Quality of Visitor Attractions, Satisfaction, Benefits and Behavioural Intentions of Visitors: Verification of a Model

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ABSTRACT

This study is an attempt to verify a model of relations between motivation, quality of product of attraction, benefits, satisfaction and behavioural intentions of visiting people. The data for the analysis were collected from 1770 visitors in four tourist attractions of the Wielkopolska and Kujawy regions. It was noted that the effect of performance of service provider on behavioural intentions takes the route through benefits gained by the visitors. Benefits have a stronger total effect on behavioural intentions than visitors' satisfaction. Copyright © 2008 John Wiley & Sons, Ltd.

INTRODUCTION

It is generally believed that a leading factor responsible for the success of visitor attractions is satisfaction of visitors (Prentice, 1993; Swarbrooke, 1995; Middleton, 1996). However, empirical studies do not support this thesis explicitly.

One of the first theories explaining the process of events taking place during leisure activities was Brown's (1984) Recreation

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Opportunity Spectrum. For the first time, attention was paid to the process of mutually determined events taking place during leisure activity. Brown said that an activity undertaken in specific conditions evokes experiences as a result of which specific benefits are achieved. On the basis of Brown's model and Strengths Weaknesses Opportunities Threats (SWOT) analysis, Prentice (1995) and Nowacki (2000) carried out studies of people who were visiting attractions. On the other hand, Moscardo (1996, 1999) noted that the key factor for satisfaction of visitors is their state of mindfulness and knowledge acquired during the visit. It is caused by two groups of factors: exhibition factors (variety of exhibition, media, novelty, questions, multimedia and marking) and visitor factors (interest and fatigue). Both have a direct impact on mindfulness of visitors. Moreover, exhibition factors also have an influence on visitor factors, that is, interest and fatigue. Another factor that affects satisfaction is quality. However, as demonstrated by Jensen (2004) verifying Herzberg's theory (1996), in the conditions of visitor attractions, quality does not affect satisfaction directly but indirectly through perception of gained benefits.

For managers of tourist attractions, visitors' future intentions towards the attraction, in particular the willingness to visit again, are more important than visitors' satisfaction. Baker and Crompton (2000), while studying the relations between quality, satisfaction and behavioural intentions, found that although quality affects satisfaction and satisfaction affects intentions, perception of quality (as they defined it — service provider's performance) has a much stronger total effect on behavioural intentions than satisfaction. Moreover, the authors assumed a unidirectional influence of quality on satisfaction. At

the same time, other scholars, for example, Gotleib *et al.* (1994), suggested that this relation is two-way: positive mood influences good assessment of the quality of infrastructure.

Tomas *et al.* (2002) proposed a model integrating the above variables: quality, satisfaction, benefits and behavioural intentions. The quality of product was made up of educational factors, exhibition of animals, general information, staff, comfort, detailed information and quality of infrastructure. Benefits included factors of introspection, knowledge, spending time with family, escape, watching animals and spending time with friends. The scholars demonstrated the relation between the quality of product and behavioural intentions, benefits and satisfaction. The latter relation, according to the authors, was of a recurring nature, as were the relations of benefits and behavioural intentions, and of satisfaction and behavioural intentions. However, the applied multiple regression analysis did not allow the authors to verify the directions of effect of the studied variables.

Satisfaction and behavioural intentions of visitors are also affected by motives. In a study by Yoon and Uysal (2003), it was found that both the push motivation (internal forces), which is determined by the motives of excitement, education, relaxation, achievements, family time, escape, safety and curiosity, and the pull motivation (external forces), made up of motives of atmosphere, activity, weather, landscape, culture, cleanliness, shopping, night life and water activity, have direct impact on tourist satisfaction. Moreover, it was found that push motivation has a direct positive effect on behavioural intentions.

OBJECTIVES

The aim of the study was to verify the model of relations between the quality of attractions, motives, benefits, satisfaction and behavioural intentions of visitors. It was assumed that the output variable of the process is behavioural intentions, which are a good indicator of future behaviour (Ajzen and Fishbein, 1980). They are affected by satisfaction, defined as quality of experience (Baker and Crompton, 2000). Therefore, the postulated model also includes the variables of motivation and quality of attraction, with the latter defined as perception
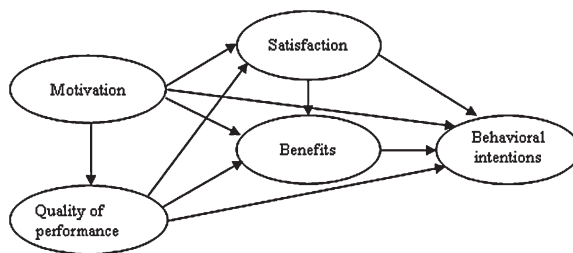

Figure 1. Hypothetical model of relations between variables of the process.

of quality of provider's performance (which includes the quality of infrastructure, services, exhibition and sources of information).

