

## **QUANTITATIVE RESEARCH ON REAL POSSIBILITIES OF (RE)DEVELOPMENT OF TOURISM IN THE RESORT MALNAȘ BĂI**

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**Abstract:** This paper comprises two non-parametric tests used in the bivariate analysis in order to see if there are significant differences between men and women and the age group of respondents in terms of assessment of the performance of the local council on local tourism in the resort Malnaș Băi. It was also analyzed whether there are significant differences in the respondents' opinion on the importance given to the different possibilities of (re)development in the tourist resort which would have a beneficial effect on local tourism.

**JEL classification: M41, M42**

**Key words: Mann-Whitney U test, Kruskal-Wallis test, tourism potential, quantitative marketing research, (re)development**

### **1. INTRODUCTION**

Romania's EU integration, a long and complex process, opens new perspectives for the development of Romanian tourism in many respects: the new forms of tourism, service and tourism products quality, protection of environment and optimal recovery of the entire tourism potential. Following Romania's accession to the European Union the main advantage enjoyed by Romanian tourism is tourism development through the Structural Funds. The Structural Funds provide significant opportunities of founding tourism projects. These funds can play an important role in the development of underdeveloped regions, by improved promoting of tourism.<sup>94</sup> The Resort Malnaș Băi represented in the 70s a tourist area of high attraction. But currently the resort lost its power but the tourist attraction once. The first question that came to us concerned that if local people were involved in (re)development of local tourism and if there are significant differences with regard to local tourism variables and representing variables of respondents. Following the quantitative marketing research it was found that among people surveyed, 86 people would involve in (re)development of tourism in the resort Malnaș Băi, and 10 respondents do not show any interest in this regard.

### **2. OBJECTIVES**

The quantitative research was based on the following assumptions:

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<sup>94</sup> Cruceru, R. M. - Romanian tourism adaptation to the requirements of the Single Market, PhD thesis, ASE, Bucharest, 2008, p. 87-89

$H_0$  = There are no differences between men and women in the assessment of activities carried out by the local council on local tourism.

$H_0$  = There are no differences between respondents' age and their opinion regarding the assessment of activities carried out by the local council on local tourism.

$H_0$  = There are no differences between men and women regarding their opinion about the importance given to the different possibilities of (re)development of local tourism.

$H_0$  = There are no differences between respondents' age in terms of their opinion about the importance given to the different possibilities of (re)development of local tourism.

### **3. METHODOLOGY**

Among the sampling ways, the random sampling was chosen because it is that technique establishing the sample that means that each unit of the population studied has certain probability of being included in the sample.<sup>95</sup> The sampling basis necessary for probability establishment of the sample represents the established population from Malnaş Băi and the validation of the sample was done through a test of comparing differences between percentages.

The formula of the percentage difference test used is : 
$$z_{obs} = \frac{|\pi - p|}{\sqrt{\frac{p(100 - p)}{n}}}$$

The marketing information was obtained through the investigation that was conducted in 2009. Although we distributed 110 questionnaires, we processed the raw data obtained from 96 questionnaires because 6 were not returned and 8 of them were not duly filled in.

### **4. PRIMARY MARKETING DATA ANALYSIS**

#### **4.1 MANN-WHITNEY AND KRUSKAL WALLIS ASSUMPTIONS ANALYSIS**

(1).  $H_0$  = There are no differences between men and women in the assessment of the activities carried out by the local council on local tourism.

The results obtained with SPSS system are presented below:

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<sup>95</sup> Lefter, C. – Marketing Research. Theory and Applications, Infomarket Publishing House, Braşov, 2004. p. 132

**Table no. 1.** Sum of ranks obtained for the 2 groups

Ranks				
	Gender	N	Mean Rank	Sum of Ranks
In your opinion the local council grants due attention to the development of the resort	Man	42	49.43	2076.00
	Women	54	47.8	2580.00
	Total	96		

In this case the subsamples (Table no. 1) are of great sizes, both being higher than 30 persons ( $n_1 = 42$  and  $n_2 = 54$ ).

**Table no. 2** Values corresponding to the U test  
Test statistics

	In your opinion the local council grants due attention to the development of the resort
Mann-Whitney U	1095.000
Wilcoxon W	2580.000
Z	-.748
Asymp. Sig.(2 tailed)	.454

a. Grouping variable: Gender

It is noted that  $z_U = -0.748 > z_{\alpha/2} = -1.96$  (Table no. 2). Therefore the null hypothesis is accepted according to which we cannot guarantee a 95% probability that between men and women there is any deference in the assessment of activities carried out by the local council on local tourism.

(2).  $H_0 =$  There is no difference between respondents' age and their opinion regarding the assessment of the activities carried out by the local council on local tourism.

**Table no. 3** Mean ranks in the case of the Kruskal - Wallis test  
Ranks

	Age	N	Mean Rank
In your opinion the local council grants due attention to the development of the resort	18-36 years	44	49.27
	37-55 years	41	46.00
	above 55	11	54.73
	Total	96	

Table no. 3 contains the size of each group at the level of the sample and the mean ranks corresponding to the groups.

