**ภาคผนวก ช**

**ค่าลิสเรล**

LISREL 8.80 (STUDENT EDITION)

BY

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Scientific Software International, Inc.

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Lincolnwood, IL 60712, U.S.A.

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The following lines were read from file C:\Users\Administrator\Desktop\2 Dr ซันโย 3 บท OK\ซันโย.spl:

A Model of KM

Observed Variables: KM COOPERATION IT PROGRESS STORAGE

Correlation matrix:

1.00

.454 1.00

.363 .024 1.00

.350 .177 -.012 1.00

.614 .464 .134 .235 1.00

Sample Size: 319

Relationships

KM = COOPERATION IT PROGRESS STORAGE

PROGRESS = COOPERATION STORAGE

STORAGE = COOPERATION IT

Options: me = ml

lisrel output: sc rs ef mi

Path Diagram

End of problem

A Model of KM

Correlation Matrix

KM PROGRESS STORAGE COOPERAT IT

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KM 1.00

PROGRESS 0.35 1.00

STORAGE 0.61 0.23 1.00

COOPERAT 0.45 0.18 0.46 1.00

IT 0.36 -0.01 0.13 0.02 1.00

A Model of KM

Parameter Specifications

BETA

KM PROGRESS STORAGE

-------- -------- --------

KM 0 1 2

PROGRESS 0 0 3

STORAGE 0 0 0

GAMMA

COOPERAT IT

-------- --------

KM 4 5

PROGRESS 6 0

STORAGE 7 8

PHI

COOPERAT IT

-------- --------

COOPERAT 9

IT 10 11

PSI

KM PROGRESS STORAGE

-------- -------- --------

12 13 14

A Model of KM

Number of Iterations = 5

LISREL Estimates (Maximum Likelihood)

BETA

KM PROGRESS STORAGE

-------- -------- --------

KM - - 0.22 0.42

(0.04) (0.04)

5.51 9.63

PROGRESS - - - - 0.19

(0.06)

3.17

STORAGE - - - - - -

GAMMA

COOPERAT IT

-------- --------

KM 0.21 0.30

(0.04) (0.04)

4.90 7.90

PROGRESS 0.09 - -

(0.06)

1.41

STORAGE 0.46 0.12

(0.05) (0.05)

9.34 2.49

Covariance Matrix of Y and X

KM PROGRESS STORAGE COOPERAT IT

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KM 1.01

PROGRESS 0.36 1.00

STORAGE 0.61 0.23 1.00

COOPERAT 0.45 0.18 0.46 1.00

IT 0.37 0.03 0.13 0.02 1.00

PHI

COOPERAT IT

-------- --------

COOPERAT 1.00

(0.08)

12.57

IT 0.02 1.00

(0.06) (0.08)

0.43 12.57

PSI

Note: This matrix is diagonal.

KM PROGRESS STORAGE

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0.46 0.94 0.77

(0.04) (0.07) (0.06)

12.57 12.57 12.57

Squared Multiple Correlations for Structural Equations

KM PROGRESS STORAGE

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0.05 0.06 0.23

Squared Multiple Correlations for Reduced Form

KM PROGRESS STORAGE

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0.91 0.03 0.23

Goodness of Fit Statistics

Degrees of Freedom = 1

Minimum Fit Function Chi-Square = 0.56 (P = 0.45)

Normal Theory Weighted Least Squares Chi-Square = 0.56 (P = 0.46)