In constructing the model, a number of hypotheses, which describe the relations between the studied variables, were formulated (Figure 1):

Hypothesis 1a: There is a positive relation between motives and quality of provider's performance.

Hypothesis 1b: There is a positive relation between motives and satisfaction of visitors.

Hypothesis 1c: There is a positive relation between motives and visitors' benefits.

Hypothesis 1d: There is a positive relation between motives and visitors' behavioural intentions.

Hypothesis 2a: There is a positive relation between the quality of provider's performance and visitors' satisfaction.

Hypothesis 2b: There is a positive relation between the quality of provider's performance and behavioural intentions of visitors.

Hypothesis 2c: There is a positive relation between the quality of provider's performance and benefits gained by visitors.

Hypothesis 3a: There is a positive relation between satisfaction and behavioural intentions of visitors.

Hypothesis 3b: There is a positive relation between satisfaction and visitors' benefits.

Hypothesis 4: There is a positive relation between benefits and behavioural intentions of visitors.

Hypothesis 5: Behavioural intentions of visitors are more strongly affected by benefits gained by them during the visit than by satisfaction.

METHOD

A questionnaire containing scales for measurement of motivation, quality of attractions, benefits, satisfaction and behavioural intentions was used in the study. The questionnaire also included questions on frequency of visits, composition of the group of visitors, interest in the attractions and socio-demographic profile, which are not the subject of this study.

The creation of measurement scales was preceded by a pilot study carried out in 2002 and based on a questionnaire containing open questions on motives, assessment of the exhibition and services of the attraction, benefits, experience and satisfaction of the visitors. In the following stage, the most frequent motives, benefits and experiences were selected and were used to create scales for the measurement of variables. With the use of this questionnaire, 453 visitors in four Wielkopolska region attractions were questioned in 2003.

Finally, as a result of a factor and reliability analysis, seven motives were left, corresponding to the levels of needs in Pearce's (1988) model of tourists' travel careers (Table 1). The scale of benefits consisted of seven items that corresponded to the individual items of the motivation scale (e.g. the item *I wanted to get away from everyday stress* on the scale of motivation corresponded to *I managed to rest and relax* on the scale of benefits) (Table 2). The measurement scale for quality of provider's performance consisted of three factors: elements of exhibition (10 items for each attraction), sources of information (six items) and quality of services (six items) (Table 3). A semantic differential scale of

Table 1. Results of exploratory factor analysis of motivation scale.

Items of motivation scale	Factor 1 (educational)	Factor 2 (socio-recreational)
I wanted to learn something new.	0.727	
I wanted to show my children/family/friends something new.	0.530	
Because such places should be visited.	0.679	
I wanted to see a new interesting place.	0.795	
I wanted to relax in nice surroundings.		0.785
I wanted to get away from everyday stress.		0.787
I wanted to spend time nicely with my children/family/friends.		0.683
Eigenvalue	1.960	1.845
% of extracted variance	28.00	26.37
Cronbach's α	0.66	0.66

Table 2. The results of exploratory factor analysis of benefits scale.

Items of benefits scale	Factor 1 (recreational)	Factor 2 (educational)	Factor 3 (social)
I managed to rest and relax.	0.801		
I managed to forget about everyday duties.	0.845		
I felt the authentic character of life in past epochs.		0.811	
I learned something new.		0.596	
I felt the real atmosphere of this place.		0.653	
I showed something new to my children/family/friends.			0.883
I spent nice time with my children/family/friends.			0.592
Eigenvalue	1.853	1.536	1.484
% of extracted variance	26.46	21.94	21.19
Cronbach's α	0.70	0.61	0.53

Table 3. The results of exploratory factor analysis of quality of provider's performance scale

Items of quality of provider's performance scale	Factor 1 (exhibition)	Factor 2 (sources of information)	Factor 3 (quality of services)
Museum exhibition	0.431		
Fight shows	0.449		
Zagroda Wisza (Wisz's homestead)	0.445		
Live animal enclosures	0.422		
Baking cakes	0.630		
Shows of restoration of historic artefacts	0.447		
Shows of handicraft	0.477		
Brewing beer	0.613		
Shows of dance, songs and instruments play	0.519		
Archery, crossbow shooting	0.525		
Information boards and panels		0.646	
Talking to the staff		0.463	
'Gazeta Biskupińska' (Biskupin Newspaper)		0.634	
Guidebook/brochure		0.564	
Direction signs		0.650	
Plans, maps		0.682	
Car park			0.472
Staff			0.576
Souvenirs			0.616
Adapting the exhibition for children			0.416
Catering			0.680
Toilets			0.584
Eigenvalue	3.016	2.085	2.431
% of extracted variance	13.114	9.064	10.569
Cronbach's α	0.69	0.71	0.62

experience — *boring–interesting, tiring–relaxing, irritating–pleasant* — adapted from the flow-simplex scale (Vitterso *et al.*, 2000), was used as an indicator of satisfaction. The scale used a 5-point Likert scale: *very, a little, neutral, a little, very*. The author agrees with Viterso *et al.* that the flow-simplex method as an alternative for the general assessment of satisfaction using one statement is more prone to various influences of attractions on visitors' emotions than a single general measurement of satisfaction. Such a method of measurement of satisfaction also agrees with the definition of satisfaction as the quality of visitors' experience (cf. Baker and Crompton, 2000).

