ISSN 2412-5210

International Journal VALLIS AUREA

Volume 1 • Number 2 • December 2015
ISSN 2412-5210

EDITOR'S NOTE

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The works can be presented as:

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With all our hearts and sincerity, we wish to express our deepest gratitude to all the authors, reviewers, and editorial board members for their valuable contribution for this journal. We look forward to a successful cooperation.

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BIANNUAL

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EDITORIAL BOARD:

Category: original scientific paper

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CONTEMPORARY ISSUES OF URBAN MOBILITY

Abstract:

Consequences of individual transport rapid development are a threat for modern cities and their population. Actually, transport problems in urban areas mostly derive from inadequate solutions of urban mobility by local transport systems. Majority of these problems are caused by extreme density of motor vehicles in urban areas. Increase of motor vehicles is a consequence of income increase and better standard of living. Accordingly, theoretical part of this study will investigate and elaborate on modern problems of urban transport, while the practical part of this work gives an overview of concrete solutions to some of the problems of urban transport on the example of the city of Rijeka in Croatia. Results of research also suggest guidelines for more efficient transport management in cities of similar size.

Keywords:

city, urban mobility, motor vehicles, transport systems, transport problems

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UDK 656.01(497.5Rijeka); DOI:10.2507.IJVA.1.2.1.12

Introduction

Consequences of individual transport rapid development are a threat for modern cities and their population. Actually, transport problems in urban areas mostly derive from inadequate solutions of urban mobility by local transport systems. Majority of these problems are caused by extreme density of motor vehicles in urban areas. Increase of motor vehicles is a consequence of income increase and better standard of living. For the sake of ensuring enough space for motor vehicles, houses are being torn, trees get cut down, roads are getting wider and pedestrian areas are narrowed; road crossings and pedestrian roads, green areas and emergency access spaces are being used for parking; air pollution is becoming unbearable and the noise is ever increasing; flow and speed of public transport are decreased due to cars, while construction of new transport infrastructures costs space and money, so the quality of life in cities is getting lower.

Urban transport in these circumstances hardly comes to terms with demands of fast, safe, comfortable and economical transportation of people and goods. In order to change this, basic transport problems should be indentified and then solved according to size and type of the city.

Theoretical framework and research problems

Large cities and growing number of urban population in the world is a 20th century phenomenon. The century behind us will be marked by decline from poverty for majority of world's population. The number of people in the world migrating into cities is larger every day. 80% of European population lives in urban areas. It is therefore estimated that by year 2050 some 80% of all population of the Northern Hemisphere will be living in the cities, while the percentage will fall to some 55% to the south of the equator. Such facts impose further challenges for urban traffic, and directly bound the development of commerce to the possibility of urban and suburban traffic.

First half of the 20th ct is marked by intense growth of cities in developed European and North American countries, while in the second half the cities are growing in countries in process of development, especially in Latin America and Asia. Thus, the largest cities in the world in the beginning of the 21st ct are those from the Third World. Urban transport is developed in cities with population over 100.000 people, but also in many with smaller population. Over one billion people are using urban transport daily. Without a doubt, this is the most frequent form of transport. Today, each city is organizing their own transport according to their own means and demands, so it is hard to come up with similirities or unification of world urban transport.

Cities can be categorized based on organization of their transport [1]:

- Third World city - economic underdevelopment, social backwardness, great population density, but low regular employment and mobility. All infrastructures are poorly developed, transport included. Streets, which are not primarily meant for motor transport, are where life is happening, while transport is mainly pedestrian, with cheap personal vehicles abounding (bikes and motorbikes), and even carts (in India, for example). Car is owned by minority of population. Public transport is unsatisfying, often too crowded and mostly executed by bus. Some of the largest cities of this type have begun developing metropolitan railway system.
- Car city - relatively new cities in highly developed countries, constructed mostly after

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mass production of cars. Typical cities of this sort are those in southwest and midwest of the USA, in Canada and Australia. There is low population density (mostly individual type residencies), high mobility of employed residents, specialization of urban spaces and occasional visits to shopping malls. Majority of population is motorized, and almost every type of movement is done by car. Public transport is irrelevant, and it usually consists of infrequent bus service. Unmotorized people are less mobile and dependent on others in terms of transport. American way of life doesn't only imply progressive use of cars, but American reliance and dependence on cars could almost be called religious, while victims made in the name of this religion are often irrational. Using their cars to escape the metropolis, Americans have only managed to transfer the chaos of overcrowded city onto the road, with nature disappearing under tarmac.

- Western European city - this type of city ows its physical structure to a long process of development, population density and infrastructure are relatively high, and functions of urban areas mixed up. It is not completely adapted to car transport (and without destructive remodelling on a big scale it cannot be so), so in spite of highly motorized population, car use is somewhat limited, so public transport is important and frequently used. More or less, city politics is focused on subsidizing public transport, while mildly restricting or destimulating personal car transport.

- Socialist city - mainly found in Russia and parts of Eastern Europe. Mostly these are newly built cities, although there are many with physical structure similar to Western European cities. Motorization is pretty low, due to low standards of living, population density is relatively high and public transport was forced for functional and ideological reasons.

- Asian capitalist city - this type of city can be found in Japan, South Korea and highly developed areas such as Singapore or Hong Kong. High population density and developed infrastructure, along with some collectivistic cultural patterns, leads to mass use of public transport and to rather restrictive policies regarding personal car use, in spite of private capital domination.

Of course, not every large city in the world can be put in these clearly defined categories - many of them have particularities of several different types. The complexity of transport system depends on the size and type of city. Main transport issues are usually related to urban areas. Some of the most notable urban transport are following [2]: 1) Traffic congestion and parking difficulties. Congestion is one of the most prevalent transport problems in large urban agglomerations. It is particularly linked with motorization and the diffusion of the automobile, which has increased the demand for transport infrastructures. However, the supply of infrastructures has often not been able to keep up with the growth of mobility. Since vehicles spend the majority of the time parked, motorization has expanded the demand for parking space, which has created space consumption problems particularly in central areas; the spatial imprint of parked vehicles is significant. Congestion and parking are also interrelated since looking for a parking space (called "cruising") creates additional delays and impairs local circulation. In central areas of large cities cruising may account for more than 10% of the local circulation as drivers can spend 20 minutes looking for a parking spot. Parking takes up as much as 24% of the area of American cities, and some urban areas have as many as 3-5 parking spaces per car; even

UDK 656.01(497.5Rijeka); DOI:10.2507.IJVA.1.2.1.12

so, people looking for parking account for 30% of miles driven in urban business district (The Economist, Auugust 1sth 2015.). 2) Longer commuting. On par with congestion people are spending an increasing amount of time commuting between their residence and workplace. An important factor behind this trend is related to residential affordability as housing located further away from central areas (where most of the employment remains) is more affordable. Therefore, commuters are trading time for housing affordability. However, long commuting is linked with several social problems, such as isolation, as well as poorer health (obesity). 3) Public transport inadequacy. Many public transit systems, or parts of them, are either over or under used. During peak hours, crowdedness creates discomfort for users as the system copes with a temporary surge in demand. Low ridership makes many services financially unsustainable, particularly in suburban areas. In spite of significant subsidies and cross-financing (e.g. tolls) almost every public transit systems cannot generate sufficient income to cover its operating and capital costs. 4) Difficulties for non-motorized transport. These difficulties are either the outcome of intense traffic, where the mobility of pedestrians, bicycles and vehicles is impaired, but also because of a blatant lack of consideration for pedestrians and bicycles in the physical design of infrastructures and facilities. 5) Loss of public space. The majority of roads are publicly owned and free of access. Increased traffic has adverse impacts on public activities which once crowded the streets such as markets, agoras, parades and processions, games, and community interactions. These have gradually disappeared to be replaced by automobiles. In many cases, these activities have shifted to shopping malls while in other cases, they have been abandoned altogether. Traffic flows influence the life and interactions of residents and their usage of street space. More traffic impedes social interactions and street activities. People tend to walk and cycle less when traffic is high. 6) High maintenance costs. Cities with an aging of their transport infrastructure are facing growing maintenance costs as well as pressures to upgrade to more modern infrastructure. In addition to the involved costs, maintenance and repair activities create circulation disruptions. Delayed maintenance is rather common since it conveys the benefit of keeping current costs low, but at the expense of higher future costs and on some occasion the risk of infrastructure failure. The more extensive the road and highway network, the higher the maintenance cost and the financial burden. 7) Environmental impacts and energy consumption. Pollution, including noise, generated by circulation has become a serious impediment to the quality of life and even the health of urban populations. Further, energy consumption by urban transportation has dramatically increased and so the dependency on petroleum. Yet, peak oil considerations are increasingly linked with peak mobility expectations where high energy prices incite a shift towards more efficient and sustainable forms of urban transportation, namely public transit. 8) Accidents and safety. Growing traffic in urban areas is linked with a growing number of accidents and fatalities, especially in developing countries. Accidents account for a significant share of recurring delays. As traffic increases, people feel less safe to use the streets. 9) Land consumption. The territorial imprint of transportation is significant, particularly for the automobile. Between 30 and 60% of a metropolitan area may be devoted to transportation, an outcome of the over-reliance on some forms of urban transportation. Yet, this land consumption also underlines the strategic

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importance of transportation in the economic and social welfare of cities. 10) Freight distribution. Globalization and the materialization of the economy have resulted in growing quantities of freight moving within cities. As freight traffic commonly shares infrastructures with the circulation of passengers, the mobility of freight in urban areas has become increasingly problematic. City logistics strategies can be established to mitigate the variety of challenges faced by urban freight distribution..

Research results and discussion

Cities deal with aforementioned problems differently, but mostly they try to relieve the centres from motor transport, especially individual motor transport. Shopping areas, districts and streets are recently being turned into pedestrian zones. Intercity traffic is lead through detours outside of cities. The cities are having their streets widened in order to increase the traffic flow. Mass transport is usually done by specific fast form of urban transport, most successfully by subway trains and high speed city trains. Individual car use is kept to periphery, but individual transport is mainly turned to public transport. There are attempts to improve the traffic situation by investing in high tech signal devices, with ability to control them in any given moment, according to needs. Traffic is being monitored through system of video monitoring. The most radical changes are those that deal with the very structure of the city. Efforts are made to avoid the classic centre - periphery orientation. Largest success was made with organization of metropolitan areas. Extremely important issue of urban transport is static traffic. Modern solutions are mostly aimed at multi-storey parking garage at the city centre, while open parking lots are built towards the periphery. Similar parking lots are built next to greater facilities, such as shopping malls, business centres and like.

In the following, problems in traffic system of the city of Rijeka will be discussed, as well as possible solutions. Rijeka is sprawled in length of about 16 km, and of 1 to 2 km in width (5,5 km in the centre). Area of the city measures about 44 km2. Industry and business is mostly situated at the centre or in the north-east. Such elongated shape defined the road system, which is longitudinal. Streets parallel with coastline had a technical advantage during construction - they were built over relatively flat terrain, while technical elements of transverse streets were rather bad (longitudinal gradients, radius of curves). Undersize of traffic network, lack of spare space for further construction, development of residential areas and industrial zones at the radial road network emanating from the city centre, and the ever growing motorization has lead to following problems.

Traffic congestion and parking problems in Rijeka. According to population census from 2011, there are 128.000 people living in Rijeka, or 40.000 less people than in 1991. In 2011 there were 68.945 registered vehicles in the city. The System of Automatic Control in the city registrates about the same number of vehicles entering Rijeka on a daily basis. This number of vehicles turns out to be too much for city traffic system, especially during peak periods. For example, average speed in urban traffic in the city of Rijeka in 2002 year during rush hour in certain routes was only 2 km/h. The increase of vehicle flow through intelligent solutions, better parking organization, recent construction of roundabouts and new infrastructure solutions improved the city traffic. The efficiency of infrastructure solutions was best confirmed by construction of Rijeka detour that is one of the best-used roads in the Republic

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of Croatia. This detour is very important for the city traffic system, because majority of transit traffic passes here, as well as part of local traffic and so operates as the city highway. Automatic traffic control system has enabled a complete use of throughput capacity of city road network (in real time). Thus, thanks to automatic control system and construction of a four-track roundabout from Krizisce to Matulji in 2010, traffic congestion was largely reduced.

Lack of parking spaces, along with traffic congestion, was the main feature of traffic in the city of Rijeka. Solution was at first sought by increasing the number of payed parking spaces. The number of payed parking spaces has increased by 3,5 times compared to 1991. Currently Rijeka has about 6.000 parking spaces located within 5 to 10 min walk outside of major urban public facilities. [3] Lack of parking spaces, for the time being, is compensated by organizing parking within the central zone in a different manner, installing protective pillars to prevent irregular parking, constructing public garage facilities with capacity of 1.550 parking spaces and by increasing the charge of parking.

Public transport inadequacy. Favourable maritime location and railway passing through the city are not sufficiently used for public transport. Several suggestions were made to build a city public railway system, but were dropped. There are 48 routes offered for urban and suburban trains which would run from 04 to 21 hrs. The intended daily capacity of a line would be over 30000 passenger places, which makes almost one third of average number of passengers which are daily transported in public urban and suburban traffic of city of Rijeka. [4] From the economical aspect it is highly questionable how the population, i.e. number of users of public urban transport, reflects to introduction of new traffic technologies into Rijeka's urban traffic. Urban and suburban railways are suitable for cities with more than 500 000 inhabitants. In Rijeka public transport service is provided by Autotrolej Ltd. (by bus) and taxi services. Demand for public transport in the city and its suburbs can be seen in Table 1.

Year	Trversed km	Transported passengers	Transported passengers
1909.	454,8	2 584,1	5,68
1920.	425,9	2 600,7	6,11
1930.	622,1	4 216,4	6,78
1940.	867,2	8 260,4	9,53
1950.	598,8	10 446,6	17,45
1960.	4 954,5	29 911,0	6,04
1970.	7 660,0	45 294,0	5,91
1980.	10 617,2	57 609,0	5,43
1990.	12 354,0	87 801,0	7,11
2000.	9 481,0	35 213,0	3,71
2010.	9 674,4	46 129,5	4,77
2013.	9 312,2	45 656,8	4,90

Table 1: Indicators of public transport in the 20th and the 21st ct (the Noughties).

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organisation depends heavily on the quality of the job applicants been attracted. That quality of the job applicants are depended heavily on the

Firms	SOx(t/year)	Nox(t/year)	CO(t/year)	CO2(t/year)	Particle(t/yr)
INA-Urinj	4154	2365	179	863358	67
INA-Mlaka	0	9,4	4,7	8319	0,2
DINA-Omišalj	143	26	1,6	16674	4,4
U.C. Energo	48,3	47,37	7,42	24516	0,01
Non-industrial combustion	343	272	8375	-	287
Road traffic	288	5528	4722	531	193

Table 2: Statistics for emissions in the county Primorsko-goranska

successful performance of recruitment process. The need for such services in Rijeka's urban traffic has decreased considerably in the last two decades, mainly because the number of people employed in the city of Rijeka has diminished, and so has the number of pupils in elementary and secondary schools. The number of people employed in the city of Rijeka in 1991 was 79441, compared to 49337 employed in 2010. The number of pupils in elementary (22445) and secondary (11048) schools amounted to 33493, while in 2014 there were total of 15258 pupils, i.e. 8433 in elementary and 6826 in secondary schools.

Decrease of all types of demand for services of public urban transport in the city of Rijeka has resulted in decrease of supply, i.e. number of buses used in public urban and suburban traffic, from 266 in the year 1990 to only 180 in the year 2013. Motor pool from 31 December, 2014 consisted of 174 vehicles, of which 104 were regular buses, 47 joint buses, 19 minibuses, 3 vans and one double-decker.

Difficulties for non-motorized transport. Rijeka is practically the city of cars. Bike transport is underdeveloped, while pedestrians are often faced with difficulties because of irregularly parked cars.

Environmental impacts and energy consumption. Air pollution monitoring in Rijeka has begun in the Seventies. Traffic was then not particularly considered as an air pollutant. Today traffic is a great source of air pollution (Table 2).

Solution to this was sought in introducing gas fuelled buses in 2013. These buses have lower emissions of CO2, are air-conditioned, have ramps for the disabled and are much more economic since gas is cheaper than traditional fuel.

Loss of public space. In European cities road infrastructure takes up 10 to 20% of urban area, in underdeveloped countries only about 10%. In cities oriented to motorized traffic, about 30% of urban area is meant for road system and about 20% for parking spaces. Traffic areas in Rijeka take a large space, which is recently slowly being returned to pedestrians. For example, the great pier in the very centre of the city was closed to general population as a part of customs area, and now, after more than 50 years, the 2 km long promenade Molo Longo is again open to public. Also, part of Karolina Rijecka Pier has been reopened to citizens after being used as a parking lot for many years.

High maintenance costs. Maintenance costs of urban roads have important and wide social-economic repercussions. Shortening travel time is related to good road maintenance, which is widely accepted as one of the most important factors for development of the city. Annual communal infrastructure maintenance costs in Rijeka amount to about 11 million euros, of which about 2 million euros goes to road maintenance.

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Accidents and safety. According to state statistics, the majority of accidents in Croatia in 2013 happened on roads within settlements (72,5%), and state roads outside of settlements (9%). Equally, the largest number of people killed in traffic accidents happened on roads within settlements (141 people) and state roads outside of settlements (80 people).

Land consumption. Traffic uses up expensive city space. Between 30 and 60 percent of a metropolitan area may be devoted to transportation.

Freight distribution. Daily, throughout the twenty-four hours of the day, and along with people, the variety of goods of different characteristics, sizes and quantities, ranging from tiny boxes to large containers flow through a city. Research made in the West European countries shows that the demand of consumer goods in the cities today exceeds one tonne per year per capita.

Urban transport challenges are linked with the dominance of the automobile, which will certainly continue, at least up to 2030. What follows is an estimation of the number of cars in Rijeka till 2030. In the period of only 11 years, from 1997 to 2008, the number of registered cars in Rijeka has increased for 23527, i.e. from 50241 cars registered in year 1997 to 73768 registered cars in year 2008. After the recession, in the period of only five years, the number of cars in Rijeka has dropped for 11.970. Accordingly, for the period between 1997 to 2013 regression analysis was made to explore the relationship between registered cars (NRC) and the movement of GDP. The numerical computation was performed by Statistica software (cf. Table 3).

Regression analysis of the correlation between NRC and the GDP gives the following model of simple linear regression:

Regression Summary for Dependent Variable; NRC (RKA_auto) R=,95349279 R2=,90914851 Adjusted R2=,90309174 F(1,15)=150,10 p<,0000 Std.Error of estimate: 2440,7						
N=17	Beta	Std. Err. Of Beta	B	Std. Err. Of B	t(15)	p-level
Intercept			3849,404	4900,929	0,78544	0,444423
GDP	0,953493	0,077825	0,215	0,018	12,25172	12,25172

Table 3: Results of regression analysis

$$NRC = 3849,4 + 0,215\ GDP \quad (1)$$

Results of regression analysis (cf. Table) indicate that there is a statistically significant correlation between NRC and the GDP (R=0,953; F(1,15)=150,1; p<0,01). Correlation between the NRC and the GDP is positive, indicating that the increase in NRC is linked with an increase in GDP. An increase in GDP with 90% of variance can be explained by GDP. Application of the mentioned model for planning the movement of the number of employees is shown by Chart 1.

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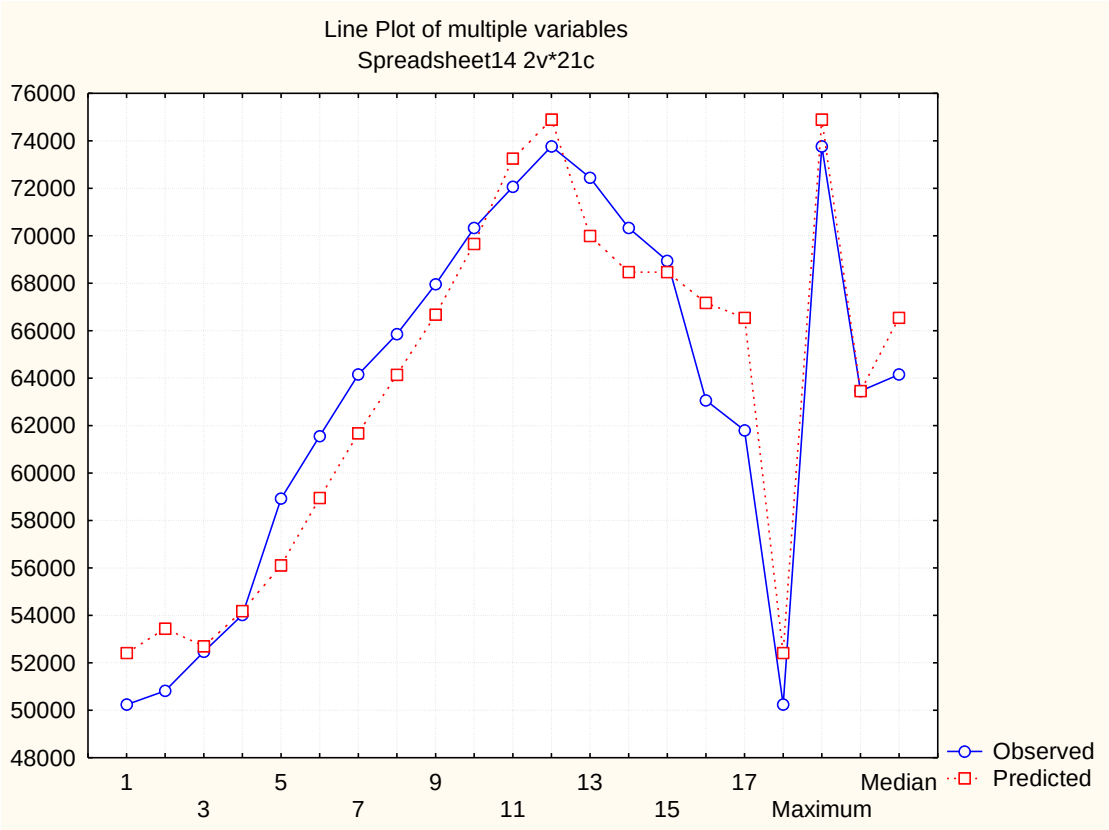

Chart 1. Comparison of results obtained by using econometric model and real data on the movement of the number of register cars in Rijeka from 1997 and 2013

Based on the given model (1), an estimate of the number of register cars in the Rijeka by 2030 was made (cf. table 4).

Year	Number of register cars
NRC_{2015}	69219
NRC_{2020}	76023
NRC_{2025}	83535
NRC_{2030}	91828

Table 4: Estimate of the total number of register cars in Rijeka by 2030

On assumptions that the average growth rates of GDP will be 2%, the number of registered cars in Rijeka by 2030 will be NRC2030 = 91 828. As far as existing developing and urbanistic trends are continued, it is estimated that the number of cars in Rijeka will increase for about 30.000 till 2030, and other solutions for mobility of citizens will have to be found. One of these is the development of the Park&Ride system. The basis of this system is a network of well arranged and easily accessed parking lots located in key points around the city and connected to the city centre by fast and frequent bus transportation, with the bus ticket being included in the charge for parking. This would make such parking lots more economic solutions for drivers - compared to expensive parking lots in the city centre. But this system is to be carefully planned and co-ordinated with local companies. To relieve the city centre from cars, it is necessary to charge the parking there more, but also to ensure cheaper and functional transport by bus. Automatic traffic control system and further development of intelligent transport systems could influence the optimization of traffic flow in the future. However, what really matters in the end is to ensure quality and availability of implemented systems, which includes easy access to all important city facilities. This can be done by thorough

reurbanization, taking into account metropolic influence of Rijeka on areas surrounding it.

Conclusion

It is unthinkable for a city to function without quality urban traffic. Urban traffic contributes to economic development of cities and their social upgrading, and vice versa. Urban transport challenges are linked with the dominance of the automobile, which will certainly continue, at least up to 2030. The number of cars in Rijeka will increase for about 30.000 till 2030, and other solutions for mobility of citizens will have to be found. One of these is the development of the Park&Ride system. To relieve the city centre from cars, it is necessary to charge the parking there more, but also to ensure cheaper and functional transport by bus. Automatic traffic control system and further development of intelligent transport systems could influence the optimization of traffic flow in the future. However, what really matters in the end is to ensure quality and availability of implemented systems, which includes easy access to all important city facilities. This can be done by thorough reurbanization, taking into account metropolic influence of Rijeka on areas surrounding it.

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UDK 656.01(497.5Rijeka); DOI:10.2507.IJVA.1.2.1.12

Category: original scientific paper

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„ALL INCLUSIVE TOURISM - BOUTIQUE TOURISM" OR THE STRUGGLE FOR LEADERSHIPIN THE PROFIT ON THE GLOBAL TOURISM MARKET

Abstract:

The struggle for revenue, profit and financial added value, image and customer added value in the global tourism industry today is directly manifested in the intense competition between the mass all inclusive tourism and the unique and individually oriented boutique tourist product. The leadership in profit today is a result of the flexibility, creativity and innovation of the strategy used, and in the opposition "all inclusive tourism -boutique tourist accommodation" the emphasis making a difference is not limited to prices, services, quality and number of tourists only. The essential difference consists in the clash of strategies with different philosophy and target audiences-diversification, differentiation and cost leadership applied by the all-inclusive-tourism strategy as opposed to the strategy of focusing which is typical of boutique hotels and destinations. Despite the different strategic approaches, the goal is one and the same - leadership in terms of generated profits.

Keywords:

All inclusive tourism, Boutique tourism, Leadership, Global tourism market.

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Introduction

Consequences All inclusive and boutique accommodation are two opposite tourism products which combine on a global scale and with optimal balance quality and service to meet the customer needs of specific target groups, to make tourists loyal to the relevant tourism product and to maximise profits.

Although all inclusive tourism is a mass tourism product and boutique tourism is oriented towards individual tourism demand what they have in common is the optimal price-quality ratio making these two types of tourism products leaders in the global tourism competition. The personal attention to guests, the attention to their comfort and individual requirements as an underlying concept of the philosophy of boutique tourism products counterbalances the standardized all inclusive tourism supply aimed to concentrate large tourist flows.

All inclusive tourism and boutique tourism depend strategically on two major but opposite in nature and manifestation approaches- the mass approach and the individual approach - and target different groups in the tourism market, characterized by different profiles, tourism needs, requirements and solvency. And while the all inclusive mass tourism product has reached a leading position globally in terms of revenues and profits by providing a single, comprehensive package at a price that is common and accessible to a broad consumer audience, boutique tourism supply is based on the personal approach to guests, pays attention to the details, the uniqueness of the interior, the exterior and the service, the exclusivity in terms of emotions and experiences during the tourists' stay, the positioning within a particular market segment, provides a small number but wealthy tourists with whose help boutique tourism products quickly become leaders in terms of revenues and profits in the world tourism market.

In recent years, the struggle for leadership in profit in the tourism industry world wide has been following global trends that are crucial for tourism development:

- increase the proportion of high category hotels offering the required conditions for recreation, quality of service and comfort combined with a broad range of additional services:
- sustainable development of destinations through harmony with the environment, compliance with environmental rules and implementation of policies to protect tourism resources;
- restructuring of the hospitality sector by including accommodation facilities into large hotel chains or by creating not very large but unique boutique design hotels;
- introduction of high-tech and innovative reservation systems;
- quick growth of the strategies for cost leadership and leadership based on focus;
- full computerization of all hospitality activities;
- constantly increasing the role of the human factor in the management and organization of destinations and the places of accommodation and entertainment, of the managerial personnel and the staff;
- development of tourism regions by stimulating the local business and raising the standard of living of the local population;

UDK 338.486:338.515; DOI:10.2507.IJVA.1.2.2.13

Factors determining the growth and development of the all inclusive industry and boutique accommodation

The growth and development of the all inclusive industry and boutique accommodation in recent years has been associated with intensive tourist flows, increased travel needs and desire for complete recreation and relaxation. All inclusive tourism and boutique tourism satisfy the requirements of disparate, even contradictory target audiences, but continue to gain market share as they satisfy the specific needs and the expectations of different types of users. To identify the factors that determine the growth and development of these two types of tourism products we should define the essential characteristics of the profile of the tourists who demand and buy them in the tourism market.

All inclusive tourists are as a rule less affluent compared to the tourists preferring boutique types of tourism. Generally, boutique hotels and destinations have a small capacity enabling them to improve the quality of the tourism service and to become quickly market leaders. The large capacity of all inclusive accommodation facilities requires care for a greater number of guests and creates competition between them as tourist service and the personal individual service provided by small boutique hotels and/or destinations, which largely meets the strictly personal preferences of each tourist. Since boutique accommodation facilities are rarely part of large hotel chains or resorts, they have no explicit obligation to comply with the standards of the brand.

Travelers today seek uniqueness. They want something different, something that offers them not only comfort but also uniqueness of the stay, the quality, the service and the experiences. Boutique tourism is intended for demanding tourists and business travellers who choose accommodation establishments on the basis of the character and amenities and are willing to make premium payments for experiences that meet their high expectations

Boutique accommodation has set foot firmly in the world tourism industry thanks to its service and quality. During times of recession and a macroeconomic crisis boutique tourism retains its competitive edge. This is due to the differentiated and focused service, the class tourism services and the better quality of the tourism product as a whole. The guests demand and get personalized attention, and feel as part of a unique experience.

Boutique accommodations are preferred mainly for business trips and boutique destinations provoke the interest of wealthy tourists seeking not only luxury, comfort, quality and high-category services but also unique environment, experiences and emotions.

Today the popularity of standardized, high quality, repeatable tourist offers including two or more services (such as transport, accommodation, food, attractions, insurance) in a single comprehensive product[2] is associated primarily with two main reasons - time and value. The all inclusive system is a guarantee that the goods consumed during the holiday of the tourists is calculated and paid at a pre-fixed price[1]. The factors associated with its growth and favour in gits leading position in attract in grevenue and profit globally can be determined on the basis of this causation of the rapid development of all inclusive tourism over the last 20years:

- increase of tourist trips to 1,138 billion in 2014;

International Journal - VALLIS AUREA • Volume 1 • Number 2 • Croatia, December 2015
UDK 338.486:338.515; DOI:10.2507.IJVA.1.2.2.13
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- increased financial capacity of tourists and lack of sufficient free time;
- expansion of the global threat of terrorism and the fear of terrorist acts;
- higher crime rates;
- fears of regional, political, economic and social crises;
- need for complete recreation and opportunity for total relaxation;
- prepayment for the holiday and absence of cash and bank payments during the stay of the tourists.

The competitive advantage of boutique tourism is associated with the care for guests who are subject to personalized services. A major factor in the development of this type of tourism is that the product is provided over 12 months and boutique tourist accommodation is highly competitive and provides services to a small number of tourists in a unique atmosphere with high added value in terms of quality, personalized service and satisfaction.

An important factor which determines the choice of boutique accommodation is the demand by wealthy tourists according to the following criteria:

- good infrastructure to and about the place of accommodation;
- unique superstructure influenced by different architectural styles, old buildings and palaces;
- an assortment of basic and additional included services in the boutique tourism product;
- quality determined by the specific expectations of the tourists regarding the benefits of their boutique experience and stay, their subjective impression of the quality of the trip, the commitment and motivation of the hotel staff and the destination, the personal commitment and motivation of the local population;
- service that impersonates the boutique hotel and the destination and which should pay attention to the detail in the attitude to the tourists, which his aimed to meet their specific needs and requirements, to demonstrate the care and the personal attention and to make the tourists satisfied with their choice;
- price should match the quality and service provided by the boutique tourism product;
- environment of service that is associated with the cleanness, the interior, the furnishing, the linen, the spaciousness and the illumination of a boutique hotel.

