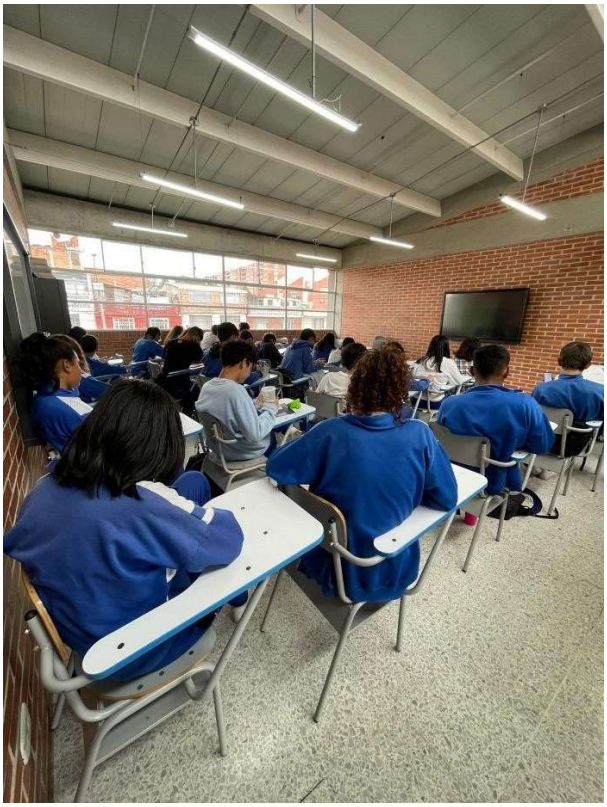
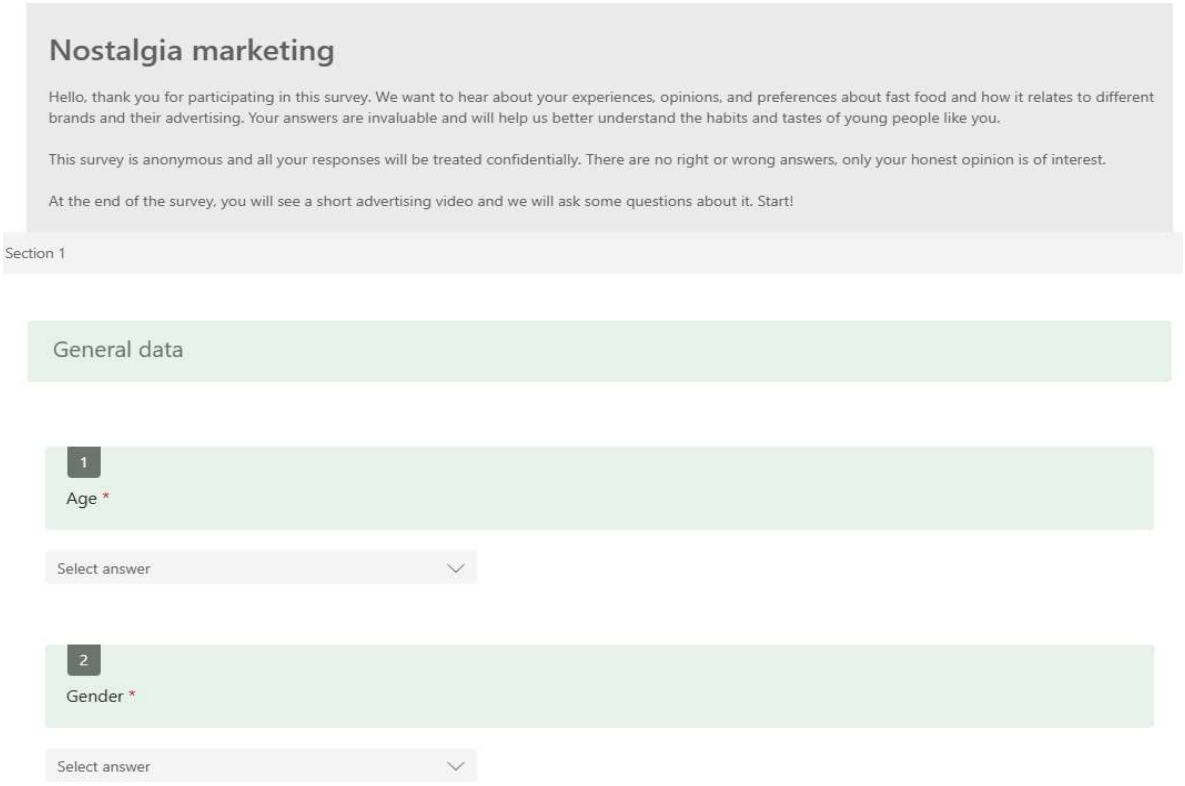
Appendices

Appendix A. Application of the survey at the school Gustavo Morales Morales



Appendix B. Survey



Nostalgia marketing

Hello, thank you for participating in this survey. We want to hear about your experiences, opinions, and preferences about fast food and how it relates to different brands and their advertising. Your answers are invaluable and will help us better understand the habits and tastes of young people like you.

This survey is anonymous and all your responses will be treated confidentially. There are no right or wrong answers, only your honest opinion is of interest.

At the end of the survey, you will see a short advertising video and we will ask some questions about it. Start!

Section 1

General data

1

Age *

Select answer

2

Gender *

Select answer

6

Favorite fast food chain *

- McDonald's
- Subway
- KFC
- Burger King
- Otras

Section 2

Emotional Connections

7

Choose the level at which you agree with the following statements. *

	Strongly disagree	Disagree	Neutral	I agree	Totally agree
I like it when fast food brands use characters or songs from my childhood in their ads	○	○	○	○	○
I've noticed that some fast food chains use elements from my childhood or the past in their advertising	○	○	○	○	○
When I see advertising that reminds me of my childhood, I feel more attracted to that fast food brand	○	○	○	○	○
I prefer fast food brands that make me feel connected to my past or my childhood	○	○	○	○	○
I feel like some fast food brands really understand my generation	○	○	○	○	○

Frequency of fast food consumption *

- Never
- Rarely (once a month)
- Sometimes (once a week)
- Frequently (several times a week)

Section 3

Purchase decision

8

Choose the level at which you agree with the following statements. *

	Strongly disagree	Disagree	Neutral	I agree	Totally agree
Sometimes, I choose a fast food restaurant because its advertising made me laugh	◯	◯	◯	◯	◯
I'm excited to try new fast food products, if their advertising reminds me of my favorite children's series	◯	◯	◯	◯	◯
If an influencer, which I follow, mentions a fast food chain with references to my childhood, I am more likely to visit it	◯	◯	◯	◯	◯

Section 4

Brand Affinity

9

Choose the level at which you agree with the following statements.