After initial studies, three pairs of adjectives, which were best understood in the Polish language version, were left in the scale[1]: *boring–*

interesting, tiring–relaxing, irritating–pleasant. Behavioural intentions were assessed by using statements: *Will you recommend visiting . . . to your friends?* and *Would you like to visit . . . again?* As a third indicator of intention, a question about the price visitors would be willing to pay for the admission ticket to the facilities was used. First, two items were assessed by using a 5-point Likert scale. Only the willingness to pay contained actual values expressed in Polish Zloty. Normalisation of data carried out before the analysis made it possible to include it in the scale of behavioural intentions.

The study was carried out in the summer of 2004 at four visitor attractions of the Wielkopolska and Kujawy regions: the Archaeological Museum in Biskupin (during the 10th Archaeological Festival), the National Museum of Agriculture and Agricultural-Food Industry in Szreniawa, the New Zoo in Poznań and Wielkopolska Ethnographic Park in Dziekanowice. Two trained pollsters were

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[1]The original scale included the following pairs of adjectives: *boring–fun, relaxed–tense, pleasant–unpleasant, interesting–uninteresting* and *challenging–tame*.

assigned to each of the attractions. Visitors over 15 years of age were questioned on various days of the week from June to September as they were leaving the attractions (except for the Festival in Biskupin that took place from September 18 to 26). Pollsters asked them to fill out the questionnaire, giving them around 15 minutes to do so. If the visitors were not keen to write down their answers, the pollsters would read the questions aloud and write down the answers. The percentage of people refusing to fill out the questionnaire ranged from 15 to 41%, depending on the attraction. This resulted mainly from lack of time and an obligation to stay with their group.

The pattern of selection of the sample can be described as 'first free', which means that after questioning one person, the pollster asked the next free person to fill out the questionnaire. Finally, the study included 1770 people, of whom 582 were questioned in Biskupin, 462 in Szreniawa, 407 in Poznań and 319 in Dziekanowice.

For verification of the model, a four-stage procedure was used (Hair *et al.*, 2007):

(1) defining individual constructs and developing scales for their measurement (exploratory factor analysis);
(2) assessing the measurement scales' reliability (Cronbach's α);
(3) assessing the measurement model's validity (confirmatory factor analysis); and
(4) specifying the structural model and assessing its validity (structural equation modelling).

ANALYSIS AND RESULTS

The hypothetical model contained five individual constructs (latent variables): *motivation*, *quality of provider's performance*, *satisfaction*, *benefits* and *behavioural intentions*. Exploratory factor analyses of the measurement scales were carried out in order to identify the factor structure of the scales. The method of principal components with varimax rotation and the criterion of minimum eigenvalue equal to 1.0 were used. The minimum acceptable value of factor loading was 4.0 (Hair *et al.*, 2007). The factor analysis of a seven-item motivation scale revealed two factors: *educational* and *socio-recreational* (Table 1). These factors accounted for over 50% of variance of the motivation variable and were characterised by a high reliability, equal to Cronbach's $\alpha = 0.66$.

The factor analysis of the quality of provider's performance scale revealed three factors: *exhibition*, *sources of information* and *quality of services* (Table 3). The three factors extracted 32.75% of total variance of the variable *quality of performance*. The factors were characterised by a relatively high reliability; the highest was achieved by the scale of *sources of information* ($\alpha_c = 0.71$); slightly lower but also satisfactory values of indicators were achieved by scales of *exhibition* ($\alpha_c = 0.69$) and *quality of services* ($\alpha_c = 0.62$).

Another analysis was carried out for the benefits scale. As a result, three factors were obtained: *recreational*, *educational* and *social* (Table 2). The first one (recreational), including items of relaxation, entertainment and escape, was characterised by the highest reliability (Cronbach's $\alpha = 0.68$). Reliability of the second factor (educational), made up of the perceptions of authenticity, atmosphere of the place and one's own education, achieved Cronbach's $\alpha = 0.64$. The third factor (social) included such indicators as taking care of other people and socialising. Its reliability was the lowest (Cronbach's $\alpha = 0.53$) but also acceptable.

The satisfaction variable was made up of three items of quality of experience: *boring–interesting*, *tiring–relaxing* and *irritating–pleasant*. The benefits scale achieved a very high reliability of Cronbach's $\alpha = 0.82$.

