HOMEX: Persuasive Technology Acceptance Model and the Moderating Effect of Culture

Supplementary Material

Table A1. Indicator reliability based on their outer loading on their respective constructs. GLO = Global model, COL = Collectivist model, IND = Individualist model

#	Indicator	Block	GLO	COL	IND
1	Classical aesthetics second order indicator	Perceived Aesthetics	0.91	0.97	0.91
2	The app is pleasant	Classical Aesthetics	0.89	0.86	0.90
3	The app is clean	Classical Aesthetics	0.88	0.93	0.89
4	The app is visual	Classical Aesthetics	0.88	0.89	0.86
5	Expressive aesthetics second order indicator	Perceived Aesthetics	0.90	0.97	0.89
6	The app is sophisticated	Expressive Aesthetics	0.78	0.89	0.79
7	The app is fascinating	Expressive Aesthetics	0.90	0.94	0.87
8	The app is creative	Expressive Aesthetics	0.86	0.85	0.86
9	The app is convenient to use	Perceived Usability	0.88	0.93	0.85
10	The app is easy to use	Perceived Usability	0.89	0.94	0.87
11	The app has a clear design	Perceived Usability	0.85	0.84	0.84
12	The app has easy orientation	Perceived Usability	0.86	0.91	0.87
13	The app is credible	Perceived Credibility	1.00	1.00	1.00
14	The app will help me improve my exercise performance	Perceived Usefulness	0.91	0.92	0.92
15	The app will be useful in my exercise	Perceived Usefulness	0.91	0.93	0.91
16	The app will help me accomplish my exercise goals easily	Perceived Usefulness	0.90	0.94	0.89
17	The app will make it easier to reach my exercise goals	Perceived Usefulness	0.89	0.90	0.89
18	The app would influence me	Perceived Persuasiveness	0.94	0.94	0.96
19	The app would be convincing	Perceived Persuasiveness	0.89	0.95	0.89
20	The app would be personally relevant for me	Perceived Persuasiveness	0.90	0.92	0.91
21	The app would make me reconsider my physical activity habits	Perceived Persuasiveness	0.91	0.94	0.89
22	Assuming the app was deployed in real life, I predict that I will use it if I have the opportunity	Intention to Use	1.00	1.00	1.00

Table A2. Internal consistency reliability of the respective constructs based on Dillon-Goldstein's rho (DG.rho) metric. GLO = Global model, COL = Collectivist model, IND = Individualist model

Construct	GLO	COL	IND
Perceived Aesthetics	0.89	0.94	0.87
Classical Aesthetics	0.91	0.92	0.91
Expressive Aesthetics	0.87	0.88	0.88
Perceived Usability	0.92	0.95	0.91
Perceived Credibility	1.00	1.00	1.00
Perceived Usefulness	0.94	0.94	0.94
Perceived Persuasiveness	0.95	0.97	0.95
Intention to Use	1.00	1.00	1.00

Table A3. Convergent validity of the respective constructs based on Average Variance Extracted (AVE) metric. GLO = Global model, COL = Collectivist model, IND = Individualist model

Construct	GLO	COL	IND
Perceived Aesthetics	0.82	0.93	0.81
Classical Aesthetics	0.78	0.80	0.78
Expressive Aesthetics	0.72	0.79	0.70
Perceived Usability	0.76	0.82	0.73
Perceived Credibility	1.00	1.00	1.00
Perceived Usefulness	0.81	0.85	0.81
Perceived Persuasiveness	0.83	0.88	0.83
Intention to Use	1.00	1.00	1.00

Table A4. Global discriminant validity of the respective constructs based on crossloading metric. Aest = Perceived Aesthetics, Class = Classical Aesthetics, Exp = Expressive Aesthetics, Usab = Perceived Usability, Cred = Perceived Credibility, Usf = Perceived Usefulness, Pers = Perceived Persuasiveness, ITU = Intention to Use

