

## ภาคผนวก ค

### ข้อมูลการวิเคราะห์สมการเชิงโครงสร้าง

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BY

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The following lines were read from file F:\Somkiat\FULL MODEL.lpj:

CAUSAL RELATIONSHIP MODEL FOR EFFICENCY MODEL

DA NI=15 NO=150

LA

Y1 Y2 Y3 Y4 Y5 Y6 Y7 Y8 X1 X2 X3 X4 X5 X6 X7

KM

1.000

.401 1.000

.420 .682 1.000

.179 .230 .275 1.000

.215 .328 .324 .378 1.000  
.114 .341 .189 .498 .598 1.000  
.157 .257 .171 .501 .452 .678 1.000  
.334 .428 .496 .477 .450 .442 .456 1.000  
.306 .344 .364 .423 .383 .412 .331 .453 1.000  
.395 .384 .452 .511 .405 .446 .395 .542 .760 1.000  
.309 .457 .310 .252 .155 .260 .238 .230 .517 .524 1.000  
.462 .462 .473 .253 .252 .240 .206 .442 .511 .553 .516 1.000  
.279 .196 .195 .205 .127 .131 .238 .243 .307 .388 .245 .366 1.000  
.295 .149 .205 .388 .302 .348 .319 .300 .592 .658 .400 .403 .474 1.000  
.212 .213 .103 .165 .230 .266 .154 .192 .464 .450 .343 .254 .221 .458 1.000

SD

.994 .855 .944 .567 .749 .726 .756 .644 .510 .488 .655 .672 .716 .665 .670

MO NY=8 NX=7 NE=2 NK=2 LX=FU,FI LY=FU,FI TD=FU,FI TE=FU,FI GA=FU,FI

BE=FU,FI PS=DI,FR

FR LX 1,1 LX 2,1 LX 3,1 LX 4,1 LX 5,2 LX 6,2 LX 7,2

FR LY 1,1 LY 2,1 LY 3,1 LY 4,2 LY 5,2 LY 6,2 LY 7,2 LY 8,2

FR TD 1,1 TD 2,2 TD 3,3 TD 4,4 TD 5,5 TD 6,6 TD 7,7

FR TE 1,1 TE 2,2 TE 3,3 TE 4,4 TE 5,5 TE 6,6 TE 7,7 TE 8,8

FR GA 1,1 GA 1,2 GA 2,1 GA 2,2 BE 1,2 PS 1,1 PS 2,2

FR TE 7,6 TE 6,5 TE 7,5 TE 7,4 TE 6,4 TE 8,7 TE 6,2 TE 8,3 TE 4,2 TE 6,3 TE 7,1 TH 3,2 TD  
5,4 TE 6,1 TD 4,2 TE 7,3 TD 4,1 TD 4,3 TD 7,1

LK

LEADER STRUCTURE

LE

EFFECY VALUE

PD

OU ML SE TV EF SS RS SC FS MR MI ND=3 AD=OFF

CAUSAL RELATIONSHIP MODEL FOR EFFICENCY MODEL

Number of Input Variables 15

Number of Y - Variables 8

Number of X - Variables 7

Number of ETA - Variables 2

Number of KSI - Variables 2

Number of Observations 150

### CAUSAL RELATIONSHIP MODEL FOR EFFICENCY MODEL

#### Covariance Matrix

	Y1	Y2	Y3	Y4	Y5	Y6
Y1	0.988					
Y2	0.341	0.731				
Y3	0.394	0.550	0.891			
Y4	0.101	0.112	0.147	0.321		
Y5	0.160	0.210	0.229	0.161	0.561	
Y6	0.082	0.212	0.130	0.205	0.325	0.527
Y7	0.118	0.166	0.122	0.215	0.256	0.372
Y8	0.214	0.236	0.302	0.174	0.217	0.207
X1	0.155	0.150	0.175	0.122	0.146	0.153
X2	0.192	0.160	0.208	0.141	0.148	0.158
X3	0.201	0.256	0.192	0.094	0.076	0.124
X4	0.309	0.265	0.300	0.096	0.127	0.117
X5	0.199	0.120	0.132	0.083	0.068	0.068
X6	0.195	0.085	0.129	0.146	0.150	0.168
X7	0.141	0.122	0.065	0.063	0.115	0.129