	Strongly disagree	Disagree	Neutral	I agree	Totally agree
I always shop at the same fast food chain.	◯	◯	◯	◯	◯
I usually recommend fast food restaurants based on how creative their ads are.	◯	◯	◯	◯	◯
I participate more frequently in contests or promotions of fast food brands whose advertising entertains me	◯	◯	◯	◯	◯
I'm more inclined to defend a fast-food chain if its ads make me feel good.	◯	◯	◯	◯	◯

Section 5

Perceived value

10

Choose the level at which you agree with the following statements. *

	Strongly disagree	Disagree	Neutral	I agree	Totally agree
Fast food chains with more elaborate ads are likely to use better quality ingredients	◯	◯	◯	◯	◯
I think fast food chains that invest in creative advertising also invest in the quality of their products	◯	◯	◯	◯	◯
I'm willing to wait a little longer for my order in fast food restaurants that have a good advertising image	◯	◯	◯	◯	◯

Section 6

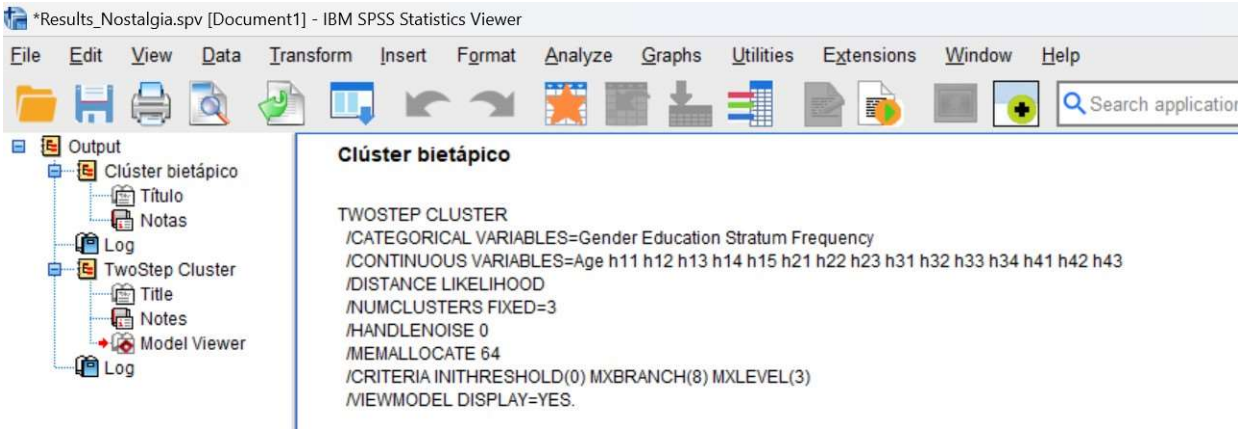
Video de McDonalds

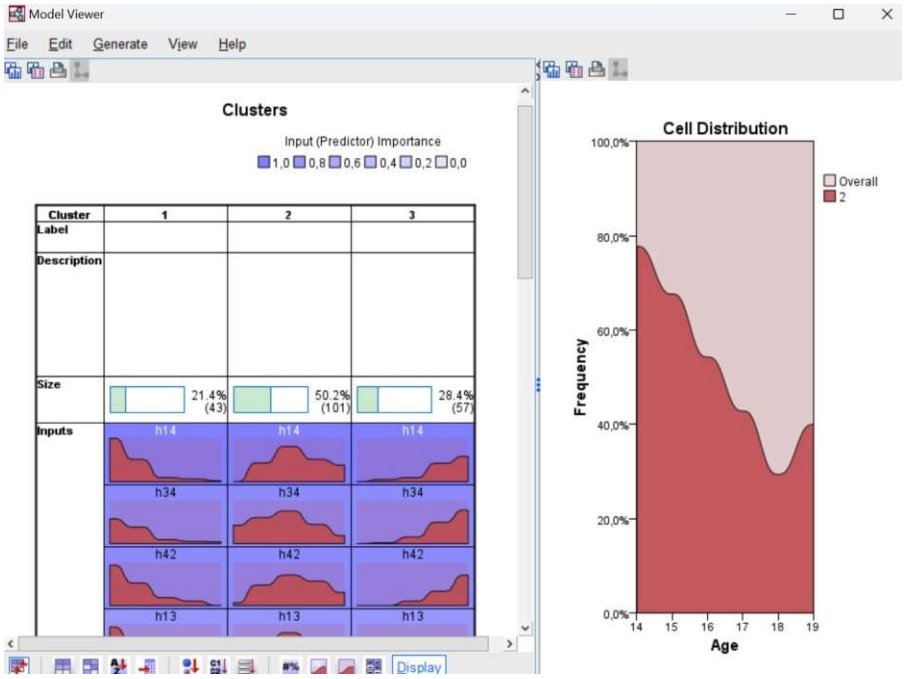
11

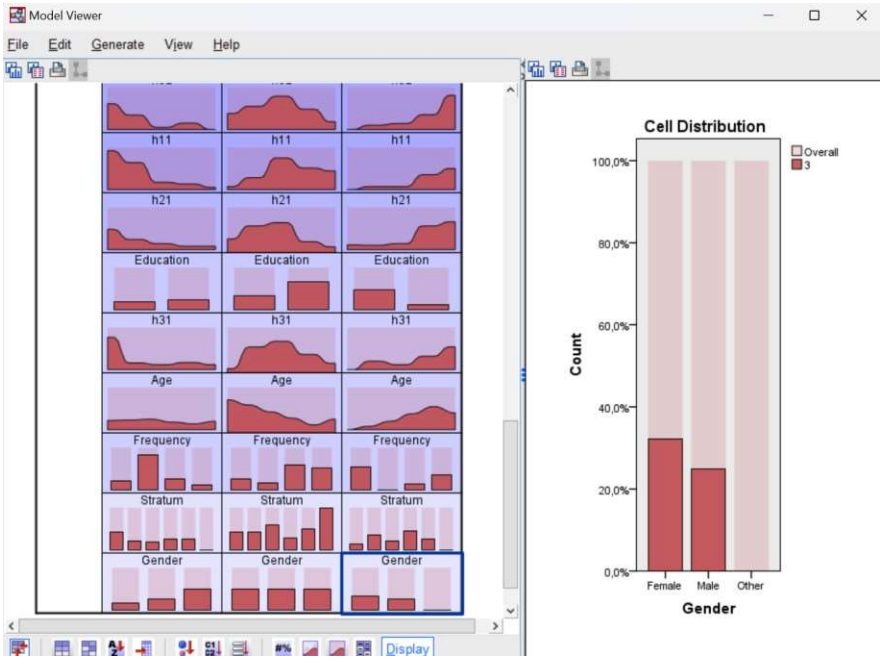
Based on the video above, choose the level at which you agree with the following statements. *

	Strongly disagree	Disagree	Neutral	I agree	Totally agree
After seeing this ad, I'm more looking forward to visiting McDonald's	◯	◯	◯	◯	◯
Watching this video made me want to share it on my social networks	◯	◯	◯	◯	◯
After seeing the ad, I feel like McDonald's food could be better quality than I thought	◯	◯	◯	◯	◯
This type of advertising makes me more likely to choose McDonald's over other fast food options	◯	◯	◯	◯	◯

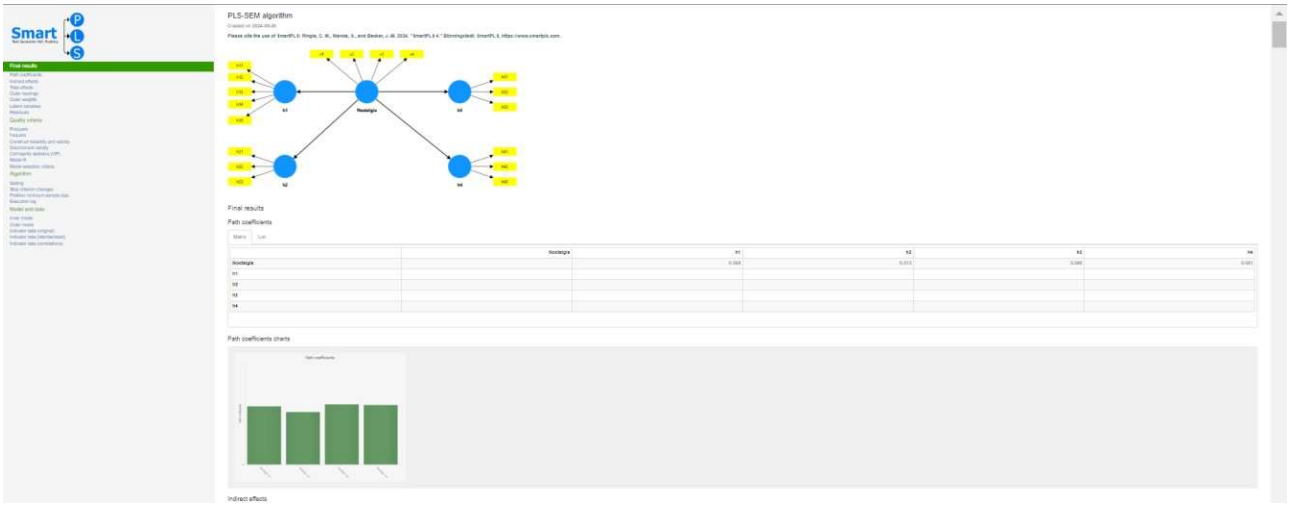
Appendix C. Cluster Definition in SPSS




Model Viewer
File Edit Generate View Help
Clusters
Input (Predictor) Importance
1,0 0,8 0,6 0,4 0,2 0,0
Cluster 1 2 3
Label
Description
Size
21.4% (43)
50.2% (101)
28.4% (57)
Inputs
h14
h34
h42
h13
Display
Cell Distribution
Overall
2
100,0%
80,0%
60,0%
40,0%
20,0%
0,0%
Frequency
14 15 16 17 18 19
Age


Model Viewer
File Edit Generate View Help
h11
h21
Education
h31
Age
Frequency
Stratum
Gender
Display
Cell Distribution
Overall
3
100,0%
80,0%
60,0%
40,0%
20,0%
0,0%
Count
Female Male Other
Gender