Study of the leadership in the profits of all inclusive tourism and boutique tourism

Leadership in the profits of tourism means a sustainable in time capability of a particular tourism enterprise, a particular tourism region or a type of tourism to retain or upgrade their market position and financial sustainability on the basis of effective competition based on products with quality, quantity, financial, image and customer added value. In leadership in tourism added value brings benefits both to the destination (for the development of its anthropogenic and non-anthropogenic resources) and the tourists (ensuring the satisfaction of their recreational needs, expectations and requirements), the tourism companies (increasing the market value of their assets on the basis of the image), their employees (regarding their work conditions,

UDK 338.486:338.515; DOI:10.2507.IJVA.1.2.2.13

remuneration and motivation) and the local population (improving their standard of living determined by economic, social and environmental conditions). [3, 4]

According to the results of a survey among 9,400 tourists who visited Europe in the period June 2013 - May 2015, 52% of them preferred a holiday based on the all inclusive system. The main reason for this is the desire to feel comfortable and not to focus on details and payments during their stay. In other words-the fixed price is seen as a key competitive feature of the product in the struggle for leadership in the profits of the global tourism market. About 41% of respondents, however, took advantage in that period of the possibilities provided by the all inclusive tourism. About 1% of the surveyed tourists preferred boutique accommodation and/or boutique destinations.

On the basis of own studies it can be concluded that the visits to Europe in 2014 were about 550 million and generated approximately 509 billion dollars. The average length of the stay of tourists in boutique hotels is 2.5 days, in a boutique destination -5 days, and in all inclusive accommodation -7 days.

With regard to the costs- every tourist who travelled to Europe spent about EUR 829. This amount however is dramatically higher for the guests who preferred boutique tourism and considerably lower for the tourists who preferred all inclusive accommodation. According to market studies, the costs of a business traveller staying at a boutique hotel exceeden fold the costs that an all inclusive tourist would have incurred during their holiday. The cost of a three-day stay at a boutique hotel or a boutique destination varies from a few thousand to tens of thousands of euro, while a 7-day all inclusive package reaches a maximum of about EUR 2500-3000 per person in a luxury 5-star hotel in Europe. This means that the added value of boutique tourism is much higher than the value added by all inclusive tourism for destinations, tourism companies, their employees and the local communities.

The cash flow analysis shows that the all inclusive industry in Europe generates approximately EUR 180 billion while boutique accommodation generates 6 less financial revenues- approximately EUR 30 billion. These financial revenues are come from about 225.5 million tourists who used the all inclusive system and 5.5 million guests who stayed at boutique hotels or destinations. The tourist flow in Europe that preferred all inclusive tourism is 41 times larger than the number of tourists staying in boutique accommodation. Therefore the added value of boutique tourism is 681% higher compared to the added value generated by the European all inclusive industry.

The dispute for the leadership in the profit of the tourism sector today is between boutique tourism and all inclusive tourism. While the all inclusive industry relies in its financial strategy on the mass aspect and the turnover, the boutique accommodation relies on a narrow market segment and high price and has become a common name for prestige and uniqueness of the tourism product. Boutique tourism brings benefits sustainable in time-a good number of tourists and high profits. It is a promising market segment which leads boutique tourism towards leadership in the global tourism supply in terms of revenues generated by one tourist and added value based on the quality and service that are indisputable characteristics of competition.

The diversity of sales channels is more important to boutique accommodation than to all inclusive tourism. Between 23 and 27% of overnight stays are sold by tour operators but they

do not have a solid pool of tourists. What is more important here is the role of the receptionist on whom the sales depend and whose job is considerably more complex than an all inclusive hotel. The study of the trends in boutique tourism supply in Europe indicates that the owners of several boutique hotels strive to open their hotels in cities with a strong fashion industry and media capital. More and more travel companies are targeting cosmopolitan cities that have a potential niche for boutique hotels-cities with vibrant economies and residential areas but with faceless and characterless hotel industry.

The strategy for leadership in the profit in boutique tourism passes through the idea that this type of accommodation is an entertainment in itself-a chic restaurant, a lobby and a bar, a clear theme in the design, the interior and the exterior and visually impressive and conspicuous decoration. In order to increase the revenues and to maintain the leadership in terms of financial added value and profits of the boutique tourism product, each boutique accommodation and stay must develop a recognizable taste based not only on splendour and perfection but also on environmental, natural and social harmony and stability.

The leadership in the profit attained by all inclusive tourism in the last 15 years is mainly due to its mass nature and the absence of payments during the stay of tourists, which is its greatest advantage and strongest competitive feature. The all inclusive products fit both within an economical budget or can be addressed to tourists with a high standard of living and wealth as they provide affordable and comfortable stay, catering and entertainment.

In principle, all inclusive tourism has established itself on the global tourist market as an ideal way to organize a cheap, most efficient and satisfactory holiday irrespective whether on individual or group basis. The leadership in the revenues of all inclusive tourism results not only from its mass nature, but also from the fact that tourists buy comfort, hospitality, basic and additional services that are produced, offered and provided in a single and comprehensive product that facilitates the guests at the place of accommodation.

The leadership in the profit of boutique tourism, and the leadership in the demand of all inclusive tourism products 15 years ago is also a result of a fashionable trend in tourist accommodation and choice. Many guests stay in boutique hotels and destinations because it is fashionable and prestigious, not because of the services they offer. In this sense, boutique tourism products are sold like any other luxury item which is important with the experience and the image of offers and not just with the product itself.

The inherent concept of boutique hotels is that they are independent, unique, different. Today, however, the leadership in the profit and the financial, image and customer added value resulted in a slight shift in the focus. Although boutique hotels are not part of large hotel chains, many of them are united in associations that are not small -40-50 hotels. Their substantial financial success and stability triggers a number of multinational corporations to usurp the term, to try to establish their own brands and ultimately to seize market share.

Unlike all inclusive destinations, boutique accommodations are still few in number, but in line with the global trends, there is a shift towards renovation and construction of smaller hotels with styles ranging from strictly classical to the most extravagant design solutions as well as development of unique destinations the

UDK 338.486:338.515; DOI:10.2507.IJVA.1.2.2.13

natural intactness of which is combined with local colour and unique emotions. Besides the strong demand from customers another important positive aspect is that boutique hotels and destinations are not required to pay high fees to be part of large chains or resorts. Boutique places for accommodation and stay can survive and succeed also without expensive additional services such as restaurants, conference rooms or surfs, jets and balloons. However, if these services are part of the boutique style they can bring significant additional profits and higher attendance and profitability. To be on the crest of a wave, boutique tourism must continue to adapt to the constantly changing needs, tastes, preferences and trends in order to remain competitive in the global tourism market.

In contrast to boutique tourism, which can exist without a restaurant, a bar and a lobby, the leadership in profits of all inclusive tourism stems from the primary importance of the two-way connection between the managers of restaurants and kitchen staff with regard to the composition of the dishes offered, the foods preferred by the tourists and the special requirements of particular groups of guests.

The leadership added value for the consumers of all inclusive packages is also a result of the diversified daily animation programmes with specialized staff taking care of the comfort and good mood of the guests. In many destinations the daily activities of the all inclusive package include sports activities and hikes in nature, games, short trips, quizzes, and there are special surprises for the youngest guests.

The tourism industry in the world is becoming increasingly competitive due to various macro economic reasons such as international grow thin the number of rooms offered, economic downturns and crises, political turmoil, visa regimes, consolidation of major hotel groups, and because of the wider target audience of well-educated and demanding clients who have access to the latest technologies. The advent of large hotel chains and the concomitant all inclusive supply is growing. These chains have enormous resources to attract clients and to remain not only financially stable compared to boutique hotels but also to emphasize their strategic leadership based on turnover and large scale activities.

All inclusive as a system in tourism decreases the revenues for local economies, i.e. when tourists receive food and beverages exclusively in the hotel irrespective of the large number of guests the losers are the local economies and population. While the importance of tourism worldwide is to create new jobs and economic revenues for the regions.

Besides the price another essential difference between boutique and all inclusive tourism is the personalized service and attention to the guest and the emphasis on details which are not a priority of the human resources and management in the all inclusive industry.

The key competitive advantages of all inclusive tourism globally are a prerequisite for retaining its strategic leadership in terms of profits based on:

- attractive tourism resources;
- a single price and no payment arrangements during the stay at all inclusive facility;
- creative and innovative market and marketing approach based on diversification, differentiation and cost leadership;
- an established image and brand of the tourism product;
- maximization of revenues;

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- minimization of costs;
- increase of tourist flow.

For boutique tourism products the key global competitive advantages in relation to the leadership in revenues and the leadership in the added financial, consumer and image value are a result of:

- unique tourism resources;
- a positive image and a strong brand of the boutique hotel and/or destination;
- high quality of the tourism product;
- personalized service and satisfaction of specific tourist tastes and requirements;
- flexible marketing, focused on a specific market segment;
- profit optimization based on raising work productivity through innovations in booking, servicing, payments, accounting, energy efficient appliances, solar batteries, new technologies and increasing the satisfaction of tourists by providing high quality, unique and personalized tourism products;
- increasing tourism demand;
- high added value.

The struggle for leadership in terms of profit in the global tourism market is actually a struggle between several basic types of leadership strategies-diversification, differentiation and cost leadership applied by all inclusive tourism and the strategy of focus successfully used by boutique hotels and destinations.

These strategies generate revenue and added value, but also result in waste of valuable tourism resources and increasingly apparent need to develop leadership in the field of natural and environmental sustainability.

Conclusion

In view of the expected decline in the growth of tourist travel by 2030, and based on the broader orientation of tourists towards green and sustainable destinations offering unique and unforgettable experiences and emotions, the struggle for leadership in profit between all inclusive tourism and boutique tourism in the global market will become more and more palpable in the coming years. The product of the destinations as a whole is a set of benefits whose carriers are both single goods and services, as well as such produced and offered by independent private companies, and also a variety of public goods. On this basis, the main goal with a view to retaining the leadership of all inclusive tourism and boutique tourism in the global tourism market consists in supplying and providing an accurate tourism product in terms of quantity and quality in the right place, at the right time, at the right price and in the right market segment.

Perceived as an important source of added value and image, the quality characteristics of the products of all inclusive tourism and boutique tourism allow for achieving a real competitive advantage and striving for leadership in the profit and the added value in the global tourism market. Important tasks associated with achieving or retaining leadership in the international tourism market are:

- planning by key market segments;
- maximum use of the potential of new information technologies in distribution;
- optimal combination of quality, service and price, image and attractiveness.

The success and the struggle for leadership in the profit of all inclusive and boutique tourism products are due to:

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- the wealth and diversity of the tourism resources of the planet;
- image (brand) of the tourism destinations;
- the added value of the tourism products;
- innovation, creativity and differentiation of tourism products;
- optimal management of quality, promotions and presentations;
- market segmentation;
- economic, social and cultural benefits.

Against the background of the 9% share generated by world tourism in the global GDP, 6% of the world export and 30% of the export of services the international tourist travel will continue to be oriented towards demand for diversified, differentiated and focused tourism products with high consumer value, and all inclusive and boutique tourism will seek strategic solutions to preserve their leadership in the revenues and the added image and financial value provided for the destinations, tourism companies, their employees and the local communities.

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PHOTO 1.
Pokus | The experiment
PHOTO BY: JOSIP MESIĆ

Category: original scientific paper

Voloshyna Yulianna [1]

Theoretical and methodical bases of pendulum migrations and analysis of the sources of intra-regional flows of population movements (for example, Transcarpathion region, Ukraine)

Abstract:

The scientific article analyses theoretical fundamentals of commutation in the region from rural to urban areas, highlights its main reasons and examines some aspects of pendulum migration in the region.

Both positive and negative consequences of the commutation of the population have been studied. The present population size and the scale of arrival and departure of the population in the context of natural economic areas of Transkarpathion region have been analyzed.

Keywords:

commutation, population migration, population size, reasons of migration.

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UDK 314.727(477.87); DOI:10.2507.IJVA.1.2.3.14

Introduction

Current demographic situation in Ukraine causes a number of problems to deal with. Studying demographic processes, especially migration, are one of the most urgent. At the time of independence of Ukraine, migrations of population have gone through several stages corresponding to certain periods of state of economy.

Problem of migration has been discussed in research papers of national and foreign scholars: I.M. Pribitkova [2], L.L. Ribakovskij [4], S.I. Pirozhkov, V.V. Pokshishevskij [8], M.D. Romanyuk [5], A.F. Zagrobskaja [7]and others. Those papers cover theoretical and methodological aspects of migration and learn details of motivational causes of migration in both rural and urban areas.

Body of Article

The purpose of the current article is to analyze and clarify the definition of commutations (push-pull migrations, commutations or pendulum migrations), the main reasons of migrations of rural inhabitants to cities, and to define sources of internal regional flows of population (by the example of Transkarpathion region). The methodology of this paper is based on the analysis of statisticalin form ationprovidedbytheGeneralStatisticalOfficeofTran skarpathion region. The information has been processed by means of systematization, generalization and comparative analysis.

Concept of migration

Everycityissurroundedbysuburbansettlement sbetweenwhichexistscontinualinteractionthatisre alizedthroughtheircommunication.

One of the important factors of this interaction is the movement of people between the settlements. These movements are of both centripetal and centrifugal aspects.The population of suburban settlements mostly tries to find work and obtain appropriate level of education in the city, thus causing them to make daily shuttle trips from home to work or to the place of studying, where in that case they becomecommuters. Here, after a comprehensive elucidation of the concept of migration is being considered, it has been analysed by numerous scientists and demographers.

There are numerous ambiguous definitions of the concept of migration in the scientific articles. Hundreds of different classifications of migrants in the encyclopaedic definitions are narrowed to the identification of their original features, such as the criterion of permanent residence and duration of stay, space and time migration, type, characteristics, causes of migration, and others.

One of the first researchers who studied migration movements of population was the British scientist E.G. Ravenshteyn (1885). He basically studied migration in Britain and North America. On the base of the research,the scientist identified the main migration laws and regulations: migration is often made for short distances; the larger the settlement is, the more attractive it is; each migration flow corresponds to contra flow; the growth of large cities to a greater extent is implemented by migration rather than by natural increase; the scope of migration increases with the development of trade and industry, especially with the development of the transport network; among all causes of migration, the economical ones are the most crucial. [1, p.103]

In order to describe the term "migration", scientists had previously isolated two

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approaches: the so-called "narrow" understanding of migration as "resettlement to a new residence", and the "broad" understanding of migration, which includes "all territorial displacement between settlements". Today, the term "migration" becomes of generalized universal nature, in the meaning of which every author sometimes creates quite different categories related to territorial movement at different stages.

In general, migration is considered as demographic, socio-economical status, which is a combination of relocation of citizens,usually associated with the change of residence. In the economical aspect, demographer and domesticsociologist I.M. Prybytkova gives a definition of migration: "Migration - self-organizing processes of social behaviour of individuals, directed system of benefits and purposeful activity of self-organizingmigrants, determined not only by the capacity of labour income, but also by other factors of life." [2, с.46]

According to the Economical encyclopaedia, migration is the "movement of people, ethnic groups, their parts or individual representatives related to the change of residence or return to it". [3, s.385]

Rybakovskyy L.L. defines migration as "any territorial displacement that occurs between different settlements of one or more administrative districts, regardless of duration, frequency and target orientation,and is the main meaning of migration". [4, p.13]

Iontsev VA substantiated the necessity of isolating a narrow and a broad approach to the definition of the term "migration". Migration in the narrow sense is a part of a wider concept - the migration of the population. Migration (territorial, spatial or mechanical) of population is a complex of displacements of people in connection with the place of residence and work. Thus, the concept of migration should distinguish inter settlement and inner settlement movements. Inter settlement movement of population is a complex of Inter settlement movements of any kind, i.e. territorial population movements of every degree of duration between countries, regions and localities, connected and not connected with the change of the place of employment.

Various forms of inter settlement migration and inner settlement displacement of population associated with the change of employment (i.e. commutation) and non-economic types of migration related to wars and political factors, relocation of population groups are included in the concept of "migration" thus being defined with a broad approach . [5]

The definition of the term "migration" had been clarified by Encyclopedia, edited by Rymarenko Y., which describes migration as identical, universal concept with terms such as movement, relocation, moving. [6, p.85].From the historical point of view, migration serves as an integral and permanent part of human history, according to which citizens belonging to the category of migrants often switch from one socio-economic community to another. [7, p.14]

Scientists have not yet found a single universal classification of migration processes in the country, but they only clarify some of its aspects. There are some attempts to classify and isolate specific types of migration on different grounds. The main feature is border crossing (administrative and state borders) of different areas of the locality, region or state. Depending on the features on which they are classified, migrations are: external (inter-state), and internal (inside the country).The method of implementation decided to classify migration into two categories: organized and unorganized.

Depending on for how long a person's migration is, scientists classify it as stationary (irreversible, permanent), which stands for moving to a permanent or long-term residence, and temporary, which means movingfor a relatively short period of time. Temporary migration includes: seasonal, episodic and commuting migration. Migration processes are also classified by reasons that cause these movements. The main reasons are: economical (the most common), social, political, environmental, cultural, ethnic (national), religious, racial, military, demographic (family reunion), and so on.

Commutation

In the recent decades, rapid growth has gained pendulum migration from the suburbs (suburbs) in the major cities of Ukraine. Scientists have different approaches to the problem of pendulum migration, some of whom see it as a positive development, while others see a problem which needs to be solved.

The most valuable source on the theory of migration, not only ona national level, but also on international level, is a scientific encyclopedia editedby Y. Rymarenko "Migratory processes in the modern world: international, regional and national dimensions", which gives the following definition of commuting:

Commutationsarelarge-scaledailyorregularpopulationmovementsbetweenplacesoflivingandplacesofwork.

Commutationsarefixedroutemovements of people from point A to point B for the purpose of work; therefore, a large portion of urban and rural population is involved in it. The reason for such kind of migration is the absence of jobs in the place of living, and the possibility of findinga job in other close by areas.Inthecourseofcommutation,thespatialmovementofoneofthemainproductiveresourcestakesplace - the movement of working force.Suchmovementhasa cyclic(daily, weekly, monthly) character, and it is not connected with the change of place of living.

However, commutations are not only cyclic movements from the place of work to the place of living. Weekly trips from the village to the city for the purpose of selling foodstuff are also considered as a different type of commutations. In the course of such type of migration, consumer exchange is conducted between workers and rural inhabitants by means of goods and services markets. In such case, material goods are not produced, but they are transferred from one person to the other [6. c.132]

Famous Russian economic geographer V. Pokshyshevskyy insists that the pendulum movement of people is just a special form of settlement in which the place of recreation and socializing with family sleeping places are remote from places of employment. According to this scientist, the phenomenon of migration is difficult to call, but rather a way of life, accompanied by constant movement. [8 ,p. 15].

Pendulum migration is a result of discrepancies of placing workplace and resettlement of the population. Commuting is well developedespecially in suburban areas of big cities, cities agglomerations, and metropolitan areas. Thanks to pendulum migrators, workforces of cities, suburban and rural settlements can be able to be usedmore effectively and efficiently.

In general,in the early 90's in Ukraine, the number of rural pendulum migrants in cities was 500 thousand people. In the beginning of 2001, there were 4.4 million workersin the country. There are rural residents,out of whom one quarter

UDK 314.727(477.87); DOI:10.2507.IJVA.1.2.3.14

worked outside their locality, and almost half of them worked in cities and towns. According to sources [9], most of the pendulum migrants are in Western Ukraine, for example: Ivano-Frankivsk (201.7 thousand people), Transkarpathion (157.2 thousand people) and Lviv (210.4 thousand people), due to relatively high density of rural and urban settlements.

Usually, commuting is considered as the systematic population transfer of residence to the place of employment and back, the frequency of which depends on the regularity of labor.

Pendulum migration often appears asan intrastate movement of population, which does not affect its overall size, but plays an important role in the formation and redistribution of manpower, regions, cities and urban settlements.

An expert survey in the Transcarpathion region established the main directions of intrastate migration processes and calculated their percentage.

ages and economic levels), we tried to determine, in their opinion, what is the proportion each of these types of migration in the region. After analyzing the poll, we concluded that: the most popularresidents migrating trend is the migration from small towns to big cities (40%). The lowest ranked is from big cities to smaller towns (5%). As for migration from the countryside to the city is found to be at around 30%.

In terms of economy, dynamic pendulum labor migration is an important factor of macroeconomic development. However, at the same time, when analyzing various literary sources, it appears that both practical and theoretical aspects of this problem have not been given enough attention, so they were poorly analyzed.

Most scientists believe that the phenomenon of "pendulum" migration is found in the suburban areas of big cities and metropolitan areas, although this type of migration is

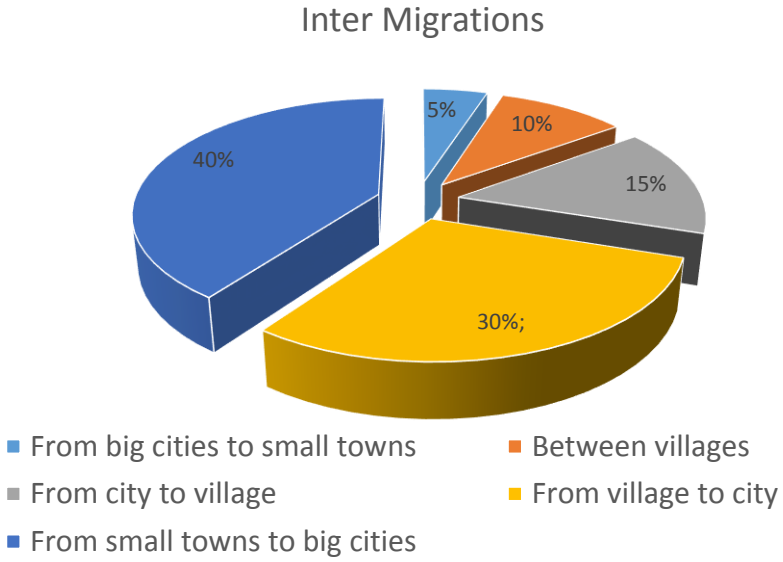

Fig. 1.Directions of intrastate migration processes in the Transcarpathion region (created by author)

Using a questionnaire which involved 100 residents of the Transcarpathion region (50 people living in the city and 50 in rural areas, of various

widespread in the area of medium and small cities, rural urban areas, however, in accordance with a smaller radius of attraction pendulum migrants. Radius pendulum migration to large

UDK 314.727(477.87); DOI:10.2507.IJVA.1.2.3.14

cities is about 40 to 70 km, and for the middle is 25 to 30 km. In addition to a balanced and rational utilization of labor resources in urban and rural settlements,impact from pendulum migrationare: social mobility, changing social structure of the rural population and overcoming significant differences between urban and rural areas.

In our scientific article, on the regional level,we define three "attraction zones" for commutation migrants in connection with cities: 1) less than 5 kilometers zone;2) 5 to 15 kilometers zone; 3) above 15 kilometers zone.

Expert inquiry of people living close to cities of regional level - Uzhgorod, Berehovo, Mukachevo, Khust andChop - conducted by the author, showed the following results.

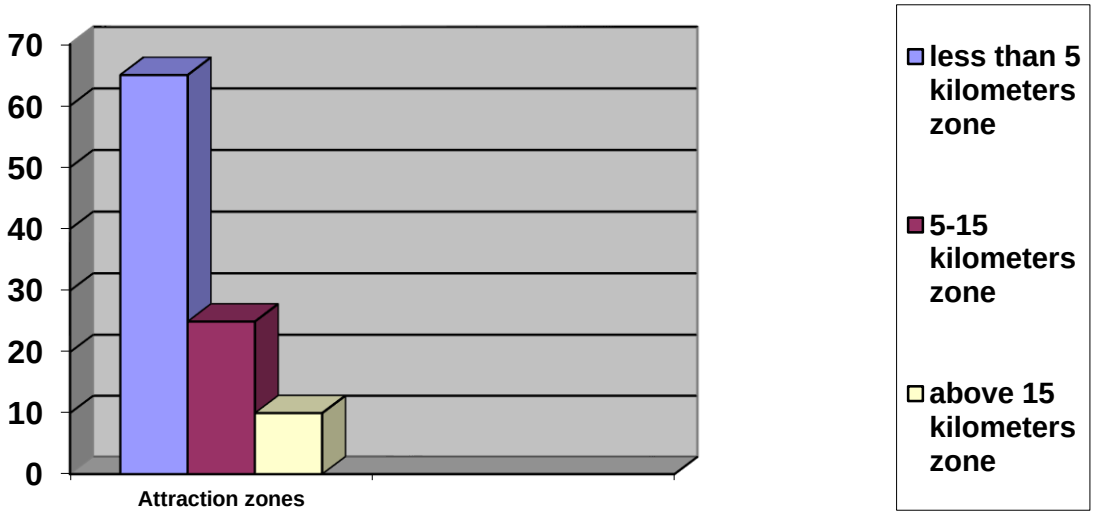

Fig 2. Structure of commutations from "attraction zones"

As it is evident from the figure 2, the first zone attracts 65% of citizen living within 5 kilometers, the second - about 25%, the third - 10%. Therefore, employees living close to the cities prefer to search for jobs in cities rather than in the country. Respectively, rural people migrate daily for work in the cities and return home in the evening. This group of commutations includes also schoolchildren and students of universities.

Certainly, the quality of teaching in urban schools is higher than in rural ones, therefore parents, who work in cities, try to send their children to urban schools. Students who live in these zones usually travel for studies every day, which is connected with economical and social reasons. Therefore,better work conditions must be provided to people in urban area, compared to rural areas, as a main reason of commutations.

Scientific articles describe numerous factors that influence the appearance of directions and scope of migration in general. Migration mainly occurs because of social, economical, military, ecological, demographic, political, psychological, ethnical, educational factors, as well as some other factors. However, it is difficult to distinguish one or two factors that influence migration process since these factors can be interdependent and act simultaneously.

Reasons of commutations

In scientific sources, it is considered that commutations usually occur under the influence

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of social, demographic and economic factors. As for the motivations of daily commutation from suburbs zones to the city or vice versa, they are usually, the possibility for better employment or education (although commuters who study in high or secondary specialized educational institutions usually migrate to the city).

Having studied foreign literature on this topic, we have come to the conclusion that the main reason of commutation in Germany is an economicalfactor. Having found a job in some other city, people don't hurry to move to the new city for permanent residence. One of the reasons is that employment contracts can be temporary. Other reasons are of a big importance, such as: attractivehouse rentals for houses outside the big city, as well as social reasons, such as favorable environment for families or important social contacts, that often serve as an important argument in the favor of commutation to the workplace.

Increasing living standards, deterioration of environmental conditions in large cities (social and natural), the desire to live in their own house - all of these factors often lead to mass migrations of the so-called "middle class" in the suburbs and the suburban small towns that are located outside the formal city borders.

The city definitely has more opportunities to meet the needs of the population. Living in suburban villages, pendulum travellers receive all welfare services in the city besides administrative and management services. This includes enterprises and institutionstradingservices, socio-cultural and household products, health care, public transport services, unique, episodic and periodic specialized demand (libraries, theatres, concert halls, museums, circus). About 90% of residents of suburbs arrive every day to work in the city.

Residents of the city, thanks to the well-developed social sector, widevarious work opportunities and the type of housing, high levels of various goods and services, suitable living conditions, a certain level of security, education, leisure, get more advantages compared with residents of the surrounding rural areas. The system of public goods in the city forms specific habitat that provides a better standard of living and higher quality indexes compared to suburban settlements.

According to Ukrainian legislation and state building standards,the system provides the social needs of residents of suburban areas to include services that are aimed to meet the most urgent needs of the population in school, raising children, caring for the elderly and disabled, health, trade institutions, culture, physical education and sports, communications and so on. Therefore, we see a significant difference in ensuring the city and suburban settlements necessary institutions for more comfortable living.

In 1974, George Forrester worked on the development of the city and its surroundings (suburban settlements), and in his book "The dynamics of the city", highlights that "... there is always a flow of people migrating to the city from outside, where the city seems more attractive compared to the previous place of residence of these people. Environment at this time has the ability to take those people for whom the town is less attractive." [10, с.128]

Pendulum migration is the principal mechanism of formation of urban agglomerations, driving the territorial expansion of cities and suburbanization. Results of circular migration on the development of the city depends on its intensity, and it is in turn - from the development of the transport network and the

economical potential of the city. Numerous studies have shown that agglomeration is a single organism, merged resilient pendulum labor flows in the middle is almost impossible to distinguish independent parts. In this regard, there is a strong agglomeration division into two administrative units: the city (center) and area (district), which are independent of each other. The latter is a constant source of problems and unresolved situations. As the independent actions of local and regional (district) government, pursuing only their goals and interests, which often can not be optimal for the metropolitan area as a whole.

Studies have shown that only if citizens made shuttle trips for short distances and do not lead to negative economical and social consequences, they should be considered as a positive development, and should be seen as an effective factor in saving labor, material and financial resources for the improvement of social services. All of the above leads to an increased territorial concentration of industry and other sectors of the economy, and hence to new job opportunities in urban areas (in the absence of required reserves of necessary workers).

Advantages and disadvantages of pendulum migration

Having studied many domestic and foreign literature and having grouped the information in figures 3 and 4,we identified the main advantages and disadvantages of circular pendulum from suburban settlements to the city.

Pendulum people's travel often lead to wasteful loss of time travel, causing the so-called transport fatigue (as people need to wake up earlier in the morning), which leads to lower productivity and reduce the vitality of the human body. Although, sometimes on the way to work from the suburbs to the city, people spend less time than the transport displacementin the city. Working away from home limits opportunities to raise children, to take care of the family and limits opportunities for the full development of personality(language school, training, social clubs), because of the considerable time spent on the road.

Pendulum suburb migrants travel to the city with the purpose of finding employment, which leads to more competition in the job market. The large migration flow into the city from surrounding areas leads to a busier public transportation, which often can not properly handleincreased load of passengers.

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Fig. 3 Main disadvantages of pendulum migration from suburban settlements to city (Createdby author based on a synthesis of scientific resources)

Some pendulum migrants go to work or school by public transport, but some others use their own transport, which leads to: problems with car parking not only for them but also for local residents; complicated road traffic in the city; traffic jams; air pollution.

