ACCESS Journal:
Access to Science, Business, Innovation in Digital Economy
2023, 4(1), 102-114, https://doi.org/10.46656/access.2023.4.1(8)

ISSN 2683-1007 (Online)
https://journal.access-bg.org/

CONSUMER EXPECTATIONS AND REAL EXPERIENCES: CASE OF UKRAINIAN TOURISTS IN TURKEY

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Received: 13 October 2022 Accepted: 13 November 2022 Online Published: 14 December 2022

ABSTRACT

Objectives: *The issues and approaches to the analysis of the opinions of consumers of tourism services in Turkey are considered. Customer surveys can be conducted both before and after their service.* ***Methods/Approach:*** *Accordingly, preliminary estimates and opinions of customers can be obtained reflecting their expectations and actual estimates after they receive travel services. It is of interest to compare these two groups of assessments, which makes it possible to both adjust preliminary advertising and marketing campaigns, and the quality of the tourist service itself, its individual elements, and components.* ***Results:*** *In the analysis, to obtain statistically sound and reliable results, a sequence of steps is proposed to study the expected and real impressions of tourists. An information and analytical technology for determining the types of tourists who have the same expected and real impressions is proposed. Its advantage lies in the use of correlation and variance analysis of non-metric indicators and the subsequent development of cognitive maps that allow you to immediately see the mechanisms of interrelation in the system of non-metric and metric indicators.* ***Conclusions:*** *Compliance with such information and analytical technology ensures the objectivity of the analysis, and, consequently, the effectiveness of management decisions that will be made on its basis. An example of practical calculations for processing the results of surveys of tourists before and after service has been given.*

Keywords: tourist expectation, service perception, client satisfaction, behavioural intention

JEL classification: *M30, Z32, P36*

Paper type: Case Study.

Citation: Dorokhov, O.; Malyarets, L.; Ukrainski, K.; Petrova, M.; Yevstrat, D.; Aliyeva, A. (2023). Consumer expectations and real experiences: case of Ukrainian tourists in Turkey. *Access to science, business, innovation in digital economy, ACCESS Press,* 4(1), 102-114, https://doi.org/10.46656/access.2023.4.1(8)

INTRODUCTION

As is well known, various surveys of travel services and tourism consumers occupy an important place in the study of the world tourism market, the desires and preferences of consumers, their assessments of the quality and demand for tourism and hospitality services.

At the same time, it is of great practical interest (if it is possible to carry out) a comparison of the preliminary expectations of tourists (before receiving a tourist service) and their final impressions (after receiving the

service). The coincidence or difference in assessments of the quality of tourist services before and after service can be due to many and different reasons. On the one hand, these are certain characteristics, requirements, preferences of various segments of consumers of tourism services (Liu et. al, 2018). On the other hand, there are and are possible numerous nuances and features of the services themselves, their marketing and management.

Thus, solving the problem of the influence of the qualitative characteristics of tourists on the level of their expected impressions and real impressions is one of the urgent problems of improving the organization of tourism. Domestic and foreign researchers (Dyachenko et al, 2018; Matyushenko et al, 2020; Petrova, Buzko & Dyachenko, 2018; Uteubayev, Petrova & Lyubenova, 2018) note that in an innovative economy, success in the competitive struggle for the client and his retention largely depends on this.

However, such a study can only be carried out using appropriate, well-founded information and analytical methods. The initial data for the analysis are the results of surveys of tourists, and since they are mainly ordinal, non-metric values, they require appropriate mathematical methods for their processing.

METHODOLOGY

Analysis of the literature shows that the need to measure the quality of services, as well as their perception by customers, both before and after service, has become universally necessary, particularly, in the tourism sector. Indeed, in today's competitive economic environment, both the quality of service and the perception of it by customers is one of the key elements in achieving the long-term success of a travel company. Although there is no universal definition of service quality, most researchers agree that service quality is a measure of meeting customer expectations (Šebrek, 2020).

At the same time, the specificity of tourist services lies in the fact that clients have rather persistent, not always objective ideas about the service, which were formed even before receiving it. However, after receiving the service, these views and estimates may change. Therefore, it is important to study the issues of correlation and mutual influence of preliminary expectations and final impressions of tourists, to develop appropriate approaches for their analysis and subsequent management and commercial decisions.

In general, it should be noted that there is a fairly large number of studies and articles devoted to conducting, processing data, and analyzing various consumer surveys in tourism services. Therefore, it is advisable to focus on those of them that are devoted specifically to researching preliminary and, then, final impressions of clients of travel services. Let's take a closer look at some recent of these publications.

The paper (Akinci & Yurcu, 2018) describes the results of the application of various statistical methods for processing surveys to study the relationship between expectations, perceptions and satisfaction of students receiving tourism education. In particular, methods of parametric tests, t-test, ANOVA, correlation and regression analysis were used.

The study (Wang, 2017) explores the relationship and impact of expectations, quality of service, satisfaction, and behavioural intentions in the medical tourism industry. It is shown that expectations directly

ISSN 2683-1007 (Online)
https://journal.access-bg.org/

affect both the quality of service and satisfaction. Service quality also affects both satisfaction and behavioural intentions. Moreover, satisfaction has a direct impact on further behavioural intentions.

The article (Chow & Lee, 2019) describes the method of refuting expectations, as a theoretical basis for postulating the interaction between expectation and experience and its impact on issues related to tourism.

The paper (Perera & Chandran, 2015) study assesses the expectations and perceptions of tourists by examining cultural heritage sites. It has been shown that it is important to close the gap between expectations and perceptions. The article (Garima & Sajeevan, 2019) examines the relationship between the perception and satisfaction of tourists from the point of view of little-studied issues of the so-called soundscape.

The well ground research (Alamgir & Nedelea, 2016) discusses marketing strategies for targeted tourists. Perceived value is an important element of competitive advantage and an indicator of customer satisfaction. A conceptual model is proposed that covers the concepts of perceived quality, tourists' expectations, perceived value, destination image, perceived value, and satisfaction of tourists in the tourist environment.

