

How do online reviewers' cultural traits and perceived experience influence hotel online ratings?

Article

Supplemental Material

Mariani, M. and Predvoditeleva, M. (2019) How do online reviewers' cultural traits and perceived experience influence hotel online ratings? *International Journal of Contemporary Hospitality Management*, 31 (12). pp. 4543-4573. ISSN 0959-6119 doi: <https://doi.org/10.1108/IJCHM-11-2018-0927>
Available at <https://centaur.reading.ac.uk/84917/>

It is advisable to refer to the publisher's version if you intend to cite from the work. See [Guidance on citing](#).

To link to this article DOI: <http://dx.doi.org/10.1108/IJCHM-11-2018-0927>

Publisher: Emerald

All outputs in CentAUR are protected by Intellectual Property Rights law, including copyright law. Copyright and IPR is retained by the creators or other copyright holders. Terms and conditions for use of this material are defined in the [End User Agreement](#).

www.reading.ac.uk/centaur

CentAUR

Central Archive at the University of Reading

Reading's research outputs online

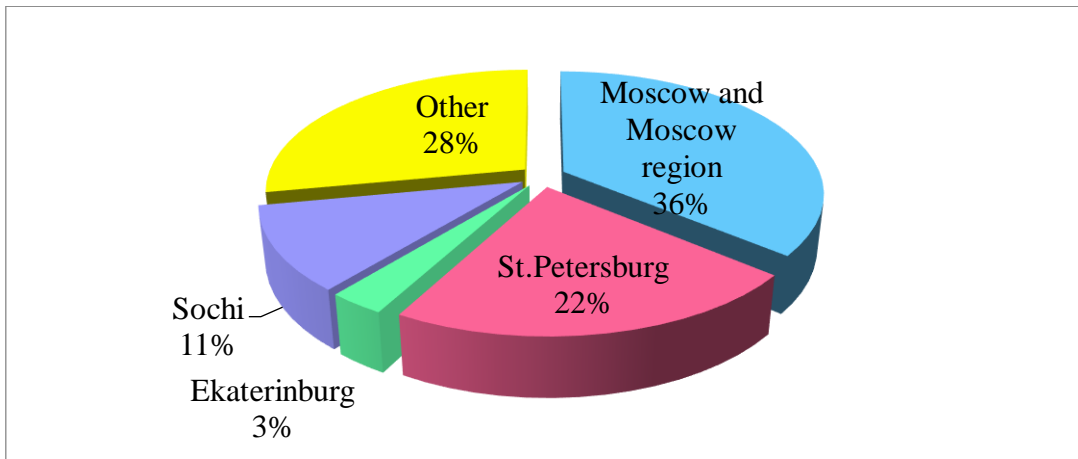


Figure 1. Distribution of the number of hotels (international hotel chains) in Russian cities

Table 1 – Variables description

Variable	Description
Rating	Online rating posted by a reviewer
Individualism (IDV)	Preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families*
Masculinity (MAS)	Preference in society for achievement, heroism, assertiveness, and material rewards for success*
Uncertainty Avoidance (UA)	Degree to which the members of a society feel uncomfortable with uncertainty and ambiguity*
Power Distance (PD)	Degree to which the less powerful members of a society accept and expect that power is distributed unequally*
Reviewer Experience (RE)	Value that represents the number of reviews written in the past by the reviewer on the platform (i.e., the reviewer' online experience in writing online reviews)
Observed Average Rating (Obs_Avg_Rat)	Hotels' review average rating as observed by the reviewing guest at the time when s/he posted her/his review
Reviewer knowledge (RK) of the destination	It represents the special badge named Destination GURU given by Booking.com to knowledgeable reviewers of a destination (dummy variable: 0 if not present)
Length of Stay (LoS)	Number of nights spent in the hotel by the reviewer
Trip Purpose (Leisure)	It is a dummy variable that is equal to 1 if the reviewer is travelling for leisure, and zero otherwise

*Definition borrowed from <https://www.hofstede-insights.com/models/national-culture/>