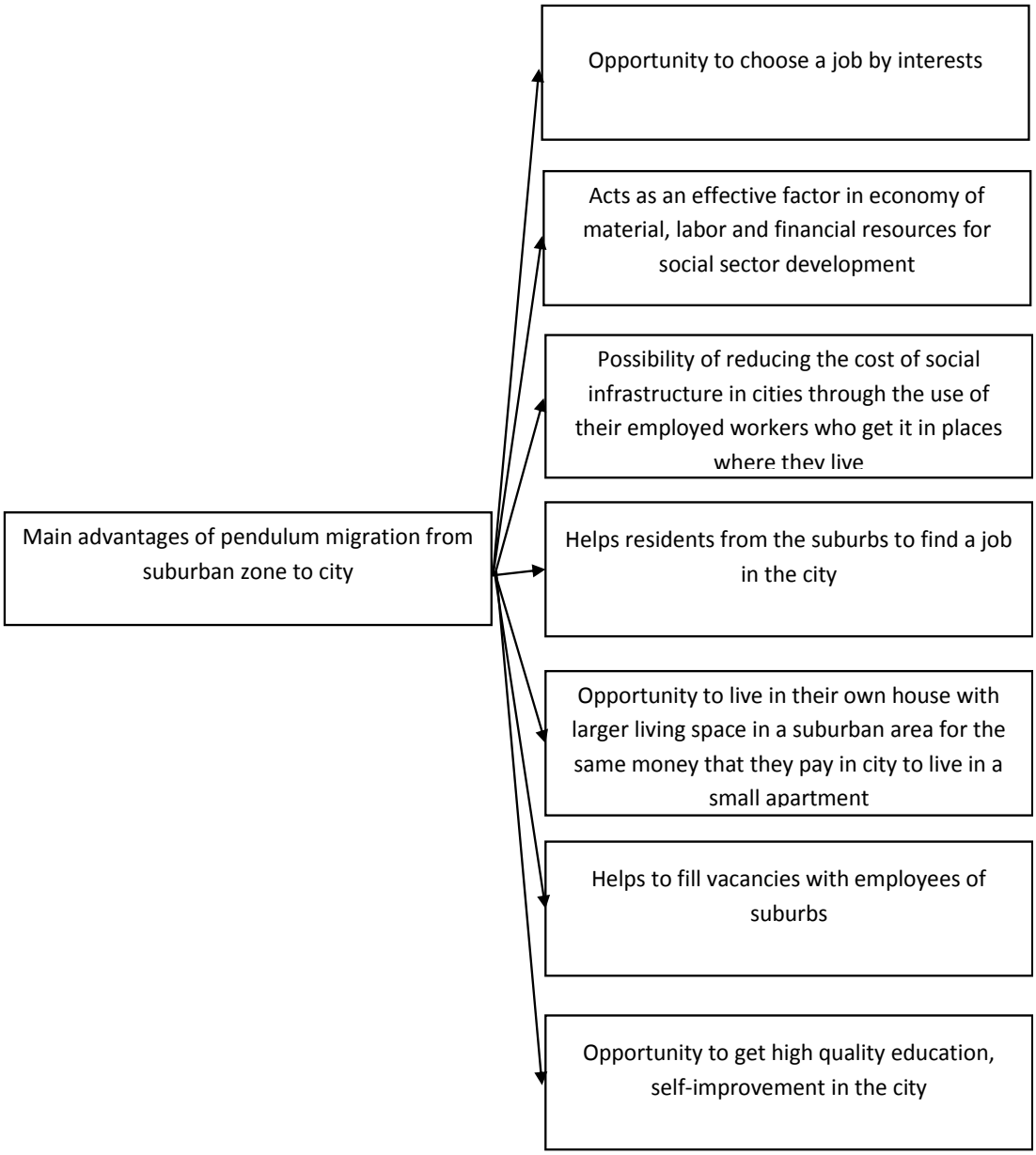

Fig. 4 Main advantages of pendulum migration from suburban settlements to city

(Created by author based on a synthesis of scientific resources)

Fig. 4 showed the main benefits (positive consequences) of pendulum migration from suburban settlements to the city. Pendulum migration is an effective factor of economizing of labor, material and financial resources for social development. As a result, it enhances spatial concentration of industry and other sectors of the economy, which in turn leads to new jobs in urban areas (in the absence of required reserves of workers). The inhabitants of the suburbs who have found work improve their financial condition, since wages are typically higher than in the periphery, and they have more opportunities to find work by interest. This life style increases their circle of acquaintances, friends and colleagues; increasing the possibility of self-improvement and self-development. Comparing the city to the suburban zone or rural areas, there are more jobs, including training courses and opportunities to improve intellectual knowledge. Most residents of suburban areas fill positions that are left vacant by urban residents, such as

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those of difficult working conditions, labor kind of work and so on. Mechanization and automation of production processes in agriculture lead to the release of a certain part of the working population, which is a source of manpower to cover the deficit of the city. The ability to buy or rent a house with more space and better living conditions in the suburbs for the same price that would be enough for a little apartment in the city center, which in turn leads to a pendulum travel to the city to work.

Some Ukrainian and Russian experts believe that commutation must be fought, and they offer some measures on how to fight it.

For example, in one of the administrative districts in Moscow,in order to reduce commutation, there is a project to build shopping centers, which will provide not only food and shopping services, but also theaters, cinemas and sports complexes. Special zones will be formed close by, wheretechnological companies will be located, which will provide jobs for 10-15 thousand people. Accordingly, employees can use all necessary and appropriate services and benefitsin their work area.

One critical problem lies in the study of migration in less urbanized regions where agriculture and connected servicing activities are considered as important parts of the economy. Modern transformations in economical structure of the country resulted in a high release of the working force; and low living standards and wages have become a strong motivational factor of migrations of population in the region.

Many foreign experts in commutation do not see anything wrong in the pendulum migration, but they recommend implementing new methods to decrease it.

As of beginning of 2015,the General Statistical Office of Transkarpathion region defines five cities of regional level - Uzhgorod, Berehovo, Mukachevo, Khust, Chop.Our analysis is based on study of commutations towards these cities.

The total population ofTranskarpathion region on the 1st of January 2015 was 1,259,600 people: 115,500 of them living in Uzhgorod,24,600 in Berehovo, 86,000 in Mukachevo, 31,700 in Khust and 9,000 in Chop. [11]

As previously mentioned, low living standards is one of the main reasons of commutations. Let us analysethe level of the monthly average salaries in the Transcarpathion region for the period of 2010 - 2015. [12]

Years	2010	2011	2012	2013	2014	2015
Average monthly salaries per person in Hryvna	1846	2069	2351	2553	2744	3178

Table 1: Dynamics of average monthly salary by 2010-2015. (per one full-time employee UAH)

* On the 1st of November 2015, the rate of Euro compared to Hryvnia is: 26.45hrn for 1 Euro. Accordingly,for US Dollar rate - 24.04hrn for 1 US Dollar.

Comparing between 2010 and 2015, growthshowstobeonlynominal (more than 72%)whilerealincomesof population remained without changes or have even declined. Financial crisis has greatly stroke national economy, mostly because of plummeting of exchange rates of Dollar and Euro. Our economy is so closely connected to Dollar that even slight changes of rates cause strong changes of prices for goods in stores and at the market, so this salary is insufficient while taking our pricesinto account.

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The crises resulted in strong decline of jobs; the so-called 'restructuring' of personnel took place. Many specialists do not have any job or have to work at lower wages. Situation is complex, therefore people are used to accept all propositions today regardless of the enterprise location. This means that rural employees have more chances to find a job in cities than in village. This is the main reason of commutations.

Conclusion

Having examined many scientific literatures, the author of the article has comprehensively analyzed multifaceted scientific sources concerning migration between urban and suburban localities including circular migration features that have many ambiguous definitions. The author widely analyzed works of some scientific literature of domestic and foreign scientists about all different kinds of population migration. A survey of migration problems in Ukraine has been carried out. The analysis of the advantages and disadvantages of circular migration to suburban settlements in the city and vice versa has been accomplished.

Having analyzed the average wages of full-time employees, we have defined that the nominal growth of incomes by more than 72 % over the last 5 years had not really led to their economical growth because of the difficult political situation, which directly proportionally influenced on the currency fluctuations, which in turn is reflected on the purchasing power of citizens.

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PHOTO 2.

Mraz | Frost

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Category: preliminary communication

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SOME NEW RESULTS ON THE TRAVELLING SALESMAN PROBLEM

Abstract:

The travelling salesman problem (or The sales representative problem) has been insufficiently explored so far. One of the first results on this issue was provided by Euler in 1759 (The problem of moving a knight on the chess board), Knight's Tour Problem. Papers on this subject were written by A.T. Vandermonde (1771), T. P. Kirkman (1856) and many others. The sales representative problem is a major challenge due to the application in solving theoretical and practical problems such as the quality of algorithms and of optimization methods. This well-known optimization problem has been extensively studied from several aspects since 1930. In general form the study was started by Karl Menger, seeking the shortest route through all points of a finite set with known distances between every two points. Since then, there have been many formulations of the problem.

In this paper we shall provide an analysis of the nature of the commercial representative problem, and highlight its complexity and some ways of its solution. We shall use graph theory, and pay particular attention to the search of Hamiltonian cycle of minimum weight in the weighted graph.
During the paper development we were led by the following question: "How to minimize the total distance travelled by a sales representative in order to visit n given locations exactly once and return to the starting point?"
Nowadays, there are many formulations of the commercial representative problem and we shall mention two equivalent formulations:

a) A set of places that a sales representative has to visit exactly once and return to the starting point is determined, the distance between places being known.

b) A Hamiltonian cycle of minimum weight should be determined in the weighted graph.

Note that the formulation of the problem is very simple, but finding solutions inflicts great difficulties.

Keywords:

graph, top, edge, trail, algorithm, cycle

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UDK 519.86::339.178.5; DOI:10.2507.IJVA.1.2.4.15

Introduction

Although the problem of sales representative is a well-known optimization problem and so far it has been studied from several aspects [6], in this research paper, using graph theory, we are going to give our attention to the search of Hamiltonian cycle of minimum weight in the weighted graph. Looking at the problem from an economic aspect, the target of the companies in selling business is to animate potential customers within as short as possible time, on a daily basis and with the least possible costs, to buy their products. For planning daily activities of their sales representatives, it is important to minimize the total distance that a representative should pass in order to visit n given locations exactly once and return to the starting point.

The number of locations to visit in one period of time is known, the distance between the locations visited is given (constant).

Costs required for tours, and time lapse of each tour are inclined to a constant.

Suppose that a sales representative can pass only once through one place.

The problem can be mathematically formulated as follows:

$$x_{ij} = \begin{cases} 1, & \text{using path } i, j \\ 0, & \text{otherwise} \end{cases}, \quad (1)$$

Where x_{ij} are decision variables (the j -th job is performed or not performed in the i -th position), and x_{ij} are path costs (or time) spent on the i-th site of the client tour (i, j).

Target Function is

$$\min z = \sum_{i=1}^{n}\sum_{j=1}^{n} c_{ij}x_{ij} \quad (2)$$

with restrictions

$$\sum_{i=1}^{n} x_{ij} = 1, \ \forall j = 1,2,\ldots,n \quad (3)$$

$$\sum_{j=1}^{n} x_{ij} = 1, \ \forall i = 1,2,\ldots,n \quad (4)$$

$$x_{ij} \geq 0,$$

$$x_{j_1 j_2} + x_{j_2 j_3} + \ldots + x_{j_m j_1} \leq m-1, \ m = 2,\ldots,n\text{-}1 \quad (5)$$

Omitting the last restriction, we obtain an assignment problem [5].

Definitions and Basic Concepts

Definition 2.1.

A graph is an ordered triplet $G = (V, E, \varphi)$, where $V = V(G)$ is a non-empty set whose elements are called vertices, $E = E(G)$ is a set whose elements are called edges and it is disjunctive with V, and φ is a function which connects (u, v) to each edge e from E, where $u, v \in V$.

Furthermore, the vertices u, v are said to be adjacent if there is an edge e whose ends are u and v.

The edge e is incident to vertices u and v with labeled $e = (u, v)$ or $e = u \cdot v$.

The degree of vertex v in the graph is the number of graph G edges incidental with v.

A walk is the sequence $W \equiv v_0 e_1 v_1 e_2 \ldots v_k e_k$ whose members are alternately vertices v_i and edges e_i in the way that the ends of e_i are vertices v_{i-1} i $v_i, i = 1,2,\ldots,k$.

The number k is said to be a walk length of sequence W, wherein v_0 is the beginning and v_k the end of the walk W.

A walk is closed when $v_0 = v_k$.

If all edges are mutually different, a walk is called a path.

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If all the vertices are mutually different, the path is called a route.

A cycle is closed route whose vertices, except the end vertices, are different from each other.

Note that paths and cycles containing all the vertices of the graph are interesting for our problem in the study.

Definition 2.2.

For a path (cycle) that contains all the graph vertices is said to be Hamiltonian path (cycle) in the graph.

One of the most difficult algorithmic problems is to answer the question whether the graph has got Hamiltonian cycle or not, especially Hamiltonian cycle of minimum weight [10].

Theoretically, in the final graph it is possible to find a Hamiltonian cycle in a finite number of steps. We are interested in quick and efficient algorithms.

Therefore, the interval of algorithm execution is important.

Time algorithm essentiality is observed using the function $f:\square \to \square$ ($\square$ is the set of natural numbers), where $f(n), n \in \square$ is the number of elementary operations that are necessary in algorithm.

The time course of the algorithm is measured by the total number of operations, such as arithmetic operations, comparison, etc.

Furthermore, if $f:\square \to \square^{+}$ is the function, it is said that $f(n)=O(q(n))$ if there are $c, n_0 > 0$ such, that for each $n \geq n_0$, $f(n) \leq cq(n), q:\square \to \square^{+}$ and for $q(n)$ it is said to be upper limit for $f(n)$.

In the event that $f(n)=O(q(n))$ than algorithm has time complexity $O(q(n))$. Consequent to q, the most frequently used algorithms are polynomial algorithms and exponential algorithms.

An algorithm is polynomial if there is a polynomial solution for the algorithm.

Time for solving algorithm is increased very slowly compared to the input data.

It is uncertain that there is polynomial algorithm for the solution of many problems.

Definition 2.3.

It is said that the ordered pair (G,w) is weighted, wherein $G=(V,E)$ is a graph and $w: E \to \square_0^{+}$ is a function, $\square_0^{+}$ (non-negative real numbers).

The number $w(e)$ is called the edge weight e.

Note that the weight of a given edge could mean any measure which characterizes an edge in economic terms, such as cost, profit, route length, etc.

Some mathematical models

a) The transport model has a very important role in the management of supply chains.

The task is to minimize the total transportation costs and improve service.

Suppose there are m storage areas of a_i capacities at i locations for goods to be transported to j locations that have a demand for the goods b_j.

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The task is to minimize transport costs between i place and j place if the unit cost of transport between the two destinations c_{ij} are known.

The quantity to be transported from place i to place j is x_{ij}.

Mathematical formulation can be written in the form

$$\min T = \sum_{i=1}^{m}\sum_{j=1}^{n} c_{ij}x_{ij}, \quad (6)$$

wherein T is the function representing the total cost, x_{ij} the quantity to be transported, and c_{ij} the unit cost of transportation.

It is necessary to find the minimum of a T function, subject to certain restrictions:

$$\sum_{j=1}^{n} x_{ij} = a_i, \ \forall i = 1,2,3...,m \quad (7)$$

$$\sum_{i=1}^{m} x_{ij} = b_j, \ \forall j = 1,2,3...,n \quad (8)$$

$$x_{ij} \geq 0, \text{za} \quad i = 1,2,...m, \ j = 1,2,...,n \quad (9)$$

$$\sum_{i=1}^{m} a_i = \sum_{j=1}^{n} b_j \quad (10)$$

b) *Assignment model* is a special case of transport model.

The core of the problem is in the distribution or in the assignment of n tasks and duties to n locations, people, etc., subject to correspondence.

In other words, one job is assigned to only one employee,etc.

Each position can perform some or all of n possible tasks for a certain time (with certain costs).

It is necessary allocate tasks such that every position performs only one job and the total time (or the total costs) required for the performance of all operations is minimal.

Mathematically, it is an injective projection [4].

The goal is to find the optimum using a measure of individual success.

Of course, this can be applied to many management issues in economic practice.

The aforementioned can be mathematically formulated as follows.

A square matrix of A_{nxn} type is given with elements $a_{ij} \geq 0$, for $i, j = 1,2,...n, \ (n \geq 3)$.

It is necessary to determine the square matrix X_{nxn} with elements x_{ij} subject to

$$\sum_{i=1}^{n} x_{ij} = \sum_{j=1}^{n} a_{ij} = 1 \quad (11)$$

$$\min T = \sum_{i=1}^{n}\sum_{j=1}^{n} a_{ij}x_{ij} \quad (12)$$

Note that it is useful to define binary variables.

$$x_{ij} = \begin{cases} 1, \text{ means that } i \text{ applicant should be assigned to } j \text{ job} \\ 0, \ i \text{ applicant is not assigned to } j \text{ job} \end{cases} \quad (13)$$

There are several different methods for solving this method, out of which we emphasise the method of transforming the above model in the corresponding network model whose solution is

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reduced to the problem of determining the shortest path in the network [5].

Three subtypes of the sales representative problem usually appear in practice:

1) Symmetric sales representative problem, which was previously described in this paper, and where there is an undirected weighted graph.

2) Asymmetric sales representative problem.
If there is at least one pair of places $(u,v) \in E(G)$ the path length (edge weight) has unequal values, depending on the direction of the tour; then this is an asymmetric sales representative problem. In this case, a directed graph is used as a model. Directed graph is usually called digraph and recorded as ordered triplet $D=(V,A,\psi)$, wherein V is non-empty set of vertices, namely $V \neq \emptyset$.

Cross section of A and V sets is empty, namely A and V are disjunctive.

The elements of A set are called arcs, wherein a function ψ joins an ordered pair of vertices (u,v), $u,v \in V$ to each arc $a \in A$ [7].

We can generalize the aforementioned to more sales representatives.

Suppose that m number of sales representatives departs from the same starting place, visit a set of places and return to where they started.

It is necessary to determine the tours for all sales representatives, so that each place is visited only once with minimal total cost.

Note that the cost can be caused by the distance of places, by the time spent travelling, and by the cost of transportation.

For the application purpose we will list some variations of multiple travelling salesman problem, but they won't be analyzed in this paper because of their extensiveness.

1. Let a certain number of representatives start off from each of few starting places. After the tour the sales representatives return, either each of them in their starting place or in any of the starting places on the condition that in the end the number of sales representatives in every starting place is equal as in the beginning.
2. Suppose that the number of sales representatives is not fixed.
   Out of the available m sales representatives, we desire to make a selection of sales representatives to participate in the tour.
   Clearly, each sales representative has her/his own fixed costs that are taken into consideration when deciding how many sales representatives to be activated in order to minimize the total cost.
3. Suppose that there is a demand for a sales representative to visit some places in a given time intervals.
   This problem occurs in the organization of air transport, maritime transport, transport by roads and the like.
4. It is possible to introduce various restrictions, such as a limited number of places that a sales representative should visit, minimum distance, maximum distance etc.

Some methods of solving the travelling salesman problem

1) Exact methods

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These are the methods that give exact algorithms. Their disadvantage is a prolonged performance time.
In this place, we might add the method of branching and restrictions, where you can estimate all possible solutions and reject the adverse ones on the basis of pre-set certain criteria.

2) Approximate methods
Algorithms that provide approximate solutions are used here. These are lower time complexity algorithms.
   a) Nearest neighbour method
   This method is highly developed and most simple approximate method. It is about visiting the next nearest neighbouring places which were not visited.
   When places are visited, it is necessary to return to the starting place.
   b) Greedy algorithms
   The route is always built by adding the shortest possible edge. During this process, neither a cycle whose length is less than the number of places, nor a vertex with degree higher than 2 may occur, ie. a place may not be visited more than once, and the same edge may not be added multiple times.

In addressing the above concerns, the question is how to find all the possible tours, compute their lengths, and choose the best of them.

In order to simplify the solution of travelling salesman problem, many approximate methods are developed today and continue to develop, which will provide acceptable solutions.

Effective methods have been developed so far, which enable solving the problem for a couple of million places within quite reasonable amount of time. [2]

   a) Method of inserting
   We start with the shortest tour of n given places.
   Most usually it is a triangle.
   A follower of the previous place is an added place.
   It is closest to any of the preceding visits and is added to the optimum position in the tour.
   The process is repeated until all the places are added.
   b) Optimization method by ant colonies
   Scientists often solve complex problems by watching and imitating natural processes. By studying and imitating the movement of ant colonies, we find solutions to the problems of a small number of places.

Namely, during the search for new areas ants leave a trail of pheromones that leads the other ants to new places (places of food).

Let's observe a group of ants in different places. They do not return to the places where they were, and they visit all the remaining places.

The ant that uses the shortest route leaves the most intense pheromone trail, inversely proportional to the length of path.

Naturally, the rest of ants will follow the peak intensity of the pheromone and follow its trail.

The procedure is repeated until the shortest tour [10].

To improve previously studied approximate algorithms, and to find optimal algorithms, the following ideas are useful:

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2- optimal algorithm: We arbitrary choose two edges in the cycle, which we remove and join two newly-created paths.

Connecting is done so that visiting conditions are maintained. The tour is still used if it is shorter than the transitional.

The process is continued until the impossibility of improvement.

3-optimal algorithm: We arbitrarily choose 3 edges and remove them.

Two ways of reconnecting occur by removing those three edges.

We choose a path that has a shorter tour. Note that the 3-optimal tour is the two-optimal one.

k -optimal algorithm: This algorithm improves as the previous two do, but the work is done with k edges, $k > 3$.

Of course, the greater k requires more computational time.

One result of the travelling salesman problem optimization

To find the shortest path you need to find the path of least weight that connects two given vertices u_0 and v_0.
For the purpose of simplicity, instead of path weight p let's introduce the term path length p , wherein $p = \sum_{e \in p} w(e)$, and the least path weight (u,v) is a distance from w to v , which is written $d(u,v)$.

In order to find the shortest path, we provide the following Algorithm which finds the shortest path (u_0, v_0); what is more, all the shortest paths from u_0 to all other vertices in G.

Suppose that $S \subseteq V$, so that $w_0 \in S$, $\overline{S} = V \setminus S$.

If $p = w_0 \ldots \overline{w}\overline{v}$ is the shortest path from u_0 to $\overline{S}$, then $\overline{u} \in S$ and a $(u_0, \overline{u})$ part of p has to be the shortest $(u_0, \overline{u})$ path.

Out of this

$$d(u_0, \overline{v}) = d(u_0, \overline{u}) + w(\overline{u}\overline{v}), \tag{14}$$

distance from u_0 to $\overline{S}$ is

$$d(u_0, \overline{S}) = \min_{u \in S, v \in \overline{S}} \{ d(u_0, u) + w(uv) \}. \tag{15}$$

Let's start from the set $S_0 = \{u_0\}$ and construct an increasing range of subsets out of $V, S_0, S_1, \ldots, S_{v-1}$, so that in the end of i - th step, the shortest path from u_0 to all vertices out of S_i are known.

The first step is finding a vertex which is closest to vertex u_0, which is obtained by computing $d(u_0, \overline{S}_0)$ and selecting vertex $u_1 \in \overline{S}_0$ so that

$$d(u_0, u_1) = d(u_0, \overline{S}_0), \tag{16}$$

as follow out of (14) results that

$$d(u_0, \overline{S}_0) = \min_{u \in \overline{S}_0, v \in \overline{S}_0} \{ d(u_0, u) + w(uv) = \min_{v \in \overline{S}_0} \{ w(u_0 v) \} \tag{17}$$

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In addition, suppose $S_1 = \{u_0, u_1\}$, p_1- path u_0v_1, so it is the shortest (u_0, u_1)- path.

For the purpose of generalization, suppose that $S_k = \{u_0, u_1, ..., u_k\}$ and suppose that the shortest paths $(u_0, u_k), p_1, ..., p_k$ have already been determined, then with (15) we can compute $d(u_0, \overline{S}_k)$ and select vertex $u_{k+1} \in \overline{S}_k$ such that

$$d(u_0, u_{k+1}) = d(u_0, \overline{S}_k). \quad (18)$$

Notice that according to (15)

$$d(u_0, u_{k+1}) = d(u_0, u_j) + w(u_j u_{k+1}), \quad (19)$$

for some $j \leq k$, and so we obtain the shortest (u_0, u_{k+1})- path by adding edge u_j, u_{k+1} to path p_j.

Note that in each step these shortest paths together form a connected graph without cycles. These graphs are called trees (wood) and the previous algorithm is called the process of tree growth [3].

The idea for the previous algorithm originates from Edsger Dijkstra Wybe (1959) who, by means of his algorithm, managed to determine the distance of individual points (destinations) to other points considered to be important, but he did not manage to determine the shortest distance in this way.

Knowing that the task of a sales representative is to visit some business destinations and return after the job, provided that each destination was visited exactly once, the question is how to make the itinerary, and to travel as short as possible?

According to the aforementioned (the shortest path problem) Hamiltonian cycle of minimum weight, which is called the optimal cycle should be found in the complete weighted graph.

Here we will provide an "approximate" approach, consisting of finding a Hamiltonian cycle, and then search for another cycle of less weight that is slightly modified.

If $c = v_1v_2...v_Vv_1$, then, for all $i, j, 1 < i+1 < j$ we can find a new Hamiltonian cycle

$$c_{ij} = v_1v_2...v_iv_jv_{j-1}...v_{i+1}v_{j+1}v_{j+2}...v_Vv_1 \quad (20)$$

where we removed edges v_iv_{i+1}, v_jv_{j+1}, and added edges v_iv_j and $v_{i+1}v_{j+1}$.

Furthermore, if for some i, j, we can apply

$$w(v_iv_j) + w(v_{i+1}v_{j+1}) < w(v_iv_{i+1}) + w(v_jv_{j+1}), \quad (21)$$

then the cycle c_{ij} is an improvement of c.

By continuing likewise we shall reach the cycle that cannot be improved anymore by this method.

It is clear that the final cycle is not optimal. In order to achieve greater accuracy, the procedure can be repeated several times, starting with different cycles.

Conclusion

This paper is a result of analytical research of the theoretical basis of the travelling salesman problem.

Numerous formulations of the travelling salesman problem are known in the literature,

UDK 519.86::339.178.5; DOI:10.2507.IJVA.1.2.4.15

and most of them remained unresolved to date. Here, as confirmation of prior thought we mention an open problem of graph theory: Finding necessary and sufficient condition for a graph to have a Hamiltonian cycle. In this research paper, we pointed out the variations of the travelling salesman problem. Some solving methods were pointed out, and certain improvements were provided.

The paper gives an approximate result of travelling salesman problem optimization by using a Hamiltonian cycle with the aim of contributing to solving the travelling salesman problem, which, to this day and with great effort of scientists, has not yet been resolved.

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UDK 519.86::339.178.5; DOI:10.2507.IJVA.1.2.4.15

Category: preliminary communication

Branko Krnić [1]

INTEREST RATES ON CORPORATE LOANS IN CROATIA AS AN INDICATOR OF IMBALANCE BETWEEN THE FINANCIAL AND THE REAL SECTOR OF NATIONAL ECONOMY

Abstract:

The Interest rates on corporate bank loans in Croatia are rarely discussed in terms of interdependence of the functioning between the financial and the real sectors of national economy. The aim of this paper is to expand knowledge of the level of interest rates on corporate loans in Croatia and their determinants, as well as of the relationship between interest rates and the pace of economic activity. For this purpose, interest rates and interest rate spreads in Croatia are compared to rates and spreads in selected European countries. The paper explores the correlation of interest rates with a variety of potential factors and compares the level of interest rates and spreads with an average growth rate of economic activity. It was found that interest rates on corporate loans in Croatia were approximately at the same average level of the selected countries within the analyzed period, whereas interest rate spreads were above the average of those countries. However, interest rates on corporate loans and interest rate spreads in the selected countries are significantly above the average of the Eurozone. In between interest rates on corporate loans and a part of the macroeconomic variables as well as the variables of the banking sectors of the analyzed countries, including Croatia, a strong connection within the correlation matrices is identified. Along with the high interest spreads, the second-lowest rate of economic growth is achieved in Croatia (after Hungary) within the analyzed period.

Keywords:

interest rate, interest rate spread, bank loans, financial intermediation and economic activity

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UDK 339.727:[336.1:336.25](497.5); DOI:10.2507.IJVA.1.2.5.16

Introduction

In economies where the bank loan is a significant source of corporate financing, interest rates significantly affect the movement of production, employment and overall gross domestic product. They affect entrepreneurial ventures and economic activity, financial results and cash flows of companies and banks. They represent a synthetic indicator of condition and trends in the financial and the real sector.

Interest rates on corporate bank loans in Croatia have been at a very high level for a significant part of the last twenty years. Never the less, this problem has been rarely discussed so far in terms of interdependence of the functioning between the financial and the real sphere of national economy. Therefore, in defining the objective of this work starts and from that aspect of research. The aim of this paper is to expand knowledge of the level of bank interest rates on corporate loans in Croatia, their determinants, as well as of the interconnection between interest rates and the development of economic activities. For this purpose interest rates and interest rate spreads in Croatia are being compared to the rates and spreads in selected European countries. The paper investigates the correlation between interest rates and a variety of potential factors and compares the level of interest rates and spreads to an average growth rate of economic activity. The research questions posed in this study are important for understanding the current economic situation in Croatia, as well as for the design of the necessary changes. There search findings can contribute to a better understanding of the determinants of interest rate movements and the correlation of financial conditions and performances of the Croatian economy, as well as to developing changes in economic policy and regulation.

The paper is structured as follows: after Chapter 1 in which introductory remarks are presented, the theoretical framework is described in Chapter 2, the survey methodology in Chapter 3.Chapter 4 presents the international comparison of interest rates on bank loans in Croatia and the selected countries. Interest rate spreads in Croatia and the selected countries are outlined in Chapter 5.In Chapter 6 the determinantsof interest rateson corporate bank loansin Croatiaand the selected countries are being explored.The link between interest rates on bank loans and interest rate spreadsandthe pace of economic activity in Croatia and the selected European countries is presented in Chapter 7.The research findings are synthesized in the finalchapter, Chapter 8.

Theoretical Framework

The costs of financial intermediation are important determinants of the total cost of financing the real economy.Research shows that there is a strong correlation between the cost of financial intermediation and economic growth.The cost of financing has significant impact on investments and allocation of capital, and thus on the growth potential and the pattern of economic activity (for more details see Chapters [1], [2],and [3]).Interest rate spread and net interest margin of banks are commonly used asan indicator of the cost, but also of the efficiency of financial intermediation.The Interest rate spread is defined as the difference between lending rates and deposit rates.The net interest margin is calculated as the difference between interest income and interest expense divided by assets of banks that earn interest.Saunders and Schumacher [4] point out that it is not clear in advance whether high-margins are good or bad in terms of social welfare.Low margins may indicate a relatively competitive banking system with low costs of intermediation and regulatory

UDK 339.727:[336.1:336.25](497.5); DOI:10.2507.IJVA.1.2.5.16

burdens.On the other hand, relatively high margins may increase the degree of stability of the banking system which is protected against macroeconomic shocks throughincreased profitability and capital.In this context Saunders and Schumacher [4] emphasize the fact that bank closures can bring significant externalities and social costs, referring to Diamonds and Dydvigs study [5].

Determinants of bank interest rates, interest spreads and net interest margins, have often been the subject of economic research in the past decades, starting with the work of Ho and Saunders [6].From the perspective ofbanksthe net interest marginis determined byinternal and externalfactorsandrepresents an importantdeterminant oftheir profitability. From the perspective of the real economy it is - along with macroeconomic impacts- the key factor of the level of interest rates for the private sector.A high net interest margin typically refers to less developed financial markets and the lack of efficiency of the banking sector, whichunfavorably affects investments and slows down economic activity.The results of this researchshow that -apart from banks -decision makers of the economic policy also have an important impact on the costs of financial intermediation and thus on the stimulation of economic activity.Theimplementation ofmacroeconomicpolicies aimed atpreventing and mitigatingrisksas well aspreservinga stable macroeconomic environmenthas influenceon the costs offinancial intermediation (see alsoDumičić and Ridzak [7], and CNB [8]).High interest rates on bank loans can be a key cause of poor economic performance (discussed in Krnić [9]) and different macroeconomic imbalances in the economy (discussedin Krnić and Radošević [10]).

Research Methodology

The research in this paper aims to provide an insight into the level of interest rates on bank loans in Croatia, theirdeterminants, as well as the connection between interest rates andthe dynamicof economic activities.For this purpose, interest rates on corporate loans in Croatia are compared to therates in the countries selected for international comparison.A comparisonof interestspreadsin Croatia andthe selected countriesis carried out as well.Interest rate spreads can be considered as a determinant of interest rates, but also as an indicator of efficiency of financial intermediation.

In a study of the interdependence of different variables, respectively the determinants of interest rates, their levels and changes are being compared to the changes and levels in the countries selected for the international comparison, and all together with the level of interest rates in Croatia and the selected countries.

The following countries are selected for the study (called the EU-8 in the paper): Bulgaria, Czech Republic, Croatia, Hungary, Poland, Romania, Slovakia, and Slovenia.During the process of the selection of potential determinants of interest rates previous researches cited in the theoretical framework are being followed, as well asresearch ofthe causes of high interest rates in Croatia in the nineties (presentedin Krnić [11]).Their final selection, however, is determined by the possibility of securing reliable datafor them.For these reasons, some of the determinants that would otherwise be included in this selection, are not included in this study.Furthermore, variables which would, while using the work of those sources, implythe additional collection of data on the performance of banks within the banking sector of the selected countries,are not included either.The research includes, depending on

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theavailable data,the variablesreflecting themacroeconomic environmentin which each bankingsector functions, andthe variables thattogetherreflect theperformanceof the banking sectorof each countryfrom thedefinedselection. Interest rates on corporate short-term loans and interest rates on long-term corporate loansare considereddependent variables.The interest rates and determinants of interest rates on corporate loans that were included in the study, along with the symbols used in the processing and interpretation of the results, as well asinformation ondata sources, are shown in Table 1.

