

DATE: 1/ 6/2013  
TIME: 21:45

L I S R E L 8.54

BY

Karl G. Jöreskog & Dag Sörbom

This program is published exclusively by  
Scientific Software International, Inc.  
7383 N. Lincoln Avenue, Suite 100  
Lincolnwood, IL 60712, U.S.A.  
Phone: (800)247-6113, (847)675-0720, Fax: (847)675-2140  
Copyright by Scientific Software International, Inc., 1981-2002  
Use of this program is subject to the terms specified in the  
Universal Copyright Convention.  
Website: www.ssicentral.com

The following lines were read from file C:\Users\POLINY\Desktop\Asst. prof.  
Sasithorn\QA measurement model\QA MEASUREMENT.SPJ:

MEASUREMENT MODEL OF QA  
Observed variable:  
LOA LOB LOC LOD LOE QA1 QA2 QA3 KMA KMB KMC KMD  
Raw data from file raw.dat  
Sample Size = 272  
Latent Variables QA  
Relationships  
QA1 = QA  
QA2 = QA  
QA3 = QA  
Set the Error Variance of QA1 to 0.11  
Path Diagram  
End of Problem

Sample Size = 272

MEASUREMENT MODEL OF QA

Covariance Matrix

	QA1	QA2	QA3
QA1	0.55		
QA2	0.41	0.53	
QA3	0.40	0.37	0.43

MEASUREMENT MODEL OF QA

Number of Iterations = 3

LISREL Estimates (Maximum Likelihood)

Measurement Equations

QA1 = 0.66\*QA, Errorvar.= 0.11, R<sup>2</sup> = 0.80  
(0.035)  
18.76

QA2 = 0.61\*QA, Errorvar.= 0.16, R<sup>2</sup> = 0.70  
(0.037) (0.018)  
16.56 9.11

QA3 = 0.60\*QA, Errorvar.= 0.068 , R<sub>y</sub> = 0.84  
(0.031) (0.011)  
19.22 6.19

Correlation Matrix of Independent Variables

QA  
-----  
1.00

Goodness of Fit Statistics

Degrees of Freedom = 1  
Minimum Fit Function Chi-Square = 0.020 (P = 0.89)  
Normal Theory Weighted Least Squares Chi-Square = 0.020 (P = 0.89)  
Estimated Non-centrality Parameter (NCP) = 0.0  
90 Percent Confidence Interval for NCP = (0.0 ; 1.62)

Minimum Fit Function Value = 0.00  
Population Discrepancy Function Value (F0) = 0.0  
90 Percent Confidence Interval for F0 = (0.0 ; 0.0060)  
Root Mean Square Error of Approximation (RMSEA) = 0.0  
90 Percent Confidence Interval for RMSEA = (0.0 ; 0.077)  
P-Value for Test of Close Fit (RMSEA < 0.05) = 0.92

Expected Cross-Validation Index (ECVI) = 0.041  
90 Percent Confidence Interval for ECVI = (0.041 ; 0.047)  
ECVI for Saturated Model = 0.044  
ECVI for Independence Model = 1.85

Chi-Square for Independence Model with 3 Degrees of Freedom = 494.60  
Independence AIC = 500.60  
Model AIC = 10.02  
Saturated AIC = 12.00  
Independence CAIC = 514.42  
Model CAIC = 33.05  
Saturated CAIC = 39.63

Normed Fit Index (NFI) = 1.00  
Non-Normed Fit Index (NNFI) = 1.01  
Parsimony Normed Fit Index (PNFI) = 0.33  
Comparative Fit Index (CFI) = 1.00  
Incremental Fit Index (IFI) = 1.00  
Relative Fit Index (RFI) = 1.00

Critical N (CN) = 90436.42

Root Mean Square Residual (RMR) = 0.00045  
Standardized RMR = 0.00086  
Goodness of Fit Index (GFI) = 1.00  
Adjusted Goodness of Fit Index (AGFI) = 1.00  
Parsimony Goodness of Fit Index (PGFI) = 0.17

Time used: 0.047 Seconds