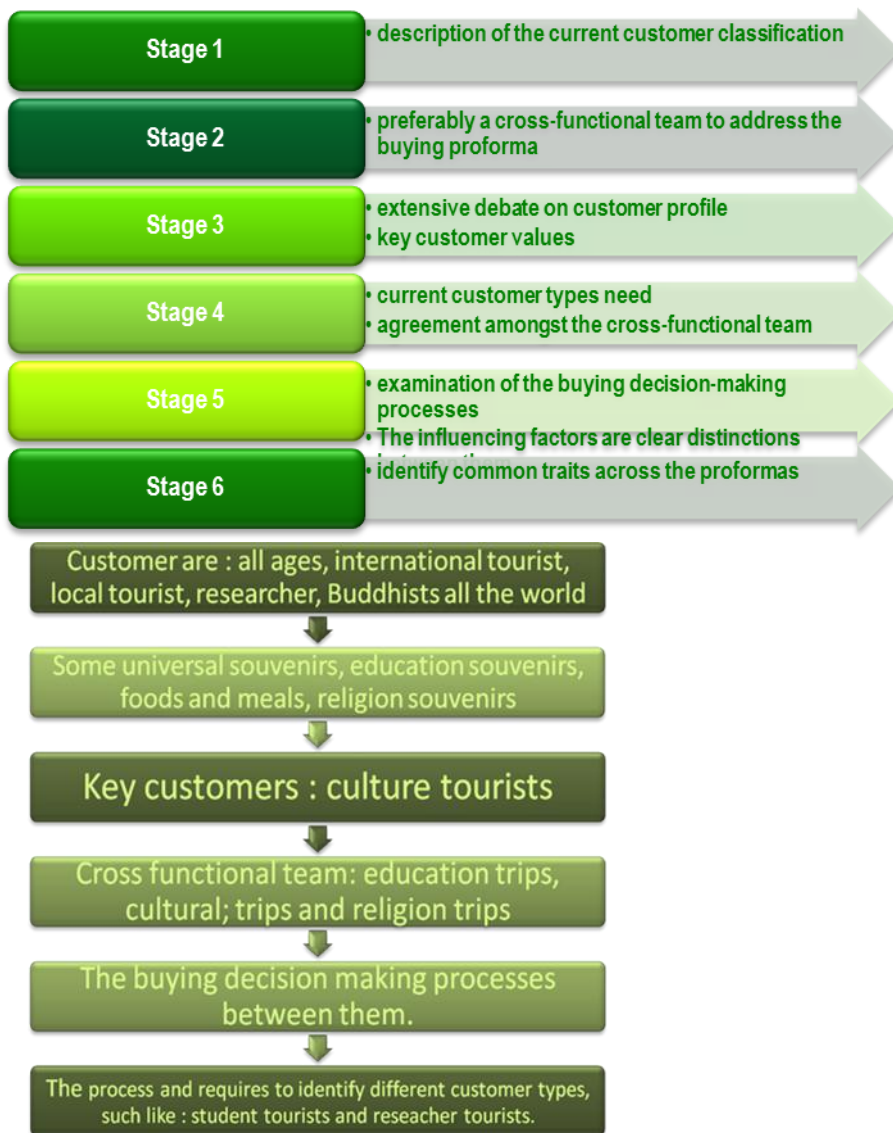


Figure 7. The Brand Planning Process. Case: Borobudur, Indonesia

We have already examined in some detail the different target audiences that are in the market for all the alternative types of heritage tourism. In short, in terms of demographic profiles there is usually a slight female bias; in terms of age groups, almost all groups are in the market for different types of heritage tourism (e.g. children on school day-trips to a local castle or museum); and in relation to age group and position in family life-cycle, the ‘grey’ market, who also tend to be ‘empty nesters’, are predominant. In socio-economic terms, we have established that heritage tourism tends to attract a variety of reasons: level of education, wealth and, in particular, disposable income, and their expectations (psychographics) of heritage tourism, i.e. they want to experience and learn about the heritage of their own and other countries’ cultures. The profiling of consumers up to this point is relatively straightforward.

Socio-cultural characteristics create more cause for concern (i.e. higher risk factors for the heritage marketer) as we do not know enough about the relationship between race, religion, ethnicity, sub-cultures and heritage tourism, although there is evidence to suggest that identity and genealogy has spawned heritage tourism amongst minority groups, together with the fact that some will visit religious heritage sites abroad, at least once in their lifetime.

4. Conclusion

We already know that anything can become 'heritage' as long as someone wishes this to be the case, but beyond this philosophical stance is the fact that values such as trust, authenticity, reliability (perhaps as a result of the organization and/or its products or services having been around for 'some time') can create added value or a point of differentiation that might be well worth having in the competitive marketplace. However, organizations have to balance carefully that the ubiquitous use of words such as 'promise' and 'trust' can lead consumers to become cynical about the organization and/or its products. In general and at least for the moment, most aspects of heritage evoke favorable responses amongst the vast majority of consumers and I believe that this concept will be more widely used by organizations in the future.

The relationship between branding and heritage is that a brand can espouse certain values and more and more organizations are looking to embed aspects of heritage either into the organization and its profile and marketing activities or in its products or services.

5. References

- [1] Borobudur.tv. 2010. *Borobudur.tv*. Retrieved November 19, 2011, from The Mañjuśrīvāstuvīdyāśāstra: http://www.borobudur.tv/architecture_2.htm.
- [2] BPS. 2009. Banyaknya Pengunjung Obyek Wisata. Retrieved November 19, 2011, from Biro Pusat Statistik: http://jateng.bps.go.id/2006/web06bab109/web06_1090202.htm.
- [3] Buddhist Art And Architecture. 1996. The Temple of Borobudur. Retrieved November 19, 2011, from Budha Net: <http://www.buddhanet.net/boro.htm>.
- [4] Dibb, S., and Simkin, L. 1996. *The Market Segmentation Workbook: Target Marketing for Marketing Managers*. Thomson, London.
- [5] Dibb, S., and Simkin, L. *et al.* 2002. *Marketing Concepts, Techniques and Strategies*. Houghton Mifflin, London.
- [6] Hobsbawm, E. 1983. *The Invention of Tradition*. Cambridge University Press, London.
- [7] Indon. 2006, August 24. *Map of World Heritage Sites in Indonesia*. Retrieved November 19, 2011, from Wikipedia: http://en.wikipedia.org/wiki/File:World_Heritage_Indonesia.png#filehistory.
- [8] KDEI Taipei. 2010, February 22. Borobudur Central Java. Retrieved November 19, 2011, from Kamar Dagang dan Ekonomi Indonesia di Taipei: http://kdei-taipei.org/id/index.php?option=com_content&view=article&id=49:borobudur&catid=44:pariwisata-indonesia&Itemid=2
- [9] Leiser, M. 2003. Understanding Brand's Value: Advancing Brand Equity Tracking to Brand Equity Management. <http://www.brandchannel.com>.
- [10] Lowenthal, D. 1996. *The Heritage Crusade and Spoils of History*. Viking, London.
- [11] Misiura, S. 2006. *Heritage Marketing*. Burlington: Butterworth-Heinemann.