Covariance Matrix

	Y7	Y8	X1	X2	X3	X4
Y7	0.572					
Y8	0.222	0.415				
X1	0.128	0.149	0.260			
X2	0.146	0.170	0.189	0.238		
X3	0.118	0.097	0.173	0.167	0.429	
X4	0.105	0.191	0.175	0.181	0.227	0.452
X5	0.129	0.112	0.112	0.136	0.115	0.176
X6	0.160	0.128	0.201	0.214	0.174	0.180
X7	0.078	0.083	0.159	0.147	0.151	0.114

Covariance Matrix

	X5	X6	X7
X5	0.513		
X6	0.226	0.442	
X7	0.106	0.204	0.449

CAUSAL RELATIONSHIP MODEL FOR EFFICENCY MODEL

Parameter Specifications

LAMBDA-Y

EFFECY VALUE

	-----	-----
Y1	0	0
Y2	1	0
Y3	2	0
Y4	0	0
Y5	0	3
Y6	0	4
Y7	0	5
Y8	0	6

LAMBDA-X

LEADER STRUCTUR

	-----	-----
X1	7	0
X2	8	0
X3	9	0
X4	10	0
X5	0	11
X6	0	12
X7	0	13

BETA

EFFECY VALUE

	-----	-----
EFFECY	0	14
VALUE	0	0

GAMMA

LEADER STRUCTUR

-----  
EFFECY    15    16  
VALUE    17    18

PHI

LEADER STRUCTUR

-----  
LEADER    0  
STRUCTUR    19    0

PSI

EFFECY    VALUE

-----  
20    21

THETA-EPS

Y1    Y2    Y3    Y4    Y5    Y6  
-----  
Y1    22  
Y2    0    23  
Y3    0    0    24  
Y4    0    25    0    26  
Y5    0    0    0    0    27  
Y6    28    29    30    31    32    33  
Y7    34    0    35    36    37    38

Y8	0	0	40	0	0	0
----	---	---	----	---	---	---

THETA-EPS

	Y7	Y8
Y7	39	
Y8	41	42

THETA-DELTA-EPS

	Y1	Y2	Y3	Y4	Y5	Y6
X1	0	0	0	0	0	0
X2	0	0	0	0	0	0
X3	0	45	0	0	0	0
X4	0	0	0	0	0	0
X5	0	0	0	0	0	0
X6	0	0	0	0	0	0
X7	0	0	0	0	0	0

THETA-DELTA-EPS

	Y7	Y8
X1	0	0
X2	0	0
X3	0	0
X4	0	0
X5	0	0

X6	0	0
X7	0	0

THETA-DELTA

	X1	X2	X3	X4	X5	X6
X1	43					
X2	0	44				
X3	0	0	46			
X4	47	48	49	50		
X5	0	0	0	51	52	
X6	0	0	0	0	0	53
X7	54	0	0	0	0	0

THETA-DELTA

X7	55
----	----

CAUSAL RELATIONSHIP MODEL FOR EFFICENCY MODEL

Number of Iterations = 29

LISREL Estimates (Maximum Likelihood)

LAMBDA-Y

EFFECY	VALUE
--------	-------

-----



Y1 0.507 --

Y2 0.683 --

(0.116)

5.910

Y3 0.788 --

(0.132)

5.975

Y4 -- 0.355

Y5 -- 0.438

(0.077)

5.672

Y6 -- 0.438

(0.069)

6.386

Y7 -- 0.377

(0.071)

5.318

Y8 -- 0.496

(0.074)

