

```
199 0 OUTPUT ACTIVATE McDonaldsOmegaOutput.  
199 0 M> OUTPUT ACTIVATE McDonaldsOmegaOutput.  
200 0 TITLE 'McDonald''s One-Factor Omega Total'.  
200 0 M> TITLE 'McDonald''s One-Factor Omega Total'.
```

McDonald's One-Factor Omega Total

```

201 0
201 0 M>
202 0 GET DATA
202 0 M> GET DATA
203 0 /TYPE=TXT
203 0 M> /TYPE=TXT
204 0 /FILE='D:\DATA ANALYSIS\K Reliability and Agreement Tests\McDonalds
Omega\dataset.csv'
204 0 M> /FILE='D:\DATA ANALYSIS\K Reliability and Agreement Tests\McDona
lds Omega\dataset.csv'
205 0 /ENCODING='UTF8'
205 0 M> /ENCODING='UTF8'
206 0 /DELCASE=LINE
206 0 M> /DELCASE=LINE
207 0 /DELIMITERS=', '
207 0 M> /DELIMITERS=', '
208 0 /QUALIFIER='"'
208 0 M> /QUALIFIER='"'
209 0 /ARRANGEMENT=DELIMITED
209 0 M> /ARRANGEMENT=DELIMITED
210 0 /FIRSTCASE=2
210 0 M> /FIRSTCASE=2
211 0 /VARIABLES=
211 0 M> /VARIABLES=
212 0 school A8 sex A8 age F8.0 address A8 famsize A8 Pstatus A8
212 0 M> school A8 sex A8 age F8.0 address A8 famsize A8 Pstatus A8
213 0 Medu F8.0 Fedu F8.0 Mjob A16 Fjob A16 reason A16 guardian A16
213 0 M> Medu F8.0 Fedu F8.0 Mjob A16 Fjob A16 reason A16 guardian A16
214 0 traveltime F8.0 studytime F8.0 failures F8.0 schoolsup A8 famsup
A8
214 0 M> traveltime F8.0 studytime F8.0 failures F8.0 schoolsup A8 fams
up A8
215 0 paid A8 activities A8 nursery A8 higher A8 internet A8 romantic A
8
215 0 M> paid A8 activities A8 nursery A8 higher A8 internet A8 romanti
c A8
216 0 famrel F8.0 freetime F8.0 goout F8.0 Dalc F8.0 Walc F8.0 health F
8.0

```

McDonald's One-Factor Omega Total

```

216 0 M>      famrel F8.0 freetime F8.0 goout F8.0 Dalc F8.0 Walc F8.0 health F8.0
217 0      absences F8.0 G1 F8.0 G2 F8.0 G3 F8.0.
217 0 M>      absences F8.0 G1 F8.0 G2 F8.0 G3 F8.0.
218 0 DATASET NAME McDonaldsOmegaData.
218 0 M> DATASET NAME McDonaldsOmegaData.
219 0 EXECUTE.
219 0 M> EXECUTE.
220 0
220 0 M>
221 0 COMPUTE subject_id=$CASENUM.
221 0 M> COMPUTE subject_id=$CASENUM.
222 0 COMPUTE Dalc_R=6-Dalc.
222 0 M> COMPUTE Dalc_R=6-Dalc.
223 0 COMPUTE Walc_R=6-Walc.
223 0 M> COMPUTE Walc_R=6-Walc.
224 0 RECODE schoolsup famsup paid activities higher internet ('no'=0) ('yes'=1)
224 0 M> RECODE schoolsup famsup paid activities higher internet ('no'=0) ('yes'=1)
225 0 INTO schoolsup_b famsup_b paid_b activities_b higher_b internet_b.
225 0 M> INTO schoolsup_b famsup_b paid_b activities_b higher_b internet_b.
226 0 RECODE G1 G2 G3 (LO THRU 9=1) (10 THRU 13=2) (14 THRU HI=3)
226 0 M> RECODE G1 G2 G3 (LO THRU 9=1) (10 THRU 13=2) (14 THRU HI=3)
227 0 INTO G1_cat3 G2_cat3 G3_cat3.
227 0 M> INTO G1_cat3 G2_cat3 G3_cat3.
228 0 RECODE G1 G3 (LO THRU 8=1) (9 THRU 10=2) (11 THRU 12=3) (13 THRU 14=4) (15 THRU HI=5)
228 0 M> RECODE G1 G3 (LO THRU 8=1) (9 THRU 10=2) (11 THRU 12=3) (13 THRU 14=4) (15 THRU HI=5)
229 0 INTO G1_cat5 G3_cat5.
229 0 M> INTO G1_cat5 G3_cat5.
230 0 VARIABLE LEVEL schoolsup_b famsup_b paid_b activities_b higher_b internet_b G1_cat3 G2_cat3 G3_cat3 G1_cat5 G3_cat5 (NOMINAL).
230 0 M> VARIABLE LEVEL schoolsup_b famsup_b paid_b activities_b higher_b internet_b G1_cat3 G2_cat3 G3_cat3 G1_cat5 G3_cat5 (NOMINAL).