The model was empirically tested using *SmartPLS* software. It has been confirmed that perceived quality, perceived value, tourist expectations, and destination image are the four key prerequisites for perceived value that ultimately affects tourist satisfaction. A more complete model can be developed taking into account other parameters of the travel service.

The results presented in (Yu & Jianguo, 2018) confirm the relationship between the image of a tourist destination, perceived quality and value, impressions, satisfaction, loyalty, and complaints of tourists.

The study (Seon et al., 2019) proposes an interesting client-centered approach to the study of tourist behaviour using an integrated approach grounded on consisting of value-based acceptance and confirmation-expectation models.

The paper (Sfenrianto & Girsang, 2016) presents the analysis of the correspondence of user expectations and information systems for the preliminary promotion of tourism services.

The article (Correia, 2017) well illustrates how the socio-demographic profile of tourists influences return visits. Returnees with more than two visits in different years were considered. It is shown that the combination of socio-demographic characteristics, expectations, satisfaction, the purpose of the trip, motivation, has a positive effect on the desire to return to visit.

The study (Garima & Sajeevan, 2019) describes an expectation-confirmation model with two complementary constructs, self-efficacy, and perceived value. Results allow predicting customer behaviour and show that perceived value and satisfaction contribute significantly to the continued use of relevant tourism services.

The initial data for statistical analysis was obtained by conducting two surveys of consumers (tourists), before and after receiving tourism services, a total of 170 tourists were surveyed. Each questionnaire contained 22 questions (the matrices of the questionnaire answers used in the calculations are not given by us due to the limited scope of the publication). The survey was conducted during September 2021 in Kharkiv. Clients of the travel company Navigator-Ukraina (https://www.navigator-ukraina.com.ua/) were interviewed, who ordered

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https://journal.access-bg.org/

tours or air tickets to Turkey through a travel agency. One respondent was interviewed twice: the first time when ordering a tour and the second time after returning from a trip (in the second case, the survey was sometimes conducted over the phone).

RESULTS

The signs (inherent to consumers) and a list of their possible values are shown in Table 1. The estimated parameters of tourist service and their possible values are shown in Table 2. Tables give the legend of signs and parameters, which will be used in calculations in the statistical package.

Table 1. The signs of tourist segmentation

Name	Possible Values	Designation
tourist Age	Numerical (years old)	*A*
Gender	Male, female	*G*
Education	School, college, university, master, other	*E*
Restravel	Holidays, business, other	*RT*
Resmode	Travel agency, hotel website, social media	*RM*
Trawith	With family, friend, colleagues, others	*T*

Source: Own authors' proposal when polling

Table 2. The signs of tourists' service

Preliminarily	After Service	Parameter Essence
X_1	Y_1	A good hotel, a respectable and noticeable look on outside
X_2	Y_2	About the hotel internal furnishing and decoration
X_3	Y_3	About the staff appearance and their tidiness
X_4	Y_4	Hotel facilities
X_5	Y_5	Check-in time
X_6	Y_6	Staff responsiveness
X_7	Y_7	Informing and giving best services
X_8	Y_8	Excellent hotel, service at the time they promise to do so
X_9	Y_9	An excellent hotel will insist on error-free records
X_{10}	Y_{10}	Hotel employees tell customers when services will be provided
X_{11}	Y_{11}	Hotel employees give prompt services to the customers
X_{12}	Y_{12}	Hotel employees are willing to help you resolve any issue
X_{13}	Y_{13}	Hotel employees are never too busy for customers requests
X_{14}	Y_{14}	Hotel employees should instill confidence in customers
X_{15}	Y_{15}	Hotel clients should feel and be safe
X_{16}	Y_{16}	Staff courtesy is very important
X_{17}	Y_{17}	Hotel employees should have the needed knowledge
X_{18}	Y_{18}	Hotel employees giving to customers individual attention
X_{19}	Y_{19}	A hotel should be opened and in service 24/7/365
X_{20}	Y_{20}	Hotel staff to offer customers personal services
X_{21}	Y_{21}	The hotel should have their customers best interest at heart
X_{22}	Y_{22}	The hotel staff understand the specific needs of their customers

Source: Own author's development based on the literature

The steps of calculations for both *Preliminarily* (expected) and *AfterService* (real impressions) are the next: formation of a system of quality signs of tourists, formation of a system of indicators of tourist impressions, determining the relationship between the quality characteristics of tourists and their impressions, definition of

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consistency in the system of quality characteristics of tourists and their impressions, development of cognitive maps of tourists' impressions, analysis of the mechanisms of interconnection of impressions and quality characteristics of tourists.

It should be noted that initially each of the data matrices, received from two surveys, is examined for consistency separately, and then, by comparative generalization, the desired features for segmentation of a tourist type are determined.

Further statistical analysis is aimed at studying two preliminary hypotheses described below. The first hypothesis is that qualitative characteristics of tourists have different effects for the expected impressions and real impressions. The second hypothesis is that a comparative analysis of the consistency of indicators of expected impressions and indicators of real impressions allows us to determine the types of tourists who have the same expected and real impressions, and the types of tourists who have different expected and real impressions.

Let's first look at the analysis of tourist's expected impressions. To analyze the influence of the tourist's qualitative characteristics on his expected impression and the real impressions he received after visiting the hotel, it is necessary to determine the tightness of the relationship between these indicators in each case. In all further calculations, we use the conventions described above in Tables 1 and 2. The tightness of the relationship between indicators, which are both ordinal values and quantitative (for example, the age of the tourist), should be determined using the Spearman correlation coefficient, using the data from Table 3.

