

THE IMPACT OF FACTORS INFLUENCING DESTINATION QUALITY ON OVERALL CUSTOMER SATISFACTION

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Abstract

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The paper deals with problems concerning tourist destination quality and the impact of individual factors on the overall satisfaction of a customer – a visitor to a destination. The methodology is based on the evaluation of individual factors that were identified on the basis of previously conducted researches and that consider all attributes of a destination which visitors are able to evaluate on the basis of their experience and consequent satisfaction. The used data were obtained by a questionnaire surveys, the evaluation is qualitative, and the ten-degree Likert scale is used. The practical part of the paper will focus on creating a multidimensional regression model for overall customer satisfaction for evaluating individual quality factors. The objective of the paper is to identify factors that influence overall customer satisfaction the most; this will be done on the basis of the statistical importance of individual regression parameters. The analysis will be conducted for the data from the regions of Lednice-Valtice Area and Znojemsko and Podyjí; subsequently these two regions will be compared.

tourism, destination, quality, factors, satisfaction

As tourist destinations are complex sets of services and attractions with a variety of functions, their comparison is very difficult. Such comparison may be based on quality. Although the literature is increasingly dealing with the issue of measuring the quality of tourist destinations, experts are not sure which of the available methods provides the highest validity. According to Hudson (2008), there is no specific method recommended for the measurement of tourist destination quality. Gronroos (2007) defines two basic quality components – *technical*, related to measurable elements, and *functional*, describing how services are provided. The characteristic components listed below (see Buhalis) show that even though service quality is mostly evaluated in terms of functional quality (Kang, James, 2004) using SERQUAL¹, the evaluation of destination technical quality (the

range of attractions and services) is necessary. How to compare destinations with unique attractions and corresponding infrastructure and services? Quality factors common for all destinations shall be identified, quantified and applied for the comparison of destinations. The identification and evaluation of tourism competitiveness factors is a pretty common research problem of many scientific studies and articles dedicated to tourism economics (Navickas, Malakauskaite, 2009). According to Edvardsson, Thomasson and Ovretveit (1994), it is necessary to define quality, appropriate terminology and strategy comprehensible to all parts of the organisation, determine the key factors influencing quality and choose appropriate models for quality analysis.

The quality of destination can be assessed according to the level of customer satisfaction;

¹ SERQUAL is a tool designed for the measurement of the difference between the expected and perceived quality based on five elementary service characteristics. It is used in connection with GAP model (the SERQUAL Gap model).

a customer is satisfied, if their expectations are fulfilled or exceeded, the level of satisfaction depending on the demands of a customer and their experience (Evans, Lindsay, 1999). The customer expectations are influenced by the image of destination (Woods, Deegan, 2003).

According to Buhalis (2003), a tourist destination is characterised by six components, referred to as "6 A's". It is the primary offer of tourist attractions – natural, cultural and historical potential (Attraction); secondary offer – accommodation, catering, sports, recreational, cultural, social and other facilities (Amenities); general infrastructure built primarily for the needs of the local residents (Ancillary Services), transport accessibility (Accessibility), product packages (Available Packages) and the availability of sports, cultural and other experience activities (Activities). According to Middleton and Clarke (2001), a destination comprises five components, three of them are identical with those of Buhalis (Attractions, Ancillary Services, Accessibility) while the other two are *destination image* and *price*.

Müller (1995) recommends to apply for destination a system of total quality management (TQM), which takes into account the overall satisfaction of all the parties concerned, such as consumers, service providers and local residents.

Theoretical background for destination quality management (DQM) was also defined by Woods and Deegan (2003), who analysed the quality models: SEVQUAL Gap Model, Kano Model² and EFQM Model³. The conclusions of their work set out the principles for the theoretical conception of DQM, which are based on the principles of the necessity to define basic standards of the satisfaction of the visitors to the destination, where higher satisfaction is essential for the development and competitiveness (SEVQUAL Gap Model, Kano Model) and a holistic approach with emphasis on partnership (EFQM Model). They also point out to the essential role of the destination brand (Vajčnerová, Ryglová, 2012).

MATERIALS AND METHODS

This paper aims at identifying factors that influence the destination quality assessed according to customer satisfaction most significantly. The assessed factors were adopted from a paper (Vajčnerová, Šácha, Ryglová, 2012) where the authors defining them drew upon the original idea of Buhalis (2003), Middleton and Clarke (2001) regarding the destination components, while respecting the functional and technical qualities of services. Gronroos (2007). The factors are also defined based on the knowledge of the issue of

tourist destination and an analysis of already published methods and researches (SERQUAL, Qualitest (EC 2003), IDA (Krešic, 2008)). The relevant factors comprise both technical quality and functional quality and the customer satisfaction is thus a reflection of the satisfaction with both dimensions.