```

McDonald's One-Factor Omega Total

```
231 0 FORMATS subject_id schoolsup_b famsup_b paid_b activities_b higher_b
internet_b G1_cat3 G2_cat3 G3_cat3 G1_cat5 G3_cat5 (F5
      .0).
231 0 M> FORMATS subject_id schoolsup_b famsup_b paid_b activities_b higher
_b internet_b G1_cat3 G2_cat3 G3_cat3 G1_cat5 G3_cat5
      (F5.0).
232 0 EXECUTE.
232 0 M> EXECUTE.
233 0
233 0 M>
234 0 * BEGIN METHOD-SPECIFIC SPSS WORKFLOW.
234 0 M> * BEGIN METHOD-SPECIFIC SPSS WORKFLOW.
235 0 TITLE 'McDonalds Omega'.
235 0 M> TITLE 'McDonalds Omega'.
```

McDonalds Omega

```
236 0 SUBTITLE 'One-factor principal-axis congeneric reliability model'.  
236 0 M> SUBTITLE 'One-factor principal-axis congeneric reliability model'.
```

McDonalds Omega
One-factor principal-axis congeneric reliability model

```

237  0  FACTOR /VARIABLES=famrel freetime goout Dalc_R Walc_R health /MISSING
=LISTWISE
237  0 M>  FACTOR /VARIABLES=famrel freetime goout Dalc_R Walc_R health /MISS
ING=LISTWISE
238  0    /ANALYSIS=famrel freetime goout Dalc_R Walc_R health
238  0 M>    /ANALYSIS=famrel freetime goout Dalc_R Walc_R health
239  0    /PRINT=INITIAL EXTRACTION KMO CORRELATION /PLOT=EIGEN /CRITERIA=FACT
ORS(1) ITERATE(500)
239  0 M>    /PRINT=INITIAL EXTRACTION KMO CORRELATION /PLOT=EIGEN /CRITERIA=F
ACTORS(1) ITERATE(500)
240  0    /EXTRACTION=PAF /ROTATION=NOROTATE /METHOD=CORRELATION.
240  0 M>    /EXTRACTION=PAF /ROTATION=NOROTATE /METHOD=CORRELATION.

```

Factor Analysis

Notes

Output Created		16-JUL-2026 21:12:42
Comments		
Input	Data	D:\DATA ANALYSIS\K Reliability and Agreement Tests\McDonalds Omega\dataset.csv
	Active Dataset	McDonaldsOmegaData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.

McDonalds Omega
One-factor principal-axis congeneric reliability model

Notes

Syntax		FACTOR /VARIABLES=famrel freetime goout Dalc_R Walc_R health /MISSING=LISTWISE /ANALYSIS=famrel freetime goout Dalc_R Walc_R health /PRINT=INITIAL EXTRACTION KMO CORRELATION /PLOT=EIGEN /CRITERIA=FACTORS(1) ITERATE(500) /EXTRACTION=PAF /ROTATION=NOROTATE /METHOD=CORRELATIO N.
Resources	Processor Time	00:00:00.55
	Elapsed Time	00:00:00.44
	Maximum Memory Required	5704 (5.570K) bytes

[McDonaldsOmegaData]

Correlation Matrix

		famrel	freetime	goout	Dalc_R	Walc_R	health
Correlation	famrel	1.000	.129	.090	.076	.094	.110
	freetime	.129	1.000	.346	-.110	-.120	.085
	goout	.090	.346	1.000	-.245	-.389	-.016
	Dalc_R	.076	-.110	-.245	1.000	.617	-.059
	Walc_R	.094	-.120	-.389	.617	1.000	-.115
	health	.110	.085	-.016	-.059	-.115	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.564
Bartlett's Test of Sphericity	Approx. Chi-Square	551.548
	df	15
	Sig.	.000

McDonalds Omega
One-factor principal-axis congeneric reliability model

Communalities

	Initial	Extraction
famrel	.053	.001
freetime	.138	.056
goout	.258	.207
Dalc_R	.382	.427
Walc_R	.456	.786
health	.042	.010