Table 3. Spearman paired rank correlation matrix of tourists' qualitative characteristics and their expected impressions

	A	G	E	RT	RM	T	x1	x2	x3	x4	x5	x6	x7	x8	x9	x10	x11	x12	x13	x14	x15	x16	x17	x18	x19	x20	x21	x22
A		-0,0207	0,0436	0,0019	-0,033	-0,0541	-0,0119	0,0212	-0,0633	0,0162	-0,0549	-0,0554	0,0256	-0,0546	-0,128	-0,0234	-0,032	0,062	-0,0845	-0,0752	-0,0512	0,0626	-0,0108	0,0037	0,0402	-0,0088	-0,1162	-0,0211
G	-0,0207		0,3054	-0,2139	-0,1222	-0,1934	-0,0917	0,0237	0,0135	0,1435	-0,0696	-0,0691	-0,1488	0,0149	-0,2305	0,205	0,0167	0,0328	-0,2199	-0,0661	-0,0905	-0,0068	-0,0191	-0,0578	0,227	-0,0017	-0,0756	0,075
E	0,0436	0,3054		-0,2816	0,0028	-0,5135	-0,2703	-0,0684	-0,1838	0,112	0,0012	-0,0555	-0,1841	-0,043	-0,26	-0,0327	0,1161	-0,0028	-0,0959	-0,0762	-0,053	-0,1852	-0,3333	-0,317	0,2836	-0,0429	-0,179	-0,0176
RT	0,0019	-0,2139	-0,2816		0,2467	0,2431	-0,0931	-0,1506	0,1681	-0,2607	0,1783	0,1965	0,2052	0,1952	0,2838	-0,1965	-0,1681	-0,2251	-0,1867	0,2411	0,0394	0,1423	0,2026	0,2861	-0,1921	-0,1436	0,2036	0,1925
RM	-0,033	-0,1222	0,0028	0,2467		-0,0382	0,0458	-0,1442	0,2209	-0,0285	0,268	0,2353	-0,0613	-0,1766	-0,0644	0,162	-0,1708	-0,2414	0,096	0,1496	-0,1099	0,2398	0,0618	0,0623	-0,3425	-0,0125	0,0945	-0,1149
T	-0,0541	-0,1934	-0,5135	0,2431	-0,0382		0,2068	0,1371	0,266	0,0549	-0,1272	-0,0932	0,2364	-0,1568	0,3256	0,0147	0,0494	-0,0785	-0,0962	0,1977	0,0812	0,3008	-0,0191	0,2577	-0,025	0,0457	-0,1231	0,0784
x1	-0,0119	-0,0917	-0,2703	-0,0931	0,0458	0,2068		0,5388	0,1969	0,3468	0,2207	0,0075	-0,1989	-0,28	-0,154	0,2423	0,184	0,1823	0,0828	0,1406	0,1554	0,0385	-0,028	0,0495	-0,3869	0,0295	0,1336	0,0575
x2	0,0212	0,0237	-0,0684	-0,1506	-0,1442	0,1371	0,5388		0,242	0,1813	0,0534	-0,2281	0	-0,1413	-0,2036	0,1922	0,487	0,1665	-0,0947	0,2064	0,1341	0,0209	-0,1951	0,2355	0,0545	-0,151	0,0172	0,2294
x3	-0,0633	0,0135	-0,1838	0,1681	0,2209	0,266	0,1969	0,242		0,3167	-0,1149	0,0195	0,338	0,2427	0,2085	0,294	0,0284	0,0543	0,0445	0,2062	0,2343	0,2463	-0,0141	0,2243	0,0423	-0,0089	-0,2545	0,1988
x4	0,0162	0,1435	0,112	-0,2607	-0,0285	0,0549	0,3468	0,1813	0,3167		-0,1343	0,0258	0,0866	0,0117	-0,2846	0,1687	-0,0428	0,0934	-0,0727	-0,0176	0,139	0,0564	-0,1392	0,1512	-0,0656	0,1383	-0,2894	0,1995
x5	-0,0549	-0,0696	0,0012	0,1783	0,268	-0,1272	0,2207	0,0534	-0,1149	-0,1343		0,2546	-0,2417	-0,0713	-0,1139	0,0081	-0,1586	-0,0778	-0,0973	0,1816	0,1016	0,0582	-0,0433	-0,2132	-0,4898	0,1824	0,2521	-0,1303
x6	-0,0554	-0,0691	-0,0555	0,1965	0,2353	-0,0932	0,0075	-0,2281	0,0195	0,0258	0,2546		0,1823	0,0954	0,0616	-0,0805	-0,0846	-0,2941	-0,0261	0,0264	-0,175	0,0642	0,2084	-0,033	-0,3903	-0,1027	-0,0938	0,1218
x7	0,0256	-0,1488	-0,1841	0,2052	-0,0613	0,2364	-0,1989	0	0,338	0,0866	-0,2417	0,1823		0,4521	0,254	-0,0829	-0,1009	0,1822	0,1665	-0,1502	-0,0914	0,1604	0,1718	0,2932	0,1384	0,1061	-0,2531	0,222
x8	-0,0546	0,0149	-0,043	0,1952	-0,1766	-0,1566	-0,26	-0,1413	0,2427	0,0117	-0,0713	0,0954	0,4521		0,0701	-0,1304	-0,2398	0,328	0,2225	-0,1948	-0,0822	0,1932	0,1697	0,1479	0,0135	0,0176	0,0075	0,1197
x9	-0,128	-0,2305	-0,26	0,2838	-0,0644	0,2255	-0,154	-0,2036	0,2085	-0,2846	-0,1139	0,0616	0,254	0,0701		0,0497	0,1444	-0,0698	0,116	-0,0458	0,1181	0,0794	0,0239	0,0578	0,008	0,0885	-0,0227	0,0252
x10	-0,0234	0,205	-0,0327	-0,1965	0,162	0,0147	0,2423	0,1922	0,294	0,1687	0,0081	-0,0805	-0,0829	-0,1304	0,0497		0,2857	-0,0805	0,2998	0,1107	0,175	0,3386	-0,0232	0,036	-0,0982	0,1224	-0,0568	-0,2047
x11	-0,032	0,0167	0,1161	-0,1681	-0,1708	0,0494	0,184	0,487	0,0284	-0,0428	-0,1586	-0,0846	-0,1009	-0,2398	0,1444	0,2857		0,1436	-0,0087	0,1126	-0,035	-0,0363	-0,3368	0,1056	0,0729	-0,3012	-0,0064	-0,0462
x12	0,062	0,0328	-0,0028	-0,2251	-0,2414	-0,0785	0,1821	0,1667	0,0543	0,0934	-0,0778	-0,2941	0,1822	0,3281	-0,0698	-0,0805	0,1436		0,2476	-0,3166	0,0127	0,0642	0,0405	-0,0459	0,0129	0,0526	-0,0603	-0,1814
x13	-0,0845	-0,2199	-0,0959	-0,1867	0,096	-0,0962	0,0828	-0,0947	0,0445	-0,0727	-0,0973	-0,0261	0,1665	0,3225	0,116	0,2998	-0,0087	0,2478		0,0181	-0,211	0,1584	0,1799	-0,1665	-0,1351	0,334	0,0787	-0,2031
x14	-0,0752	-0,0661	-0,0782	0,2411	0,1496	0,1977	0,1406	0,2064	0,2063	-0,0176	0,1816	0,0264	-0,1502	-0,1948	-0,0456	0,1107	0,1126	-0,3165	0,0181		0,1634	-0,2216	-0,0286	-0,0468	-0,0859	0,2589	0,1977	-0,1174
x15	-0,0512	-0,0905	-0,055	0,0394	-0,1099	0,0812	0,1554	0,1341	0,2343	0,139	0,1016	-0,175	-0,0914	-0,0822	0,1181	0,175	-0,035	0,0127	-0,211	0,1634		-0,1269	-0,1804	0,1064	-0,0143	0,0368	0,0047	-0,1715
x16	0,0626	-0,0068	-0,1855	0,1422	0,2398	0,3008	0,0389	0,0209	0,2463	0,0564	0,0582	0,0642	0,1604	0,1932	0,0794	0,3386	-0,0363	0,0642	0,1584	-0,2216	-0,1266		0,1074	0,0946	-0,2862	0,0917	-0,3012	-0,0752
x17	-0,0108	-0,1091	-0,3318	0,2036	0,0618	-0,0191	-0,028	-0,1951	-0,0141	-0,1392	-0,0433	0,2084	0,1718	0,1697	0,0239	-0,0232	-0,3368	0,0405	0,1799	-0,038	-0,1804	0,1074		0,1975	-0,254	0,0902	0,1061	-0,0119
x18	0,0037	-0,0578	-0,317	0,2861	0,0623	0,2577	0,0489	0,2355	0,2243	0,1512	-0,2132	-0,033	0,2932	0,1479	0,0578	0,036	0,1056	-0,0459	-0,1669	-0,0468	0,1064	0,0946	0,1975		-0,0389	-0,2362	0,1283	0,2161
x19	0,0402	0,227	0,2836	-0,1921	-0,3425	-0,025	-0,3869	0,0545	0,0423	-0,0656	-0,4898	-0,3903	0,1384	0,0135	0,008	-0,0982	0,0729	0,0129	-0,1351	-0,0859	-0,0143	-0,2862	-0,254	-0,0389		-0,1209	-0,0884	0,1637
x20	-0,0088	-0,0017	-0,0429	-0,1436	-0,0125	0,0457	0,0295	-0,151	-0,0089	0,1383	0,1824	-0,1027	0,1061	0,0176	0,0885	0,1224	-0,3013	0,0526	0,324	0,2599	0,0368	0,0917	0,0902	-0,2362	-0,1209		0,136	-0,3138
x21	-0,1162	-0,0756	-0,179	0,2036	0,0945	-0,1231	0,1336	0,0172	-0,2545	-0,2894	0,2521	-0,0938	-0,2531	0,0075	-0,0227	-0,0568	-0,0064	-0,0603	0,0787	0,1977	0,0047	-0,0626	0,1061	0,1283	-0,0884	0,136		-0,0451
x22	-0,0211	0,075	-0,0176	0,1925	-0,1149	0,0784	0,0575	0,2294	0,1988	0,1995	-0,1303	0,1218	0,222	0,1197	0,0252	-0,2047	-0,0462	-0,1814	-0,2031	-0,1174	-0,1715	-0,0752	-0,0119	0,2161	0,1637	-0,3138	-0,0451	