Estimated Non-centrality Parameter (NCP) = 0.0

90 Percent Confidence Interval for NCP = (0.0 ; 5.68)

Minimum Fit Function Value = 0.0018

Population Discrepancy Function Value (F0) = 0.0

90 Percent Confidence Interval for F0 = (0.0 ; 0.018)

Root Mean Square Error of Approximation (RMSEA) = 0.0

90 Percent Confidence Interval for RMSEA = (0.0 ; 0.13)

P-Value for Test of Close Fit (RMSEA < 0.05) = 0.61

Expected Cross-Validation Index (ECVI) = 0.092

90 Percent Confidence Interval for ECVI = (0.092 ; 0.11)

ECVI for Saturated Model = 0.095

ECVI for Independence Model = 1.20

Chi-Square for Independence Model with 10 Degrees of Freedom = 368.21

Independence AIC = 378.21

Model AIC = 28.56

Saturated AIC = 30.00

Independence CAIC = 402.04

Model CAIC = 95.27

Saturated CAIC = 101.48

Normed Fit Index (NFI) = 1.00

Non-Normed Fit Index (NNFI) = 1.01

Parsimony Normed Fit Index (PNFI) = 0.100

Comparative Fit Index (CFI) = 1.00

Incremental Fit Index (IFI) = 1.00

Relative Fit Index (RFI) = 0.98

Critical N (CN) = 3779.19

Root Mean Square Residual (RMR) = 0.011

Standardized RMR = 0.011

Goodness of Fit Index (GFI) = 1.00

Adjusted Goodness of Fit Index (AGFI) = 0.99

Parsimony Goodness of Fit Index (PGFI) = 0.067

A Model of KM

Fitted Covariance Matrix

KM PROGRESS STORAGE COOPERAT IT

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KM 1.01

PROGRESS 0.36 1.00

STORAGE 0.61 0.23 1.00

COOPERAT 0.45 0.18 0.46 1.00

IT 0.37 0.03 0.13 0.02 1.00

Fitted Residuals

KM PROGRESS STORAGE COOPERAT IT

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KM -0.01

PROGRESS -0.01 0.00

STORAGE 0.00 0.00 - -

COOPERAT 0.00 0.00 - - - -

IT -0.01 -0.04 - - - - - -

Summary Statistics for Fitted Residuals

Smallest Fitted Residual = -0.04

Median Fitted Residual = 0.00

Largest Fitted Residual = 0.00

Stemleaf Plot

- 4|0

- 3|

- 2|

- 1|2

- 0|9500000000000

Standardized Residuals

KM PROGRESS STORAGE COOPERAT IT

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KM -0.74

PROGRESS -0.74 - -

STORAGE - - - - - -

COOPERAT - - - - - - - -

IT -0.74 -0.74 - - - - - -

Summary Statistics for Standardized Residuals

Smallest Standardized Residual = -0.74

Median Standardized Residual = 0.00

Largest Standardized Residual = 0.00

Stemleaf Plot

- 6|4444

- 4|

- 2|

- 0|00000000000

Standardized Residuals

A Model of KM

Modification Indices and Expected Change

Modification Indices for BETA

KM PROGRESS STORAGE

-------- -------- --------

KM - - - - - -

PROGRESS 0.56 - - - -

STORAGE 0.56 0.56 - -

Expected Change for BETA

KM PROGRESS STORAGE

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KM - - - - - -

PROGRESS -0.14 - - - -

STORAGE 1.26 0.27 - -

Standardized Expected Change for BETA

KM PROGRESS STORAGE

-------- -------- --------

KM - - - - - -

PROGRESS -0.13 - - - -

STORAGE 1.26 0.27 - -

Modification Indices for GAMMA

COOPERAT IT

-------- --------

KM - - - -

PROGRESS - - 0.56

STORAGE - - - -

Expected Change for GAMMA

COOPERAT IT

-------- --------

KM - - - -

PROGRESS - - -0.04

STORAGE - - - -

Standardized Expected Change for GAMMA

COOPERAT IT

-------- --------

KM - - - -

PROGRESS - - -0.04

STORAGE - - - -

No Non-Zero Modification Indices for PHI

Modification Indices for PSI