Bearing in mind that the research is conducted on the basis of temporally short series and annual data, basic measures of descriptive statistics are used for processing the data.To compare interest rates and the considered variables,the arithmetic mean (AVERAGE), the minimum (MIN) and maximum (MAX) value of the variables, the mean positional value (MEDIAN), and the standard deviation (STDEV)have been calculated (hereafter the arithmetic mean is referred to as "average", "average value",and the like, the highpositionalvalue is referred to as "median" only).To study the correlation between interest rates and the selected variables

Variables	Symbols	Data source
Dependent variables		
Interest rates on short-term corporate loans	a	ECB, CNB
Interest rates on long-term corporate loans	b	ECB, CNB
Independent macroeconomic variables		
Growth rate of gross domestic product	c	Eurostat
Inflation rate	d	Eurostat
Three-month interest rate on the money market	e	Eurostat
Public debt in % of GDP	f	Eurostat
Yield on bonds	g	Eurostat
CDS (Credit Default Swap) spread	h	Deutsche Bank
Independent variables of banking sectors		
Interest rates on deposits	i	World Bank
Interest rate spread	j	World Bank
Share capital assets	k	World Bank
Share of bad ("non-performing") loans	l	World Bank
Share of five largest banks in total assets	m	CNB, ECB
HHI - Herfindahl-Hirschmann Index	n	CNB, ECB
Capital Adequacy	o	Raiffeisen Bank
Return on equity (ROE)	p	Raiffeisen Bank
Return on assets (ROA)	r	Raiffeisen Bank
Source: Own work, Krnić [12].		

Table 1: Interest rates and determinants of interest rates on corporate loans involved in the research

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(determinants),the correlation coefficients shown in the correlation matrix have been calculated.

In the researchof the correlationbetween interest ratesand interest ratespreadsandthe dynamics ofeconomic activity,the levels ofinterest rates andspreadsare compared to the average ratesof GDP growthin Croatia andthe countries selectedfor the international comparison.

The paperrepresentsa continuation of the studies outlined in the theoretical framework, as well a compilation and reinterpretation of a study on the level of interest rates and interest spreads,on determinants of interest rates movement, and on the correlation betweeninterest rates andthe dynamics ofeconomic activity,conducted in Krnić [11], [12] and [13].

The advantage ofthe chosen methodologyis that itin a simple way allowsa comparison of the levelof interest rates andspreads as well asthe dynamics ofeconomic activities between the analyzed countries onthe base of average values.The disadvantage, however, is thatthis way, without consideringall potentialdeterminants, the dimensionsofthe impactof interest rates andspreadson level andpace of economicactivity cannot be determined.

International comparison of interest rates on bank loans in Croatia and the selected Countries

In this chapter as a starting point for further research base data on interest rates movement on corporate loans in Croatia as well asthe averages for all countries within the scope of the EU-8are presented.Interest rates on short-term corporate loans in Croatia and averages for all countries within the scope of the EU-8 from 2005 to 2012 are shown in Table 2, based on data from the ECB [14], and the CNB [15], and own calculations.For the Eurozone own calculationsof the rates,calculated from the average rates reported per month,are shown.The measures of descriptive statistics for the EU-8 have no data for Bulgaria and Romania in 2005 and 2006.

	2005	2006	2007	2008	2009	2010	2011	2012
CROATIA	6,6	6,2	6,5	7,5	8,2	8,2	7,6	7,0
EU-8:								
AVERAGE	5,7	5,5	7,3	8,5	8,4	7,1	6,9	6,6
MIN	3,3	3,9	4,7	5,4	3,6	3,4	3,6	3,2
MAX	9,4	8,7	12,2	15,2	17,5	12	10,1	9,6
MEDIAN	5,3	5,1	6,3	7,3	7,2	7,2	7,0	6,9
STDEV	2,2	1,7	2,5	3,2	4,3	2,7	2,3	2,3
EUROZONE	4,3	4,8	5,7	6,1	4,0	3,5	4,0	4,0

Table 2: : Interest rates on short-term corporate loans in Croatia andthe EU-8 from 2005 to 2012

Interest rates on short-term corporate loans in Croatia have been above the average rates of the selected countries in 2005 and 2006 as well asin 2010, 2011, and 2012.However, throughout the whole periodof the analysisthey have beenabove the median calculated for all countries within the EU-8.Interest rates on short-term corporate loans in Croatia and the other countries within the EU-8 have been significantly above the average rates of the Eurozonethroughoutthe whole analyzed period.

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The Interest rates on long-term corporate loans in Croatia and average rates for all countries within the scope of the EU-8 from 2005 to 2012, based on data of the ECB [14], and the CNB [15], and own calculations, are shown in Table 3. Rates on loans from 1 to 5 years were considered long-term rates.For the Eurozone own calculations of the rates,calculated from the average rates reported per month,are shown, too. The measures of descriptive statistics for the EU-8 and for these interest rates have no data for Bulgaria and Romania in 2005 and 2006.

Interest rates on long-term corporate loans in Croatia have beenclose to the average rateswithinthe EU-8, except in 2006 when they have beenabove the arithmetic mean of the selected countries.However, throughout a great part of the periodof the analysis, those rates have beenabove the median calculated for the EU-8 countries.Throughout the whole periodof the analysis, these interest rates in Croatia and the other countries within the EU-8 have beensignificantly above the average rates of the Eurozone countries.

For a more thorough analysis of the comparison of the interest rates in Tables 2 and 3, where nominal interest rates are shown, Table 4 presents the average annual inflation rate (HICP - Harmonized indices of consumer prices - inflation rate - annual average), which Eurostat [16] reports.The Inflation ratesfor Croatia andthe averagesfor all countrieswithin the scope ofthe EU-8are shownseparately.

	2005	2006	2007	2008	2009	2010	2011	2012
CROATIA	5,4	5,8	6,2	6,9	7,2	7,2	6,6	6,2
EU-8:								
AVERAGE	5,6	5,7	7,6	8,5	8,4	7,3	7,1	6,7
MIN	3,3	4	4,8	5,7	3,8	3,8	4	3,8
MAX	9,9	9,1	12,4	14,9	17,6	12,8	10,6	10,3
MEDIAN	4,8	5	6,4	6,8	6,9	6,9	6,7	6,4
STDEV	2,21	1,81	2,64	3,15	4,49	3,01	2,46	2,48
EUROZONE	3,8	4,2	5,1	5,7	3,8	3,3	3,7	3,5

Table 3: Interest rates on long-term corporate loans in Croatia and the EU-8 countries from 2005 to 2012

	2005	2006	2007	2008	2009	2010	2011	2012
CROATIA	3,0	3,3	2,7	5,8	2,2	1,1	2,2	3,4
EU-8:	3,8	3,9	4,3	6,5	2,6	2,7	3,4	3,6

Table 4: Average annual inflation rates for Croatia and the EU-8 countries for from 2005 to 2012

Table 4 shows that through out the analyzed period relatively low average rates of inflation have been reported and that the inflation rates in Croatia have been below the average ratesin the EU-8. Therefore, the nominal interest rates shown in Tables 2 and 3 from this aspect can be assessed as appropriate for comparisons. In fact, there is no reason to believe the level of nominal interest rates in Croatiais based on the inflation rates because these rates are below the average of the EU-8 countries.

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Figure 1 shows the calculated arithmetic means and median interest rates on short-term and long-term corporate loans in Croatia and the selected countries from 2005 to 2012, based on data from Tables 2 and 3.

Figure1 indicates thatthe average interest ratesonshort-term corporate loansin Croatiafrom 2005 to 2012have beenclose tothe average of the EU-8 countries, but stillbelow that average, and also above the median calculated for the EU-8.Interest rates on long-term corporate loans in Croatia in this period have beenbelow the EU-8 average, and almost at the level of the median for thisscopeof countries.However, the calculated average interest rates on short-term and long-term loans for the analyzed period in Croatia and the EU-8 are significantly above rates like these within the Eurozone.

When considering these comparisons it is essential to take into account that the bank interest rates on loans underlie the influence of complex activityof various factors.They are divided

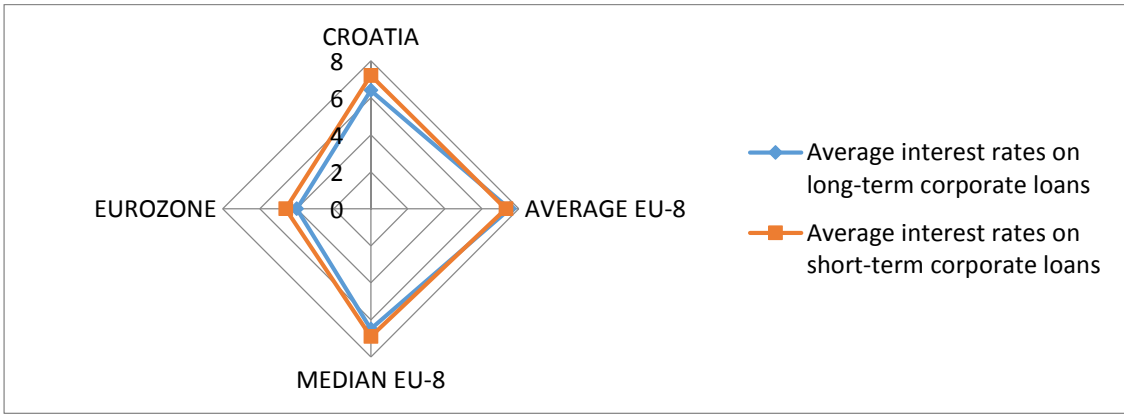

Figure 1: Average interest rates on short-term and long-term corporate loans in Croatia and the selected countries from 2005 to 2012

	2005	2006	2007	2008	2009	2010	2011	2012	A
1. C1	9,91	9,07	9,32	10,71	11,12	9,90	9,36	9,26	9,8
2. D1	1,58	1,91	2,67	2,92	2,22	1,61	1,88	1,76	2,1
3. SPREAD (1 - 2)	8,33	7,16	6,65	7,79	8,90	8,29	7,48	7,50	7,8
4. C2	6,18	6,30	6,73	7,73	8,28	7,78	7,15	6,54	7,1
5. C3	5,29	5,65	6,79	7,08	6,98	6,38	6,49	5,08	6,2
6. D2	3,99	3,67	3,98	4,09	3,01	2,91	2,86	2,38	3,4
7. D3	2,61	2,94	3,44	3,97	3,98	3,09	2,90	2,84	3,2
8. SPREAD (4 - 6)	2,19	2,63	2,75	3,64	5,27	4,87	4,29	4,16	3,7
9. SPREAD (5 - 7)	2,68	2,71	3,35	3,11	2,90	3,27	3,59	2,24	3,0
10. SPREAD (4 - 7)	3,57	3,36	3,29	3,76	4,30	4,69	4,25	3,70	3,9

C1 = Kuna credits not indexed;D1 = Kuna deposits not indexed;C2 = Kuna loans indexed to foreign currency;C3 = Loans in euros;D2 = Kuna deposits indexed to foreign currency;D3 = Foreign currency deposits;SPREAD = Interest spread; A = AVERAGE.

Table 5: Interest rate spreadsin the banking sector in Croatia from 2005 to 2012

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into macroeconomic factors, into the ones associated with the banking sector in general, and into the determinants that are related to individual banks.Thus, the complex structure of the variables and their interconnection often make it difficult tounambiguouslyidentify the causes of movement and level of interest rates on loans.

Interest spreads in Croatia and the selected countries

Interest rate spreads can be considered as indicators of the efficiency of financial intermediation and as indicators of financial conditions in which economic activities take place.Table 5 shows the interest spreads in the banking sectorin Croatia (in %) from 2005 to 2012, based on data from the Bulletin[15], and own calculations.

The interest rate spread,defined as the difference between interest rateson Kunacredits not indexedand interest rateson Kunadeposits not indexed, has beenat a veryhigh level throughout the wholeanalyzed period. Theinterest rate spread calculated as the difference between interest rates on Kuna credits indexedand interest rateson Kunadeposits indexedhas been the largestjust duringthe recessionwithinthe analyzed period.The case is similar with the interest rate spread calculated from the difference between interest rates on Kuna credits indexed and interest rates on foreign currency deposits.

Table 6 shows a comparison of the interest spreads in Croatia and the EU-8 countries from 2005 to 2012 according to the World Development Indicators [18].When interpreting the comparison of interest spreadsit should be taken into account that for someyears data are missing for Poland, Slovakia, and Slovenia.

Table 6 shows that interest rate spreads in Croatia in all years of the analyzedperiod is above the arithmetic mean and above the medians calculated for the countries withinthe scope of the EU-8.These differences are significant, especially if one takes into account that the calculated average of the EU-8 includes thedata for Croatia.

	2005	2006	2007	2008	2009	2010	2011	2012
CROATIA	9,5	8,2	7,0	7,2	8,4	8,6	8,0	7,6
EU-8:								
AVERAGE	6,14	5,01	4,76	4,09	5,55	6,06	5,58	5,62
MIN	3,4	0,6	2,3	0,3	4,5	2,7	2,1	3,7
MAX	13,2	9,2	7	7,2	8,4	8,6	8	7,6
MEDIAN	4,6	4,5	4,5	4,6	5,2	6,8	5,8	5,8
STDEV	3,20	2,55	1,82	2,34	1,31	2,08	2,09	1,42
Without data: for Poland from 2007 to 2012, for Slovakia from 2009 to 2012, and for Slovenia from 2010 to 2012								

Table 6: Interest rate spreads in Croatia and the EU-8 from 2005 to2012

Determinants of interest rates on bank loans in Croatia and the selected countries

To investigate the correlation between average interest rates on short-term and long-term loans in Croatia and the other EU-8 countries

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andmacroeconomic variables and variables of the banking sector ofthese countries, average values of the variables have been calculated on the basis of data from a multi-year period.

In Table 7 the averages of the values of macroeconomic variables for Croatia and the other EU-8 countries are presented from 2004 to 2012. The CDS spread variable is taken on 03/13/2014. Basic measures of descriptive statistics whichallow a comparison of the calculated mean values of the variables between Croatian and the other EU-8 countriesare also included in the table.

As can be seen from Table 7, Croatia after Hungary generated the lowest growth rate of GDP within the period from 2004 to 2012. During this period, only the Czech Republic had a lower rate of inflation than Croatia. The average three-month money market rate in Croatia was at the level of the medians for the EU-8, respectivelybelow the arithmetic mean of the rates of these countries. The Public debt in% of the GDP in Croatia is significantly above the average of the EU-8 countries and above the calculated median for the countries included in the scope. The variables that reflect the risk, i.e., bond yields and CDS spreads, are above the arithmetic mean and the median of the EU-8 countries, provided the CDS spreadforCroatia beingmore than twice as high as

	Independent macroeconomic variables					
	c	d	e	f	g	h
Bulgaria	3,28	5,60	4,33	20,29	5,16	126
Czech Republic	2,84	2,56	2,17	33,64	4,03	56
Croatia	**1,02**	**2,87**	**4,90**	**47,15**	**6,03**	**326**
Hungary	0,88	5,17	8,01	72,33	7,65	246
Poland	4,33	3,13	4,95	50,02	5,75	74
Romania	3,27	6,81	9,29	22,20	7,58	172
Slovakia	4,52	3,31	-	37,34	4,42	79
Slovenia	1,80	2,88	-	33,43	4,50	209
AVERAGE	2,74	4,04	5,61	39,55	5,64	161
MIN	0,88	2,56	2,17	20,29	4,03	56
MAX	4,52	6,81	9,29	72,33	7,65	326
MEDIAN	3,06	3,22	4,93	35,49	5,46	149
STDEV	1,30	1,49	2,37	15,78	1,30	89,04

The average macroeconomic variables are calculated for the period from 2004 to 2012 (unless indicated otherwise). CDS *spreads* (BP) as at 03/13/2014.
Source: For macroeconomic variables according to Eurostat data [16], and own calculations of the average for the analyzed period. CDS spreads (BP) according to Deutsche Bank [19].
Retrievedfrom Krnić [12].

Table 7: Macroeconomic variables for Croatia and the selected countries

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the level of the EU-8,according to the state from March 2014.

This indicates thatwhileresearching the connectionsbetween the levelof bankinterest rates onloans to companies and macroeconomic variables, particular attention should be paid to those variables whose values deviate from the average and the medians calculated for EU-8 more significantly. These are: the growth rate of the GDP, public debt, and the risks reflected by bond yields and CDS spreads.

Table 8 presentsthe average values of the variables of the banking sector of Croatia and the other EU-8 countries within the period from 2004 to 2012, retrieved from Krnić [12].

	Independent macroeconomic variables								
	i	j	k	l	m	n	o	p	r
Bulgaria	3,80	6,26	9,28	6,79	53,77	770,22	16,72	9,53	1,12
Czech Republic	1,22	4,60	5,97	4,11	63,29	1062,89	14,72	22,04	1,32
Croatia	**2,11**	**8,27**	**12,06**	**8,10**	**74,53**	**1351,00**	**18,04**	**6,92**	**1,18**
Hungary	6,73	2,67	9,59	6,51	54,03	831,89	13,34	4,42	0,50
Poland	2,93	3,70	7,93	8,47	45,64	600,78	13,10	15,90	1,20
Romania	7,78	8,03	9,41	7,64	55,97	979,11	14,60	2,04	0,18
Slovakia	3,52	3,90	8,82	4,28	69,77	1182,33	13,12	11,08	0,86
Slovenia	3,15	3,90	8,33	5,89	60,54	1257,44	11,54	-1,88	-0,18
AVERAGE	3,91	5,17	8,92	6,47	59,69	1004,46	14,40	8,76	0,77
MIN	1,22	2,67	5,97	4,11	45,64	600,78	11,54	-1,88	-0,18
MAX	7,78	8,27	12,06	8,47	74,53	1351,00	18,04	22,04	1,32
MEDIAN	3,34	4,25	9,05	6,65	58,26	1021,00	13,97	8,23	0,99
STDEV	2,09	1,97	1,61	1,53	8,76	241,71	1,98	7,19	0,52

The average of the variables of the banking sector is calculated for the period from 2004 to 2012(unless indicated otherwise). Capital adequacy ratio, ROE, and ROAare calculated as averages for the period from 2008 to 2012.

Source: World Bank [18].For the calculation of the average indicators for the share of the five largest banks in total assets of the banking sector and the Herfindahl index, the data from 2004 to 2007are derivedfrom ECB [20], from 2008 to 2012 from theECB [21]. The data for Croatia are retrieved from the CNB [15] and own calculation.For the calculation of the indicators capital adequacy, ROE, and ROAthe data are retrieved from Raiffeisen Research [22].

Retrieved from Krnić [12].

Table 8: The variables of the banking sector for Croatia and the selected countries

For the variables capital adequacy, ROE, and ROA the average values are presented from 2008 to 2012.In addition, the basic measures of descriptive statistics whichallow a comparison of the calculated mean values of the variables between Croatia and the other EU-8 countries are included in the table.

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As can be seen in Table 8,the average interest rates on deposits in Croatia have been below the arithmetic mean and median for the EU-8, and the average interest rate spread not only above the arithmetic mean and the median, but even the largest of all countries in the EU-8duringthe analyzedperiod..The average ratio of capital to assets isabove the arithmetic mean and median

A. The correlation matrix of the determinants of interest rates on short-term loans

	a	c	d	e	f	g	h	i	j	k	l	m	n	o	p	r
a	1															
c	-0,21	1														
d	0,92	0,03	1													
e	0,92	-0,19	0,77	1												
f	-0,05	-0,46	-0,22	0,19	1											
g	0,88	-0,35	0,71	0,97	0,39	1										
h	0,38	-0,86	0,11	0,44	0,37	0,52	1									
i	0,85	-0,10	0,88	0,95	0,09	0,83	0,24	1								
j	0,46	-0,10	0,33	0,13	-0,53	0,24	0,37	0,08	1							
k	0,45	-0,46	0,26	0,44	0,20	0,24	0,82	0,28	0,55	1						
l	0,61	-0,16	0,32	0,47	0,16	0,64	0,46	0,29	0,44	0,58	1					
m	-0,41	-0,27	-0,42	-0,26	-0,08	-0,33	0,35	-0,39	0,35	0,36	-0,39	1				
n	-0,36	-0,39	-0,41	-0,11	-0,15	-0,31	0,45	-0,30	0,31	0,30	-0,35	0,91	1			
o	0,27	-0,22	0,16	-0,30	-0,20	0,13	0,34	-0,18	0,77	0,54	0,33	0,36	0,13	1		
p	-0,48	0,47	-0,42	-0,87	0,00	-0,46	-0,68	-0,59	-0,18	-0,56	-0,30	-0,04	-0,31	0,18	1	
r	-0,32	0,27	-0,33	-0,95	0,07	-0,29	-0,33	-0,59	0,10	-0,08	-0,00	0,10	-0,25	0,58	0,86	1

B. The correlation matrix of the determinants of interest rates on long-term loans

	a	c	d	e	f	g	h	i	j	k	l	m	n	o	p	r
a	1															
c	-0,11	1														
d	0,96	0,03	1													
e	0,86	-0,19	0,77	1												
f	-0,09	-0,46	-0,22	0,19	1											
g	0,83	-0,35	0,71	0,97	0,39	1										
h	0,25	-0,86	0,11	0,44	0,37	0,52	1									
i	0,84	-0,09	0,88	0,95	0,09	0,83	0,24	1								
j	0,41	-0,10	0,33	0,13	-0,53	0,24	0,37	0,08	1							
k	0,36	-0,46	0,26	0,44	0,20	0,52	0,82	0,28	0,55	1						
l	0,53	-0,16	0,32	0,47	0,16	0,64	0,46	0,28	0,44	0,58	1					
m	-0,47	-0,27	-0,42	-0,26	-0,08	-0,33	0,35	-0,39	0,35	0,36	-0,39	1				
n	-0,46	-0,39	-0,41	-0,11	-0,15	-0,31	0,45	-0,30	0,31	0,31	-0,35	0,91	1			
o	0,26	-0,22	0,16	-0,30	-0,20	0,13	0,34	-0,18	0,77	0,77	0,33	0,36	0,13	1		
p	-0,40	0,47	-0,42	-0,87	0,00	-0,46	-0,68	-0,59	-0,18	-0,18	-0,30	-0,04	-0,31	0,18	1	
r	-0,26	0,27	-0,33	-0,95	0,07	-0,29	-0,33	-0,59	0,10	0,10	-0,00	0,10	-0,25	0,58	0,86	1

Specificationof the symbolsused in the matrices: see Table 1.
Source: Own calculation. Retrievedfrom Krnić [12].

Table 9: Correlation matricesof variables - the determinants of interest rates on corporate loans in Croatia and the selected countries

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for the EU-8 and the highestof all countries in the EU-8 as well. This also applies to the capital adequacy of the banking sector, despite the fact that the average share of non-performing loans to total loans in the banking sector in Croatia duringthe analyzed period is significantly above the arithmetic mean and the median of the EU-8 countries, respectivelyvery close to being the largest share.

The share ofthe fivelargest banksin total assets andthe Herfindahl-Hirschman Index show thatin the analyzedperiodofall the countries in theEU-8Croatia had the largest concentrationin the banking sectorwithin the EU-8 (aboutthe relationshipbetween concentration andcompetitionin the banking sectors, seeKrnić andRadošević[10]).Withthe highest level ofthe ratioof capital andassets, the banking sector in Croatia hasachieveda slightly lowerreturn on equityduringthe financial and economiccrisis than the average ofthe other EU-8countries, but as well anabove-averagereturn on assets(discussedinKrnić[9]).The data from Table 8 indicate the need for additional research of the connection between the mentioned, but as well other (here omitted) variables of the banking sector and interest rates movements on corporate loans in Croatia.

To gain insight into the connection between the average interest rates on short-term and long-term corporate loans andmacroeconomic variables and variables of the banking sector in these countries,Table 9 shows the correlation matricesfor the scopeof the EU-8 countries, based on the average values of variables for a multi-year period.Correlation coefficients above 0.5 are specifically highlighted in the text of the matrix.From the correlation matricesdifferent degrees of correlation between the analyzed macroeconomic variables and variables of the banking sectorsandinterest rates, but also correlations amongall the independent variables,can be identified.While trying to identify just the correlationbetween interest rates and the variables analyzedin this work as well as their determinants, a strong correlationbetween several variables/determinants and interest rates can be noted.

Considering the determinants of interest rates on short-term loans, there is a strong positive correlation between them and the following variables: inflation rates, three-month interest rates on the money market, bond yields, and interest rates on deposits.Between interest rates on short-term loans and the share of non-performing loans there is a medium strong positive correlation, and between interest rates and measures of concentration a slightly negative correlation.

Considering the determinants of interest rates on long-term loans, there is also a strong positive correlation between them and the following variables: inflation rate, three-month interest rates on the money market, bond yields, and interest rates on deposits.

Between interest rates on long-term loans and the share of non-performing loans there is a medium strong positive correlation, and between interest rates and measures ofconcentration a negative correlationof approximatelymedium strength.

Correlation betweeninterest rates on bank loans and interest spreadsand the pace of economic activity

In this chapter, interest rates and spreads are compared to the dynamics of economic activity in Croatia and the countries withinthe scope of the EU-8 in a multi-year period,based on the calculated arithmetic means and medians.

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In Table 10,the average interest rates on short-term and long-term loans are calculated and presented, based on data fromthe ECB [14] and the CNB [15], the average interest rate spreadsbased on data from theWorld Development Indicators [18], and the average growth rates of the gross domestic product (GDP) based on data from Eurostat [16] for the countries within the scope of the EU-8 in a multi-year period.

As can be seen from Table 10, the average interest rates on short-term loans in Croatia are near, respectively slightly below the arithmetic mean, but above the median for the countries withinthe scope of the EU-8.

The average interest rates on long-term loans in countries withinthe scope of the EU-8.However, the data from Tables 2 and 3 show that the interest rates in the countries withinthe scope of the EU-8 are significantly above the rates within the Eurozone.

Since theaverage rate ofeconomic growth in Croatiaduringthe observed periodhas been close tothe lowest withinthe scopeof the selected countries, in future research - besides the analysisof otherfactors that affecteconomic growth and based on more detailed analytical background- additionally should be examined, to what extent thelevel of interestrates hasdetermined the developmentof economic activity in Croatia.

	Interest rates on short-term loans	Interest rates on long-term loans	Interest rate spread	The average growth rate of GDP
Bulgaria	9,0	10,1	6,26	3,28
Czech Republic	4,1	4,4	4,6	2,84
Croatia	**7,2**	**6,4**	**8,27**	**1,02**
Hungary	9,8	10,1	2,67	0,88
Poland	6,5	6,6	3,7	4,33
Romania	12,8	13,0	8,03	3,27
Slovakia	4,0	4,3	3,9	4,52
Slovenia	5,2	4,7	3,9	1,80
EU-8:				
AVERAGE	7,33	7,45	5,17	2,74
MIN	4,00	4,3	2,67	0,88
MAX	12,8	13	8,27	4,52
MEDIAN	6,85	6,5	4,25	3,06
STDEV	2,86	3,03	1,97	1,30
The calculations are withoutdata for Bulgaria and Romania in 2005 and 2006. The average interest rates on short-term and long-term loans are calculated for the period from 2005 to 2012. The average interest rate *spreads* and the average GDP growth rates arecalculated for the period from 2004 to 2012. The interest rate spreads are calculated without data for Poland from 2007 to 2012, for Slovakia from 2009 to 2012, and for Slovenia from 2010 to 2012.				

Table 10: Average interest rates on short-term and long-term corporate loans, average interest rate spreads, and average rates of GDP growth in Croatia and the selected countries

Croatia are below the arithmetic mean, respectively at the same level of the median of

Table 10 shows that Croatia has the highest level of interest spreadswithin the EU-8, and after

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Hungary the lowest average rate of economic growth as well during the observed period.

Conclusion

The aim of this study was to extendthe findings on the level of banks' active interest rates and interest rate spreads in Croatia, as well as to investigate the determinants of interest rates and the correlation betweeninterest rates andthe dynamics ofeconomic activity. The main finding of this research is that the level of interest rates on corporate loans in Croatia does not deviate significantly from the average rates in the countries within the scope of the EU-8during the analyzed period.The interest rate spreadsin Croatia,however,are above the average of the EU-8countries. Furthermore, the interest rates on corporate loans and interest rate spreads within the EU-8 are significantly above the interest rates and interest rate spreadswithin the Eurozone.

It was found that the values of certain variables forCroatia more significantly deviate from the calculated average values for all countries from the defined scope. A strong correlation between interest rates on corporate loans and part of the macroeconomic variables and as well the variables of the banking sectors of the observed countries, including Croatia, has been identified in the correlation matrices. Between interest rates on short-term loans and inflation rates, three-month interest rates on the money market, bond yields, and interest rates on deposits a very strong positive correlationhas been identified, and a medium strong positive correlation between these interest rates and the share of non-performingloans. Between interest rates and measures ofconcentration a negative correlation of weak intensityhas been identified. A strong positive correlation was found between interest rates on long-term loansand inflation rate, three-month interest rates on the money market, bond yields, and interest rates on deposits. A medium strong positive correlation has been identified between interest rates on long-term loans and the share of non-performing loans, and a negative correlationof approximately medium strength between interest rates and measures ofconcentration.

The results of this researchsubstantiallyconfirm the resultsof previous researchon the correlationbetweenindividual variablesand interest rate movementsexcept that-due todifferences in the scope ofthe countries, periodsof analysisandthe procedures used-the strengthsof correlationvary.

Although the chosen methodology and data on an annual basis to a large extent are getting answers to the research questions, in interpreting the results requires a certain of caution.Namely, in further research it would be useful to extract data for Croatiaonly and compare the obtained correlation matricestothe presented results of the EU-8.Thus,possiblespecificsfor Croatia could be identifiedthrough the correlationsin between the variables.Itwould in any case be usefulto carry outresearch on otherpotentiallyimportantdeterminants, which are not includedinthis research andnotin earlier ones either.The prerequisite for thisare reliableandinternationally comparablelarger seriesof data on thesevariables. This, in combination with the useof appropriateeconometricprocedures andthe implementationof qualitative research, would probablyleadto furtherusefulfindings.

Along with thehigh interestspreads,Croatiaduringthe analyzedperiodachievedthe lowest rateof economic growthafterHungary.Since,besides interest rates and spreads, other factors, which have a different impactin each country,play a role, it is not possible to determine the dimensions of

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the impact of interest rates and interest rate spreads on the pace of economic activities with the help of the selected methodology and without additional analytical data and a more sophisticated processing.

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PHOTO 3.

Pas | Dog

PHOTO BY: JOSIP MESIĆ

Category: preliminary communication

Miodrag Bandur [1]

RESEARCHING ATTITUDES RELATED TO MUNICIPAL WASTE MANAGEMENT IN MAKARSKA

Abstract:

The research conducted aimed to prove that the ecological awareness of participants in the procedure of waste management in Makarska is not at a satisfactory level, though the cognitive and emotional component of the respondents' attitudes is at a higher level than that of the behavioural component. However, the level of ecological awareness of all participants in waste management procedure in Makarska can be significantly improved by implementing strategies of attitude change. The research was conducted among three groups of respondents which included: tourists, the local population and catering facilities as the main users of waste disposal. The attitudes have been defined pursuant to a Likert's scale consisting of 5 levels. The results obtained indicate that ecological awareness is low, but that the strategies of attitude change starting in childhood and in educational institutions can significantly increase the level of ecological awareness, and thus improve the behavioural components of attitudes in relation to cognitive and emotional components.

Keywords:

Attitudes, Waste Management, Strategies of Attitude Change

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UDK 35.073.515(049.5)(497.5Makarska); DOI:10.2507.IJVA.1.2.6.17

Introduction

At a recently held professional conference, after showing a drawing depicting Adam who threw away the remaining part of the apple, one lecturer from England concluded that this marks the beginning of environmental pollution. This small digression shows that a man's negative influence on nature and environment began to show already in early history. In the last couple of thousand years, waste management methods have changed only slightly. Waste deposition still remains one of the easiest, most widespread and oldest methods of waste disposal. The waste landfilling method is mostly used today. Sweeping waste „under the rug", i.e. waste landfilling causes long-term and extensive pollution, thus becoming burden on the environment which has to be solved eventually. In Croatia, the issue of waste management still manifests in a manner characteristic of undeveloped countries, whereas on the other hand Croatia is a country where tourism is one of the leading business activities. The Republic of Croatia and its Adriatic coastal area in particular, is mainly oriented to tourism development, which is also another reason why the Makarska region should take extreme care in solving the issues of environmental protection, with emphasised priority in the field of waste management. The „tourist product" of Makarska is a clean sea and environment, which is in direct cause and effect relation with proper waste management.

