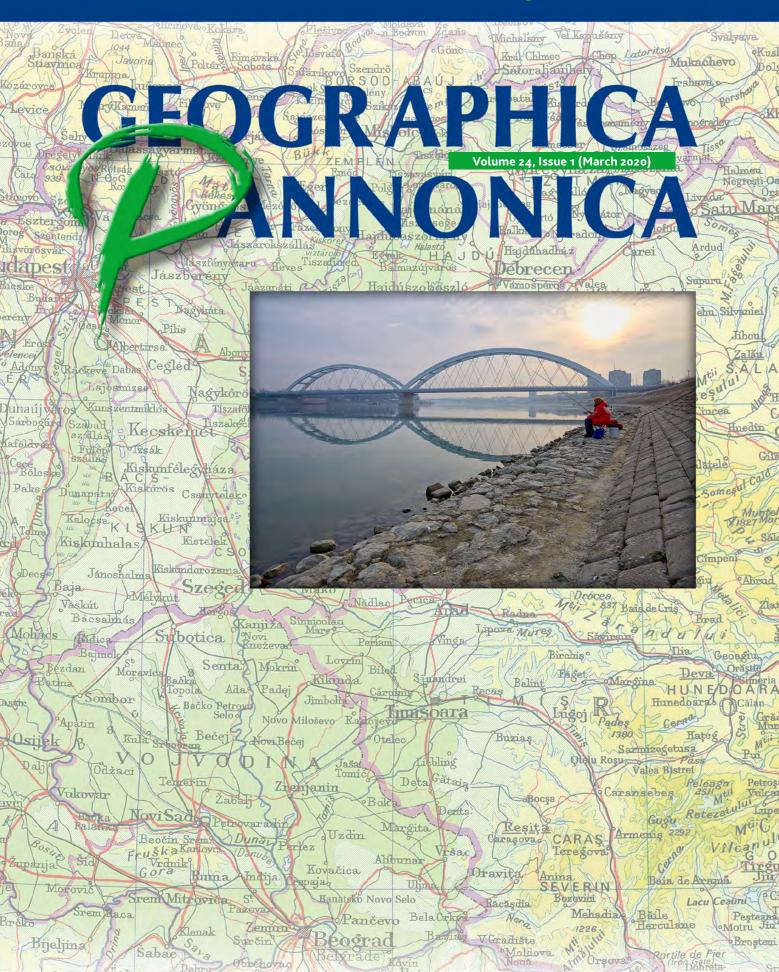
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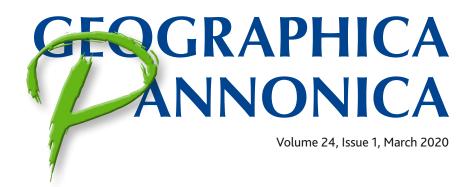






# UNIVERSITY OF NOVI SAD | FACULTY OF SCIENCES DEPARTMENT OF GEOGRAPHY, TOURISM & HOTEL MANAGEMENT

INTERNATIONAL SCIENTIFIC JOURNAL



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# Point-bar Development Under Human Impact: Case Study on the Lower Tisza River, Hungary

### Judit Nagy<sup>A</sup>, Tímea Kiss<sup>A</sup>

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#### **Abstract**

Point-bars are the most typical forms of floodplains; therefore, any change in the fluvial environment is reflected in their formation. We aimed to analyse the morphological characteristics and influencing factors of their formation along the Lower Tisza River (Hungary). Before the 1930-60s the morphological characteristics of point-bars were affected primarily by natural factors. However, after revetment constructions, the lateral migration of meanders ceased and channel became significantly narrower, therefore point-bar widths have decreased from 68 m to 19 m. Besides, vertical accumulation became dominant, thus, the youngest active point-bars are narrow and high.

Keywords: point-bar; meander migration; human impact; revetment; channel narrowing

#### Introduction

Point-bars are the most characteristic depositional features of meandering rivers. These quasi-regular ridges parallel to the river bank are formed along the convex banks as a result of secondary flows in a meander (Hooke, 1975): the decreased flow velocity along the convex bank results in sediment deposition (Dietrich & Smith, 1983). As a result of lateral meander migration, new point-bars are developed, forming point-bar complexes (Nanson & Hickin, 1983).

The mechanism of point-bar formation has been the subject of numerous researches (Hickin, 1969; Hickin & Nanson, 1975; Jackson, 1976; Hooke & Harvey, 1983; Hooke 2007, Hagstrom et al., 2018, Hagstrom et al., 2019, Moody, 2019, Wang et al., 2019); however, the fact that how various human impacts affect their formation is a rarely posed issue. The factors influencing the morphological characteristics (e.g. height, width, and spacing) of point-bars have been the subject of some research, but the combined effects of these factors are rarely studied (Strick et al., 2018). However, research on the influencing factors is essential, as the formation and characteristics of point-bars are affect-

ed by several factors that are parts of the complex fluvial systems. The morphology of point-bars is influenced by the radius of curvature of meanders, which is closely related to meander migration rate (Hickin, 1974, Nanson & Hickin, 1983). Besides, the influence of the type of meander migration (Strick et al. 2018), the channel width (van de Lageweg et al., 2014), and the resistance of channel material (Nanson & Hickin, 1983; Thorne, 1991; Motta et al., 2014) are also important. Human impacts also probably have significant effect on point-bar formation, however it is rarely studied. Exceptions are the studies of Biedenharn et al. (2000) and Zinger et al. (2011), who evaluated the role of cut-offs and revetment constructions on point-bar formation, stating that these are the major influencing factors in regulated rivers, and if the revetments were built in different years, they influence point-bar development differently.

River dynamics can be significantly altered by human impacts (Romanescu et al., 2011; Djekovic et al., 2013; Tarolli et al., 2019), such as channelization works and cut-offs (Kiss, 2014) alter the stream gradi-

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ent which leads to channel incision (Surian & Rinaldi, 2003), the construction of artificial levees accelerates overbank sedimentation (Sándor & Kiss, 2006), the construction of revetments and groynes cease lateral erosion which causes channel narrowing (Kiss, 2014; Bertalan et al., 2019), furthermore dam constructions and sediment extraction from the channel modify sediment supply (Surian & Rinaldi, 2003). The Lower Tisza River has been a subject to significant human impacts (artificial levee constructions, cut-offs, and revetment constructions) since the nineteenth century. These impacts have led to a transformation in channel pattern from meandering equilibrium to meandering-incising (Kiss et al., 2018, 2019a), and as a response, the formation of point-bars has changed as well. The number of active point-bars has decreased

by half (from 47 to 20), and their total length by 90% (from 52.3 km to 4.7 km), besides, their surface is eroded as a result of channel incision (Kiss et al., 2018, 2019a). The effects of natural influencing factors thus can be overrun by human factors in many sections.

The fundamental aim of this study is to analyse the natural and anthropogenic factors that affect the morphological characteristics of the older inactive and the youngest, active point-bars. Our aims are (1) to distinguish different meander-migration types along the Lower Tisza River, (2) to analyse the spatial characteristics of the height and width of point-bars, (3) to determine the different types of point-bar development based on their width and changes in height in the direction of the channel, and finally, (4) to analyse the primary factors that influence point-bar morphology.

# Study area

The Tisza River is the second-longest river in Hungary (length: 962 km, catchment area: 157,000 km²). Our measurements were carried out along the 90-km-long Lower Tisza River, between Csongrád and the Hungarian-Serbian border (Figure 1).

During the nineteenth century, the Tisza River was heavily regulated. As the result of meander cutoffs the length of the entire river decreased by 32% (by 467 km), and the width of the original 5-10 km wide floodplain was narrowed down to 1-4 km by the artificial levees. Along the Lower Tisza River, 10 meanders were cut off between 1855 and 1889 (Pálfai, 2001), which decreased the length of the reach by 19 km (Ihrig, 1973). In the 1930s revetment construction started on the concave banks (but a few had been already built at the end of the 1800s), which aimed to stop meander migration (Kiss et al., 2008). Intensive lateral channel migration caused significant problems, primarily on the western part of the floodplain, as on this side, the artificial levees were constructed closer to the channel than on the eastern part of the floodplain (at some sections the distance between the artificial levee and the channel was merely 50 m), thus artificial levees were more endangered by lateral erosion. Therefore, revetments were constructed primarily on the western side of the river channel, and today 51% of the Lower Tisza River is stabilised by revetments.

The Tisza River is usually characterised by two floods every year, as a result of early-spring snow melt and early-summer rainfalls (Lászlóffy, 1982; Kiss et al., 2019c). After the river regulation works flood stages increased by 200-350 cm (Rakonczai & Kozák, 2009),

in the last few decades, however, record-high floods have become more frequent. The record flood stage (982 cm) of 1970 was exceeded twice in the Lower Tisza River in the twenty-first century, as at Mindszent the flood stage was 1000 cm in 2000, and 1062 cm in 2006. The duration of floods is 54 days/year on average (Kiss et al., 2019c), but if the flood of the Tisza coincides with the flood of the Danube, several months long floods could occur due to the impoundment effect of the Danube (e.g., in 2006). The mean discharge of the Tisza River at Szeged is 810 m³/s, and here, the greatest measured discharge was 4346 m³/s (Lászlóffy, 1982). The average flow velocity is 0.10-0.15 m/s, while during floods, it is 1 m/s (Kiss et al., 2019c).

The average channel width is 160 m, and the average depth is 14 m, but during floods, the channel can reach a depth of 19-22 m (Kiss et al., 2019a). The stream gradient is small (1.5-2 cm/km), while downstream of the confluence of the Maros River it increases to 5 cm/km (Lászlóffy, 1982). The Tisza River transports fine suspended sediment of 12.2 million m³/year (Bogárdi, 1971).In the studied river reach the Körös River increases the sediment yield of the Tisza River by a smaller extent (by 0.4 million m³/year), while the Maros River transports a considerable amount of coarse sediment (4.3 million m³/year) into the Tisza River (Bogárdi, 1971).

The development of point-bars was studied along the whole Lower Tisza River. In this reach of the river, there are 39 bends (Fig. 1), which have a wide variety of morphological characteristics, and due to river regulation works they develop for a different time.

#### **Data and Methods**

Point-bars were studied based on a high-resolution (±10 cm) DEM which was derived from a 2014 LiDAR survey (provided by the ATIVIZIG Lower Tisza District Water Directorate). Though 39 bends are in the Lower Tisza River, point-bars could have been studied only along 33 bends, since there are some bends where no LiDAR survey is available (No. 31 and 32);or point-bars could not have been identified due to the excessive disturbance of the surface (No. 36 and 37); and there are two bends (No. 12 and 39) which started to develop after the river regulation works, and their development is so slow that no point-bar could have formed yet.

The number of point-bars forming each point-bar complex was determined based on cross-sections of the floodplain (Figure 2). The cross-sections were made perpendicular to the highest point of the youngest point-bar (the youngest point-bar is the one that is formed nearest the river channel). The height of each point-bar relative to the flood protected areas was determined, besides, their width and spacing were measured too. During the analyses ArcGIS 10.1 software was used.

The influence of meander migration types, the radius of curvature of bends, channel width, and the presence or lack of revetments on the height and width of point-bars were studied. The meander migration types (Figure 3) were determined following Daniel (1971), which suited the most in the study area. The effect of meander migration types was analysed on all pointbars of each point-bar complexes, as each meander migration type have developed over a long period, and their effect could be reflected on the older point-bars as well. The youngest forms were omitted from the analyses, because in their cases, the effect of human impacts may be more significant. As the last point-bars were formed after the construction of revetments (from the 1930s), these structures may have a greater influence on point-bar formation than natural factors. Similarly, the effect of channel width was also studied on the older point-bars. In this case, we calculated the number of point-bars formed in each period between two channel surveys, and the height and width of these point-bars were compared to the channel width measured at the end of each period. For each period, the mean channel width was determined as the ration of the area of channel surface and the length of its centreline. For example, the width of point-bars formed between 1976 and 2014 was compared with the channel width of 2014, as these forms had not been affected by the channel width of 1976 because they formed only afterwards. For this analysis the surveys made in 1783, 1861, 1890, 1929, 1976 and 2014 were applied.

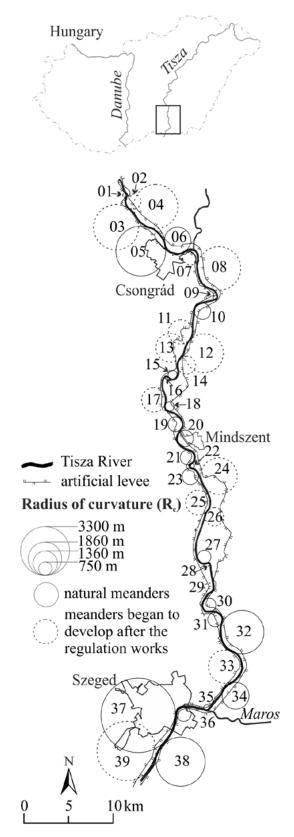


Figure 1. Point-bars were studied in 39 bends in the Lower Tisza River. The radius of curvature and age of the meanders and bends are very diverse

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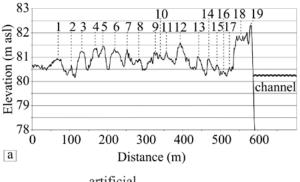


Figure 2. Point-bars were identified based on crosssections of the floodplain (a), and their morphological characteristics were determined (b). w: point-bar width, d: distance between two point-bars, h: point-bar height based on the elevation difference between the active floodplain and the flood protected areas

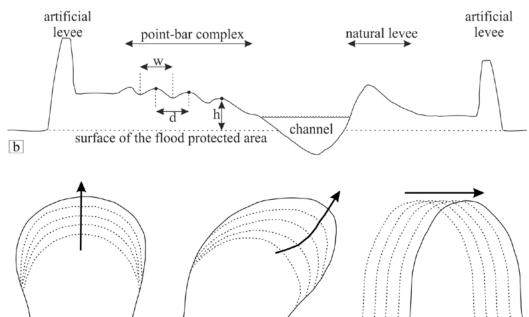


Figure 3. Meander migration types (after Daniel, 1971)

The direction of the bend axis

and the position of one of the

b) Rotation

inflection points changes.

The effects of the radius of curvature of meanders (R<sub>c</sub>) and revetments on point-bar characteristics were studied on the youngest point-bars, as only the present radius of curvature of the meanders can be determined. The radius of curvature was determined as the radius of the largest circle which can be best fitted into the bend (Kiss et al., 2009). The majority of the revet-

a) Expansion

The position of inflection

points are constant, thus the

length of centerline increases.

ments were built in the second half of the 1900s; thus revetments have an explicit impact only on the formation of the last point-bars in each point-bar complexes.

and the direction of the axis.

c) Translation

The bend moves downstream,

without changing centerline length

During the research, after the determination of the bend-migration types, we analyse the point-bar complexes, and then the morphology of individual pointbars

#### **Results**

#### Meander migration types

In the Lower Tisza River, three meander migration types were identified (Figure 4). Expanding meanders are the most common, as among the 33 meanders 23 were classified as expanding. They are usually large ( $R_c \ge 750$  m), and mostly they are located in those river sections that were straightened during the river regulation works (except No.19 and 20).

Nine rotating meanders were identified, and each has small radius ( $R_c \le 750$  m). Rotating meanders are mostly located in those sections that remained intact during the channel regulation works, but cut-offs were made upstream or downstream of these meanders.

Only one freely translating meander was identified (No. 22) along the entire studied Lower Tisza.

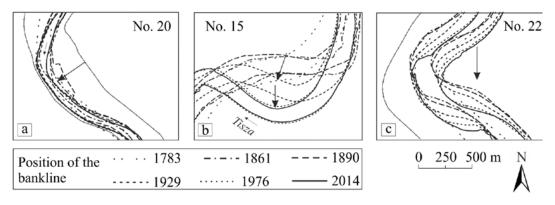


Figure 4. Examples of meander migration types from the Lower Tisza River. a: expansion, b: rotation, c: translation

### Height and width conditions of point-bar complexes

# Types of point-bar complexes based on their height characteristics

Based on the height characteristics of point-bar series, four main development types were distinguished (Figure 5). It is important to emphasise that the four types were defined without the youngest point-bars, as they are mostly affected by human impact.

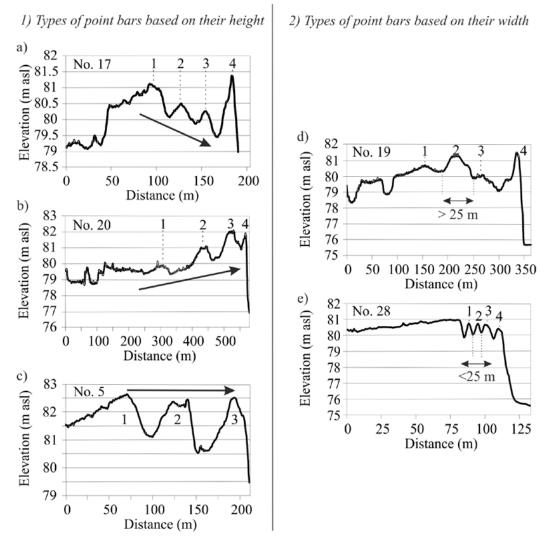
In case of the descending point-bar complex, the height of point-bars gradually decreases towards the channel (Figure 5a). This type was identified at 36% of the studied meanders. The average height drop between point-bars is 0.9 m (0.2-1.4 m). The second pointbar complex type is ascending, as the height of pointbars gradually increases towards the channel (Figure 5b). This development type occurs in 39% of the meanders. The average height increase between the pointbars is 1.2 m (0.2-3.4 m). The height of point-bars does not change significantly in 15% of the meanders: here the height difference was under 0.1-0.2 m, and the height of bars showed no continuous decrease or increase (Figure 5c). In the remaining 10% of the bends, only one point-bar has formed; thus the direction of development cannot be determined. This type is located in artificially straightened river sections, where

the bend development could begin just after the river regulation works; therefore the development of multimember point-bar complex had not been allowed due to the short time and as the thalweg is located at the centreline of the channel.

Majority (8) of the 12 descending point-bar complexes are located in the western part of the floodplain, therefore along meanders which migrate eastwards. In contrast, two-third (8) of the 13 ascending point-bar complexes is located in the eastern part of the floodplain, i.e., point-bar heights increase along meanders migrating westwards.

# Types of point-bar complexes based on their width characteristics

Two main types of point-bar complexes can be distinguished based on their width conditions (Figure 5). In case of 21% of the meanders, point-bar complexes consist of wide (>25 m) point-bars (Figure 5d), while 39% of the point-bar complexes has narrow (< 25 m) members (Figure 5e). In the rest of the meanders (40%), however, a mixture of wide and narrow pointbars can be observed. In some cases, at the beginning of the development of a point-bar complex the pointbars were broad, then they became narrower by time, or wide and narrow point-bars alternate in a pointbar complex.



**Figure 5.** Examples of different types of point-bar development in the Lower Tisza River. a: descending, b: ascending, c: constant point-bar heights, d: wide point-bars, e: narrow point-bars within a complex

# Height and width characteristics of individual point-bars

Along the Lower Tisza River, the height and width of point bars within a point-bar complex is not a function of downward direction. In the northern and southern parts of the study area where the river is less sinuous, the average height (north: 1.5-2.1 m; south: 2.3-2.6 m) and width of point-bars in a point-bar complex is similar (12-20 m and 38-42 m, respectively). However, in the middle section of the river point-bar heights (0.8-4.1 m) and widths (8-58 m) vary in a large scale.

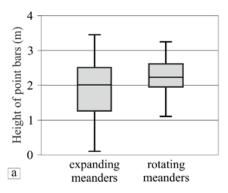
Within point-bar complexes a sudden rise in the height of the last (youngest) point-bar was observed. This is typical for 70% of the studied point-bar complexes, but in the case of descending point-bar complexes, this increase (0.6 and 2.3 m) is more significant since the increase of the last point-bar is more striking and different from the normal development of the point-bar complex. The increase of the last point bar in ascending point-bar complexes is between 0.4 and 2.2 m.

# Factors influencing the height and width of individual point-bars

# The effect of meander migration type on the height and width of older point-bars

As only one translating meander (No. 22) was identified on the Lower Tisza, the analysis was carried out for the expanding and rotating meander migration types (Figure 6). Along rotating meanders the mean height of point-bars is 2.3 m (1.1-3.3 m), while along expanding meanders their average height is only 2 m (0.5-3.5 m). This 0.3 m difference between the two types is not too definite, in some cases there are very high ( $\geq$ 3 m) point-bars in expanding meanders as well (e.g. meanders No. 19 and 20).

The relationship between point-bar width and meander migration type suggests that the mean width of point-bars in a point-bar complex is very similar in both migration types. The mean width is 33 m (6-93)



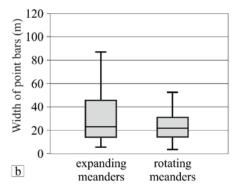


Figure 6. The impact of different meander migration types on the height (a) and width (b) of point-bars

m) in expanding meanders, while it is slightly narrower, only 27 m (4-114 m) in rotating bends.

### The effect of radius of curvature on the height and width of point-bars in rotating meanders

Relationship between the morphological characteristics of the last point-bars and the radius of curvature of meanders is found only in rotating meanders (Figure 7a). Results suggest that the height of the last point-bars changes logarithmically with the radius of curvature (R<sup>2</sup>=0.74), i.e., in meanders with small radius higher point-bars are formed. Similar relationship was observed between the Rc and the width of the point-bars (R<sup>2</sup>=0.72), i.e., the last point-bar is wider where R<sub>c</sub> is greater (Figure 7b).

### 5 Height of the last 4.5 (m) point bar (m) 3.5 2.5 $R^2 = 0.74$ 2 500 1000 1500 a Radius of curvature (m)

# The effect of channel width on the height and width of older point-bars

Since the end of the nineteenth century, the channel width of the Lower Tisza River has been continuously narrowing which is also reflected by the width of the point-bars (Figure 8). At the time of the 1783 survey the channel was broad (197 m on average), and the mean width of the point-bars at that time was 68 m. By 1861, the channel narrowed by 20 m (to 175), and simultaneously, the point-bars became significantly narrower (mean width: 34 m). Then, the channel broadened, as in 1890 its mean width was 192 m. Thus, the width of point-bars increased to 48 m on average. In the twentieth century, the channel was narrowing steadily. In 1929 its mean width was 178 m, in 1976 and

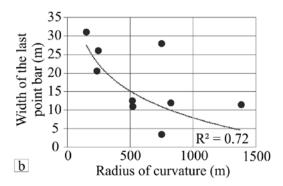


Figure 7. The impact of the radius of curvature of meanders on the height (a) and width (b) of the youngest point-bars of point-bar complex

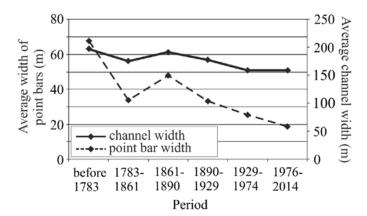


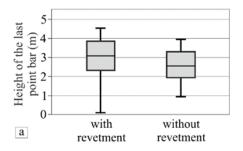
Figure 8. Mean width changes of point-bars as a function of channel width since the end of the eighteenth century

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2014 it was only 159 m; therefore, the point-bars became narrower too (1929: 33 m; 1976: 25 m; 2014: 19 m). Thus, during the last centuries the point-bars became significantly narrower.

# The effect of revetments on the height and width of point-bars

According to the results, the revetments built on the concave banks slightly influence the height and width of point-bars forming on the opposite bank (Figure 9). In meanders where there are revetments, the mean height of the active point-bars is 3.1 m, and their mean width is 19 m. In contrast, in meanders where there is no bank protection, the youngest point-bars are slightly lower (2.5 m) and wider (22 m).



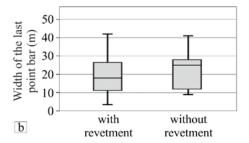


Figure 9. The impact of revetments on the height (a) and width (a) of the youngest point-bars

#### **Discussion**

### Meander migration types in the Lower Tisza River

The type of meander migration has a significant impact on the formation and morphological characteristics of point-bars; thus identification of the different types is essential (Hickin & Nanson, 1975; Nanson & Hickin, 1983; Russell et al., 2018; Strick et al., 2018). Along the Lower Tisza the abundance (70%) of expanding meanders could be explained by human impact: most of them began to develop on river sections that were straightened during the river regulation works in the second half of the nineteenth century. These meanders are therefore at the beginning of their development.

In some of the bends (e.g., No. 19 and 20) that had already existed before the regulation works, the more consistent bed material (Hernesz, 2015) is the cause of the rotating movement of the meanders. In the Lower Tisza River, however, the consistency of bed material varies, thus expanding meanders are likely to become rotating as they develop (Daniel, 1971). Cut-offs upstream of the rotating meanders can contribute to the development of rotation. Since rotating bends originally had a great radius of curvature, the accelerated water flow in the upstream straightened sections struck against the outer bank in the lower third of the meander; thus the outer bank eroded more rapidly.

The formation of the only one translating meander (No. 22) is due to local causes, as in this section, the channel is enclosed in the homogenous bed material of a paleo-channel (Hernesz, 2015).

# Development and spatial characteristics of different types of point-bar complexes

In general, the height changes of point-bars towards the channel (descending or ascending) are related to changes in the channel, the rate of bend migration, and/or bedload and suspended sediment yield. Based on our results, we assume that the decrease in the height of point-bars in a given point-bar complex may indicate (1) channel incision, as the point-bars have to decrease if the conditions and the time available for development do not change; (2) accelerating meander migration, as in this case there is less time available for the formation of the point-bars, thus each form became lower and lower; and (3), it may indicate a decrease in sediment yield, as it would take a longer time for the point-bars to form, while no more time is available with the same rate of erosion on the concave bank.

In contrast, we assume that the increase in the height of point-bars may indicate (1) decrease in the rate of meander migration, as more time is available for the formation of the point-bars; thus they became increasingly higher. Slower migration of the river bank may be due to the achievement of more consistent bed materials (silt and clay), and as a result, the channel is more resistant to lateral erosion and incision (Thorne, 1991). Besides, our study proved that revetments built on the outer bank of meanders cause the deceleration and/or cease of meander migration. Higher point-bars could also indicate (2) an increase in bedload and suspended sediment yield, as, if the time available for

point-bar formation is constant, more sediment accumulates on the surface of the point-bars, significantly increasing their height.

The constancy of the height of point-bars in some meanders, however, may indicate the role of local influencing factors; thus the change in sediment yield in the Tisza River cannot be an explanation, as it would result in a change in the height of all point-bars.

In the eastern part of the floodplain, there are mainly ascending point-bar complexes, while in the western part primarily descending ones are found. One of the reasons may be the fact that the consistency of the sediment varies on the two sides of the floodplain. The majority of the paleo-channels remained on the eastern side of the Tisza River, which indicates that the river constantly migrates westwards. On the western side, however, the channel runs very close to the edge of the alluvial fan of the Danube, which is composed of older and more solid sediments, which are harder for the Tisza River to erode (Hernesz, 2015). As a result, slowly developing and ascending point-bar complexes are found in meanders migrating westwards. Another reason for the development of ascending point-bars on the western side may be the fact that on this side of the channel runs very close the artificial levee; thus meander migration has been ceased by revetments on the concave bank. As a result, on the opposite, convex bank the lateral development of point-bars is decelerated, then ceased (Kiss et al., 2018), thus point-bars become increasingly high.

### Factors affecting the morphology of point-bars

# The effect of meander migration type on the height and width of older point-bars

According to our results, older point-bars in each point-bar complex are slightly higher (by 0.3 m) along rotating meanders. It corresponds with the findings of Strick et al. (2018), as rotating meander rotate back on themselves (in the downstream part), which increases the height of the forms. At some places, it can be exceeded by the effect of bed-material consistency. We identified very high point-bars in some expanding meanders, where the bed materials are more consistent. The migration of the bank line is slower where bed material is silt or clay (even at the end of the 1800s, in this meanders the rate of channel migration was less than 1 m/year), which cause the increase of pointbar heights.

No evidence was found that the type of meander migration would influence the width of point-bars, as point-bars of very similar mean widths (27 m and 33 m) have formed in both meander migration types. This result, however, does not correspond with the findings in the literature (Strick et al., 2018) that under

natural conditions, wider point-bars are formed in rotating meanders. In our opinion, the effect of channel narrowing in the past 250 years, primarily due to human activity, exceeds the influence of the type of meander migration; therefore point-bars of very similar, but increasingly narrowing width are formed in both expanding and rotating meanders.

# The effect of radius of curvature on the height and width of youngest point-bars

The radius of curvature influences the morphology of the last (youngest) point-bars in each point-bar complex. The effect of curvature primarily influences point-bar formation in bends that are characterised by rotational movement, as these bends have the smallest curvature (Rc<750 m). In meanders with small radius, higher and broader point-bars have developed. It could be explained by the fact that the small radius of curvature usually results in narrower channel width; thus the thalweg is relatively closer to the convex bank, therefore, greater amount of sediment could be deposited along the inner side of the bends. It is further enhanced by the type of meander migration, because of the rotational movement meanders rotate back on themselves, which increases the height and width of the forms (Strick et al., 2018).