KM PROGRESS STORAGE

-------- -------- --------

KM - -

PROGRESS - - - -

STORAGE - - 0.56 - -

Expected Change for PSI

KM PROGRESS STORAGE

-------- -------- --------

KM - -

PROGRESS - - - -

STORAGE - - 0.26 - -

Standardized Expected Change for PSI

KM PROGRESS STORAGE

-------- -------- --------

KM - -

PROGRESS - - - -

STORAGE - - 0.26 - -

Modification Indices for THETA-EPS

KM PROGRESS STORAGE

-------- -------- --------

KM - -

PROGRESS - - - -

STORAGE - - 0.56 0.56

Expected Change for THETA-EPS

KM PROGRESS STORAGE

-------- -------- --------

KM - -

PROGRESS - - - -

STORAGE - - 0.26 -1.32

Modification Indices for THETA-DELTA-EPS

KM PROGRESS STORAGE

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COOPERAT - - 0.56 0.56

IT - - 0.56 0.56

Expected Change for THETA-DELTA-EPS

KM PROGRESS STORAGE

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COOPERAT - - -0.83 -9.84

IT - - -0.04 0.21

Maximum Modification Index is 0.56 for Element ( 1, 3) of THETA DELTA-EPSILON

A Model of KM

Standardized Solution

BETA

KM PROGRESS STORAGE

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KM - - 0.22 0.42

PROGRESS - - - - 0.19

STORAGE - - - - - -

GAMMA

COOPERAT IT

-------- --------

KM 0.21 0.30

PROGRESS 0.09 - -

STORAGE 0.46 0.12

Correlation Matrix of Y and X

KM PROGRESS STORAGE COOPERAT IT

-------- -------- -------- -------- --------

KM 1.00

PROGRESS 0.36 1.00

STORAGE 0.61 0.23 1.00

COOPERAT 0.45 0.18 0.46 1.00

IT 0.37 0.03 0.13 0.02 1.00

PSI

Note: This matrix is diagonal.

KM PROGRESS STORAGE

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0.46 0.94 0.77

Regression Matrix Y on X (Standardized)

COOPERAT IT

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KM 0.44 0.36

PROGRESS 0.18 0.02

STORAGE 0.46 0.12

A Model of KM

Total and Indirect Effects

Total Effects of X on Y

COOPERAT IT

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KM 0.45 0.36

(0.05) (0.04)

9.68 8.11

PROGRESS 0.18 0.02

(0.06) (0.01)

3.19 1.96

STORAGE 0.46 0.12

(0.05) (0.05)

9.34 2.49

Indirect Effects of X on Y

COOPERAT IT

-------- --------

KM 0.23 0.06

(0.03) (0.02)

7.11 2.42

PROGRESS 0.09 0.02

(0.03) (0.01)

3.00 1.96

STORAGE - - - -

Total Effects of Y on Y

KM PROGRESS STORAGE

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KM - - 0.22 0.47

(0.04) (0.05)

5.51 10.28

PROGRESS - - - - 0.19

(0.06)

3.17

STORAGE - - - - - -

Largest Eigenvalue of B\*B' (Stability Index) is 0.258

Indirect Effects of Y on Y

KM PROGRESS STORAGE

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KM - - - - 0.04

(0.02)

2.75

PROGRESS - - - - - -

STORAGE - - - - - -

A Model of KM

Standardized Total and Indirect Effects

Standardized Total Effects of X on Y

COOPERAT IT

-------- --------

KM 0.44 0.36

PROGRESS 0.18 0.02

STORAGE 0.46 0.12

Standardized Indirect Effects of X on Y

COOPERAT IT

-------- --------

KM 0.23 0.06

PROGRESS 0.09 0.02

STORAGE - - - -

Standardized Total Effects of Y on Y

KM PROGRESS STORAGE

-------- -------- --------

KM - - 0.22 0.47

PROGRESS - - - - 0.19

STORAGE - - - - - -

Standardized Indirect Effects of Y on Y

KM PROGRESS STORAGE

-------- -------- --------

KM - - - - 0.04

PROGRESS - - - - - -

STORAGE - - - - - -

Time used: 0.031 Seconds