Theoretical assumptions on attitudes

Attitudes represent a central component of the mind-set of every individual. The mind-set, apart from attitudes, includes knowledge, beliefs, human values, opinions etc. Attitudes are an overall estimate which shows how much the consumers like or do not like a certain product, service or idea. [1] One could say that attitudes are permanent systems of positive or negative evaluation, feelings and tendencies to launch an affirmative or negative action, in relation to various objects and situations. [2] According to a triple-component model, attitudes consist of three main components: cognitive, emotional (affective) and behavioural (conative). The cognitive component of this triple-component attitude model encompasses the beliefs and cognition of a person, i.e. of knowledge and perceptions acquired in combination with direct experience pertaining to the attitude object and related information from various sources. The emotional or affective component of this model represents emotions or feelings towards a certain object to which the attitude relates. Affection is a general term for feelings or emotions. Attitudes are very often initiated through emotional experiences of which one is not even aware. The behavioural or conative component of attitude explores probability or tendency according to which a person, on the basis of belief or a feeling, may act or behave in a certain manner relating to the attitude object. Recently, research on attitudes has been gaining increasing importance in the process of explaining human behaviour. Attitudes are very complex, and it has been proven that it is not possible to determine, i.e. assume them in advance, hence it is more correct to conclude on them according to conducted research. Therefore, the measurement of attitudes represents a very complex procedure, firstly because people usually do not devote particular attention to analysing their attitudes, although these attitudes significantly influence their behaviour. The process of attitude change progresses very slowly, however, factors that influenced the formation of attitudes can also influence their change. Here we mainly refer to the change of the intensity of attitudes, whereas the directions of determined attitudes are more difficult to change

Object and purpose of the research

Pursuant to the aforementioned, this paper mainly researched the attitudes of the main participants in the process of waste management in Makarska in order to establish the current level of their ecological awareness. According to the theoretical findings and results obtained through the conducted research, it

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shall presents proposals for further strategies for changing the attitudes and behaviour of participants in this respect. The measurement of attitudes and other elements that influence behaviour can be successfully conducted only by researching the market via direct interviewing of subjects. The practical segment of this paper is based on primary research, i.e. the interviewing of three groups of respondents with the aim of establishing the level of their ecological awareness. The research included tourists, the local population of the town of Makarska area and catering facilities as the main users of communal waste in Makarska.

Research aims

Starting from the previously stated research issues, the paper raises three fundamental hypotheses:

H1/ The ecological awareness of respondents process in Makarska regarding the waste management is generally not at a satisfactory level

H2/ The cognitive, i.e. emotional component of the respondents' attitudes is at a higher level than their behavioural component.

H3/ Strategies of attitude change can significantly increase the level of ecological awareness of all participants in the process of waste management in Makarska.

The ultimate goal is to propose specific strategies of attitude change that will result in an increase of the level of ecological awareness, i.e. encouraging ecological behaviour in practice. In this sense, special research goals were established, which included:

- Determining general knowledge of ecology, ecological signs etc.;
- Investigating the relation towards the penal system for intentional environmental pollution
- Obtaining data on satisfaction with the quality of organised waste management in Makarska, and the number and layout of waste bins (trash cans and containers);
- Discovering the level of involvement of participants in the process of waste sorting;
- Questioning satisfaction with the current calculation system of waste removal per square meter of residential, i.e. commercial space;
- Researching handling of waste disposal in trash bins in cities and on beaches.

Research methodology

In researching the problems and formulating and presenting the research results of this paper, a combination of a larger number of scientific methods was used, such as: historical method, descriptive method, inductive and deductive method, a method of analysis and synthesis as well as classification and comparison. [3] A special method used for the collection of primary data was the questionnaire method. Data was collected from primary and secondary sources. Primary data was obtained via observation and the questionnaire method. Via the questionnaire method, I attempted to obtain data on the respondents' level of ecological awareness, their attitudes and behaviour towards issues pertaining to waste management and similar. The survey was conducted on a sample of 110 locals, 110 tourists and 50 representatives of catering facilities. Intentional sampling was used for the sample selection of the local population, in which occasional sampling was used taking into consideration that the sample included respondents of differing occupations and household income. In the tourist selection, we applied a proportional quota sampling, whereby the same ratio between the control feature (number of tourists from different countries) was kept as in the main group. Although the questions in the questionnaires were adjusted to different categories of respondents, they were mostly similar or almost the same, both for the representatives of local population and catering facilities and for the tourists. This allows us to compare the results obtained in the interviewing of these groups.

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A Likert's scale was used for the measurement of attitudes in the research, in which the respondents were offered approx. 20 formulated statements on the research subject. The scale consisted of five degrees with answers ranging from „completely agree" to „completely disagree".

Research results and comment

The research was conducted in its entirety within the period from 01 June to 01 September 2015, i.e. during this tourist season when the largest number of people stayed in Makarska and when possible issues relating to waste management are pronounced the most. Upon the completion of the survey, the results were depicted in corresponding tables. Based on the obtained research results, the level of ecological awareness of the participants was determined. By comparing results of questions where possible, we can conclude the following:

- The first question referred to the membership of respondents in ecological associations and their knowledge of ecological labels on products. The research results showed that most respondents are not members of ecological associations. We should emphasise that membership in an ecological association is more present among tourists (14.54%) than the local population (9%), whereas none of the interviewed representatives of catering facilities is a member of an ecological association.

- The second question referred to waste disposal in waste disposal bins, depending on their distance (up to 50, i.e. over 50 meters). Only tourists and the local population were asked the stated question. With a comparative analysis of the mean values of the obtained results (tourists 1.36 and 1.64, and local population 1.43 and 1.51), it can be concluded that both groups of respondents dispose of waste in waste disposal bins if they are within a distance of 50 meters.

- The third question analysed the issue of waste sorting by the local population in households, i.e. the facilities where they work. The representatives of catering facilities were asked about the habits of their employees in relation to waste sorting. In connection with this issue, tourists were asked special questions, pertaining on their waste sorting habits in their place of their residence and during vacation. By analysing of the mean values of the tourists' answers, we can conclude that they occasionally sort waste in their place of residence (1.63), as well as in their place of vacation (2.37), whereas the last mean value is larger and confirms that tourists are less responsible when it comes to waste sorting when on holiday. An interesting fact is that the answers of the local population (mean value 2.15) were identical in relation to occasional waste sorting both in their households and in their workplace. The representatives of catering facilities stated that they also occasionally (mean value 2.0) sort waste in their workplace.

One of the questions referred to the penalty amount for waste disposal outside of the provided containers. The mean values of the answers (local population 2.22 and catering facilities 1.9) show that the majority of respondents consider that a fine for the stated offence should amount between HRK 500.00 and HRK 1000.00.

This paper shall further on compare answers to the fifth question (consisting of 15 statements) as follows:

- In the first statement: I consider myself an environmentally conscious person, the mean value of the respondents' answers (tourists 1.74, local population 2.16, and representatives of catering facilities 2.36) shows that all three groups of respondents consider themselves environmentally conscious.

- The mean values of respondents' answers to the second statement: Ecological associations can significantly influence environmental protection (tourists - 2.44, local population - 1.95, and catering facilities - 2.28) show that all three groups of respondents mainly agree with this statement, whereas tourists show a slightly less level of agreement.

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- The third statement says: When buying products, I take into consideration environmental labels on packaging. The mean value of tourists' answers (2.31) shows that they mainly agree with this statement. However, the mean values of the answers of the local population (3.02) and catering facilities (2.84) correspond with the answer: Neither agree nor disagree.

- The fourth statement referred to the encouragement of waste sorting, and answers were provided only by the local population and representatives of catering services. The mean values of their answers are almost identical, i.e. 1.79 and 1.82, respectively, and the respondents mainly believe that consumers are not encouraged enough to waste sorting.

- With the statement: I think that Makarska does not have enough waste disposal bins or that they are not properly distributed around town, the local population (2.34), and catering services (2.6) mainly agree while tourists' answers are non-specific (2.97).

- With the statement: I think that Makarska has a well-organised waste removal system, the representatives of catering facilities (3.5) mainly disagree, whereas tourists (3.11) and the local population (3.25) neither agree nor disagree.

- All three categories of respondents mainly agree (tourists 1.83, local population 1.78 and catering facilities 1.74) with the statement: The Ordinance on packaging and packaging waste defines a compensation of HRK 0.50 per piece of PET packaging, which we consider to be the main impetus for the separate collection of plastic packaging

. • The next statement says: We believe that the producers of PET packaged products should pay a certain type of additional fee for marketing hard degradable packaging. The mean values of respondents' answers (tourists 1.93, local population 1.96 and catering facilities 1.98) show that all three groups of respondents mainly support the stated statement.

- All three categories of respondents (mean values: tourists - 1.54, local population - 1.80, representatives of catering facilities - 2.02) mainly agree with the statement that the example of Ireland, which introduced a tax on plastic bags that reduced their production by 90 %, should be applied.

- The tenth statement says: We believe that we should apply the example of Israel, which completely banned the production of plastic bags. As with the several previous statements, the mean values of the answers (tourists - 1.83, catering facilities - 1.92, and local population - 2.19) show that all groups of respondents mainly support this statement.

- All three groups of respondents mainly agree (local population - 1.63, catering facilities - 1.68, tourists - 2.22) with the eleventh statement, which states that intentional environmental pollution is insufficiently sanctioned in Croatia. This high mean value of the tourists' answers might be justified with insufficient knowledge of legislative regulation in Croatia relating to intentional environmental pollution.

- The twelfth statement says: We believe that the fees for intentional environmental pollution in s tourist destination should be significantly higher. All respondents mainly agree with this statement. The mean value of answers provided by tourists is the highest and amounts to 2.38, the value of the representatives of catering facilities amounts to 1.86, and the value by the local population amounts to1.63. It is notable that, in comparison with tourists, local respondents are greater advocates of somewhat larger fines for intentional environmental pollution in tourist destinations.

- Only the local population and representatives of catering facilities answered the thirteenth statement: We would be willing to pay an additional 50 HRK per month together with the invoice for waste removal as a certain type of „environmental compensation" for people living in the immediate vicinity of waste disposal facilities or waste landfills. The mean values of their answers are identical (local

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population - 2.69, catering facilities - 2.86), and correspond to unspecified answer of „neither agree nor disagree".

- The local population and representatives of catering services answered the fourteenth statement, which states: The obligation of a utility company is to dispose of our waste, and our obligation is to settle the due invoices. The mean values of the respondents' answers (1.59 for both categories) suggest that they mostly agree that "everyone has to do their job". This means that the utility company is obliged to dispose of waste, and the local population is obliged to pay the due invoices, which implies that "the local respondents" think that the regular payment of bills implies a high level of ecological awareness - which is, of course, not true.

- Although only tourists answered the statement "I am willing to pay 1 EUR extra per day of stay in Makarska knowing that this money would be used for solving of waste management issues, it is interesting to examine the obtained results. The mean values of the respondents' answers (2.81) point towards the unspecified answer of „neither agree nor disagree". However, 42.73% of respondents mainly or completely agree with the given statement, which indicates a significant deviation from the mean value. For comparison purposes, the local population (2.69) and representatives of catering facilities (2.86) are somewhat ready to pay monthly compensation in the amount of HRK 50.00 for those who are "threatened" by the vicinity of waste management facilities.

- Only the "local respondents" answered the sixteenth statement: An appropriate environmental educational programme should be implemented already the junior grades of primary school. The mean value of the answers of the local population answers amounts to 133, which shows that they completely agree with the given statement, whereas the representatives of catering facilities (1.5) mainly agree.

Proposals for strategies of attitude change among participants in the waste management process in Makarska

For the implementation of set goals, mainly raising the level of ecological awareness and waste management in Makarska, it is necessary to successfully choose and combine various strategies of attitude change. Their proper selection, as well as the correct selection of messages, means, promotional activities, transferors and procedures will guarantee the efficient implementation of activities and the realisation of the set goals. Based on the research conducted, in the next part I will propose several strategies for changing attitudes and their components.

6.1. Strategies for changing individual attitude components

Strategies for changing individual attitude components are mainly implemented by influencing a change in one of the attitude components. [4] Given the fact that the attitude components are consistent, it is assumed that a change in any of the three components will result in changes in the remaining two. All three components should be consistent for the determined attitudes on ecological awareness in Makarska to result in environmentally acceptable behaviour.

Changing the cognitive component of the triple-component attitude model attempts to change knowledge and beliefs on environmentally sustainable waste management, thus resulting in changes in tendencies and behaviour. This will be the result of the new knowledge and perception of individuals connected to new data received from various sources.

The affective or emotional component of the triple-component attitude model represents a direct link between emotions and the attitude object. [5] Very often, we are not even aware that our attitudes are directly initiated by various emotional experiences. The inhabitants of the town perceive its cleanliness very

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emotionally. Research has shown that almost everyone disposes of waste in the designated bin, no matter how far these bins are located. Although the inhabitants take care of the quality of life of their neighbours who live in close proximity to waste management facilities, 59.09 % of them would actually be willing to pay 50 HRK per month as a type of "environmental fee" for those who are directly threatened by the vicinity of landfills.

The collected money could be used to screen some kind of educational film to the population that lives in areas further away from the waste landfills and is unaware of the problems that a landfill brings, in order to introduce them to problems that inhabitants that live near waste landfills face. This might cause changes in the affective component of an attitude. According to the aforementioned, it is the affective component that should be influenced with the aim of causing a positive belief and the desired attitude change.

Influences on the conative (behavioural) component of attitude are reflected in attempts to change an individual's behaviour, which may, in turn, lead to changes in their attitudes, beliefs and tendencies. [6] The research and questionnaires refer to the experience of Ireland, which imposed additional taxes for using plastic bags, thus reducing their use for 90 %, as well as experience of Israel, which completely banned the production of plastic bags. The research shows that the majority of respondents are inclined to this practice. For example, 82.73 % of tourists agree with Israel's stance, with which the production of plastic bags was completely banned. Taking into consideration such positive attitudes of all respondents in the waste management procedure in Makarska, it is recommended that we also implement the same criteria and regulations which would result in appropriate behaviour, i.e. changes in the conative component of attitude.

6.2. Strategies of attitude change via public relations and publicity

Public relations strategies represent a long-term planned activity that aims to, by creating positive opinion among the target public, create the conditions for other strategies of attitude change with the purpose of achieving ecologically acceptable behaviour. [7] Public relations strategies offer the creation of a positive environment that enables the successful implementation of other strategies (advertising, publicity and other). The inclusion of the public is crucial for successfully building and implementing a fair and continuously effective system for raising the level of environmental consciousness. The members of the public can act as the "eyes and ears" of the system by determining and encouraging acting against environmental dangers or the violation of corresponding laws. Unlike many other forms of marketing communication, which use one-way communication, public relations as a communication process occurs through two-way communication.

Good relations with the media are of particular importance for positive publicity. These relations are governed by mutual interest, since both sides depend on the quality of publicity. [8] The current situation in the town of Makarska with regard to this issue is relatively good, however, public relations definitely need more improvement via various advertising activities, voluntary cleaning activities etc. to create a positive publicity.

6.3. Strategies for changing attitudes through upbringing and education

One of the fundamental prerequisites for the development of every society is a life-long environmental educational system. Today, human behaviour has to be adaptable and open to changes, some of which might be realised in the short run, whereas the others will take more time. The educational system for ecologically sustainable development must be open to everyone, and all educational needs must be the focus of the joint consideration of all social groups, including children, their parents, teachers, civil associations, competent ministries and the local government and administration. [9] Today, environmental education is a global trend that is, to quite a great extent, implemented in the educational system of the Republic of Croatia according to the Educational

Programme for the Environment and Sustainable Development drafted by the Ministry of Environmental Protection. The need for general ecological education is present at all levels of education, from preschool facilities to universities. This suggests the hypothesis that environmental upbringing and education would be more successful if its implementation was initiated at an earlier age. Primary school is the right place for introducing the basic elements of ecological behaviour as fundamental civil values. Pupils respond very positively to these projects, as they offer them the possibility to practice for their role of future citizens and holders of new views regarding issues of waste management. In this way, children grow up to be adult members of society that will treat the environment critically and responsibly.

Setting up a system for environmental education and communication with the public through programmes organised by business entities, institutional and other institutions and others will provide the basic prerequisites for successful strategies of attitude change and the development of ecological awareness for sustainable environment preservation in Makarska. Hence, it is necessary to initiate "a more aggressive" campaign with the purpose of raising the level of ecological awareness in all aspects. Ecological projects should be launched, but not only theoretically-oriented ones based on the organisation of seminars, but also in the manner of implementing all these theoretical assumptions in "practice" with concrete results, which would allow the participants to see the benefits of their ecological participation on a concrete example and stimulate them to try to change the attitudes of other inhabitants of the town of Makarska, as well as those of tourists, with these creative messages. This would form the basis for further investment in this kind of advertising, with the aim of changing attitudes on ecology and environmental protection.

Conclusion

The results of the research conducted clearly and indisputably point to the conclusion that all the set goals have been met in their entirety. In addition, all three of the hypotheses postulated were partly or completely confirmed. The subject of the stated research was determining of the level of ecological awareness of the main participants in the process of waste management in Makarska. The statements in the questionnaire were adjusted to all of the categories of respondents, and to a great extent they were partly similar or almost the same, especially for the local population and the representatives of catering facilities. This allowed for the obtained results to be compared. The tourists also responded to some questions which were characteristic just for this group of respondents. By examining the research results, the following conclusion can be drawn:

Hypothesis H1: The ecological awareness of participants in the procedure of waste management in Makarska is not at a satisfactory level, is hereby partly adopted.

By analysing issues which refer to membership in ecological associations, knowledge of environmental labels on products, waste sorting and other, a very low level of ecological awareness of all respondents was noted. They showed a relative low level of ecological awareness with frequent unspecified answers (neither agree nor disagree) to many answers related to the behavioural attitude component (for example, willingness to pay a monthly compensation in the amount of HRK 50.00 for all those who are "threatened" by the vicinity of waste disposal facilities, conversation of waste and similar). Considering that authorities in Makarska, as the main holders of environmental protection programmes, do not demonstrate the necessary level of ecological awareness, i.e. acting with regard to waste management, this also contributes to the conclusion related to hypothesis H1.

However, the answers to some statements which represent generally accepted theses on ecology and advocating somewhat larger fines for intentional environmental pollution in tourist destinations (hence, statements which mainly refer to the affective and cognitive attitude components among all categories of respondents) demonstrate a high level of

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ecological awareness among the respondents. Taking into consideration this non-compliance of individual attitude components and the fact that the behavioural component is still a more reliable indicator of the ecological behaviour itself, this reasoning, i.e. the partial acceptance of hypothesis H1 is reasonable. From this research, it can be concluded that tourists in Makarska generally have a higher level of ecological awareness than local population and the representatives of catering facilities. Research results show that tourists in general possess a higher level of ecological knowledge, awareness and behaviour in comparison to the "local respondents".

Hypothesis H2, which states that the cognitive, i.e. emotional attitude component of respondents is at a higher level than behavioural, has been completely proven. As previously stated in the explanation of hypothesis H1, all three categories of respondents demonstrated an avid theoretical knowledge from the field of ecology. Everyone advocated the positive experiences of developed countries (Ireland and Israel) in solving issues relating to plastic bags, and everyone is familiar with the fact that a part of waste can represent useful raw material whose characteristics and material values can be re-used (paper, glass, plastic); however, answers to questions/statements used for determining the behavioural component of the respondents' attitudes have shown that theoretical knowledge is less frequently applied in practice, i.e. that the respondents behave in an ecologically acceptable manner to a lesser extent, or merely in part.

Hypothesis H3, which states that strategies of attitude change could significantly increase the level of ecological awareness of all participants in waste management in Makarska, has been completely accepted. Namely, their ecological behaviour refutes their ecological attitudes, and all the respondents are ecologically sensitive only at a declarative, and not a practical level. However, in order for environmental protection to fully come to life and for sustainable development to be realised, strategies of attitude change should be implemented to influence their change, which should have a positive effect on the change of behaviour. Upbringing, education and the development of awareness on environmental issues with the aim of adopting ecologically sustainable forms of actions, without any question represents a fundamental long-term aim and a basic measure of environmental protection. The argument is simple; most environmental problems are created through the actions of people, therefore it is clear that influencing the cause of the issue basically implies influencing people, i.e. those behavioural patterns that are not ecologically sustainable.

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UDK 35.073.515(049.5)(497.5Makarska); DOI:10.2507.IJVA.1.2.6.17

PHOTO 4.
Berba | Harvesting
PHOTO BY: JOSIP MESIĆ

Category: review paper

Dean Karalekas [1]

SURVEY OF RESEARCH ON EAST ASIAN LEADERSHIP PATTERNS AND DISASTER MANAGEMENT

Abstract:

This research paper is focused on the qualities of leadership exhibited by public administrators in the field of emergency management in East Asia, particularly in the Chinese and Japanese cultures, and how they navigate the uncharted waters of this new field in a traditional culture. Beginning with a general examination of the cultural and societal influences on the position of leader and the qualities demanded of that position, the research narrows to the specific field of emergency management and how administration in this realm is accomplished given a) the relative newness of the field itself, and b) the cultural barriers in East Asia to the widespread embrace of such disaster mitigation initiatives. By using a comparative approach, the differences between organizational needs and hence leadership styles is more easily highlighted, and therefore a comparison of leadership in Taiwan, as representative of Chinese culture, with Japanese leadership becomes instructive. How do public administrators in these cultures see their leadership roles, and what are the salient differences in these perceptions? Such research has important implications for the growing field of disaster management studies, practice, and multinational interoperability.

Keywords:

Disaster management, Leadership, East Asia, Taiwan

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UDK 658(049.5)(529); DOI:10.2507.IJVA.1.2.7.18

Introduction

Taiwan today is both a very traditional culture, as well as a modern one. On the one hand, a strain of superstition remains, influencing the decision-making process of the people of Taiwan, particularly as regards the purchasing of insurance such as disaster insurance, as this may be seen as courting bad luck. [1] Leaders in the ROC must therefore find ways of balancing the modern needs of this modern nation with traditional preferences of this traditional society. Taiwan's public administrators must be innovative and bold if they are to successfully adopt new and innovative disaster response programs and do what is required to provide the population with the advantages of the modern world without neglecting the cultural sensitivities which can often serve as impediments to such efforts.

By using a comparative approach, the differences between organizational needs and hence leadership styles is more easily highlighted, and therefore a survey of the literature allowing a comparison of leadership in Taiwan with Japanese leadership becomes instructive, especially when juxtaposed against an American leadership ideal that is perhaps more widely understood, and which has certainly received more attention from researchers. How do public administrators in Taiwan and Japan see their leadership roles, and what are the salient differences in these perceptions?

It should be acknowledged in advance of undertaking such a comparison that nations do not equate to cultures, and therefore it would be disingenuous to assert that "all managers in Taiwan do this" or "all Japanese leaders behave that way." Not only are there different personal styles among leaders within a particular culture, and different organizational values defining the context of the leader's role, but there are different cultures within a nation, and so any observations contained herein with regard to Taiwan, Japanese or American leadership styles run the risk of being accused of dealing in generalizations. While Japan is a culturally homogeneous nation, Taiwan is somewhat less so. It is therefore important to read these results not as a guide for understanding all managers or managerial decision-making within that particular country, but as an attempt to distill the importance of the culture in which leaders must operate. As amply demonstrated by the work of Hofstede, such cross-cultural comparisons not only have value to the researcher but are extremely instructive in more practical applications as well. Unlike Japan, there has traditionally been a low general expectation in Taiwan of the ability of individuals to work together effectively in large groups, or to maintain solidarity for long periods of time. Moreover, the predominant cultural attributes within which a leader operates are arguably one of the least ephemeral influences with which he has to contend, and thus are worthy of greater study.

Private Sector

Given the exalted position that the leader holds in the estimation of his subordinates, it is considered extremely bad form for a subordinate to question a decision made by the leader. In terms of communication, the focus is on positivity and positive outcomes, as it is only through a positive attitude that thought can be translated into action. Thus, negative communication (bad news, opposing viewpoints, or suggestions that run counter to the leader's perception) are often greeted with negative reinforcement. Such expressions of alternate opinions are taken, at best, as expressions of a lack of trust in the leader and, at worst, as an attempt to "take down his table," or attack him [2].

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The only exception to this rule is in private communication by trusted interactors (interaction time with the leader, and not rank or seniority, is considered a better measure of influence), who will agree with the boss in public, but then tactfully express their honest opinion afterwards, and only in private. Thus, the hierarchical model assumed to be the default structure of East Asian organizations is less representative in the case of Taiwan, with power concentrated at the top, and the most influential power brokers at lower levels not necessarily inhabiting the penultimate rungs of the corporate ladder, but rather those interactors–individuals of any rank–who have access to face time with the leader.

Given this cultural predisposition, the American example and not the Japanese may be a more appropriate one for Taiwan administrators to follow. Writing on the topic of collectivism, Huo et al. [3] note that the old truism of America being a culture that embraces and rewards individualism, in this case, is accurate. Leaders are not averse to soliciting opinions and different viewpoints from the group, especially in the modern organizational environment in which this is often taught as good management practice. In reality, however, such inclusiveness in the American decision-making process is usually employed merely as a method of overcoming group inertia and defusing resistance, rather than a genuine attempt to seek alternative perspectives. In this way, it differs from the Japanese leader's building of consensus and is more akin to the tendency in Taiwan for the leader to avoid delegating authority, except insofar as even the mere appearance of soliciting input would seem to go against the traditional dynamic at play in Taiwan.

This dynamic may seem counterintuitive, especially considering the work of Hofstede [4], whose research identified an even higher level of collectivism in Taiwan than in Japan. He defined "individualism" as the degree to which people prefer to act as individuals rather than as members of a group [5], the definition of "collectivism" being the converse to this. And indeed, Huo [3], who interviewed corporate managers in Taiwan, noted that leaders emphasized the importance of securing cooperation from employees, but this is distinct from the consensus-seeking employed in Japan. In Taiwan, it is the duty of the employee to avoid any perception of disagreement with the leader–a practice that preserves the outer appearance of harmony–and hence all employees are cooperating in the endeavour [2]. How this collectivism is expressed therefore is different in the two countries.

One of the most oft-cited qualities in a good leader is the ability to communicate, and yet even within this relatively straightforward concept there is significant room for deviation among cultures. Leaders in the United States tend to equate the ability to communicate with the ability to speak well, and thus there is a skewed perception about the importance of giving speeches compared to the ability to listen. In Japan, in contrast, leaders with good communication abilities are widely perceived as being good listeners. Taiwan walks a middle path between these two extremes. The idea that subordinates might have valuable input that must be taken into account in the decision-making process assumes a worldview wherein the leader does not have a monopoly on wisdom. Huo [3] credits the influence of Confucianism for this tendency among Eastern administrators to hold the view that leaders are not necessarily smarter than their followers. This is expressed in different ways, however; In Japan there is the aforementioned leadership prerequisite of being a good listener and seeking input from all members of the group, whereas in Taiwan, leaders are wary of overtly competent subordinates and those with leadership potential. Both paradigms assume the existence of wisdom and leadership abilities among the group, yet react to this in different ways.

Americans, meanwhile, believe strongly in the individual and his ability to rise to great heights in a system that rewards virtuous traits such as intelligence, ability and tenacity. In such a meritocracy–and opinions differ on whether the American meritocratic system is a reality or a myth–the leader is promoted over others because he is more deserving, and therefore the one most qualified to make the hard decisions unaided. As a result, the

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importance of listening is overlooked in favor of being a good motivator. As a result, the leadership quality of communication is often conflated with the ability to speak well–to articulate the corporate vision, or verbally rally the troops to work toward a common goal. This focus on effective speaking abilities is found in Taiwan, as well: Once an individual assumes a leadership role within a group, there is the tendency to attribute his success to the ideological or value-oriented beliefs that he holds, and it is part of his job as the morally superior individual to effectively verbalize these beliefs for the betterment of his subordinates [2].

Emergency Management Leadership

In a comparison of the effectiveness of the "transformational" style of leadership in the United States and Taiwan, Spreitzer [6] likewise invoked Hofstede's power distance, expanding the variable to a construct of traditionality, built upon that employed by Farh [7], to encompass "expressive ties among people manifested in values such as respect for authority, filial piety, male-domination, and a general sense of powerlessness" [7]. The values represented by traditionality identify that every relationship is hierarchical, with a power holder and a submissive, each with clearly defined roles and a range of appropriate behaviors permitted to them. Leaders in traditionalist societies such as Taiwan's value harmony and conflict avoidance over productivity or performance.

The task-oriented dimensions of transformational leadership (those of articulating a vision, setting high performance expectations, and intellectual stimulation) were found to be perceived as less effective given the Taiwan concept of leadership, at least among traditionalists. The relationship-oriented dimensions (providing individualized support, an appropriate model, and fostering group goals) showed much stronger support among traditionalists, as these would seem to support Confucian-influenced values such as preserving harmony. In short, a transformational leadership style, so effective in the United States, is not regarded as particularly useful among Taiwan's more traditionalist leaders.

In Western nations, governments take the view that the wide-ranging effects of almost all types of emergencies and disasters render these events too large and too all-encompassing for a single agency or jurisdiction to handle alone. As a result, there has been increased attention paid to the practice of using Community-Based Strategic Planning (CBSP) techniques to draw other stakeholders into the process. An example of this process is very much in evidence in the city of Vancouver, Canada, with the emergency management (EM) structures they have in place. The emergency management infrastructure in the Canadian province of British Columbia (BC), especially in the City of Vancouver, is one with which the author is intimately familiar, and while it may not represent a standard used across North America, it is nonetheless a fairly typical example and therefore useful as an illustration of the Western method of using CBSP in EM.

Western Model

In BC, various governmental and non-governmental stakeholders contribute to the common task of emergency preparedness from the very beginning of the process; that of mission focus. Through negotiation and consultation, a mission statement is composed in such a way as to ensure buy-in by all stakeholders, mitigate mission-drift and heighten the capacity for inter-jurisdictional and inter-agency cooperation. An example of such a mission statement could be to develop and maintain a comprehensive plan to prepare for, respond to, and recover from, all types of major emergencies that might occur in the jurisdiction.

This process is known in BC as a "Framework for Cooperation," and it illustrates very neatly how duties and responsibilities are portioned out to various stakeholders, including non-governmental organizations (NGOs), businesses, charities and various agencies in the federal, provincial and municipal governments. In order to aid Emergency

UDK 658(049.5)(529); DOI:10.2507.IJVA.1.2.7.18

Social Services (ESS) of Vancouver, BC, in its work, various organizations, charities and public and private bodies are actively involved in all aspects of emergency planning and callouts. This pattern is not provided as a template that should be followed, nor as a standard that must be met. Rather, it is to illustrate the depth and breadth of CBSP structures within the EM community in one part of North America and how this theoretical construct is expressed in a real-world application.

In contrast, the public governance concept of CBSP is not widely employed in EM structures in Taiwan. Indeed, the practice of emergency management and disaster response are solely within the purview of the government, and private sector actors are kept at arm's length. Moreover, EM is primarily seen as the responsibility of the central government, with elected leaders expected to handle such concerns, or at the very least to take a leadership role.