The factors of destination quality

1. **Natural attractions** (conditions of a natural character, e.g. climatic, hydrological and morphological circumstances, flora, fauna)
2. **Cultural-social attractions** (sights, cultural facilities, cultural and sports events)
3. **Accommodation** (the structure and level of accommodation facilities)
4. **Boarding** (the structure and level of boarding facilities)
5. **Experience activities** (the structure and level of complementary experience activities)
6. **Transport accessibility** (the accessibility of a destination for visitors, transport infrastructure)
7. **Local transport** (the possibilities of local transportation in a destination)
8. **The accessibility and quality of information** (TIC, direction boards)
9. **Pre-coming communication** (the promotion and distribution of services, reservations)
10. **Friendly welcome by local inhabitants** (their friendly relationship towards visitors)
11. **Product packets** (created product packets, destination products for various market segments)
12. **The image of a destination** (the importance of a destination image, how it is perceived)
13. **The level of service prices and goods prices** (the prices of consumer goods in a destination)
14. **The sense of security** (criminality)
15. **The uniqueness of a destination** (the specificity of a destination, its differences from competition).

The data was obtained by a primary survey (Summer of 2011) in Pálava and Lednice-Valtice areas (hereinafter PLVA) with 107 respondents and in Znojensko and Podyjí areas (hereinafter ZP) (192 respondents). In the questionnaire surveys the respondents expressed their level of satisfaction with the 15 aforementioned factors on the Likert scale (1-totally dissatisfied, 10-totally satisfied), while also evaluating in the same manner the overall satisfaction with the destination quality. Based on the data obtained, the factors with the most significant impact and the factors with less significant impact on the overall satisfaction were

2 Kano Model works with six quality categories (basic factors, satisfaction factors, performance, indifferent, questionable and reverse factors), according to which the level of customer satisfaction is quantified.

3 EFQM Excellence Model applies fundamental concepts of comprehensive quality management in a structured management system; enhanced conditions shall bring improved results, it is an analytical tool at the same time.

determined. Although the groups of respondents are not very large, they are sufficient for the purpose of this paper and for the verification of the selected method.

Multivariate regression analysis was selected as the suitable method. The variable overall satisfaction was modeled depending on the quality factors. The basic model featured all the above factors as regressors. Then, the statistically least significant factors were gradually removed using the method of sequential elimination, until the model eventually featured only the variables that are significant at the level of 0.01. The statistical significance of each factor was assessed based on p -value of t -test. After that, the statistical significance of the model as a whole was assessed by means of F -test. The quality of the regression model was also assessed using the coefficient of determination, adjusted coefficient of determination and other information criteria. The coefficient of determination is a number from 0 to 1. The closer to one, the better the model explains the variability of the dependent variable. The adjusted coefficient of determination provides similar characteristics, while also taking into account the number of independent variables. Then the adjusted determination coefficient of the basic model was compared with the one of the model with selected variables that were found to be statistically significant. Subsequently, the typical assumptions of the linear model (correct model specification, noncorelation of residual, absence of multicollinearity, normality of residues, homoskedasticity) were tested.

RESULTS AND DISCUSSION

The results of the multivariate regression analysis were applied to identify the factors with the most significant impact on the overall visitor satisfaction.

In case of the data from **Pálava and Lednice-Valtice areas** these factors are *Natural attractions*, *Accommodation*, *Uniqueness of destination* and *Transport accessibility*.

Tab. I shows regression coefficients for individual variables (factors), their standard errors and p -values of t -test of variable significance (the risk that a variable is insignificant). The model as a whole was found statistically significant by means of F -test. The values of determination coefficient and adjusted determination coefficient are quite high (0.9921 and 0.9918) which evidences very good model specification. The adjusted determination coefficient as well as other information criteria show

better values than in the case of the basic model with all variables. Typical prerequisites of the linear model (correct model specification, absence of multicollinearity, normality of error) have been met. Only the homoskedasticity was not supported by all the tests carried out, which is not a serious problem with respect to ten-scale data.