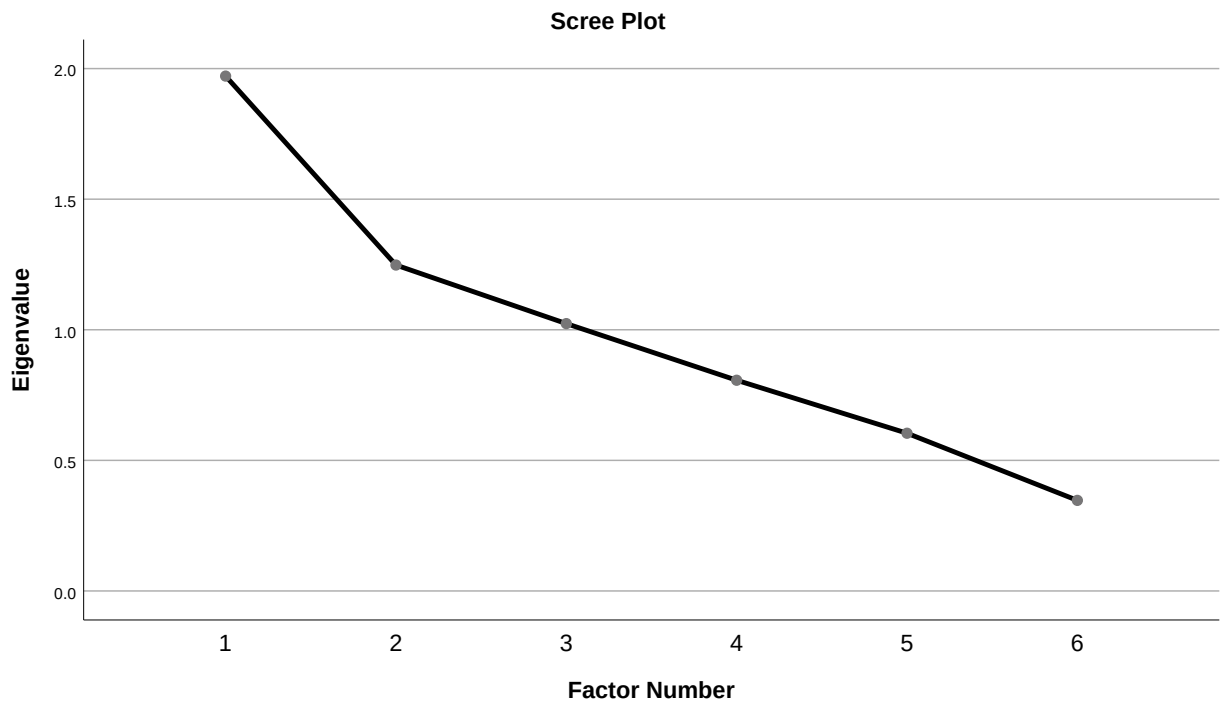
Extraction Method: Principal Axis Factoring.

Total Variance Explained

Factor	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.971	32.854	32.854	1.488	24.797	24.797
2	1.248	20.797	53.651			
3	1.024	17.060	70.711			
4	.807	13.446	84.156			
5	.604	10.064	94.220			
6	.347	5.780	100.000			

Extraction Method: Principal Axis Factoring.

McDonalds Omega
One-factor principal-axis congeneric reliability model



Factor Matrix^a

	Factor 1
famrel	.033
freetime	-.238
goout	-.455
Dalc_R	.653
Walc_R	.887
health	-.101

Extraction Method:
Principal Axis
Factoring.

a. 1 factors extracted. 21 iterations required.

```
241 0 RELIABILITY /VARIABLES=famrel freetime goout Dalc_R Walc_R health /SC
ALE('Omega item set') ALL /MODEL=ALPHA /STATISTICS=DES
```

McDonalds Omega
One-factor principal-axis congeneric reliability model

```

CRIPITIVE SCALE CORR.
241  0 M> RELIABILITY /VARIABLES=famrel freetime goout Dalc_R Walc_R health
/SCALE('Omega item set') ALL /MODEL=ALPHA /STATISTICS=
DESCRIPTIVE SCALE CORR.