Unlike Western nations, in which local governments generally enjoy a high-degree of autonomy (although they often receive support) from the central-government level, Asian nations in general, and East Asian nations in particular, are partial to a very centralized system. Governments at Taiwan's county, city and township level are often not tasked with establishing, on their own, the kind of emergency plans and response frameworks that their Canadian counterparts are mandated to establish by federal law. Rather, such plans, including the charting of escape routes and rally points for citizens fleeing a disaster, are produced at the central-government level and passed down to the towns and villages. This is in direct opposition to the practice in North America, wherein the first step of composing a municipality's emergency plan is to gather stakeholders (citizens' groups, business interests, even the disenfranchised) and begin negotiations about what should be included in that plan. This process is as much to secure buy-in from all sectors of society as it is to develop a workable plan that suits the unique life patterns of the people actually living in the community in question. It is generally accepted EM practice that communities take ownership of their own emergency plans and preparations, albeit with material and financial help from higher-level governments, because it is these communities that intimately know what their needs are, as well as exactly what hazards, risks and vulnerabilities they face. In BC, it is believed that, were this job left to a central authority, a standardized, one-size-fits-all plan would be imposed upon disparate communities, and such a plan would stand a very slim likelihood of achieving its mission.

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PHOTO 5.
Njiva | Field
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Category: review paper

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BASIC AS A SOURCE OF FINANCING PUBLIC NEEDS

Abstract:

Needs of the population in a particular area are financed from the budget. The volume of budgetary funds determines the ability of satisfying those needs. Budget fund sources of local units are prescribed by legal provisions. The attention is on their purposeful disbursement. Audit process confirms the credibility of financial statements. This paper presents county budget realization from 2008 to 2012 and the use of funds. Local units apply accounting system of budget accounting. Expenditures are recorded pursuant to prescribed method and according to expenditure type, which is shown in tables. The aim is to investigate the movement to achieve total revenue Pozega-Slavonia County in relation to the achievement of all counties and show its capabilities in meeting the needs of the population. The assumption confirmed in this paper is that Požega-Slavonia County budget revenues in the observed period are decreasing, which affects the possibilities of meeting county population's needs. Methods used in this paper are analysis method which monitors the trend of revenues and receipts of Požega-Slavonia County from 2008 to 2012, within the frame of achievement at the level of all counties. Observed county was compared according to achievements with all other counties and using synthesis method all data has been unified which led to the comparison of income trends between observed county and other counties. The volume of total revenues and the possibility of their realization affect the ability to meet public needs under county jurisdiction. It was found that Požega-Slavonia County budget does not significantly participate in realization of total revenues at the level of all counties, and when there is no possibility of significantly impacting the increase of budget revenues, more attention should be given to rational spending of available funds.

Keywords:

budget, audit, public needs, local units

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UDK 336.14:352(497.5Požega); DOI:10.2507.IJVA.1.2.8.19

VALLIS AUREA

Introduction

The subject matter of this paper is to present county budget and the use of realized funds on the example of Požega-Slavonia County. The organization of the Republic of Croatia is based on counties as local and regional self-government units and municipalities and towns as local self-government units. The aim of this paper is to, based on data obtained in the process of any financial audit, investigate and give conclusion on the movement of realized revenues and receipts at the level of Požega-Slavonia County and compare that data with the realization at the level of all counties and make conclusions regarding the significance of realized revenues of Požega-Slavonia County. The assumption is that the budget revenues of Požega-Slavonia County in the observed period are decreasing, which affects the possibility of meeting the needs of the population in the county. The importance of research mentioned issues is that the task of counties and municipalities and cities, improve the standard of life of its inhabitants, the current system of funding, or generate revenues necessary for the smooth conduct activities within their jurisdiction. In this research it was found that Požega-Slavonia County budget does not significantly participate in the realization of total revenues at the level of all counties. During the observed period no significant increase in income at the level of observed county has been detected, which means that it is not possible to increase the ability of meeting public needs that are financed from county budget. Therefore, attention should be given to the rational allocation of existing funds.

Organization of local units and sources of budgetary funds

The territory of the Republic of Croatia is divided into 576 local units, of which 20 units are regional self-government units (counties), 555 are local self-government units (127 towns and 428 municipalities) and the City of Zagreb as a separate and unique territorial and administrative unit which has a special status as both a county and a city. The provisions of Article 20 of Local and Regional Self-Government Act [11] prescribe that counties within their self-government scope perform the activities of regional significance, in particular activities related to education, health, physical and urban planning, economic development, transport and transport infrastructure, maintenance of public roads, planning and development of a network of educational, health, social and cultural institutions, issuing construction and location permits, adoption of other acts related to construction and implementation of spatial planning documents in county territory and other activities in accordance with special laws. From the above we can see that it is the responsibility of the county to meet the basic needs of the population. Sources of funds and funding activities from self-government domain of the county, municipality and the city are prescribed by the provisions of Financing of Local and Regional Self-Governments Act [2]. According to the provisions of Article 3 of the said Act, local and regional self-government unit achieves its revenues from its own sources, from shared taxes and financial help from state and county budgets.

County budget realization is presented in this paper on the example of Požega-Slavonia County budget. In the area of Požega-Slavonia County there are five cities and five municipalities with a total of 78,034 inhabitants according to

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2011census. Požega-Slavonia County adopts the budget at the beginning of each financial year, which is the same as the calendar year. Furthermore, every city and every municipality in the county adopts its own budget. County budget is adopted by the county assembly, while city and municipality budgets are adopted by the city or municipal council. This practice allows meeting the needs that are of general public interest. At the end of each year budget realization is determined.

Financial statements which are drafted by counties, cities and municipalities are subject to audit by the National Audit Office which is regulated by legal provisions [1]. As a basis for research we used the data from the financial statements included in audit reports. The audit process is used for confirming the authenticity and credibility of financial statements, it analyses actual revenues and receipts, expenses and expenditures, and confirms compliance with relevant laws in force. An audit also includes an assessment of the efficiency and cost-effectiveness of activities and provides an assessment of the effectiveness of achieving business goals or objectives of individual financial transactions, programs and projects. From provisions listed above we observe that the basic tasks of the audit are aimed at financial activities, but also include activities used for the purposes of determining effectiveness, cost-effectiveness and efficiency.

Budget planning

County adopts the budget, the decision on budget execution and amendments to the budget. The budget is used for planning revenues and receipts and expenses and expenditures. In the case of deviation between generated revenues or expenditures in relation to the planned ones, amendments to the budget are performed during the year. The county has issued projections for the next two years, i.e. 2014 and 2015, which plan revenues and receipts and expenses and expenditures. Development Programs Plan for 2013 is also adopted, which includes expenditures for investment and capital financial help planned according to programs and funding sources. The most significant funds are earmarked for the construction of irrigation systems, construction of primary schools and the construction and procurement of equipment for health institutions. In February 2011 County Development Strategy for the period 2011 to 2013 was adopted, which aims to increase the competitiveness of the county through better use of natural resources, support the introduction of modern technologies and business methods, provide the prerequisites for attracting investments, improve physical, economic and social infrastructure and foster competitiveness of industry and entrepreneurship in the county. Based on the decision by the County from December 2013 the validity of County Development Strategy was extended for one year, i.e. for the period from 2011 to 2014 in order to ensure Strategy's compliance with the Regional Development Strategy of the Republic of Croatia.

Accounting operations

Local and regional self-government units apply the accounting system of budget accounting as prescribed by the provisions of the Budget Act [4]. Accounting documents, books, bookkeeping organization, budget accounting plan content and other areas relating to budget accounting are prescribed by the Regulation on Budget Accounting and Budget Accounting Plan [6]. In accordance with budget accounting plan revenues are recorded within the frame of class 6 - operating revenues, class 7 - revenue from the sale of nonfinancial assets and class 8 - receipts

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from financial assets and borrowing. Within each class are groups, subgroups and basic accounts within which certain types of income are recorded. Expenditures are recorded within the frame of class 3 - operating expenditures, class 4 - expenditures for the acquisition of nonfinancial assets, and class 5 - expenditures for the acquisition of financial assets and repayment of loans. In accordance with the prescribed method, recording was performed on the basis of expense and expenditure groups, and the results for the observed period are presented in Table 2 and Table 3.

Analysis of the revenues and expenditures

Below you can find an overview and analysis of realized budget revenues. Within the frame of total realized revenues and receipts of all counties and the City of Zagreb the achievement of municipalities and cities in their area is included. Data for the most recent year, the observed year in terms of this paper, relate to 2012 (realization of total budget revenues and receipts of all counties), i.e. for 2013 (realization of total budget expenses and expenditures of Požega-Slavonia County), which at the time of writing this paper (December 2014) were available online.

Table 1 gives an overview of realization of the total budget revenues and receipts of Požega-Slavonia County which consist of revenues and receipts of all cities and municipalities in the county, and an overview of revenues and receipts of County budget itself, and that data is observed in relation to the total realization of revenues and receipts of all counties. Total realization of revenue and receipts at the level of all counties also includes the realization of all cities and municipalities in the area of counties, and also includes the City of Zagreb. As a source of data we used Working reports of the National Audit Office from the period from 2009 to 2013 [7-12]. With an aim of performing data analysis and comparison the period from 2008 to 2012 was covered, after which followed the calculation using percentages and indexes. Total revenue realization of all counties between 2008 and 2011 was in decline, while in 2012 compared to 2011 the realization was slightly higher. Realization of total revenues and receipts of Požega-Slavonia County budget, which consists of total revenues and receipts of all cities and municipalities in the county, has decreased by 7.97% in 2011 compared to 2010, while in 2012 it was 3.73% higher compared to 2011. Budget revenues and receipts of Požega-Slavonia County in 2012 were slightly higher than in 2008, while the realization in 2011 was lower by 4.37%, compared to 2010, while the realization in 2012 was lower by 10.21 % compared to 2011. Looking at the share of the budget of Požega-Slavonia County consisting of revenues and receipts of all cities and municipalities in the county in total realization of all counties, the share in 2008 was 0.97%, and in 2012 the share was 1.15%, i.e. the increase in share confirms greater significance of observed county in the realization at the level of all counties. The share of Požega-Slavonia County budget itself in the overall realization at the level of all counties varies from 0.31% in 2008 up to 0.41% in 2010, while in 2011 the share was 0.40%, and in 2012 the share was 0.36%.

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in HRK without lp

Revenues for years	a) Total for all units in the area of Požega-Slavonia County (County, cities and municipalities budget)	Share in %	b) Požega-Slavonia County (County budget)	Share in %	Total for all counties and the City of Zagreb	Share in %
1	2	3	4	5	6	7
2008	251,271,697	0.97	79,097,582	0.31	25,884,516,959	100
2009	242,770,603	1.01	68,819,175	0.29	24,114,352,243	100
2010	264,575,373	1.16	92,646,280	0.41	22,714,703,611	100
2011	243,496,015	1.11	88,595,986	0.40	21,919,046,803	100
2012	252,568,298	1.15	79,547,850	0.36	21,992,281,162	100
Index 2011/ 2010	92.03	-	95.63	-	96.50	-
Index 2012/ 2011	103.73	-	89.79	-	100.33	-

Table 1. Total budget revenues and receipts

in HRK without lp

No.	Expenses and Expenditures	Realized in 2009	Realized in 2010	Realized in 2011
1	2	3	4	5
1.	Expenses for employees	12,388,879	17,940,027	16,837,988
2.	Material costs	18,155,373	37,345,073	34,800,029
3.	Financial expenses	5,286,057	3,748,929	5,502,831
4.	Subsidies	2,776,627	1,570,421	968,893
5.	Financial help	2,953,540	2,823,281	2,544,077
6.	Compensations to citizens and households based on insurance and other fees	9,384,246	2,659,390	2,624,359
7.	Other expenses	7,867,331	3,199,877	3,366,377
8.	Expenses for the acquisition of nonfinancial assets	11,481,979	18,571,313	18,460,153
9.	Expenditures for the acquisition of financial assets and repayment of loans	3179639	4,620,097	2,595,166
Total		73,473,664	92,478,408	87,699,873
Surplus of revenues and receipts		-	167,872	896,113
Deficit of revenues and receipts		4,654,489	-	-

Table 2. Realized expenses and expenditures of Požega-Slavonia County from 2009 to 2011

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Table 2 and Table 3 give an overview of realization of total budget expenditures and expenses of Požega-Slavonia County. As a source of data we used Financial audit reports for Požega-Slavonia County for 2009, 2010, 2011, 2012 and 2013 [5]. In order to perform data analysis and comparison, we covered the period from 2009 to 2013, after which the calculation using relative numbers, percentages and indexes was performed. The share of expenses and expenditures in the total realization is calculated for 2013, while the index is used for observing realization in 2013 compared to 2012. Total realization of budget expenses and expenditures in Požega-Slavonia County in the observed period tends to increase. Total expenses and expenditure in 2013 amounted to HRK 91,521,194.00 and compared to 2009 it represents an increase of HRK 18,047,530.00 or 24.56%. In 2013 compared to 2012 expenses and expenditures increased by 14.5%. The increase in expenses and expenditures was significantly influenced by the increase of expenditures for the acquisition of financial assets and repayment of loans which in 2013 increased by 115.7% compared to 2012. Compensations to citizens and households based on insurance and other fees in 2013 were increased by HRK 5,333,686.00 or 85.1% compared to 2012.

In the structure of expenses and expenditures for 2013, according to value, the most important expenses and expenditures were for material costs in the amount of HRK 34,695,749.00 or 37.91%, acquisition of nonfinancial assets in the

in HRK without lp

No.	Expenses and Expenditures	Realized in 2012	Realized in 2013	Share in % for 2013	Index (4/3)	
1	2	3	4	5	6	
1.	Expenses for employees	16,039,425	14,243,585	15.56	88.8	
2.	Material costs	33,037,693	34,695,749	37.91	105.0	
3.	Financial expenses	2,294,534	3,237,262	3.54	141.1	
4.	Subsidies	545, 345	307,738	0.34	56.4	
5.	Financial help	3,476,878	4,068,653	4.45	117.0	
6.	Compensations to citizens and households based on insurance and other fees	6,264,024	11,597,710	12.67	185.1	
7.	Other expenses	4,116,452	5,152,642	5.63	125.2	
8.	Expenditures for the acquisition of nonfinancial assets	12,773,036	15,167,047	16.57	118.7	
9.	Expenditures for the acquisition of financial assets and repayment of loans	1,414,337	3,050,808	3.33	215.7	
Total		79,961,724	91,521,194	100	114.5	87,699,873
Surplus of revenues and receipts		-	-	-	-	896,113
Deficit of revenues and receipts		413,874	2,183,736	-	-	-

Table 3. Realized expenses and expenditures of Požega-Slavonia County for 2012 and 2013

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amount of HRK 15,167,047.00 or 16.57%, expenses for employees in the amount of HRK 14,243,585.00 or 15.56% and compensations to citizens and households based on insurance and other fees in the amount of HRK 11,597,710.00 or 12.6% of total expenses and expenditures. Other expenses and expenditures relate to financial expenses, subsidies, financial help, other expenses and expenditures for the acquisition of financial assets and repayment of loans amounting to HRK 15,817,103.00 which amounts to 17.28% of total expenses and expenditures.

From Table 2 we see that in 2013 expenses for employees were lower than in 2012 by 11.2%, and compared to 2009 they were 14.97% higher. They refer to expenditures of the County amounting to HRK 6,470,195.00 and to budgetary beneficiaries and decentralized functions amounting to HRK 7,773,390.00. Material costs amounted to HRK 34,695,749.00 and compared to 2012 they increased by 5.0%, and by 91.1% compared to 2009. They refer to expenditures for services, materials and energy, other unlisted operating expenses, compensation for employees and expenditures related to compensation for the unemployed. Total realized material costs refer to expenditures for users that are financed from the decentralized funds and for budgetary beneficiaries in the amount of HRK 25,930,100.00 and County expenditures amounting to HRK 8,765,649.00. Within the frame of total realized other unlisted operating expenditures in the County HRK 5,504,160.00 refers to compensations to members of electoral boards, committees and administrative referendum staff, the European elections and local elections, compensations to Assembly members, compensations to representatives of the executive authority and deputy County prefect, compensations to representatives of national minorities councils, compensations to council members of various institutions and other committees and other miscellaneous operating expenditures. Compensations are determined on the basis of the decision by the County Assembly. Financial expenses refer to interest payments for loans, banking and payment services, default interests and other financial expenses. In comparison to 2012 those expenses increased by 41.1%, and compared to 2009 they decreased by 38.76%. Financial help was realized in the amount of HRK 4,068,653.00 and in relation to 2012 it increased by 17.0%, and by 37.8% compared to 2009. They refer to capital financial help to cities and municipalities (75.0% of received financial help came from the state budget in 2013) amounting to HRK 3,936,098.00 and ongoing financial help amounting to HRK 132,555.00 (transfer of funds to the State Hydro Meteorological Institute amounting to HRK 50,000.00 and pre-school education co-financing amounting to HRK 82555.00). Compensations to citizens and households based on insurance and other fees were realized in the amount of HRK 11,597,710.00 and compared to 2012 such compensations were higher by 85.1%, and compared to 2009 they were higher by 23.6%. They refer to the co-financing of student transportation which amounts to HRK 9,174,435.00, financial help to families and households amounting to HRK 1,949,875.00 and scholarships and tuition amounting to HRK 473,400.00. Other expenditures amounting to HRK 5,152,642.00 refer to current donations on the basis of public needs to religious communities, associations, political parties on the basis of the provisions of the Financing Political Activities and

Election Campaigns Act, sports associations, fire department, Red Cross, Tourist Board, Regional Development Agency and other beneficiaries in the amount of HRK 4,361,308.00, capital financial help to Tourist Board amount to HRK 170.000,00, compensations of damages to natural persons on the basis of court rulings amount to HRK 601,304.00, HRK 12,530.00 to legal persons and compensations for damages caused by a natural disaster amount to HRK 7,500.00. The funds were allocated to users on the basis of public demands for 2013, payment orders, and within the frame of amounts earmarked by the budget. Before the start of the financial year, users submitted requests for funds and programs on the basis of public invitation with listed funds' utilization. After the end of the business year the users are required to submit reports on funds' utilization.

Of the total realized expenditures for the acquisition of nonfinancial assets in the amount of HRK 15,167,047.00, the most significant are expenditures realized for the acquisition of buildings amounting to HRK 6,674,434.00, the acquisition of plant facilities and equipment amounting to HRK 5,075,082.00, drafting of project documentation amounting to HRK 1,139,750,00, additional investments in health institution facilities and schools amounting to HRK 1,137,886.00 and the acquisition of transport vehicles amounting to HRK 379,750.00. Of the total realized expenditures for the acquisition of nonfinancial assets, the expenditures for decentralized functions amount to HRK 10,375,222.00 or 68.4%, and the expenditures of the County amount to HRK 4,791,825.00 or 31.6%. The most significant investments of the County were realized for the construction of irrigation systems in the amount of HRK 3,234,474.00. On the basis of co-financing agreements and construction agreements between the County, the contractor and the Company for Management of State-Owned Waters, funds are allocated to the contractor. Expenditures for the acquisition of financial assets and loan repayment in 2013 make up 3.33% of realized expenses and expenditures. Compared to 2012, they have increased by 115.7%, and decreased by 4.05% compared to 2009. For the most part they refer to the repayment of loan principals granted by commercial banks in previous years and deposit interests. Table 3 shows that a deficit of revenues and receipts compared to expenses and expenditures for 2014 amounts to HRK 2,183,736.00.

Most of realized revenue has set use. Earmarked County budget's revenues and receipts are revenues for decentralized functions, financial help, lease and sale of agricultural land owned by the state, hunting concessions, the performance of public health protection and exploitation of mineral resources, hunting leases, fees for retention of illegally constructed buildings in the area, capital financial help and receipts from the repayment of funds for agricultural crediting. In the case of Požega-Slavonia County, in 2013 realized revenues amounted to HRK 69,161,837.00 and their share in total realized revenues and receipts was 77.4%. The realization of the budget in accordance with the established purposes is specified in the provisions of Article 47 of the Budget Act [4] which prescribe that the bodies of local and regional self-government units are responsible for the full and timely collection of revenue and receipts, their payment into the budget and for the execution of all expenses and expenditures in accordance with their purposes. The provisions of Articles 124 and 125 of the said

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Act prescribe that conduct contrary to the prescribed provisions is subject to criminal prosecution, according to which legal person, as well as the person responsible for the budget, is punished. Therefore, the audit determines the total earmarked revenues realized by the budget and determines whether there are expenditures for which earmarked revenues were collected. The share of realized earmarked revenues in total revenues is significant, in 2013 the share was 77.4%. From this it follows that the remaining realized revenues of the budget can be spent for other purposes. In doing so it is mandatory to respect all other provisions regarding budget execution.

Material costs are most significant budget expenditure. With their realization it is important to note that of their total realization in 2013 as much as 25.26% refers to material costs of the County budget, while the remaining material costs relate to expenditures of users who are financed from the decentralized funds and to budgetary beneficiaries. For the realization of material costs it is important to ensure compliance with legal provisions relating to the implementation of the procurement of goods, works and services because that way it is possible to achieve greater value for money. Figure 1 shows County budget expenses and expenditures for the period from 2009 to 2013.

Expenditures for the acquisition of nonfinancial assets are in second place in the realization of

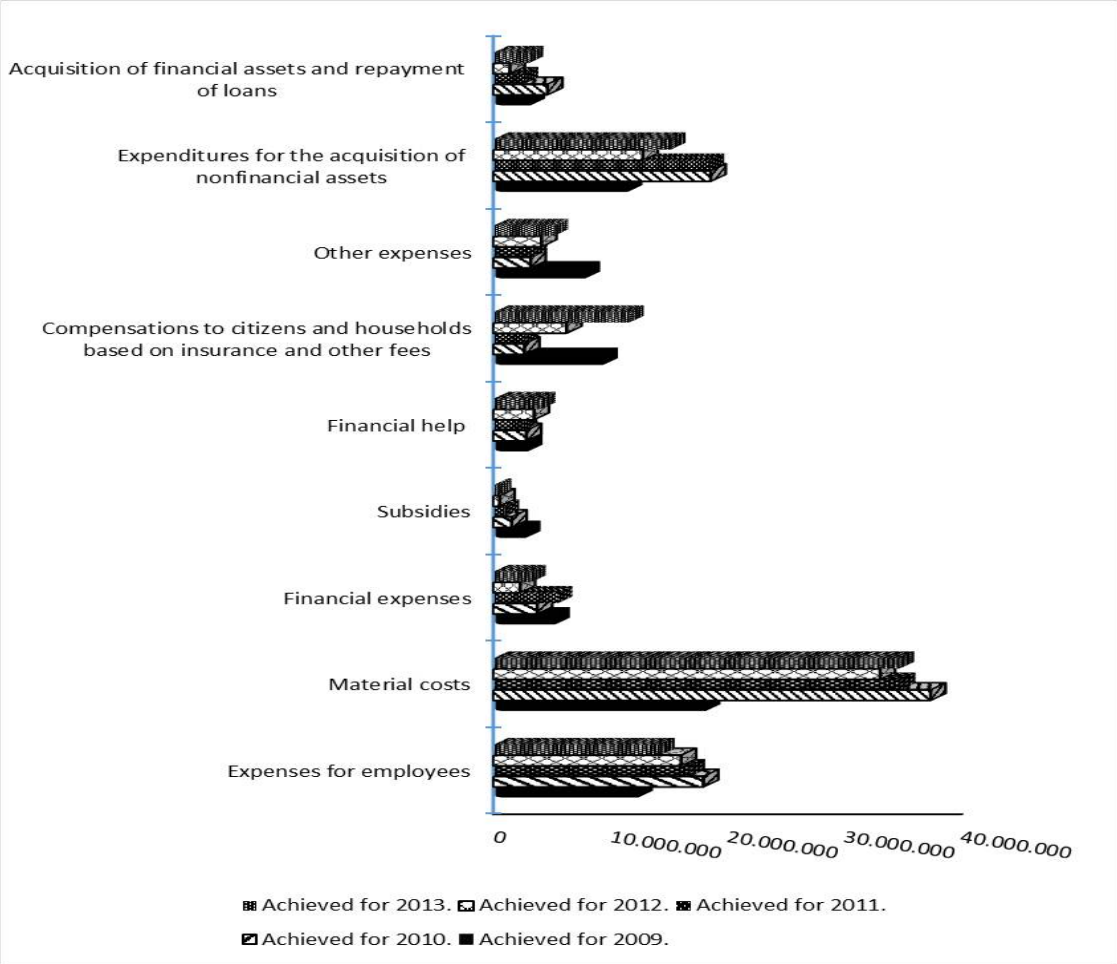

Figure 1. Expenditures and expenses of Požega-Slavonia County from 2009 to 2013

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total expenditures. Within these expenditures investments in the acquisition of fixed assets, i.e. buildings, plants and equipment, additional investments in existing property of health care institutions, schools and other investments are realized. It would be better if realized investments according to their share in total budgetary funds are more significant in their absolute value and in their share.

Within the budget expenditures significant are expenses for employees. We have observed their tendency of growth compared to 2009. Regarding their achievement it is important to note that there are no legal restrictions on the payment of salaries that should be respected, and salaries above all depend on the size of local government unit and budgetary capacities of that unit. From Financial audit reports for Požega-Slavonia County [5] during the audit it was determined that the order which was not respected refers to the amount of paid funds for salaries which is greater than allowed. That means that in 2014 it is necessary to take certain actions in order to ensure compliance with provisions regarding salary payment to employees.

Operating result is the difference between realized revenues and expenditures during one budget year, which is the same as calendar year. Požega-Slavonia County has generated a deficit of income in 2009, 2012 and 2013. Budget audit for 2013 indicated that the recommendations on execution procedures relate to the program for covering the deficit between income and receipts which has not been adopted, but activities have been taken to cover the deficit in a way that commitments for operating expenses and acquisition of nonfinancial assets were reduced. Budget revenues are allocated for specific purposes. If during the year budget revenues are not realized in planned amounts and according to planned dynamics, or if expenditures are higher than planned, it is necessary to reduce expenditures, i.e. to reallocate revenues, which is achieved via budget amendments. It is necessary to monitor the realization of revenues and expenditures in order to undertake necessary reallocations.

Conclusion

Through the information provided in audit procedures from 2008 to 2013, an overview of budget realization with special attention to County budget was performed. Audited financial statements are available to the public, and represent the basis of this study for conducted analysis and conclusions drawn. In this paper we concluded that the trend of total revenues and receipts of Požega-Slavonia County, as well as County budget (excluding revenues of cities and municipalities), has no tendency of significant revenue increase. Collecting budget revenues is prescribed by legal provisions, as is their purposeful spending. In addition to ensuring full and timely collection of revenues, importance is attached to their earmarked use. The availability of budget revenues determines the possibilities of meeting the needs in local unit's area. Since there is no significant increase in revenues at the level of observed county, the assumption that has been confirmed in this paper is that there are no significant possibilities for increasing the level of meeting public needs. The application of statistical methods in the work we concluded the movement to achieve revenues in the area of one county and significance in relation to the achievement of all counties. We found that the achievement of observed counties is not

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significant compared to the total realization of all counties. From the movement of the size of the revenue generated we concluded that it did not increase capacity to meet the needs placed in the jurisdiction of the county. This paper concerns the budget revenues of one county, and therefore to perform any general conclusions require an analysis revenues and expenditures of other counties, and do their comparison.

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PHOTO 6.
Biciklist | Cyclist
PHOTO BY: JOSIP MESIĆ

Category: review paper

Jovan Sarac [1]

THE ROLE OF THE AGREEMENT ON TRADE RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS (TRIPS) IN THE SYSTEM INTELLECTUAL PROPERTY PROTECTION

Abstract:

The Agreement on Trade Related Aspects of Intellectual Property Rights is one of the recent treaties in the system of intellectual property protection. This agreement represents an annex to the Agreement Establishing the World Trade Organization and is not in the system of the World Intellectual Property Organization. According to the TRIPS Agreement, protection of intellectual property should contribute to the promotion of technological innovation, transfer and dissemination of technologies for the mutual benefit of producers and users of technological knowledge in ways that incite social and economic development, as well as balancing the rights and obligations. TRIPS contains some of the principles and clauses that are specific to international trade agreements, such as most-favored-nation clauseand it gave the definition of each of the industrial property rights. These definitions will contribute to the harmonization of national legislation in this field.Unlike earlier treaties, TRIPS contains detailed provisions relating to the enforcement of intellectual property rights.Thanks to the mechanism of sanctions under the World Trade Organization, TRIPS became an umbrella agreement in the system of intellectual property protection.

Keywords:

TRIPS, intellectual property, non-tariff barriers, international trade, mechanism of sanctions

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UDK 347.77:339; DOI:10.2507.IJVA.1.2.9.20

Introduction

Agreement on Trade - Related Aspects of Intellectual Property Rights (TRIPS) [1]was created out of the system of the World Intellectual Property Organization (WIPO). Specifically this agreement is an annex to the Agreement Establishing the World Trade Organization (WTO) and this fact gives it a specific role in the system of intellectual property protection. The subject of analysis is a place and role of TRIPS in the system of intellectual property protection within the context of other international and national regulations in this field. Methods predominantly used in this paper are normative, comparative and axiological. Considering the topic itself and the fact that TRIPS is a legal document, application of experimental, statistical and other exact methods is not possible. Result of the application of earlier mentioned methods should be an analysis of the place and role of TRIPS in the system of intellectual property protection. Equally, the subject of analysis is the influence TRIPS has had on other international documents in this field, as well as the value judgment of it and of treaties and legislation that have been created under its influence. Also, from methodological perspective, availability of all primary sources, such as international treaties and national legislation, has made the research easier, plus there are hundreds of articles and publications released on the subject. The very selection of relevant literature always carries the risk that the most relevant sources will not be selected. In this respect, we hope that balanced selection has been made, both of the literature which represents official positions of the World Trade Organization and that which is critical in this respect. This research has a lasting value because TRIPS is one of more stable international documents in the field of intellectual property.

The question is what led to the situation that the protection of intellectual property rights is governedby anagreementwhichis part of theWorld Trade Organizationwhenwithinthe United Nations systemthere isa specialized agencyresponsiblefor thearea of intellectual property. The process ofmultilateralregulationof intellectual propertyandinternationaltrade relationsuntil thestart ofthe Uruguay Roundnegotiationswithinthe framework ofGAT, was completelyseparated. The groupof most developedandeconomicallymost powerfulcountries in the worldhas becomeaware thatbecause of the lackof adequateandeffectiveintellectual property rights protection system, itsufferedhuge economicdamageand duringthe start ofthe Uruguay Roundnegotiationswithinthe framework ofGAT, has succeeded that the lack ofeffective protection ofintellectual propertyforproductsinwhich value isincorporatedcertainintellectualwell,gets the status ofnon-tariff barriersforimportof goods.[ ]The main objective whichproclaimedby the World TradeOrganizationispreciselythe free flow ofgoods and servicesbetween Member States. Asinstrumentsto achieve this goaldesigned arepreciselycustoms tariff reductionandelimination ofnon-tariff barriersforthe free flow ofgoods. In the broadest senseundernon-tariff barriersmeant aremeasuresregulating theflow of goodsacross the bordersthat do not havecustoms. These measuresincludecontingentsandquotas for the importandexportof goods, currency controls, licenses, excise taxes, depositsandanti-dumpingmeasures, as well as varioustechnicalbarriers to tradesuch as standards, healthandsanitary regulationsandthe like.

VALLIS AUREA International Journal - VALLIS AUREA • Volume 1 • Number 2 • Croatia, December 2015
UDK 347.77:339; DOI:10.2507.IJVA.1.2.9.20

A glance at thestructure ofnon-tariff barriersin international tradeandthegoals thatshould be achievedshowsthat intellectual property issomething thatisinthisstructureembeddedina ratherartificial way. This hasgivensome kind oflegitimacy tothe idea thatunder the auspices ofthe World Trade Organizationmultilaterallyfixes also thearea oftrade-related aspectsof intellectual property rights. Onto thisprocess in the WorldIntellectual Property Organizationwas not lookedat, at allsympatheticallyand with the emergence ofTRIPS they wereliterallysurprised. It seems thatwithinthe same organizationandamong the majorityof Member Statesthere was no willto join aradicalreformof the organization. According toProf.Slobodan Markovic"It turned out that the whole system of previouslysigned internationalconventionsis not sufficientforensuringthe levelof intellectual property protectionin the worldthatdeveloped countriesconsider necessary. The reason for thisis twofold. First,countries thatwere not willingorready to take overcertaininternational obligations regarding theprotection of intellectual propertysimply did notapproacha specificinternational convention. Second,sanctionsfor a country thatdoes not respect thecommitmentswerenon-existentandabsolutelyinefficient. For examplethe UniversalCopyright Conventiondoes notprovide for anysanctionfor a country thatviolatesits provisions. Otherconventionsasthe mainsanctionpredicttermination of membership, whereby themechanismof decidingis so complicatedthat suchsanction hasalmostnever beenapplied".[ ]This is whythe initiators ofthe TRIPS Agreementhave decidedthat this agreementbelocatedinthe World Trade Organizationas an organization thathasan effectivesystemof sanctions.

