

ภาคผนวก ช

ค่าลิขสิทธิ์

LISREL 8.80 (STUDENT EDITION)

BY

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The following lines were read from file
C:\Users\Administrator\Desktop\2 Dr ชันโษ 3 ๓๓OK\ชันโษ.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
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
-----	-----					
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
-----	-----			
		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
-----	0.05	0.06	0.23

Squared Multiple Correlations for Reduced Form

	KM	PROGRESS	STORAGE
-----	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
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
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
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

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
COOPERAT	--	0.56	0.56
IT	--	0.56	0.56

Expected Change for THETA-DELTA-EPS

	KM	PROGRESS	STORAGE
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
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
	0.46	0.94	0.77

Regression Matrix Y on X (Standardized)

	COOPERAT	IT
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

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

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

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