Appendix D. SmartPLS4 Report Analysis



Latent variables

Scores | Correlations | Covariances | Descriptives

	Nostalgia	h1	h2	h3	h4
0	-0.248	-0.589	-0.163	-0.077	-0.776
1	-0.011	-0.390	-0.780	-0.561	-2.545
2	-0.248	0.252	0.241	-0.452	-0.776
3	0.551	0.545	0.290	1.561	0.596
4	0.798	-1.699	-1.858	0.811	-1.919
5	0.015	-0.770	-0.475	-0.574	-2.439
6	-0.994	-0.027	0.290	1.563	-1.140
7	-0.248	0.128	-0.829	0.178	-2.099
8	0.275	-0.589	-0.163	0.178	-2.439
9	-0.481	-0.888	-1.191	-1.085	-1.169
10	1.788	-0.216	-0.566	1.305	-1.140
11	0.465	-0.020	0.603	1.052	0.933
12	-0.538	-0.826	-1.503	-0.574	-2.439
13	-0.275	-1.038	0.873	-2.586	-2.545
14	0.027	0.087	0.241	-0.452	0.252
15	-0.495	0.190	1.186	1.683	0.343
16	-0.555	-0.507	0.206	-0.205	0.682
17	-0.151	1.681	-0.418	0.035	1.333
18	-0.784	0.967	-0.064	0.180	0.691
19	1.776	1.681	0.945	1.558	1.036
20	-1.257	-1.300	-1.858	-1.343	-2.546
21	1.526	0.515	0.283	0.174	0.329
22	-0.263	0.087	0.553	-0.708	0.617
23	-0.520	0.153	-0.170	-0.574	0.956
24	2.052	1.231	0.907	1.563	1.672
25	-0.775	-0.735	-1.151	-0.694	-0.164
26	-1.257	-0.969	-0.787	-1.326	-1.833
27	-0.484	-0.589	0.866	-0.075	0.277
28	0.093	0.283	-0.121	0.677	-0.764
29	-1.059	-1.175	-1.858	-1.205	-1.089
30	0.772	-0.140	0.873	0.555	-0.096
31	0.275	0.662	-0.517	0.178	-0.435
32	-1.501	0.283	0.504	0.300	0.993
33	1.032	1.051	0.866	-0.574	0.956
34	1.792	1.262	-0.468	-0.331	1.036
35	0.097	0.153	-1.156	0.410	0.306
36	1.032	-0.967	-0.468	0.178	0.617
37	-1.268	-0.440	-0.452	-0.694	-1.454
38	-1.008	-0.047	-0.944	-0.949	-1.454
39	0.538	-0.109	-0.837	0.298	1.333
40	-1.004	0.540	-0.064	-0.572	-0.792
41	-1.225	0.721	-0.106	0.178	-1.425
42	1.571	1.681	1.894	0.436	0.617
43	-0.198	-0.533	-0.121	-0.331	0.617
44	0.236	-0.171	-0.829	0.180	0.306
45	-1.887	-0.321	-0.163	0.044	-0.048
46	-0.733	0.283	-0.121	-0.075	0.252
47	2.052	0.071	1.533	1.308	1.036
48	2.052	1.444	1.894	1.563	1.672
49	-1.144	-2.521	-2.216	-2.059	-2.546

Residuals

Outer model scores | Outer model correlations | Outer model descriptives | Inner model scores | Inner model correlation | Inner model descriptives