The last of the studied variables — *behavioural intentions* — was made up of three items: *loyalty* (*Would you like to visit the Museum again?*) *recommendation* (*Will you recommend visiting the Museum in Biskupin to your friends?*) and *willingness to pay* (*What is the highest price you would be willing to pay for admittance to the Museum?*) The scale achieved reliability of Cronbach's $\alpha = 0.59$.

Another step of the analysis was checking to what extent model variables are correlated. Table 4 presents the matrix of Pearson's correlation coefficients between variables making up the model. Significant correlations were found between most of the variables of the model at the level of $p < 0.05$. The strongest relations were noted between variables of satisfaction ($r = 0.65, 0.62$ and 0.57). No significant

Table 4. Table of Pearson's correlation coefficients *r* between variables of the model.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Motivation														
1. Educational	1.00	*0.33*	*0.19*	*0.26*	*0.16*	*0.24*	*0.23*	*0.18*	*0.18*	*0.41*	*0.42*	*0.26*	*0.31*	0.00
2. Socio-recreational		1.00	0.08	0.06	*0.17*	0.06	0.06	0.00	*0.41*	*0.12*	*0.33*	*0.10*	*0.18*	0.08
Performance of the service provider														
3. Exhibition			1.00	*0.45*	*0.15*	*0.14*	*0.14*	*0.11*	*0.13*	*0.30*	*0.23*	*0.26*	*0.29*	*0.10*
4. Sources of information				1.00	*0.21*	*0.22*	*0.28*	*0.22*	*0.10*	*0.34*	*0.21*	*0.24*	*0.32*	*0.14*
5. Services					1.00	*0.17*	*0.15*	*0.12*	*0.20*	*0.31*	*0.10*	*0.24*	*0.28*	*0.18*
Satisfaction														
6. Boring-interesting						1.00	*0.57*	*0.65*	*0.21*	*0.39*	*0.20*	*0.32*	*0.34*	*0.27*
7. Tiring-relaxing							1.00	*0.62*	*0.17*	*0.32*	*0.20*	*0.30*	*0.32*	*0.11*
8. Irritating-pleasant								1.00	*0.20*	*0.32*	*0.17*	*0.27*	*0.30*	*0.20*
Benefits														
9. Recreational benefits									1.00	*0.29*	*0.31*	*0.24*	*0.26*	*0.16*
10. Educational benefits										1.00	*0.32*	*0.36*	*0.39*	*0.23*
11. Social benefits											1.00	*0.24*	*0.31*	0.03
Behavioral intentions														
12. Loyalty												1.00	*0.49*	*0.18*
13. Recommendation													1.00	*0.23*
14. Willingness to pay														1.00

Note: significant correlations at the level of *p* < 0.005 are in italics.

correlation with six variables of the model was noted for the variable socio-recreational motives. This means that the studied variables affect each other, and, moreover, the weakest relation with other variables was noted for motivation factors.

Another step was an assessment of matching of the model to data, carried out using a confirmatory factor analysis. Latent variables were defined in such a way that each of them was loaded by at least three factors or items. Motives were the only exception because of a two-factor structure of the motivation scale. Each item loaded only one variable (Hair *et al*., 2007). Measurement model validity was assessed by using absolute indicators: χ^2-test, Population Gamma Index (GFI), Adjusted Population Gamma Index (AGFI), McDonald's Index of Noncentrality (MDI) and Steiger-Lind's root mean square error of approximation (RMSEA); it turned out to be insufficient. The value of the χ^2-test was 203.43 (d.f. = 67) and was statistically significant at the level of *p* < 0.001. This means that standardised residuals of theoretical and empirical matrixes differ significantly, which suggests the need to reject the model. The values of other indicators were

GFI = 0.940, AGFI = 0.906, MDI = 0.799 and RMSEA = 0.060, which also makes us reject the tested model.

Because of the given and the weakest correlation of motivation factors with other variables, this variable was removed from the model. The modified model matched the data much better. Although the value of the χ^2-test = 98.71, with *p* < 0.001, may suggest that the new model still does not match the analysed data, the value of the χ^2-test is significantly lower than in the original model. Moreover, many scholars claim that with large samples, even a well-matched model that is very sensitive to the size of the sample may be rejected by a χ^2-test (Joreskog and Sorbom, 1996; Hair *et al*., 2007). In this case, it is recommended that other tests be used. The tests that were carried out disclosed a good matching of the model: GFI = 0.981, significantly above the recommended value of 0.95; AGFI = 0.969, above the recommended value of 0.95; RMSEA = 0.049, below the recommended 0.05; MDI = 0.943, very close to the recommended 0.095. All factor loading of the model had values above the recommended value of 0.3, and high values of the *t* statistics (with *p* < 0.001) indicate that the

Table 5. Results of confirmatory factor analysis for Biskupin.