- [12] Willmott, M. 2002. *Citizen Brands: Corporate Citizenship, Trust and Branding*. The Future Foundation, London.
- [13] World Heritage Site. 2011, November 15. In *Wikipedia, The Free Encyclopedia*. Retrieved 14:54, November 17, 2011, from <http://en.wikipedia.org/w/index.php?title=WorldHeritageSite&oldid=460705374>

NOVEL NITROGEN CONTAINING COORDINATION COMPOUNDS FOR HUMAN AND ENVIRONMENT PROTECTION

Madona **SAMKHARADZE**
N. KAKHIDZE

Akaki Tsereteli Kutaisi State University

**M. RUSIA, Kh. BARBAKADZE,
K. GIORGADZE, R. GIGAURI,**

Nodar LEKISHVILI*

²Ivane Javakhishvili Tbilisi State University, Institute of Inorganic and Organic Hybrid Compounds and Non-traditional Materials, Faculty of Exact and Natural Sciences

*[*nodar@lekishvili.info](mailto:nodar@lekishvili.info)*

Abstract:

Novel nitrogen containing coordination compounds of some d-metals Ag(I), Hg(II), Zn, Fe(II), Cu(II), Mn(II), Cd(II), Ni(II) and Co(II) are synthesized and studied. The optimal conditions of the synthesis have been established. The essence of this method is that nitrates, chlorides and sulfates of mentioned metals form stable, but water-soluble coordination compounds with 2,2-dipyridyl and ethylenediamine. It was established that their extraction from mother solution in chemically pure form for further transformations is not necessary: corresponding d-metals tetrasulphantimonite(V) dipyrilidates and ethylenediamine complexes are instantaneously precipitated during treatment by these solutions' precipitator – sodium tetra sulphantimonite.

It was showed that the obtained coordination compounds are finely dispersed substances, insoluble in water and ethanol. The composition and structure of synthesized coordination have been established by elemental analyses. The study of IR spectra of these compounds showed that SbS_4^{3-} group in studied substances represents exteriorly spherical tetra sulphantimonite (V) ion. Analysis of synthesized compounds thermographs shows that thermal destruction of studied samples begins at $\sim 150^\circ$, runs stage-by-stage and deligation (removal of ligand) is completely finished approximately at $400-500^\circ$.

Bioscreening of obtained compounds was carried out. Their antimicrobial, antiviral and parasiticide activity has been established. Area of their application has need established.

Keywords: Industrial waste, stibium, coordination compound, bioscreening, composite, use.

1. Introduction

Transformation of stibium containing industrial waste into stable coordination compound with specific properties with the purpose of their further application belongs to a variety of topical issues of applied and coordination chemistry. Successful solution of this problem will not only create new raw materials resource base, but also will solve important ecological problem – will protect environment from pollution by stibium containing waste. The presented work is devoted to this problem, in which reaction responsive stibium compounds extracted from arsenic production waste are considered, on the basis of which new nitrogen containing bioactive coordination compounds are obtained.

2. Results and discussions

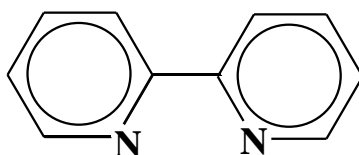
2,2'-dipyridyl as a ligand, for a great while is studied during the synthesis of coordination compounds (Grinberg 1960). The reason of this study is not uniform and contains both pure

chemical and applied aspects. The ample opportunities of 2,2'-dipyridyl ($\text{NH}_4\text{C}_5\text{-C}_5\text{H}_4\text{N}$) for creation of different types coordination compounds.

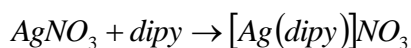
Because of the fact that nitrogen atoms hold in molecule such position that optimum conditions are created for formation of 5-member cycle, α,α' -dipyridyl from the very beginning became the focus of scientists' interest, and due to this fact coordination compounds with metal halogenides, nitrates, sulfates and almost every other soluble salt, containing it, are studied in details.

Sodium tetra thio-arsenates(V) water solutions action with the products of interaction of d-metals soluble salts with bidentate ligand 2,2'-dipyridyl leads us to the formation of appropriate coordination compound (Didbaridze *et al.* 1997). Having used the same method we implemented the synthesis of coordination compounds tetra sulphantimonates(V) with 2,2'-dipyridyl.

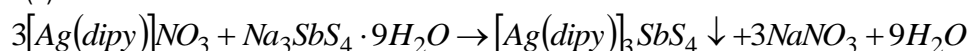
Salts dissolved in d-metals water are used as basic substances: Ag(I) and Hg(II) nitrates, Zn(II), Fe(II) and Cu(II) sulfates, Mn(II), Cd(II), Ni(II) and Co(II) chlorides; sodium tetra sulphantimonate is used as precipitator, while 2,2'-dipyridyl (shortly dipy) is used as nitrogen containing ligand:



Synthesis of d-metal tetra sulphantimonates coordination compound with 2,2'-dipyridyl was carried out by exchange reaction, as result of which tetra sulphantimonates complexes of corresponding d-metals are precipitated, formation of which can be explained by the unity of the following consecutive reactions:

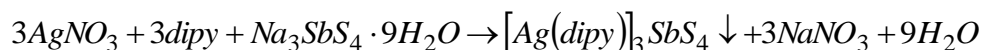


(a)

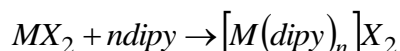


(b)

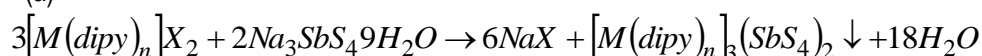
or in total:



As to other metals(II) dipyridylates, in particular when $\text{M} = \text{Fe}, \text{Co}, \text{Ni}, \text{Zn}, \text{Cd}, \text{Hg}, \text{Cu}, \text{Mn}$, then:

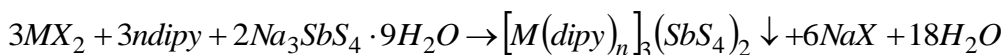


(a)



(b)

or in total:



The essence of this method comprises in the fact that nitrates, chlorides and sulfates of mentioned metals form stable, but water-soluble coordination compounds with 2,2'-dipyridyl. That's why their extraction from mother solution in chemically pure form for further transformation is not necessary: corresponding d-metals tetra sulphantimonate(V) dipyritylates and ethylene diamine complexes are instantaneously precipitated during treatment by these solutions' precipitator – sodium tetra sulphantimonate.