Case index	h11	h12	h13	h14	h16	h21	h22	h23	h31	h32	h33	h41	h42	h43	v1	v2	v3	v4
0	-0.202	-0.130	-0.081	0.167	0.142	0.332	-0.268	-0.018	-0.319	-0.068	0.258	0.406	0.200	-0.660	0.041	-0.279	0.172	0.576
1	-1.288	-2.828	-0.232	0.836	1.596	-0.645	1.051	-0.324	-1.460	1.488	-0.310	0.261	-0.058	-0.145	1.570	-0.535	-1.881	-0.156
2	1.106	0.185	0.057	-0.527	-0.488	-0.785	0.216	0.458	-0.083	0.248	-0.183	0.458	0.200	-0.660	0.041	-0.279	0.172	0.576
3	-0.990	-0.838	0.654	0.362	-0.704	-1.639	0.991	0.419	0.348	-0.938	0.387	0.177	-0.945	0.844	0.285	-0.149	0.312	-0.537
4	-1.322	-0.264	0.761	0.256	0.172	-0.645	0.305	-0.265	0.820	-0.006	-0.454	-0.343	0.183	0.137	0.951	0.445	-0.726	-0.727
5	-0.075	-0.990	0.007	0.316	0.278	-0.254	-0.012	0.230	0.842	-0.460	-0.090	0.177	-0.089	-0.076	0.684	-0.502	-0.054	-0.127
6	-1.541	-0.508	-1.323	1.370	1.324	-1.639	0.991	0.419	0.348	0.171	-0.372	-0.905	-0.395	1.305	-1.856	-0.485	1.812	0.712
7	-0.702	0.269	-0.625	-0.425	1.208	0.009	0.278	-0.265	0.369	-0.263	0.042	-0.104	-0.379	0.508	0.041	-0.279	0.172	0.576
8	-0.202	-0.130	-0.081	0.167	0.142	0.332	-0.268	-0.018	0.369	-0.263	0.042	0.177	-0.089	-0.076	0.466	0.083	-0.277	-0.326
9	-0.940	0.954	0.962	-0.419	-0.455	0.276	-0.241	0.002	-0.034	-0.029	0.353	0.783	-0.371	-0.361	1.073	-0.092	-0.454	-0.570
10	1.430	1.393	-1.056	-1.806	1.468	1.458	-0.705	-0.455	-0.359	-0.423	0.922	-0.905	-0.395	1.305	-0.609	0.415	0.877	0.162
11	-0.180	-0.109	0.759	0.199	-0.936	-1.054	0.735	0.171	-1.029	0.602	0.060	0.976	-0.073	-0.873	-1.359	-0.077	0.365	1.176
12	-0.036	0.936	-0.717	0.362	0.320	-0.308	0.015	0.245	0.842	-0.460	-0.090	0.177	-0.089	-0.076	0.205	-0.854	0.394	0.275
13	1.099	-1.591	1.076	0.538	-1.124	0.991	0.514	-0.838	-1.684	0.363	0.690	0.261	-0.058	-0.149	0.916	0.549	-1.455	0.096
14	0.257	-0.592	0.215	0.454	-0.372	-0.785	0.216	0.458	-0.083	0.248	-0.183	-0.427	0.152	0.209	-0.170	-0.512	0.761	-0.135
15	0.202	1.109	0.960	-0.476	-1.243	0.967	0.256	-1.085	-0.576	0.070	0.284	-0.470	1.052	-0.674	1.662	-0.930	0.358	-0.562
16	-2.134	-0.185	-0.959	1.756	0.892	0.008	1.060	-1.105	-1.552	1.665	-0.385	-0.751	0.783	-0.056	-1.436	-0.020	0.434	1.134
17	0.109	0.185	-0.171	-0.040	0.945	-1.113	1.372	-0.610	1.263	-0.183	-0.615	0.373	0.209	-0.587	0.822	-0.361	0.913	-1.647
18	0.649	0.926	0.416	-0.235	-0.979	-1.376	1.282	-0.096	0.368	0.526	-0.718	0.739	-1.222	0.595	0.445	-0.631	-0.195	0.486
19	0.109	0.185	-0.171	-0.040	0.945	-1.903	0.701	0.933	0.112	-0.145	0.568	-0.189	0.486	-0.335	0.205	-0.424	-0.738	0.171
20	-0.653	1.231	-1.173	-0.913	1.475	-0.045	0.305	-0.265	-1.220	-0.623	1.328	0.261	-0.058	-0.149	-0.950	-0.231	1.035	0.025
21	-0.025	0.889	0.714	0.089	-0.685	-1.634	0.162	1.219	0.372	-1.902	1.593	0.373	1.064	-1.507	-0.460	-0.171	0.300	0.362
22	-0.681	0.290	-0.601	0.434	0.430	-0.199	-0.040	0.210	-0.771	0.464	0.833	0.135	-0.085	-0.040	0.852	0.539	-0.846	0.687
23	-1.667	0.252	0.172	-0.445	1.185	0.338	-1.078	0.783	0.842	-0.460	-0.090	-0.145	-0.374	0.545	1.103	-0.854	-0.421	0.284