Variables	Assessment of parameter[a]	Standard error	*t* statistics	*p*	Reliability	Variance extracted and variance error
Quality					0.637[b]	0.331[c]
Exhibition	0.545	0.049	11.194	0.000	0.297[d]	0.469
Sources of information	0.730	0.060	12.089	0.000	0.532	0.615
Services	0.405	0.040	9.829	0.000	0.164	0.323
Satisfaction					0.888	0.720[e]
Interesting	0.869	0.047	18.458	0.000	0.756	0.387
Relaxing	0.814	0.049	16.773	0.000	0.663	0.486
Pleasant	0.862	0.046	18.536	0.000	0.743	0.386
Benefits					0.431	0.210[e]
Recreational benefits	0.360	0.042	8.483	0.000	0.130	0.477
Educational benefits	0.480	0.036	13.313	0.000	0.230	0.218
Social benefits	0.487	0.049	9.909	0.000	0.237	0.614
Behavioral intentions					0.469	0.236[e]
Loyalty	0.507	0.041	12.325	0.000	0.257	0.399
Willingness to pay	2.546	0.416	6.121	0.000	0.169	0.736
Recommendation	0.501	0.035	14.403	0.000	0.251	0.230

Note: $\chi^2 = 98.71$ (48); $p < 0.001$; GFI = 0.981 (the value of this index in case of good matching of equations should be greater than 0.95); AGFI[e] = 0.969; RMSEA = 0.049 (the value of this index should be lower than 0.05); MDI = 0.943 (the value of this index should be greater than 0.95); AIC = 0.360 (useful for selecting the best-matched model from among a few — it should be as small as possible).
[a] The model is built on the basis of a covariance matrix; hence, factor loading reflects regression coefficients between observable variables and factors (coefficients can be greater than zero) (Sagan, 2003).
[b] Construct reliability coefficient = $[SUM(P_i^2/(1 - P_i^2))]/[1 + SUM(P_i^2/(1 - P_i^2))]$, where P_i — ith parameter (Gagne and Hancock, 2006).
[c] Variance extracted = $[SUM(P_i^2)]/[SUM(P_i^2) + SUM(e_i)]$, where P_i — ith parameter, e_i — corresponding error equal to 1 minus reliability coefficient of the construct (see above).
[d] Reliability coefficient of the item is the square of its parameter.
[e] The value of the index should be greater than 0.95.
AGFI, Adjusted Population Gamma Index; GFI, Population Gamma Index; RMSEA, Steiger–Lind root mean square error of approximation; MDI, McDonald's Index of Noncentrality; AIC, Akaike Information Criterion.

obtained loadings are statistically significant (Table 5).

Verification of the hypotheses

In order to verify hypothetical relations between variables of the model, a procedure of modelling structural equations was carried out[2]. All hypothetical relations between the variables of the second model turned out to be statistically significant at the level of $p < 0.05$ or lower (Table 6). Benefits gained from visiting are the strongest factor affecting

behavioural intentions ($\beta = 0.567$; $p = 0.008$), which allows us to accept **Hypothesis 4**.

The next factor that affects intentions of visitors is the quality of performance ($\beta = 0.171$; $p = 0.005$) (**Hypothesis 2b**) and satisfaction ($\beta = 0,140$; $p = 0.003$) (**Hypothesis 3a**). The results make it possible to adopt other hypotheses: quality of performance is a significant indicator of satisfaction ($\beta = 0.338$; $p < 0.001$) (**Hypothesis 2a**) as benefits gained from visit are ($\beta = 0.157$; $p < 0.001$) (**Hypothesis 2c**). Satisfaction is an influential antecedent of benefits from visiting ($\beta = 0.157$; $p < 0.001$) (**Hypothesis 3b**). The influence of benefits on behavioural intentions ($\beta = 0.567$) turned out to be stronger than on quality of performance ($\beta = 0.171$) and satisfaction ($\beta = 0.140$), which makes it possible

[2] The method was a development of path analysis (more Joreskog and Sorbom, 1996; Sagan, 2003; Hair *et al.*, 2007).

Table 6. Detailed results of modelling structural equations (the case of Biskupin).