# Effects of channel width and revetments on point-bar formation

Channel narrowing and revetment constructions are closely linked. Revetments were built (the first was built in 1886) after the river regulation works, and has since been built along almost all bends. Revetments stopped the lateral erosion of the concave bank, but meander migration may have continued due to channel narrowing, as the convex bank continued to develop. Due to the lack of migration in the outer bank, the formation of point-bars has significantly changed. Channel narrowing is well indicated by the decrease in point-bar widths (van de Lageweg et al., 2014; Strick et al., 2018). In case of the Lower Tisza the mean width of the channel has decreased from 197 m to 160 m over the last 250 years, and as a result the mean width of point-bars has decreased too from 68 m to 19 m. Initially, channel narrowing was caused by cut-offs, as the slope and stream power of the river suddenly increased, which temporarily resulted in channel incision and narrowing (Károlyi, 1960; Ihrig, 1973). Later, however, revetments caused the rapid narrowing of the channel.

Not only the width of the point-bars changed, but their height conditions also altered. In 70% of the meanders, the last point-bar in each point-bar complex is higher than the preceding one. It is undoubtedly the result of revetment construction, as the lateral develPoint-bar Development Under Human Impact: Case Study on the Lower Tisza River, Hungary

opment of point-bars has become limited or stopped in the narrowing channel. As a result, the lateral development of the forms has been replaced by the vertical accumulation of sediment, thus point-bars become increasingly higher. Riparian vegetation, which is becoming denser (Kiss et al., 2019b), may also contribute to the development of higher point-bars, as vegetation prevents sediment from reaching distal parts of the floodplain; thus sediment is deposited in a narrow zone adjacent to the channel.

#### **Conclusions**

Point-bars are the most striking features of floodplains and they are mainly the sites of lateral sediment accumulation; therefore any change in the factors influencing point-bar development is also reflected in their formation. As the Lower Tisza River has been a subject to various types of intensive human impacts over the past centuries, these human activities have affected point-bar morphology and development too.

Under natural conditions, point-bar morphology was primarily affected by the type of meander migration, the radius of curvature of meanders, and the distance of thalweg from the bank line. However, the processes in the channel and point-bar formation have fundamentally changed as a result of human interventions. On the one hand, in the second half of the nineteenth century, artificial cut-offs caused an increase in water slope; thus the channel incised (Kiss et al.,

2008). Channel incision is indicated by the decrease in the height of the point-bars in a given point-bar complex. On the other hand, downstream of cut-offs meanders with a small radius of curvature developed. As a result, more intensive accumulation occurred in the convex banks; thus higher and wider point-bars have developed.

However, the most intensive intervention in point-bar formation was revetment construction, which aimed to prevent the concave bank from erosion. As a result, the channel incised and narrowed more intensively (Kiss et al., 2019a) as point-bar formation continued, but it was limited horizontally. As a result, the vertical sediment accumulation has become more intensive, resulting in an increase in point-bar heights, which affects primarily the last (youngest) members of the point-bar complexes.

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# The Impact of Suburbanisation on Power Relations in Settlements of Budapest Agglomeration

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#### **Abstract**

The aim of the current paper is to help to understand the transformation of suburban areas in Central Eastern European metropolitan regions with regard to the power relations. The study area is Budapest Agglomeration, which has experienced significant social, economic, and environmental changes after the collapse of state socialist regimes due to the intense suburbanisation. This study examines the composition of municipal councils in Budapest Agglomeration and tests the hypothesis that during the suburbanisation, the newcomers seize the political power in the suburbs. The analysis based on a database about municipal councils members of 18 settlements, and there are data about the main socio-demographic characteristics of these settlements. The results show the growing number of settlements where the incomers become dominant in municipal councils. The role of socio-demographic factors in this process is interesting as cannot be proved a clear relationship between these factors and the changes in municipal councils.

Keywords: Budapest Agglomeration; suburbanisation; power relations; municipal council

#### Introduction

Central and Eastern European (CEE) countries have gone through a significant transformation after the collapse of the state socialist regimes. The spontaneous socio-spatial processes could become intense after the post-socialist transition because these were restricted by the state before. Common features were in these countries the privatization of public housing and agriculture land, liberalization of the housing market, increasing income, and evolve of the new local governance system. Socio-economic transformation comes along with intensive suburbanisation in the Post-Socialist region. This process has been an essential urban phenomenon in the last three decades, which has determined the development of metropolitan areas and the spatial distribution of society. The population growth was more intensive in

the suburban areas than in the cities, and the suburbs undergone previously rarely experienced development in infrastructure and services, even though this development was not always able to keep up with the needs, which came with the new and growing population. The newcomers forced several kinds of development out, and new enterprises settled in the agglomeration and participated in the improvements. It was an unplanned development and uneven in space, namely there are better and worse developing settlements. In addition, the spatial pattern of social strata changed in the urban areas. The middle class moved to the surroundings settlements, but in CEE, unlike the western suburbanisation, lowstatus people also decided to leave the city in order to decrease their housing costs (Brade et al., 2009;

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Sailer-Fliege, 1999; Szelényi, 1996; Stanilov & Sýkora, 2014a, 2014b, 2014c).

In most respects, social consequences and characteristics of suburbanisation have been the same in Budapest Agglomeration as in the other post-socialist metropolitan areas. In connection with the local communities important result of migration from the city to the suburbs is the evolve of high-status spaces in the suburban zone and even within its settlements (Csanádi et al., 2010) as previous studies presented similar processes in CEE metropolitan regions (e.g. Kährik & Tammaru, 2008; Krisjane & Berzins, 2012; Ourednícek, 2007). Western urban studies (e.g. Scicchitano & Johnson, 2012; Ross, 2014) presented that in suburban areas newcomers from upper-middle-class try to influence the decisions of municipal councils in order to serve the newcomers' interests the development of their settlements. The so-called 'not in my backyard' phenomenon is a striking example of how the new population can influence the further development of settlements. Similarly, in Budapest Agglomeration has appeared the conflicts between the newcomers and the former residents because newcomers' interests often contrasted with the former residents' interests. Although in the Budapest Agglomeration the presence of the highly well-off population is less common than in Western metropolitan region, it is rather the home of the middle-class and upper-middle-class. Nevertheless, the differences in lifestyle between the new and old populations are manifested here in various conflicts (Csanádi et al., 2010; Váradi, 1999). The conflicts can express in the local policy and

at this point become important the question who has the ability to enforce interest and how does it happen.

Although momentous suburbanisation in Budapest Agglomeration started three decades ago, except for the exemplary description of the activity of local civil movements, has not been examined the change of power relations in the suburbs systematically. The aim of this paper to contribute to the understanding of the social consequences of suburbanisation on the local community, concerning power relations. Is it a rather complex subject; in this current study, I deal with the representation of the new population in municipal councils. In Hungary, municipal councils decide on the way of local public service development, the local tax rate, and the settlement structure. In recent years the role of the councils has changed and declined significantly in several fields but still play a very important role in many cases. It is widely accepted that people who moved out of Budapest want to participate in decision-making about their settlements. It may be presumed that there is a clear relationship between the population growth in suburbs and the proportion of new residents in the municipal councils. This concept, however, hardly examined empirically. In this paper, I test this statement based on data collected from councillors of 18 settlements and answer the following questions.

How has the proportion of people who moved out of Budapest changed in municipal councils of suburbs over the last three decades?

How can socio-demographic characteristics explain the differences in the composition of municipal councils among various settlements?

#### **Suburbanisation in Budapest Agglomeration**

Budapest agglomeration is a statistical zone inside the metropolitan area. Delineation of the agglomeration is based on commuting relations and corresponds to the administrative boundaries in the agglomeration zone. Agglomeration includes settlements located near to Budapest and have experienced the suburbanisation since the post-socialist transition; thus, in this paper, this spatial unit is suitable to use for analysing a long-term process.

In Budapest Agglomeration, suburbanisation accelerated after the collapse of the socialist regime in 1989/90. The population of Budapest decreased by 14.3% between 1990 and 2011 (from 2.017 to 1.73 million) while the people of the agglomeration increased by 38.8% in this period (from 448 to 622 thousand) (HCSO, 1990, 2011). According to the available statistical data, the entire area of the agglomeration has been involved in suburbanisation since the 1990s (HCSO, 2001, 2011). At the end of the 2000s, the population

growth slowed down in the agglomeration, mostly due to the global financial crisis, decreasing mortgage subsidies, and urban renewal projects in Budapest's inner city (Kovács & Tosics, 2014).

Municipal councils in agglomeration have played an important role in the process of suburbanisation. In the early 1990s, it was typical that they supported the population growth and tried to make attractive the residential area because they expected an increase in revenue of settlements, mainly by the taxes (Szirmai et al., 2011; Tosics, 2006; Kovács, 1999). Later, because of the changing tax system and consequently decreasing revenue, the leadership of the settlements could not provide the proper services and infrastructure for the local population and therefore, they changed their policy. The aim of this new policy was obstructing the population growth or finding a way to reduce the adverse effects of the process (Szabó, 2003; Gergely, 2014).

Effects of suburbanisation on Budapest Agglomeration have been examined in many aspects. Various form of economic activity appeared and workplaces have been created, although the increasing car use and commuting between home and the workplace has several harmful impacts on the environment and health condition (Kondor, 2016; Kovács et al., 2019; Váradi, 2014). Mainly but not exclusively due to the high number of workplaces, there are important cooperation and interdependence between settlements, and as a result of this, the area has become more polycentric (Kovács et al., 2014). Because of the various transformation, this area has to face administrative and regional planning problems (Somlyódyné Pfeil, 2011).

In terms of society, the most significant consequence of suburbanisation is the change of socio-spatial disparities and segregation patterns. The essential trend was observed that in Budapest metropolitan area from the inner part of the city to the suburban zone border, the proportion of high-status residents decrease. However, this trend is not entirely general because on the one hand there are parts of the suburban area where the high-status population lives and on the other hand the parts of the agglomeration and settlements are also fragmented. (Szirmai, 2011, 2016; Csanádi et al., 2010; Szirmai 2019).

Social fragmentation of the Budapest Agglomeration is not a new phenomenon, but it was strengthened and modified by the suburbanisation. Financial opportunities always had a dominant role in spatial mobility. Those who could take advantage of the post-socialist transition, for instance, who could buy a good and cheap dwelling during the privatization and who was in the best financial situation could move from Budapest to the much-valued parts of the area already in the 1990s (Western and Northwestern sectors of Agglomeration, Figure 1.) (Csanádi & Csizmady, 2002). These settlements conserved, moreover raised their high-status. The other parts of agglomeration have become socially fragmented by high-status and low-status settlements, by the waves of suburbanisation, which have strengthened the socio-spatial differences (Csanádi et al., 2010; Váradi & Szirmai, 2012).

In addition to the financial condition, several factors influenced the choice of a new residence, such as the desire for a detached house, better housing condition than in the city, rural lifestyle, silence, tranquillity, green area and not least the role of the residence in the individuals' social status (Beluszky, 1999; Tímár, 1999; Dövényi & Kovács, 1999, Csanádi et al., 2010). Consequently, people who have moved out of Budapest to the suburbs had different concepts and demands about the new residence and its population and used the settlement in different ways (Csurgó & Csizmady, 2012). Csurgó (2013) defined two main type of people who have moved out of Budapest to the agglomeration by their concept about the rural life: the suburban way of life - people homes are in the suburb, but their life primarily be attached to the city; retraditionalization - people actually live in the suburb, they are part of local community; however, this is also not the way of traditional rural life (with farming). And there is a third type which is the combination of the former two – the city still is important in their life, and at the same time they integrate into the local community. Diverse lifestyles and interests led to conflicts between the original residents and the newcomers. These conflicts usually focused on the function and transformation of the settlements (Váradi, 1999; Szirmai, 2011b; Szirmai & Váradi, 2012; Csurgó, 2013).

As a result of these conflicts, residents established local civic organisations to try to influence the local policy (Váradi, 1999) since the most conflicts were related to the impacts of suburbanisation or to issues within the competence of municipal councils which determine the way of life of residents (Csurgó & Csizmady, 2012; Szabó, 2003; Váradi, 1999).

From the literature, it emerges that to understand the transformation of suburbs, we have to make profound research about the power relations, including the participation of different population groups in municipal councils.

# **Study Area and Database**

Budapest Agglomeration (Figure 1) includes 38 towns and 43 villages with different population size. To answer the research questions, I examine settlements where the population was less than 10 thousand in 2011 at the year of the last census. According to field research experiences, personal relations and acquaintance has a more significant impact on power relations and local policy in small settlements than in larger ones. The filtered sample includes 18 settlements, which has been selected from all the six sectors of the agglomeration.

To determine the proportion of incomers – it means people who moved out of Budapest - in municipal councils, I collected data about the former residence of councillors. In the absence of an official database about personal particulars of councillors, the information comes from many sources: websites, leaflets, interviews (from media), newspapers, local history books, etc. There was not a specified way of the data collection like questionnaire or interviews have not made for this research. I used more than one hun-

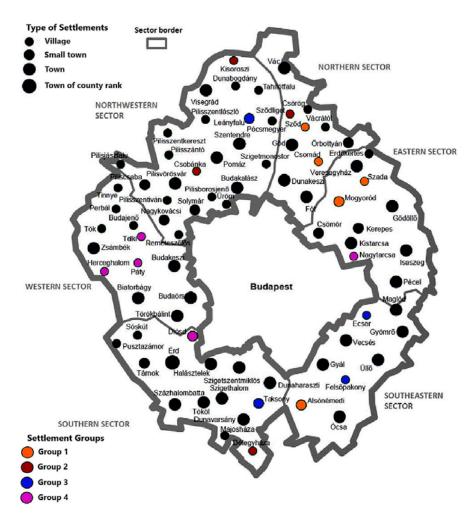


Figure 1. Budapest Agglomeration Source: HCSO, 2011

dred sources (mostly from the internet) to collect data about the 1060 councillors of the 18 settlements.

I divided the councillors into three groups: the first one includes people who moved out of Budapest to the suburbs, the second one includes people who were born and lived in the suburbs (henceforth abbreviated original residents). There is a third group of councillors, who moved in the suburban zone from rural settlements. However, their weight in the councils has not been significant, and the rural spatial mobility is quite a different process from suburbanisation, thus in the current paper, I do not deal with this group.

In Hungary, from 1990 to 2014 municipal council elections were held every four years. The number of councillors in each settlement depends on the population size. In order to typify the settlements according to the change of councillor composition and these types can be comparable by socio-demographic characters, it was necessary that the number of councillors be the same. Otherwise, the larger settlements with more councillors could distort the results. Thus, data used in this analysis are weighted; as a result of this, all settlements have the same number of councillors in each period.

Missing data are lower than 20 percent and does not affect the results.

Statistical data used in the analysis has been taken from censuses except for data about the personal income tax. Census data are the most reliable and in the case of proportion of graduates is the only available. Censuses were held in 1990, 2001 and 2011. The other source is the municipal database of Hungarian Information System of Regional Development (TEIR).

#### **Results**

### Incomers in municipal councils

In the studied area, the number of settlements has been growing, where the incomers have dominance in municipal council (Table 1.). This is a slow process, and the incomers outnumbered the other population groups in councils only in one-third of the settlements even at the end of the examined period. Nevertheless, data predict the direction of change. The number of settlements where original residents dominate decreased until 2014, by the time remained only seven out of 18. This is mainly due to the presence of people who moved to this area from rural settlements. In most cases, this group is not significant in councils, but their presence enough for neither the original residents nor the incomers get the majority in the councils. And there are settlements where the original residents and incomers have a similar proportion in councils - because of the missing data is undecidable which group is dominant. In this paper, I examine the settlements based on only the proportion of

settlements is similar in each group: the first and the fourth group includes five, and the other two include four settlements. The spatial location of the settlements is not completely the same as the categorization used in this study. It also indicates distinct changes in the greater part of agglomeration as previous studies presented it, for instance, in terms of social characteristics (Csanádi et al., 2010).

Figure 2. shows the exact proportions of incomers in every group. It can be seen, that the first and the fourth group differs the most from the others. In the first group, not only the percent is low every year, but there is no rising tendency either. In contrast, in the fourth group, incomers' proportion is steadily increasing.

In the further analyses, I compare these four settlement groups based on their main socio-demographic characteristics which are in connections of the suburbanisation such as population size, the proportion of graduates and newly built dwellings, and financial

Table 1. Composition of municipal councils

The majority of municipal council		Election year					
	1994	1998	2002	2006	2010	2014	
are original residents.	13	13	11	9	8	7	
are in-moving people.	2	3	4	5	7	10	
are people who moved out of Budapest.	0	1	1	3	3	6	
Similar percent of original local people and who moved out of Budapest.		2	3	4	3	1	
Total	18	18	18	18	18	18	

Source: Edited by the author based on the own database

Table 2. Settlement groups based on the proportion of incomers in municipal councils

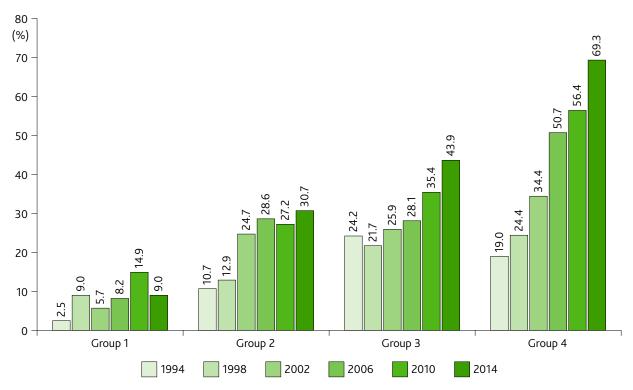
Settlement groups	The proportion of incomers in municipal councils	Settlements		
1st group	was lower than 20% in every year.	Alsónémedi, Csomád, Mogyoród, Szada, Sződ,		
2nd group	has increased slowly and the incomers have never been a significant group.	Csobánka, Délegyháza, Kisoroszi, Sződliget		
3th group	was relatively high in 1994 and it has increased significantly from 2010.	Ecser, Felsőpakony, Leányfalu, Taksony		
4th group	increased constantly from 1994 to 2014 and the incomers had outnumbered the other population groups in every settlement in 2014.	Diósd, Herceghalom, Nagytarcsa, Páty, Telki		

Source: Edited by the author based on the own database

incomers in municipal councils without considering the different presence of original residents and people who moved from rural settlements.

The proportion of incomers are various in municipal councils but can be described four types of settlements based on their proportion in each year of election and the trend of change (Table 2.). The number of

situation. Thereby we can understand the relation between the change of municipal councils and the migration. The following figures show the average values of the groups to prevent the effects derive from different size of settlements. First, will be presented in detail the difference between the four settlement groups by the main socio-demographic factors and then Fig-



**Figure 2.** The proportion of incomers in municipal councils by settlements groups (%) Source: Edited by the author based on the own database

ure 7. shows summing the difference between the settlement groups by these factors.

# The main social-demographic characteristics of settlement groups

Data show a significant relationship between population growth and the proportion of incomers in municipal councils. However, difficult to interpret this relationship because it does not prove a linear correlation, such as the more intense population growth, the more incomers are in councils. The population growth rate

was the highest in the fourth settlement group in the 1990s and also in the 2000s, as the proportion of the incomer council members. In contrast, the population growth in the first group was also significant in the 2000s, but this did not result in the growing proportion of incomer council members. The third group did not experience substantial population growth between 1990 and 2001, and still, has grown the proportion of incomers in the municipal councils.

Based on the foregoing, it can be said that the population growth itself does not explain the differences

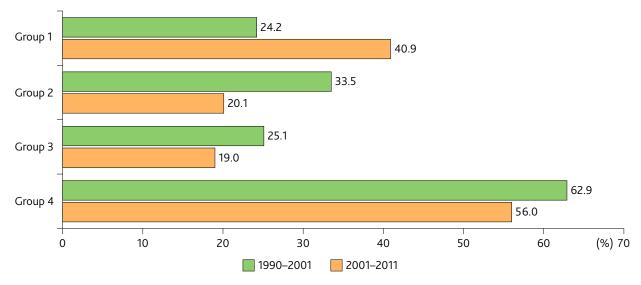


Figure 3. The average population growth by settlements groups (%)

Source: Edited by the author based on censuses

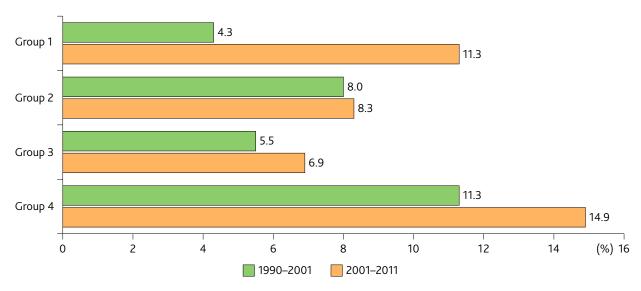


Figure 4. The average growth of graduates (percentage points) among 25 years old and older population Source: Edited by the author based on censuses

in the composition of municipal councils. The previous research referred before, pointed out that suburbanisation has been spatially an unequal process, and evolved low-status and high-status settlements in the agglomeration. Therefore, we need to examine the differences between the groups based on three social status indicator.

As predicted, the rate of growth of graduates (among 25 years old and older population) was the highest in the fourth group between the time of the three censuses, and graduates' proportion was also the highest in this group. Despite the different proportion of incomers in councils, the second and the third groups do not differ from each other significantly, neither according to the rate of graduates nor according to the change, not once. In the settlements of the first group,

the proportion growth of graduates was the smallest in the first period, and it was high in the second period. It implies that a lot of graduates (also by number) moved in these settlements. However, in spite of the population growth and especially the increase in the rate of graduates, incomers could not take over the dominance in municipal councils.

The financial situation is measured with the personal income tax per taxpayer. The first data are available from 1992. In Hungary, the personal income tax system has gone through many significant changes in the past three decades; thus, there can be a large difference between two consecutive years by the exact values of tax per taxpayer regardless the changes in income. Therefore Figure 5. shows the deviation the change of the tax per taxpayer by settlement groups

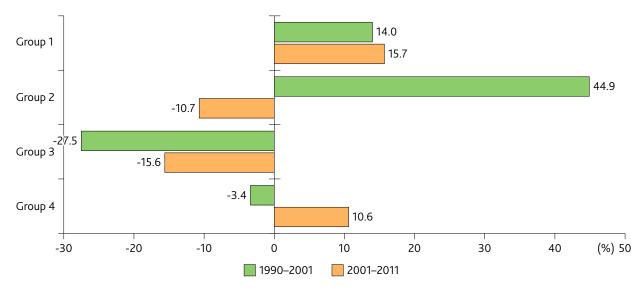


Figure 5. Deviation the change of the tax per taxpayer by settlement groups from the average change of the 18 settlements (%) Source: Edited by the author based on TEIR database

from the average change of the 18 settlements. The tax per taxpayer increased in every settlement; on the figure, the positive values mean growth above average, the negative values means growth under average.

In the first period, the differences between settlement groups were much larger than in the second period, and they typically do not follow the change in the proportion of incomer council members. Although the first group is the only one with positive change (i.e. above-average) in both periods, the proportion of incomers remained low. The third group is just the opposite, the only one where change has always been below average, and yet there has been an increase in the proportion of incomer councillors. However, when interpreting the figure, it is important to note that it shows the change and not the financial situation of those living in each settlement group. In the fourth group, tax per taxpayer growth was below average in the first period and just second after 2001, but

Figure 7. shows the above-used variables standardized and shows the deviation from the average values of the 18 settlements by periods. In the case of annual tax per taxpayer, I use data from 1992 and not from 1990. On the previous figures can be seen the exact values of socio-demographic variables of the settlement groups (except in the case of tax per taxpayer), the figure below focuses on the relative difference between each other. The higher value in the positive direction means the greater change in each factor, relative to the average of the 18 settlements.

The graph more highlights the difference among the settlement groups and between the periods. Especially spectacular the case of the first group; its values were lower than the second one's and fourth one's values (except for the tax per taxpayer) at the first period, but the second-highest after 2001. And yet the proportion of incomers in municipal councils was not significant between 1994 and 2014. In contrast, the fourth

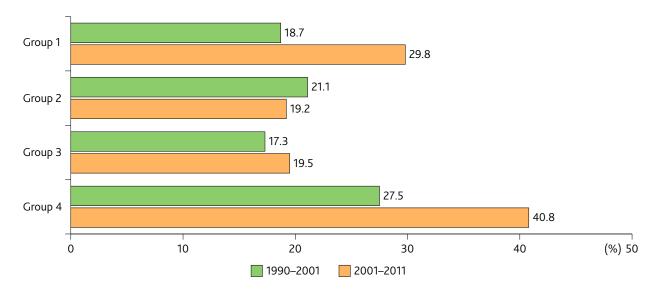


Figure 6. The average proportion of newly built dwellings by settlement groups (%)

Source: Edited by the author based on censuses

this is due to the tax per taxpayer was high in the previous years. In contrast, in the first group the initial rate was low and reached roughly the same level as the third group.

The last social status indicator is the period of dwellings construction that is the proportion of newly built dwellings. As before, the fourth group is considered to be with the highest status, which is not surprising given that the population was in good financial situation. In second and third groups, the proportion of the newly built dwellings was similar. In the first group between 2001 and 2011 was built ten percentage points more dwellings than in the second or the third one even though the average tax per taxpayer was not higher, it refers to a good financial situation in spite of the average income level.

group's relative high values can be associated with a high proportion of incomer in councils. Also interesting the situation of the third group; its values were relatively low in each period, and yet the proportion of incomer councillors has been growing.

While four groups can be formed on the basis of the proportion of incomer councillors, the similarities in social-demographic characteristics of settlements show that the second and the third group do not differ from each other considerably. And data do not prove an increasing tendency between the first and fourth group in percentage of incomers. On the contrary, although the population growth and the proportion of newly built dwellings was outstanding, all of this did not result in the high proportion of incomers in municipal councils.

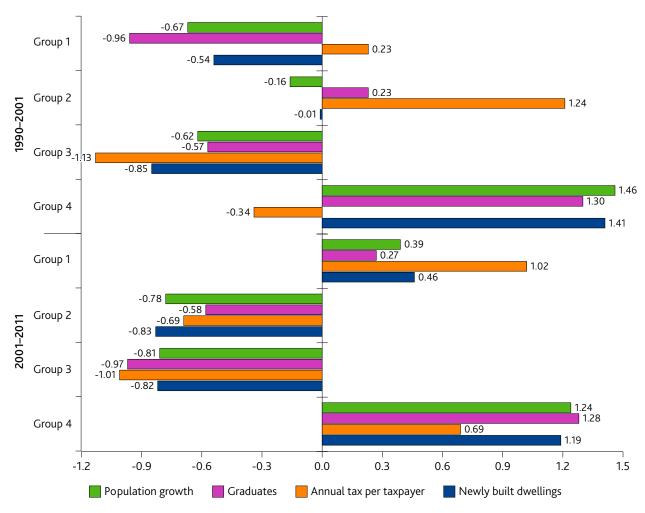


Figure 7. The deviation of socio-demographic characteristics of settlement groups from the average values of the sample settlements by periods Source: Edited by the author based on censuses and TEIR database

#### **Discussion and Conclusion**

The change of municipal councils has been many impacts on the development of Budapest Agglomeration and the socio-spatial fragmentation in local and regional level. In terms of settlement development, it is crucial which population group has the ability to enforce interest. For instance, the answers to the following question can be different: to what extent should the rural character of the settlements remain. From the point of view of society, the process has a role in the spatial distribution of people belonging to different social strata. Set a good example, a village, where the council tried to limit the number of people who move in by regulating the minimum size of building plots, but this regulation favoured people who have a high income.

Results present a remarkable change of composition of municipal councils in Budapest Agglomeration. There are more and more settlements where most councillors are incomers. The data predict that

the process will continue (see second and mostly the third group).

The findings from the database show that this process cannot be explained completely by the population change and social-status indicators. In the settlements of the fourth group, there were an outstanding proportion of incomers, and indeed the population growth and the proportion of high-status people was significant. However, results do not present a clear relationship between the explanatory variables and the composition of municipal councils. Especially the values of the first group contradict presumptive relationship as the population growth was significant, the social-status characteristics were similar to the second and third group, and still, the proportion of incomers in councils was negligible.

The results must be interpreted with caution because the selection of settlements was influenced by the available data of councillors. It sets limits on research that the

personal data about councillors are difficult to collect; thus, not all municipalities could be included in the analysis. The primary importance of the results is not to provide accurate information on the transformation of municipal councils in the studied area, but to highlight the major trends of changes, their complexity, and their relationship to main socio-demographic variables.

And it is important to note again that the sample does not include towns with more than 10 thousand people. Therefore, it may be worthwhile to extend the research to larger towns, although probably some other factors have an effect on the choice of councillors

in their case. For instance, the role of political parties can be more significant.

In addition to the official statistical data, it is necessary to do profound research to reveal the demands, conceptions, motives to migration to suburbs, and lifestyle of incomers in the sample area. These factors probably have an influence on local integration intentions and through of these on the endeavour to have a say in the affairs of the settlement. Furthermore, need to examine the significance of local communities and local civil movements on the transformation of municipal councils.