```

Reliability

Notes

Output Created		16-JUL-2026 21:12:42
Comments		
Input	Data	D:\DATA ANALYSIS\K Reliability and Agreement Tests\McDonalds Omega\dataset.csv
	Active Dataset	McDonaldsOmegaData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
	Matrix Input	D:\DATA ANALYSIS\K Reliability and Agreement Tests\McDonalds Omega\mcdonalds_omega_spss_syntax.sps
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=famrel freetime goout Dalc_R Walc_R health /SCALE ('Omega item set') ALL /MODEL=ALPHA /STATISTICS=DESCRIPTIVE SCALE CORR.
Resources	Processor Time	00:00:00.05
	Elapsed Time	00:00:00.04

McDonalds Omega
One-factor principal-axis congeneric reliability model

Scale: Omega item set

Case Processing Summary

		N	%
Cases	Valid	649	100.0
	Excluded ^a	0	.0
	Total	649	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.112	.169	6

Item Statistics

	Mean	Std. Deviation	N
famrel	3.9307	.95572	649
freetime	3.1803	1.05109	649
goout	3.1849	1.17577	649
Dalc_R	4.4977	.92483	649
Walc_R	3.7196	1.28438	649
health	3.5362	1.44626	649

McDonalds Omega
One-factor principal-axis congeneric reliability model

Inter-Item Correlation Matrix

	famrel	freetime	goout	Dalc_R	Walc_R	health
famrel	1.000	.129	.090	.076	.094	.110
freetime	.129	1.000	.346	-.110	-.120	.085
goout	.090	.346	1.000	-.245	-.389	-.016
Dalc_R	.076	-.110	-.245	1.000	.617	-.059
Walc_R	.094	-.120	-.389	.617	1.000	-.115
health	.110	.085	-.016	-.059	-.115	1.000

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
22.0493	8.819	2.96960	6

```
242  0  CORRELATIONS /VARIABLES=famrel freetime goout Dalc_R Walc_R health /P
RINT=TWOTAIL NOSIG /MISSING=PAIRWISE.
```

```
242  0 M> CORRELATIONS /VARIABLES=famrel freetime goout Dalc_R Walc_R health
/PRINT=TWOTAIL NOSIG /MISSING=PAIRWISE.
```

Correlations

McDonalds Omega
One-factor principal-axis congeneric reliability model

Notes

Output Created		16-JUL-2026 21:12:42
Comments		
Input	Data	D:\DATA ANALYSIS\K Reliability and Agreement Tests\McDonalds Omega\dataset.csv
	Active Dataset	McDonaldsOmegaData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=famrel freetime goout Dalc_R Walc_R health /PRINT=TWOTAIL NOSIG /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.05
	Elapsed Time	00:00:00.05

McDonalds Omega
One-factor principal-axis congeneric reliability model

Correlations

		famrel	freetime	goout	Dalc_R	Walc_R	health
famrel	Pearson Correlation	1	.129**	.090*	.076	.094*	.110**
	Sig. (2-tailed)		.001	.022	.054	.017	.005
	N	649	649	649	649	649	649
freetime	Pearson Correlation	.129**	1	.346**	-.110**	-.120**	.085*
	Sig. (2-tailed)	.001		.000	.005	.002	.031
	N	649	649	649	649	649	649
goout	Pearson Correlation	.090*	.346**	1	-.245**	-.389**	-.016
	Sig. (2-tailed)	.022	.000		.000	.000	.689
	N	649	649	649	649	649	649
Dalc_R	Pearson Correlation	.076	-.110**	-.245**	1	.617**	-.059
	Sig. (2-tailed)	.054	.005	.000		.000	.133
	N	649	649	649	649	649	649
Walc_R	Pearson Correlation	.094*	-.120**	-.389**	.617**	1	-.115**
	Sig. (2-tailed)	.017	.002	.000	.000		.003
	N	649	649	649	649	649	649
health	Pearson Correlation	.110**	.085*	-.016	-.059	-.115**	1
	Sig. (2-tailed)	.005	.031	.689	.133	.003	
	N	649	649	649	649	649	649

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

```

243 0 * END METHOD-SPECIFIC SPSS WORKFLOW.
243 0 M> * END METHOD-SPECIFIC SPSS WORKFLOW.
244 0
244 0 M>
245 0 SAVE OUTFILE='D:\DATA ANALYSIS\K Reliability and Agreement Tests\McDo
nalds Omega\SPSS_Output\sav\mcdonalds-omega_spss_ready
_data.sav' /COMPRESSED.
245 0 M> SAVE OUTFILE='D:\DATA ANALYSIS\K Reliability and Agreement Tests\M
cDonalds Omega\SPSS_Output\sav\mcdonalds-omega_spss_re
ady_data.sav' /COMPRESSED.
246 0
246 0 M>