Let us proceed to the model interpretation. The regression coefficients of significant variables may be interpreted as follows. Increase in the ratings of a significant question by one point results in an increase in overall satisfaction on average by the value of the regression coefficient of the given factor. Specifically, as the factor of natural attraction is concerned, for example, we can say that an improvement in the rating of the natural attractions by one point leads to an increase in overall satisfaction with the destination by 0.32 on average. Since all the quality factors and overall satisfaction with the destination are rated on the same scale (1 to 10), the sum of the regression coefficients for all variables applied in the model is at least approximately equal to one. Due to this fact, we can move on to easier interpretation of the regression coefficients, i.e. that *Natural attractions* are involved in the overall satisfaction by 32%, *Accommodation* by 29%, *Uniqueness of destination* by 26% and *Transport accessibility* by 13%.

The evaluation of the factors showed that the visitors were most satisfied with *Natural attractions* and that the *Uniqueness of destination* was also rated very high (see Tab. II). These factors thus have a positive effect on customer satisfaction. These are factors associated with the primary offer of destination which is typical of each destination. As PLVA is concerned, it is truly a unique area thanks to the Lednice-Valtice Area which is registered in the UNESCO list and the Pálava Biosphere Reserve. The factors of *Accommodation* and *Transport accessibility*, on the other hand, are factors of the secondary offer and can be modified. The factor of Accommodation is rated in terms of satisfaction at 7.00 and Transport accessibility at 5.96, i.e. values which are not entirely satisfactory and still these factors affect the overall satisfaction significantly. These factors should be subjected to a more detailed analysis to determine specific causes of dissatisfaction and implement corrective measures. Such low satisfaction with transport accessibility is a challenge for local government. Improved transport accessibility would substantially affect the overall visitor satisfaction and, as we believe, their interest in coming back to the destination.

I: Factors most significantly influencing the overall visitor satisfaction (PLVA)

Factor	Coefficient	Standard error	p -value
Natural attractions	0.322004	0.059961	< 0.00001
Accommodation	0.292391	0.054941	< 0.00001
The uniqueness of a destination	0.261752	0.052598	< 0.00001
Transport accessibility	0.139179	0.036943	0.00028

II: Average values of visitor satisfaction with the factors (PLVA)

Rank	Factor	Mean	Standard deviation
1	Natural attractions	7.98	1.71
2	The image of a destination	7.79	1.66
3	The uniqueness of a destination	7.79	1.73
4	Cultural-social attractions	7.52	1.55
5	Experience activities	7.01	1.69
6	Accommodation	7.00	1.64
7	Boarding	6.93	1.74
8	Pre-coming communication	6.76	1.74
9	Friendly welcome by local inhabitants	6.68	1.98
10	The sense of security	6.64	1.62
11	The accessibility and quality of information	6.49	1.82
12	Product packets	6.39	1.54
13	Transport accessibility	5.96	2.01
14	The level of service prices	5.92	1.72
15	Local transport	5.77	1.65
	Overall satisfaction	7.49	1.57

III: Factors most significantly influencing the overall visitor satisfaction (ZP)

Factor	Coefficient	Standard error	p-value
The image of a destination	0.241706	0.047213	< 0.00001
Friendly welcome by local inhabitants	0.213144	0.043819	< 0.00001
Cultural-social attractions	0.201358	0.044661	0.00001
Natural attractions	0.191541	0.044861	0.00003
The uniqueness of a destination	0.159065	0.037390	0.00003

For **Znojemsko and Podyjí** regions, factors stated in Tab. III were calculated at significance level of 0.01.

The values of determination coefficient and adjusted determination coefficient are quite high (0.9911 and 0.9909) which again evidences very good model specification. As the results of the testing of the standard prerequisites of the model were similar to those of the previous tourist region, we can proceed to the interpretation.

As for the respondents from Znojemsko and Podyjí regions, the overall satisfaction is divided as follows: *Image of destination* – 24%, *Friendly welcome by local inhabitants* – 21%, *Cultural and social attractions* – 20%, *Natural attractions* – 19% and *Uniqueness of destination* – 16%.

The comparison of the evaluation of individual factors shows interesting results in factor *Friendly welcome by local inhabitants*, which is the second most significant factor influencing the total satisfaction (Tab. III) and, at the same time, the one with the highest ratings (Tab. IV). The results evidence a positive attitude of the local residents to tourism and the fact that tourism in the area is developed in a manner which does not impair the quality of life of the residents. *Image of destination* affects the overall

satisfaction the most and despite its relatively high value of 8.23 this factor comes fifth in the ratings of satisfaction. According to Lawson and Baud-Bovy (1977) “image is an expression of all objective knowledge, impressions, prejudice, imaginations, and emotional thoughts an individual or group might have of a particular place”. Image is developed in time and can be formed intentionally. The overall image of the destination is then completed based on the image of the local government and the image of the services provided in each destination (Ryglová, Burian, Vajčnerová, 2011). The *Cultural and social attractions* and *Natural attractions* are rated lower, although the values on the scale of 1-10 still indicate higher satisfaction of the respondents. An interesting value was found for the factor of the *Uniqueness of destination* with its average rating only on the 12th place out of the fifteen factors evaluated. The Uniqueness of destination is more or less given as it is based on its natural potential and, although this factor significantly affects the quality of destination, it can be stated that in case of the ZP destination, it is an attractive area, although in comparison with other areas of the South Moravian Region,⁴ it is the least unique of them.