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# Fluctuating Geographical Position within a Geopolitical and Historical Context. Case Study: Romania

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#### **Abstract**

The geographical position of a territory is a statically element strictly determined by mathematical landmarks and by those of the natural background. For all that, different historical and geopolitical events that happened in the course of time, can make the geographical position fluctuate by including a territory / state into territorial aggregates established on less arbitrary criteria. Thus, many interwar authors placed Romania, by geographical criteria, in Central Europe; after 1945 they would include it in Eastern Europe, or in short, in the East, a political-ideological homogeneous territory, but heterogeneous geographically, historically and cultural. With the downfall of political-ideological barriers and the deep-going mutations in the geopolitics of Central and Eastern Europe, Romania's geographical position should be reconsidered based on objective criteria: geographical, mathematical and last but not least, cultural and economic. This study is also important because some recent works place Romania erroneously in South-Eastern Europe, either in Eastern or in Balkan Europe. The work concludes that Romania in a state situated in the south-eastern part of Central Europe. The arguments brought in favour of it have in view to push forward the current stage of knowledge on Romania's geopolitics.

Keywords: Geographical Position; Geopolitical & Historical Context; Central Europe; Romania

#### Introduction, Methods and Data

In one of the last studies on Romanian geopolitics published before the communist regime came to power, Conea (1944), quoting Vogel (1922), said that the geographical position is a static and somehow permanent characteristic, while the geopolitical position is changing. Romania belongs to a highly sensitive area of geopolitical friction, a territory known and defined as a "zone of geopolitical earthquakes". The same author goes on saying that Romania has a central position, being surrounded by powerful states; it is a position far more dangerous, yet in time of peace it offers also multiple advantages, given the possibilities of establishing a lot of fruitful relations and influences (Alexandrescu & Deică, 2002).

That is why, Romania has in the course of time been placed by various authors either in Central Europe, South-Eastern Europe, or Eastern Europe. Proceeding from mathematical, natural, cultural-historical, but also economic-geographical arguments, we shall try to demonstrate that Romania is a Central-European state.

The present study, more theoretical, is based on the interpretation, within a geopolitical, geostrategic and historical context, of some geographical sources that place it in different regional settings.

Analysing sources that place Romania within various regional assembles (Central Europe, South-Eastern Europe, Eastern Europe, Balkan Europe), we shall

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Fluctuating Geographical Position within a Geopolitical and Historical Context. Case Study: Romania

argument why Romania "migrated" from Central Europe to the South and East of the Continent in the geopolitical context of the Communist period, a localization wrongly taken over even after the fall of the Iron Curtain. The arguments included in this study are aimed at improving current knowledge on this subject, contributing to elucidating some unclearnesses and eliminate some errors still made in placing Romania within a geographical context.

For the purpose of this research, recognizable methods for approaches to collecting, analysing and comparing the data were used. For data collection, different sources were resorted to. Historical maps and pictures were analysed and compared to the present situation. Contributions to the evolution of borders in Central and Eastern Europe were reviewed with special attention to Romania. Findings were compared to statistical data and publications of different authors discussing this problem.

### **Discussions**

# The "evolution" of Romania's geographical position reflected in geographical and cartographical sources in the first half of the 20<sup>th</sup> century

Proceeding from Europe's political outline in the early 20<sup>th</sup> century, when Romania acted as a buffer-state among the influence zones of three empires (German, Russian and Ottoman), the *Geographisches Handbuch zu Andrees Auflage* (1902), placed only the German States, Switzerland and Austro-Hungary (together with Transylvania, but without Bosnia-Herzegovina and Dalmatia¹) in Central Europe (Mitteleuropa), having in view their cultural affinities and common historical relations. Partsch et al. (1903) enlarged this

trian-Hungarian Empires in the centre, and Romania, Serbia and Bulgaria in the south-east (Figure 1).

Made up exclusively on the basis of historical arguments, this regional outline does not correspond to the geographical reality, pushing the limits of Central Europe southward. Although in the past they were part of the Austrian-Hungarian Empire, Bulgaria, Serbia and Montenegro belong to Southern Europe and in no way to Central Europe.

The assertion of national identity in a Europe of multi-national empires and the beginning of the First World War created the premisses for ever more personalities of European science and culture to become aware of the appurtenance of the Carpathian-Danubi-



Figure 1. Central Europe according to J-F. Partsch, C. Black and H-J. Mackinder (1903)

concept, including in Central Europe all the geopolitical diagonal line between the North Sea and the Baltic Sea, consisting of the following states: Benelux in the north-east, Switzerland and the German and the Aus-

an space to Central Europe. Thus, Sievers (1916) traced the Central-European frontier on the Dnistre and the Danube, basically including the entire Romanian ethnical bloc. By the end of the First World War, and subsequently during the inter-war period, similar delimitations were made by other representatives of the German geographical school: Arldt (1917), Hassinger (1917, 1923), Heiderich (1926) and Machatschek (1925, 1929). Repre-

Bosnia-Herzegovina and Dalmatia were included into Southern Europe. In geographical terms, it is better to include Bosnia and Herzegovina and Dalmatia in South-Eastern Europe.



Figure 2. Central Europe according to Giselher Wirsing (1932)

sentative for this opinion is Wirsing (1932), who included Romania, together with the Baltic States, Poland, former Czechoslovakia, Hungary and the countries of the former Yugoslav space, as well as Albania and Bulgaria, into "Middle Europe" (Zwischeneuropa) suggested also by Penck as early as 1915. Also in this regional outline, the limits of Central Europe are arbitarily pushed southward by including some Balkan states (Albania, Bulgaria and Yugoslavia), that belong to the South-European geographical realm (Figure 2).

On the other hand, the geographers who placed Romania in the south-east of the Continent (Unstead, 1927; Schüssler, 1939, etc.), limited the Central-European space only to the two German-speakig empires and, in some cases, also to their neighbour countries in which populations of Germanic origin lived. Speaking of Romania's appurtenance to the Balkan space, Schmidt (1932) contended that, "before the War, although Romania, speaking strictly geographically, did not belong to the Balkan Peninsula, it was nevertheless considered so, being the only country that lay outside the natural borders of this Peninsula", while in Höpker's views (1936), "Romania did not belong to the Balkan Peninsula in a strictly geographical sense... it is rather a question of a Balkan mentality, a psychological complex one could hardly define". At the same time, other representative cartographic works, published then in the German space (Mitteleuropa. Austrian School Atlas by Slanar, 1928;

Ubersichtskarte von Mitteleuropa, 1937 or Generalkarte von Mitteleuropa, 1937), placed all of Romania within Central-Europe, while others, e.g. Ethnographical Map of Central Europe, 1942, integrated only Transylvania and Bukowina into Central Europe (Sinhuber, 1954).

Fundamental early 20th-century French works also confirmed that Romania belonged to the Central-European area. In a work published in Paris by the Serbian geographer Cvijić (1918), the northern boundary of the Balkan Peninsula was the Danube River; speaking about the borders of the Balkan Peninsula, Ancel (1930) says that "sometimes the Danube is taken to be the northern limit of the Balkan Peninsula. But the middle section of the Danube has never been a borderline (...), the Danube does not divide, but unites the Romanian and the Balkan lands". However, six years later he would change his views and place Romania in Central Europe, setting just the big River as the southern boundary (Figure 3).

But he who best defined the notion of Central Europe truly scientifically was geographer Emmanuel de Martonne, an excellent connoiseur of Romania from the beginning of the 20th century (Boulineau, 2001; Palsky, 2002; Bowd & Clayton, 2015). This term, Martonne would say (1934), should be used to designate the middle position of the countries considered to lie between a "better articulated" Western Europe and the "more compact" Eastern Europe. Therefore, he re-



Figure 3. Central Europe according Jacques Ancel (1936)



Figure 4. Central Europe according Emmanuel de Martonne (1934)

ferred to locating them between a Europe of penninsulas, gulfs and seas, and a Europe of endless fields. Beside Romania, De Martonne included in Central Europe also Germany, Poland, Switzerland, Austria, Czechoslovakia and Hungary (Figure 4).

Synthesising all these viewpoints, Romanian geographer Rădulescu (1938) considered Central Europe as the whole territory extending between the borders of Germany, Switzerland, Austria, Italy, Yugoslavia, Albania and Greece in the west; Poland, Romania, Bulgaria and the European part of Turkey in the east; he

tural boundary between the Slav peoples in the southeast of the Continent and the Romanic peoples from its central and western part. For all that, south of the Danube, in Eastern Serbia and in north Bulgaria regions, one finds Wallachian minorities as mixtures of Romanians and Slavs. It is the southern limit of German colonisations and the northern bound of the spread of Islam; at the same time, it is the boundary between two distinct physical-geographical areas: the Romanian Plain in the north and the Prebalkan Tableland in the south. It is also a historical bondary, because no empire



Figure 5. Central and Balkan Europe according to N-Al. Rădulescu (1938)

distinguished a Central-Western Europe of Germanic expression, represented by Germany, Austria, Switzerland and Liechtenstein; a Central-Eastern Europe, that is, Poland, Eastern Prussia (currently the Russian zone Kaliningrad), Czechoslovakia, Hungary and Romania, while Balkan Europe included Yugoslavia, Bulgaria and Greece (Figure 5).

Developed on the eve of the Second World War, this theory erroneously extended Central Europe toward by including some Balkan states (Albania, Bulgaria, Greece and Yugoslavia), as an expression of a presupposed Central-European alliance versus the Soviet Union that claimed, among others, also Romanian territories (Bessarabia and Bukowina).

In this way, the Danube became the northern boundary of Balkan Europe. It is an ethnical and culbased in the Balkan Peninsula territory could lastingly extend north of the Danube; it is a psychological boundary, the psychology of Balkan peoples being radically different from that of Central-European peoples; it is also an economic boundary, Romania's territory gravitating economically towards Central Europe.

A better nuanced position is expressed in the Encyclopaedia of Romania (coord. Gusti, 1938), the first comprehensive work devoted to unified Romania; in its first volume, starting from the territorial built-up of this country by the unification of Moldavia, Wallachia and Transylvania, the highlight falls on the character of interference, harmony and unity of its territory: by way of its position at the cross-roads of Europe's big geographical lands, Romania has three sides: to Central Europe, to the south and to the Continent, all three meeting in

the Carpathian Chain, where they communicate by numerous passes, the three sides merging into the harmonious unity of the Romanian land.

# Romania's geographical position reflected in sources from the second half of the 20th century and the beginning of the 21st century

For a lapse of 40 years, Central Europe and the term of "Europe" itself became the monopole of the geopolitical aggregate that lay west of the former Iron Curtain. In this way, Europe was associated with an "area of freedom" in opposition to Communist Europe, which gravitated around the Soviet Union, and was called Eastern Europe, or the East in short, a dominantly, ideological category without a definite territorial basis (Fourcher, 2000: 93).

The West-Europeans' perception of this territorial aggregate became ever more diffuse; whether it was Poland and Romania, or Bulgaria, Albania and Hungary, states belonging to different geographical areas and cultures, they were put in opposition to Greece, Spain, Great Britain, or Germany, countries integrated into the same economic and political-military blocs, but fundamentally different geographically and culturally (Halecki, 1950; Mutton, 1961). In this way, the northern limit of the Balkan Peninsula is pushed up to the Soviet borders, the only Central-European states, recognised as such, being Eastern Germany, Poland, former Czechoslovakia and Hungary (Jelavich, 1983; Castellan, 1991; Prevelakis, 1994, etc.), states which formed the Visegrád Group in 1991 (Prescott, 1987). Thus, in the 1972 editions of the prestigeous British Encyclopaedia, Romania appears in "The Balkans" chapter, its real geographical boundaries being ignored in order to justify the idea of a "common umbrella" for the so-called "volatile" states.

The fundamental geographical changes that took place at the end of the 1980s led to reviewing geopolitical relations in the Central and East-European area, some old geostrategical alliances being updated and new ones being established (Kolosov & O'Loughlin, 1998). The area between the Soviet frontiers and the former "Iron Curtain" started gravitating towards the European and Euro-Atlantic structures, while the "buffer zone" between Europe and Russia was shifted eastwards towards the Ukraine, Belarus and the Baltic States. In these conditions, the former "Eastern Europe" continued to be erroneously considered a homogeneous geographical category, called now Middle Europe (Fourcher, 1993), or the New Europe, a geostrategic space of transition between the East and the West (Brunet & Rey, 1996), or hostile to Russia's geopolitical interests (Dughin, 1997).

In some Anglo-American works, Romania remained attached to Eastern Europe (Geographica, Encyclopaedia & World Atlas, editor Cheers 1999, 2008; Turnock, 2001; Dawson & Fawn, 2002). According to the United Nations Statistics Division (2017), Eastern Europe includes such states as Bulgaria, the Czech Republic, Hungary, Poland, Slovakia, Romania, the Republic of Moldova, Belarus and the Ukraine, as well as the European part of the Russian Federation<sup>2</sup>.

At the same time, old conflict foci in the Balkans were rekindled, leading to the dismemberment of Yugoslavia, and new ones appeared in the former Soviet space, due to ethnical tensions that were piling up throughout the second half of the 20th century. Europe was redefined, its bounds remaining uncertain. Thus, Europe is a term that combines geographical, historical and cultural elements, which all contribute to the European identity. Their experience is considered to be marked by the proximity of ideas, values and historical interactions which could not be pushed into a simple formula and remain subject to revision by each successive generation (European Council, 1992).

Within this context, the big territorial aggregates of Europe tend to being reshaped on the basis of historical antecedents (Lacoste et al., 1995; Mishkova & Trencsényi, 2017).

The unification of Germany (1990) and the formation of the Visegrád Group (1991), followed by the dismemberment of Yugoslavia (1991-2006), laid the premisses for the formation of a new pan-German nucleus consisting of Germany, Austria and Switzerland to which part of Poland, the Czech Republic, Slovakia and Hungary were added, on the other hand, also Slovenia and Croatia; all these states self-identified themselves as Central-European. At the same time, including together Romania and Bulgaria in the European Union (January 1, 2007) led to the false impression that both countries belong to Balkan Europe. The same approach is seemingly made also by Germany, which ever since 1930 had an Institute at Regensburg for Eastern and South-Eastern Europe<sup>3</sup>, but which publishes studies covering a much wider area, including also Romania.

The Russian approach (Dughin, 1997 & 2011: 17) delimits Central Europe to Germany and to states succeeding the former Austro-Hungarian Empire. Speaking of Romania, the author places it in the category of the "New Europe" countries<sup>4</sup>, actually a "sanitation barrier" used by Great Britain in the past to pre-

The UN Statistics Division divides the Continent in Northern, Western, Eastern and Southern Europe.

Leibnitz Institute for East and Southeast European Studies.

According to Al. Dughin, "New Europe" is formed of those East-European countries that tend to side on tough Rusophone adhering thus to the Euro-Atlantic trend, away from the present Continental tendencies of Old Europe (primarily France and Germany).

vent a possible Russian-German alliance which would have stopped English domination in the world. Thus, Romania's geopolitical choice is either on behalf of Continentalism, as a country of old European identity (an option implying a friendly policy towards Russia), or on behalf of Atlantism, hence playing the role of a "sanitation barrier" in favour of the United States.

The World Economic and Geopolitic Yearbook (1993), edited by the Center for International Studies and Research and the "Hérodote" review, provides an original view on "Latin Europe" which would include France, Italy, Spain, Portugal and the ministates of Andorra, San Marino, Monaco and Vatican, while Romania, a Latin-language country, is placed among the

and the three Baltic States (Estonia, Latvia and Lithuania), while Middle Europe consists of the eight already-mentioned states, together with Germany and Austria. A similar viewpoint expressed by Rey et al. (1998) which equates the Central European territories with the Middle Europe, including 10 states: Germany, Poland, the Czech Republic, Slovakia, Austria, Hungary, Romania and, the Baltic States (Estonia, Latvia and Lithuania) (Figure 6).

Last but not least, one must recall the cultural border. Ever since 1991, the Polish publicist K. Pomian launched the idea that Central Europe means that part of the European Continent populated by the majority Catholic and Protestant nations and which for



Figure 6. Central Europe according to V. Rey et al. (1998)

Balkan States, near Albania, Bulgaria, the former Yugoslav states but less Greece, EU and NATO member before 1990 included beside Eastern Mediterrainian, alongside Cyprus, Malta and Turkey. Hence, it is, not a geographical proximity, but former by belonging, during "Cold War", to the political-military alliance that came first in assigning the chosen regional background. Central Europe in this case is limited to the four states of the Visegrad Group: Poland, the Czech Republic, Slovakia and Hungary. The same approach is made also by other French authors, or of francophonic orientation, like Castellan (1991), or Prevelakis (1994, 2001), the last including in the Balkan Peninsula Wallacia, Moldavia, Bukowina, Bessarabia and Transylvania (2001: 28-29).

By contrast, other French authors (Mauriel et al., 1997) extend the Central Europe area, including beside the states of the Visegrád Group, also Romania

decades, or centuries, were in territorial neighbourhood relations, co-habitating within the same political entities. This idea was taken over and subsequently evolved by the American political specialist S. Huntington, who considered that Central Europe includes those territories which hand formerly made up Western Christianity; the old territories of the Habsbourg Empire, Austria, Hungary and Czechoslovakia, together with Poland and the eastern borders of Germany, while the term Eastern Europe should be assigned to the regions developed under the aegis of the Orthodox Church: the Black Sea communities of Bulgaria and Romania, that detached themselves from the Ottoman rule only in the 19th century, and the European sections of the former Soviet Union (1997, 1998).

Unfortunately, an inconsistent approach regarding Romania's geographical position is found in recent works appeared in this country. Thus, at the time

of the Soviet political-ideological influence, the approach to the inter-war period viewed Romania in most works as part of Central Europe. Even at the beginning of the Geographical Monograph of the Popular Republic of Romania (1960), another comprehensive work aimed at highlighting the socio-economic changes brought as out by the implementation of the communist policies under the direct guidance of the Soviet Union, geographer M. Iancu said that the Romanian Popular Republic lies in South-Eastern Europe (vol. I: 11). For all that, after the lapse of more than two decades, another fundamental work of Romanian geography, the Geography of Romania tratise (5 vol.) changes the country's geographical localisation, affirming that Romania lies in the South-East of Central Europe, at the contact with Eastern Europe and Balkan Europe (vol. I, 1983: 21), a localisation found also in the Geographical Encyclopaedia of Romania (1982: 11).

The same confusions occur even after 1989. While comprehensive collective works e.g. Romania – Historical-Geographical Atlas (1996, 2007), Romania – Space, Society (2005, 2006), Romania – Nature and Society (2016), or works focussed on Romania's geography and geopolitics (Alexandrescu, Deică, 2002; Săgeată, 2002, 2009; Erdeli, Cucu, 2005; Iordan, 2006; Simileanu, Săgeată, 2009; Simileanu, 2016 etc.) place this country in the South-Eastern part of Central Europe; or in Middle Europe (Popa, 1997), in Central-Eastern Europe (Rey et al., 2000, 2006; Cândea, Bran, 2001), others (Neguț el al., 2004) avoid a downright position, presenting merely various opinions, or even worse, placing it erroneously in South-Eastern Europe (Ghinea, 1996), or in Eastern Europe (Popescu, 2008).

The Romanian Academy also has an Institute of South-East European Studies<sup>5</sup>, set up in its current structure in 1963, which puts out a review on studies referring to the Balkan space and the Eastern basin of the Mediterranean Sea; studies also deal with Romania's relations with the countries situated in these areas.

Romania's position of interference location is underlined by Nimigeanu (2001: 18) who says that physical-geographically Romania stands at the interference of three European provinces: "beginning with the low plain alongside the North Sea and the Baltic Sea, continuing with the low-mountains and tablelands and ending up with the tall mountains – the Alps and the Carpathians"; Erdeli and Cucu (2005: 43) view that, Romania's space fully corresponds, geographical-

ly and geologically, to the characteristics of Central Europe, but according to historically-attested functions, the Romanian territory lies in a transitional zone both to the east, to the west and the south at the interference between peninsular and continental Europe. Synthethysing these dilemas, worth-mentioning is also historian. Mureşan's viewpoint (1996) whereby Central Europe is a confessional notion which does not cover a rigorously defined content whether geographical, political or cultural.

Within this context, the present study aims to contribute to removing the confusions regarding Romania's geographical position, argumenting the localisation of this state in the south-eastern part of Central Europe and explaining the historical and geopolitical circumstances that led to the fluctualisation of its geographical position.

## Romania's geographical make-up. From cultural unity to inculcating the idea of "border state"

Romania's formation as a national state covers several successive stages: 1859, the unification of Moldavia and Wallachia Principalities (called Romania since 1866); 1878, when, in the wake of the Russian-Turkish War, it became independent from the Ottoman Empire and united with Dobruja<sup>6</sup>; 1913, the Second Balkan War led to the integration of Southern Dobruja - Cadrilaterul (the Quadrilateral)<sup>7</sup> and 1918, when the First World War led to the unification of Bessarabia and Bukowina with Romania<sup>8</sup> (on March 27, and November 28, respectively) and with Transylvania (the "Greater Union" on the 1st of December). These regions, resulted from the dismemberment of some multinational empires that had belonged to three distinct European macroregions: central - Transylvania and Bukowina part of the Austro-Hungarian Empire; southern – Dobrogea, part of the Ottoman Empire; and eastern Bessarabia, part of the Tzarist Empire. Hence, Turner's idea (1920) of "border state", subsequently taken over by Huntington (1996, 1998) after the fall of the Iron Curtain, he situating the Carpathian Mts. alongside the cultural border between Catholicism and Orthodoxism. According to Huntington, Europe ends

This Institute is the rightful successor of the homonymous one founded by Iorga in collaboration with Murgoci and Pârvan in 1914 and of the Institute for Balkan Research set up by Papacostea in 1937; both were closed by the communist regime in 1948.

<sup>&</sup>lt;sup>6</sup> In exchange for Dobruja, Romania had to cede Russia southern Bessarabia (Cahul, Bolgrad and Ismail counties) which it had obtained after the Cremean War (1856).

This territory had belonged to the Romanian Kingdom until 1940, when, under the Craiova Treaty (7th September), German political pressure on the Romanian Government obliged it, in the circumstances of the Second World War, to cede it to Bulgaria.

Bessarabia and Northern Bukowina had been part of the Romanian Kingdom until 1940, when in a Second Ultimatum Note (June 27) under the Ribbentrop-Molotov Pact of August 23, 1939, these territories were occupied by the Soviet Union.

<sup>9</sup> Including Transylvania proper (Ardeal), Banat, Crişana and Maramureş.

where Western Christianity ends and Islamism and Orthodoxism begin (1998: 232). On the line of this approach, Dingsdale (1999) placed Moldavia, Wallachia and Oltenia within the "East-European civilisation"; the West Plain (Oradea-Timişoara alignment) within the "West-European civilisation; Transylvania represented the "transition between" the West-European and the East-European civilisation"; Jordan (2005) put the boundary between Catholic Central Europe (Mitteleuropa) and Orthodox South-Eastern Europe (Südosteuropa), alongside the Carpathian line<sup>10</sup>. Hardi (2016: 140) underlined: "Romania is actually situated on the border of three macro-regions, and some of its territories show similarities to the latter". But in Transylvania, Catholicism was forcefully imposed through the measures taken by the popes and the Hungarian kings, the main political force in the region until 1918.

Thus, simultaneously with the Hungarian state under King Stephen the Saint (997-1038), who adopted Western Christianity, the old Orthodox churches of Transylvania were replaced by Catholic ones, a move that grew into a state policy. Thus, the Hungarian kings of the Arpad Dynasty (9th cent.-1301) became the defenders of the Catholic bishoprics, monasteries and parishes from Hungary and Transylvania, while much of the lands that belonged to the Romanian communities became royal property, constituting the so-called "domain of the Crown" (Pop, 1996). In parralel with the political conquest, the Hungarian political authorities tried to assimilate the Romanian archaic communities spiritually with the help of the Catholic orders (Dominican, Franciscan, etc.). The failure of this policy to impose Catholicism forcefully in Transylvania resulted in the Province lending its support to the Protestant coallition against the Catholic one during the Thirty-Year War (1618-1648) (Pascu, 1972). After the Battle of Mohács (1526), Transylvania became an autonomous Principality under Ottoman suzerainity.

The second Catholic expansion in Transylvania occurred once the Province fell under Austrian influence (in 1688 de facto and in 1699 de jure), gaining international recognition (under the Karlovitz Treaty) once the ratio of military forces in the centre of Europe kept changing<sup>11</sup>. Thus, the Leopold Diploma of December 4, 1691 warranted the rights of four religions (Catholic, Reformed, Lutheran and Unitarian), as well as privilages for the Saxons and Szeklers, wheras the Romanians and their Orthodox Church had ethnicity and tolerated church status (Pop, 1994).

If, in the beginning, the Vienna Court pretended to manifest religious tolerance, the Habsburgs would soon show their intention of interferring in the confessional picture of Transylvania. As early as 1692, Emperor Leopold I promised the Orthodox priests who accepted unification with the Church of Rome, a number of privileges similar to those of the Catholic clergy. On Jesuitical advice, the Vienna Emperor hoped to change the ratio of confesional forces, then thoroughy favourable to the Orthodox believers. Promisies and political pressure did attract part of the Orthodox priests and believers to the Roman-Catholic Church and the creation of the Graeco-Catholic Church (1698-1699)12. The Romanian majority opposed the forceful imposion of Catholicism, numerous attempts being made to return the Orthodoxism: in 1711, 1744 (June 6th, under Inocenție Micu), 1798, 1848 (May 3-15, the National Assembly at Blaj), 1907 (by the voice of Onisifor Ghibu) and 1918 (the Great National Assembly at Alba Iulia) (Giurescu, 1967). As a matter of fact, adopting Catholicism took place particularly in the central and north-east of Transylvania, the area mostly subjected to colonisation of and political pressure from the Habsburg rulers, while the south of Transylvania, Crișana, Banat and Bukowina<sup>13</sup> continued to have a majority Orthodox population, confirmed also by the 1930 population census (Table 1). Since in 1918 the regions passed under Romanian administration, the share of Orthodoxism grew significantly (Baroiu et al., 2005), so that after the lapse of 80 years of Romanian administration, the last census (20 October 2011) showed an absolute Orthodox population majority in all the Romanian Intracarpathian provinces: 83.9% of Bukowina's total population, 74.7% in Maramureş, 72.7% in the Romanian part of Banat, 69.1% in Transylvania<sup>14</sup> and 51.3% in Crişana (Table 2).

Yet, outside the borders of a united Romania, important communities of a Romanian population did remain. According to the then statistics, 23,760 Romanians lived in Hungary (at 1920 Census), 67,897 in Western Banat (at 1921 Census<sup>15</sup>); 145,028 in Krajina; 36 463 in the Timok area; 9,585 in North Macedonia and 8,558 in the rest of former Yugoslavia (1921 Census); 33,226 in the Danubian regions of Bulgaria (1910 Census) and 5,324 Bulgarian MacedoRomanians; 244,305 Romanians in Greece and 32,948 in Albania<sup>16</sup> (Romanians from abroad, 2014).

<sup>&</sup>lt;sup>10</sup> Abb. 5: Großgliederung Europas nach kulturräumlichen Kriterien und ohne Berücksichtigung heutiger Staatsgrenzen.

The failure of the second siege on Vienna (1683) marked the end of the Ottoman power in Central Europe.

 $<sup>^{\</sup>rm 12}~$  The Romanian Church United with Rome.

Bukowina had belonged first to the Habsburg Monarchy, then to the Austrian and Austro-Hungarian Empire (1775-1918).

Only two counties (Harghita and Covasna) have a majority Szekler population, the Orthodox being in the minority.

<sup>75 789</sup> Romanians (at 1910 Census).