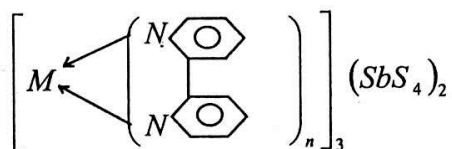
Received coordination compounds represent finely dispersed substances, insoluble in differently colored water and ethanol. All of them are extracted without crystallization water, except of Fe(II) dipyritylate, which adds 3 molecules of water. They have no certain melting temperature, since they resolve before melting.

Composition of synthesized complexes was established by elemental analysis: stibium was determined by Evins method, sulfur – by gravimetric method, metal – by volumetric method, and nitrogen – by Dumas micro method.

Composition and structure of synthesized complexes, except of elemental analyses, was determined by us of physical-chemical research methods. Study of IR spectra of these complexes adsorption shows that SbS_4^{3-} group in studied substances represents exteriorly spherical tetra sulphantimonate(V) ion. In the long-wave 380 and 384 cm^{-1} spectral region absorption band are observed, that correspond to ν_3 oscillation of SbS_4^{3-} ion (Nakamoto1966).

Comparison of free (incoordinate) ligand – 2,2' -dipyridyl spectrum with d-metal tetra sulphantimonates (V) dipyritylates spectra shows displacement of high frequency absorption bands. Free ligands absorption band is at 1584 cm^{-1} , while in the complexes it is displaced to 1600-1610 cm^{-1} , that is related to heterocyclic nitrogen coordination with metals atoms (Iremadze, Chiligidze, Kharitonov1978; Tsintsadze *et al.* 1999; Tsibadze *et al.* 1975).

By taking into account the abovementioned we come to a conclusion that formulas of synthesized coordination compounds can be presented by the following form:



For Fe(II) complex, as for crystalline hydrate, absorption band are observed in 1630 cm^{-1} region, that points at the presence of crystallization water in the compounds.

Individuality of investigated substance is testified by results of X-ray phase studies (Table 1).

Table 1. The results of roentgenopphase analysis of the synthesized dipyrilid complexes of tetratiostibiats(V) some of d-metals (F, Ni, Hg and Ag).

[Fe(dipy) ₃] ₃ (SbS ₄) ₂ ·3H ₂ O		[Ni(dipy) ₂] ₃ (SbS ₄) ₂		[Ag(dipy)] ₃ SbS ₄		[Hg(dipy) ₂] ₃ (SbS ₄) ₂	
I/I ₀	dα/n	I/I ₀	dα/n	I/I ₀	dα/n	I/I ₀	dα/n
100	11.05	10	11.0	5	9.15	3	9.8
5	9.31	2	7.08	15	6.18		
5	7.69	2	6.44	32	3.63	33	6.33
4	4.79	2	5.55	25	3.56	6	3.83
5	4.28	1	5.07	100	3.34		
5	4.18	1	4.28	35	3.13	43	3.36
5	3.708	2	3.95	5	2.978	100	3.186
10	3.562	2	3.86	15	2.90	10	2.915
4	3.36	3	3.74	15	2.80	8	2.765
6	3.10	2	3.63	5	2.675	10	2.529
4	2.54	1	2.69	28	2.564	8	2.765
5	2.227	1	2.51	10	2.368	10	2.529
4	2.156	1	2.44	8	2.22	5	2.127
				40	2.054	16	2.057
				10	1.898	5	1.953
				30	1.758		
				30	1.744		

X-ray pattern of four samples Fe(II), Ni(II), Ag(I) and Hg(II) given here was studied by use of the method of homology. For that purpose table data of American card-catalogue ASTM-20-1917 and ASTM-20-1918 have been used by us, those are basically in good correlation with X-ray reflection of complexes received by us.

Thermal studies of synthesized compounds assured us that dipyrilid complexes don't contain crystallization water, except of Fe(II) tetra sulphantimonate dipyrilidyl, that is testified by IR spectroscopic data, too.

Thermal behavior of these compounds is almost similar. Thermolysis of Fe(II) tetra sulphantimonate(V) dipyrilidylate $[Fe(dipy)_3]_3(SbS_4)_2 \cdot 3H_2O$ was considered as an example. Decay process starts at 80°C, in the 80-150°C temperature range endothermic effects with a maximum at 110°C is observed at DTA curve.

Mass loss at that time comprises of 3.57% that corresponds with the removal of 3 crystallization water (theoretically 2.54%). The further stage of thermolysis at 150-380°C flows very difficult. Three exothermic effects, with maximum 210, 250 If are observed at 360°C. Mass loss at that time is equal to 45.00% that probably corresponds with the removal of 6 molecules of ligand dipyrilidyl (theoretically 44.03%).

In the 380-530°C temperature range exothermic effect with maximum at 480°C is observed at DTA curve. At this stage mass change comprises of 27.57% that corresponds with the removal of 3 moles of ligand and 2 moles of sulfur (theoretically 25.03%). Afterwards, sample mass experiences 1% loss that corresponds with removal of 1 mole of sulfur (theoretically 1.5%).

By taking into account abovementioned probable scheme of Fe(II) tetra sulphantimonate dipyriddy thermolysis can be presented in the following way:

Analysis of synthesized compounds thermographs shows, that destruction of samples under investigation begins from ~150°C, runs on stage-by-stage and removal of ligand finally completes approximately at 400-500°C. Little difference observed in their thermolysis is caused: 1) by different amount of ligands; 2) by the presence of crystallization water. E.g. $[Fe(dipy)_3]_3(SbS_4)_2 \cdot 3H_2O$.

Only exception is presented by Hg(II) complex: thermolysis begins at relatively low (100°C) temperature and completes by total decay.

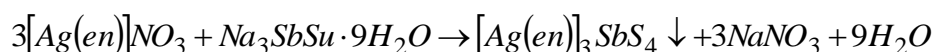
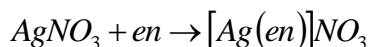
This fact is caused by instability of mercuric (II) compounds itself at high temperatures.

Thus, obtained results allow us to make a conclusion that molecules of 2,2'-dipyridyl are coordinated with d-metals atoms by means of nitrogen atoms, while SbS_4^{3-} group is located in the external (second) sphere of the complex.