Source: Own author's calculations based on the poll

For analysis, it is advisable to take only those coefficients that $|r_s| \geq 0{,}3$, since it is believed that such a relationship is already sufficient and cannot be neglected.

So, *A, G* and *RT* do not affect the expected impression. According to the rating of the influence of the tourist's qualitative characteristics on his expected impression, we have the following sequence: *E, T, RM*.

Moreover, the influence of *E* on the indicators of the expected impression is the opposite, that is, with an increase of *E*, the expected impressions of the tourist decrease.

Qualitative characteristics of *RM* also have the opposite effect, that is, with an increase of *RM*, the x_{19} level decreases. The effect of *T* on the expected impression is positive, that is, with its increase, x_9 and x_{16} also increases.

In general, it should be noted that the qualitative characteristics of the tourist do not have a big influence on the indicators of the expected impression for this set of observations.

In the studied group of tourists, there are characteristic closer relationships between the indicators of expected impressions themselves than the relationship of the qualitative characteristics of tourists with indicators of expected impressions.

For example, we have the greatest relationship in the system of indicators of the expected impression, namely: x_8 with x_7, x_{12}, x_{13}. The indicators x_9 and x_{10} are not related at all in the system.

This and another can be seen in the cognitive map of the expected impressions of this group of tourists, which is compiled based on the Spearman's rank correlation coefficient matrix. The corresponding map is shown in Figure 1 (left).

Next, let know how the levels of quality attribute *E* of the tourist affect to x_{17}, x_{18}. Figure 2 (left) shows the distribution of values x_{17} for *E*=2; 3; 4; excluding E.

The maximum level of x_{17} due to the quality characteristics of the tourist when its value is 2. Figure 2 (right) shows the distribution of values x_{18} for *E*=2; 3; 4; excluding *E*. Thus, the maximum level of x_{18} is waiting for tourists who have *E*=3.