<sup>&</sup>lt;sup>16</sup> Estimates made by the Romanian Ministry of Foreign Affairs

**Table 1.** The ethnical structure of counties in the Romanian historical regions that had belonged to Austro-Hungary (1930, Dec. 29 Census) (% of total population)

County	Historical region	Total population (inh.)	Orthodox (%)	Greek- Catholics (%)	Roman- Catholics (%)	Reformed (%)	Evangheli- cal-lutheran (%)	Other confessions (%)
Alba	Transylvania	212,749	51.0	31.6	3.4	7.5	3.3	3.2
Arad	Banat-Crişana	423,824	55.4	4.2	26.5	5.5	3.2	4.8
Bihor	Crişana	510,318	49.8	10.7	10.4	21.0	0.3	7.8
Braşov	Transylvania	168,125	48.8	2.4	9.9	7.6	27.8	3.5
Caraş	Banat	200,939	70.3	5.1	21.5	0.6	0.5	2.0
Câmpulung	Bukowina	94,815	68.2	0.8	16.9	-	5.5	8.6
Cernăuți*	Bukowina	305,097	67.0	3.7	10.0	-	1.7	17.6
Ciuc	Transylvania	145,806	1.3	13.8	81.3	1.3	0.2	2.1
Cluj	Transylvania	334,991	19.3	42.7	8.6	21.7	0.8	6.9
Făgăraş	Transylvania	86,039	55.2	25.7	1.9	2.9	12.9	1.4
Hunedoara	Transylvania	332,118	64.2	18.5	9.1	4.5	1.0	2.7
Maramureş	Maramureş	161,575	5.3	64.4	6.4	1.8	-	22.1
Mureş	Transylvania	289,546	14.5	32.4	12.1	30.3	3.9	6.9
Năsăud	Transylvania	144,131	13.8	60.2	2.3	3.6	15.5	4.6
Odorhei	Transylvania	130,282	3.7	1.1	34.6	37.4	0.8	22.4
Rădăuți	Bukowina	160,778	70.6	1.3	16.2	0.3	2.6	9.0
Satu Mare	Maramureş	294,875	4.4	59.0	12.6	15.0	0.2	8.8
Sălaj	Transylvania	343,347	4.9	52.6	12.2	25.4	0.3	4.6
Severin	Banat	239,586	75.4	3.9	14.9	3.1	0.5	2.2
Sibiu	Transylvania	194,619	52.0	12.7	4.0	2.2	27.8	1.3
Someş	Transylvania	219,355	15.0	63.5	3.2	12.8	0.1	5.4
Storojineţ*	Bukowina	169,894	78.1	1.9	9.1	-	1.2	9.7
Suceava	Bukowina	121,327	80.1	1.4	8.4	-	3.3	6.8
Târnava Mare	Transylvania	147,994	36.6	10.4	4.5	6.2	39.2	3.1
Târnava Mică	Transylvania	149,482	16.6	40.7	4.6	16.6	16.2	5.3
Timiş-Torontal	Banat	499,443	41.1	2.8	48.6	2.5	2.4	2.6
Trei Scaune	Transylvania	136,122	14.6	2.3	36.1	40.6	0.8	5.6
Turda	Transylvania	183,282	33.1	42.3	4.1	14.4	0.1	6.0

<sup>\*</sup> Counties that are no longer in the current border of Romania. The proportion of the majority ethnicity is written in bold characters.

On the other side of the Carpathians, Moldavia and Wallachia where increasingly more leaning towards Russia, hoping to be liberated from under the Ottoman domination; the Turks' distrust in the boyars' native regime led to replacing it by governors of Greek origin loyal to the Porte<sup>17</sup>. They set up a central-based regime with a two-fold purpose: to maintain the Romanian Countries under Ottoman domination and to better integrate them into the Turkish economic system in order to supply the Porte and the Janissaries armies (Panaite, 1997). However, the obligations to the Porte of the two Romanian Countries were limit-

ed only to economic matters, since the Ottoman Empire was experiencing a deep-going economic crisis<sup>18</sup> (Kinross, 1977), but it did not affect the Romanian traditional cultural institutions in any way.

Therefore, no cultural limit to separate Transylvania from the Extracarpathian Romanian regions had existed, or does exist. In Transylvania, Western Christianity was imposed through systematic policies to convert the Romanian autochthonous population by Catholic and Protestant colonisations of Hungarian origin (known by the name of Szeklers in eastern Transylvania), Germans (named Saxons in the south and north of the Province, and Swabians in Banat) loyal to the

They originated from the Phanar District of Constantinople, the political regime in power being named Phanariot (1711-1821 in Moldavia and 1715-1821 in Wallachia).

Agricultural regions are depopulated becoming waste land and the Porte's permanent wars required huge expenses.

Table 2. The ethnical structure of counties in the Romanian historical regions that had belonged to Austro-Hungary (2011, Oct. 20 Census) (% of total population)

County	Historical region	Total population (inh.)	Orthodox (%)	Greek- Catholics (%)	Roman- Catholics (%)	Reformed (%)	Evangheli- cal-luther- an (%)	Other confessions (%)
Alba	Transylvania	342,376	82.3	2.71	1.0	3.2	0.1	10.69
Arad	Banat-Crişana	430,629	69.3	9.91	8.27	2.27	0.78	9.47
Bihor	Crişana	575,398	55.8	2.12	8.4	16.6	0.5	16.58
Bistriţa-Năsăud	Transylvania	286,225	79.2	1.84	1.1	4.1	0.9	12.86
Braşov	Transylvania	549,217	79.9	0.62	3.24	2.1	1.89	12.25
Caraş-Severin	Banat	295,579	76.5	0.61	5.6	0.32	0.01	16.96
Cluj	Transylvania	691,106	68.4	3.35	3.27	10.6	0.07	14.31
Covasna	Transylvania	210,177	20.7	0.11	35.1	32.2	0.4	11.49
Harghita	Transylvania	310,867	12.11	0.16	64.5	11.8	0.05	11.39
Hunedoara	Transylvania	418,565	80.7	0.86	3.67	1.85	0.03	12.89
Maramureş	Maramureş	478,659	74.7	4.56	4.75	3.39	0.02	12.58
Mureş	Transylvania	550,846	51.0	2.01	8.81	25.1	0.13	12.95
Satu Mare	Maramureş	344,360	46.7	7.13	17.3	17.5	0.03	11.34
Sălaj	Transylvania	224,384	61.5	2.55	2.37	18.78	-	14.8
Sibiu	Transylvania	397,322	83.95	1.91	1.25	1.46	0.48	10.95
Suceava	Bukowina	634,810	89.93	0.18	1.11	0.02	-	8.14
Timiş	Banat	683,540	74.25	1.21	7.98	1.37	0.05	14.69

The proportion of the majority ethnicity is written in bold characters.

Hungarian and Austrian authorities, assigned to defend the pre-1918 borders (Creţan, 2016a).

## Romania's geographical position and the elements defining it: the Carpathians, the Danube and the Black Sea

Romania lies at the crossroads of parallel 40°N latitude and 25°E longitude. This geographical position has three major co-ordinates that have stamped its historical and geopolitical destinity: the Carpathian Mts., the Danube River and the Black Sea. The Carpathians, relativeles low-altitude mountains, with lots of depressions and valleys crossing them, proved favourable to settlement. From oldest times they have been much inhabited, being together with the Transylvanian Depression, the formation core of the Romanian people (Conea, 1941, 1942, 1967). Two-thirds of the whole Carpathian Chain stretch out on Romanian territory, the Romanian Carpathians, together with the Subcarpathians and the hilly Depression of Transylvania covering 107,741 km2, that is, 45.2% of all of the country's surface-area (Posea, Badea, 1984), and concentrating about 40% of its population. The Danube is not only a river that collects the whole inland drainage network of Romania, but also Europe's main navigable waterway, connecting Central Europe to the Black Sea basin, while the Danube-Main-Rhine and the Danube-Black Sea canal system constitute a true transcontinental navigable axis that links

Constanța harbour to the North Sea (Rotterdam). Its particular importance for Romania derives also from the fact that its territory is crossed by the Lower Danube sector (1,075 km, 38% of its total length), basically the most important section in terms of flow and navigation (Crețan, Vesalon, 2017 & Văran, Crețan, 2018). Thus, as early as the Middle Ages, the Moldavian and the Wallachian rulers, succeeded in attracting the interest of King Napoleon the Third and of Queen Victoria, who used to call them "Danubian Princes", who supported the unification of all the territories inhabited by Romanians, into a powerful state at the mouths of the Danube, successfully capable of coping with the Russian expansion to the Bosphorus and the Dardaneles (Cazacu, 1999). The third specific element of Romania's geographical position is the Black Sea, which is an open gate for navigation towards the whole Planetary Ocean. The downfall of the Iron Curtain and the dismemberment of the Soviet Union increased the geostrategic importance of the Black Sea perceived as a 'gateway" to the huge hydrocarbon resources of the Caucasus and the Caspian basin.

These three elements place Romania in Central Europe, a situation confirmed by the approximately equal distances to the northern, eastern and western ends of the Continent: the North Cape, 2,800 km, the Ural Mts, 2,600 km, Cape Roca, 2,700 km, but closer to the Mediterranean Sea (Matapan Cape), 1,050 km (The Geography of Romania, I, 1983). Thus, the Romanian territory is a place of contact and interference in relation with the four big climatic and biogeographical realms specific to the extremities of the Continent: Western, Oceanic Europe, the influence of which is seen in the penetration of oceanic air masses, very frequent in the Banat-Crişana Plain and on the western slope of the Apuseni Mts.; Eastern Europe, featuring a temperate-continental climate often with excessive shades in the Moldavian Tableland and the Bărăgan Plain; Southern Europe, Balkan Europe is influenced by dryness throughout the southern part of Romania, affecting characteristic flora and fauna species (the Banat Mts., Cerna and Mehedinti Mts., South Dobrogea) and northern Scandinavian-Baltic Europe, the influences of which are much reduced in the Ukraine Forested Carpathians; neverthless, they are frequently felt on the Suceava Plateau, which is another argument, also of the natural background, for situating Romania in Central Europe.

In addition, one should remember the country's geo-economic position, Romania lying for centuries at the crossroads of the major traffic axes between Western Europe, the former Soviet space, Asia Minor and the Near East (Creţan, 2006b). At the same time, the country lies at the intersection of some transversal geo-economic axes on the way of being strengthened (the Caspian Sea – Black Sea – Mediterranean Sea) and the axis of rivers and channels (Rhine - Main -Danube) (Negut et al., 2004).

## Romania and Europe's geographical centre

Various criteria revendicating Europe's geographical Centre are put forward by eleven sites from nine states: Germany, Poland (two sites each), the Czech Republic, Slovakia, Estonia, Lithuania, Belarus, Ukraine and Hungary (Figure 7). Although Romania is not mentioned among these states, yet two localities of the socalled Continental Centre exist in the proximity of its borders, e.g. Dilove in the Ukraine and Tállya in Hungary.

Dilove lies near Rahiv Town in Ukraine's Zakarpatia Region, on the upper course of the Tisza River, in the frontier area of four states: Ukraine, Romania, Poland and Slovakia. This village stands in the close vicinity of Romania's borders, only 2 km away from the Romanian Valea Vișeului Village. In 1887, it was established as Europe's geographical Centre by geographers from the Austro-Hungarian Empire<sup>19</sup>. In its turn, Tállya Village, situated in the north-east of Hungary, was designated, by topographical measurements, as geodesic centre of Continental Europe<sup>20</sup>. The location of these two settlements close to the borders of Romania attest, mathematically and topographically, that this country lies in Central Europe.

#### **Conclusions**

#### **Central European states**

Geographical, mathematical, topographic and, last but not least, cultural and economic arguments place Romania in the south-east of Central Europe, a reality affirmed both in the interwar period and in recent prestigious scientific works. For example, Gottman (1952) viewed Romania as a link-country between Central Europe and the Balkans (quoted by Alexandrescu, Deică, 2002); in its 2010 edition, the British Universal Encyclopaedia defined it as follows: a state situated in the south-east of Central Europe (vol. 13: 228). Political circumstances lie behind placing Romania either in Eastern Europe, in South-Eastern Europe, or in the Balkans, or again in a hypothetical Middle Europe, all these being actually conjunctural regional aggregates built up according to political criteria, without any well-defined boundaries. An even greater geographical error is the fact that some authors, starting from the political situation prior to 1918, and by virtue of false cultural criteria, place only Transylvania within Central Europe (or in a wider acceptation, all the Romanian Intracarpathian regions), thereby argumenting, on revisionistic geopolitical tendencies, of the secession of these historical regions.

According to the author, the process of integration of the Central and East-European states into the European and Euro-Atlantic structures has created the premises for reanalysing the bounds of the big regional aggregates of the Continent by an eastwards extension of Central Europe (Table 3) in the light of geographical realities and inclusion of the following states into this territorial aggregate: Germany, Switzerland, Liechtenstein, Austria, Hungary, the Czech Republic, Slovakia, Poland (which form Central-Western Europe); Romania, the Republic of Moldova, Ukraine, Belarus, Lithuania, Letonia, Estonia and the Russian region Kaliningrad (constituting Central-Eastern Europe) (Figure 7).

Tracing the eastern border of NATO and the EU again changed this river into a fragmentation axis<sup>21</sup>

https://www.lonelyplanet.com/ukraine/rakhiv/attractions/geographical-centre-of-europe/a/poi-sig/ 1383331/360939

https://web.archive.org/web/20130925182215/http://www.tortenelmi-borut.hu/tallyagr.html

<sup>&</sup>lt;sup>21</sup> This role was also at the time of the Cold War, when Romania, though part of the USSR political-military and economical alliances, yet political reasons led to the small border traffic between the two countries going on with difficulty.



Figure 7. Central Europe according to the author

Table 3. Regional assemblies of Europe

<b>European Regions</b>		Component States / Regions
Northern Europe		Denmark, Finland, Iceland, Norway, Sweden Greenland / Kalaallit Nunaat, Føroyar / Faeroes, Svalbard
	Central-Western	Austria, Czech Rep., Germany, Hungary, Liechtenstein, Poland, Slovakia, Switzerland
Central Europe Central-Eastern		Belarus, Estonia, Latvia, Lithuania, Moldova Rep., Romania, Russia (Kaliningrad), Ukraine
Cauth are Turas	South-Western	Andorra, Italy, Malta, Portugal, San Marino, Spain, Vatican Baleare Isl., Gibraltar
Southern Europe	South-Eastern	Balkan Europe: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, North Macedonia Rep., Montenegro, Serbia, Slovenia, Cyprus, Turkey (European Part)
Western Europe		Andorra, Belgium, France, Luxembourg, Ireland, Monaco, Netherlands, Portugal, Spain, Baleare I., Gibraltar, Channel I., Man I.
Eastern Europe		Russian Federation (European Part)

imposed by the necessity of securing the Eastern border of two Western alliances against the illegal migratory flows and of organised crime that might enter the Ukraine and the Republic of Moldova. However, this fragmentation axis runs contrary to the normal historical vocation of this River, namely of integration, since the some ethnical block, the Romanian one (Marcu, 2009 & Săgeată, 2011) lives on both its banks. This contradiction explains the particularities of this sector of NATO and EU eastern border which requires a certain type of administration.

Its south-Danubian neighbour is Balkan Europe (including Bulgaria, Greece, Albania and the states of former Yugoslavia), a component part of Southern Europe (in which we find also Italy, the island-states of the Mediterranean Sea and the Iberian States). Eastern Europe consists of the European part of the Russian Federation; Northern Europe with the Scandinavian States, Danmark and Iceland, while Western Europe englobes the France, the Benelux States, the United Kingdom and Ireland.

By this proposal to regionalise the European Continent, the author suggests a new approach to this topic, based on objective criteria and realities, this work contributing to removing some unclarities and confusions and implicitly to the progress of research in this area.

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# What will Prevail within Citybreak Travel, Motivation or Demotivation? Case Study of Novi Sad, Vojvodina, Serbia

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#### **Abstract**

The aim of this paper is to develop a new perspective on urban tourist motivations and demotivation's by applying the Analytic Hierarchy Process (AHP) model in order to better understand how tourists make decisions about which destinations to visit. Authors discovered that most important factor within city break travel is internal force, followed by the external force and least important is demotivation. The paper argues that the results indicate the value of applying the AHP model to understand the role and importance both of push and pull factors and demotivators in urban tourism destination choice.

Keywords: Analytic Hierarchy Process (AHP); motivation; demotivation; city break travel; Novi Sad

#### Introduction

Human behavior could be defined as something directed towards, and resulting from, unfulfilled needs (Maslow, 1943). Closely linked to human behavior is motivation or demotivation, which can further influence decision making process when deciding upon final destination and type of activities at the destination. Pizam and Sussmann (1995) provided one of the first insights on motivation and describe it as something "which predispose a person to participate in tourist activity. Dann (1981) percived it as "a meaningful state of mind which adequately disposes an actor or group of actors to travel, and which is subsequently interpretable by others as a valid explanation for such a decision"; Pearce et al. (1998) provided a proposition on explanation of tourist motivation as the global integrating network of biological and cultural forces

which provides value and path to travel choices, behavior and experience. Understanding the motivations of tourists is the precondition for comprehending all travel experiences and research can help us to better understand this (Hsu & Huang, 2008). Moreover, data on motivation provide useful tool for comprehending key trends within the tourism market and marketing activities proposition (Seaton & Bennett, 1996).

On the far side of the motivation spectrum, lies demotivation or better said something that restricts the tourism activity. Jackson (1991) defined tourism limitation as something that restricts the formation of tourism preferences and inhibits or prohibits (restricts) the participation and enjoyment in tourism activity. In this regard, this paper investigates the trav-

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el motives (internal and external) and limitations for visiting the city of Novi Sad (Serbia), but also makes a parwise comparison between them, and thus measures the importance factor.

Novi Sad consists out of 15 suburban settlements and is the second largest city in Serbia. The gravitational zone of the city passes the Danube River as well as the road sections E-70 and E-75 of international significance, also through the city cross two important corridors: Corridor 10 and river Corridor 7). According to the 2011 census, there were 341,625 inhabitants registered in the city. In the previous 12 years (2002-2013), Novi Sad visited an average of 89.663 tourists annually, of which 46.415 were domestic and 43.247 were foreigners. The average length of stay for the previously mentioned period is 1.9 which is characteristic for city destinations. Foreign tourists have a higher average length of stay (2.1), compared to domestic tourists (1.7 days) (Vujičić, 2015). In the last five years (2014-2018) the number of tourism is continually rising, so the average number of tourists is 156.826 tourist arrivals with around 313.025 overnight stays. The main landmark of Novi Sad is Petrovaradin Fortress, the complex tangible cultural heritage embodying a

complex military fortification system, built throughout 17th and 18th century for the purpose of deflecting Turkish invasions and rampart. Today, and for the last 19 years the famous music festival Exit is present (Besermenji et al., 2009; Cimbaljević et al., 2019). Mentioned Novi Sad's major event provides the opportunity for experiencing the destination's culture and increasing visitor's knowledge about Novi Sad and Serbia (Zakić et al., 2009,).

The principal aim of this paper is to develop a new perspective on tourist motivations and demotivation by applying the Analytic Hierarchy Process (AHP) method, a new approach in exploring tourist behaviouur, to the case of Novi Sad. The AHP approach is used to construct an evaluation model and calculate criterion weights in a decision making process (Vujičić et al., 2018). It integrates different measures into a single overall score for ranking decision alternatives (Miljković et al., 2018). This research provides a ranking of the push and pull motives, and also demotivation, for visitors of Novi Sad. This methodology can prove useful to destination marketing organizations, travel agencies and other stakeholders connected directly or indirectly to the domestic tourism strategy.

#### Literature Review

Tourism motivation and limitations have been vastly researched by many authors (Crawford & Godbey, 1987; Crompton, 1979; Dann, 1981; Jackson, 2000; Mayo and Jarvis, 1981; Pearce, 1982; Pearce, 1991; Pearce, 2005; Pearce & Caltabiano, 1983) and is still a popular research topic (Božić et al., 2016; Božić et al., 2017a; Božić et al., 2017b; Huang et al., 2001; Jang et al., 2002; Jiang, 2015; Leong et al., 2015; Lesjak et al., 2015; Li et al., 2015; Wong & Tang, 2016). Research is mainly directed towards grasping tourism behaviour that can be described as vital component in the decision making process when choosing a destination and nature of vacation (Dann, 1977; Pearce, 2014; Sirakaya & Woodside, 2005), further argued and researched the level of satisfaction that is derived from tourism experience (Correia et al., 2013; Caber & Albayrak 2016; Dann, 1981; Dunn & Iso-Ahola, 1991; Ryan, 2002; Yoon & Uysal, 2005). Travel motivation consists out of needs that incline a person towards a certain tourist activity (Pizam et al., 1979).

Numerous travel motivation theories have been presented throughout the decades by various authors. For instance, Dann (1981) perceives tourist motivation as a content state of mind that pushes participants or group of participants to participate on a journey and which is latter taken as a valid justification for that decision. The wide known theoretical

concepts which have been applied to measure travel motivation are Maslow's hierarchy of needs, Alderfer's Existence, Relatedness and Growth (ERG) theory, Herzberg's motivator-hygiene theory (Ghazi et al., 2010) as well as push-pull theory, Iso-Ahola's escapeseeking dichotomy (1982) and the travel career ladder (TCL) theory (Pearce, 1988). All of above mentioned theories conclude significant fact- psychological and/ or biological needs incline people to travel. One of the most widely discussed theories of motivation and tested on different topics is push and pull theory (Baloglu & Uysal, 1996; Crompton, 1979; Dann, 1977; Hsu et al., 2008; Pizam et al., 1979; Prayag & Ryan, 2011; Uysal & Jurowski, 1994). Despite the variety of different approaches that have been introduced, developed and modified with aim of explaining tourist motivations, push-pull theory tends to be one of the most extensively discussed theories within the tourism motivation literature (Cook et al., 2010; Correia et al., 2013; Kassean & Gassita 2013; Wu & Pearce. 2014). Basis is the foundational typology of travel motivations that was presented by Crompton (1979), where he made a clear difference between "push" and "pull" motives. Push motives are perceived as intrinsic motives or motives which are connected to the individual, whereas pull motives are connected to the characteristics of the destination (Antón et al., 2017). Authors

Uysal and Jurowski (1994) argue that internal motivators include desires for escape, rest, relaxation, prestige, health and fitness, adventure, and social interaction. Pull factors are presented through tangible resources (such as beaches, infrastructure, cultural heritage), and travellers' perceptions and expectations of a destination. Further discussed, many researchers have recognised that pull factors are directly connected to the features and attributes of a tourist destination (Pan & Ryan, 2007; Prayag and Ryan, 2011; Turnball & Uysal, 1995). In that way, we can conclude that most of the researchers put accent on the push factors (internal force), researching intrinsic motivators for travel, and in some way neglecting pull factors and their significance in tourism travel and choice of destination, but what is more interesting is that a little research has been done on their interaction and level of importance. While some authors have begun to contemplate the complex relationships that exist between push and pull factors (Caber & Albayrak 2016; Jeong & Yoon, 2013; Kleonsky, 2002; Kim et al., 2003), it is generally argued that they relate to two separate tourist decisions made at two separate points in time - one influencing on whether to go or not, and the other deciding where to go. Thus, push factors are observed to be present in the decision-making process before pull factors, which have an impact (Dunne, 2009). It is apparent that push factors influence tourists' travel decisions, yet destinations cannot create push motivations for tourists (Božić et al., 2017b). Destinations can only offer attractions coherent with tourists' push factors. In other words, pull factors can be predisposed and enriched by destinations as part of how they respond to tourist motivations through their marketing strategies and activities such as promotion, segmentation and product development (Hawkes et al., 2016; Jeong & Yoon, 2013; Kassean & Gassita, 2013).

Equal to motivation theory emerged the limitation theory, besides trying to understand the force which drives tourist to travel, researchers wanted to comprehend the construct of force that influence tourist not to travel (Fleischer & Pizam, 2002; Gilbert & Hudson, 2000; Jovanović et al., 2013; Kerstetter, 2002, Nyaupane et al., 2004; Pennington-Gray & Kerstetter, 2002). Backman and Crompton (1989) were among the first authors to argue the tourism limitations (barriers) and defined them as barriers or constraints which inhibit (limit) the tourism activity or participation to tourism activity. Limitations began to emerge within tourism literature such as: distance of destination (McKercher & Lew, 2003), climate and seasonality (Baum & Hagen 1999, Martin & Ballantine, 2005), lack of transport and accommodation, personal safety, lack of promotion, lack of time (George, 2003; Thapa & Rasul, 2003) and other. Crompton (1979) described limitations as situational inhibitors. Socio-demographic characteristics (age, sex, nationality, income, marital status) were also used in the tourism literature to describe limitations to tourism travel (Burnett & Baker, 2001; Waitt, 1997). Most of the suggested models were tested on different target groups and types of tourism destinations, for example, Gilbert and Hudson (2000) researched ski tourists and barriers to their participation, while Fleischer and Pizam (2002) investigated senior Israeli tourist and barriers to travel, whereas Pennington-Gray and Kerstetter (2002) focused their study on limitations to travel connecting the research to natural attractions. Also, some authors investigated in the domain of socio-demographic characteristics and their influence over acquired experience and perception of limitations (Backman & Crompton, 1989; Chick & Roberts, 1989; Crawford & Godbey, 1987; Jackson & Dunn, 1988; Searle, 1991). Maybe the first researchers who tried to develop a comprehensive model for limitations on tourism travel are Crawford and Godbey (1987), model which was further modified by Crawford et al., (1991) and Jackson et al., (1991; 2000). The cited model deals with inhibitors to tourism travel, which are further allocated into three main groups: intrapersonal, interpersonal and structural barriers. Sole number of limitations changed and expanded during the tourism research, but the set (group) stayed the same.

Cities have become main destinations where to travel, leading to research on travel motivation for city visitation and defining city break travel. For example, Page (1995) focused research on travel motivations for visiting cities and argued that main motives were: visiting friends and relatives, shopping, conference and exhibitions, education, culture and heritage. Law (1993) revealed that the primary motivation for visiting cities could often be a visit to a museum or attending a concert. Ashworth and Tunbridge (1990) defined cities as multidimensional and multi-functional and thus declared that travel motivation has to be considered in a similar way; cities have a great number of factors that influence tourists' destination choice. Burtenshaw et al. (1991) percived the diverse set of resources in cities that can be related to pull motives, containing historic monuments, museums and galleries, shops, cafes and restaurants. In recent studies, researchers have also emphasized shopping as a dominant motive for travel and choice of destination (Oh et al., 1995; Sirakaya et al., 2003). Quan and Wang (2004) researched primary and secondary trip motivations and showed that food can be seen as the primary trip motive and has a important effect on the overall image of destinations. Milman and Pizam (1995) and Goossens (2000) argued and studied destination image and the complexity of influence it has on travel motivation, showing the composite ways in which push factors are united in affecting destination choice. Božić et al., (2017b) developed a new analytical scale for domestic tourism motivations and limitations for visiting complex destinations with multiple resources, comprising out of both cultural and natural assets. The scale

was also based on push and pull theory, discussing their role in destination choice.

Thus, the focus of this paper is to present a model of motivators (internal and external) and barriers which influence decision making process when choosing a destination. Developed model will be tested by AHP, while study area is Novi Sad (city break destination).

## Methodology

With complex decisions, which have a lot of criteria and alternatives, decision making process itself becomes complex, consisting out of mutually connected and dependent factors, which influence the final decision (Jandrić & Srđević, 2000). In mentioned situations, with complex decisions, specialized software is used (Decision Support Systems (DSS). The analytical-hierarchy process (AHP) is a systematic approach developed by Saaty (1980). It provides solutions to complex problems and employs hierarchical structures through developing priorities for different alternatives determined by the decision makers (Brushan & Rai, 2004). The AHP approach is used to construct an evaluation model for decision making, using weighted criteria. It integrates different measures into a single overall score for ranking decision alternatives (Hsu et al., 2009). It is usually applied to simplify multiple criterion problems by decomposing it into a multilevel hierarchical structure (Harker & Vargas, 1987). The AHP model gradually compares alternatives and measures their impact on the final decision-making goal, which helps decision makers to choose between competing alternatives (Saaty, 1980). Given a pairwise comparison, the analysis involves three tasks: (1) developing a comparison matrix at each level of the hierarchy starting from the second level and working down, (2) computing the relative weights for each element of the hierarchy, and (3) estimating the consistency ratio (CR) to check the consistency of the judgment (Božić et al., 2018). If the consistency ratio (CR) is less than 0.10, the result is sufficiently accurate and there is no need for adjustments in comparison or for repeating the calculation. If the ratio of consistency is greater than 0.10, the results should be re-analysed to determine the reasons for inconsistencies, to remove them by partial repetition of the pairwise comparison, and if repeating the procedure in several steps do not lead to the reduction of the consistency to the tolerable limit of 0.10, all results should be discarded and the whole procedure should be repeated from the beginning (Jandrić & Srđević, 2000). In order to evaluate criteria weight for motivation and limitation of Novi Sad visitors, authors first developed hierarchy structured model (Figure 1) and after applied AHP

model, a method with increasing application in the tourism literature (Scholl et al., 2005).

### **Study Sample**

The data was collected on the premises of the local tourist office and two city hotels. Questionnaires were distributed by hotel and tourist office employees. Initially, 50 tourists were invited to participate in the research, 14 refused to participate, as they thought it would take them too much time. The final sample included 36 tourists, of different ages, nationality and sex. The sampling strategy for the AHP method can be based on a suitably chosen purposive sample that is appropriate for generating qualitative data, which is useful for research focusing on a specific issue where a large sample is not necessary, especially in tightly bounded case studies (Cheng & Li, 2002; Lam & Zhao, 1998). A purposive sampling strategy was deemed appropriate for this research because of the limited need for generalization from the case study (Creswell, 2007). Cheng and Li (2002) argue that the AHP method, is in fact, made impractical in surveys with a large sample size as "cold-called", non-expert, respondents may have a great tendency to provide arbitrary answers, resulting in a very high degree of inconsistency, which invalidates the approach (Wong & Li, 2008).

#### **Procedure**

Research was conducted from January till September 2018. All respondents were thoroughly informed about the purpose of the research, as well as on the identity of the researchers. Respondents voluntarily participated in the research and were informed that the research was anonymous and that the data would be used strictly and solely for the purpose of research.