#	Indicator	Block	Aest	Class	Exp	Usab	Cred	Usf	Pers	ITU
1	Classical aesthetics second order indicator	Aest	0.91	0.99	0.64	0.85	0.66	0.73	0.63	0.50
2	The app is pleasant	Class	0.83	**0.89**	0.64	0.76	0.60	0.69	0.59	0.46
3	The app is clean	Class	0.76	**0.88**	0.50	0.76	0.59	0.57	0.49	0.38
4	The app is visual	Class	0.78	**0.88**	0.54	0.70	0.52	0.60	0.50	0.41
5	Expressive aesthetics second order indicator	Aest	0.90	0.63	0.99	0.61	0.60	0.73	0.69	0.57
6	The app is sophisticated	Exp	0.67	0.48	**0.78**	0.46	0.39	0.44	0.43	0.33
7	The app is fascinating	Exp	0.81	0.59	**0.90**	0.58	0.55	0.72	0.66	0.56
8	The app is creative	Exp	0.78	0.54	**0.86**	0.50	0.53	0.63	0.61	0.53
9	The app is convenient to use	Usab	0.71	0.70	0.56	**0.88**	0.59	0.69	0.57	0.47
10	The app is easy to use	Usab	0.67	0.70	0.49	**0.89**	0.56	0.65	0.50	0.39
11	The app has a clear design	Usab	0.74	0.80	0.53	**0.85**	0.55	0.65	0.54	0.42
12	The app has easy orientation	Usab	0.70	0.73	0.53	**0.86**	0.57	0.62	0.54	0.39
13	The app is credible	Cred	0.70	0.65	0.59	0.65	**1.00**	0.69	0.62	0.51
14	The app will help me improve my exercise performance	Usf	0.72	0.63	0.65	0.70	0.65	**0.91**	0.75	0.60
15	The app will be useful in my exercise	Usf	0.75	0.66	0.68	0.68	0.64	**0.91**	0.74	0.66
16	The app will help me accomplish my exercise goals easily	Usf	0.70	0.63	0.61	0.70	0.61	**0.90**	0.77	0.65
17	The app will make it easier to reach my exercise goals	Usf	0.71	0.61	0.64	0.62	0.58	**0.89**	0.70	0.62
18	The app would influence me	Pers	0.67	0.53	0.64	0.55	0.51	0.76	**0.94**	0.72
19	The app would be convincing	Pers	0.70	0.59	0.64	0.63	0.65	0.74	**0.89**	0.66
20	The app would be personally relevant for me	Pers	0.64	0.52	0.58	0.53	0.54	0.74	**0.90**	0.76
21	The app would make me reconsider my physical activity habits	Pers	0.65	0.53	0.61	0.54	0.55	0.75	**0.91**	0.70
22	Assuming the app was deployed in real life, I predict that I will use it if I have the opportunity	ITU	0.59	0.48	0.56	0.48	0.51	0.70	0.78	**1.00**

Table A5. Collectivist discriminant validity of the respective constructs based on crossloading metric. Aest = Perceived Aesthetics, Class = Classical Aesthetics, Exp = Expressive Aesthetics, Usab = Perceived Usability, Cred = Perceived Credibility, Usf = Perceived Usefulness, Pers = Perceived Persuasiveness, ITU = Intention to Use

#	Indicator	Block	Aest	Class	Exp	Usab	Cred	Usf	Pers	ITU
1	Classical aesthetics second order indicator	Aest	0.97	0.98	0.84	0.88	0.79	0.88	0.90	0.70
2	The app is pleasant	Class	0.87	**0.86**	0.79	0.80	0.74	0.80	0.74	0.61
3	The app is clean	Class	0.85	**0.93**	0.72	0.77	0.73	0.74	0.81	0.61
4	The app is visual	Class	0.80	**0.89**	0.67	0.76	0.63	0.71	0.78	0.51
5	Expressive aesthetics second order indicator	Aest	0.97	0.84	0.98	0.88	0.86	0.91	0.91	0.75
6	The app is sophisticated	Exp	0.79	0.66	**0.89**	0.70	0.67	0.70	0.71	0.56
7	The app is fascinating	Exp	0.91	0.80	**0.94**	0.86	0.87	0.90	0.84	0.69
8	The app is creative	Exp	0.81	0.71	**0.85**	0.73	0.71	0.80	0.82	0.71
9	The app is convenient to use	Usab	0.88	0.76	0.85	**0.93**	0.80	0.84	0.84	0.65
10	The app is easy to use	Usab	0.83	0.75	0.81	**0.94**	0.85	0.85	0.80	0.60
11	The app has a clear design	Usab	0.79	0.84	0.70	**0.84**	0.64	0.76	0.74	0.55
12	The app has easy orientation	Usab	0.80	0.79	0.74	**0.91**	0.73	0.76	0.80	0.62
13	The app is credible	Cred	0.86	0.78	0.84	0.84	**1.00**	0.89	0.84	0.74
14	The app will help me improve my exercise performance	Usf	0.87	0.80	0.81	0.83	0.76	**0.92**	0.84	0.77
15	The app will be useful in my exercise	Usf	0.87	0.79	0.87	0.79	0.82	**0.93**	0.85	0.80
16	The app will help me accomplish my exercise goals easily	Usf	0.89	0.79	0.84	0.90	0.83	**0.94**	0.89	0.77
17	The app will make it easier to reach my exercise goals	Usf	0.79	0.72	0.80	0.76	0.86	**0.90**	0.79	0.76
18	The app would influence me	Pers	0.86	0.79	0.80	0.79	0.75	0.84	**0.94**	0.77
19	The app would be convincing	Pers	0.88	0.79	0.85	0.86	0.80	0.86	**0.95**	0.72
20	The app would be personally relevant for me	Pers	0.89	0.83	0.84	0.82	0.77	0.85	**0.92**	0.73
21	The app would make me reconsider my physical activity habits	Pers	0.88	0.84	0.84	0.82	0.82	0.87	**0.94**	0.80
22	Assuming the app was deployed in real life, I predict that I will use it if I have the opportunity	ITU	0.75	0.64	0.73	0.67	0.74	0.84	0.80	**1.00**