| Variables	Parameter β	Standard error	*t* statistics	*p*
Quality of performance — Exhibition	0.545	0.049	11.193	0.000
Quality of performance — Sources of information	0.729	0.060	12.089	0.000
Quality of performance — Services	0.405	0.040	9.832	0.000
Quality of performance — Satisfaction	0.338	0.058	5.803	0.000
Quality of performance — Intentions				
Direct effect	0.171	0.061	2.806	0.005
Indirect effect	0.192	—	—	—
Total effect	0.363	—	—	—
Quality of performance — Benefits				
Direct effect	0.201	0.035	5.831	0.000
Indirect effect	0.053	—	—	—
Total effect	0.254	—	—	—
Satisfaction — Intentions				
Direct effect	0.140	0.048	2.934	0.003
Indirect effect	0.089	—	—	—
Total effect	0.229	—	—	—
Satisfaction — Benefits	0.157	0.033	4.702	0.000
Satisfaction — Interesting	1.000	—	—	—
Satisfaction — Relaxing	0.936	0.063	14.767	0.000
Satisfaction — Pleasant	0.991	0.062	16.075	0.000
Benefits — Intentions	0.567	0.215	2.637	0.008
Benefits — Educational benefits	1.000	—	—	—
Benefits — Recreational benefits	0.932	0.178	7.486	0.000
Benefits — Social benefits	0.951	0.190	7.100	0.000
Behavioral intentions — Loyalty	1.000	—	—	—
Behavioral intentions — Willingness to pay	0.812	0.117	6.912	0.000
Behavioral intentions — Recommendation	0.988	0.095	10.433	0.000
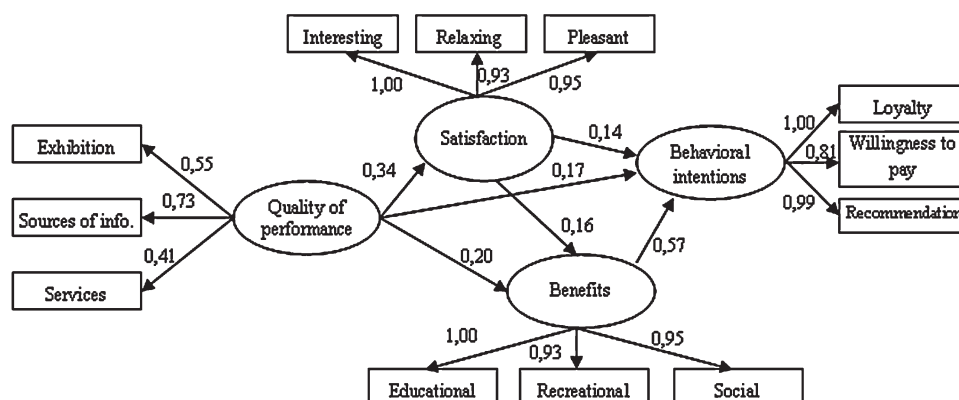
Figure 2. Model of relations between the quality, satisfaction, benefits and behavioural intentions (the case of Biskupin).

to adopt **Hypothesis 5**. The given relations are illustrated by the model in Figure 2.

In order to follow the strength and course of influence of the provider's performance on behavioural intentions, complex path coefficients were calculated. They are products of β parameters of component paths making up a complex path. The comparison of complex

paths (Figure 3) showed that influence of the provider's performance on behavioural intentions takes places mainly by indirect influence on benefits, which in turn affect behavioural intentions. The complex path coefficient calculated in this way was $p = 0.192$. The second important direction of influence comes directly from the provider's performance on behavioural intentions ($p = 0.171$).

The third important path is from the provider's performance to behavioural intentions through satisfaction and benefits ($p = 0.114$). A small effect of the provider's performance leads through satisfaction of visitors to behav-
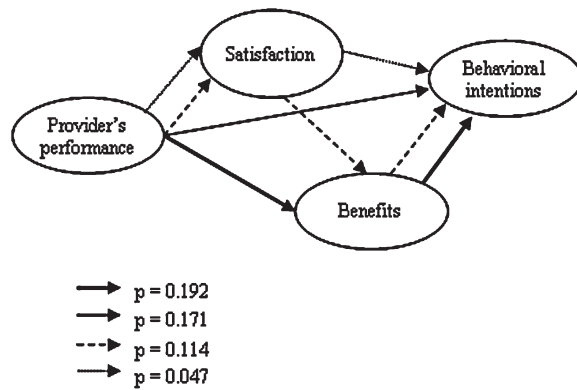

Figure 3. Model path relations between the quality of provider's performance and behavioural intentions (the case of Biskupin).

ioural intentions ($p = 0.047$). This means that the key factor for future behaviour of visitors towards the attraction is the benefits gained by them during their visit to the attraction. They are affected mainly not only by the provider's performance but also by satisfaction that is the quality of experience during the visit to the attraction. The quality of provider's performance also has a relatively strong, direct effect on intentions of the visitors. So irrespective of the benefits gained, a low level of the provider's performance (e.g. a low quality of services) may determine the reluctance to revisit. On the other hand, a high level of the performance affects both the willingness to revisit and the benefits that are most important for future decisions. Satisfaction, hence the quality of experience, only slightly directly affects the intentions of the visitors, although it has some effect on benefits

The results obtained for Biskupin were verified for other studied attractions. The data presented in Table 7 confirm the legitimacy of adopted hypotheses, with a few exceptions that may be caused by uniqueness of an attraction. In three studied attractions (Biskupin, Museum of Agriculture and Wielkopolska Ethnographic Park) benefits gained by visitors are the strongest predictors of behavioural intentions. Only in the case of the Zoo did this relation turn out to be insignificant. Similarly, in the case of the effect of satisfaction on

Table 7. Coefficients of model matching and standardized regression coefficients.