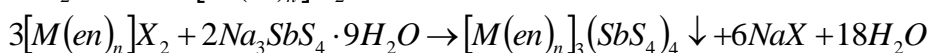
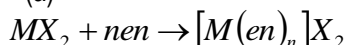
Since ethylene diamine ($H_2N-CH_2-CH_2-NH_2$) is one of the best bidentate ligand, we set as a goal the receipt of complex compounds of transition metals(II) tetra sulphantimonates in the system $M^{+2} - SbS_4^{-3} - en - H_2O$.

Sodium tetra sulphantimonate $Na_3SbS_4 \cdot 9H_2O$, ethylene diamine 50% water solution and salts of water-soluble d-metals has been used by us as a mother (basic) substances.

Coordination compounds of d-metal tetra sulphantimonates with ethylene diamine have been received by means of exchange reaction: by the action of sodium tetra sulphantimonate with the products of interaction of 50% ethylene diamine and d-metals salts, without extraction of the latter in individual status. Silver (I), cadmium, zinc, mercuric (II), copper, cobalt and nickel (II) complexes with ethylene diamine have been synthesized according to the following reactions:



(a)



(b)

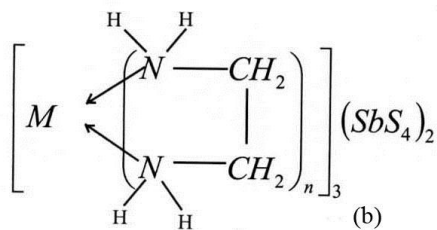
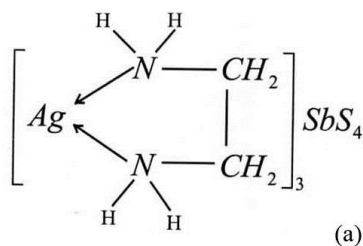
where $M = Zn, Cd, Hg, Cu, Ag, Co, Ni$; $X = Cl^-$, $1/2SO_4^{2-}$ or NO_3^- .

Since Fe(II) ethylene diamine complex is extracted from water solution in the form of precipitate, while received precipitate is insoluble in the sodium tetra sulphantimonates, we were not able to receive Fe(II) tetra sulphantimonate complex by means of exchange reaction with ethylene diamine, as it was achieved during synthesis of other d-metals aminates.

Synthesized complexes are finely crystalline compounds of various coloring, they are insoluble in the water, spirit, and other ordinary organic solvents.

Synthesized compounds, except of elemental analysis, have been studied by IR spectroscopy, X-ray graphical studies and thermogravimetric analysis.

In IR spectra NH_2 -group absorption bands are significantly replaced in comparison with uncoordinated ligand. For free, uncoordinated ethylene diamine absorption bands in 1595 and 3510 cm^{-1} regions are characteristic, while in coordination compound under investigation absorption bands of this group are located in 1620 and 3370 cm^{-1} region, that is characteristic for valence vibration of $\text{H}_2\text{N} \rightarrow \text{M}$ bond. And since silver (I) coordination number is equal to 2, while in case of other d-metals, proceeding from the quality of their oxidation this number increases up to 4, we should make a conclusion that ethylene diamine plays the role of cyclic bidentate ligand, and synthesized complexes have the following structure:



, where M = d-metals

Individuality of obtained products has been checked by us by means of X-ray phase analysis. Cu(II), Ni(II) and Ag(I) compounds show sufficiently defined X-ray picture, while as to Hg(II), Zn(II) and Co(II) tetra sulphantimonate complexes with ethylene diamine (Table 2), they turn out to be X-ray amorphous (Lipson, Stipl 1972).

X-ray diagram of American card-catalogue [8] ASTM 20-1692 ($\text{C}_5\text{H}_8\text{N}_2\cdot 2\text{HCl}$ pure ligand) has been used with the purpose of study of received X-ray diagrams. It turns out that in our case correlation takes place, but the certain amount of X-ray reflections is not deciphered (decoded), and for this purpose the method of homology has been used. More perfect X-ray diagram existing in American card-catalogue ASTM 24-1670 partially filled the gap and gave us the picture that is almost similar to Ni(II) and Cu(II) tetra sulphantimonate complexes with ethylene diamine. It may be said that the samples are virtually similar to the references to be compared and represent ethylene diamine complexes.

Synthesized compounds' behavior has been studied by us during their heating. Thermolysis begins with removal of ligand, and afterwards the picture of their decay is in exact correlation with the thermolysis of normal salts.

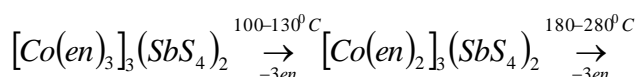
Table 2. The results of roentgenophase analysis of the synthesized ethylene diamine complexes of tetrastibiate(V) some of d-metals (Cu, Ni and Ag)

[Cu(en) ₂] ₃ (SbS ₄) ₂		[Ni(en) ₃] ₃ (SbS ₄) ₂		[Ag(en)] ₃ SbS ₄	
I/I ₀	dα/n	I/I ₀	dα/n	I/I ₀	dα/n
3	5,67	5	8.29	2	9.5
4	5,41	5	7.69	1	8.23
1	5,10	4	5.69	2	3.18
2	4,796	4	5.38	6	2.82
10	4,70	10	5.10	10	2.58
1	4,23	5	4.74	3	2.42
5	3,95	6	4.04	2	2.37
5	3,70	9	3.91	1	2.20
1	3,59	6	3.75	2	2.07
1	3,70	9	3.53		
3	3,528	6	3.36		
2	3,30	10	3.186		
4	3,028	5	2.529		
4	2,80	4	2.449		
2	2,734	3			
1	2,64				
2	2,584				
1	2,413				
2	2,127				
2	2,02				
	1,824				

X-ray diagram of American card-catalogue [8] ASTM 20-1692 (C₅H₈N₂·2HCl pure ligand) has been used with the purpose of study of obtained X-ray diagrams. It turns out that in our case correlation takes place, but the certain amount of X-ray reflections is not deciphered (decoded), and for this purpose the method of homology has been used. More perfect X-ray diagram existing in American card-catalogue ASTM 24-1670 partially filled the gap and gave us the picture that is almost similar to Ni(II) and Cu(II) tetra sulphantimonate complexes with ethylene diamine. It may be said that the samples are virtually similar to the references to be compared and represent ethylene diamine complexes. Synthesized compounds' behavior has been studied by us during their heating. Thermolysis begins with removal of ligand, and afterwards the picture of their decay is in exact correlation with the thermolysis of normal salts.