The survey was carried out in English in form of a structured interview, where interviewer asked the questions from the survey, filling in the answers. In this way, some possible misunderstandings of the questions were eliminated. Respondents were asked to express their preferences between different factors (internal, external, and barriers) when visiting Novi Sad, rather to say in terms of how important they felt each motive or barrier was when deciding to vis-

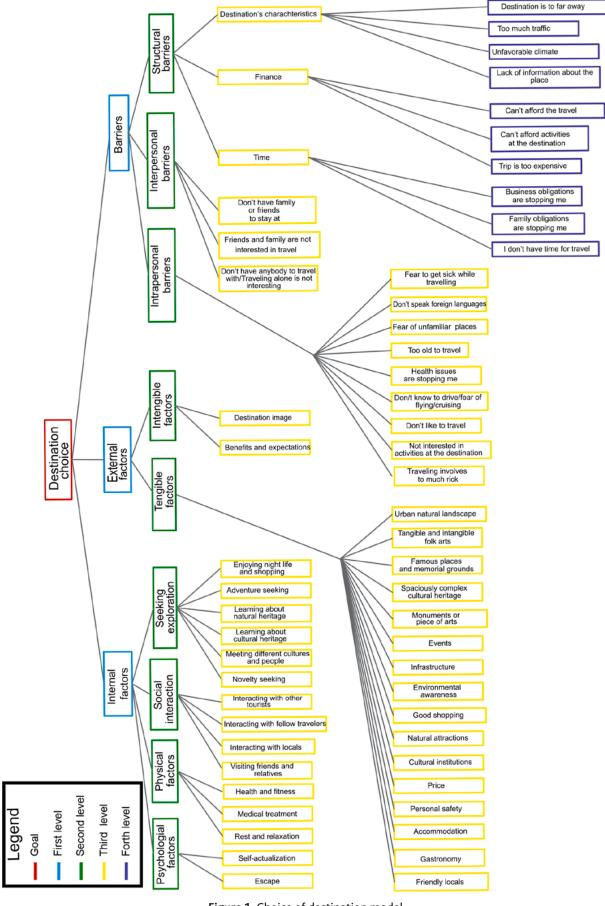


Figure 1. Choice of destination model

Source: Modified model developed by Chen et al., 2013; Hsu et al., 2009; Jackson, 2000.

it Novi Sad, by using Saaty's scale (1980) (Table 1). Authors gave brief explanation of each criterion (factor) before and during the structured interview. Respondents were inquired to assign corresponding numerical value (Saaty's scale) to different factors based on the relative importance factor has for them.

Table 1. Saaty's scale for pair wise comparisons in AHP

Judgment term	Numerical term
Absolute preference (A over element B)	9
Very strong preference (A over B)	7
Strong preference (A over B)	5
Weak preference (A over B)	3
Indifference of A and B	1
Weak preference (A over B)	1/3
Strong preference (A over B)	1/5
Very strong preference (A over B)	1/7
Absolute preference (A over B)	1/9

An intermediate numerical value 2,4,6,8 and 1/2,1/4,1/6,1/8 can be used as well

Source: Saaty (1980)

Having evaluated all the factors at the level two, they moved to level three and, with the help of pairwise comparison of factors within the same level of the hierarchy, assessed the relative importance. After that, they moved to level four and to level five, using the same procedure. As the feedback from all respondents was satisfactory, we can consider that the research is sufficiently clear and adequate for the intended issues.

#### Questionnaire design and research phases

The first phase of the research included a review of the existing literature and the selection of all factors and constraints that affect the travel and therefore the choice of the tourist destination. Based on the literature review (Botha et al., 1999; Chi & Ou, 2008; Crompton & Ankomah, 1993; Dann, 1981; Echtner & Ritchie, 1993; Fleischer & Pizam, 2002; Gilbert & Hudson, 2000; Hsu et al., 2009; Kim et al., 2012; Klenosky, 2002; Nyaupane et al., 2004; Pennington-Gray and Kerstetter, 2002). The selected factors influencing the decision-making process are divided into three main groups: (1) individual motivation or personal factors (pushing factors), (2) the characteristics of the destination (attractiveness factors) and (3) situational inhibitors or constraints.

After the selection of factors and the design of the questionnaires, the second phase of the research started, which included the interviewing of visitors to Novi Sad, as well as the entry of the obtained data into the statistical program "Expert Choice 2000".

Finally, the consistency of the overall research is determined, as well as the final ranking of the factors by calculating the weight coefficients. Figure 8 shows the hierarchical presentation of all included factors.

#### **Results**

The results show that at the second level of the hierarchy the most important factor influencing the choice of destination is the Internal Force (0.443), followed by External Force (0.326), while the least important are Barriers (Limitations) (0.231) (Figure 2). Consistency ratio (CR) is 0.01, which indicates that the study is reliable and accurate and therefore there is no need for adjustments in the comparison of criteria.

The synergy of all responses of the respondents lead to an analysis of all individual items on the lowest level of the hierarchy, and the obtained weight coefficients indicate the most dominant ones to those least dominant when it comes to factors influencing the choice of the tourist destination of Novi Sad (Figure 3). From a total of 55 criteria: Spaciously complex cultural heritage (0.055), Price (0.048), Personal safety (0.043), Gastronomy (0.043), Natural attractions (0.042), Cultural institutions (0.040), Meeting different cultures and people (0.038), Monuments or piece of arts (0.034) proved to be the most important factors for visitors of Novi Sad.

The least important factors for Novi Sad visitors are: Health and fitness (0.005), Too much traffic (0.004), Visiting friends or relatives (0.004), I don't have time to travel (0.003), Medical treatment (0.003) (Figure 2).

The level of consistency (CR) is 0.09 which is within the normal range and there is no need for a new evaluation of the weight criteria.

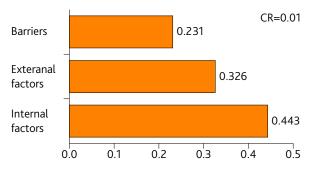


Figure 2. Total weight values for the second level of indicators

Source: data analysed in Expert Choice 2000 program (graphs made in Excel)

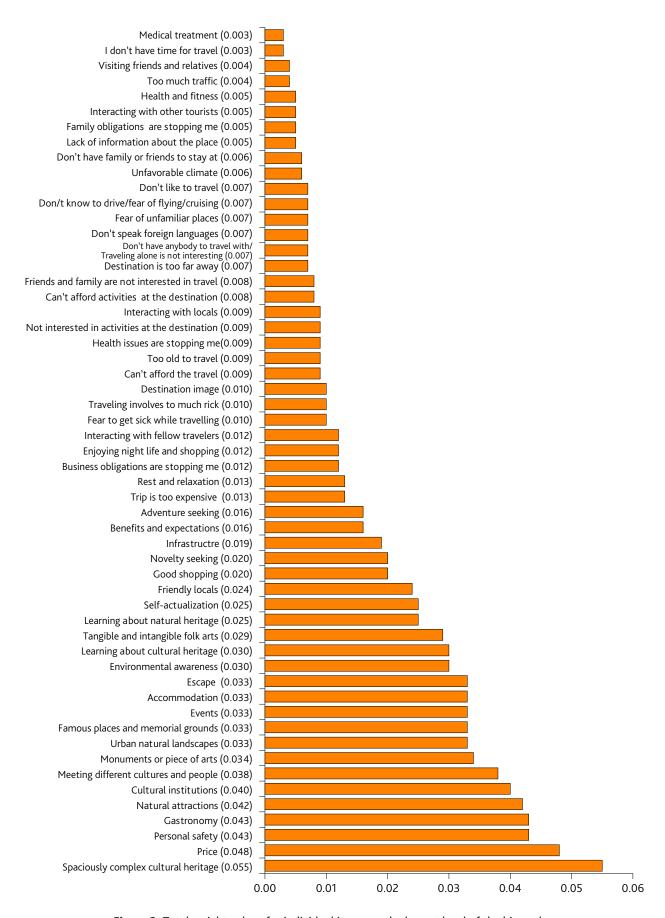


Figure 3. Total weight values for individual items on the lowest level of the hierarchy Source: data analysed in Expert Choice 2000 program (graphs made in Excel)

#### Disscussion

Based on the results internal force plays the major role in the decision-making process to travel, followed by the external force and ending with barriers to travel. This suggests that for tourists are the most important internal forces, respectively they are crucial when choosing a tourist destination, which has already been shown in previous studies (Hsu et al., 2009).

Among all factors, the synergy showed that culture plays one of the important roles. In general, there is an increasing interest in cultural tourism and its activities (Smith, 2003; WTO, 1993). There is a wide variety of cultural activities in which an individual can venture, to interact with objects of past and present culture, as well as to fully engage in a "living" culture (Bourdieu, 1986). Meeting different cultures and people represents a social interaction leading to cultural need fulfilment. Crompton (1993) described the motive to meet other people is present almost on every trip. Museums are among the most popular motives within cultural tourism travel, usually followed by galleries and cultural and historical monuments (Mc-Kercher, 2004).

The price is one of the most influential factors within the decision-making process, due to which tourism companies use a wide range of marketing strategies to reach demand (Nicolau, 2011). Morrison (1996) points out that the hedonistic approach to the consumption of tourism services implies that high prices do not adversely affect demand, but that the concept of "value for money" plays a greater role, where the amount of money spent is directly related to the quality of services. Bojanic (1996) points out that price and quality are two basic elements that form a strategy for gaining competitive advantage. Namely, through the concept of relative perceived value, it is possible to offer comparative quality at a comparable price: whether the superior quality is premium or inferior quality at a reduced price.

The need for personal security and safety is an innate personality trait, the basic need of man (Maslow, 1954). Security concerns especially play a role in deciding not to travel to aggressive/hostile destinations (Edgell, 1990). Marketing employees often emphasize the problem that the media creates through the sensational presentation of isolated criminal incidents, which results in an increase in the actual level of risk and therefore affects the visit of tourists (Crystal, 1993). Ryan and Kinder (1996) found that the most common sites of crime are bars, nightclubs, city centres and other. Tourists visiting these places are the most common targets of the robber (Albuquerque de & McElroy, 1999). Giddens (1990) states that crime against tourists affects not only tourists and their families but has far-reaching effects. The far-reaching effects are seen in the fact that such crimes are often reported to the media and taken by tourists themselves. Accordingly, Glensor and Peak (2004) found that the most important precondition for the successful development of tourism is the reputation of keeping criminals under control and guaranteeing safety to tourists.

Food choice is a complex process under the influence of different factors (Furst et al., 1996). Food itself possesses psycho-sensory, social and symbolic meanings, and is often associated with the image of the destination, as well as with destination attractiveness (Ab Karim & Chi, 2010; Bessiere, 1998; Frochot, 2003). Food can be at the very top of the traveler's experience during the trip, and it can influence the decision to revisit the given area (Kim et al., 2011; Quan, Wang, 2004). Nowadays new forms of tourism are emerging such as: gastronomic tourism, culinary tourism, gourmet tourism, which distinguish food as the primary motive of travel (Boniface, 2003; Hall & Sharples, 2008; Kivela & Crotts, 2005).

Natural resources or natural areas represent a magnet for attracting tourists (Baker, 1986; Driml & Common, 1996). They can satisfy their recreational needs, ecological needs (Cicin-Sain & Knecht 1998; Kay & Adler 1999; Vallega, 1999) or a simple need for silence (Booi & Van den Berg, 2012), peace and tranquillity (Jackson et al., 2000). Natural areas certainly affect positively the mental and physical health of the individual by eliminating negative mental states such as stress, depression, and others (Maas et al., 2006). Certainly, the way of life of a modern man is an excellent precondition for the development of these negative states and problems (Katcher & Beck, 1987; Stilgoe 2001), and thus the change in everyday routine positively affects his mental and physical health.

At the end of the spectrum, we can find such motives as health and fitness, which can be linked to medical and wellness tourism, a form of tourism that is increasingly present on the tourism market (Wray et al., 2010). Wellness tourism can be described as a comprehensive positive and holistic understanding of health that manifests itself through the physical, psychological, social and spiritual experiences and activities that tourists undertake to maintain or improve health and well-being, which is the primary motive for this journey (Voigt, 2009).

The inhabitants of larger cities usually feel the need to travel to quieter places suitable for relaxation and far from the urban noise. On the other hand, large city centres are important tourist destinations which attract a lot of visitors (Blešić et al., 2008). The increasing popularity of city breaks led to the growth of traffic jams and over-crowded areas, which further led to the studying of the economic measures prescribed by the administration that could reduce or regulate everything (Aguiló et al., 2012). The main problem caused by the traffic jams is the delay of tourism activities and can be perceived as bad experience and inhibitor to tourism activities, which can further negatively affect potential future (Alegre & Cladera, 2006) or even lead to a search for an alternative destination (Dickinson & Robbins, 2008).

Visits to friends and relatives (VFR) proved to be an irrelevant factor, which is in line with some previous studies (Heung et al., 2001; Mok & Armstrong, 1995), while Blank and Petkovic (1987) point out that cities represent areas with a high density of population, due to which sometimes travel relates to visit to relatives

and friends and can be seen as logical factor which influence destination choice. The lack of time is another inhibiting factor, which represents the travel limit. For example, a senior consultant in the consulting firm has money to travel, but time can turn out to be a limiting factor due to an excessive amount of work (Cruz, 2006). This is the most common case for a business tourist.

Medical tourists are patients traveling abroad for medical treatments such as organ transplantation, stem cell therapy, reproductive services, cosmetic surgery, dental services, etc. High costs, insufficient insurance, a great deal of waiting time and locally inaccessible treatments are some of the basic factors that encourage people to take this type of travel and look for medical services somewhere else which are different from their place of residence (Borman, 2004).

#### **Conclusion**

The main contribution of this study is the application of AHP method for the measurement of motivation and limitation to travel in the city break destinations. In this paper, a number of tourism behaviour models were consulted, mostly focusing on motivation and limitation theories. Which further led to the development of motivation and demotivation model which authors applied on the city of Novi Sad. One of the main ideas of this paper was to measure the importance factor of motivation and limitations to travel and to better understand this complex interaction. The model was tested on the example of city break destination, but authors believe it can be employed in more complex and polyfunctional destinations. AHP proved to be useful in measuring weight criteria and also made a contribution to pair wise comparison, thus providing useful data on the interaction between motivation and limitations. The AHP model can be useful as an analytical tool for evaluating tourist behaviour, especially utilised for multi-attraction destinations, when a lot of pull factors are influential on the decision making the process. This study complements the findings of Ashworth and Tunbridge (1990), that cities acts as multi-dimensional attractions, concurrently motivating or demotivating heterogeneous tourist groups.

The synergy of all responses led to an analysis of all individual items on the lowest level of hierarchy describing Novi Sad as a multi attractive destination. Most dominant factors were: Spaciously complex cultural heritage, Price, Personal safety, Gastronomy, Natural attractions, Cultural institutions, Meeting different cultures and people, Monuments or piece of arts. This finding complements already established destination image of Novi Sad seen as a cultural city, with rich natural surrounding attractions e.g. river Danube and Fruška Gora Mountain (Vasiljević et al., 2018), specific gastronomy, friendly people, safe streets and competitive prices. Lowest ranked factors (suggest that that visitors to Novi Sad are not primarily motivated by recreational activities, medical treatment, or VFR motivation. For example, in the case of VFR Page (1995) found this factor as one of the most dominant in travel to urban destinations.

Hierarchy of factors for tourists visiting Novi Sad provides useful insight for destination management and marketing (e.g., product personalisation, branding strategy). Moreover, insight on the combination of the push and pull factors as motivational categories is even more useful as it helps tourism providers to create a tailored product and services combining those attractions (motives) and suggesting synergy of activities suitable for different target groups of visitors

Further research should be focused on different sample of visitors, fine-grained approach could deliver more precise information on visitor motivation and demotivation, enabling the destination managers and marketing experts to better made the marketing strategies for the city and especially providing tourism sellers and re-sellers to adapt tourism offer and better position Novi Sad on competitive market.

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# Analysis of Motivating Factors for Visiting Wineries in the Vršac Wine Region (Vojvodina, Serbia)

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#### **Abstract**

The paper will present the research results of motivational factors influencing wine tourists in decision making process regarding their visits to the wineries in the Vršac wine region, an area which belong to South Banat wine region according to the official regionalization and comprises the west slopes of Vršac mountains (South East Vojvodina). The aim of the paper is to analyse visitors of the Vršac wineries in order to establish components of the motivation and to define the influence they have on the decision to participate in the wine tourism in this region. The methodology of this approach entails: defining and establishing the importance of wine tourism, identifying motivating factors in wine tourism, followed by definition and analysis of the most relevant motivating factors of the wine tourist visiting the Vršac wineries, establishing the intensity of their attitudes related to certain factors and, finally, offering recommendations to the Vršac wineries management in order to create the high quality marketing mix aimed at clearly defined target markets and to position successfully in the wine tourism market. One of the conclusions is that the visitors to the Vršac wineries regard wine tasting as the most important motivating factor, followed by socializing and relaxation.

Keywords: wine tourism; motivating factors; wineries; Vršac wine region

## Introduction

Significant global changes in different spheres of life and business, e.g. contemporary media, social networks, modernized means of transportation, improved tourist infrastructure, led to contemporary types of tourism. Compared to the previous period, modern people express more interest in different types of tourism other than mass tourism. This can be explained by the saturation of tourists with standard offers; thus, the increasing number of tourists seeking something new and authentic by choosing so-called special interest holiday. There is a large number of

special interest holidays. The most popular and frequent are business tourism, rural tourism, wine and food tourism, sports tourism, health tourism, ecotourism, and lesser-known and not so common, but still appealing, such as dark tourism, sex tourism, voluntourism, hunting tourism, political tourism, war tourism, etc.

Wine tourism represents individual or organized visits to vineyards, wineries, wine festivals, and wine shows, with wine tasting and experiencing a wine region as the main motivation of travellers (Kunc, 2009;

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Alant & Bruwer, 2004; Alant & Bruwer, 2010; Hall & Macionis, 1998; Lopez-Guzman, 2011; Koch et al., 2013; Hall et al., 2000; Dodd, 2000). Grimstad (2011) considers that wine tourism represents a combination of aesthetically attractive scenery and wine consumption, while Razović (2015) identifies the most important elements of wine tourism: hospitality, knowledgeable winery staff, wine festivals, stunning landscape, affordable accommodation, availability of information, gastronomic specialties, traditional wine villages, etc. In line with the above, wine tourism represents solid foundation for the development of the tourism and economy of the region (Getz & Brown, 2006; Marzo-Navarro & Pedraja-Iglesias, 2012).

Wine tourism is a relatively new phenomenon in Serbia, as it has started developping more intensely in the last decade, and it is represented through wine routes, which is a practice found in other countries in Europe and worldwide. The importance of this type of tourism has been recognized by Tourism Organization of Serbia that formed the wine routes and thus positioned Serbia among other countries that promote organized wine tours.

Sekulić et al. (2016:1243) state that for the development of wine tourism in Serbia existence of well-defined wine routes is extremely important. The same authors claim that in 2011, the Ministry of Economy initiated a project that defined nine wine routes of Serbia, with the aim of mapping small wineries, cellars and wine producers in these destinations in order to create a unified register. Furthermore they point at events related to wine which are an ideal opportunity to attract tourists and develop wine tourism, giving the examples of the following events: "Smederevo autumn" (Smederevo), "Vintage days" (Subotica), "Grape ball" (Vršac), "Župska vintage"(Aleksandrovac), "Pudars days"(Irig), "The day of the young wine" (Novi Sad), "Festival of wine and brandy" (Beograd).

Pivac et al. (2009) hold the opinion that Vojvodina with its natural and cultural heritage has a great potential for the development of wine tourism, especially as the link between tourism and wine is very profitable for both industries, while in the context of wine routes Pivac (2012:59) states that "Vojvodina has excellent prerequisites in the domain of grape and wine production, based primarily on natural conditions for grape growing, but also on centuries-long tradition of growing grape-bearing vines and wine production in

A large number of authors give prominence to experience when it comes to wine tourism (Charters & Ali-Knight, 2002; Carlsen, 2004; Carlsen, 2011; Cambourne et al., 2000; Marzo-Navarro & Pedraja-Iglesias, 2010; Razović, 2015; Mitchell et al., 2012), while many underline the link between wine tourism and life style (Bruwer & Alant, 2009; Carlsen, 2011; Lopez-Guzman, 2011; Charters & Ali-Knight, 2002). Hence, Charters and Ali-Knight (2002: 312) consider that the core of wine tourism is to 'travel in order to experience wineries, wine regions and their links with the life style'. Bruwer and Alant (2009) specify that wine tourism is also related to the wine, as a product, and to the location where the wine is produced, and also make a strong link between this type of tourism and a life style.

While creating and promoting the product for wine tourism, it is necessary to be well-informed about the characteristics of demand-i.e. to consider different needs, wishes and habits of wine tourists. Therefore, it is significant to identify characteristics of the target markets and take into consideration the criteria for market segmentation, e.g. geographic, demographic, psychographic and behavioural. In order to create its strategies, continuously and without obstacles, the management of a winery determines most effective and efficient tactics as well as tools for reaching the predefined goals. This primarily refers to the motivation of wine tourists, namely the reasons why tourists selected this type of tourism, certain wine region, winery, etc. In addition to the primary motivation, it is important to establish the secondary, tertiary and other factors of motivation in order to be familiar with the needs, wishes and, habits of potential wine tourists and their ways of deciding to participate in this type of tourism. Therefore, the subjects of the research are: motivation, components of motivation and motivating factors that influence the wine tourists' decision to visit the wineries in the Vršac wine region.

#### Theoretical Owerview

Numerous authors underscore the significance of motivation in wine tourism (Alant & Bruwer, 2004; Dreßler, 2016; Hall et al., 2000; Bouzdine-Chameeva et al., 2016; Mitchell et al., 2000; Tach, 2016; Mitchell & Hall, 2003; Cambourne & Macionis, 2000; Bruwer, 2002). Some of them explain motivation as 'tension caused by the need driving the consumer to do

something to ease the tension' (Bruwer et al., 2013: 6; Alant & Bruwer, 2004: 28; Bruwer & Alant, 2009: 238). Mitchell et al. (2000: 126) consider that the motivation is 'an inner factor conquering, directing and influencing a person's behaviour', stating that it is rooted in values, beliefs and attitudes of visitors. These authors give further explanation stating that wine tasting and

education may result from the wish to reduce the risk related to buying wine, meeting a wine producer may be related to the 'verification' of authenticity, relaxing in the ambience reveals the need to escape the city life and 'vibrating city rhythm' while wine festivals represent a convenient location for socializing and networking. Bruwer and Alant (2009: 239) state the opinion that the motivational framework in wine tourism consists of three interrelated aspects: visitor's profile (demographic and psychographic characteristics, life style, etc), wine region profile (where it is located and what it offers) and the dynamics of the visits (first time visitors or repeat visitors).

At the core of wine tourism lie the experiences of visitors, i.e. tourists (Alant & Bruwer, 2004; Cho et al., 2014) and hedonistic needs for satisfaction, enjoyment and entertainment (Alant & Bruwer, 2010; Bruwer et al., 2018) and therefore it can be concluded that for the quality management of wineries there must be precise information on the motivation of potential tourists, their behaviour and decision-making process (Dreßler, 2016), as well as the information on their life style, interests, attitudes and shared values (Grybovych et al., 2013). In line with this, some authors state that 'tourists' demands for wine tourism is based on motivation, perception, previous experiences and expectations' (Bruwer et al., 2013: 6; Hall et al., 2000: 6; Bruwer & Alant, 2009: 238), while Dreßler (2016) gives prominence to beliefs, opinions and attitudes of wine tourists that influence their decision which winery, wine route or region to visit, their preferences and what makes them satisfied when it comes to offers and service quality, which attractions they expect and consider important, as well as their relation to wine and certain wine brands. This leads to conclusion that wine tourists are not homogenous and also that wine tourism is driven by different motivating factors (Bouzdine-Chameeva et al., 2016; Tach, 2016; Mitchell et al., 2000), whereas Bouzdine-Chameeva et al. (2016) explain the diversity of wine tourists with cultural differences, different life styles, demographic characteristics, etc.

Bruwer et al. (2018: 355) consider that motivation in tourism relies on the push and pull factors that determine the choice of the destination, in a sense that tourists are 'pushed' by their own motivation, while they are 'pulled' by the attractions of the destination. This is the main reason, as stated by the authors, why understanding the motivation and preference of the tourists presents the foundation for the future development of wine tourism, especially in case of market segmentation. Having identified motives of wine tourists, wine tourism industry can develop the adequate product offering to cater for their needs and ensuring their satisfaction and positive perception. Based on

this assumption, wineries, among other, should cooperate with the local accommodation capacities, restaurants and other tourist services (Telfer, 2001; Cho et al., 2014) in order to satisfy a wide range of needs in wine tourism.

Numerous authors analysing the importance and influence of wine tourists motivation defined a large number of motivating factors, the most common being: wine tasting and buying wine (Mitchell et al., 2000; Charters & Ali-Knight, 2002; Bruwer, 2003; Alant & Bruwer, 2004; Bruwer, 2002; Hall et al., 2000), learning about wines and vineyards (Mitchell & Hall, 2003; Bouzdine-Chameeva et al., 2016), art, architecture, cultural heritage and related attractions (Mitchell et al., 2000; Tach, 2016), visiting location/region where a famous wine brand is produced (Hall et al., 2000; Alant & Bruwer, 2010; Byrd et al., 2016), relaxation and spending time with friends, partner or family (Hall et al., 2000; Alant & Bruwer, 2004; Bruwer, 2002), gastronomic offer (Alant & Bruwer, 2010; Tach, 2016; Charters & Ali-Knight, 2002; Mitchell et al., 2000; Bruwer et al. 2018; Bouzdine-Chameeva et al., 2016), romantic atmosphere, scenery (Tach, 2016), education (Alant & Bruwer, 2004; Mitchell et al., 2000; Bruwer, 2002; Ye et al., 2014; Tach, 2016; Hall et al., 2000), health reasons (Mitchell et al., 2000; Tach, 2016), authenticity (Mitchell et al., 2000; Bouzdine-Chameeva et al., 2016), atmosphere (Mitchell et al., 2000; Bruwer et al., 2018; George, 2006), wine festivals and events (Mitchell & Hall, 2003; Cho et al. (2014), business (Alant & Bruwer, 2004), nature and ecology of rural areas (Bruwer et al., 2018; Ye et al., 2014), etc.

Considering the components of motivation, certain authors present the opinion that buying wine and wine tasting are two main factors of motivation in wine tourism (Bruwer et al., 2018; Alant & Bruwer, 2004; Bruwer & Alant, 2009; Mitchell et al., 2000; Alant & Bruwer, 2010; Bruwer, 2003), whereas a number of authors state there are secondary motivation including socializing, learning about wines, entertainment, etc. (Alant & Bruwer, 2004; Bruwer & Alant, 2009; Bruwer, 2002; Cambourne & Macionis, 2000; Bruwer et al., 2018; Hall et al., 2000; Getz & Brown, 2006). George (2006) considers that visitors paying special attention to secondary motivations, pay more attention to the atmosphere, ambience and service quality, than those driven by primary motivating factors. Secondary or peripheral factors are, along with primary, the integral part of decision making to participate in wine tourism and of the overall experience (Cambourne & Macionis, 2000; George, 2006).

Bouzdine-Chameeva et al. (2016) underline that motivation should be considered at two levels: macro (the region to be visited) and micro (which winery to visit and what experience to expect there). Alant and Bruwer (2010) and Bouzdine-Chameeva et al. (2016) add that the higher motivation for wine tasting leads to higher probability to participate in other activities, including educational and cultural experience. Certain authors make typology of tourists according to the criteria of motivation, dividing wine tourists into connoisseurs and wine tourist in general (Mitchell & Hall, 2003; Brown & Getz, 2005). Mitchell and Hall (2003) give further explanation by defining connoisseurs as those wine tourists with specific interest in wine and related phenomena, while wine tourist in general visit a vineyard, winery, wine festival and other wine shows in order to spend a 'relaxing day'. The authors state there is also third category, so-called 'accidental wine tourists' who happen to be in a wine region for other reasons, unrelated to wine, but when they are introduced to the offer, they subsequently become wine tourists.

Bruwer et al. (2013) consider that motivating factors, depending on what lies at their core, can be divided into rational and emotional, while Mitchell et al. (2010) offer a slightly different typology, dividing motivating factors of wine tourists into internal and external. Internal factors include socializing, wine education, being introduced to wine producers and relaxing, while the external include wine tasting and buying wine, winery tours, food tasting at the winery and rural atmosphere. Hall and Macionis (1998) consider that at the core of a visit to a winery is a tourist's interest in wine and, thus, wine tourists are segmented into wine lovers, wine interested and wine curious. The first category includes tourists with great interest in wine, who are knowledgeable about wines, read regularly articles about wine and watch specialized TV programmes about wine; the second are tourists showing interest to learn more about wine, as their current knowledge of wine is limited, while curious tourists are not familiar with wine, having moderate interest in wine and consider a visit to a winery as one of the attractions at a destination. Alebaki and Iakovidou (2011) propose three dimensions of motivation: experience related to the destination, experience related to wine and personal development. While the authors consider the first two dimensions as factors of attraction, personal development is internal motivation. On the other hand, Alant and Bruwer (2004) and Neilson and Madill (2014) consider that there is a different motivation of the first-time visitors and repeat visitors. In the former, motivation includes wine tasting, winery tour and information about the wine, while the motivation of the latter is related to buying wine, relaxing and socializing. Tomić et al. (2017) point out that in recent years terroir has become an important motivating factor for wine tourists so that their primary motivation is not only to taste wine but also to learn about its origin and to visit the place where the wine was made.