4 e.g. Lednice-Valtice Area, Slovácko, Moravian Karst

IV: Average values of visitor satisfaction with the factors (ZP)

Rank	Factor	Mean	Standard deviation
1	Friendly welcome by local inhabitants	8.55	1.78
2	Pre-coming communication	8.42	1.51
3	The accessibility and quality of information	8.34	1.72
4	Boarding	8.31	1.63
5	The image of a destination	8.23	1.73
6	Experience activities	8.20	1.77
7	Natural attractions	8.14	1.65
8	The sense of security	8.10	1.63
9	Accommodation	8.08	1.69
10	Cultural-social attractions	8.06	1.64
11	Transport accessibility	8.02	1.73
12	The uniqueness of a destination	7.88	2.02
13	Local transport	7.61	1.72
14	Product packets	7.56	1.68
15	The level of service prices	7.34	1.79
	Overall satisfaction	8.24	1.62

As ZP destination is concerned, it is clear that all the assessed factors show average values of satisfaction in the interval from 7.34 to 8.55, which is a very small range. This result can be explained by stating that the customer's expectations were fulfilled, no major problems occurred and the customer is generally satisfied with the level of the destination quality (overall satisfaction of 8.24).

This method of selecting significant factors should be to some extent independent of destination, because if a tourist area has good rating at any of the significant factors, such as natural attractions, the respondents should also appreciate it in the overall evaluation and vice versa. Tabs. I and III evidence that the significant factors coincide only partially in the destinations concerned. The reason may be

that respondents are admirers of this particular destination, they have certain expectations and chose the destination deliberately for their journey because of its primary offer. Unlike the visitors to other destinations, they form a special target group and their views of the significance of the quality factors may vary. The benefit of this method is the identification of the key factors of the visitor satisfaction for each destination and the determination of weaknesses in the quality of the destination that can be improved.

In their further research, the authors focussed on the identification of significant factors in other destinations and testing of the hypothesis whether it is possible to apply this method regardless of the type of destination.

SUMMARY

This paper deals with the issue of quality of a tourist destination and the influence of various factors on overall satisfaction of the customer – visitor to the destination. The method is based on the evaluation of various factors defined on the basis of previously conducted surveys and taking into account all attributes of destinations that visitors are able to assess through their experience and subsequent satisfaction.

The aim of the paper is to identify, based on the statistical significance of individual regression parameters, the factors that most influence the overall satisfaction of visitors to two tourist areas of Pálava and Lednice-Valtice Area (PLVA) and Znojensko and Podyjí (ZP). As the destination of Pálava and Lednice-Valtice Area is concerned, the customer satisfaction is most influenced by the factors of *Natural attractions*, *Accommodation*, *Uniqueness of destination* and *Transport accessibility*. In terms of direct rating, the respondents were also most satisfied with natural attractions and uniqueness of destination, while the factors of *quality of accommodation* and *transport accessibility* were given average to lower ratings. These factors should be subjected to a more detailed analysis to determine specific causes of dissatisfaction and implement corrective measures.

As for the respondents from Znojensko and Podyjí regions, the overall satisfaction is divided as follows: *Image of destination* – 24%, *Friendly welcome by local inhabitants* – 21%, *Cultural and social attractions* – 20%, *Natural attractions* – 19% and *Uniqueness of Destination* – 16%. The ZP destinations do not show such high uniqueness as PLVA, the highest rated factor being *Friendly welcome by local inhabitants*. The results

evidence a positive attitude of the local residents to tourism and the fact that tourism in the area is developed in a manner which does not impair the quality of life of the residents.

Despite the small sample of respondents, the weaknesses of the areas significantly influencing the overall customer satisfaction were determined based on the results which is essential information for the destination management that can now initiate the subsequent investigations to identify specific causes of low visitor satisfaction and initiate corrective actions. The comparison of both destinations evidences that the significant factors coincide only partially. The differences may be caused by the characteristics of particular areas and their specifics, the expectations of the visitors and the reasons for their visit.

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