24	-0.525	0.408	0.170	-0.502	0.391	-1.317	0.445	0.886	0.348	0.171	-0.372	0.053	-0.081	-0.003	-0.005	0.192	-0.149	-0.040
25	-0.097	-0.916	0.033	-0.542	1.355	0.276	-0.241	0.002	1.765	-0.359	-0.736	0.781	-1.226	0.558	-1.267	0.167	0.923	0.480
26	1.011	1.889	0.208	-0.352	-1.175	-0.839	0.244	0.477	1.314	-0.637	-0.201	0.500	0.155	-0.656	-0.500	-0.231	1.035	0.025
27	-0.202	-0.130	-0.081	0.167	0.142	0.967	-0.296	-0.037	-0.320	0.741	-0.502	0.416	0.204	-0.624	0.221	0.726	-0.451	-0.567
28	1.094	0.164	-2.743	-0.553	0.290	-0.517	-0.303	0.744	-0.752	0.518	-0.381	-0.385	0.168	-0.173	0.706	0.318	-0.859	-0.115
29	2.152	0.265	-0.452	-0.162	-1.021	-0.045	0.305	-0.265	0.369	0.071	-0.304	-0.947	0.483	0.422	0.609	-0.398	-0.784	0.697
30	0.439	-0.432	0.395	-0.269	-0.194	0.981	0.514	-0.838	0.132	0.210	-0.278	-0.104	-0.379	0.508	0.117	-0.339	0.123	0.116
31	-1.033	-0.858	-0.168	0.017	0.833	0.595	0.022	-0.532	0.369	-0.263	0.042	0.177	-0.089	-0.076	0.466	0.083	-0.277	-0.326
32	1.094	0.164	-0.743	-0.553	0.290	0.655	-0.815	0.245	-0.555	0.425	-0.061	0.654	0.498	-1.172	0.957	-0.025	-0.405	-0.612
33	-0.399	-0.352	0.307	-0.353	0.517	0.967	-0.296	-0.037	0.842	-0.460	-0.090	-0.145	-0.374	0.545	-0.082	0.249	-0.150	-0.082
34	0.401	-0.455	0.146	-0.528	0.358	-0.259	0.797	-0.571	-1.008	0.957	-0.286	-0.189	0.486	-0.339	0.193	-0.394	0.074	0.160
35	0.228	-1.511	0.588	0.368	-0.413	-0.566	-1.085	1.564	-1.479	0.324	0.595	-1.270	0.180	1.042	1.467	0.234	-0.124	-1.937
36	0.998	0.967	-1.471	-0.404	0.381	-0.259	0.797	-0.571	0.371	-1.093	0.801	0.135	-0.085	-0.040	-0.082	0.249	-0.150	-0.082
37	-0.306	0.652	1.438	-0.756	-0.771	-0.248	-0.822	1.030	1.765	-0.359	-0.736	0.219	-0.094	-0.112	-0.036	-0.221	0.220	0.033
38	0.767	1.269	1.146	-1.114	-1.085	0.026	-1.341	1.317	1.077	-0.144	-0.520	0.219	-0.094	-0.112	-0.204	-0.394	-0.892	-0.166
39	0.411	-0.453	-0.445	-0.229	0.584	0.015	-0.532	0.516	-0.554	-0.384	0.698	0.373	1.208	-0.587	-0.037	-0.113	0.348	0.320
40	-0.990	-0.838	0.654	0.362	-0.704	-1.376	1.282	-0.096	0.840	0.345	-0.839	1.301	0.212	-1.493	0.618	-0.444	-0.905	-0.169
41	-1.116	0.752	0.557	0.752	-0.839	-0.528	1.316	-0.857	0.369	-0.263	0.042	-0.666	0.754	-0.152	0.787	-0.257	0.184	-0.823
42	0.109	0.185	-0.171	-0.040	0.945	0.441	-0.323	-0.056	1.056	0.310	-0.934	0.135	-0.085	-0.040	0.362	-0.207	0.263	-0.495
43	-1.188	-0.167	-0.123	0.121	0.902	-0.517	-0.303	0.744	-1.008	0.957	-0.286	0.135	-0.085	-0.040	-0.853	0.494	0.353	-0.797
44	-0.493	0.471	0.418	-0.178	-0.171	0.009	0.278	-0.265	0.368	0.526	-0.718	-1.270	0.180	1.042	0.526	-0.689	-0.243	0.528
45	-0.380	-0.316	-0.284	-0.054	0.743	0.332	-0.268	-0.018	-1.243	0.640	0.155	-0.146	0.481	-0.375	-0.479	0.235	-0.143	0.446
46	1.094	0.164	-0.743	-0.553	0.290	-0.517	-0.303	0.744	-0.320	0.741	-0.502	-0.427	0.152	0.209	-0.444	0.131	0.987	-0.377
47	0.280	0.307	0.234	-1.211	0.449	0.709	-0.842	0.230	-0.340	0.386	-0.136	-0.189	0.486	-0.339	-0.005	0.192	-0.149	-0.040
48	0.274	0.265	-0.807	0.156	0.222	0.441	-0.323	-0.056	0.348	0.171	-0.372	0.053	-0.081	-0.003	-0.005	0.192	-0.149	-0.040