Let consider the thermolysis of [Co(en)₃]₃(SbS₄)₂ as a sample. Removal of 9 moles of ligand occurs at 100-280°C temperature range in 3 stages: 100-130°C, 130-180°C and 180-280°C. At the first stage the mass decreases by 15.00% (theoretically 14.79%), at the second – by 16.42%, and at the third – by 15.01%. It may be said that removal of 3-3 moles of ligand corresponds with each of these stages. After 280°C, as it was mentioned, the process of thermolysis flows as well as in case of normal (neutral) salts. In the 280-560°C temperature range the mass decreases by 7.14% that corresponds with the removal of 3 moles of sulfur (theoretically 7.89%). At DTA curve two exothermic effect are observed within this range, with peaks at 340 and 520°C.

Further decay of the samples continues above 520°C, endothermic effect is observed at DTA curve with peak at 820°C, mass loss comprises of 24.28% that should be caused by removal of stibium sulfide form (theoretically 25.27%). On the assumption of abovementioned probable scheme of thermolysis of Co(II) tetra sulphantimonate(V) ethylene diamine complex can be presented as follows:





As well as in other cases, here the process of $[\text{Hg}(\text{en})_2]_3(\text{SbS}_4)_2$ thermolysis (Fig. 4, c) differs from corresponding processes of other ethylene diamine complexes that during heating experiences total decay without any residue.

Decay of $[\text{Hg}(\text{en})_2]_3(\text{SbS}_4)_2$ sample begins from 120°C, and becomes especially intense in the 210-270°C temperature range. At that time mass loss is equal to 9.33% (theoretically 8.21%), that corresponds with removal of 2 moles of en.

In the 270-450°C temperature range exothermic peak has several maximums at DTA curve, that points out that complex process runs on. During this process total loss of remained mass takes place.

Study of synthesized complex thermographs shows that removal of ethylene diamine in all compounds occurs in 2 or 3 stages. For Cu(II), cadmium and Ag(I) tetra sulphantimonates complexes with ethylene diamine (as well as in case of normal salts) mass increase is observed in the process of thermolysis.

Thus, the investigations show that in case of d-metal ethylene diamine complexes treatment by sodium tetra sulphantimonates water solution corresponding compounds $[\text{Ag}(\text{en})]_3\text{SbS}_4$ and $[\text{M}(\text{en})_n]_3(\text{SbS}_4)_2$, are received in the form of precipitate, where n=2, 3.

We have carried out the preliminary virtual (theoretical) bioscreening of obtained structures by using of internet-system program PASS C&T (Sadim *et al.* 2002). The estimation of probability of activity of compounds is carried out via parameters Pa (active) and Pi (inactive); when $P_a > 0.5-0.7$, the compound also will show activity experimentally and probably will be analog of known pharmaceutical agents too. Evaluated relative bioactivities of some synthesized compounds are given in Table 3.

3. Conclusions:

- Novel nitrogencontaining coordination compounds of some d-metals Ag(I), Hg(II), Zn, Fe(II), Cu(II), Mn(II), Cd(II), Ni(II) and Co(II) are synthesized and studied. The optimal conditions of the synthesis have been established. The essence of this method is that nitrates, chlorides and sulfates of mentioned metals form stable, but water-soluble coordination compounds with 2,2-dipyridyl and ethylenediamine.

- It was established that their extraction from mother solution in chemically pure form for further transformations is not necessary: corresponding d-metals tetrasulphantimonite(V) di-pyridilates and ethylenediamine complexes are instantaneously precipitated during treatment by these solutions' precipitator – sodium tetra sulphantimonite.

- It was showed that the obtained coordination compounds are finely dispersed substances, insoluble in water and ethanol. The composition and structure of synthesized coordination have been established by elemental analyses. The study of IR spectra of these compounds showed that SbS_4^{3-} group in studied substances represents exteriorly spherical tetra sulphantimonite (V) ion.

- Analysis of synthesized compounds thermographs shows that thermal destruction of studied samples begins at ~150°, runs stage-by-stage and deligation (removal of ligand) is completely finished approximately at 400-500°.

• Bioscreening of obtained compounds was carried out. Their antimicrobial, antiviral and parasiticide activity has been established. Area of their application has been established.

Table 3. Relative bioactivity of some synthesized compounds

Compound	Antiseborrheic	Urethase Inhibitor	Antiprotozoal (Leishmania)	Anthelmintic (Nematodes)	Antiviral (Arbovirus)	Antiviral (Picornavirus)	Anticarcinogenic	Neurotoxin	Antibacterial activity enhancer	Antineurotoxic	Cytoprotectant	Antineoplastic (Leishmania)	Hematotoxic	Antianemic
	P _a / P _i													
[Fe(dipy) ₃] ₃ (SbS ₄) ₂ ·3H ₂ O	0.865/ 0.021	0.820/ 0.005	0.518/ 0.070	0.586/ 0.053	0.687/ 0.046	0.605/ 0.035	0.554/ 0.037	0.719/ 0.029	0.695/ 0.010	0.672/ 0.041	0.661/ 0.035	0.637/ 0.047	0.622/ 0.117	0.523/ 0.066
[Ag(dipy) ₃] ₃ (SbS ₄) ₂	0.824/ 0.041	0.766/ 0.011	0.569/ 0.134	0.496/ 0.105	0.636/ 0.089	0.543/ 0.071	0.498/ 0.068	0.670/ 0.065	0.657/ 0.025	0.581/ 0.071	0.615/ 0.063	0.522/ 0.084	0.505/ 0.178	0.440/ 0.118
[Mn(dipy) ₃] ₃ (SbS ₄) ₂	0.865/ 0.021	0.820/ 0.005	0.586/ 0.008	0.586/ 0.053	0.687/ 0.046	0.605/ 0.035	0.554/ 0.037	0.719/ 0.029	0.695/ 0.010	0.672/ 0.041	0.661/ 0.035	0.637/ 0.047	0.622/ 0.117	0.523/ 0.066
[Ag(en)] ₃ (SbS ₄) ₂	0.768/ 0.066	0.651/ 0.034	0.542/ 0.045	0.543/ 0.075	0.681/ 0.049	0.659/ 0.016	0.521/ 0.054	0.663/ 0.070	0.640/ 0.034	0.636/ 0.052	0.650/ 0.041	-	0.605/ 0.125	0.586/ 0.037