```

McDonalds Omega
One-factor principal-axis congeneric reliability model

```

247  0  ECHO '=====
====='.
247  0 M>  ECHO '=====
====='.
=====
248  0  ECHO 'MCDONALD'S ONE-FACTOR OMEGA TOTAL'.
248  0 M>  ECHO 'MCDONALD'S ONE-FACTOR OMEGA TOTAL'.
MCDONALD'S ONE-FACTOR OMEGA TOTAL
249  0  ECHO 'Design: Congeneric reliability of the standardized six-item sca
le using one principal-axis common factor.'.
249  0 M>  ECHO 'Design: Congeneric reliability of the standardized six-item
scale using one principal-axis common factor.'.
Design: Congeneric reliability of the standardized six-item scale using one pr
incipal-axis common factor.
250  0  ECHO 'Null hypothesis: The common factor accounts for no reliable var
iance in the unit-weighted total.'.
250  0 M>  ECHO 'Null hypothesis: The common factor accounts for no reliable
variance in the unit-weighted total.'.
Null hypothesis: The common factor accounts for no reliable variance in the un
it-weighted total.
251  0  ECHO 'Formula: omega_t=(sum lambda_i)^2/[(sum lambda_i)^2+sum psi_i].
.'.
251  0 M>  ECHO 'Formula: omega_t=(sum lambda_i)^2/[(sum lambda_i)^2+sum psi_
i].'.
Formula: omega_t=(sum lambda_i)^2/[(sum lambda_i)^2+sum psi_i].
252  0  ECHO 'Variables: famrel, freetime, goout, Dalc_R, Walc_R, health'.
252  0 M>  ECHO 'Variables: famrel, freetime, goout, Dalc_R, Walc_R, health'.
Variables: famrel, freetime, goout, Dalc_R, Walc_R, health
253  0  ECHO 'Rows analyzed: 649'.
253  0 M>  ECHO 'Rows analyzed: 649'.
Rows analyzed: 649
254  0  ECHO 'items = 6'.
254  0 M>  ECHO 'items = 6'.
items = 6
255  0  ECHO 'n_cases = 649'.
255  0 M>  ECHO 'n_cases = 649'.
n_cases = 649
256  0  ECHO 'omega_total = 0.11958593232012678'.
256  0 M>  ECHO 'omega_total = 0.11958593232012678'.

```

McDonalds Omega
One-factor principal-axis congeneric reliability model

```
omega_total = 0.11958593232012678
257 0 ECHO 'sum_loadings = 0.7826442649794866'.
257 0 M> ECHO 'sum_loadings = 0.7826442649794866'.
sum_loadings = 0.7826442649794866
258 0 ECHO 'sum_uniqueness = 4.509575828065976'.
258 0 M> ECHO 'sum_uniqueness = 4.509575828065976'.
sum_uniqueness = 4.509575828065976
259 0 ECHO 'items = 6'.
259 0 M> ECHO 'items = 6'.
items = 6
260 0 ECHO 'n_cases = 649'.
260 0 M> ECHO 'n_cases = 649'.
n_cases = 649
261 0 ECHO 'omega_total = 0.11958593232012678'.
261 0 M> ECHO 'omega_total = 0.11958593232012678'.
omega_total = 0.11958593232012678
262 0 ECHO 'sum_loadings = 0.7826442649794866'.
262 0 M> ECHO 'sum_loadings = 0.7826442649794866'.
sum_loadings = 0.7826442649794866
263 0 ECHO 'sum_uniqueness = 4.509575828065976'.
263 0 M> ECHO 'sum_uniqueness = 4.509575828065976'.
sum_uniqueness = 4.509575828065976
264 0 ECHO 'Cross-check status: pass'.
264 0 M> ECHO 'Cross-check status: pass'.
Cross-check status: pass
265 0 ECHO '=====
====='.
265 0 M> ECHO '=====
====='.
=====
266 0
266 0 M>
267 0 OUTPUT SAVE OUTFILE='D:\DATA ANALYSIS\K Reliability and Agreement Tes
ts\McDonalds Omega\SPSS_Output\spv\mcdonalds-omega_sps
s_output.spv'.
267 0 M> OUTPUT SAVE OUTFILE='D:\DATA ANALYSIS\K Reliability and Agreement
Tests\McDonalds Omega\SPSS_Output\spv\mcdonalds-omega_
spss_output.spv'.
```


McDonalds Omega
One-factor principal-axis congeneric reliability model

```
268  0  OUTPUT EXPORT /CONTENTS EXPORT=ALL LAYERS=PRINTSETTING MODELVIEWS=PRI  
NTSETTING
```

```
268  0 M> OUTPUT EXPORT /CONTENTS EXPORT=ALL LAYERS=PRINTSETTING MODELVIEWS=  
PRINTSETTING
```