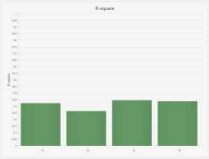
Quality criteria

R-square

	R-square	R-square adjusted
h1	0.323	0.320
h2	0.263	0.259
h3	0.345	0.342
h4	0.338	0.334

R-square charts

R-square | R-square adjusted

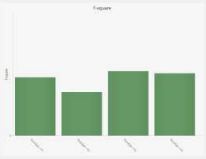


f-square

Matrix | List

	Nostalgia	h1	h2	h3	h4
Nostalgia		0.477	0.356	0.526	0.510
h1					
h2					
h3					
h4					

f-square charts

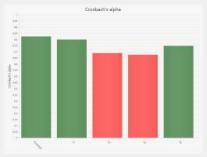


Construct reliability and validity

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_a)	Average variance extracted (AVE)
Nostalgia	0.823	0.830	0.883	0.655
h1	0.798	0.812	0.860	0.552
h2	0.669	0.694	0.828	0.617
h3	0.676	0.720	0.820	0.607
h4	0.747	0.750	0.856	0.665

Construct reliability and validity charts

Cronbach's alpha | Composite reliability (rho_a) | Composite reliability (rho_c) | Average variance extracted (AVE)

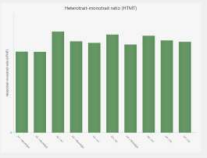


Discriminant validity

Heterotrait-monotrait ratio (HTMT) - Matrix | Heterotrait-monotrait ratio (HTMT) - List | Fornell-Larcker criterion | Cross loadings

	Nostalgia	h1	h2	h3	h4
Nostalgia					
h1	0.673				
h2	0.878	0.848			
h3	0.766	0.753	0.823		
h4	0.736	0.813	0.774	0.752	

Discriminant validity charts



Collinearity statistics (VIF)

Outer model - List | Inner model - Matrix | Inner model - List

	VIF
h11	1.524
h12	1.486
h13	1.624
h14	1.562
h16	1.503
h21	1.296
h22	1.431
h23	1.329
h31	1.179
h32	1.503
h33	1.462
h41	1.669
h42	1.708
h43	1.318
v1	1.509
v2	1.998
v3	2.078
v4	1.642

Model fit

	Saturated model	Estimated model
srmr	0.077	0.132
d_ULS	1.012	2.570
d_G	0.363	0.511
Chi-square	422.116	534.975
NFI	0.733	0.662

Model selection criteria

	BIC (Bayesian information criterion)
h1	-68.769
h2	-51.673
h3	-75.570
h4	-73.238

Algorithm

Setting

Data file | PLS-SEM algorithm | Construct outer weighting mode

	Setting
Data file	data_nostalgia
Weighting vector	-

Stop criterion changes

	h11	h12	h13	h14	h16	h21	h22	h23	h31	h32	h33	h41	h42	h43	v1	v2	v3	v4
Iteration 0	0.269	0.269	0.269	0.266	0.293	0.425	0.425	0.425	0.428	0.428	0.426	0.409	0.409	0.485	0.300	0.309	0.309	0.309
Iteration 1	0.221	0.207	0.289	0.286	0.335	0.382	0.444	0.445	0.299	0.467	0.495	0.353	0.433	0.485	0.311	0.321	0.335	0.266
Iteration 2	0.224	0.205	0.290	0.285	0.334	0.382	0.444	0.446	0.301	0.465	0.495	0.391	0.432	0.492	0.308	0.323	0.334	0.268
Iteration 3	0.224	0.205	0.290	0.285	0.334	0.382	0.443	0.446	0.301	0.465	0.495	0.391	0.432	0.492	0.308	0.323	0.334	0.268
Iteration 4	0.224	0.205	0.290	0.285	0.334	0.382	0.443	0.446	0.301	0.465	0.495	0.391	0.432	0.492	0.308	0.323	0.334	0.268
Iteration 5	0.224	0.205	0.290	0.285	0.334	0.382	0.443	0.446	0.301	0.465	0.495	0.391	0.432	0.492	0.308	0.323	0.334	0.268
Iteration 6	0.224	0.205	0.290	0.285	0.334	0.382	0.443	0.446	0.301	0.465	0.495	0.391	0.432	0.492	0.308	0.323	0.334	0.268

Posthoc minimum sample size

	Path coefficients	Alpha 1%, power 50%	Alpha 5%, power 50%	Alpha 1%, power 90%	Alpha 5%, power 90%
Nostalgia -> h1	0.568	32.000	20.000	41.000	27.000
Nostalgia -> h2	0.513	39.000	24.000	50.000	33.000
Nostalgia -> h3	0.588	30.000	18.000	38.000	25.000
Nostalgia -> h4	0.561	30.000	19.000	39.000	26.000

Execution log

- Reading score matrix of complete data set
- **Calculating full data set.**
- Running PLS-SEM iterations, at most 3000.
- Calculating report matrices and charts.
- **All calculations done.**

Model and data

Inner model

	Nostalgia	h1	h2	h3	h4
Nostalgia		1.000	1.000	1.000	1.000
h1					
h2					
h3					
h4					

Outer model

	Nostalgia	h1	h2	h3	h4
h11		-1.000			
h12		-1.000			
h13		-1.000			
h14		-1.000			
h16		-1.000			
h21			-1.000		
h22			-1.000		
h23			-1.000		
h31				-1.000	
h32				-1.000	
h33				-1.000	
h41					-1.000
h42					-1.000
h43					-1.000
v1	-1.000				
v2	-1.000				
v3	-1.000				