4. References:

- [1] Grinberg, A.A. 1960. Introduction in chemistry of complex compounds.
- [2] Didbaridze, I., Khelashvili, G., Rusia, M., Injia, M., Gigauri, G. 1997. Coordination compounds of d-metals(II) tetratioarsenats with 2,2'-dipyridyl. *Georgian Engineerig News*, №4. pp. 97-1001.
- [3] Nakamoto, K.M. 1966. 'Mir'. Infra-red spectra of inorganic and coordination compounds.
- [4] Iremadze, A., Chiligidze, I., Kharitonov, Iu. 1978. Oscillatory spectra of complexes of nickel with oxymethylnikatinamides. *Coord. Chem.* 4, vol. 8, pp. 1239-1247.
- [5] Tsintsadze, M., Machaladze, T., Kereselidze, M., Skhirtladze, L., Kurtanidze, R., Varazashvili, V., Palavandishvili, T., Tsarakhov, M. 1999. Coordination compounds of zinc sulphats with ortho-amino-4 and 5-methylpyridines. *Proceedings of the Academic Sciences of Georgia*, 25, №1-2, pp. 33-37.
- [6] Tsibadze, A., Kharitonov, Iu., Tsintsadze, G., Petriashvili, Zh. 1975. Investigation of oscillatory spectra of tsianates complexes of metals with hydrazides of isonicotinic acid. *Coord. Chem.* 1, vol. 4, pp. 525-533.
- [7] Lipson, G., Stipl, G. 1972. 'Mir', Interpretation of powder X-ray pictures. vol. II.
- [8] The American card file ASTM (American Society for Testing and Materials). 1977.
- [9] Sadim, A., Lagunin, A., Filiminov, D., Poroikov, V. 2002. Internet-System of Prognoses of the Spectrum of Bioactivity of Chemical Compounds. *Chem.-Farm. J.* 36, 10: 21-26.

INVESTMENT IN TOURISEM- USE OF THE INTEGRATED MARKETING COMMUNICATIONS TO PROMOTE THEM

Fatos UKAJ

Faculty of Economy, University of Prishtina, Kosovo

fatos_ukaj@yahoo.com

Fetije UKAJ

Finance and Audit expert, Prishtina, Kosovo

fetije_u@yahoo.com

Abstract:

Modern marketing except the fact that you have a good product to offer, you set affordable price and there is availability of the product for the customer, is expecting the need for communication and is given the importance of communicating with the environment, and more and more communication is based on the concept of marketing mix, which is increasingly used recent years. As much as a country, region, and city or in this case tourism enterprise organizes promotional activities, increasingly is seen as necessary to coordinate these activities. So if we wish that promotional activities give effects and in same time to achieve to economize as cost-effective use of available resources, and achieve optimal results from those activities, then appear need of applying the concept of integrated marketing communications. This is because, through its tourist entities starting from small ones up to the country level coordinates their promotional activities, addressing to the public with clear message, meaningful, reliable, competitive and strong one, both for tourism entity(country, city, enterprise) itself or for goods and services they offer. The objective of integrated marketing communication should be that the right message has to be presented to public, in a proper manner, to appropriate audience, in the right place, and in due time. Investment in Tourism is and should be part of the country's Investment policy; no matter they are Foreign or Domestic Investment (FDI). The information sent to potential investors and communicating with them (target group) will help in making the attractive for tourist the entity no matter if it is company, certain town or country as touristic destination in general. It is important, always being aware for environmental factors which are changing continuously. Any enterprise or institution will necessarily find themselves sometimes in the role of communicators but also as the promoter.

Keywords: marketing mix, investments, communication, integrated marketing communication, target groups, investors.

JEL Classification: L83, P33, M31.

1. Introduction

Use of promotion represents any kind of communication that is made for the purpose of informing, persuading, or updating the memory of people and the public for the country, region, city, tourist destination and the enterprise in general, willing to recall the product, service, image, or ideas for the future. Tourism in Kosovo and in the region, in countries such as Albania, Montenegro, and Macedonia has achieved different results, compared with each other, but also within a country the results are different whether they are shown in physical -numerical data or quality. After several years of crawling, back in the years 2008 and 2009, there is a tendency to increase the number of visits, overnight stays, hotel capacity and other services. If we take Albania as an example, that in first 8 months of 2009 had an increase of visits by 36% compared with the same period in the previous year, that had more than 1.6 million visitors and, in the year of 2008 collected 358 million euro's that actually was 4.1% of the local GPA. This seems encouraging but according to the ranking made by the WEF (World Economic Forum) on the basis of the competitiveness index it ranks

Albania the 90th from a total of 133 countries in the world. All countries in the region were ranked before Albania, except Bosnia and Herzegovina. Even though most of them in this period have recorded decline in visits and revenues from tourism, mostly from the economic crisis which was and continues to be a slowing down of development in this period. For most enterprises and institutions the need to communicate is not questioned but the issue of what to say and to whom to say (Kotler, Keller 2006). Having learned from the advances of the countries in the region, Albania, Montenegro and Kosovo can make a greater progress towards the increasing of the number of visitors not only in the main tourist season (which in Albania and Montenegro 3 summer months are counted) but also in the rest of the year. We mention the cooperation between countries due to the fact that a significant number of visits in the three countries come from their respective states so this leads the issue in the direction of the need for cooperation in the field of tourism and beyond. Promotion planning actually represents the continuation decisions for all enterprise communication issues or institutions and their communication activities. What can be done in setting up a database for tourism in countries in the region, the first is attracting investors for investment in tourism industries, the second is the establishment of performance in its own tourist places, and the third promotion of tourist sites using concept of integrated marketing communications. Communication is headed towards consumers (users of the tourism product), mediators in tourism, and other interested participants including the general public.

2. Investments and organization around them in tourism

The key to the success of many enterprises and institutions involved in the tourism industry in many countries of the world is the bombarding of customers and stakeholders with information on the possibilities of the country. The group targeted by this case can also be the potential investor. Foreign direct investment or FDI (Foreign Direct Investment) are needed, welcomed and important for Kosovo but also for the regional countries such as Albania and Montenegro, they would be as an infusion for the economy but also for the tourism as a potential which these countries and their economies depend on it.