Table 2 – Descriptive statistics

	Mean	SD	Min	Max
IDV	54.77	22.48	6	91
MAS	49.94	19.23	5	100
UA	68.85	20.63	8	100
PD	54.98	21.62	13	100
Rating	8.21	1.61	2.5	10.0
RE	11.36	16.33	1	312
Log (RE)	1.69	1.22	0	5.74
RK	0.09	0.28	0	1
Obs_Avg_Rat	8.17	0.72	2.5	10.0
LoS	3.07	2.20	1	36

Table 3. Effects of the Hofstede dimensions and online reviewers' experience on online ratings (OLS regression)

Independent Variable	Coefficient (Std. Err.)	Coefficient (Std. Err.)
Individualism	-0.0006** (0.0003)	-0.0006** (0.0003)
Masculinity	-0.0023**** (0.0003)	-0.0023**** (0.0003)
Uncertainty avoidance	-0.0005* (0.0002)	-0.0005* (0.0002)
Power distance	-0.0021**** (0.0003)	-0.0021**** (0.0003)
Observed average rating	0.9275**** (0.0098)	0.9276**** (0.0098)
Log (RE)		-0.0007** (0.0048)
Reviewer's knowledge	-0.0449** (0.0190)	-0.0437** (0.0206)
Length of stay	0.0031 (0.0024)	0.0030 (0.0024)
Travel type (Leisure)	0.2690**** (0.0127)	0.2690**** (0.0127)
Comp_Family	0.0311* (0.0226)	0.0311* (0.0226)
Comp_Group	0.0594*** (0.0178)	0.0594*** (0.0178)
Comp_People with friends	0.1754** (0.0878)	0.1755** (0.0878)
Solo_Traveller	-0.0025 (0.140)	-0.0025 (0.140)
Constant	0.5299**** (0.0936)	0.5301**** (0.0936)
Company Controls		
<i>Hotel Star rating</i>	Yes	Yes
<i>Chain</i>	Yes	Yes
R ²	0.1606	0.1607
Adjusted R ²	0.1604	0.1605
Observations	74,284	74,284

Notes: *p<0.10; **p<0.05; ***p<0.01; ****p<0.001

Table 4. Effects of the Hofstede dimensions and online reviewers' experience on online ratings (Tobit regression)

Independent Variable	Coefficient (Std. Err.)	Coefficient (Std. Err.)
Individualism	-0.0013*** (0.0004)	-0.0013*** (0.0004)
Masculinity	-0.0026**** (0.0003)	-0.0026**** (0.0003)
Uncertainty avoidance	-0.0006* (0.0003)	-0.0006* (0.0003)
Power distance	-0.0032**** (0.0004)	-0.0032**** (0.0004)
Observed average rating	1.0723**** (0.0118)	1.0740**** (0.0118)
Log (RE)		-0.0156*** (0.0058)
Reviewer's knowledge	-0.0697*** (0.0190)	-0.0442** (0.0247)
Length of stay	0.0029 (0.0029)	0.0023 (0.0029)
Travel type (Leisure)	0.3167**** (0.0153)	0.3174**** (0.0153)
Comp_Family	0.0392* (0.0273)	0.0379* (0.0273)
Comp_Group	0.0671*** (0.0215)	0.0662*** (0.0215)
Comp_People with friends	0.2807*** (0.1075)	0.2820*** (0.1075)
Solo_Traveller	-0.0094 (0.169)	-0.0097 (0.169)
Constant	0.3726*** (0.1125)	0.3685*** (0.1125)
Company Controls		
<i>Hotel Star rating</i>	Yes	Yes
<i>Chain</i>	Yes	Yes
Log likelihood	-133,306.49	-133,302.9
LR chi2	12,386.7 (p=0.000)	12,393.89 (p=0.000)
Pseudo R2	4.44%	4.44%
Observations	74,284	74,284