## Research Methodology

Survey entitled "Vršac as a wine tourism destination of Serbia-field research of tourists' attitudes" was conducted in the period from 1st March to 1st September 2017. In order to receive the most accurate information about attitudes of the respondents, survey was used as a method of gathering data. In this research, the survey was conducted using "face-to-face" method. The sample of 250 questionnaires was equally distributed among seven wineries ('Vinik', 'As', 'Sočanski', 'Krstov', 'Konte Valone', 'Nedin', 'Selekta'). Visitors coming to the wineries filled out the questionnaire with the help from the winery owners, who were familiar with the content and objective of the survey. Moreover, several questionnaires were distributed at the Visitor Information Centre of Tourist Organization of Vršac, exclusively to visitors going to the wineries. Out of 250 questionnaires, 223 were returned containing 21 invalid samples. Finally, 202 questionnaires were analysed. The 90,6% of surveyed visitors were domestic tourists (183 respondents), while foreign visitors made up 9.4% (19 respondents). Results were statistically processed in the statistical data analysis software SPSS 24 within the adequate

selection of statistical methods depending on the type of data in order to obtain the optimal model for the overview of influences, dependence and differences between analysed data from the research.

In order to verify the reliability of the questionnaire, the method of internal consistency was used so Cronbach's alpha coefficient showed high results for each segment and the whole instrument (alpha = 0.852), confirming high reliability of the instrument.

With the purpose to simplify the data through reducing the number of variables, the Principal Component Analysis was used. The Varimax rotation was selected as the rotation method. In order to verify that the data collection was suitable for factor analysis, Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test were used. Since Kaiser-Meyer-Olkin Measure of Sampling Adequacy is higher than o.6 and measures o.822 and Bartlett's Test of Sphericity is statistically significant (p=0.000), the factor analysis is justified. Kaiser-Guttman's criterion confirmed that four components fulfil the criterion for the values above 1 and those four components explain the total

Table 1. Factor load curve

			Comp	onent	
		1	2	3	4
	Learning experience	0,841			
	Conversation with wine producer	0,810			
Learning and buying	Buying wine	0,605			
Duying	Good reputation of wines from Vršac	0,590			
	Unique experience	0,399			
Wine tasting	Wine tasting		0,835		
	Socializing with friends and family			-0,914	
Socializing and	Rest and relaxation			-0,898	
relaxation	Escaping from daily routine			-0,743	
	Fun and entertainment			-0,707	
	Gastronomic offer				0,809
"Other featers"	Accidental visit				0,596
"Other factors"	Meeting people with similar interests				0,577
	Attractive scenery		0,380		0,510

of 68.69% of variables. The factor structure was verified also by scree plot. Therefore, Kaiser-Guttman's criterion and scree plot offer unquestionable conclusion for four factors.

By Varimax rotation four factors were defined: Learning and buying, Wine tasting, Socializing and relaxation, Other factors. Table 1 shows factors with belonging segments.

#### **Results and discussion**

The analysis of tourists' motivation to visit the wine region of Vršac is shown in Table 2. The highest average score is given to wine tasting M=4.43±0,70 so it can be considered as the main reason for visiting the wineries

in the Vršac region. This fact partially corresponds to the opinion of a large number of authors regarding primary motivation for visiting wineries, which includes wine tasting and buying wines (Hall & Johnson, 1997; Bruw-

Table 2. Motivation for deciding to visit wineries in the Vršac wine region

Motivation	N	Min	Max	М	SD
Wine tasting	202	1	5	4.43	0.70
Rest and relaxation	198	1	5	4.28	0.83
Fun and entertainment	199	1	5	4.09	1.02
Socializing with friends and family	200	1	5	4.08	0.98
Attractive scenery	201	1	5	4.00	0.91
Escaping from daily routine	199	1	5	3.93	1.03
Gastronomic offer	198	1	5	3.78	1.00
Learning experience	200	1	5	3.59	1.09
Good reputation of wines from Vršac	199	1	5	3.49	0.80
Buying wines	202	1	5	3.47	1.08
Unique experience	197	1	5	3.34	1.01
Conversation with wine producer	200	1	5	3.18	1.15
Meeting people with similar interests	198	1	5	3.11	1.20
Other	27	1	5	2.89	1.40
Accidental visit	194	1	5	2.04	1.26

N-number of surveyees; Min-minimum sample value; Max-maximal sample value; M – arithmetic mean; SD-standard deviation.

er et al., 2018; Baird & Hall, 2014; Alant & Bruwer, 2004; Bruwer & Alant, 2009; Grybovych et al., 2013; Mitchell et al., 2000; Alant & Bruwer, 2010; Bruwer, 2003). On the other hand, in case of the wineries from the Vršac region, buying wines comes tenth in the motivation list.

The second important reason for visiting is Rest and relaxation (M=4.28±0.83), followed by fun and entertainment M=4.09±1.02 and socializing with friends and family M=4.08±0.98. These three reasons indicate that motivating factors related to hedonism, especially relaxing, entertainment and socializing, are highly positioned when it comes to visiting this region. The important motivating factor is also enjoying the natural environment, which is confirmed by high average score for the attractive scenery factor M=4.00±0.91. Other reasons, as presented in Table 2, scored around 3 on average, which means that visitors have neutral attitudes. This means that learning and conversation with wine producer, food and escape from the daily routine are not crucial reasons for visiting this wine region, but they certainly should not be disregarded. Additionally, the results related to the reputation of wines from Vršac show that the wines are recognized to a certain extent as good quality, which is still not enough to represent a relevant motivating factor to attract a larger number of visitors. Similar to reputation, unique experience as a considerable competitive advantage indicates that the wine tourism stakeholders in Vršac needs to put in extra effort to make their offer specific and to be perceived as such. This is primarily related to possibilities to include indigenous grape varieties, gastronomy, cultural and natural attractions, and customs in order to achieve authenticity. The lowest score is given to accidental visit (M=2.04±1.26), meaning that visitors have decided to visit the Vršac wine region in advance. Considering that Vršac is well located on the transportation route between Serbia and Romania, a small number of accidental visits implies increased promotional activities to inform a large number of passengers travelling in this region about the offer of wine tourism in Vršac and to motivate them to participate.

**Table 3.** Descriptive indicators of motivating factors for deciding to visit the wineries in the Vršac wine region

Factors	Min	Max	М	SD
Learning and buying	1	5	3.414	0.750
Wine tasting	1	5	4.426	0.703
Rest and relaxation	1	5	4.092	0.811
Other factors	1	5	3.205	0.764

M – arithmetic mean; SD-standard deviation

According to the motivating factors for deciding to visit wineries in the Vršac region, as presented in Table 3, the most prominent is wine tasting with the average score of importance M= 4.426±0.703, followed by socializing and relaxation with M=4.092±0.811. Learning and buying scored the average M=3.414±0.750, and other factors M=3.205±0.764.

Wine tasting as the most important reason for visiting the wineries of Vršac region confirms the importance of wine as the central element of wine tourism supply, or the main attraction that is the basis for all other attractions which are important for the overall tourist/visitor experience and their impression on wine tourism quality of a particular winery.

If we compare Vršac wine region with some other wine regions we can conclude that wine tasting is the primary motivation for visitors in many regions. Alebaki and Iakovidou (2013) thus states that a survey conducted in Northern Greece confirms that wine tasting is the most important reason for visiting a winery. Grybovych et al. (2013) also categorizes wine tasting as the main motivating factor for visiting Northeast Iowa area in the USA. The research conducted by Byrd et al. (2016) confirms these findings, so the main reason for visiting North Caroline wineries is wine tasting as well. Bruwer and Ruger-Muck (2019) have the same conclusion after conducting research in Barossa Valley Wine Region (BVWR) in South Australia.

There is statistically significant difference between male and female gender in rating the importance of certain motivations to visit a winery. As shown in Table 4, differences are present in motivation: wine tasting (F=6.80, p=0.010, socializing and relaxation (t=4.35, p=0.038). Men give a higher average score to wine tasting M=4.55±0.64, while women give it a lower score M=4.29±0.75, which means that wine tasting is more important to men than women.

According to the personal experience, as well as the information gathered in conversations with owners and managers of wineries, the authors of this paper hold the opinion that female visitors percieve a visit to a winery simply as an opportunity to go out with families or friends similar to going to a cafe, restaurant or night club, with the aim to have fun and to enjoy entertainment, which can be categorized as socializing and relaxation as the motivational factor. On the other hand, male visitors percieve a visit to a winery as an opportunity to consume alchocolic beverages, particularly wine. It may also be presumed that a certain number of men percieve wine consumption, especially in case of branded wines, as a status symbol, either as confirmation of the achieved social stutus or the striving towards it.

However, regardless of the difference between the gender in the case of this motivating factor, both men and women consider wine tasting as primary motivation to visit the Vršac wineries.

Table 4. Motivating factors for deciding to visit the wineries in the Vršac wine region according to the gender of visitors

Gender		Learning and buying	Wine tasting	Socializing and relaxation	Other factors
Male	М	3.39	4.55	3.97	3.19
Male	SD	0.76	0.64	0.91	0.79
Famala	М	3.45	4.29	4.21	3.23
Female SD		0.75	0.75	0.68	0.74
М		3.42	4.43	4.09	3.21
Total	SD	0.75	0.70	0.81	0.77
Т		0.26	6.80	4.35	0.16
Р		0.608	0.010	0.038	0.686

M – arithmetic mean; SD-standard deviation; t – test; p – statistical significance

Socializing and relaxation, as shown in Table 4, are more relevant factor to women (M=4.21±0.68), than men ( $M=3.97\pm0.91$ ), while this factor represents the secondary motivation with both genders. Therefore, women consider relaxation and socializing with friends and family as more important than men do. In total, regardless of the gender and differences in intensity of attitudes between them, the visitors of Vršac wine region consider wine tasting as the most relevant motivating factor (Table 4), followed by socializing with friends and family, entertainment, relaxation, etc.

In the age groups, there is a statistically significant difference (Table 5) when it comes to the importance of motivation to visit a winery: learning and buying (F=6.32, p=0.000), wine tasting (7.88, p=0.000), socializing and relaxation (t=3.52, p=0.009) and other factors (F=7.71±0.000).

Persons aged between 51 and 60 give the highest average score to the importance of learning and

buying M=3.78±0.56, which is given the lowest score M=2.97±0.76 by the age group from 18 to 30 years. These data show that the older population is more interested in learning more about wine and wine production, as well as buying wines, compared to the younger visitors who did not show much interest in this. That fact is confirmed by the results showing that earning and buying have the second highest importance given by visitors over 61 years old (3.63±0.62) behind the age group 51-60. The relevance of this factor, as presented in Table 5, starts to decrease within the population younger than 51, so the respondents from 41 to 50 rate this factor with average 3.61±0.59, from 31-40 with 3.31±0.80, while the youngest gave the lowest score to this factor as shown in the table. However, from the analysis of the factor of learning and buying, it is evident that none of the age groups give it more significance in comparison to other factors, so that it comes last in significance to the fourth position for the persons between 51 and 60, as well as for those between 18 and 30, while it comes

Table 5. Motivating factors for deciding to visit the wineries in the Vršac wine region according to age groups

Age group		Learning and buying	Wine tasting	Socializing and relaxation	Other factors
M M		2.97	4.45	3.90	3.04
18-30	SD	0.76	0.69	1.04	0.75
31-40	М	3.31	4.66	3.93	2.99
31-40	SD	0.80	0.50	0.87	0.71
41.50	М	3.61	4.45	4.25	3.42
41-50 SD		0.59	0.65	0.63	0.83
M M		3.78	4.00	4.41	3.80
51-60	SD	0.56	0.87	0.53	0.58
C1 and arran	М	3.63	4.00	4.42	3.15
61 and over SD		0.62	0.87	0.46	0.55
Takal	М	3.41	4.43	4.09	3.21
Total		0.75	0.70	0.81	0.76
F		6.32	7.88	3.52	7.71
Р		0.000	0.000	0.009	0.000

M – arithmetic mean; SD-standard deviation; F – test; p – statistical significance

third to those over 61, persons between 41 and 50, as well as those between 31 and 40.

Persons aged from 31-40 years (Table 5) give the highest average score to wine tasting M=4.66±0.50, and the lowest score M=4.00±0.87 is given by the persons aged from 51-60 and 61 and over. Regardless of the age group, this factor is considered very relevant by all and therefore, it presents the primary motivation for the age groups 18-30, 31-40, 41-50, while it is secondary for other two age groups.

Persons aged 61 and over (Table 5) give the highest average score to the importance of socializing and relaxation M=4.42±0.46 while the lowest average score M=3.90±1.04 is given by persons aged 18-30. The high importance to this factor is given also by age groups over 61 and 41-50. In comparison with others, this factor is primary motivation for visiting for persons aged between 51 and 60, as well as 61 and over, while it is secondary for the other age groups. It is noticea-

Based on the overall results shown in table 5 and their analysis, it is evident that elderly people tend to prefer socializing and relaxation, which primarily applies to the category of senior citizens who are retired and have more time to spend actively, socializing with friends and family or travelling. Furthermore, the population over the age of 51, and especially those over the age of 61, experienced socialization period and accepted certain social values in the times of collectivist culture, which encouraged socializing as an important part of everyday life. On the other hand, younger people formed their habits, values and perceptions in the period of individualistic culture, so wine tasting as a reflection of hedonism has greater value for them as such than as a form of socializing.

Persons with a faculty degree (Table 6) give the highest average score to the importance of wine tasting M= $4.53\pm0.74$  and the lowest score M= $4.07\pm0.75$  is given by persons with primary and secondary school.

Table 6. Motivating factors for deciding to visit the wineries in the Vršac wine region and level of education

Level of education		Learning and buying	Wine tasting	Socializing and relaxation	Other factors
2.	М	3.74	4.07	4.30	3.28
Primary and secondary school	SD	0.59	0.75	0.62	0.81
College	М	3.27	4.52	3.97	3.22
	SD	0.69	0.57	0.88	0.69
- L	М	3.39	4.53	4.10	3.15
Faculty	SD	0.84	0.74	0.81	0.83
Tatal	М	3.41	4.43	4.09	3.21
Total	SD	0.75	0.70	0.81	0.76
F		5.71	8.08	2.34	0.42
P		0.004	0.000	0.099	0.656

M – arithmetic mean; SD-standard deviation; F – test; p – statistical significance

ble that older generations give more importance to socializing and relaxation than younger ones.

Persons in the age group 51-60, as shown in Table 5, give the highest average score of the relevance to other factors M=3.80±0.58, while the lowest score M=2.99±0.71 is given by persons aged 31-40. Compared to the others, this factor comes last but one (18-30; 51-60) or last (31-40; 41-50; 61 and over).

Among the respondents of different levels of education (Table 6) there is a statistically significant difference in rating the relevance of motivation: learning and buying (F=5.71, p=0.004) and wine tasting (F=8.08, p=0.000). Persons with secondary and primary school give the highest average score to the relevance of learning and buying M=3.74±0.59 and the lowest M=3.27±0.69 is given by persons with a college education, while those with a faculty degree can be said to be neutral in this respect (3.39±0.84).

If the average score given by the persons with a college education (4.52±0.57) is taken into consideration, it can be concluded that all three levels of education give great importance to this factor, while it is primary motivation for visitors with a college education and faculty degree and secondary for visitors with primary and secondary school.

The analysis of the results shown in table 6 points out that visitors with lower level of education (primary and secondary level of education), perceive the guides who talk about wine and its production as important experts in this area, so they pay special attention to educational aspect and the information that play a role in their longing for the "higher status" in the society, or the perception that they belong to the higher status (especially among their compatriots in their town of origin). Buying wine is in their case a type of proof that they hold the desired social status.

On the other hand, highly educated people, mostly do not have a need for this kind of "status confir-

mation", so in case they are interested in enology they will find the information needed in relevant literature.

#### **Conclusion**

In analysis of research results the significant point is determining the factors that influence decision making process to visit a winery in the Vršac region. The analysis defined four factors: learning and buying (learning experience, conversation with a wine producer, buying wines, good reputation of Vršac wines, and unique experience), wine tasting, socializing and relaxation (socializing with friends and family, rest and relaxation, escaping the daily routine, and fun and entertainment), and other factors (gastronomic offer, accidental visit, meeting others with similar interests, and attractive scenery). Among those reasons, the factor of wine tasting is prominent, which confirms the importance of wine as the core of wine tourism offer. The next in importance is socializing and relaxation, which points to the social aspect of wine tourism. These data show that, regardless of the importance of wine as the core of wine tourism, wine cannot be isolated in its offer. The analysis of individual segments showed that respondents consider wine tasting as the most important motivating factor, followed by rest and relaxation, fun and entertainment, socializing with friends and family, and attractive scenery. It is important to mention that the next important motivation is escaping from the daily routine, which, in combination with others above, confirms the relevance of relaxation as the motivating factor for visitors to the wineries in the Vršac region.

The factors of wine tasting together with socializing and relaxation are the most important for visitors to the wineries in the Vršac region, regardless of their gender, age, level of education, while there are certain differences in these criteria in giving relevance to one of the factors, as well as the intensity of the attitudes. In that respect, wine tasting is the most important factor among all respondents, except those in the age groups 51-60 and over 61. This fact is signifi-

cant to wine tourism stakeholders in order to recognize their target market, determine the importance of motivating factors for them and finally to create the marketing mix accordingly. In relation to this, the attention should be given also to the intensity of the attitudes of the respondents. The highest intensity for the importance of wine tasting was recorded in a group aged between 31 and 40, male and with a faculty degree, whereas the highest intensity for the relevance of socializing and relaxation was recorded in persons over 61 and aged 51-60. Additionally, the attention should also be paid to other motivating factors unified as learning and buying, and as other factors, scoring mostly neutral or low. However, attractive scenery, food and, to some extent, learning were ranked as important by the respondents.

Analysing the results of the survey regarding the reasons for deciding to visit wineries in the Vršac region can lead to a conclusion that wine tourist decide to visit this region primarily to enjoy wine tasting along with socializing with friends and family while surrounded with nature and 'away from the pace and problems' of everyday life.

Since wine is the core of wine tourism, the development of wine production leads to the wine tourism development. However, as the research shows, wine is not and cannot be the only element of wine tourism product in the Vršac region. Numerous motivating factors influence the potential visitors to participate in wine tourism and wine is only one of them. Therefore, it is necessary that the investment in wine production is followed by the appropriate investments in other components of wine tourism in order to satisfy the needs of wine tourists. Only in this case the important synergy between wineries as wine producers and wineries as key stakeholders of wine tourism can be achieved.

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## **REVIEW ARTICLE**

## Potential Directions of Strategic Development of Medical Tourism: The Case of the Republic of Croatia

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#### **Abstract**

Strategic product development in the offer of specific forms of tourism takes place very dynamically and is an example of using the diversification strategy as the dominant development strategy. Once relatively inelastic market offers, it becomes more elastic and with the market demand realizes new forms of partnership based on meeting the demand of each tourists individually. A large number of tourist offer products are adjusted to a smaller segment of consumers, i.e. tourists. The life span of tourism products and services is relatively short. The research for this paper is of a scientific character; it is motivated by the applicative need and in that sense it is applicable. Within the framework of economic science, the basic goal of the paper is to establish and analyze elements in the market that determine the development of medical tourism. The aim is to explore the place and role of strategic management in the function of products and services distribution for medical tourism. The paper attempts to explore the relevance of the valorization potential of medical tourism in the continuous efforts to improve tourism in the Republic of Croatia. This is shown by an analysis of the implementation of the priority tourism policy measures defined by the Strategy for development of tourism of the Republic of Croatia to 2020, i.e. the implementation of the Action Plan for development of health tourism of the Republic of Croatia in relation to the anticipated dynamics of the implementation of the proposed programs. Regarding the programs, in order to increase the competitiveness of medical tourism, the paper discusses the improvement of quality offers in the field of medical tourism through the implementation of quality, accreditation and certification of health facilities. Also, activities carried out at the current moment in the field of medical tourism in the Republic of Croatia are also shown.

Keywords: Republic of Croatia; medical tourism; strategy; management; development; quality

JEL Classification: A11, M38, Z32

#### Introduction

Mass tourism has affected the development of many underdeveloped regions, but has also caused a series of negative effects. They are visible in the disruption of natural beauty, environmental pollution and in other environmental, social, cultural and economic changes. As a counterbalance to mass tourism first appeared the term "alternative", this was later changed to the term sustainable. The term "selective tourism" appears in the scientific literature in early 1970s. That term was preceded by a similar term, and the primary

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goal was the classification of tourist types as opposed to mass tourism. In theory and practice for specific forms of tourism, the following terms are used: individual, responsible, specific, tourism based on special interests, selective, thematic and alternative (Geić, 2011: 475).

The definition of specific forms of tourism at Alfier is: "Selective types of tourism are those that, with their content, with regard to the place where they occur and the time they are taking place, can best satisfy the dominant motives in the sphere of tourist demand: the desire for a return to original nature, innate the need of all people for play and playing and the need to communicate with other people, as well as all other vital, bioantropological and psychosocial needs that an increasing number of people, living in an environmentally degraded and fully aligned urban environment, cannot satisfy in everyday life" (Alfier, 1994: 171). An important feature of specific forms of tourism is the diversification of offer and tourism products. At the center of interest are the motives that move people on tourist trips, so the development concept of tourism in tourist destinations is aimed at meeting the specific needs of a narrower segment of consumers in a market that is homogeneous in view of their particular interest. Thus, since the 1990s, the term "specific forms of tourism" has become increasingly frequent in theory and practice, which is a free translation from the Englishspeaking word "special interest tourism". Some Croatian authors use "selective forms of tourism" for this term, which is semantically completely unacceptable, as is the term "alternative tourism", which is abandoned in recent world literature (Čavlek et al., 2011: 39-40).

Health, spa and medical tourism is most often perceived as synonyms, but among them there are differences which will be discussed further below. Med*ical tourism*, which takes place in medical consulting rooms, clinics/health centers and special hospitals, involves traveling to other destinations in order to achieve health care which includes, for example, partial surgical procedures, as well as dental, cosmetic, psychiatric and alternative treatments/procedures along with the corresponding care and recovery services. Spa tourism, which takes place in health resorts (spas) and specialized hospitals, involves professional and controlled use of natural healing factors and physical therapy procedures to preserve and improve health and quality of life. The emphasis is on the revitalization of psychophysical capabilities in climate, sea and in thermal destinations/health resorts through treatments, special programs of recovery, a balanced diet and the like. Wellness tourism, which takes place mainly in hotels and health resorts (spas), means achieving physical and spiritual equilibrium,

where it is necessary to differentiate between medical and holistic health. Medical wellness has been organized to provide health-preventive and curative programs for the prevention of illness and the preservation and improvement of health with a multidisciplinary team that necessarily includes a physician as well as other professional staff (e.g. physiotherapist, kinesiologist, nutritionist). Methods and procedures of medical wellness include methods of conventional, complementary and traditional medicine. Holistic wellness includes other, very diverse non-medical wellness offer (National program - Action Plan for development of health tourism of the Republic of Croatia, 2014: 8).

With regard to complementarity, health and medical tourism is often studied in literature in parallel. For most authors, medical tourism is a segment of health tourism, but because of the great connection and similarity of medical and health tourism, they are most frequently used alternately, so there is contradiction in defining and publishing the realized effects. This contributes to the impossibility of keeping accurate records of tourist activities in health tourism. The literature states that health tourism involves organized travel outside their local community with the aim of maintaining, improving and restoring physical and mental condition of man. Health tourism through a holistic approach includes health care, beauty treatments, nutrition/diet, detoxification, thalassotherapy and kinetic therapy, i.e. different wellness/spa treatments, and is based on accommodation capacities, natural health resorts/spas, medical supervision and conditions for the implementation of health programs accompanied by a number of ancillary services. This definition also includes the offer of medical, spa and wellness tourism. Medical tourism is focused on specific medical procedures and therapies for which there must be adequate infrastructure (hospitals, clinics, professionals and equipment) with the inclusion of health tourism elements as accompanying treatments. Medical tourism has not been perceived for a long time only through the prism of patient care, but is increasingly focused on prevention and general health care and strengthening vitality. Despite differences, health and medical tourism is commonly studied together because there are numerous synergistic effects that can be achieved by providing both types of services (Madžar et al., 2016: 191).

Health tourism is one of the fastest growing specific forms of tourism in the world. This form of tourism has an annual growth of 15% to 20%. The World Health Organization predicts that due to the aging population trend and the increasingly marked orientation of society to a healthy life, health care will account for as much as 22% of world GDP by 2030 and

be the biggest driver of tourist travel. Health tourism is a complex tourist product that at the world level shows above average annual growth rate and encompasses a large number of specialized content and services offered on travel motivated by the need to improve health and quality of life (National program Action Plan for development of health tourism of the Republic of Croatia, 2014: 8). Health tourism through its numerous subtypes, combinations and different levels and basis of treatments is not linked to the main tourist season or narrow area of a tourist destination (Jadrešić, 2001: 143). Those characteristics show that represents the lever for a steady and balanced development of the areas in which it develops. As for the motives for going to this type of travel, most often it is the difference in the prices of medical services between the emitting and receptive country. People go on the trip due to a combination of rest and recreation and the use of medical services. Additionally, to some people services in medical tourism are the only possibilities to receive adequate medical care at an affordable price (Krajnović et al., 2013: 18).

Many countries in the world have decided to exploit the potentials for the development of medical tourism. They were strategically determined and subsequently adapted the health care system so they could receive foreign patients. Most of these countries are developing countries. Patients from richer and more developed countries travel to less developed countries for access to health services. Earlier, the movement in health tourism, especially in the medical field, referred to the most advanced countries with the best technology, while today the direction of patient movement is reversed. Affordable treatments, cheap flights and a wide range of available information are also contributed to this (Madžar et al., 2016: 192).

World Association for Medical Tourism, Medical Tourism Association, MTA, is the first and an umbrella global non-profit organization for medical tourism (http://www.medicaltourismassociation.com). organization works with healthcare professionals, governments, insurance companies and other entities that are related to medical tourism. The aim is the development of medical tourism and the provision of the highest quality and most transparent health services. MTA offers education (e.g. "Health & Wellness Destination Guides" program), certification and other activities for the development of medical tourism.

The world's most famous journal in the area of providing services in medical tourism, "International Medical Travel Journal" (IMTJ), was founded in 2007, works on the development and improvement of medical tourism in the world, envisages a growth between 5 and 7 billion US dollars a year (https://www.imtj. <u>com</u>). The last five years medical tourism in the world

has stagnated, about 7 million people travel motivated by health reasons. Domestic medical tourism is on the rise and in this sphere of medical tourism travels around 3 million people, while health and wellness grows year by year and reaches a number of 50 million people.

The report "Medical Tourism Facts and Figures 2016" by I. Youngman concluded that medical tourism is a more local and regional product than global and that the medical form of tourism, as well as the overall tourism, is affected by politics and fear of terrorism in the world (https://www.imtj.com/articles/medicaltourism-2016-what-has-changed/). It also concluded that the "tourism industry" ignores medical tourism, and health tourism as well which is an integral part of medical tourism. Good results in medical tourism are achieved United Kingdom, USA, Germany, Switzerland, South Korea, Dubai, Malaysia and Iran. Thailand, Turkey, Egypt, Finland and Tunisia are experiencing poorer results, and this is happening with Singapore, Israel, Jordan and Brazil. Israel and South Africa show the highest resistance to tourist arrivals in the field of medical tourism, while Nigeria and Kenya lead African states in an effort to reduce departures from the country motivated by health reasons. India, United Kingdom and USA are aware that medical tourism at national level is equal or even more important than international (Ibid.).

IMTJ is a very influential link in the development of medical tourism, organizing every time more visited events that bring together experts from around the world, namely: IMTJ Medical Travel Summit, IMTJ Medical Travel Awards and The Private Healthcare Summit. Their award in the category of the best tourist destination in the world in 2016 was received Malaysia. The IMTJ Medical Travel Summit was held from 24 to 26 May, 2016 in Madrid, and gathered 350 participants from more than 45 countries, while a year earlier in London gathered 130 participants from 40 countries (<a href="https://www.imtj.com/what-we-do/">https://www.imtj.com/what-we-do/</a>).

The Republic of Croatia, and the City of Opatija, hosted the IMTJ Medical Travel Summit in 2017, organized by Intuition Communication from the United Kingdom (<a href="http://hrturizam.hr/opatija-domacin-">http://hrturizam.hr/opatija-domacin-</a> <u>imtj-medical-travel-summita-2017/</u>). The objective was to use the IMTJ Medical Travel Summit to brand Kvarner, but also the Republic of Croatia as a destination of health. Statistically, the Summit is attended by 78% participants from Europe, 10% from Asia, 6% from the Middle East and North Africa, 4% from North America and 2% from other countries. 46% of participants come as representatives of hospitals and clinics, while Summit brings together 11% of the medical-tourism facilitators, 9% of representatives of educational institutions, 6% of marketing experts, representatives of public authorities and representatives of providers of health related services. Other participants come from tourist boards, insurance companies and media houses.