The value  $H = \chi_{calc}^2$  in the analysis table (Table no.4) is equal to 6.169 („Chi-Square”)

**Table no. 4** The calculated values in the case of Kruskal - Walis test.

Test Statistics

	In your opinion the local council grants due attention to the development of the resort
Chi Square	6.169
df	2
Asymp. Sig.	.046

- a. Kruskal Wallis test
- b. Grouping variable: Age

In this case  $H = 6.169 > \chi_{0,05;2}^2 = 5.991$ , which means that we shall reject the null hypothesis, therefore between the three population groups there are differences in the assessment of the activities carried out by the local council.

(3).  $H_0 =$  There is no difference between men and women in their opinion about the importance given to the different possibilities of (re)development of local tourism.

**Table no.5** The sum of the ranks obtained for the 2 groups

Ranks

	Gender	N	Mean Rank	Sum of Ranks
Develops the image of the resort (1).	Men	42	50.00	2100.00
	Women	54	47.33	2556.00
	Total	96		
Development of the possibilities of spending leisure time (2).	Men	42	49.50	2079.00
	Women	54	47.72	2577.00
	Total	96		
Infrastructure development (3).	Men	42	40.35	1694.50
	Women	54	54.84	2961.50
	Total	96		
Human resource development (4).	Men	42	46.11	1936.50
	Women	54	50.36	2719.50
	Total	96		
Development of accommodation capacity (5).	Men	42	52.58	2208.50
	Women	54	45.32	2447.50
	Total	96		

Analysing the means of the obtained ranks (Table no. 5) differences can be noted between men and women in terms of the importance granted to different possibilities of (re)development of local tourism.

**Table no. 6** Values corresponding to the U test

	Test statistics				
	(1).	(2).	(3).	(4).	(5).
Mann-Whitney U	1071.000	1092.000	791.500	1033.500	962.500
Wilcoxon W	2556.000	2577.000	1694.500	1936.500	2447.500
Z	-472	-316	-2.576	-757	-1.290
Asymp.Sig.(2tailed)	.637	.752	.010	.449	.197

a. Grouping variable: Gender

By analyzing the values obtained (Table no. 6) using the SPSS program, it can be noted that the alternative hypothesis can be maintained but in the case of the alternative infrastructure development as  $z_U = -2.576 < z_{\alpha/2} = -1.96$ , therefore we can guarantee with 95% probability that between men and women that there are significant differences in the importance given to infrastructure as a real possibility of (re)development of local tourism. For the other possibilities of (re)development it can be observed that  $z_U$  is greater than  $z_{\alpha/2}$  and therefore we reject the alternative hypothesis and accept the null hypothesis i.e. we cannot guarantee with 95% probability that between men and women there are significant differences in the importance given to the following possibilities of (re)development of local tourism: development of resort image, development of the possibilities of spending leisure time, human resource development, development of accommodation capacity.

(4).  $H_0 =$  There is no difference between the age of respondents in their opinion about the importance given to the different possibilities of (re)development of local tourism.

Information regarding the size of each group in the sample and the mean ranks corresponding to the groups are presented in Table no. 7:

**Table no. 7** Mean ranks in the case of the Kruskal - Wallis test

	Ranks		
	Age	N	Mean Rank
Development of the resort image (1).	18-36 years	44	52.42
	37-55years	41	42.07
	above 55 years	11	56.77
	Total	96	
Development of the possibilities of spending leisure time (2).	18-36 years	44	53.16
	37-55years	41	46.66
	above 55 years	11	36.73
	Total	96	
Infrastructure development (3).	18-36 years	44	51.63
	37-55years	41	44.06
	above 55 years	11	52.55
	Total	96	
Human resource development (4).	18-36 years	44	46.99
	37-55years	41	52.60
	above 55 years	11	39.27
	Total	96	

**Business Statistics – Economic Informatics**

Development of accommodation capacity (5).	18-36 years	44	46.65
	37-55years	41	54.48
	above 55 years	11	33.64
	Total	96	

The respondents belonging to different categories of ages value differently the various possibilities of (re)development of local tourism.

**Table no .8** The calculated values in the case of Kruskal - Walis test.  
Test statistics

	(1).	(2).	(3).	(4).	(5).
Chi Square	4.139	3.506	1.895	2.311	5.409
df	2	2	2	2	2
Asymp.Sig.(2tailed)	.126	.173	.388	.315	.067

a. Kruskal Wallis test

b. Grouping variable: Age

Null hypothesis is accepted in each case as the calculated H values are lower than the value  $\chi^2_{0,05,2} = 5.991$  (Table no. 8) therefore between the three population groups there is no difference in the importance given to different possibilities for (re)development of local tourism.

## 5. CONCLUSIONS

It is very interesting that when significant differences were found between respondents' age and the appraisal of the activities of the local council concerning the local tourism, we can not say the same thing with the importance given to different possibilities for (re)development of local tourism and the respondents' age which shows that respondents, regardless of the age category, give the same attention to the possibilities mentioned in the questionnaire on the (re)development of tourism in Malnaş Băi resort.

In our opinion the best possible exploitation of tourism potential requires specific actions, coordinated simultaneously on three levels:

1. at the level of tourism companies and organizations;
2. at the level of the local , county and regional state administration bodies;
3. at the level of the central bodies and government.

## REFERENCES

1. Cruceru, R. M. Romanian tourism adaptation to the requirements of the Single Market, PhD thesis, ASE, Bucharest, 2008
2. Lefter, C. Marketing Research. Theory and Applications, Infomarket Publishing House, Braşov, 2004