Statistics, effect	Biskupin	Muz. Rol.	Zoo	WPE
N	442	358	359	253
χ^2/d.f.	98.71***/48	97.93***/48	93.73***/48	112.68***/48
GFI	0.966	0.979	0.968	0.960
AGFI	0.955	0.965	0.969	0.936
RMSEA	0.044	0.047	0.049	0.055
MDI	0.954	0.946	0.944	0.892
AIC	0.339	0.442	0.429	0.685
Performance → Satisfaction	0.338***	0.113*	0.212***	0.173***
Performance → Benefits	0.201***	0.195***	0.150**	0.184***
Performance → Intentions	0.171**	ns	ns	ns
Satisfaction → Intentions	0.140**	0.167**	0.516***	0.204*
Satisfaction → Benefits	0.157***	0.360***	ns	0.336**
Benefits → Intentions	0.567**	0.551*	ns	0.968***

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.
ns, no significance.

benefits; this effect was not found only for the Zoo. The uniqueness of the New Zoological Garden in Poznań as an attraction visited mainly by residents and functioning as a recreational park for families with children may explain the relations. Momentary mood, satisfaction and quality of experience determine another visit, and the benefits are less important, as this place is treated as a city park, a place for leisure walks. Benefits from such walks are less important than momentary impressions, experience and satisfaction resulting from it. The results achieved at all attractions confirmed the effects of the performance of the service provider on satisfaction of visitors and on benefits gained by them as a result of visiting the attraction. They also confirm a relatively strong effect of satisfaction on behavioural intentions. However, at all attractions except the Zoo, the effect of benefits on behavioural intentions is definitely higher than other influences, which confirms the rightness of adopting **Hypothesis 5**. Models of relations for other attractions did not confirm a direct influence of the performance of the service provider on behavioural intentions, which definitely induces us to reject **Hypothesis 2b**.

DISCUSSION AND CONCLUSIONS

The author's intention was to empirically verify relations between factors affecting satisfaction and behavioural intentions and to create a model explaining the process of visiting attractions. Although significant variation among visitors and between the studied attractions was found in terms of perception of quality of performance, satisfaction, benefits and behavioural intentions, the objective of the study was to find the relations between constructs of the studied model.

It was found that the perception of the quality of provider's performance and satisfaction of visitors are correlated in a significant way. This means that the high assessment given by visitors to the service provider is positively related to their satisfaction with visiting. However, it can be said then that satisfaction is not an appropriate indicator of efforts of the service provider as it is affected by a number independent factors. These are, for example, the weather, the individual's mood or the

mood in a group of visitors. In the case of people visiting the Zoo, an additional factor influencing satisfaction may be attitude towards animals and, in general, towards the principles of functioning of zoological gardens and knowledge about the objectives of zoological gardens[3].

The factors that most strongly 'load' the variable of performance of service provider are sources of information and exhibitions. Among sources of information, those assessed highest by visitors are information boards, panels and orientation signs. The researched attractions are in the open air and quite spacious; therefore, direction signs are important for visitors' orientation. They are also attractions of educational value, most frequently visited by students on field trips and are rich with different forms of heritage interpretation, which interest visitors. Among exhibitions, those assessed highest by visitors are live exhibitions and those made in an interesting way, allowing for interaction with visitors. During the Archeological Festival in Biskupin, visitors may see live craftsmanship presentations, fights, as well as musical and dancing shows with artists performing in historical costumes. These elements of attractions provide the most satisfaction and benefits to visitors and, as a consequence, make them want to visit again.

Although Tomas *et al*. (2002) question the one-way influence of the perception of the provider's performance on satisfaction, claiming that the direction of this effect may also work in reverse, the path analysis delivered proof of a strictly directional effect of these variables. The results obtained in all four studied attractions where these relations were found speak for the adoption of **Hypothesis 2a** about the perception of the performance on satisfaction.

The study also delivered proof of the effect of satisfaction and benefits gained from visiting on visitors' intentions related to visiting again, recommending the attraction to friends and paying for admission. Benefits and quality of the provider's performance have greater total effect on behavioural intentions than satisfaction of

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[3]The author's own study showed that 78% of subjects visiting a zoo correctly answered the question about the objective of zoological gardens.

visitors. In three researched attractions, the effect of benefits on behavioural intentions of the visitors is strong, while the effect of satisfaction is low. People visiting attractions mostly base their decision to revisit or recommend on the assessment of their benefits and quality of attraction rather than on their own satisfaction. In other words, elements of long-term benefits and memories of visiting the attraction, not momentary satisfaction, affect decisions to revisit, which is considered to be a psychological state affecting the change of attitudes rather than a factor affecting intentions (Olivier, 1980; Yi, 1991). What is more, the variables that play the strongest part in the assessment of efforts of the service provider are sources of knowledge and exhibition.