Main part

Developersof TRIPSwere of courseaware thatwithout the assistance ofthe WorldIntellectual Property Organization, which has exceptionalresources, especiallyhumanresources, they could hardlycontrolits implementation. This is evidentfromthepreamble tothe TRIPS Agreementinwhich it is emphasizedthat the goal ofthe World Trade Organizationis totogether with the WorldIntellectual Property Organizationandother relevant internationalorganizations,establishes a relationshipof mutual support. With this in mind,on December 22,1995,between thetwo organizationssigned was an agreementon cooperation.[ ]This agreementenabledtheWorld Trade Organizationandthe Member Statesaccess toregulationsfrom the collections ofWIPO, including access to databases. This assistancein practiceis not just aboutthe delivery ofthe applicable regulationsof the Member Statesbut alsointhe analysis of the same, including the analysis of legal projects. This assistanceisof particular importancewhen it comes tocountries thathave yet toaccede tothe World Trade Organization. TipsforTrade-Related Aspectsof Intellectual Property Rightspracticallyfunctionthanks totechnical supportprovidedto it byWIPO.

Although thecreators ofTRIPSusedexperiencegained in the frameworkof the WorldIntellectual Property Organization,this agreementinrelation to theWIPOagreementsis specific. These specific characteristicsaredue to the factthat it isoutside the systemof the WorldIntellectual Property Organizationasspecializedorganizationinthe United Nations system. Membership inTRIPSisenabledonly to Member Statesof the WTO,

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namely with the admission tothe World Trade Organizationstatesautomatically become membersof this Agreement. Howeverin addition tothe States, members ofTRIPScanbeseparatecustomsterritories, as well as regional integrations, which have established a customs union. This rightisalready used by ChineseregionHong Kong.

TRIPScontainssome principlesandclausesthat are specific tointernational tradeagreementssuch asfor examplethe status ofmost favored nation. Due to this clause, all rights and privileges attributed to one state are automatically extended to all member states of TRIPS. That provides for a mechanism of the periodical revision of TRIPS, commonly referred to as TRIPS-plus. TRIPS is the only international treaty in this field which is self-renewable. Revision of other treaties presumes much more complex mechanisms such as international conferences followed by complicated ratification procedures in member states. That is why most favoured nation clause represents a great innovation in the intellectual property law.In addition to traditionalintellectual property rightsTRIPSdefinesso-callednew types ofintellectual property rights such asintegrated circuit topography. Yet,althoughthe wholearea of intellectual property is covered by thisAgreement,TRIPSdoes not containany provisionrelating to themoral rightsof authorsandinventors. This is mainlyjustified with theargumentthatmoral rightsare not relevant tointernational trade. Unlike othertreatieson intellectual propertyTRIPSin detailexplainsobligationsof the Member Statesrelating to theenforcementof intellectual property protectionincivil and criminalproceedings, andmeasuresof administrative bodies,in particularcustoms. TRIPSalsoestablishesspecificmechanismsfor resolving disputes.

TRIPShas a somewhatmore flexibleapproach towardstheless developedMember States. It is anticipated thatthey, bearing in mindtheir economic,financial and administrativeconstraints, and their needforflexibility, while creating aviabletechnological base,will not beobliged toapplyits provisionsfor a period of10 yearswith the exception ofthe provisions relatingto the national treatmentandmost favored nationtreatment. Council forTRIPS,to the reasoned proposal of the under-developed country, mayextended this deadline further. Bearing in mindthat almost allthe underdevelopedcountriesare fromAfrica and Latin America,TRIPSstipulates that thedeveloped member countries will encourageinvestmentandtransfer oftechnologyto enablethe creation ofa healthytechnological basein these countries. However, this provision ispurelydeclarative in natureanddoes not representa legal obligationof developedMember Statesto investand transfertechnologyinunderdeveloped countries.[ ]

It is evidentthat thecreators of theTRIPSenvisionedthat this agreementgets the statusof the roof (umbrella)international instrumentin thefield of intellectual property. Bearing in mindthat from thechronologicalpoint of view, itappearedquite late,"constitutional power" couldbe obtained onlythanks toits own termswhichleanon themechanismof sanctionsin theframework of the WTO. It is interestingthat theTRIPS Agreementin Article4proclaimedthat the protection ofintellectual property rightsshould contribute tothe promotion of technologicalinnovation, transferanddissemination oftechnologyto themutual advantageof producers andusersof technologicalknowledgein a manner

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thatpromotessocial and economic development, as well as balanceof rights and obligations. In generalit can be saidthatthe TRIPSestablisheshigh standardsof intellectual property protectionandeffectivecontrol mechanismsfor their implementation.

TRIPShas built aspecific relationshipwithWIPOconventionsandother agreementsin thefield of intellectual property. The textof the Agreementrefers toby nameonlyfour conventionsandtothose thatare themselves'umbrella': Paris Convention for theProtection of Industrial Property, the Berne Convention forthe Protection of Literaryand Artistic Works, the Rome Conventionon the Protectionof Performers, Producersof Phonogramsand Broadcasting Organizationsandthe Washington Agreementon Intellectual Property inrelation tothe topographyof integrated circuits. These conventionsareoften referred toin such a waythatthe TRIPSdirectlyrefers tosome of theirprovisions, although there are somesituationswhere theTRIPSdirectlytooktheir provisions. ButTRIPSdoes not bind theMember Statesto accede toanyof the aboveconventionsbutan obligation toimplementintheirlegislationtheirsubstantive provisionsthat are preciselyspecified. In theorya statemaybecome a member ofTRIPSeven if it has notbecome a memberof any of theConventionsadministered byWIPO. Bearing in mindthatmore or lessall the Member Statesof the United Nations are Member States of some of theconventionsin thefield of intellectual property, it is difficult toimaginethatinrealityit would come tothis situation. The meaningof this provisionisin factto allowspecial customsterritories which are notsovereign statesand thereforenotmembers of anyof theconventions,become members of the TRIPS. At the beginning oftheArticle 2 ofthe TRIPSformulationwhichis standardininternationalcontract lawgivesthe apparentadvantage ofthe Paris, Berne, Romeandthe WashingtonConvention. It is anticipated thatnothingin partsI to IVof the Agreementshall derogate fromexisting obligations thatmember stateshaveamong each otheron the basis ofthese fourconventions. This formulationis essentially amaskbecauseit is not possiblein realityfor theconflictof this typeto actually occur. Althoughprotection standardsestablished bythe TRIPSare abovestandards thathave been establishedby theseconventions,TRIPShasonlyconfirmedtheir provisionsstipulating thatallsubstantive provisions ofthese conventionsMember Statesof the TRIPS,mustimplement. Given the aboveit is evident thatimplementation ofthe obligationsofanyofthese fourconventionsin factrepresents the realizationof obligations underTRIPS.

The basic principles ofTRIPSarethe principle ofnational treatmentandmost favored nationtreatment. The principle ofnational treatmentprovides forthe obligationof Member States to, with regardtothe protectionof intellectual property rightswith itscitizensequalizesthe citizensof other Member Statesof TRIPSwith the exceptionsprovided bythe Paris, Berne, Romeandthe WashingtonConvention. Thisprinciplewhichin theoryis also called theprincipleof assimilationis notnew inrelation to theWIPOConvention. Even moreinthis casethe TRIPSappliesa more restrictive approachsince it obligesMember Statesto applyit onlyin respect to nationalsof other Member States. Under thecitizensof customsterritoriesWTO members, considered are to beindividual and legalentities residingorcarrying ona real andeffectiveindustrialorcommercial activity(with their companies) inthatcustomsterritory. For

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example Article 2, paragraph 1 of the Paris Convention reads: "The citizens of each country of the Union shall enjoy in other countries of the Union when it comes to protection of industrial property privileges that the relevant laws provide for their nationals or shall be ensured subsequently provided that they do not violate the rights specifically provided for in this Convention ".However, bearing in mind thatArticle 1 ofthe TRIPS Agreementstipulates thatnationals of otherMember Statesare consideredas those individualorlegal entities whomeet the criteriaforobtainingprotection provided bythe Paris, Berne, Romeandthe WashingtonConventionprovided thatall members of theWTO are signees of thoseconventions,we can concludethat according toTRIPSthere is an obligationforthenationalsto equalize with non-nationals to which these Conventions apply.

The second principleon which theTRIPSisbased, is the most favored nationprinciple. This principleprovides thatanyadvantage, privilegeandimmunitygiven by the MemberState to nationals ofother countriesimmediatelyandunconditionallyapplies tonationals of otherMember States. The principle ofmost favored nationischaracteristic forinternational tradeagreementsandrepresents a noveltyin international lawof intellectual property. Editorswerecertainlyawarethat theconsistent applicationof this principlewould leadtolegal chaosandthatwouldultimatelybe a counterproductiveeffect. This is whytheyprovidedsignificantexceptions to this principle, especiallyinrelation to internationalagreements onintellectual property rightsthat werein effectprior to the signingof TRIPS,provided thatsuch agreements arenotified tothe TRIPSCouncilandthatthey do notconstitutearbitrary or unjustifiablediscrimination againstnationals of otherMember States.

Likewise, Article 5 of theTRIPS Agreementprovides that thenational treatmentandmost favored nationtreatmentshall apply tothe procedures set by multilateral agreementsconcludedunder the auspices ofWIPOandare related to the acquisitionandmaintenanceof intellectual property rights. This is understandablebecause it is about technicalagreementsthatgenerallydo notcontain a clauseof national treatmentof foreignersand are aimingto help thenationalofficesforintellectual property protectionin a way thatthe logon process of patents, trademarks, orindustrial designs isdoneby filingone internationalapplicationandin that way provide protectionin alldesignated States.

Inrelation to theBerne Conventionfor the Protection ofLiterary and Artistic Works[ ]TRIPShas takena very simpleapproach. It is anticipated thatthemembers ofthe TRIPS Agreementcomply with the provisionsof Article1-21of the Berne Conventionand itsAnnexes. The provisions ofthe TRIPS Agreementpertaining to the copyright lawsare governing therelations thatare not regulated bythe Berne Conventionandprovideinterpretationsof its provisions. This meansthatMember Statesof the TRIPSare requiredto,throughits legislationimplementall thesubstantive provisions ofthis Convention. The remaining provisions ofthe Berne Conventionareof legal and technical nature,and are notrelevant to theTRIPS Agreement. They relate to theestablishment ofthe Berne Union, and theprocess of ratification oforaccession to this Convention. Tothis ruleinthe same articleisprovidedan exceptionwhich provides thatMember Statesof the TRIPSdo not

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havethe rightsand obligations underthisAgreementinrelation to themoral rightsthatarerecognizedunder Article 6bisof that Conventionorrightsfrom it. Article 6 bis of the Paris Convention regulates the question of moral rights of authors. It is anticipated that regardless of their ownership rights, and even after the transfer of these rights the author reserves the right to recognition as the creator of the works and the right to object to any distortion, mutilation, or other modification of the work or any other violation of this act, which would go on damaging his honor or reputation. According to the Berne Convention these rights remain in force after the death of the author until at least the expiration of property rights and will be able to be performed by persons or institutions authorized under the national law of the country where protection is sought. Thisis practically the onlysubstantive provision ofthe Convention, which has not been taken overby the TRIPS. It is interestingthat theUnited Stateswhich haveratified theBerne Convention 100 yearsafter the signing(1989)[ ]nowthroughthe World TradeOrganizationmostinsistingon respect foritssubstantiveprovisions. To thismost definitelycontributedthe participationof industries thatrely oncopyright and related rightsin the overallUS economy, especiallyexports. This branchof economicshas long assumedprimacyin the totalUSexportsahead ofthe chemical industryandthe automotive industry.

In the chapterrelatingto copyrights and relatedrightsof the TRIPS,due to these rights beingregulatedin detail by the Berne Convention,minimumattention is given tocopyrights. It is anticipated thattheprotectionof copyrights beapplied toachievementsbut nottheideas, procedures, methods, operations, ormathematicalsolutionsas such. This provision, although representing a standardinnational legislation,did not existinBern or in otherconventionsinthe field ofcopyrights. MostattentionTRIPS has given to the protectionof computer programsanddatabases. Itisclearin itselfbecause"wealth creation and supportingsocial and culturalwell-beingincreasinglydepends on thecreationandmanagement ofthree<<and>>"categories of innovation, information, andideasandthe useof another<<and>> -the internet."[ ]It is anticipated thatthecomputer programsin either their sourceorobject code, be protected asliterary worksunderthe Berne Convention. It turned out thata key provisionof the Berne Conventionwhichdefinesthese issues issufficiently flexibleto includenew technologiessuch ascomputer programs. This provisionstipulates thatauthorsof literary and artisticworks protected bythe Berne Conventionenjoy theexclusive rightof authorizingthe reproduction oftheseworks, regardless of whichwayand in any form. Althougheditorsat the timecould not have foreseenthat reproduction ofthe workscan comeindigital form,itisfullyapplicable tothis situation.

In the seventies, in fact, conducted was a debateon the legal natureof protectionwhich needs to be providedto the computer programs.Therewerethree variants, namely: copyrightand legal protection, patentand legal protectionandspecialsui generisprotection. At the end, at thejointmeeting of expert groups ofWIPOandUNESCO,concluded was thatthe software isessentiallya writtenorprintedcontentsimilar toliteraryworksandthatshould be protectedas a literary work.[ ]Howeverinorder to adapt theprotection of the rightsof authorsto thedigital era,withinWIPO,concludedwas the WIPOCopyright

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Treaty (WCT)[ ], which is an enhancement tothe Berne Convention. This agreement, together with WIPOPerformances andPhonograms Treaty[ ]popularlyis calledInternetContract. Protection standards established by them are far beyond the standards of TRIPS. Member Statesare obliged toprotectdatabasesor othermaterialswhether it is about machinereadable orin other form, which due to the choiceandarrangement of their contentsconstituteintellectual creationandare protectedas such. Members of theTRIPS Agreementareobliged toensuretoauthorsandtheir heirs,the right toapproveorbanpubliccommercialrentalof the originalorcopies oftheir works wherecopyrightexists. In terms ofthe durationof protectionis provided thatthatthis durationmay not be shorterthan 50years from the calendaryear in which waspermittedauthorizeddisclosure, andin the event thatsuch authorizationdoes not exist, within50 yearsfromthe date of thecreation. Member Statesof the TRIPSmaywithintheirlegislation foreseethelimitationof copyrightsrelating tocaseswhich are not in conflictwith a normalexploitation of theworkandwhichdo notconstitute an unreasonabledamage to the legitimateinterestsof the rights holder.

Inrelation toindustrial property rightsTRIPShas takena somewhatdifferent approach. Provided are definitionsof each of theindustrial property rightswhich is not case withtheParis Conventionfor the Protection ofIndustrial Propertyand someothercontracts. These definitionswithsome deviationsrepresent standardinnational legislation. Theyreduced the scopefor definingeach of theindustrial property rightsinnational legislation. These definitionshave contributed tothe harmonization ofindustrial property rightsin the Member Statesandhave apositive effect onthe international registration oftheserights. Inrelation to theParis Convention for theProtection of Industrial Property[ ]TRIPSusuallyappliesthe same methodologyas inrelation to theBern Conventionreferring to relevant provisionsof this Conventionand sometimesdirectlytakesover its provisions. Inthe field ofindustrial propertyTRIPSgoverns the areaof trademarks, geographical indications, industrialpatternsandmodels, patents, layout designs of integrated circuits, protection ofunpublished(confidential) informationandcontrolof unfair competitioninthe license agreements.

What makesthe TRIPSessentially different fromotheragreements in the fieldof intellectual propertyis that itcontains a lot ofdetailedprovisions relatingto theenforcementof intellectual property rights. It is anticipated thatMember States are obligedtoprovidein their legislationeffective measuresagainstanyactionswhichviolate theintellectual property rightsas well as resourcesthat preventfurther injury. These proceduresshould befair andequal for alland not becomplex and expensive. They are to be appliedin a mannernot representingan obstacleto international trade. Member Statesareobliged to providejudicial review offinaladministrative decisions;howevertheyare not obliged tointroducea paralleljudicial systemforenforcing intellectual property rightsthat wouldbe different from thegeneral system oflaw enforcement. Howeverdue to the complexityof theseprocessessomecountries have introducedspecial courtswhicharesolelyresponsiblefor the field ofintellectual property.

The Agreementin detailcovers civilandadministrative proceduresandremediesin

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these procedures, interim measuresto be takenin these proceduresandmeasuresof customs authorities. The provisionsrelatingto the protection duringcivilcourt proceedingsaremostly takenfrom comparative lawspecifically fromthe lawofcivil procedurewith the introductionof certainspecific features whichare characteristic forthis area. Statesare obligedto allowthe use ofciviljudicialproceedings concerningtheenforcement of anyright regulated by theagreement.

Statesare requiredto providealso thecriminallegal protectionof intellectual property rightsincasesof willfultrademark counterfeitingorcopyright piracy. Member States were givena wide range ofremediesincludingimprisonmentanda finehigh enoughto serve as apreventivemeasure. There is a possibilitythatthecriminal proceedingsmay impose themeasure of confiscation, seizureanddestruction of goodsthatviolate the right including the materialsandresources thatarepredominantlyused in thecommission of the offense. One gets the impressionthat when it comes to the issueof legal protection,TRIPStookquitea flexible approach. Itiscertainlyin the spiritof the preambleof the agreementinwhich it is notedthat theintellectualpropertyrights areprivateandbest protectedin civilcourt proceedings. The provisions relatingtocriminallegal protection are certainlynotredundantinTRIPS, especiallyin a situation wherepiracyandcounterfeitingreceivea formof organized crime. In addition,incountries thattraditionallydid not havean effective systemof implementationof intellectual property rights,criminallegal protection does not onlychronologically"precedes" civillegal protection.

Conclusion

Generally speakingTRIPSestablisheshigh standardsof intellectual property protectionandeffectivecontrol mechanismsfor their implementation. It is evidentthat thecreators of theTRIPSimaginedthat this agreementgets the statusof the roof (umbrella) international instrumentin thefield of intellectual property. Bearing in mindthat from thechronologicalpoint of view it appearedquite late,"constitutional power" couldonly receivethanks toits termswhichleanon themechanismof sanctionsin theframework of the WTO. TRIPShas built aspecific relationshipwithother agreementsin this area. In thetext of the agreementmentionedby nameare only fourthatare themselvesroof (umbrella) agreements(Paris, Berne, RomeandWashington Agreement). The provisions ofTRIPSareusuallyof the blanketnatureandtheyrefer to the relevantprovisions of thefour conventionsorserve astheircomplement. ButTRIPSdoes not bind theMember Statesto accede toany of theseconventionsbutan obligation toimplementintheir legislationtheirsubstantive provisionsthat are preciselyspecified. TRIPSunlike previouscontractsgavethe definitionof each of theindustrial property rights. These definitionswill contribute tothe harmonizationof national legislationin this area. Inrelation tospecificcontractswhich have been concludedinaccordancewiththe relevant provisions ofthe BerneandParisconventionTRIPShas takena completely different approach.TRIPS is the only international treaty in this field which is self-renewable. Revision of other treaties presumes much more complex mechanisms such as international conferences followed by complicated ratification procedures in member states. That is why most favoured nation clause

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represents a great innovation in the intellectual property law.

It is anticipated thatthenational treatmentandmost favored nationtreatmentshall not apply tothe proceduresspecifiedby multilateral agreementswhich are under the auspices ofWIPOand concluded beforethe TRIPS Agreementand which relateto the acquisitionandmaintenanceof intellectual property rights. This is understandablebecause it is abouttechnicalagreementsthat do not containthe most favored nationclause. In the endwe can say thatthe TRIPSestablisheda pyramidrelationship tootherinternational instrumentsinthe field ofintellectual property. If we takethaton topof this pyramidisexactlythe TRIPS, thenitsfour edgesconsists of fourconventions thatarementionedby nameandwhichsubstantive provisions the TRIPS Agreementconfirmsandgives thema specific form ofsanctions(Paris Convention, Berne Convention, Rome Conventionandthe Washington Agreement). The so-calledspecialagreements; meaning BerneandParis Convention(universal, regional, general and special) inwhich provisionsthe TRIPS Agreementdoes not impinge,butwhich implementation it supportscan beallocated tothe four sides ofan imaginarypyramid. Somecontractsthat areconcludedlaterby the WorldIntellectual Property Organizationsuch asthe so-calledInternetcontractscannot be accommodatedinthis creationbecauseprotection standardsestablished by them are far beyondthestandards ofTRIPS.The most important drawback of the TRIPS is that it does not contain provisions on the moral rights of the author to his creations.Intellectual propertytendsto encompasshuman creativityas a whole, itsmoral and materialaspectsareinseparableanditcannot bereduced tonon-tariff barriersin international trade.

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UDK 347.77:339; DOI:10.2507.IJVA.1.2.9.20

Category: review paper

Bojana Zimonjić [1]

THE PROBLEM WITH IMPLEMENTATION OF HUMAN RIGHTS IN THE EXECUTION OF EUROPEAN ARREST WARRANT

Abstract:

In this paper, the author will deal with practical cases from execution of the European arrest warrant. Often there is a negation of the rules in practice, in the matters of EAW the most common violations are inhumane conditions in prisons and disregard of basic court procedures. In cases which the author analyzed there were serious disregard of court procedures. These kind of violations, member states of European Union, primarily as arranged democratic states must not allow themselves. Author will analyze not just the controversial cases, but also, generally defined Councils Framework Decision on the European arrest warrant, and which problems that causes. In some cases, we have a problem of non-compliance of national law with the Framework Decision, which creates even bigger problems with with execution of EAW. The author will address the issue of extradition linked with delicate issues of the state sovereignty, and in which cases EAW is a means for manipulation and used with political purpose. Objectives of the author are to classify human rights violations, based upon practical examples, and to identify the causes that lead to them and at the end to clearly state positive and negative sides of EAW. The author believes that the EAW provides much more benefits than harm, and will present her conclusions how much room for improvement of the regulations and procedures, is there.

Keywords:

European arrest warrant, European Union, Human Rights, Framework Decision

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UDK [342.7:343/344]:061.1EU; DOI:10.2507.IJVA.1.2.10.21

Introduction

Extradition is one of the issues that Europe was committed from the outset, so the first convention about this issue was made in 1957. by the Council of Europe. [ ] The European arrest warrant was established by an EU framework decision in 2002. With the ratification of the Council Framework Decision of 13 June 2002 on the European arrest warrant and the surrender procedures between Member State [2], EAW abolished formal extradition between EU Member States and replaced it by a system of surrender. [3] The EAW radically changed existing arrangements of cooperation (however the EU Member States may continue to apply bilateral or multilateral agreements between EU member States).[3] The purpose was to eliminate differences among legal sistems in all Member States, when these are contrasting with EU minimum standard.[3] Member States are obligated to implement framework decision into national legislation. [3]

This was the first instrument to be adopted on the basis of the principle of mutual recognition of judicial decisions.[ ] It came into force on 1 January 2004 and is founded on the principle of direct contacts between the judicial authorities. [4] EAW simplifies and speeds up the extradition between the EU Member States, i.e. within the single European judicial area. [3]

So, we can define the European arrest warrant as a judicial decision issued by a Member State with a view to the arrest and surrender by another Member State of a requested person, for the purposes of conducting a criminal prosecution or executing a custodial sentence or detention order.[ ]

An EAW can be issued against person if he or she has been charged with a criminal offence (carrying a maximum sentence of minimum 12 months imprisonment) in a European Union (EU) Member State, and that State wants you to face trial there.[2] It can also be issued if you have been tried and convicted in an EU Member State and that State wants you to serve your prison sentence (where it is a sentence of at least 4 months). [2] An EAW can be issued for a wide range of offences, from involvement in serious organised crime and terrorism to more minor offences like theft. [2] In some cases you can be extradited even if the alleged activity is not a criminal offence in the country considering the extradition request.[2]

A person who is the subject of the European arrest warrant is protected both during the execution of the EAW in the country where he or she was arrested, and in the country that is seeking his arrest and extradition.[ ] On one hand, on his (non) extradition court decides in two instances, one of which is usually the highest court in the country.[ ] Position of the subject is in great deal influenced by the guarantees he has under the law of the State in which he will be extradited.[ ] Also, both countries are bound by the bilateral agreements and other multilateral instruments that are ratified and concerning fundamental human rights and freedom.[ ] European Commission found that some countries (Denmark, Lithuania, Poland, Portugal) have not have sufficiently defined certain rules of procedure, which can lead to jeopardizing the rights of the accused.[ ]

As for the protection of the human rights in the EU framework decision, in Chapter 1, under the General Principles, Article 1, paragraph 3 it is said:

„ This Framework Decision shall not have the effect of modifying the obligation to respect fundamental rights and fundamental legal principles as enshrined in Article 6 of the Treaty on European Union.“[2]

UDK [342.7:343/344]:061.1EU; DOI:10.2507.IJVA.1.2.10.21

Additional legal protection of human rights is provided by two important documents. The first is the Treaty on European Union, or Maastricht Treaty [5], which entered into force in 1993. In addition to the Treaty on European Union, one other document is important for human rights. In terms of the European Convention on Human Rights (ECHR) [6], which forms part of the acquis of the European Union and which signatories are all EU member states. ECHR is clear about the obligations of states to protect human rights from serious violations of their human rights in another country. [ ]

Certain individual rights of requested person are protected in the enumerated and widely defined principles which state that Member State of execution (hereinafter "executing judicial authority") shall refuse to execute the European arrest warrant in the following cases:

- Mandatory non-execution- the executing judicial authority must refuse to surrender the requested person if :

1. the offence on which the arrest warrant is based is covered by amnesty in the executing Member State, where that State had jurisdiction to prosecute the offence under its own criminal law;

2. the executing judicial authority is informed that the requested person has been finally judged by a Member State in respect of the same acts provided that, where there has been sentence, the sentence has been served or is currently being served or may no longer be executed under the law of the sentencing Member State;

3. the person who is the subject of the European arrest warrant may not, owing to his age, be held criminally responsible for the acts on which the arrest warrant is based under the law of the executing State. [ ]

-Grounds for optional non-execution of the European arrest warrant-the executing judicial authority may refuse to surrender the requested person if :

- The requested person is being prosecuted in the executing member state for the same act,
- The prosecutorial authorities in the executing state decided not to prosecute the requested person, or having begun such a prosecution halted it,
- The requested person was being prosecuted in the executing member state, that case having progressed to final judgement,
- The act on which the EAW is based comes under the jurisdiction of the executing member state and would be statute barred there,
- The requested person was prosecuted in a third country, the final judgement having been made, provided that the sentence in respect of the offence (if one was imposed) had been served or may no longer be executed under the laws of the third country,
- The offence was committed or alleged to have been committed in the territory of the executing state, or
- The offence was committed or alleged to have been committed other than in the territory of the issuing state and the law executing state would not allow for the prosecution of the same offence if committed outside its territory. [ ]

Implementation of the Framework decision

The United Kingdom in its extradition legislation, which implemented the Framework Decision, included a special provision that states that extradition shall not be executed if with that act they will breach individual rights guaranteed by the European Convention on Human Rights. [ ] We have the same solution in Ireland, while Spain and the Netherlands only refers to the fact that

the European Convention on Human Rights is the part of their internal legal system.[ ]

Although the wording of the Framework Decision could have been clearer, Article 1(3) of the Framework Decision and paragraph 12 of its Preamble (read in connection with the Articles 1 and 13 of the European Convention on Human Rights) compel to interpret the Framework Decision in such a way, that, if the requested person would be exposed to a real danger (such as- his human rights might be violated) surrender should be refused. [ ] However, Framework Decisions does not entail direct effect (as said by the Treaty on EU); therefore, citizens can not directly invoke provisions of Framework Decisions in court. Consequently, the answer to the question of how a Judicial Authority must deal with a claim that surrender would result or would probably result in the violation of a human right is not determined by the provisions of the Framework Decision, but by the human rights exception contained in the national Implementation Act. 0.[ ]

The problem with the implementation of the Framework Decision in Germany was linked to human rights issue. In 2005 The German Constitutional Court put the law ineffective because it was inconsistent with the Constitution.[ ] The judgment notes that the law does not guarantee the procedural rights of the accused and his basic human rights.[ ] The whole case ended up in front of the Constitutional Court based on the appeal of the German national who was extradited to Spain on EAW, terrorism charges.[ ] The Constitutional Court held that the defendants procedural rights, according to this law, do not have sufficient protection.[ ]This leads to a position that is opposed to the text of the Constitution and because of that apparent lack, Framework Desicion can not be implemented until the adoption of a new regulation that will implement Framework Decision in a correct way.[ ] Although the new version was ready soon, there was a period in which judicial authorities had legal gap when they implemented old regime of extradition. [ ]

Fair Trials International (FTI), the London-based human rights non-governmental organisation, claims to have highlighted a number of cases which demonstrate that the European arrest warrant system is causing serious injustice and jeopardising the right to a fair trial. In particular, FTI asserts that:

- European arrest warrants have been issued many years after the alleged offence was committed.
- Once warrants have been issued there is no effective way of removing them, even after extradition has been refused.
- They have been used to send people to another EU Member State to serve a prison sentence resulting from an unfair trial.
- Warrants have been used to force a person to face trial when the charges are based on evidence obtained by police brutality.
- Sometimes people who have been surrendered under European arrest warrant have to spend months or even years in detention before they can appear in court to establish their innocence. [7]

Fair Trials International casework repeatedly demonstrates the human cost of existing cooperation measures. Under the European arrest warrant, people from all across Europe are being sent to other EU member states for the most minor offences, or to serve prison sentences imposed after unfair trials. As about half of FTI cases concern Europe, so they have compelling evidence of the need to improve fair trial rights across the Union. It is hugely disappointing that, to date, the UK and a minority of other states have vetoed efforts to improve standards of justice,

UDK [342.7:343/344]:061.1EU; DOI:10.2507.IJVA.1.2.10.21

choosing instead to trust other European legal systems to deliver justice - a trust that is sometimes misguided. [8]

The Council of Europe's Commissioner for Human Rights has issued a statement drawing attention to the fundamental rights implications of Europe's fast-track extradition system, as they called it. The statement refers to Fair Trials International's cases and campaign for reform.