Now let's consider the analysis of real experiences after receiving tourist services.

In the system of indicators of the real impression, some indicators strongly correlate among themselves, but do not depend on the qualitative characteristics of tourists. This and another can be seen in the cognitive map of the real impressions of this group of tourists, which is also compiled based on the Spearman's rank correlation coefficient matrix, this map also shown in Figure 1 (right).

Based on the calculated matrix (shown in Table 4) of the pair Spearman rank correlation coefficients for the indicators of real impression, we found that the qualitative characteristics of tourists *A, RM* are not connected at all.

According to the rating of the influence of the quality characteristics of a tourist on real impression, we had the following sequence: *E, RT, G, T*.

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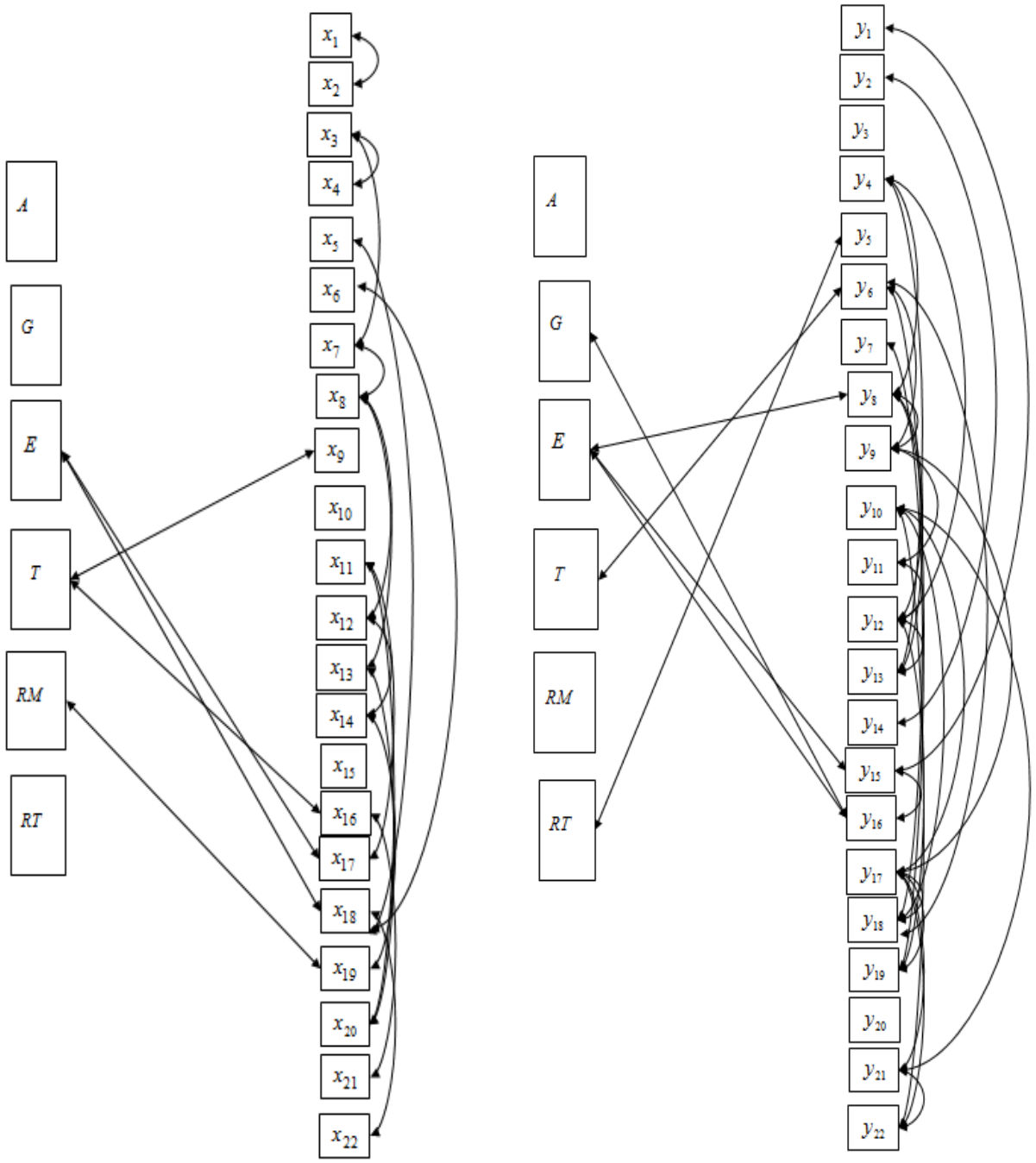

Figure 1. Cognitive maps (left - expected tourist experiences; right - real tourist experiences)

Source: Author's calculations

In general, it should be noted that the qualitative characteristics of the tourist do not have a big influence on his real impression (for this set of observations).

According to cognitive map, we have some indicators that are very interconnected with others, namely y_9, y_{12}, y_{17}, y_{18}, y_{22}.