Indicator data (original)

Matrix | MV descriptives

Case index	h11	h12	h13	h14	h16	h21	h22	h23	h31	h32	h33	h41	h42	h43	v1	v2	v3	v4
0	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	2.000	3.000	2.000	3.000	3.000
1	2.000	1.000	3.000	4.000	5.000	1.000	4.000	2.000	1.000	4.000	1.000	1.000	1.000	1.000	5.000	3.000	1.000	3.000
2	5.000	4.000	4.000	3.000	3.000	2.000	4.000	4.000	3.000	3.000	2.000	3.000	3.000	2.000	3.000	2.000	3.000	3.000
3	3.000	4.000	5.000	5.000	3.000	1.000	5.000	4.000	5.000	4.000	5.000	4.000	3.000	5.000	4.000	3.000	4.000	3.000
4	1.000	2.000	3.000	2.000	2.000	1.000	2.000	1.000	5.000	4.000	3.000	1.000	2.000	2.000	5.000	4.000	3.000	3.000
5	3.000	2.000	3.000	3.000	3.000	2.000	3.000	3.000	4.000	2.000	2.000	3.000	3.000	3.000	4.000	2.000	3.000	3.000
6	2.000	3.000	2.000	5.000	5.000	1.000	5.000	4.000	5.000	5.000	4.000	1.000	2.000	4.000	1.000	2.000	5.000	4.000
7	3.000	4.000	3.000	3.000	5.000	2.000	3.000	2.000	4.000	3.000	3.000	3.000	3.000	4.000	3.000	2.000	3.000	3.000
8	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000	4.000	3.000	3.000	3.000	3.000
9	2.000	4.000	4.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	3.000	2.000	4.000	2.000	2.000	2.000
10	5.000	5.000	1.000	1.000	5.000	4.000	2.000	2.000	4.000	4.000	5.000	1.000	2.000	4.000	4.000	5.000	5.000	5.000
11	3.000	3.000	4.000	3.000	2.000	2.000	5.000	4.000	3.000	5.000	4.000	5.000	4.000	3.000	2.000	3.000	4.000	5.000
12	3.000	3.000	2.000	3.000	3.000	1.000	2.000	2.000	4.000	2.000	2.000	3.000	3.000	3.000	3.000	1.000	3.000	3.000
13	4.000	1.000	4.000	3.000	1.000	4.000	5.000	3.000	1.000	3.000	3.000	1.000	1.000	1.000	4.000	3.000	1.000	3.000
14	4.000	3.000	4.000	4.000	3.000	2.000	4.000	4.000	3.000	3.000	2.000	3.000	4.000	4.000	3.000	2.000	4.000	3.000
15	4.000	5.000	5.000	3.000	2.000	5.000	5.000	3.000	4.000	5.000	5.000	3.000	5.000	3.000	4.000	1.000	3.000	2.000
16	1.000	3.000	2.000	5.000	4.000	3.000	5.000	2.000	1.000	5.000	2.000	3.000	5.000	4.000	1.000	2.000	3.000	4.000
17	3.000	5.000	5.000	5.000	5.000	1.000	5.000	2.000	5.000	3.000	2.000	5.000	5.000	4.000	4.000	2.000	4.000	1.000
18	5.000	5.000	5.000	4.000	3.000	1.000	5.000	3.000	4.000	4.000	2.000	5.000	5.000	5.000	3.000	1.000	2.000	3.000
19	5.000	5.000	5.000	5.000	5.000	1.000	5.000	5.000	5.000	5.000	5.000	4.000	5.000	4.000	5.000	5.000	4.000	5.000
20	2.000	4.000	1.000	1.000	4.000	1.000	2.000	1.000	1.000	1.000	3.000	1.000	1.000	1.000	1.000	1.000	3.000	2.000
21	4.000	4.000	5.000	4.000	3.000	1.000	4.000	5.000	4.000	1.000	5.000	4.000	5.000	2.000	4.000	4.000	5.000	5.000
22	3.000	4.000	3.000	4.000	4.000	3.000	4.000	4.000	2.000	3.000	2.000	4.000	4.000	4.000	3.000	3.000	2.000	3.000
23	2.000	4.000	4.000	3.000	5.000	3.000	2.000	4.000	4.000	2.000	2.000	4.000	4.000	5.000	4.000	1.000	2.000	3.000
24	4.000	5.000	5.000	4.000	5.000	2.000	5.000	5.000	5.000	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
25	3.000	2.000	3.000	2.000	4.000	2.000	2.000	2.000	5.000	2.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000	3.000
26	4.000	4.000	3.000	2.000	1.000	1.000	3.000	3.000	4.000	1.000	1.000	2.000	2.000	1.000	1.000	1.000	3.000	2.000
27	3.000	3.000	3.000	3.000	3.000	4.000	4.000	4.000	3.000	4.000	2.000	4.000	4.000	3.000	3.000	3.000	2.000	2.000
28	5.000	4.000	3.000	3.000	4.000	2.000	3.000	4.000	3.000	5.000	3.000	2.000	3.000	3.000	4.000	3.000	2.000	3.000
29	5.000	3.000	2.000	2.000	1.000	1.000	2.000	1.000	3.000	2.000	1.000	1.000	3.000	3.000	3.000	1.000	1.000	3.000
30	4.000	3.000	4.000	3.000	3.000	4.000	5.000	3.000	4.000	4.000	3.000	3.000	3.000	4.000	4.000	4.000	4.000	4.000
31	3.000	4.000	4.000	4.000	5.000	3.000	3.000	2.000	4.000	3.000	3.000	3.000	3.000	3.000	4.000	3.000	3.000	3.000
32	5.000	4.000	3.000	3.000	4.000	4.000	3.000	4.000	3.000	4.000	3.000	5.000	5.000	3.000	4.000	1.000	1.000	1.000
33	4.000	4.000	5.000	4.000	5.000	4.000	4.000	4.000	4.000	2.000	2.000	4.000	4.000	5.000	4.000	4.000	4.000	4.000
34	5.000	4.000	5.000	4.000	5.000	2.000	4.000	2.000	2.000	4.000	2.000	4.000	5.000	4.000	5.000	4.000	5.000	5.000
35	4.000	2.000	5.000	4.000	3.000	1.000	1.000	4.000	2.000	4.000	4.000	2.000	4.000	5.000	5.000	3.000	3.000	1.000
36	4.000	4.000	1.000	2.000	3.000	2.000	4.000	2.000	4.000	2.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
37	3.000	4.000	5.000	2.000	2.000	2.000	2.000	4.000	5.000	2.000	1.000	2.000	2.000	2.000	2.000	1.000	2.000	2.000
38	4.000	5.000	5.000	2.000	2.000	2.000	1.000	4.000	4.000	2.000	1.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000
39	4.000	3.000	3.000	3.000	4.000	2.000	2.000	3.000	3.000	3.000	4.000	5.000	5.000	4.000	3.000	3.000	4.000	4.000
40	3.000	4.000	5.000	5.000	3.000	1.000	5.000	3.000	4.000	3.000	1.000	4.000	3.000	1.000	3.000	1.000	2.000	2.000
41	3.000	5.000	5.000	5.000	3.000	2.000	5.000	2.000	4.000	3.000	3.000	1.000	3.000	2.000	5.000	1.000	2.000	1.000
42	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	4.000	2.000	4.000	4.000	4.000	5.000	4.000	5.000	4.000
43	2.000	3.000	3.000	3.000	4.000	2.000	3.000	4.000	2.000	4.000	2.000	4.000	4.000	4.000	2.000	3.000	4.000	2.000
44	3.000	4.000	4.000	3.000	3.000	2.000	3.000	2.000	4.000	4.000	2.000	2.000	4.000	5.000	4.000	2.000	3.000	4.000
45	3.000	3.000	3.000	3.000	4.000	3.000	3.000	3.000	2.000	4.000	3.000	3.000	4.000	3.000	1.000	1.000	1.000	2.000
46	5.000	4.000	3.000	3.000	4.000	2.000	3.000	4.000	3.000	4.000	2.000	3.000	4.000	4.000	2.000	2.000	3.000	2.000
47	4.000	4.000	4.000	2.000	4.000	5.000	4.000	5.000	4.000	5.000	4.000	4.000	5.000	4.000	5.000	5.000	5.000	5.000
48	5.000	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	4.000	5.000	5.000	5.000	5.000	5.000	5.000