Table A6. Individualist discriminant validity of the respective constructs based on crossloading metric. Aest = Perceived Aesthetics, Class = Classical Aesthetics, Exp = Expressive Aesthetics, Usab = Perceived Usability, Cred = Perceived Credibility, Usf = Perceived Usefulness, Pers = Perceived Persuasiveness, ITU = Intention to Use

#	Indicator	Block	Aest	Class	Exp	Usab	Cred	Usf	Pers	ITU
1	Classical aesthetics second order indicator	Aest	0.91	0.99	0.61	0.83	0.67	0.68	0.58	0.48
2	The app is pleasant	Class	0.86	**0.90**	0.65	0.76	0.62	0.68	0.61	0.49
3	The app is clean	Class	0.77	**0.89**	0.47	0.77	0.58	0.53	0.43	0.35
4	The app is visual	Class	0.75	**0.86**	0.48	0.67	0.49	0.54	0.41	0.36
5	Expressive aesthetics second order indicator	Aest	0.89	0.62	0.98	0.58	0.58	0.66	0.63	0.49
6	The app is sophisticated	Exp	0.66	0.43	**0.79**	0.35	0.39	0.42	0.43	0.33
7	The app is fascinating	Exp	0.76	0.53	**0.87**	0.53	0.48	0.66	0.64	0.50
8	The app is creative	Exp	0.78	0.56	**0.86**	0.52	0.53	0.55	0.51	0.40
9	The app is convenient to use	Usab	0.67	0.69	0.50	**0.85**	0.54	0.66	0.53	0.48
10	The app is easy to use	Usab	0.63	0.66	0.44	**0.87**	0.48	0.58	0.43	0.37
11	The app has a clear design	Usab	0.72	0.76	0.51	**0.84**	0.57	0.62	0.52	0.43
12	The app has easy orientation	Usab	0.67	0.73	0.47	**0.87**	0.54	0.59	0.46	0.35
13	The app is credible	Cred	0.70	0.64	0.56	0.63	**1.00**	0.64	0.59	0.47
14	The app will help me improve my exercise performance.	Usf	0.69	0.57	0.64	0.67	0.59	**0.92**	0.74	0.59
15	The app will be useful in my exercise	Usf	0.69	0.61	0.60	0.64	0.65	**0.91**	0.73	0.66
16	The app will help me accomplish my exercise goals easily	Usf	0.64	0.60	0.54	0.65	0.52	**0.89**	0.75	0.63
17	The app will make it easier to reach my exercise goals	Usf	0.67	0.61	0.56	0.63	0.55	**0.89**	0.68	0.56
18	The app would influence me	Pers	0.62	0.50	0.60	0.52	0.49	0.76	**0.95**	0.71
19	The app would be convincing	Pers	0.67	0.57	0.61	0.59	0.65	0.73	**0.89**	0.68
20	The app would be personally relevant for me	Pers	0.59	0.48	0.55	0.49	0.51	0.74	**0.91**	0.77
21	The app would make me reconsider my physical activity habits	Pers	0.57	0.47	0.54	0.48	0.49	0.71	**0.89**	0.66
22	Assuming the app was deployed in real life, I predict that I will use it if I have the opportunity	ITU	0.54	0.46	0.49	0.48	0.47	0.68	0.77	**1.00**