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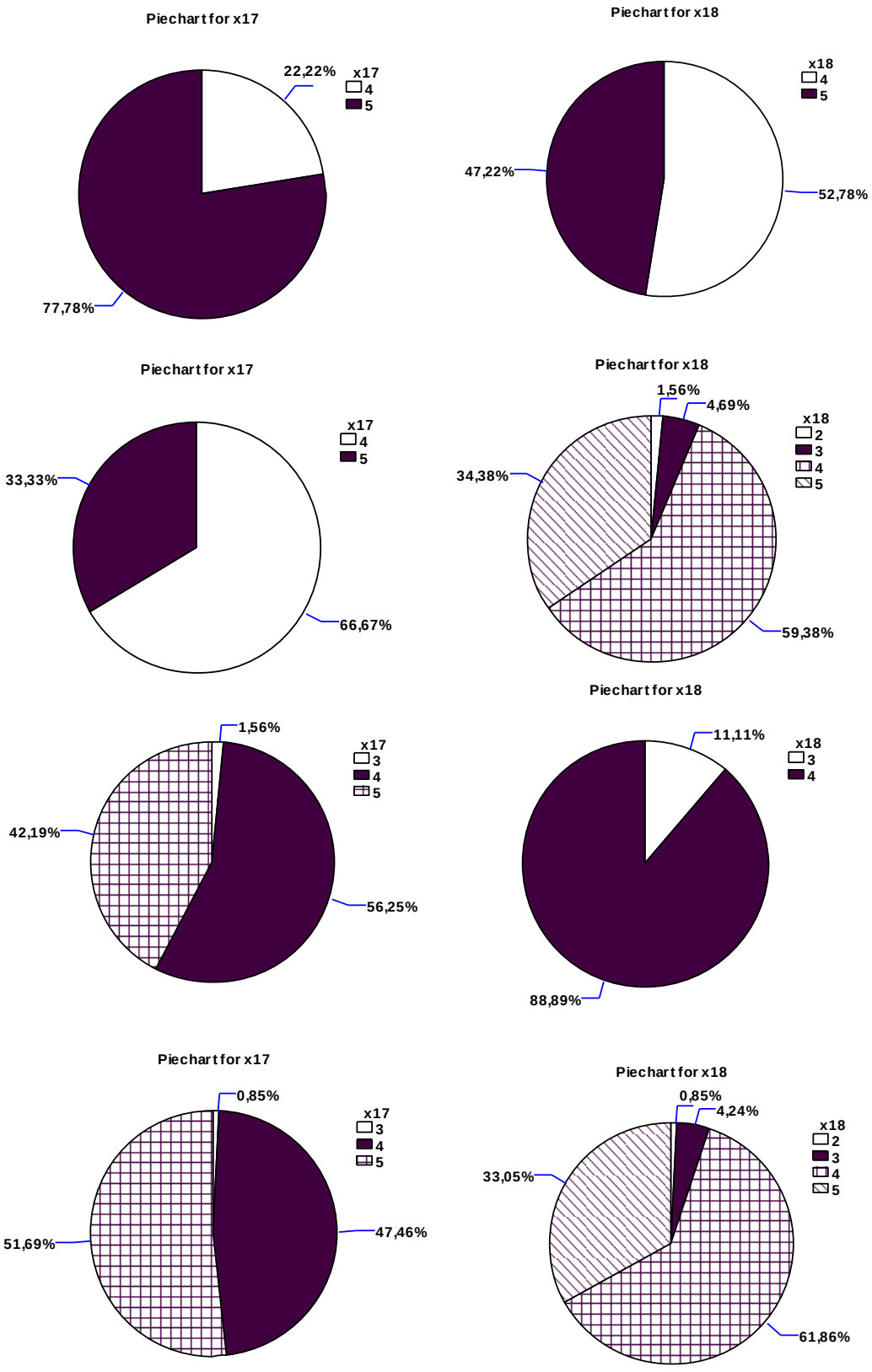

Figure 2. Distribution of values for *E=2; 3; 4;* excluding *E* (left – values of x_{17} ; right - values of x_{18})
Source: Author's calculations

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ISSN 2683-1007 (Online)
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Comparing both constructed cognitive maps, we can conclude that most tourists have the same ratings relative to real experiences. At the same time, regarding the expected impressions, their behaviour is basically different, although there are certain stable relationships.

Table 4. Spearman paired rank correlation matrix of tourists' qualitative characteristics and their real impressions