Analyzing the current development of health tourism on the territory of the Republic of Croatia, it was found that the commencement was recorded at the end of the 19th and beginning of the 20th century in places with healing properties (bathing places, medicinal/ healing water places, climate spas, places with healing mud). Users of health and tourism services at that time were mostly foreigners from more developed European countries. The pioneer in Croatian health tourism is the island of Hvar. On the island of Hvar, in 1868, the Hygienic Society of Hvar was founded (Zaninović, 2003: 283). After that, in 1889, the Austrian government officially proclaimed the City of Opatija as the first climatic seaside resort on the Adriatic. Thalasotherapy Opatija, a special hospital for the rehabilitation of heart, lung and rheumatism, was founded in 1957 and today is the leader of health tourism in the Republic of Croatia. The fact that income/revenue from health tourism is only 1% of the total tourist revenues of the Republic of Croatia is, with regard to the potentials, very worrisome. According to the data published so far, there are 222 sites in the Republic of Croatia with favorable potential conditions for the development of health tourism, of which only 10% are exploited within 18 organized health centers (Geić, 2011: 239).

Like other Mediterranean countries, so the Republic of Croatia swept wave wellness centers that offer

medical and other treatments for health care and preservation of health. Over the last 15 years, more than 90 hotels have developed an integrated wellness offer. The total accommodation capacity units of health tourism participate with a slight 0,5%. These health-tourism facilities are mainly concentrated in the coastal and northwestern parts of the Republic of Croatia, in Istria, Kvarner, the northern part of the Republic of Croatia and in the area of the City of Zagreb (National program - Action Plan for development of health tourism of the Republic of Croatia, 2014: 12). The offer is based on providers of wellness, spa and medical services in the private and public sectors. A significant part of the offer of all forms of health tourism is privately owned, market-oriented, vibrant and small-medium entrepreneurship.

In the Republic of Croatia, about 10,000 employees realize about 300 million euros of revenues from health tourism services without included the value of overnight stays. However, the rough estimate is that health tourism in the Republic of Croatia has an annual potential revenue of one billion euros. In other words, the share of health tourism in total tourism income, that all the measures and activities defined in the Strategy for development of tourism of the Republic of Croatia until 2020, i.e. the Action Plan for development of health tourism of the Republic of Croatia were implemented have increased from 2% in 2013 to 15% in 2020 (Milas, 2015: 3).

#### **Discussion**

# Priority measures for improving the competitiveness of Croatian tourism as defined by the Strategy for development of tourism of the Republic of Croatia until 2020

Strategy for development of tourism of the Republic of Croatia until 2020 is the umbrella development document of Croatian tourism, which represents the direction for tourism development (Strategy for development of tourism of the Republic of Croatia until 2020, 2013). The pronounced economic and political instability at the global level and in the European Union, new conditions of the Croatian macro environment and dynamic changes in relation to consumer demands in the global tourism market, have necessitated a revision of the tourism development model in the Republic of Croatia with the purpose of devising development guidelines and operational strategies. Strategy for development of tourism of the Republic of Croatia until 2020 answered the question of what kind of tourism the Republic of Croatia should

develop, and it identifies key tourism policy activities aimed at ensuring production, institutional, organizational and human conditions for improving the competitiveness of Croatian tourism and using the resource base on the responsible and sustainable development principles (Ibid.). As this is a document that should ensure the integration of the Republic of Croatia into the consolidated tourism policy of the European Union, the Strategy for development of tourism of the Republic of Croatia until 2020 is a complete conceptual framework that enables:

- Coordinated action of tourism policy makers,
- Systematic harmonization of tourism policy meas-
- Comprehensive understanding of the key trends in the development of Croatian tourism as a precondition for attracting the interests of potential domestic and foreign investors, and
- Targeted routing of the development and investment process and the effective withdrawal of EU

Table 1. Priority measures for improving the competitiveness of Croatian tourism

Measure number	Name of measure
Measure 1	Harmonization and improvement of the legislative framework in order to strengthen entrepreneurship and investment
Measure 2	The acceleration of investment activity by adopting a special law
Measure 3	The prompt resolution of property ownership issues
Measure 4	Development and implementation of privatization program of state-owned tourism enterprises
Measure 5	Economic activation of tourist facilities/sites managed by the Agency for State Property Management
Measure 6	Proactive fiscal policy in tourism
Measure 7*	Launching new programs to encourage development of small, medium and large-scale entrepreneurial ventures in tourism
Measure 8*	National Program for development of small family hotels
Measure 9*	National Program for promotion of family accommodation
Measure 10	Creating entrepreneurial clusters
Measure 11	The definition of common criteria for strategic planning of tourism development and development of strategic plans for development of tourism in the county/local level
Measure 12*	Regional/local programs of beach planning and management
Measure 13*	Action Plan for development of nautical tourism – yachting
Measure 14*	Action Plan for development of health tourism
Measure 15*	Action Plan for development of cultural tourism
Measure 16*	Action Plan for development of the congress offer
Measure 17*	Action Plan for development of golf offer
Measure 18	Program for development of cyclotourism
Measure 19	Harmonization of education in the hospitality industry with demand
Measure 20*	National lifelong learning program for tourism professionals
Measure 21	Reorganization of the system of tourist boards and building an efficient system of tourism destination management
Measure 22	Creating a new strategic marketing plan of Croatian tourism
Measure 23	Development program of specialization of receptive tourism agencies
Measure 24	Continuous production of TSA (Tourism Satellite Account) and regional TSAs
Measure 25	Promotion of investment in tourism
Measure 26	Positioning of the Ministry of Tourism Republic of Croatia as an intermediary body in the operational structure for managing the process of using EU funds 2014-2020

<sup>\*</sup>Additionally funded Action Plans for the implementation of specific forms of tourism. Source: Strategy for development of tourism of the Republic of Croatia until 2020, 2013: 67-69.

funds (Strategy for development of tourism of the Republic of Croatia until 2020, 2013: 3-4).

Strategy for development of tourism of the Republic of Croatia until 2020 in the final part of the document refers to the implementation of the defined vision and strategic development goals. Emphasis is placed on operational strategies in key areas of activity. These are activities focused on product development, accommodation and tourism infrastructure, investments, marketing, human resources building and tourism development management (Strategy for development of tourism of the Republic of Croatia until 2020, 2013: 4). Action Plan of the Strategy for development of tourism of the Republic of Croatia until 2020 implementation contains

26 priority measures for improving the competitiveness of Croatian tourism with envisaged dynamics of implementation, the main goal of which is to establish strategic guidelines for concerted action of major tourism and economic policy-makers at the national level in order to enhance the competitiveness of Croatian tourism (Ibid.).

From the foregoing, it is evident that all the measures of tourism policy, namely Measures 7, 8, 9, 12, 13, 14, 15, 16, 17 and 18 which includes action plans/national programs of the Strategy for development of tourism of the Republic of Croatia until 2020 were listed as a key action areas that need to be taken into account when implementing the Strategy. On the other hand, "sun and sea" is still the dominant tourist product of the Republic of Croatia. This will remain in the future if its position on the Mediterranean market is not continuously improved through substantially enriching and increasing the quality of the accommodation and service offer, i.e. deepening the destination value chain. Today's dominant position of "sun and sea" product is at the same time the main reason for the pronounced seasonality of tourist demand and the concentration of tourist traffic on the narrow coastal zone of the Republic of Croatia. In this respect, reliance on the product "sun and sea" will not contribute in the long run to a significant improvement of the competitive position of the Republic of Croatia as a tourist destination, and thus to neither increase of tourist consumption nor better use of development potentials. In the period from 2013 to 2020, the Republic of Croatia should turn more intensively to the development of tourism products, which should have enabled greater utilization of available capacities outside the summer months and activation of the tourism potential of continental Croatia (Strategy for development of tourism of the Republic of Croatia until 2020, 2013: 36).

The structure of tourism products in the Republic of Croatia in the last ten years has changed only to a small extent, and this indicates just seasonality curve. Starting from the existing features of the Croatian tourist offer, but also from the qualitative features of the Croatian tourist attraction, the Strategy for development of tourism of the Republic of Croatia until 2020 defined the key production groups on which the system of tourism products of the Republic of Croatia should be built by 2020, and one of them are health tourism. Such a diversified system of tourist products enables the Republic of Croatia to expand to the structure of the segments of visitors whose preference for different types of travel, different price positions and trips in different periods of the year opens the possibility of a significant time extension of tourist activity and increase tourist consumption. Furthermore, further production diversification of basic tourist experiences system, which implies the commercialization of individual products, opens the possibility of dispersion of tourist activity to the entire territory of the Republic of Croatia. In this way, it is possible to gradually reduce today's uneven dispersion of the effects of tourism activity in the Republic of Croatia.

Priority measures of tourism policy defined by the Strategy for development of tourism of the Republic of Croatia until 2020 are divided into two categories:

- 1. The first category (the highest priority) consists of measures without which the initiation and/or implementation is not possible to realize the defined strategic goals/objectives, i.e. Measures 1, 2, 3, 4, 5, 6, 21 and 26, which were to be implemented during 2013.
- 2. The second category (medium high priority) consists of measures that are essential for the achieve-

ment of individual development goals, these are Measures 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24 and 25 and should have been carried out for the most part in the period from 2013 to 2015, or in the case of unexpected circumstances in the period from 2016 to 2020. All tourism policy measures defined in the Strategy for development of tourism of the Republic of Croatia until 2020 and related to the implementation of action plans/national programs are medium high priority measures, and these are Measures 7, 8, 9, 12, 13, 14, 15, 16, 17, 18 and 20 (Strategy for development of tourism of the Republic of Croatia until 2020, 2013: 66).

In the period from 2013 to 2015, the following programs were presented to the public:

- 1. National Program for development of small and medium-sized enterprises in tourism,
- 2. National Program for improving the offer of small and family hotels,
- 3. National Program the promotion of family accommodation,
- 4. National Program of management and regulation of beaches,
- 5. Action Plan for development of nautical tourism,
- 6. Action Plan for development of health tourism,
- 7. Action Plan for development of cultural tourism,
- 8. Development of cycling tourism,
- 9. Program for strengthening the competitiveness of human resources in tourism (centers of compe-
- 10. National Program for the development of social
- 11. Action Plan for development of green tourism (https://mint.gov.hr/istaknute-teme/strategija-razvojaturizma-11411/akcijski-planovi-15525/15525).

On December 6, 2016, the public was presented the National Program - Action Plan for development of congress tourism (https://mint.gov.hr/UserDocsImages/AA 2018 c-dokumenti/akcijski%20planovi/001\_170120\_akc\_p\_kongres.pdf), and in the first quarter of the year 2018 Action Plan for development of golf offer (https://mint.gov.hr/UserDocsImages/ AA 2018 c-dokumenti/180125 akcijski golf.pdf).

The mentioned action plans/national programs elaborated activities for the implementation of certain priority measures to improve the competitiveness of Croatian tourism, their holders and deadlines for implementation. The internal organizational units of the Ministry of Tourism of the Republic of Croatia, which, according to the Strategy for development of tourism of the Republic of Croatia until 2020 are responsible for the implementation of certain measures of tourism policy, should take the above into consideration when planning implementation activities of the Draft Annual Action Plan for the implementation of the Strategy for development of tourism of the Republic of Croatia until 2020 in the framework of the interministerial working group for the implementation of tourism policies that are defined by the Strategy.

Coordination of those responsible for the implementation of action plans/national programs in the Ministry of Tourism of the Republic of Croatia with other state administration bodies and other competent institutions has proven to be crucial of which depends effective implementation. Despite successful examples of effective coordination and cooperation, the fact is that some measures, such as Action Plans of cyclotourism, rural, green and health tourism, could be significantly more effectively implemented in the context of more successful coordination, both within the Ministry of Tourism of the Republic of Croatia itself and between the relevant related ministries (Evaluation in the course of implementation of the Strategy for development of tourism of the Republic of Croatia until 2020 (interim evaluation), 2017: 25).

It is also important to emphasize that effective strategic development management requires a flexible mechanism that provides the necessary information and promotes the results of implementation. In addition to controlling activities, a model for measuring (monitoring and evaluating) developmental effects of strategic planning acts, regardless of their content, is important, since it represents one of the policy frameworks, in this case tourism policy, which must be based on a system of measurable indicators effect. Implementation activities should be elaborated to contain clearly defined indicators for measuring the impact of strategic documents on development, and evaluation of the success for achieving the set objectives and the relevance and reality of the planned activities within the priorities and measures.

As already pointed out, the Strategy for development of tourism of the Republic of Croatia until 2020 envisaged diversification of products, e.g.: Measure 13 - nautical tourism, Measure 14 - health tourism, Measure 15 – cultural tourism, Measure 16 – congress tourism, Measure 17 - golf offer and Measure 18 - cyclotourism (Strategy for development of tourism of the Republic of Croatia until 2020, 2013: 35) in order to influence the extension of the tourist season and expanding geographic base, and consequently the increase of consumption, provided that the action plans implemented by the defined dynamics of implementation. Additionally funded and developed action plans for specific forms of tourism, some of which have not yet been adopted, are not being implemented, or are only being implemented to a small extent (Evaluation in the course of implementation of the Strategy for development of tourism of the Republic of Croatia until 2020 (interim evaluation), 2017: 5, 18). Seasonality is still high, although the diversified tourism products do not depend on the season.

In view of all the above, there is a significant gap between the current position and the one planned in relation to the set goals, defined by the Strategy for development of tourism of the Republic of Croatia until 2020 and the Action Plan for the implementation of the Strategy for development of tourism of the Republic of Croatia until 2020 (Strategy for development of tourism of the Republic of Croatia until 2020, 2013: 66-85). Namely, the main objective defined by the Strategy for development of tourism of the Republic of Croatia until 2020 is to increase the attractiveness and competitiveness of tourism, which should have resulted in the entry of the Republic of Croatia among the 20 leading tourist destinations in the world by the year 2020 according to the criteria of competitiveness (WEF - World Economic Forum) (Strategy for development of tourism in the Republic of Croatia until 2020, 2013: 31). Based on the Travel & Tourism Competitiveness Report, Republic of Croatia is currently in 32nd place. (The Travel & Tourism Competitiveness Report 2017. Paving the way for a more sustainable and inclusive future, 2017) By comparing the results of Travel & Tourism Competitiveness Report from May 2015 (http://konkurentnost. hr/hrvatska-medu-turisticki-najkonkurentnijim-zemljama-svijeta/) and May 2017 (The Travel & Tourism Competitiveness Report 2017. Paving the way for a not sustainable and inclusive future, 2017), there has been little progress made by the Republic of Croatia according to the criteria of competitiveness (WEF - World Economic Forum), since in 2015 the Republic of Croatia was ranked on the 33th place, and in 2017 at 32nd.

From the above it can be concluded that at this rate of progress cannot expect the fulfillment of the main objective/goal defined by the Strategy for development of tourism in the Republic of Croatia until 2020, which is related to increasing the attractiveness and competitiveness of tourism, and should result in the entry of the Republic of Croatia into 20 leading tourist destinations in the world by 2020, according to the WEF criteria of competitiveness (Strategy for development of tourism of the Republic of Croatia until 2020, 2013: 31). In addition to the main objective, other strategic goals have been defined that relate to improving the structure and quality of accommodation, new employment, investments and increase tourism spending (Ibid.).

## Action Plan for development of health tourism of the Republic of Croatia

In addition to a detailed analysis of the competitive position, the Action Plan for development of health tourism identifies priorities for upgrading the offer/ services of existing thermal/thalassotherapy destinations/institutions as well as destinations/institutions of wellness and medical tourism and identifies priority locations/sites for the construction of new facilities of health tourism offer (Strategy for development of tourism of the Republic of Croatia until 2020, 2013: 78). The Action Plan for development of health tourism in-

cludes development of health tourism concept proposal and best use of appropriate business-management model (Ibid.). The Plan specifically elaborates activities related to staff training, networking and improving market performance (Ibid.).

The Action Plan for development of health tourism also elaborates the activities necessary for implemen-

Table 2. Action Plan for development of health tourism: implementation activities and holders of activities

Ordinal number	Implementation activities	Holder(s) of activities*			
Fields of activity and programs for raising the competitiveness of the wellness sphere					
1	Regulation of holistic and medical wellness services	MHRC / MTRC			
2	International certification	MTRC and MHRC			
3	Improvement of existing offer	MTRC and MRDEUFRC			
4	Lifelong education of employees	MSERC, MTRC, MHRC			
5	Adaptation of education system to the needs of wellness tourism	MTRC and MRDEUFRC			
6	Promotion and sales	CNTB			
7	Thematic/production joining	MTRC and MHRC			
Fields of activ	vity and programs for raising the competitiveness of the sphere of health tourism				
1	Expansion of activities of special hospitals (registration)	MHRC			
2	Ownership, organizational and market restructuring spas/special hospitals in public domain	MHRC			
3	Specialization – thematic profiling	MHRC and MTRC			
4	Improvement of existing offer	MHRC and MTRC			
5	Development of a new health-spa offer	MHRC and MTRC			
6	Operationalization of the Croatian system of accreditation of health institutions	MHRC			
7	International certification	MHRC			
8	Lifelong education of professionals in spas/hospitals	MSERC and MTRC			
9	Adaptation of educational system to the needs of health tourism	MSERC, MHRC and MTRC			
10	Thematic/production joining	MTRC and MHRC			
11	Promotion and sales	CNTB, MTRC and MHRC			
12	Linking with international spa tourism facilitators	MTRC and MHRC			
13	Statistical monitoring of spa (health) tourism effects	MTRC and MHRC			
14	National Institute of Balneology	MHRC			
15	Certification of Croatian health resorts	MTRC and MHRC			
Fields of activ	vity and programs for raising the competitiveness of the medical tourism sphere				
1	Operationalization of the Croatian accreditation system for all health care institutions	MHRC			
2	International certification	MHRC			
3	Improving the quality of public sector offer in the field of medical tourism	MHRC			
4	Improving the depth and breadth of private sector offer in the field of medical tourism	MHRC and MTRC			
5	Thematic/production association of private medical tourism providers	MHRC and MTRC			
6	Promotion and sale of medical tourism services in the public sector	CNTB, MTRC and MHRC			
7	Promotion and sale of medical tourism services in the private sector	MTRC and MHRC			
8	Linking with international facilitators of medical tourism	MTRC and MHRC			

Source: National program – Action Plan for development of health tourism of the Republic of Croatia, 2014: 36-69.

<sup>\*</sup>Explanation of abbreviations: MHRC – Ministry of Health of the Republic of Croatia, MTRC – Ministry of Tourism of the Republic of Croatia, MRDEUFRC – Ministry of Regional Development and EU Funds of the Republic of Croatia, MSERC – Ministry of Science and Education of the Republic of Croatia, CNTB – Croatian National Tourist Board

tation of the selected projects and holders of activities, as shown in Table 2 (National program - Action Plan for development of health tourism of the Republic of Croatia, 2014: 36-69).

## Programs in the function of increasing the competitiveness of health tourism in the Republic of Croatia

Recognizing the potential, Strategy for development of tourism of the Republic of Croatia until 2020 (2013) envisages further development of health tourism, i.e. all its modalities. The Strategy positions spa tourism as a carrier or "core" of the health and tourism offer of the Republic of Croatia, with the assumption of ensuring the differentiation of health resorts and the importance of raising their quality. In this connection, a combination of thalassotherapy and continental spas offerings is assessed as a strategic advantage in the narrower competitive circuit. The basis for further development of medical tourism comes from the improvement of the quality of offer, increased communication and sales efforts, and the networking of the Republic of Croatia with the health insurance systems of other European Union member states.

Also, based on the recognized comparative advantages of the Republic of Croatia in the SWOT analysis, strategic national documents Strategy for development of tourism of the Republic of Croatia until 2020 (2013) and National strategy for development of healthcare of the Republic of Croatia 2012-2020 (2012), stress further development of the mentioned forms of tourism. Both strategies served as a base for the development of the Action Plan for development of health tourism of the Republic of Croatia (2014) as an interdepartmental platform for the systematic raising of the competitiveness of the health-tourism offer of the Republic of Croatia. The Action Plan for development of health tourism of the Republic of Croatia (2014) focuses specifically on the need to adapt:

- Existing health framework, i.e. the necessity of ownership transformation (attracting new capital, withdrawing capital from European Union funds),
- · Creating highly educated staff of health-tourism providers,
- Certification of spas/special hospitals and
- Business associating.

The Action Plan for development of health tourism of the Republic of Croatia proposes thirty development activities or programs specifically aimed at:

- Improvement of the institutional framework,
- Improvement of international recognition of the Republic of Croatia as a health-tourist destination,
- Product development and specialization,

- Improvement of the quality of health tourism products, and
- Improvement of professional and managerial skills of health tourism workers (National program - Action Plan for development of health tourism of the Republic of Croatia, 2014: 34).

The proposal of the program in order to increase the competitiveness of health tourism of the Republic of Croatia in the international market implies the implementation of certain equivalent activities carried out in all three health tourism modalities - wellness, spa/health care and medical tourism, but it is necessary to implement programs aimed at each specific segment of health tourism. Also, the document lists similar activities carried out in two or three segments of health tourism, which are primarily focused on the implementation the program of building the whole system, which are:

- Accreditation of Croatian health institutions, which should ensure the establishment/protection of a minimum acceptable service/quality of health services, all with the aim of increasing the safety and user satisfaction,
- International certification of Croatian health institutions, which should ensure their greater international credibility, thereby accelerating the acquisition of greater market recognition,
- Education of employees by introducing a lifelong education obligation or adapting the Croatian education system, which should ensure greater quality and innovation of the Croatian health-tourism offer, and
- Marketing and promotion of Croatian health tourism which should be designed taking into account the different market readiness of certain types of Croatian tourism and today's degree of recognition of various health-tourism products and service providers (Ibid.).

Each modality defines specific objectives and priorities depending on their competitive abilities and the level of market readiness. The development vision of medical tourism points to the following strategic pri-

- Improving international recognition of selected institutions through international certification,
- Improving the international desirability of the Republic of Croatia as a destination for medical tourism by establishing an effective competition/communication strategy,
- Extending the depth and breadth of the offer to the market ready medical services, and
- Enriching the existing offer with additional facilities appropriate to the needs of various segments of

potential users of medical, health and recreational services.

In addition to modernization and construction of diagnostic and therapeutic centers, this is especially true for raising the quality of accommodation capacities (equalization with hotel standards of higher category), as well as on arranging/building a certain number of entertaining contents (sports, "water fun" and the like). Also, with several new health-tourism centers, the offer of existing spas should be complemented by the construction of new hotels that would allow equal access to natural healing factors. When constructing new facilities, special attention must be paid to the environment and ambient features of the premises (Strategy for development of tourism of the Republic of Croatia until 2020, 2013: 39).

Priority product development activities comprise:

- Implementation of Action Plan for development of health tourism of the Republic of Croatia in cooperation of the Ministry of Tourism of the Republic of Croatia and Ministry of Health of the Republic of Croatia,
- Establishment of minimum standards for wellness centers, health/spa tourism centers and medical tourism centers, including standard of furnishing, security, quality of service and environmentally responsible "green business", and
- Croatian health/spa destinations should strategically connect and/or network with internationally identifiable and established health and medical tourism providers in the countries of the relevant competitive circle, e.g. with Austria, Italy, Germany, Hungary, Slovenia (Strategy for development of tourism of the Republic of Croatia until 2020, 2013:

With the mutual cooperation of the Ministry of Health of the Republic of Croatia, the Ministry of Tourism of the Republic of Croatia and the Ministry of Labor and Pension System of the Republic of Croatia planned to develop an expert analysis that would identify the activities lacking human resources for the further development of health tourism. In cooperation with the Ministry of Science and Education of the Republic of Croatia, the registration quotas were planned to be corrected for certain orientations of future experts in this area by adapting curricular programs planned to educate a quality staff according to new needs on the market.

Statistical monitoring of business and customer satisfaction is a key prerequisite for efficient policy management in the sphere of health tourism and for international comparisons of the achieved level of products competitiveness. In the Republic of Croatia there are still insufficient and sufficiently credible data on the basic features of the business and customer satisfaction of the services of health tourism providers. Such a situation makes it substantially difficult to make development decisions, and thus the management of the development process (National program -Action Plan for development of health tourism of the Republic of Croatia, 2014: 56).

The interdisciplinary relationship in health tourism often creates certain difficulties in the development of this sector. Therefore, the complexity of the relationship and the lack of compliance with applicable legislation and subordinate legislation (regulations) between the Ministry of Health of the Republic of Croatia and the Ministry of Tourism of the Republic of Croatia, directly competent in this segment, and directly related to the Ministry of Culture of the Republic of Croatia and the Ministry of Regional Development and EU Funds of the Republic of Croatia. The Ministry of Culture of the Republic of Croatia has an important role in the development of health tourism, because a large number of health resorts/spas and special hospitals in the Republic of Croatia are located in attractive natural locations, which are mainly protected cultural goods.

# Programs in the function of increasing the competitiveness of medical tourism in the Republic of Croatia

In the Action Plan for development of health tourism of the Republic of Croatia there are eight operational programs for the development of competitiveness in the sphere of medical tourism, fifteen operational programs in the field of health/spa tourism and seven operational programs related to wellness tourism. Each of the programs for wellness tourism refers to both medical and holistic wellness (National Program - Action Plan for development of health tourism, 2014: 68).

The predictable dynamics of the implementation of the proposed programs to raise competitiveness in the field of medical tourism, i.e. their priority is detailed presented in Table 3.

Out of a total of eight operational programs to increase the competitiveness of medical tourism from four first priority programs, three programs related to the improvement of the depth and breadth of the private sector offer in the sphere of medical tourism (Program 4), promotion and sale of medical tourism services in the private sector sphere (Program 7) and linking to international facilitators of medical tourism (Program 8) were to be carried out during 2015. International certification (Program 2) was to be carried out during 2015 and at the latest by the end of 2016. Two programs of the second priority programs, which relate to the operationalization of the Croatian ac-

Table 3. Time dynamics and priority of the programs to raise the competitiveness of medical tourism

Down to the founding of the control	Priority	Year of medical tourism					
Programs in the function of increasing competitiveness		2015	2016	2017	2018	2019	2020
Program 1: Operationalization of the Croatian accreditation system of all health institutions	II	2015	2016				
Program 2: International certification	I	2015	2016				
Program 3: Improving the quality of public sector offer in the field of medical tourism	III			2017	2018	2019	
Program 4: Improving the depth and breadth of the private sector offer in the sphere of medical tourism	I	2015					
Program 5: Thematic/production associating of private providers of medical tourism services	II	2015	2016				
Program 6: Promotion and sale of medical tourism services in the public sector sphere	III			2017	2018		
Program 7: Promotion and sale of medical tourism services in the private sector sphere	I	2015					
Program 8: Linking to international facilitators of medical tourism	I	2015					

Source: National Program – Action Plan for development of health tourism of the Republic of Croatia, 2014: 69.

creditation system of all health institutions (Program 1) and thematic/production associating of private providers of medical tourism (Program 5), should have been carried out during 2015 and at the latest by the end of 2016. Priority Program 3 to improve the quality of the public sector offer in the field of medical tourism was to be carried out during 2017, 2018 and no later than 2019, while the program of promotion and sale of medical tourism services in the public sector sphere (Program 6) was to be carried out during 2017 and 2018.

Programs in the function of increasing the competitiveness of medical tourism did not implement the expected time dynamics of implementation and/ or were not implemented at all, which also affects the none/effectiveness of the implementation of the Action Plan for development of health tourism of the Republic of Croatia, and then the overall Strategy for development of tourism of the Republic of Croatia until 2020. From the obtained results based on the Evaluation in the course of implementation of the Strategy for development of tourism of the Republic of Croatia until 2020, from December 2017, conducted by the Institute for Development and International Relations, IRMO, from Zagreb (Service evaluation in the course of implementation of the Strategy for development of tourism of the Republic of Croatia until 2020 (interim evaluation), 2017), it can be concluded that the relevance of the Strategy is not questionable, i.e. it is relevant and on all grounds. However, judging by key stakeholders, the majority of the action plans adopted in the implementing/practical sense are irrelevant, as the action plans are implemented only partially, or are not implemented at all. The reasons why in the observed period all planned were not realized are:

- · Insufficient number of expert and competent officers on the implementation of medical programs as part of the implementation of the Action Plan for development of health tourism of the Republic of Croatia,
- Insufficient financial resources and dependence on external sources of financing,
- An insufficient number of conscious stakeholders in individual measures, and
- Slow and inefficient inter-ministerial cooperation.

Coordination of responsible for the implementation of the Measure 14 of the Action Plan for development of health tourism of the Republic of Croatia from the Ministry of Tourism of the Republic of Croatia with other State administration bodies and other competent institutions proved to be crucial of the effective implementation. Despite successful examples of effective coordination and cooperation, the fact is that some measures (for example, action plans for cyclotourism, rural, green and health tourism) could be substantially more effective implemented under better coordination conditions within the Ministry of Tourism of the Republic of Croatia and between the relevant related ministries. In view of this, the Ministry of Tourism of the Republic of Croatia should certainly establish better coordination with other bodies and position itself as an initiator of the implementation of all measures and activities that are primarily not under the jurisdiction of the Ministry of Tourism of the Republic of Croatia. This would also ensure an extremely significant mutual complementarity of the measures, i.e. links and mutually supportive synergic effects of measures from the Strategy with strategic documents of other ministries and sectors (Ibid.).