Notes: *p<0.10; **p<0.05; ***p<0.01; ****p<0.001

Appendix 1 - Country of origin frequencies

ID	Country of Origin	Reviewer	Freq.	Percent	ID	Country of Origin	Reviewer	Freq.	Percent	
1	Germany		6,871	9.25	48	Colombia		236	0.32	
2	Ukraine		5,821	7.84	49	Singapore		191	0.26	
3	Italy		5,358	7.21	50	Croatia		183	0.25	
4	China		4,351	5.86	51	South Africa		180	0.24	
5	Israel		3,956	5.33	52	Lebanon		153	0.21	
6	Turkey		3,954	5.32	53	Malaysia		134	0.18	
7	United Kingdom		3,701	4.98	54	Indonesia		124	0.17	
8	France		3,599	4.84	55	New Zealand		121	0.16	
9	Spain		2,927	3.94	56	Luxembourg		117	0.16	
10	USA		2,417	3.25	57	Vietnam		117	0.16	
11	Latvia		2,222	2.99	58	Kuwait		101	0.14	
12	Switzerland		2,148	2.89	59	Uruguay		89	0.12	
13	Netherlands		1,677	2.26	60	Malta		82	0.11	
14	Poland		1,604	2.16	61	Peru		82	0.11	
15	Estonia		1,591	2.14	62	Jordan		74	0.1	
16	Czech Republic		1,393	1.88	63	Morocco		68	0.09	
17	Belgium		1,096	1.48	64	Ecuador		67	0.09	
18	United Arab Emirates		1,067	1.44	65	Pakistan		64	0.09	
19	Brazil		1,029	1.39	66	Iraq		54	0.07	
20	Lithuania		954	1.28	67	Venezuela		43	0.06	
21	Finland		949	1.28	68	Philippines		42	0.06	
22	Sweden		848	1.14	69	Sri Lanka		41	0.06	
23	Argentina		798	1.07	70	Iceland		38	0.05	
24	Australia		749	1.01	71	Bangladesh		19	0.03	
25	South Korea		729	0.98	72	Dominican Republic		17	0.02	
26	Thailand		675	0.91	73	Costa Rica		14	0.02	
27	Japan		663	0.89	74	Guatemala		14	0.02	
28	Greece		638	0.86	75	Angola		13	0.02	
29	India		638	0.86	76	Panama		13	0.02	
30	Hungary		617	0.83	77	Albania		12	0.02	
31	Serbia		593	0.8	78	Ghana		12	0.02	
32	Canada		574	0.77	79	Syria		12	0.02	
33	Slovakia		534	0.72	80	Kenya		10	0.01	
34	Bulgaria		516	0.69	81	El Salvador		9	0.01	
35	Norway		459	0.62	82	Nepal		9	0.01	
36	Hong Kong		432	0.58	83	Libya		7	0.01	
37	Romania		420	0.57	84	Nigeria		7	0.01	
38	Egypt		386	0.52	85	Tanzania		6	0.01	
39	Iran		368	0.5	86	Jamaica		5	0.01	
40	Portugal		367	0.49	87	Namibia		5	0.01	
41	Denmark		338	0.46	88	Honduras		4	0.01	
42	Slovenia		304	0.41	89	Ethiopia		2	0.00	
43	Chile		299	0.4	90	Senegal		2	0.00	
44	Mexico		278	0.37	91	Trinidad and Tobago		2	0.00	
45	Saudi Arabia		275	0.37	92	Mozambique		1	0.00	
46	Ireland		259	0.35	93	Zambia		1	0.00	
47	Taiwan		245	0.33						
								Total	74,284	100

Appendix 2 - Country of origin frequencies

Hypotheses	Coefficient (Std. Err.)		
	OLS regression	Tobit regression	
H1: Reviewers' individualism (IDV) is negatively related to online review ratings; as such online hotel reviewers from cultural groups with higher individualism (IDV) tend to give lower online ratings.	-0.0006** (0.0003)	-0.0013*** (0.0004)	Supported
H2: Reviewers' masculinity (MAS) is negatively related to online review ratings; as such online hotel reviewers from cultural groups with higher masculinity (MAS) tend to give lower online ratings.	-0.0023**** (0.0003)	-0.0026**** (0.0003)	Supported
H3: Reviewers' uncertainty avoidance (UA) is negatively related to online review ratings; as such online hotel reviewers from cultural groups with higher uncertainty avoidance (UA) tend to give lower online ratings.	-0.0005* (0.0002)	-0.0006* (0.0003)	Supported
H4: Reviewers' power distance (PD) is negatively related to online review ratings; as such online hotel reviewers from cultural groups with higher power distance (PD) tend to give lower online ratings.	-0.0021**** (0.0003)	-0.0032**** (0.0004)	Supported
H5: The higher the reviewers' perceived experience, the lower the online ratings they will give.	-0.0007** (0.0048)	-0.0156*** (0.0058)	Supported