	A	G	E	RT	RM	T	y1	y2	y3	y4	y5	y6	y7	y8	y9	y10	y11	y12	y13	y14	y15	y16	y17	y18	y19	y20	y21	y22
A		-0,0182	0,0347	0,0044	-0,0298	-0,0505	0,0413	-0,019	0,0268	-0,138	-0,0088	-0,0618	0,0224	0,0136	-0,0383	0,0094	0,0267	0,0786	0,0774	0,0043	-0,0004	0,1391	0,0475	-0,0348	-0,0819	0,0272	0,0095	0,0531
G	-0,0182		0,2869	-0,2139	-0,0709	-0,1918	-0,1064	-0,1382	0,0234	-0,2547	0,0928	0,0525	-0,1212	0,0535	0,0192	-0,0476	-0,1691	0,1826	-0,0243	-0,004	0,2736	0,32	-0,0609	-0,1754	-0,1549	-0,2316	0,1305	0,2874
E	0,0347	0,2869		-0,2705	-0,0473	-0,5073	0,0267	-0,159	0,0447	-0,1327	0,1856	0,1584	-0,0209	0,3514	0,0004	-0,0602	0,3412	0,2072	-0,0761	-0,1451	0,4287	0,3633	-0,1083	-0,1096	-0,0377	-0,0505	-0,2581	-0,0486
RT	0,0044	-0,2139	-0,2705		0,1583	0,2455	0,1376	0,2086	-0,2678	0,1575	-0,3546	-0,2904	0,1192	0,0989	-0,1526	0,1354	-0,2413	-0,2529	0,0692	0,1137	-0,1637	-0,0438	-0,1791	0,1166	0,0177	-0,1885	0,1654	0,1394
RM	-0,0298	-0,0709	-0,0473	0,1583		-0,0234	0,0988	0,1929	-0,0553	0,0019	0,014	-0,073	0,0856	0,0524	0,1236	-0,0514	0,0431	-0,2177	0,174	0,1322	-0,1264	0,1049	-0,0357	0,0864	0,0214	0,021	-0,073	0,0462
T	-0,0505	-0,1918	-0,5073	0,2455	-0,0234		-0,0905	0,1196	0,219	0,2135	-0,1238	-0,3138	0,1265	-0,2527	-0,1795	-0,0056	-0,0494	-0,0191	0,1998	-0,0161	-0,1577	-0,2882	0,0201	0,063	0,1104	0,1077	0,1164	0,2446
y1	0,0413	-0,1064	0,0267	0,1376	0,0988	-0,0905		0,2101	-0,0565	0,1983	0,0351	0,2726	-0,0544	-0,1275	-0,0246	0,1001	0,0265	-0,1716	-0,2152	0,0117	-0,3827	0,015	0,0361	0,125	-0,1741	-0,1784	-0,0508	0,031
y2	-0,019	-0,1382	-0,159	0,2086	0,1929	0,1196	0,2101		0,085	0,1376	-0,1037	-0,1288	0,1023	0,1438	0,2293	-0,1836	0,0737	0,0503	0,1112	0,38	-0,052	-0,107	0,1084	0,2612	0,0483	-0,1849	-0,0762	0,1254
y3	0,0268	0,0234	0,0447	-0,2678	-0,0553	0,219	-0,0565	0,085		-0,0156	0,0467	0,012	0,1565	-0,0179	0,0241	0,0955	0,2144	0,2355	0,1017	-0,2439	0,1434	0,2111	-0,0169	0,2268	-0,2542	-0,0213	-0,0338	0,1117
y4	-0,138	-0,2547	-0,1327	0,1575	0,0019	0,2135	0,1983	0,1376	-0,0156		0,0707	-0,1152	0,0113	-0,3758	-0,1286	0,0027	0,0982	-0,3561	-0,317	-0,1759	-0,1066	-0,327	-0,0219	0,2068	0,1077	0,0128	0,0975	-0,017
y5	-0,0088	0,0928	0,1856	-0,3546	0,014	-0,1238	0,0351	-0,1037	0,0467	0,0707		0,2318	-0,039	-0,1728	-0,0434	0,2238	-0,0554	0,0604	0,3405	0,0091	-0,0083	0,2531	0,168	0,0327	0,0654	0,0383	0,2872	0,1944
y6	-0,0618	0,0525	0,1584	-0,2904	-0,073	-0,3138	0,2726	-0,1288	0,012	-0,1152	0,2318		0,1061	0,1332	0,3533	0,2863	0,0235	0,2968	-0,0544	-0,009	-0,2189	0,151	0,2379	0,3463	-0,4003	0,0352	0,1272	0,0498
y7	0,0224	-0,1212	-0,0209	0,1192	0,0856	0,1265	-0,0544	0,1023	0,1565	0,0113	-0,039	0,1061		0,0716	0,276	0,162	0,137	0,1192	0,1213	-0,1029	-0,0974	0,034	0,1375	0,3196	-0,0684	0,0045	0,2142	0,24
y8	0,0136	0,0535	0,3514	0,0989	0,0524	-0,2527	-0,1275	0,1438	-0,0179	-0,3758	-0,1728	0,1332	0,0716		0,3691	-0,067	0,212	0,3078	0,3537	-0,0418	0,2437	0,1854	-0,1261	0,2023	-0,2117	0,0342	-0,1301	-0,0151
y9	-0,0383	0,0192	0,0004	-0,1526	0,1236	-0,1795	-0,0249	0,2293	0,0241	-0,1286	-0,0434	0,3536	0,276	0,3691		0,2764	0,3435	0,2611	0,0717	0,1223	-0,1326	-0,0595	0,3904	0,4938	-0,0732	0,0687	0,2591	0,0697
y10	0,0094	-0,0476	-0,0602	0,1354	-0,0514	-0,0056	0,1001	-0,1836	0,0955	0,0027	0,2238	0,2863	0,162	-0,067	0,2764		-0,0078	0,1001	0,1755	0,0162	-0,0883	0,0494	0,4946	0,3227	-0,0542	0,0968	0,5624	0,3598
y11	0,0267	-0,1691	0,3412	-0,2413	0,0431	-0,0494	0,0265	0,0737	0,2144	0,0982	-0,0554	0,0235	0,137	0,212	0,3435	-0,0078		0,3058	-0,0333	-0,0007	0,0983	-0,0706	0,0862	0,348	-0,2102	0,1238	-0,2139	0,056
y12	0,0786	0,1826	0,2072	-0,2529	-0,2177	-0,0191	-0,1716	0,0503	0,2353	-0,3561	0,0604	0,2968	0,1192	0,3078	0,2611	0,1001	0,3058		0,3954	0,0912	0,0706	0,1332	0,0887	0,2128	-0,364	0,0328	0,1131	0,2371
y13	0,0774	-0,0243	-0,0761	0,0692	0,174	0,1998	-0,2152	0,1112	0,1017	-0,317	0,3405	-0,0544	0,1213	0,3537	0,0717	0,1755	-0,0333	0,3954		0,1479	0,1356	0,2845	0,0889	0,1002	-0,1126	-0,0596	0,2727	0,391
y14	0,0043	-0,004	-0,1451	0,1137	0,1322	-0,0161	0,0117	0,38	-0,2439	-0,1759	0,0091	-0,009	-0,1029	-0,0418	0,1223	0,0162	-0,0007	0,0912	0,1479		-0,1741	-0,078	0,099	0,1795	0,1229	-0,0685	0,0955	0,0713
y15	-0,0004	0,2736	0,4287	-0,1637	-0,1264	-0,1577	-0,3827	-0,052	0,1434	-0,1066	-0,0083	-0,2189	-0,0974	0,2437	-0,1326	-0,0883	0,0983	0,0706	0,1356	-0,1741		0,3705	-0,064	-0,1243	0,1043	-0,0253	-0,0619	0,1376
y16	0,1391	0,32	0,3633	-0,0438	0,1049	-0,2882	0,015	-0,107	0,2111	-0,327	0,2531	0,151	0,034	0,1854	-0,0599	0,0494	-0,0706	0,1332	0,2845	-0,078	0,3705		-0,0207	0,1688	-0,2431	-0,2981	0,067	0,2176
y17	0,0475	-0,0609	-0,1083	-0,1791	-0,0357	0,0201	0,0361	0,1084	-0,0169	-0,0219	0,168	0,2379	0,1375	-0,1261	0,3904	0,4946	0,0862	0,0887	0,0889	0,099	-0,064	-0,0207		0,3145	-0,0601	0,1966	0,4861	0,4128
y18	-0,0348	-0,1754	-0,1096	0,1166	0,0864	0,061	0,125	0,2612	0,2268	0,2068	0,0327	0,3463	0,3196	0,2023	0,4938	0,3227	0,348	0,2126	0,1002	0,1795	-0,1243	0,1688	0,3145		-0,3964	0,0027	0,2694	0,2547
y19	-0,0819	-0,1549	-0,0377	0,0177	0,0214	0,1104	-0,1741	0,0485	-0,2542	0,1077	0,0654	-0,4003	-0,0684	-0,2117	-0,0732	-0,0542	-0,2102	-0,348	-0,1126	0,1229	0,1043	-0,2431	-0,0601	-0,3964		-0,0342	-0,1137	-0,2909
y20	0,0272	-0,2316	-0,0505	-0,1885	0,021	0,1077	-0,1784	-0,1849	-0,0213	0,0128	0,0383	0,0352	0,0045	0,0342	0,0687	0,0968	0,1238	0,0328	-0,0596	-0,0685	-0,0253	-0,2981	0,1966	0,0027	-0,0342		0,1251	0,0904
y21	0,0095	0,1305	-0,2581	0,1654	-0,073	0,1164	-0,0508	-0,0762	-0,0338	0,0975	0,2872	0,1272	0,2142	-0,1301	0,2591	0,5624	-0,2139	0,1131	0,2727	0,0955	-0,0619	0,067	0,4861	0,2694	-0,1137	0,1251		0,4328
y22	0,0531	0,2874	-0,0486	0,1394	0,0462	0,2446	0,031	0,1254	0,1117	-0,017	0,1944	0,0498	0,24	-0,0151	0,0697	0,3598	0,056	0,2371	0,391	0,0713	0,1376	0,2176	0,4128	0,2547	-0,2909	0,0904	0,4328	