Indicator data (correlations)

Empirical correlation matrix | Model implied saturated correlation matrix | Model implied estimated correlation matrix | Empirical covariance matrix

	h11	h12	h13	h14	h16	h21	h22	h23	h31	h32	h33	h41	h42	h43	v1	v2	v3	v4
h11	1.000	0.505	0.430	0.445	0.357	0.288	0.415	0.397	0.315	0.213	0.225	0.255	0.334	0.356	0.340	0.304	0.301	0.151
h12	0.505	1.000	0.424	0.424	0.335	0.233	0.397	0.369	0.343	0.268	0.264	0.365	0.353	0.409	0.316	0.227	0.243	0.236
h13	0.430	0.424	1.000	0.572	0.366	0.215	0.469	0.426	0.286	0.328	0.301	0.405	0.354	0.362	0.480	0.324	0.383	0.234
h14	0.445	0.424	0.572	1.000	0.562	0.254	0.538	0.388	0.249	0.388	0.379	0.364	0.437	0.407	0.360	0.351	0.348	0.315
h16	0.357	0.335	0.366	0.562	1.000	0.357	0.351	0.378	0.381	0.445	0.405	0.368	0.373	0.486	0.371	0.480	0.435	0.373
h21	0.288	0.233	0.215	0.254	0.357	1.000	0.443	0.367	0.240	0.365	0.376	0.222	0.348	0.375	0.286	0.356	0.264	0.252
h22	0.415	0.397	0.469	0.538	0.351	0.443	1.000	0.464	0.317	0.469	0.391	0.337	0.393	0.355	0.367	0.328	0.343	0.322
h23	0.397	0.369	0.426	0.388	0.378	0.367	0.464	1.000	0.221	0.356	0.358	0.403	0.373	0.384	0.310	0.352	0.382	0.315
h31	0.315	0.343	0.286	0.249	0.381	0.240	0.317	0.221	1.000	0.358	0.323	0.164	0.188	0.376	0.270	0.256	0.333	0.163
h32	0.213	0.268	0.328	0.388	0.445	0.365	0.469	0.356	0.358	1.000	0.545	0.317	0.445	0.473	0.360	0.445	0.428	0.374
h33	0.225	0.264	0.301	0.379	0.405	0.376	0.391	0.358	0.323	0.545	1.000	0.349	0.368	0.388	0.345	0.522	0.468	0.358
h41	0.255	0.365	0.405	0.364	0.368	0.222	0.337	0.403	0.164	0.317	0.349	1.000	0.609	0.425	0.347	0.325	0.419	0.374
h42	0.334	0.353	0.354	0.437	0.373	0.348	0.393	0.373	0.188	0.445	0.368	0.609	1.000	0.451	0.439	0.353	0.448	0.380
h43	0.356	0.409	0.362	0.407	0.486	0.375	0.355	0.384	0.376	0.473	0.388	0.425	0.451	1.000	0.370	0.391	0.433	0.302
v1	0.340	0.316	0.480	0.360	0.371	0.296	0.367	0.310	0.270	0.360	0.345	0.347	0.439	0.370	1.000	0.530	0.510	0.425
v2	0.304	0.227	0.324	0.351	0.480	0.356	0.328	0.352	0.256	0.445	0.522	0.325	0.353	0.391	0.530	1.000	0.647	0.535
v3	0.301	0.243	0.383	0.348	0.435	0.264	0.340	0.382	0.333	0.428	0.468	0.419	0.448	0.433	0.510	0.647	1.000	0.594
v4	0.151	0.236	0.234	0.315	0.373	0.252	0.322	0.315	0.163	0.374	0.358	0.374	0.380	0.302	0.425	0.535	0.594	1.000