Table 1. Investments in the economy of Kosovo (in millions of euro's)

Year	Direct Investments In total	Share Capital	Profit of new investments	Other capital transactions
2007	440.7	286.1	41.6	113.0
2008	366.5	222.3	56.2	88.0
2009	291.4	211.1	57.1	23.2
2010	361.8	269.5	58.9	33.4

Source: CBK Monthly Statistical Bulletin, August 2011/Nr.120

Investments in tourism are also important because they are investments that bring fresh capital invested in the country, mainly as capital, technology, and know-how, which are agreed in the recipient country of investments. In the practice held until now in foreign investments there is no reason for bragging, except Montenegro where the most part of investment in tourism is done by foreigners, in Kosovo and Albania this trend should take different direction being attractive for region

investors. The capacity of domestic investors is small and limited, and the biggest foreign investors have not yet decided to enter this area, firstly because of the missing information, legal and political circumstances, the financial crisis, etc. Serious investment made from large investors will bring with it greater equity, therefore for the fact that in this game there will be large amount and long-term major projects. The countries have not managed to communicate with stakeholders and to convince them on the opportunity, legislation, investment security, and other benefits compared to competition. It should be stated that it is large in the wider areas such as Croatia, Cyprus and Greece. It is not that there has not been a great interest from investors, but the reaction of governments has been clumsy and not insistent on providing support, therefore many of them are mulled and pulled from idea of investing. Precisely the stage when investors express their interest in these countries is problematic, because bureaucracy slows and complicates every step of the process, but also blurs things, which makes the investor to lose patience and confidence in the country where they want their own capital to be invested. Right here a communication based on the concept of marketing mix is needed, making it necessary even to the system that follows the investment from tourism enterprises, certain cities and tourist country in general to get informed and automated, in order to be more attractive and easier to investors for their investments if they have enough information for conditions, time, and obligations that are ahead. Today definitely the speed in global economy, and also utilization of the right moment are the factors that determine the possibility for economic development of country, and if the regional countries such as Kosovo, Albania and Montenegro's economy does not harmonize rhythm itself to such a practices, in order to keep up with the world trends in economy, then other countries will use this, the level of the economy and tourism in Kosovo and other mentioned countries above will reduce the level of economic growth, being not attractive to investors, and this certainly is not in the interest of anyone including the government of respective countries. In direct foreign investments, we distinguish two dominant ways of investment, which are direct Horizontal Foreign Investment and direct Vertical Foreign investment. Direct horizontal foreign investment actually occurs when investing in the same area in another state, in this case it would be that the tourism enterprises to invest in the field of tourism in our countries. Here it is possible to invest in existing facilities in the country of investment by building and expanding capacities, or starting entirely new projects from beginning. In Montenegro and Croatia there are some examples where major global companies have increased capacities of tourist facilities with direct investments even through privatization, partnership, franchise, etc. In this case it is important that serious enterprises-investors have recognized and understand the risks of action in political and cultural environment different from their place of domicile, and fit the circumstances 'game rules', in order to be able to expand their activity as an expansion in these countries, that are present as well in other tourist countries in the region, or want to take advantage of being first in countries that have the aim of tourism development. Direct vertical foreign investment actually are presented in two forms, when the investor wants that the investment made in another country, can provide input to the process of the origin country. And the second is when the investor wants to invest in a country in which will be exploited for the sale of its output. When it comes to investment in tourism, these forms are applicable and have investors from different areas that invest in transport, sports and recreation, parking for yachts, etc. In both modes of foreign direct investment the question is made in order to get the answer why an investor would 'get in trouble' and would want to spend in expand the capacity in a foreign country. Of course, that every investor has their own specific arguments that makes a country more attractive than other countries for their investment. But in general there are two answers to that question and starting with the first that is argument of strategic behavior, while the second falls on the access to imperfect markets. Argument of strategic

behavior has to do with the case, when investors with their entry into new markets want to exploit the advantage of being the first to be able to intercept in the future 'game rules'. Access to imperfect markets is a preferred way for those who wish to include their know-how in targeted country, reaching advantages and benefits issues, but also ensuring consistency in the market with investment in strategic tourist sites.

Table 2. Direct investment by economic-activity branch (In percentages)

Year	Financial Services	Production	Real Estate	Transport and telecommunications	Electricity	Mining	Processing industry	Agriculture	Others	In total
2007	23.1	9.0	7.0	29.3	0.6	9.4	8.0	1.8	11.8	100
2008	34.9	6.0	16.8	13.8	4.5	4.7	8.5	2.3	8.5	100
2009	25.5	17.1	14.9	7.4	2.9	2.4	2.4	4.4	23.0	100
2010	19.42	19.85	13.42	4.05	0.12	2.75	6.85	0.62	32.92	100

Source: Based on CBK Monthly Statistical Bulletin, August 2011/Nr.120

3. Integrated Marketing Communication, in practical application

The communicator must select efficient channels of communication in the menu to send their messages to the audience. We distinguish two types of channels, a) Personal channels and b) Non-Personal or mass channels. The first one includes two or more persons that communicate with each other personally face to face, using phone or the internet. While the second channel or massive channel, it includes in itself all the media, environment and events. With the making of the integration, of promoting elements in the framework of marketing mix, so that they act in harmony and cooperation, thus they create better conditions for communication with the public in order to be more efficient, therefore the action of promotional activities significantly improves. The easiest explanation of integrated marketing communication would be the fact that it links all marketing communications activities. This indicates that in fact we are dealing with the integration of all elements of promotion mix. Author Philip Kotler, the integrated marketing communications defines it as a concept which integrates carefully and coordinates most of its communication channels, in order to send a clear message, meaningful, insight for the organization and its product. In fact the process of integrated marketing communications as a start up point it has the potential buyer, and then acts with feedback force in its own organization, in order to determine and define the forms and methods through which the program for adequate communication will develop. From here it stems that 'integrated marketing communication'(IMC) has some characteristics in which its action is based, and they are; impact on the behavior of target groups, focus on customers; use all possible contacts, achieving synergy, creation and maintaining relationships.

4. Necessary conditions for establishing communication with favorable mix

Recognizing the environment, in which marketing communication takes place that is dynamic and changeable, and knowing what opportunities the market offers in it, we estimate that they

consistently have an impact in creating a combination of communication mix. In the selection and placement for any of optimal combinations of the instruments of the marketing communication mix, according to different authors as Ph. Kotler, Jobber, etc., the following factors affect it: available financial resources, product characteristics, characteristics of target market, existing relationships with consumers, the level of competition, the life cycle of the product or service, the company strategy and objectives. etc. As for the instruments of promotion as an element of marketing mix (product, price, distribution and promotion), in the traditional form are counted: economic propaganda, the sales promotion, public relations, publicity, and direct marketing. But in the latest practice of marketing concept other instruments are being added such as packaging (as communications part of product), environment of sale (also seeing this as communications part-aspect of the sales and distribution), and communication part-aspect of the price. The author Ph. Kotler defines marketing communication as tools with which the company seeks to inform, persuade and remind the buyer, directly or indirectly for their goods and their mark. (Kotler 2006) Marketing communications present tools through which a dialogue is made and a relationship with buyers is build. The biggest effect of the impact of marketing communications can be achieved if all the mentioned instruments are integrated in a homogeneous whole. In practice many more instruments are used in both marketing communications and this makes the differences between them to hide and it is not visible where one starts and where the other ends. It is inevitable that in practice each of these instruments will be used within the activities of the majority of other marketing instruments. Here it is important the need for us to split the budget sufficient for promotional activities, and we distinguish four methods for determining the level of the budget, and they are: arbitrary methods, the percentage of sales method, the method of parity with the competition, and methods according to the target and duty. (Kotler 2006).