The Commissioner for Human Rights said:

"The EAW has been used in cases for which it was not intended, sometimes with harsh consequences on the lives of the persons concerned. It is thus high time to reform a system that affects thousands of persons every year." [9]

Catherine Heard, Head of Policy at Fair Trials International, said:

"At Fair Trials International we have seen the lives and futures of many ordinary people - teachers, firemen, chefs and students -blighted by the European arrest warrant, a system that infringes basic rights and fails to deliver a fair and efficient extradition system. We are delighted that the Commissioner has spoken out about the urgent need for stronger safeguards." [8]

Since its introduction, the European arrest warrant has led to serious cases of injustice including extradition following grossly unfair trials, the disproportionate infringement of basic rights, the request for extradition of mistaken individuals and the refusal to remove unjust warrants. Fair Trials International has been leading the call for reform of this system which, in 2009, saw over 4,000 people surrendered to different EU countries. [8]

The Council of Europe refer to two clients of Fair Trials International: Andrew Symeou was extradited on the basis of evidence obtained by police brutality. He spent a year in horrendous prison conditions after being denied bail solely because he was a non-national. [8] Garry Mann, a former fireman, was extradited to serve a 2 year prison sentence imposed following a trial in Portugal in 2004, described by a UK court as "so unfair as to be incompatible with [his] right to a fair trial".8 [8]

Some warrants have been issued as a means of political pressure, and they are "traded" in diplomatic relations between the various countries, which is an abuse of this instrument and negative practice. [ ] A known example for the political usage of the warrant is the current Prime Minister of Montenegro, Milo Đukanović, for which Italy has repeatedly issued and then withdrew EAW, due to participation in various financial frauds. [ ]

Cases of injustice

In this part the author will analyse cases that Fair Trials International had the opportunity to help during its existence. Fair Trials International was founded by lawyer Stephen Jakobi in 1992, and since then assisted around 500 individuals each year and provided assistance in approximately 50 cases at any one time. [8] Author of this paper, after reviewing many cases enlisted in the Fair Trials International website, strongly believes that they are a valuable and respectful reference regarding the subject of this paper. The work FTI does is considered as a respectful and reliable and is greatly appreciated by the European institutions, so taking that into account author does not see any possible weaknesses in using the approach of interpreting and concluding

based on them. Based on FTI cases it is possible to spot flaws and omissions EAW has. [10] [11]:

1. Edmond Arapi- In 2006, Edmond Arapi, 31, an Albanian who came legally to the United Kingdom in 2000 was convicted in his absence of a murder in Genoa, Italy and sentenced to 16 years. Arapi, who works as a chef in Leek, Staffordshire, was unaware of the case until he was arrested at Gatwick airport in 2009 on his return from a family holiday in Fier, Albania. He has only been out of the UK on two occasions since he first arrived and had never been to Genoa.
2. A 16 year old then, from the UK who had recently moved with his mother to Malta, was arrested and taken to a police station where he was questioned aggressively for over four hours, without a lawyer or other appropriate adult present.
3. Michael Turner Hungarian authorities sought the extradition of Michael Turner, a young British national from Dorset, and business partner Jason McGoldrick following the failure of their business venture in Budapest. Michael was extradited to Hungary under a European Arrest Warrant on 2 November 2009 and was held in a high security prison for four months.
4. Corinna Reid- In January 2007, Corinna Reid and her partner Robert Cormack went on holiday to Tenerife with their children, including their 18-month-old son Aiden. During the holiday, Aiden fell ill with bronchitis and died in the early hours of 12 January. The Spanish authorities issued European Arrest Warrants in September 2008, and both Corinna and Robert were arrested in Scotland in connection with the death of their child.
5. Teresa Daniels was extradited to serve a sentence for a closed Spanish case despite no evidence, on the basis of a European Arrest Warrant.
6. Deborah Dark was arrested and detained, first at gunpoint in Turkey, then in Spain and then in the UK to serve a prison sentence for a twenty-year old conviction, all because of a European Arrest Warrant.
7. Cornelis Disselkoen In June 2010, Poland issued a European Arrest Warrant against Cornelis on charges for which he had been held more than 10 years earlier.
8. Anthony Reynolds- a British national who had moved with his family to Spain, was arrested on drug charges in Tenerife in December 2006. Spanish police told Anthony that if he did not admit to the charges, his wife would be imprisoned and their one-year-old daughter taken into care. Anthony denied any involvement in the offences. Anthony was eventually released after spending almost four years in pre-trial detention.

Based on this cases author would like to highlight the following issues:

- unfair retention of passport and denial of right to family life
- limited consular aid
- pre-trial detention conditions
- unfair trial
- trial in absentia
- danger of placing complete confidence in the fair trial safeguards of requesting countries, merely on the basis that they are legally bound to comply with Article 6 ECHR.
- the need for legal representation in the issuing state.
- the need for the wide variation in standards of procedural rights protections across the EU to be taken into account in EAW proceedings.
- failure to state what the allegations were or explain why there was carried out a search

UDK [342.7:343/344]:061.1EU; DOI:10.2507.IJVA.1.2.10.21

Conclusion

Author believes that the question raised in this paper has constant relevance in the European Union. Proper Implementation of human rights requires collective effort, involving EU Member States as well as the EU Institutions and the deadline for achieving it is hard to determine. Foundations of the European Union are based on the universality of the human rights. In order to advocate for them outside European Union, at the international scene, EU must deal with its own issues, and must without exception sanction all violations of human rights on its soil.

Although it seems that the legal protection of the accused rights is extensive and covers a range of possible violations of human rights, after getting acquainted with only a few cases in practice, one gets a different impression. Despite the fact that human rights are protected by EU Charter and there is a wide range of rights in it, they are vague and very widely defined. [3] Moreover they don't offer anything new, they are based on precursor documents. Framework decision states that EAW should not be executed when it would violet fundamental rights, but it is a fact that person's human rights can't automatically be guaranteed. [3]

The very human rights are broadly defined and interpreted differently in the dependency of the practice of states, economic and social situation in the country and so on. Some countries that are otherwise committed to respect for human rights, for a long time refused to regulate these rights better. As the issue of extradition is directly linked to the issue of sovereignty of the states, they want to leave a wider field of action in these matters, and this leads to a different interpretation, that interpretation on a case by case basis. Especially complicated are the cases in which includes domestic citizens and when a person is charged with terrorism. In such cases, the violations of human rights are most common. After 9/11, the United States and leading European countries, but also many countries in transition were forced to step up the legislative aspect of the fight against terrorism and international level. EAW is a tool to manipulate and a lot of it is used in area of a political purpose.

We can identify two levels of human rights violations

- Light violations, when it comes to violations of human rights such as the right to respect for family and private life
- Severe, where evidence was gathered by torture, or contempt of court procedures.

Less common are sever cases of human rights violations but much more present in the media and the public.

The author believes that EAW provides much more benefit than harm, and that there is room for improvement. The solution is considered to more accurately define the rules and procedures of implementing EAW also would be desirable to define more precisely the limits of implementation. The adoption in 2010 of an EU directive on the right to interpretation and translation in criminal proceedings represents a step in the right direction and also The EU's Stockholm programme promises another look at the EAW in order to make proposals, where appropriate, "to increase efficiency and legal protection for individuals in the process of surrender". [12] A step forward has been made in the area of pre-trails despite limited enthusiasm from Member States when the European Commission launched a consultation in 2011. But with the European Court of Human Rights issuing pilot judgments criticising the excessive number of pre-trial detainees in some EU prisons, it is unsurprising to find courts now refusing extradition to these countries (we had earlier

warned of this risk to mutual trust). [12]The European Parliament has long backed action in this area (calling for action back in 2011), as have experts from Spain, Poland, Hungary, Greece, Lithuania and France, and the EU should now revisit the case for legislative action in this area.[12] Improving conditions and equalization standard in all Member States is another measure which would affect the improvement of EAW. However, these requirements are related with some other issues and which are complicated and will take a lot of time and money.

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UDK [342.7:343/344]:061.1EU; DOI:10.2507.IJVA.1.2.10.21

Category: review paper

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REGIONAL DEVELOPMENT THROUGH EUROPEAN ECONOMIC INTEREST GROUPING (EEIG)

Abstract:

Regional Policy is the European Union's main investment policy. It targets all regions and cities in the EU in order to support job creation, business competitiveness, economic growth, sustainable development, and improve citizens' quality of life. The most recent territorial-cohesion conceptemployed by European institutions - themacro-regional strategies, currently involves EU Strategy for the Baltic Sea Region, Danube Region and Adriatic-Ionian Region.Therefore Croatia, as a new member of the EU, should devote special attention to regional development. The new Croatian Act on Regional Development aims to promote partnership as a key dimension of regional planning. The Act also introduces a new category of urban agglomerations which confirms the developmental role of the four largest cities in the Republic of Croatia - Zagreb, Split, Rijeka and Osijek.

The involvement of private business sector in regional development planning can contribute to increasing employment and investment. Also, companies can contribute to the entrepreneurial dimension of regional projects.

Setting up a European Economic Interest Grouping (EEIG), represents one of the possibilities for new entrepreneurial projects development at the regional level. This form allows the cooperation between entrepreneurs and other stakeholders of regional development. Experience has shown that the various sectors implement theEEIG. In the Republic of Croatia it is a new topic, but certainly in the future there will be more such initiatives.

The purpose of this paper is to examine the role of EEIG in the European Union regional development context. The main objective was to point out the advantages and risks of membership in the EEIG and to discuss possible impact of involvement in establishing an EEIG for differentCroatian partners.

Keywords:

regional development, European Economic Interest Grouping (EEIG), entrepreneurship

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UDK 332:658(4); DOI:10.2507.IJVA.1.2.11.22

Introduction

Europe 2020 strategy puts forward three mutually reinforcing priorities: smart, sustainable and inclusive growth. This is an agenda for all Member States, as well as for candidate countries in the future. EU regional policy supports the delivery of Europe 2020 strategy.

The beginning of 2015 marks inception of new regional policy in the Republic of Croatia, so all legal novelties are covered in this paper.

As the European Economic Interest Grouping(in short: EEIG), represents the main focus of analysis of this paper. Methodology applied include comparison of EU legal solutions and Croatian legal framework in order to determine if EEIG can facilitate and invigorate regional potential and partnerships, as well as to examine possible advantages and risks for Croatian partners involvement into EEIG partnerships. Assessment of risks of joining the EEIG for potential Croatian partners, was conducted through case study analysis of an actual, recent initiative for EEIG formation.

This paper is organised in two main segments. First, the regional development and macro-region strategies were explained (sections 2 and 3). Second, the EEIG issues were analysed throughout the EU and Croatian legal frameworks and experiences, as well asfirst-hand examining an Italian EEIG initiative (sections 4, 5, 6 and 7), followed by conclusion.

Importance of regional development in EU and Republic of Croatia

Back in 1980, Statistical Office of the European Community established NUTS[1] 1, 2 and 3,governing units, as a geocodestandard for referencing the administrative divisions of countries for statistical purposes.

According with main criteria (population size) thresholds are:

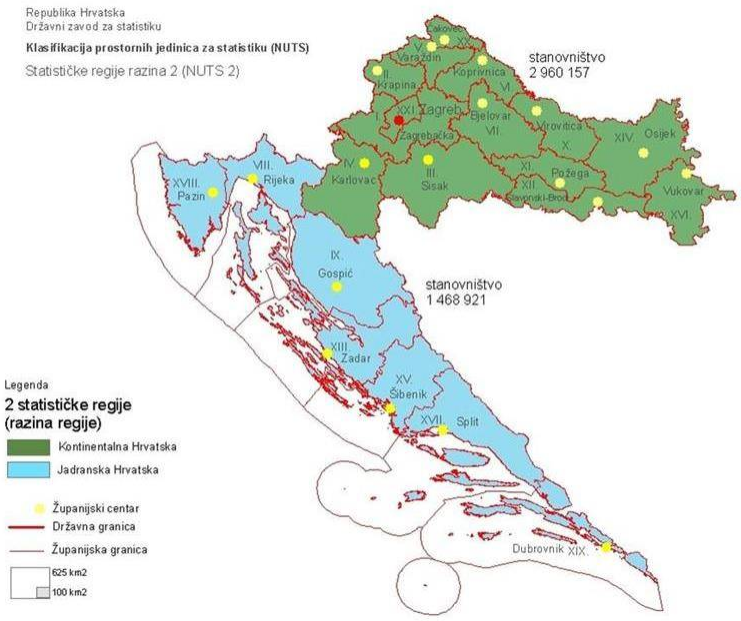
- NUTS 1 - minimum 3 - maximum 7 million citizens
- NUTS 2 - minimum 0,8 - maximum 3 million citizens
- NUTS 3 - minimum 0,15 - maximum 0,8 million citizens
- LAU 1 and LAU 2 - less than 0,15 million citizens

Considering the population size in some member states, clearly not all states include all levels, but only one or two NUTS levels, as shown on Map 1, for Croatia.

[1] NUTS (eng. Nomenclature of territorial units for statistics - basic regions for the application of regional policies) http://epp.eurostat.ec.europa.eu/portal/page/portal/nuts_nomenclature/introduction/29.11.2012.

UDK 332:658(4); DOI:10.2507.IJVA.1.2.11.22

Croatian NUTS 2 regions differ mostly by population size (as shown on Map 1.), with 1.468.921 citizens in Adriatic Croatia and 2.960.157 in Continental Croatia), while the levels of GDP p/c are almost identical (62,1% of EU27 average in Adriatic Croatia and 64,1% in Continental Croatia). There are none LAU 1 level regions determined in Croatia, while cities and municipalities represent LAU 2 level.



Map 1. Statistical NUTS 2 regions of the Republic of Croatia

Considering administrative-territorial organization and regionalization of Croatia, well thought regional policy is of the utmost importance. An essential priority of regional policy is about ensuring access and equal development opportunities for all, throughout the lifecycle and every region of the country, which implies close cooperation of all governance levels (central, regional and local), academic and scientific organizations, social partners and civil society organizations. [1]

Partly, as a consequence of war repercussions and lack of political readiness, before the beginning of EU accession process, the level of fiscal and management decentralization in Croatia was very low.

The Act on regional development, which preceded the Strategy on regional development of the Republic of Croatia, was adopted during the process of legislation harmonization with Acquis. [2] The Act regulates the main objectives and governing principles of regional development, as well as planning documents, governing bodies, method of local development level assessment and the procedures of regional policy implementation reporting. The Act also contributed to improving the system of governing the regional development, especially regarding vertical objectives coherence and better cooperation of all sector involved.

UDK 332:658(4); DOI:10.2507.IJVA.1.2.11.22

One of the most important principles of regional development involves strategic planning implementation, which imply adopting and execution of long-term planning documents. The Act on regional development defines the planning documents of regional development, with the Strategy on regional development of the Republic of Croatia on the supreme level.

After perennial arrangements Croatian Government has enacted the Strategy on regional development of the Republic of Croatia (2011.-2013.), in June, 2010. Strategy represents an integral part of development planning process, which ultimate goal is to contribute to overall socio-economic development, by creating favourable preconditions for improving place competitiveness and exploiting the development potentials of all counties, regions, areas of special national concern and border areas, in accordance with the sustainable development principles.[3]

By the end of 2014 a new Act on regional development was passed. This Act much closely reflects the EU reformed regional policy 2014 - 2020.[4]Important novelties of this Act include establishing four urban agglomerations (Zagreb, Rijeka, Split and Osijek), following the demands of actual EU regional approach which recognized development potential and strong influence of urban centres. The impact of urban agglomerates encompasses wide range of areas and sectors (transport, infrastructure, health, education, culture and other), especially in the field of human resource - knowledge potentials.

The purpose of urban agglomerations is to synchronize the strategic development. It means that agglomeration objectives must comply with Europe 2020 priorities. As agglomerations are obligated to generate their strategic documents, following the procedure which involves Partnership Council, implementation body constituted of numerous members from different sectors, often with different, even conflicting interests, coordinating and harmonizing all aspects becomes quite challenging.

The Act on regional development have also stipulated the role of development agencies on all governing levels, which is another novelty in Croatia, especially considering circumstances with strong opponents to decentralization of governance and diminishing central control of the whole system. The new role of agencies is different, as they become an extension of public administration system, more flexible for coordinating numerous activities with other partners.

The role of EU 'macro-regions'

Considering administrative-territorial organization of Croatia, well thought regional policy is of the utmost importance. Furthermore, EU encourages the formation of macro-regions, as a part of its regional policy, following recognized diversities between EU countries, as well as diversities between cross-national EU regions, which are considered as valuable EU development resources.

A Macro-Regional strategy is an integrated framework endorsed by the European Council, which may be supported by the European Structural and Investment Funds among others, to

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address common challenges faced by a defined geographical area relating to Member States and third countries located in the same geographical area which thereby benefit from strengthened cooperation contributing to achievement of economic, social and territorial cohesion. The EU has put in place 3 strategies, covering several policies, which are targeted at a macro-region:

- The EU Strategy for the Baltic Sea Region (adopted in 2009.),
- The EU Strategy for the Danube Region (adopted in 2011),
- The EU Strategy for the Adriatic and Ionian Region (adopted Nov. 2014).

Main characteristics and flagship projects of these macro-regions are listed below. [5]

Baltic Sea Region (85 million inhabitants)

- The EU Strategy for the Baltic Sea Region (EUSBSR) brings together 8 Member States (Sweden, Denmark, Estonia, Finland, Germany, Latvia, Lithuania, and Poland). The Strategy also welcomes cooperation with neighbouring countries including Russia and Norway.

Some flagship projects:

- Baltic Deal working with farmers to help reduce nutrient losses from farms, and maintain production and competiveness.
- Efficient, Safe and Sustainable Traffic at Sea (Efficient Sea) making the Baltic Sea Region a pilot region for e-Navigation, by developing and testing infrastructure and services for e-Navigation, and sharing good practice widely.
- Baltic Manure turning manure from an environmental problem into an opportunity for business innovation. The project is producing renewable energy and organic fertilisers.
- BSR Stars aims to boost regional competitiveness and growth with transnational research and innovation links: tackling common challenges in areas like health, energy and sustainable transport.

Danube region (115 million inhabitants)

- The EU Strategy for the Danube Region (EUSDR) covers 9 EU countries (Germany, Austria, Hungary, Czech Republic, Slovak Republic, Slovenia, Bulgaria, Romania and Croatia) and 5 non-EU countries (Serbia, Bosnia and Herzegovina, Montenegro, Ukraine and Moldova).

Projects include:

- The co-operative approach has helped to complete the Vidin-Calafat Bridge between Bulgaria and Romania - a vital link on a key priority route of the Trans-European Transport Network (TEN-T). The bridge is only the second one along the 630 km river section of the border.
- The Danube Shipwreck Removal project aims to remove shipwrecks from the Danube, Sava and Tisa in Serbia, Romania and Bulgaria - improving navigation and ecological conditions.
- The Danube Region Business Forum provides an important networking platform for over 300 SMEs. It encourages business-to-business meetings, and supports links with knowledge providers such as research institutes and universities.
- Work has started to create a Danube Research and Innovation Fund, pooling national

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and regional funds, building on the experiences of the BONUS programme in the Baltic Sea Region.

- The Danube Floodrisk project promotes cooperation methods with 19 institutions in 8 Danube countries, sharing databases and flood mapping. The European Flood Awareness System (EFAS) is carrying out complementary work.

Adriatic and Ionian Region (70 million inhabitants)

- A high-level conference in Brussels, on 18 November 2014, launched the EU Strategy for the Adriatic and Ionian Region (EUSAIR).Participating countries are four EU Member States (Croatia, Greece, Italy, and Slovenia) and four non-EU Countries (Albania, Bosnia and Herzegovina, Montenegro, Serbia).

Four pillars:

- Pillar 1: Blue Growth(coordinators: Greece and Montenegro); the specific objectives for this pillar are: to promote research, innovation and business opportunities in blue economy sectors; to adapt to sustainable seafood production and consumption and to improve sea basin governance. To achieve the abovementioned objectives, Pillar 1 will focus on three topics: blue technologies, fisheries and aquaculture and maritime and marine governance and services.

- Pillar 2: connecting the region(coordinators: Italy and Serbia). The specific objectives for this pillar are: to strengthen maritime safety and security and develop a competitive regional intermodal port system; to develop reliable transport networks and intermodal connections with the hinterland, both for freight and passengers and to achieve a well-interconnected and well-functioning internal energy market supporting the three energy policy objectives of the EU - competitiveness, security of supply and sustainability.To achieve these objectives, the pillar will focus on three topics:maritime transport, intermodal connections to the hinterland and energy networks.

- Pillar 3: environmental quality(coordinators: Slovenia and Bosnia and Herzegovina). The specific objectives for this pillar are: to ensure a good environmental and ecological status of the marine and coastal environment; to contribute to the goal of the EU Biodiversity Strategy and to improve waste management by reducing waste flows to the sea and, toreduce nutrient flows and other pollutants to the rivers and the sea. Two topics are identified as pivotal in relation to environmental quality in the Adriatic-Ionian Region: the marine environment and transnational terrestrial habitats and biodiversity.

- Pillar 4: sustainable tourism(coordinators: Croatia and Albania). The specific objectives for this pillar are: diversification of the macro-region's tourism products and services along with tackling seasonality of inland, coastal and maritime tourism demand and improving the quality and innovation of tourism offer and enhancing the sustainable and responsible tourism capacities of the tourism actors across the macro-region. To achieve the above mentioned objectives the pillar will focus on two topics: diversified tourism offer and sustainable and responsible tourism management (innovation and quality).

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The sea is one of Earth's most valuable natural resources, large eco-system with different natural resources (fish, waves, flux and reflux of the tides), transport, tourism and mining opportunities, which could easily be compromised due to ship accidents and pollutions, for example. Therefore, a constant cooperation is essential for prevention where EUSAIR enables systematic sustainable approach in tackling of all important issues together (for example: monitoring and waste control, development of appropriate technologies for waste removal and recycling), with other members and with synergy effects.

The Adriatic and Ionian Region and the Danube Region are of utmost importance for Croatian future development. The possibility of incorporating Croatian large projects (from transport and ecology in Adriatic to irrigation and flood prevention in Slavonia), into these macro-regions, could become great opportunity, as the projects might be realized together with other macro-regions member countries. Large Croatian cities could also benefit from additional EU-funding for city projects, as well as from universities development.

The priorities should be research and innovations, accompanied by capacity building and development of small and medium entrepreneurs in order to ensure the systematic exploitation of sea as an economic resource and additional employment. Furthermore, new technologies and innovation should be emphasized, especially regardingmanagement, protection, rescue, waste collecting and processing, research and presentation of underwater culture for public and tourism purposes. Member countriesof the EUSAIR project, should strive to achieveresultsin the field of strategic planning, methodology development and synergy effects from joint management and monitoring systems.

Above mentioned can be summarize by pointing out several critical issues.First, the new Act on regional development (from 2014), has stipulated the objectives and principles for regional development. It has also emphasized significant differences regarding achieved regional development level. Second, Croatian regional development projects (especially large infrastructure projects), should be prepared coherently with priorities of macro-regions in order to achieve synergy effects on EU level, not just with better use of available EU-funds in mind.

European Economic Interest Grouping - EEIG

Back in 1985 the Council of the European Communities, has adopted the Council Regulation (EEC) No 2137/85 (in short: Regulation), which determinate the European Economic Interest Grouping (EEIG).[6] According tothis Regulation the purpose of EEIG shall be to facilitate or develop the economic activities of its members and to improve or increase the results of those activities. Interesting fact about this Regulation is that it hasn't been altered in any way, since its adoption.

An EEIG must comprise at least two subjects (companies, firms, other legal bodies or natural person), which have their central administrations in different Member States.An EEIG whose official address is in any part of the EU can act throughout

the EU, purely on the strength of the Regulation. The law of the State in which an EEIG has its official address is applicable to the contract for the formation of a grouping and to its internal organization.

The conditions of admission or withdrawal from membership ofan EEIG are defined by EEIG Statute (contract for the formation) and the Regulation. The EEIG bodies are the members acting collectively and the manager or managers. Although the Regulation defines all elements and the procedure of establishing and acting ofan EEIG, the founders have open possibility to regulate all necessary issues, by the Statute of an EEIG.

The Regulation prescribes that an EEIG does not necessarily have to be formed with capital. Members are free to use alternative means of financing. The programme of an EEIG, as well as costs of manager(s), can be financed from membership fees. The founders of an EEIG have right to elect and control the manager of an EEIG. Founding members usually have more rights than new members, including formulating and adopting the Statute of an EEIG, but new members can participate in joint projects and thereby promote their own goals.[7]

EEIG can employ members from several Member States, but Regulation has limited its number to 500 persons to avoid management difficulties. EEIG is an organization with combined characteristics of a business company and non-governmental organizations (NGO's). Regarding the membership issues and the procedures for decision adoption, EEIG follows the NGO's approach, but profit distribution principles and management style is much more business-like. This type of organization originally emerges from French law, but doesn't have tradition of application in all EU countries and all national legal frameworks.

Therefore it can be concluded that EEIG represents a specific model which can be used to pursue some entrepreneurial and social objectives within the territory of several Member States. The essence of EEIG establishment encompasses development of joint projects and their co-financing with EU structural funds.

The role of EEIG and the new possibilities of regional development

The European Commission(EC) has recognized the leading role of cities in fostering regional development and consequently allocated large amount of EU funding towardurban centres. Valuable urban potentials include investment opportunities, knowledge and new technologies development, sustainable development and environment protection projects, etc. Following the EC commitment, new Act on regional development (end 2014),has stipulated the urban agglomerations for statistical and developmental purposes. The accurate urban agglomeration areas will be defined with separate regulation.[8] The new territorial structure shall induce the issues regarding partnership between all stakeholders on the urban agglomeration level and creating joint objectives and projects suitable for application to EU funding.[9]

Regarding these issues, the EEIG represents a good possibility for cooperation between different stakeholders and linking them to partners from other countries with similar framework of

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interests for regional development. This could be particularly interesting considering notable differences between European regionslevel of development and bringing together partner experiences and knowledge which can contribute to improving lifelong learning participation rates in certain regions. EEIG with clear objectives can facilitate establishing partnerships on projects of common interest. This is especially attractive to small and medium entrepreneurs, craftsmen and family farms, which can benefit from EEIG membership by realizing its business objectives together with other partners.

The initiatives for establishing the EEIG originate from regional similarities in neighbouring countries and their need for promoting certain destinations in order to improve the development of transport, entrepreneurship, tourism, agricultural production or cultural cooperation and heritage preservation. In spite of the fact that Regulation does not explicitly stipulate this option, often the initiatives were proposed from the region governments, which strive to strengthen the existing economic cooperation level, counting on mutual regional interests of entrepreneurs, civil society organizations and natural persons.

In order to ensure the strategic objectives fulfilment, it is important that public institutions, such as Local and Regional Self-government in Croatia, universities and others, become the member of an EEIG. Furthermore, the participation of certain distinguished scientific, culture, sport and public figures, who can admit the EEIG as natural persons, can contribute to regional and transnational promotion of an EEIG. All members of an EEIG can act independently on new regional markets and simultaneously achieve additional benefits throughout the projects of common interest which can be developed in partnerships with other EEIG members.

Recently adopted EU Strategy for Adriatic-Ionian region could induce innovative models of cooperation between partners from counties and cities on both side of Adriatic Sea.[10] Accordingly, establishing an EEIG can create additional value, as EEIG's objectives will be linked to strategic priorities of macro-regions, especially toward improvements in transport, cultural, scientific and ecological partnerships based on similar interests in different member countries.

European Economic Interest Grouping - advantages and risks

The concept of an EEIG has numerous possibilities:

- creating development projects and programmes for application to EU funds,
- strengthening regional entrepreneurial and other interests,
- entrepreneurs involvement in joint projects,
- regional cooperation of agricultural producers,
- regional tourism promotion,
- promotion of regional culture and heritage,
- knowledge and information dissemination,

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- lifelong learning and
- new employment.

As the Regulation prescribed obligatory unanimous decision adoption between members, it can be consider as a risk for effective functioning of the organization with large number of members. This stipulation can be facilitated by allowing different number of votes per member as a statutory regulation.

When the functioning of an EEIG is being financed from member fees, specific risks can emerge regarding the cost control and the fact that members come from at least two EU countries, so presumably travel cost can be significant. Furthermore, the Regulation has clearly stated that all excessive costs shall be covered by all members. That stipulation gives preference to founder members which have more influence to the EEIG manager(s), whereas other members have the same responsibilities, but less authority.

The Regulation prescribes that an EEIG's are subject to national law of the Member State with registered office. Additional risks can occur from the fact that Member States have not harmonized the regulatory framework regarding EEIG. As an example in Croatian legislation neither Companies Act nor Civil Organizations Act stipulates the definition of an EEIG.

In 2007 Croatian Parliament passed the Act on the Introduction of the European Company - SocietasEuropea (SE) and the EEIG.[11] This Act regulates the conditions and means of implementation of the Regulation No 2137/85 and 2156/2001, and adjust the Company Act regarding EEIG and SE activities on the Croatian territory.

When considering joining some EEIG, Croatian partners should be aware of risks which could emerge from subjecting to the national law of the Member State of registered EEIG office. In order to avoid those risks Croatian partners should be well informed about the specific regulations of that Member State, as ignorance cannot exempt from individual responsibility of each EEIG member.

Above mentioned clearly indicate wide possibilities of EEIG implementation, but concurrently there are potential legal risks for unaware members.

European experiences of EEIG activities

There are several thousands of EEIG's in the EU today, acting in various industries. Different abbreviations are being used for EEIG: EWIV in Austria and Germany; EHZS in the Czech Republic, GELE in Italy, Ireland, Malta and Romania, while EEIG is accepted in Great Britain, Latvia, Lithuania and Sweden.

Some of the well-known examples of an EEIG's are presented hereinafter.

Association Relative à la Télévision Européenne (abbreviation: ARTE) is a European public television network, established back in 1991 from French and German partners. The main objective of ARTE is to ensure appropriate share of cultural content in order to promote unity and understanding between European nations. ARTE encourages creativeness in film, television and new media and it broadcast beyond EU (Africa and overseas).[12]

European Advertising Lawyers Association (abbreviation: EALA), is an EEIG established in 1988.

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Its objective is to promote the studying of European air transport legislation. Furthermore EALA provide the cooperation with the air transport sector for all interested participants. In 2014 EALA celebrated 26 years of its activity. [13]

European and Developing Countries Clinical Trials Partnership (abbreviation: EDCTP), is an example of an EEIG established with the mission of inventing new drugs and vaccines for severe diseases such as malaria, AIDS, tuberculosis and others. [14]

EURESA represents the grouping which promotes cooperation between 14 European insurance companies. The objective of their cooperation includes knowledge exchange, encouraging innovativeness and joint projects. These companies encompass over 22 million of insurance policies, with income of 21,2 billion Euros and 37.000 employees. Members of EURESA have established businesses in 10 EU countries, as well as in Magreb (Africa) area. [15]

Abovementioned examples suggest that EEIG can be established for various businesses and linked to specific type of promotional, educational and other services. For the time being only one initiative for EEIG establishing has arrived to the potential Croatian partners from Italian founders ofPeoples and Cities of Europe, GELE. Registered office of this EEIG is in Italy and only one of Croatian cities will have the founder role. [16] The Peoples and Cities of Europe mission is to improve cooperation regarding youth cultural education and development, connections between European citizens and to introduce innovative projects in infrastructure, tourism, environment, culture and other.As this initiative is still in early phase, further details cannot be revealed at this point.

In the future other EEIG initiatives can be expected in Croatia, so gathering the information about this type of cooperation should become an important task for Croatian entrepreneurs, public sector and other non-profit organizations.

Conclusion

The EU regional policy seeks to reduce structural disparities between EU regions by fostering balanced development throughout the EU and promoting real equal opportunities for all. These issues are extremely important for Croatian development, especially regarding new opportunities of recently established macro-regions which include Croatian regions as well.

The EEIG, represent the organization suitable for companies, institutions and natural persons, which according to Council Regulation, can be associated in order to carry out their economic and social missions.

In the process of considering the admission to EEIG, an important issue involve careful familiarizing with legal framework of the country of registered EEIG office, as well as Council Regulation, where all rights and liabilities has been stipulated. While the 'old' EU member states have extensive experiences of establishing an EEIG, this type of cooperation still represents novelty for most Croatian entrepreneurs and institutions. Therefore substantial risks of additional liabilities can emerge as a result of insufficientknowledge and experience with regulations incorporated in a foreign legal framework.

In spite of the shortage of available domestic cases of EEIG establishment in the context of regional development, analysis of European

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experiences as well as the first-hand examination of an Italian initiativeconducted in this paper, shows that EEIG can provide an opportunity for promotion and business growth in new EU markets, as well as regional development throughout the EU macro-regional strategies. Furthermore an EEIG could enable an additional platform for wide range of economic, cultural, scientific, educational and environmental cooperation between numerous stakeholders. Considering lack of comprehensive national legal frame and lack of experience,careful approach is advisable to potential Croatian partners.As EEIG's could become an important element of Croatian regional development, vigilant evaluation of advantages and risks of Croatian partners involvement in EEIG is crucial.

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UDK 332:658(4); DOI:10.2507.IJVA.1.2.11.22

International Journal
VALLIS AUREA
Volume 1 • Number 2 • December 2015
ISSN 2412-5210

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ISSN 2412-5210
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