## The economic performances of the tourist products of medical tourism in the Republic of Croatia

Factors influencing the decision to travel to another country for treatment usually include substantially lower costs of surgery, long waiting lists in the country of origin and the risk of low quality medical services or lack of quality health institutions in country (National Program - Action Plan for development of health tourism of the Republic of Croatia, 2014: 18). Given the most sought-after medical tourism services in Europe, which are presented in Table 4, below will be discussed more about the economic performance of medical tourism in the sphere of dentistry and cosmetic surgery.

Table 4. Most wanted medical tourism services in Europe

Service type	Demand services in percentages
Dentistry	30% - 50%
Cosmetic Surgery	25% - 34%
Orthopedic Surgery	7%
Obesity Treatments	7%
IVF Treatments	3% - 6%
Ophthalmological Surgery	3%

Source: National Program - Action Plan for development of health tourism of the Republic of Croatia, 2014: 18.

The significance and demand for medical tourism services is growing due to faster transport and more favorable transport routes, globalization, Internet use, but also following the increased cost of health services in many countries. The most common motive for the use of medical tourism services in another country are, as a rule, significant differences in the cost of using these services (Goldbach, West, 2010: 45). For example, the rates of Botox treatment differ considerably depending on the place of use of the service. Table 5 shows the average prices in euros for Botox treatment in France, Austria, Switzerland, Germany and Croatia.

Table 5. Average prices in euros of Botox treatment per country (according to www.estheticon.com)

State	Average price (in euros)
France	422
Austria	409
Switzerland	490
Germany	720
Croatia	392

Source: Krajnović et al., 2013: 19.

In Table 5 it is evident that the Croatian polyclinics, of all the above mentioned countries, had average lowest prices for Botox treatment. In the following Table 6, the comparative prices of dental services are shown, from which it is apparent that the average price for all dental treatments in the Republic of Croatia is about 57% lower compared to prices in the United Kingdom and Ireland.

Goldbach and West state that developing countries have significantly lower cost of medical services, so medical treatments can be well combined with a luxury holiday. Comparative analysis of the prices of medical services in the countries that develop medical tourism explains the essence of the economic performance of the tourist product of medical tourism. In order to understand the economic performance of the tourist product of medical tourism should understand the motives that encourage tourists to travel to the destinations of medical tourism. Patients, in this case tourist users, most often travel to tourist destinations of medical tourism due to the lower cost of medical services (Goldbach & West, 2010: 44).

However, there is insufficient research in this area, so it is still not possible to determine the optimal model of the economic performance of medical tourism products. Therefore, the tourist product of medical tourism is observed on a case-by-case basis, i.e. comparing individual countries and their prices of medical services. It would also be useful to explore the average and total boarding and off-board spending in destinations of medical tourism and what is the proportion of medical services in total consumption, the average duration of stay of medical tourism tourist users, which are the preferences of tourist users of medical tourism in the choice of tourist destination, hotel categories etc. Based on a sufficient number of relevant researches of this type, the optimum model of economic performance could be obtained in order to maximize the satisfaction of the users of medical tourism services, but also to maximize the profits of "tourist clinics", hotel entities in which users reside as well as other entities in the tourist destination of medical tourism, in accordance with the principles of ethics and sustainable development (Krajnović et al., 2013: 21).

Medical tourism in the Republic of Croatia, specifically dental tourism, was significantly started to develop twenty years ago, first in the region of Istria and Primorje-Gorski Kotar County. After that, it gradually expanded to central Dalmatia and later to the City of Zagreb and the ring around the City of Zagreb. There was no systematic approach to effective strategic management of health/medical/dental tourism development in the Republic of Croatia and everything was left to private, entrepreneurial initiatives. Private initiatives focused largely on the Italian market, primarily due to proximity. Orientation towards the Italian

Table 6. Price comparison in euros of dental services in the United Kingdom and Ireland with those in the Republic of Croatia

	UK & Ireland	Croatia				
RADIOLOGIA						
• X-rays (small)	25	11				
• X-rays (panoral – full mouth)	65	29				
WHITE COMPOSITE FILLINGS						
• Front	140	45				
• Back	155	55				
ENDODONTICS						
• Incisor	370	74				
• Premolar	470	84				
• Molar		570				
TOOTH WHITENING						
• Airflow	80	42				
Deep Bleaching	789	280				
CROWNS & VENEERS						
Full porcelain crown	790	370				
Tooth colored crown, metal inside	740	240				
Bridge (dependent on design)	from 900	480				
Porcelain veneers	720	325				
EXTRACTIONS						
• Routine	110	38				
Surgical	220	75				
IMPLANTOLOGY						
Implant placement only (excluding crown)	1.200	445				
Abutment and crown	2.400	550				
DENTURES						
Acrylic partial denture	400	300				
Acrylic Denture (upper or lower)	450	320				
Acrylic Denture (upper & lower)	800	600				
Cobalt Chrome (metal frame)	1.200	720				
1-6 teeth	450	300				
6+teeth	600	320				
• Full upper or lower	800	480				
• Full upper and lower	1.400	720				
ORTODONZIA						
Upper and lower arch mobile	1.800	400				
Upper and lower arch fixed (metal or white)	4.900	1.900				
Upper arch treatment (metal or white)	3.800	1.600				
Lower arch treatment (metal or white)	3.500	1.600				

Source: Krajnović et al., 2013: 20.

market has also occurred due to the highly developed awareness of the Italians about dental health regardless of their purchasing power and discretionary in-

In the race to earn and create additional profit, and without systematic institutional support, a large number of dental clinics, which are exclusively oriented towards the Italian market, in order to achieve a competitive advantage, in this case, in relation to dental service providers in Italy, reduced prices. Prices have lowered up to the level at which the Italian market is affordable to consumers with the lowest purchasing power. The aforementioned leads to the collapse of the quality of dental medicine services in these clinics, and thus to the creation of a generally negative image of dental/medical, and then the overall health tourism in the Republic of Croatia. For example, when installing a top quality dental implant/service, the average percentage of the complaint procedure is about 5%. In contrast, in dental clinics primarily oriented towards the Italian market, the number of procedures with complaints is about 35%, but it should be noted that the prices are even lower than 30% of the average prices in those clinics that provide dental service for the installation of quality dental implants. Precisely because of the large number of complaints of dental services in the clinics aimed primarily at the Italian market, which is an indispensable consequence of the low quality of materials and services, all in order to be able to attract that segment of consumers with the lowest payment power, usually they are reluctant to receive domestic patients.

Also, given the low consumer purchasing power, i.e. target segment of the market, which focuses on dental clinics operating with the Italian market, they are, as a rule, located in private accommodation and in, so-called, "rental apartments". It does not include any tourist or catering/hospitality services. In view of this, it is not possible to talk about medical/health tourism in the Republic of Croatia, which is one of the reasons that the Republic of Croatia today earns a lot less revenues than the planned defined in Action Plan for development of health tourism of the Republic of Croatia. In order to bridge the above-mentioned gap between the position of the Republic of Croatia now and the one in which it wants to be, stronger institutional support, legal regulations and, above all, measures of fiscal policy are needed in a way that aims to raising the quality of health/medical services through the price category. With such an approach, to dental medicine institutions and other medical facilities that provide a high quality service would be given the opportunity to engage in the medical/health tourism market and thus influence the raising of the competitiveness of the health tourism in the Republic of Croatia. At the same time, this would prevent further collapse of the image of dental/medical/health tourism on the emerging markets, which already has a longterm major negative impact on the competitiveness of health, as well as the overall Croatian tourism.

# Quality enhancement as the basis of competitive advantage in medical tourism

When choosing a foreign health institution in which a medical procedure is intended, other than the price itself takes account of the professional accreditation (medical certificate) of the institution, doctor's experience, the percentage of successful cure or performed procedures and the provision of medical care in the

home country in the event of any postoperative complications. For the user, the greatest threat to the use of medical services in another country is the possible uncertainty, i.e. the possibility of obtaining inadequate health services in relation to the expected. Research shows that this factor does not cause a decline or stagnation of medical tourism due to the present trend of the increasing standardization of the quality of medical services globally, with the use of the latest knowledge and state-of-the-art technology in the field of medicine. Additionally, many physicians who are employed in clinics in less developed countries have conducted part of their education or part of their work experience in developed countries (Turner, 2007: 314). All this does not diminish the need for a precise definition of quality standards in medical tourism at the international level, which appears as a necessity, and will be further discussed below. Despite the standards, it should be noted that the risks in medical tourism cannot be completely excluded because patients have a certain risk of complications after international treatments, since soon after surgery they are on the road, and there are dangers of infectious diseases in some countries, e.g. in India.

Often lower costs of medical services mean lower quality of these services (Turner, 2007: 313). Since not all medical institutions follow the same standards of quality, and there is a lower quality service offering due to low prices, there is an increasing need for standardizing the quality of medical services in the world. The most famous and most significant global/ world organization, which is engaged in quality monitoring and accreditation of clinics that provide medical tourism services, is Joint Commission International (JCI). The World Health Organization (WHO) also participates in the process of accreditation and certification of healthcare institutions. Such institutions are involved in regulating and overseeing the quality of the provision of medical services at international level. Other important international institutions engaged in regulating the activities of providing international health services, with the aim of ensuring the safety and satisfaction of the users of medical tourism provided by the service are: ISQUA – The International Society for Quality in Health Care and NCQA - National Committee for Quality Assurance (Krajnović et al., 2013: 25) and MTQA – Medical Travel Quality Alliance. The OECD Initiative (Organization for Economic Cooperation and Development) is also important in this field which refers to defining the so-called HCQI (Healthcare Quality). The aim is to define international quality standards that will take into account the needs of medical service users, the effectiveness of providing medical services, user safety and the degree to which the users of services in medical tourism meet.

With this aim a commission was established consisting of representatives of more than twenty countries. This initiative has been introduced due to the insufficiently defined and unequal standards of medical services at international level and aims to introduce a quality system in medical tourism. The World Health Organization Initiative, which takes care of the safety of the users of medical services at the international level, is also launched with the same aim, but also ensures the "monitoring" of providing services in international tourism. Some countries have established their own quality assurance institutions, e.g. Germany, TEMOS101; Canada, Accreditation Canada International (http://healthstandards.org/).

The Republic of Croatia is part of one of the most developed regions of health tourism in Europe. It is surrounded by very strong competitors in the field of providing health tourism services. By studying the ways in which the destinations function, which are successful in providing services in the field of health tourism, it has been noted that great attention is paid to the integration of offer, quality, specialized sales and promotion and continuous investment. In the immediate surroundings, the competitors to the Republic of Croatia represents Slovenia, Hungary and Austria, which in addition to the long tradition of health tourism have been investing significantly in this form of tourism for twenty years.

Health tourism, and especially medical tourism, becomes a focus in a wider environment, with competitors from Turkey, Poland, the Czech Republic, Romania and Bulgaria. In the widest sense, competitors are all countries that nurture and develop medical tourism in the world. As far as competitors in the wider surroundings are concerned, it should be noted that Poland and the Czech Republic have significantly increased the quality of their medical institutions/facilities using European Union funds. With the perceived good quality of medical services, essentially lower prices than those in Western Europe (even ranging from 50% to 70%) and with the promotion guided on national level (EU financed Polish Medical Tourism Promotion Consortium, Czech Republic - Medicaltourism.cz) they are positioned as new European centers for plastic surgery, dentistry, orthopedics and IVF, and their target markets are patients from the United States, United Kingdom, Germany and Russia.

Turkey as a provider of medical tourism represents a country that invests equally strongly in facilities, quality of service and recognition, and today has the most prestigious JCI certificates for hospitals in Europe. Romania, Bulgaria and Serbia can count on potential future competitors in the health tourism market based on their resource bases and traditions. Their potential for now is neither developed nor internationally recognized, but are highlighted by the features that are important for the development of this form of tourism. Romania has about 3000 thermal and mineral springs in 70 health/spa destinations, Bulgaria is a country with a large number of mineral springs and many kinds of medicinal plants/herbs, and Serbia has a tradition of thermal spas (National Program - Action Plan for development of health tourism of the Republic of Croatia, 2014: 19-20). Increasing competition in the European receptive market to Croatian tourism sets the task of forming an offer that will attract potential tourists from the competition (Gržinić & Bevanda, 2014: 176). An offer that is not capable of adjusting to changes in quality, adapts to demand mainly through the cost of services, resulting in low efficiency of engaged production resources and high dependence on market developments and economic policy (Dulčić & Petrić, 2001: 37).

Integrated Quality Management (IQM) approach, when it comes to destination, can be defined as a "systematic search for quality in the broader and narrowest sense, i.e. the search for short-term economic improvement and long-term local development. Quality in a narrow sense usually means short-term goals and any improvement in internal quality is currently leading to greater economic effects (total income, profit). Quality in a broader sense or external quality implies development of sustainable tourism..." (Krajnović et al., 2013: 25). When it comes to the possibility of applying IQM approaches in the destinations that develop medical tourism, it should be emphasized that medical tourism develops in tourist destinations around the world. Further scientific research in this area would be useful. It should provide an answer as to the standard regulatory model of quality management of tourist destinations, since different tourist destinations in general, as well as those of medical tourism, apply different approaches depending on economic and social system, existing legal regulations, socio-economic environment and the degree of development of receptive country, which, in the case of medical tourism, differ substantially (Ibid.).

## Accreditation and international certification of **Croatian healthcare institutions**

The accreditation of Croatian healthcare institutions should ensure the establishment and protection of a minimum acceptable quality standard for health services in order to increase the safety and level of customer satisfaction. The responsible institution for the accreditation of healthcare institutions in the Republic of Croatia until the end of 2018 was the Agency for Quality and Accreditation in Health and Social Welfare (<a href="http://aaz.hr/o-agenciji">http://aaz.hr/o-agenciji</a>). With the entry into force of the Act on Health Care Quality ("Official Gazette"

118/2018) of January 1, 2019 the Ministry of Health of the Republic of Croatia has taken over all the activities, record office (archive) and other documentation, work resources, rights and obligations and financial resources of the Agency for Quality and Accreditation in Health and Social Welfare (http://www.aaz.hr/hr/vijesti/obavijest-prenosenje-poslova-agencije-za-kvalitetui-akreditaciju-u-zdravstvu-i-socijalnoj).

Competence relates to the field of insurance and improvement of healthcare quality, accreditation in healthcare and health technology assessment processes, as well as in the field of ensuring and enhancing the quality of social services and accreditation of the social welfare holders established by the Act on Health Care Quality ("Official Gazette" 118/2018). Accreditation standards are:

- System of insurance and improvement of health care quality,
- Management of hospital health care facilities (Hospital Health Administration),
- Hospital Health Services Employees,
- Overview of the use of health services,
- Patients' rights,
- Medical documentation service,
- · Health care,
- Planning of discharge (Release planning),
- Infection control, and
- Safety management system (<a href="http://aaz.hr/hr/akred-">http://aaz.hr/hr/akred-</a> itacija/standardi).

It should also be emphasized that the planned accreditation system of healthcare institutions in the Republic of Croatia is voluntary and not binding. This accreditation status does not help Republic of Croatia to position itself in the health tourism market.

There is still no autonomous system of certification of health institutions in the Republic of Croatia (National Program - Action Plan for development of health tourism of the Republic of Croatia, 2014: 11). A smaller number of healthcare institutions have basic international certificates, among which the most common ISO standards, and the largest number of health tourism providers in the Republic of Croatia are not certified for the purposes of health-tourism services. International certification of Croatian healthcare institutions should ensure their greater international credibility, and thereby accelerate the acquisition of greater market recognition. Below are listed, and in shorter lines described, some of the healthcare institutions in the Republic of Croatia that have international certificates: Magdalena Clinic from Krapinske Toplice, Special Hospital of St. Catherine in Zabok and Zagreb and Special Hospital Medico in Rijeka.

The Magdalene Clinic from Krapinske Toplice the quality of service and patient safety guarantees with three independent certifications. Certificate ISO 9001 - International Standard, which relates to quality management from internal business organization to the provision of end-users services, the Magdalene Clinic in 2002 is certified by the agency Bureau Veritas Quality International; the Diamond Certificate of the organization Accreditation Canada, a renowned international certification company, which has been certified healthcare institutions in Canada and the world for more than 55 years, certified the Magdalene Clinic in 2017; Certificate ISO EN 15224 – International Standard based on ISO 9001, but related to quality management exclusively for healthcare organizations, the Magdalene Clinic was awarded in 2016 when it was certified as the first hospital to carry this certificate in the Republic of Croatia (http://www.magdalena.hr/).

St. Catherine Special Hospital in Zabok and Zagreb since October 2017 is the carrier of the prestigious Global Healthcare Accreditation, which means that it meets the high clinical standards of excellence and quality in providing health services at the highest international standards. It is the first such accreditation awarded in Europe. Furthermore, St. Catherine Special Hospital is a member of "The Leading Hospitals of the World", which has included a list of the few European health institutions that have been awarded this prestigious certification. This certificate is awarded to hospitals for their excellence in various fields of work primarily for quality of service, the expertise of the staff and others. In June 2015, the International Certification Association (ICERTIAS) St. Catherine Special Hospital declared as the "Best Private Hospital in the Republic of Croatia". St. Catherine Special Hospital in 2017 became a member of the International Certification Program ICERTIAS "Customers' Friend" - "Because we value our customers", which confirms the exceptionally high qualitative standards of business and customer and employee relationships. Only institutions that provide a proven relationship with their customers can access the ICERTIAS "Customers' Friend" certification program. St. Catherine Special Hospital in the medicine category achieved the status "Superbrands 2016", and behind the "Superbrands" project, whose home house is in the United Kingdom, is 20 years of successful action in the 88 countries worldwide (<a href="https://www.svkatarina.hr/en">https://www.svkatarina.hr/en</a>).

In the Republic of Croatia with certified medical quality operates the Special Hospital Medico in Rijeka, which has been operating to the ISO quality system since 2001, and since 2013 has been the holder of the Temos certificate "Quality in International Patient Care", which determines its position in close markets of Slovenia, Italy and Austria (http://www.medico. hr/o-nama/).

## Potential directions of strategic development of medical tourism in the Republic of Croatia

Successful tourism development assumes a quality development plan or strategy that is flexible and thorough (Cooper et. al., 2008: 249). As mentioned above, in April 2013 the current Strategy for development of tourism of the Republic of Croatia until 2020 and the Action Plan for the implementation of the Strategy, which contains 26 priority tourism policy measures, were adopted. The function of priority measures is to increase the competitiveness of an integral Croatian tourist product. The measures are focused on the efficiency of the management of a destination tourism product and on the increase of the quality of service and profitability of the business of individual economic entities. The priority measures of tourism policy are divided into two categories: the first category (highest priority) constitute measures without which the initiation and/or implementation is not possible to realize the defined strategic objectives. The second category (medium high priority) consists of measures that are of crucial importance for achieving individual development goals. All the highest priority measures were to be implemented during 2013. One of the priority measures defined in the Strategy for development of tourism of the Republic of Croatia until 2020 is Measure 14: Implementation of the Action Plan for development of health tourism of the Republic of Croatia. The implementation priority of Measure 14 is characterized as medium high. The medium high priority measures were to be implemented for the most part in the period from 2013 to 2015, or if unexpected circumstances occur, in the period from 2016 to 2020. (Strategy for development of tourism of the Republic of Croatia until 2020, 2013). As stated above, the defined actions for the implementation of this measure have not been implemented with the planned implementation dynamics defined in the Strategy for development of tourism of the Republic of Croatia until 2020, which has also influenced the performance results in relation to the set strategic objectives (State Audit Office. Performance Audit Report. Implementation of the measures established by the Strategy for development of tourism of the Republic of Croatia until 2020, 2016).

Furthermore, the interdisciplinary of relationships in health tourism often creates certain difficulties in the development of medical tourism. Therefore, the complexity of the relationship and the mismatch between the relevant legal and regulatory regulations between the Ministry of Health of the Republic of Croatia and the Ministry of Tourism of the Republic of Croatia, directly responsible for this segment, but also the indirectly related Ministry of Culture of the Republic of Croatia and the Ministry of Regional Development and EU Funds of the Republic of Croatia. The Ministry of Culture of the Republic of Croatia also plays an important role in the development of health tourism, as a large number of spas and special hospitals are located in attractive natural locations that are largely protected as cultural heritage. Regarding fiscal policy measures, cooperation with the Ministry of Finance of the Republic of Croatia is important.

Another disadvantage has become apparent following the entry into force of Directive 2011/24/EU on the application of patients' rights in cross-border healthcare use, adopted on October 25, 2013 (https://eur-lex. europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:201 1:088:0045:0065:EN:PDF). Without previously regulated domestic legislation, a private healthcare institutions, which is not a contracting institution of the Croatian Health Insurance Fund (HZZO), is placed in an unequal position in the Republic of Croatia. Croatian patients are allowed to use healthcare in certain situations in other European Union member states in public and private healthcare institutions. Patients are entitled to reimbursement for health services at prices defined by Croatian Health Insurance Fund (HZZO). If this same health service can be performed in the Republic of Croatia in a private health institution, patients do not have the right to return funds if that private institution is not a Croatian Health Insurance Fund (HZZO) contractor (most of which are not). This means that Croatian Health Insurance Fund (HZZO) is willing to pay the same service to foreign public and private institutions, and not to domestic private institutions. In this way, patients are stimulated to spend state budget funds outside the Republic of Croatia and create additional travel costs which are not covered by the Croatian Health Insurance Fund (HZZO). Such discrimination in market-oriented healthcare institutions is highly harmful for citizens who prefer treatment in a familiar environment, as well as for healthcare entrepreneurs. All this leads to the outflow of foreign exchange, the departure of the medical staff and the lack of opportunity for the realization of ideas and projects of health or medical tourism. The Strategy for development of tourism of the Republic of Croatia until 2020 states that key concepts which are expected to be more important in shaping health tourism offerings include "innovative", "authentic", "green" and "holistic". In this respect, specific factors of the success of health tourism products relate, above all, to the quality of specialized health centers/institutions, the quality of accompanying tourist offer and the compatible development of the destination.

When we talk about the merger/association, today many countries are faced with the problems of financing and managing public infrastructure. That is why public-private partnerships are an ideal form of merging the public and private sector to meet certain public needs. The need for market restructuring occurs due to the fact that the state is not always efficient in the full organization of certain public institutions and that it needs cooperation with the private sector to meet certain objectives/goals (Nikolic & Maikisch, 2006: 41).

The public sector comprises organizations and institutions financed from the state budget and guided by state services. The private sector encompasses organizations, individuals, companies that are not run by state/government bodies. Public authority determines the objectives/goals of the partnership and raises emphasis on the public interest and quality of services, while the private sector takes care of their interests. The private sector focuses on innovation (introduction of new technology), professional management, efficiency, sustainability of the project life cycle, while the public partner ensures public interest, competitive procurement, supervision of experts and strategic planning. Project analysis determines which model delivers the highest value for money and longterm savings for the public sector. Therefore, publicprivate partnerships projects are never entered if an analysis was not determined to deliver a higher/greater value than the traditional model. Successful tourism development assumes a quality development plan or strategy that is flexible and thorough (Cooper et. al., 2008: 249). Most important, importantly adopted strategies and action plans are implemented in accordance with the basic principles of effective strategic management development.

On issues such as today's health tourism in the Republic of Croatia and how to achieve the set strategic goals, they also sought to respond at the conference "Health Spot Croatia – Croatia, A place for health", held on February 5, 2019 in Zagreb. Approximately 200 local/domestic and foreign participants, representatives of private polyclinics and tourism

companies, discussed the perspectives of further development, presented ways of creating new products and experiences, introduced Conference participants with examples of practices and ways of connecting providers of tourism and health services. The Conference emphasized that the Republic of Croatia could increase twice the amount of health tourism that it has achieved today. It also emphasized the important role of the state and the need for synergy between the public and private sectors, without which there is no development of this offer. The Conference emphasized that the offer of health tourism can strongly contribute to the development of all-year tourism and increase investment. In the forthcoming period in the Republic of Croatia, in this type of offer is planned to be invested in: the Special Hospital Varaždin Thermal Bath/Spa and in Bizovac, Krapina and Daruvar Thermal Baths. It is underlined that the legal frameworks for development of health tourism offerings is now regulated, with changes to tourist and health laws, and are in preparation for compliance with the accompanying regulations of law. The Conference emphasized the need for privatization of healthcare, as privatization could result in additional investments and better quality for domestic and foreign patients, and with this approach, a greater number of doctors would remain in the Republic of Croatia. It is important to maintain quality and to be price competitive. The issue of public property ownership is important to resolve to be interesting to investors, and it is important to align standards with European institutions and obtain international certificates, which are some of the key factors for cooperation with international insurance companies that could contribute to increasing the number of foreign patients in Croatian health tourism (https://vlada.gov.hr/vijesti/konferencija-health-spot-croatia-zdravstveni-turizam-donosi-500-milijuna-eura-godisnje/25258).

### **Conclusion**

One of the main characteristics of Croatian tourism is a short season that effectively lasts only a few months a year. Comparative advantages such as the beneficial climate, ecological preservation and richness of cultural and natural heritage represent opportunities for positioning the Republic of Croatia as a year-round tourist destination. But they're not used right now. In order to extend the season, it is necessary to insist on high standards of service quality, training of skilled and educated staff, investments in quality equipment and accommodation units, expansion of additional services, changes to existing laws and legal acts, reduction of adminis-

tration, measures of fiscal policy in order to attract investment, more efficient use of European Union funds and more. Therefore, "the sun and the sea" are not sufficient to develop tourism in its entirety, but its development requires effective strategic management of the different types and subtypes of tourism. With the changing trends in tourism and the growing awareness of the importance of preserving health and improving quality of life, health tourism in the world becomes one of the main motives of travel. Health tourism, as one of the specific forms of tourism, demonstrates the strong potential for long-term sustainable development.

With the Strategy for development of tourism of the Republic of Croatia until 2020 a solid foundation/ basis for development of strategies for other, specific forms of tourism has been created, and the Action Plan for development of health tourism in the Republic of Croatia has been funded and developed, which represents a common, inter-ministerial platform for the systematic increasing of the competitiveness of the health tourism offer. The aforementioned document proposed 30 development activities and programs and defined specific objectives and priorities. Special emphasis has been placed on cooperation between private and public sectors through various forms of public-private partnerships. Such a form of cooperation between public and private sector affects the increase in recognition and competitiveness.

The Action Plan for development of health tourism of the Republic of Croatia contains key analyses of the position of the Republic of Croatia in the market of tourism products, programs and measures, which would lead the Republic of Croatia to the desired position, and detailed analysis of strengths and weaknesses, i.e. opportunities and threats. To achieve the set results, it was necessary to implement the adopted measures, which maximally exploit the strengths and opportunities of health tourism in the Republic of Croatia, i.e. minimizing the impact of its weaknesses and environmental threats. Activities defined in the Action Plan for the implementation of the Strategy for development of tourism of the Republic of Croatia until 2020 aimed at the development of health tourism are part of a medium intensity measure and should have been largely implemented in the first two years after the adoption of a strategic document for the development of Croatian tourism. However, according to the available data, most of the planned activities, these 2019, six years after the adoption of the strategic documents, has not been implemented. It also directly affects the results of the (no)effectiveness of the implementation of the tourism policy measures defined by the Strategy for development of tourism of the Republic of Croatia until 2020, in relation to the set strategic objectives. As one of the indicators is the fact that the current income from health tourism in the Republic of Croatia is approximately 300,000 euros annually, and it is estimated that medical tourism in the Republic of Croatia has the annual potential for much

larger income. Also, the share of total tourist income, the measures and activities defined in the Action Plan for development of health tourism of the Republic of Croatia, should have increased from 2% in 2013 to 15% in 2020. Given the results of the research, it is unrealistic to expect that the aforementioned strategic objective will actually be achieved. It is apparent from the research that for the development of medical tourism, it is not enough to simply define the key parameters of development in strategic documents, but it is equally important that the measures and activities in the adopted strategic documents are implemented in accordance with the prescribed principles of effective strategic development management within the planned implementation dynamics.

Croatian medicine and dentistry for patients from European countries can offer top quality service and quality, but it is currently not recognized in the right way. The state administration has the opportunity to correct it by implementing priority tourism policy measures, adopted in strategic development documents, whether the Republic of Croatia wants to position itself as a country of reliable quality and reasonable price, not only as a low cost medical tourism destination.

In the Republic of Croatia the prices of medical services are still lower than in the countries of Western Europe, which represents a strong motive for the arrival of "medical tourists". This provides an ideal opportunity to design an integrated product package that consists of medical, tourist and hospitality services. The Republic of Croatia in order to be positioned in the future as a destination of medical tourism with a distinctive and quality offer, it is necessary to dedicate itself to the integration of the offer, to work on raising the quality of services, specialized sales and promotions. For a more efficient development of medical tourism in the Republic of Croatia, it is necessary to establish a stronger inter-ministerial cooperation in order to establish institutional support for the harmonization and improvement of the legal framework in the function of strengthening entrepreneurship and investment for the development of this form of tourism product. Medical tourism also opens up numerous issues for answers that require multidisciplinary research and open discussions at a scientific and professional level, including all social groups.

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