5. Conclusion

Communication process should start after it is clear that the specified target is our audience, in this case we are talking about investors. This audience should clearly get the message that contains elements of what, how, when, where and whom to contact. That is because in the moment when a state decides to allow-invite the entry of foreign investors, it should be determined for the preferred field and method of investment by the investors. This can be in many forms, whether it's direct investment, issuing licenses, formation of joint ventures, etc. Each way has its own advantages and disadvantages, but the important thing is to become an attractive country for foreign investors, once you have access to capital then the work for becoming attractive starts to pay off. So the state itself should invest in promoting the opportunities and their own offer, in this case the opportunities for investment in tourism, as a economic branch where the regional countries such as Kosovo, Albania and Montenegro dispose of attractions and natural beauty that are interesting for tourists, but that must be accompanied by the right conditions for the visitor, and this requires capital, which these countries do not have currently. In order for the country to become attractive for the investors there is a need that countries should start to apply the concept of integrated marketing communications, in order that for tourist attractions they have as a resource they send a strong and meaningful message. We can say that integrated marketing communications represent a relatively new concept which is being developed day by day, and its practical use has not yet reached a level that would have to be, recognizing the possibilities that they offer to management and other organizations in daily activities. The use of this concept is in expansion, but we have found that in the tourism of Kosovo and countries of the region there is not widespread, except the cases when professional marketing companies deal with this. The obstacles in the massive application of this

form of communication are identified to be: unwillingness to accept innovation in marketer daily work, numerous activities that require the application of this concept, non-development of horizontal communication of enterprises and organizations, decentralization of decision, the old problem of the impossibility of measuring the effects of integrated marketing communications, the need that the company or organization that wishes to apply this concept would have to have a different type of organization structure. In western countries the application of this concept is also encountering difficulties and the fact that in enterprises and organizations exist various units involved in the affairs of certain types of promotion instruments, or in the case where external agencies are used then they are specialized for one of the promotional activities, whether public relations, sales promotion, or direct marketing, or even the organization of special events, and this is shown as a 'problem' for managers in the implementation of marketing communications program, because as we saw above integration requires that all elements coordinate and interact. The integrated marketing communication itself seeks the need for marketing communications to be coordinated in order to send strong messages and enable the achievement for better results, achieving the target customer groups, in the right time and place. This form of marketing communication enables the promotion process to be seen as a whole, and not to be focused in any of the instruments, but also at the same time at the coordination of promotional activities combining the best settings for different instruments, which will make possible through integration of activities and order, to be able to affect in demand and sales. An enterprise or organization has more target groups of their own buyers therefore it sends the largest number of orders to them, but one thing is sure that those messages should be harmonized, consistent and complementary. So it is possible that messages are different, nevertheless, it is not allowed to be contradictory, and they need to fill each other. It is correct that the application of integrated marketing communications will bring better results to the company or organization, and business success, but it should be noted that this will not happen if there is no success in creating a balance to all the instrument of the used marketing mix.

5. Reference

- [1] Kotler, P., and Keller, K.L. 2006. *Marketing Management*, New Jersey: Pearson Education Inc, Prentice Hall.
- [2] William, D., Perreault, Jr., and McCarthy, E.J. 2006. *Essentials of Marketing, A global-Managerial Aproach*. New York, McGraw-Hill/Irwin.
- [3] Charles, W.L.Hill. 2001. *International Business-Competition in the Global Marketplace: Postscript 2001*, New York, McGraw-Hill/Irwin.
- [4] Milisavljević, M., Maričić, iB., and Gligorijević, M. 2005. *Osnovi marketinga*, Beograd: Centar za izdavačku delatnost Ekonomskog fakulteta.
- [5] Ukaj, F. 2010. Impact of the Risk management and Quality in Tourism trends. *Journal of Environmental Management and Tourism*. Volume I Issue 2(2) Winter 2010. ISSN 2068-7729. pp 187-193.
- [6] Ukaj, F. 2010. Marketing Concept as a Tool for Development of Tourism in Kosovo. *Journal of Environmental Management and Tourism*. Volume I Issue 1(1) Summer 2010. ISSN 2068-7729, pp 57-62.
- [7] Ukaj, F. 2010. Transport as the Factor of Sustainable Economic Development. First conference with international participation/ I Savjetovanje sa međunarodnim učešćem 'Transport i Savremeni Uslovi Poslovanja/ Transport and Modern Business conditions Internacionalni

Univerzitet Travnik, Saobracajni Fakultet, Travnik BiH, 27-28 Maj 2010. Proceedings, ISBN 978-9958-640-06-3, Zbornici COBISS.BH-ID 17427974, p 151-156.

- [8] Ukaj, F. 2006. Promocioni dhe segmentet bashkëkohor promociional në turizëm. Peje
- [9] Ukaj, F. 2007. Konferenca 'Perspektiva e Turizmit Fshatar në Regjionin e Rugovës', f. 1-4, 07. Prill. Peje.
- [10] Ukaj, F. 2008. Punimi i prezantuar në Simpoziumin Ndërkombëtar. Prirodno i Kulturnohistorijsko nasljedje i novi modeli upravljanja razvojem turizma. Vlasica, 14-15 Mars 2008, BiH. Trashëgimia Historike e Kosovës në dritën e trendëve të reja të zhvillimit të Turizmit.

[***] <http://rru.worldbank.org/PublicPolicyJournal>

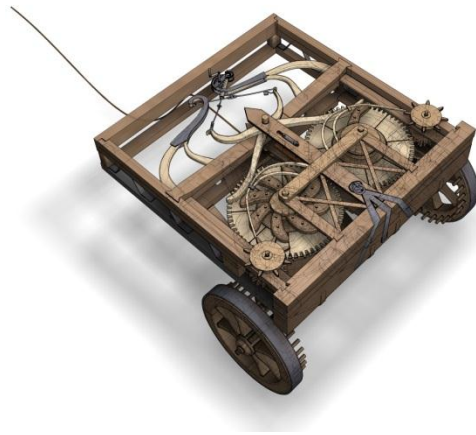
[***] <http://www.bqk-kos.org/repository/docs/2011/BMS%20nr%20120.pdf>

[***] www.setimes.com/

[***] www.mti-ks.org

[***] www.visitkosova.org

[***] www.kotas-ks.org



ASERS Publishing
Website: www.asers.eu
E-mail: asers@asers.eu
ISBN: 978-606-92386-9-1