Similar relations were obtained by Baker and Crompton (2000); however, for them, quality of service and exhibition of the attraction had the greatest effect on perception of the service provider's performance. In present study, only data from the zoo are contrary to the above — satisfaction has a strong effect on intentions. What causes this? The New Zoo in Poznań is quite different in character from the other three attractions in this study. It is an open, spacious park, located in the suburbs of a big city and is most frequently visited by families with children. For such visitors, satisfaction resulting from impressions (i.e. psychological state) might be more crucial for decisions to revisit than benefits resulting from the visit. It can therefore be assumed that in the case of attractions such as a zoo, for which visitors come mainly for recre-

ation and relaxation, the model of behaviour may take some other form (see Figure 4).

These data confirm partly the results obtained by Baker and Crompton (2000) and Tomas *et al.* (2002). Although a positive effect of quality of the provider's performance on behavioural intentions was found, this relation turned out to be significant only in the case of the archaeological festival in Biskupin. The intermediate factor between the quality of performance and intentions of visitors is benefits. This is the main route of influence of quality of performance on behavioural intentions, and, in addition, this effect takes place partially through satisfaction of visitors.

The results of the study allow us to adopt the postulated model of relations between quality, satisfaction and behavioural intentions. Variable motivation was removed from the model because of the impossibility of adjusting the model to the data. It seems that the main reason was the lack of correlation between recreation and social motives and other variables of the model. Where does it come from? People with such motivation are less interested in sources of information and exhibition, which are the factors that most strongly load the variable efforts of the service provider. So if these two factors determine satisfaction and benefits to the largest extent, and they in turn determine behavioural intentions, it is obvious that recreational and social motives affect rather insignificantly the shape of the proposed model. This results in the lack of the motivation variable in the model.

The given results are a stimulus to search for other models that would link motives (in particular recreational and social) with behavioural intentions. Recreational and social activity of visitors may play a significant role as an intermediate variable between motives and intentions. It is also probable that the measurement of motivation after completion of the visit is loaded with too large an error because of benefits gained, which disrupt the original picture of motivation. If there are both motivation and benefits variables in a model, then the latter, as better identified after the completion of the visit, have, as the research showed, a stronger relation with other variables of the model, somehow pushing out motivation from the process of assessing the visit to the
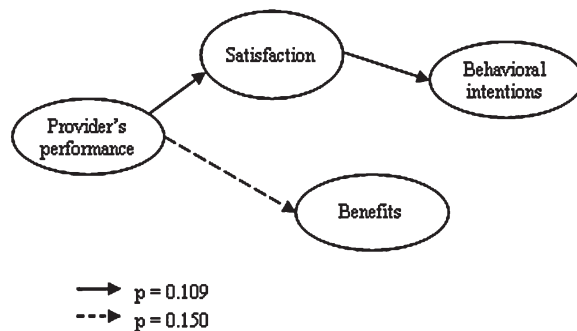

Figure 4. Model of path relations between the quality of provider's performance and behavioural intentions for recreational attractions (the case of Zoo).

attraction. In practice, it indicates the need to study motivation of visitors before they visit the attraction. Secondly, because it is benefits, not motives, that are related most strongly to behavioural intentions, segmentation of the market of visitors should be made on the basis of benefits, not on motives, of visitors.

The effect of perception of the provider's performance on behavioural intentions takes place mainly through the influence on benefits and by route of satisfaction and benefits. Direct action of perception of provider's efforts on behavioural intentions is small and, in the majority of studied attractions, negligible. So attention to the quality of service and exhibition of attractions will result in visitors' satisfaction, desire to revisit and willingness to pay a higher admission fee.

The study also found that sources of information, followed by exhibition, have the strongest effect on perception of provider's efforts. Thus, the conclusion for managers of attractions is that there is a need to modernise the content and methods of communicating information and to ensure high-quality exhibits and heritage interpretations at the attractions.

The study provided proof that it is the sources of information that determine to a large extent the desire to revisit and the willingness to accept a higher admission fee. A relatively weak relation between perception of quality of services and perception of the total of provider's efforts seems to confirm the findings of Herzberg (1966) and Jensen (2004) concerning hygienic factors and motivators. The factor of quality of service belongs to hygienic factors. The quality of service and infrastructure is very important so as not to generate dissatisfaction. However, their role in affecting behavioural intentions is small. Therefore, the optimal solution from the point of view of investment effectiveness is to ensure a minimum acceptable level of quality of service (car parks, toilets, catering, souvenirs, etc.) and concentrate on improving the quality of exhibition, heritage interpretation and provision of information.

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