Source: Own author's calculations based on the poll

DISCUSSION

Comparative analysis of the consistency of expected experience rates and actual experience rates allows for the identification of types of tourists who have the same expected and real experiences and types of tourists, have different expected and real experiences. Tables 5 and 6 shows the levels of quality characteristics and their effect on the levels of expected and real (after visit) impressions respectively.

Table 5. The relationship between tourists' characteristics and indicators of their expected impressions

Qualitative characteristic of tourist	Level of qualitative characteristic of tourist	Indicator of expected impressions	Maximum level of the expected impressions	Spearman's correlation coefficient
Education	*E*=2	Hotel employees should have the needed knowledge	X_{17} =5	*r* = -0,3333
Education	*E*=2	Hotel employees giving to customers individual attention	X_{18} =5	*r* = -0,317
Trawith	*T*=0	An excellent hotel will insist on error-free records	X_{9} =6	*r* =0,3256
Trawith	*T*=3	Staff courtesy is very important	X_{16} =5	*r* =0,3008
Resmode	*RM*=2	A hotel should be opened and in service 24/7/365	X_{19} =5	*r* =-0,3429

Source: Own author's calculations based on the poll

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Access to Science, Business, Innovation in Digital Economy
2023, 4(1), 102-114, https://doi.org/10.46656/access.2023.4.1(8)
ISSN 2683-1007 (Online)
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To analyse the consistency of indicators of expected tourist impressions, the coefficient of contingency should be calculated. For the group of tourists surveyed, $C_x = 0{,}1913$, that confirming the inconsistency of the expected impressions of tourists. The coefficient of contingency of real impressions $C_y = 0{,}2101$, not much bigger, but still small.

Table 6. The relationship between tourists' characteristics and indicators of their real impressions

Qualitative characteristic of tourist	Level of qualitative characteristic of tourist	Indicator of real impressions	Maximum level of the real impressions	Spearman's correlation coefficient
Education	*E*=4	Excellent hotel with the service at the time they promise to do so	Y_8 =5	*r* =0,3514
Education	*E*=4	Hotel clients should feel and be safe	Y_{15} =5	*r* = 0,4287
Education	*E*=3	Staff courtesy is very important	Y_{16} =5	*r* =0,3639
Trawith	*T*=2	Staff responsiveness	Y_6 =5	*r* =-0,3136
Gender	*G*=2	Hotel clients should feel and be safe	Y_{15} =5	*r* =0,327
Restravel	*RT*=1	Check-in time	Y_5 =4	*r* =-0,3546

Source: Own author's calculations based on the poll

Based on these two tables, profiles of typical tourists are formed, for example, those who have overestimated expected impressions, as well as the type of tourists who received the maximum experience.

CONCLUSION

Thus, an information technology for determining the types of tourists who have the same expected and real impressions is proposed, the stages of this technology are presented in this article.

The advantages and validity of this technology are the use of correlation and analysis of variance of non-metric indicators, the development of cognitive maps that allow you to immediately see the relationship mechanisms in a system of non-metric and metric indicators.

Adherence to such information and analytical technology ensures the objectivity of the conclusions drawn from the analysis and, consequently, the effectiveness and efficiency of the relevant management decisions that will be taken on its basis. Concerning the prospects for further research, the authors propose to use the approaches of fuzzy logic, outlined in the previous authors works (Chernov et al., 2012; Malyaretz et al., 2018; Malyaretz et al., 2019), for accounting and processing of fuzzy consumer preferences and evaluations of services by consumers of tourism and hotel services.

Author Contributions: Conceptualization, O.D.; methodology, O.D; formal analysis, L.M.; investigation, D.Y.; project administration, K.U.; data curation, M.P. and A.A.; resources, M.P. and A.A.; supervision, K.U.; validation, L.M.; writing - original draft preparation, O.D.; writing - review and editing, K.U and M.P.
All authors have read and agreed to the published version of the manuscript.

Informed Consent Statement:

Informed consent was obtained from all participants participating in the study.

Data Availability Statement:

The data presented in this study are available on request from the corresponding author.

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki and approved by the ethics committee of the Simon Kuznets Kharkiv National University of Economics, approval number: 11-23, 23/11/2021.

Conflict of interests

The authors declare no conflict of interest.

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ISSN 2683-1007 (Online)
https://journal.access-bg.org/

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