6.745

LAMBDA-X

LEADER STRUCTUR

----- -----  
X1 0.416 --  
(0.035)  
11.829  
  
X2 0.453 --  
(0.032)  
14.344  
  
X3 0.391 --  
(0.050)  
7.756  
  
X4 0.456 --  
(0.056)  
8.179  
  
X5 -- 0.379  
(0.059)  
6.369  
  
X6 -- 0.589  
(0.051)  
11.468  
  
X7 -- 0.353  
(0.055)  
6.400

BETA

	EFFECY	VALUE
EFFECY	--	0.452
	(0.205)	
		2.207
VALUE	--	--

GAMMA

	LEADER	STRUCTUR
EFFECY	0.571	-0.379
	(0.271)	(0.187)
	2.106	-2.025
VALUE	0.914	-0.181
	(0.199)	(0.174)
	4.597	-1.042

Covariance Matrix of ETA and KSI

EFFECY	VALUE	LEADER	STRUCTUR
-----	-----	-----	-----

EFFECY	1.000			
VALUE	0.686	1.000		
LEADER	0.619	0.770	1.000	
STRUCTUR	0.319	0.543	0.792	1.000

PHI

LEADER	STRUCTUR
--------	----------

-----

LEADER	1.000
--------	-------

STRUCTUR	0.792	1.000
----------	-------	-------

(0.052)

15.126

PSI

Note: This matrix is diagonal.

EFFECY	VALUE
--------	-------

-----

0.457	0.394
-------	-------

(0.164) (0.132)

2.782	2.986
-------	-------

Squared Multiple Correlations for Structural Equations

EFFECY	VALUE
--------	-------

-----

0.543	0.606
-------	-------

Squared Multiple Correlations for Reduced Form

EFFECY VALUE

-----

0.462 0.606

Reduced Form

LEADER STRUCTUR

-----

EFFECY 0.984 -0.461

(0.238) (0.200)

4.140 -2.308

VALUE 0.914 -0.181

(0.199) (0.174)

4.597 -1.042

THETA-EPS

Y1 Y2 Y3 Y4 Y5 Y6

-----

Y1 0.730

(0.090)

8.075

Y2 -- 0.260

(0.050)

5.190

Y3 -- -- 0.263

(0.060)

4.396

Y4 -- -0.026 -- 0.195  
(0.022) (0.027)  
-1.184 7.200

Y5 -- -- -- -- 0.369  
(0.049)  
7.529

Y6 -0.078 0.012 -0.088 0.041 0.128 0.330  
(0.040) (0.028) (0.034) (0.023) (0.035) (0.045)  
-1.943 0.434 -2.581 1.758 3.691 7.352

Y7 -0.012 -- -0.056 0.076 0.086 0.203  
(0.044) (0.035) (0.028) (0.036) (0.040)  
-0.276 -1.602 2.673 2.366 5.118

Y8 -- -- 0.021 -- -- --  
(0.027)  
0.775

THETA-EPS

Y7 Y8  
-----  
Y7 0.426  
(0.056)  
7.576

Y8 0.040 0.170  
 (0.026) (0.031)  
 1.551 5.480

Squared Multiple Correlations for Y - Variables

Y1	Y2	Y3	Y4	Y5	Y6
-----	-----	-----	-----	-----	-----
0.261	0.642	0.702	0.392	0.343	0.367

Squared Multiple Correlations for Y - Variables

Y7	Y8
-----	-----
0.250	0.592

THETA-DELTA-EPS

	Y1	Y2	Y3	Y4	Y5	Y6
	-----	-----	-----	-----	-----	-----
X1	--	--	--	--	--	--
X2	--	--	--	--	--	--
X3	--	0.092	--	--	--	--
		(0.026)				
		3.494				
X4	--	--	--	--	--	--

X5 -- -- -- -- -- --

X6 -- -- -- -- -- --

X7 -- -- -- -- -- --

THETA-DELTA-EPS

	Y7	Y8
	-----	-----
X1	--	--
X2	--	--
X3	--	--
X4	--	--
X5	--	--
X6	--	--
X7	--	--

THETA-DELTA

	X1	X2	X3	X4	X5	X6
	-----	-----	-----	-----	-----	-----
X1	0.085					
	(0.013)					



6.816

X2 -- 0.033

(0.009)

3.466

X3 -- -- 0.283

(0.034)

8.256

X4 -0.015 -0.025 0.047 0.245

(0.017) (0.015) (0.025) (0.038)

-0.898 -1.604 1.854 6.410

X5 -- -- -- 0.056 0.376

(0.028) (0.047)

2.009 7.991

X6 -- -- -- -- -- 0.095

(0.036)

2.670

X7 0.027 -- -- -- -- --

(0.016)

1.707

THETA-DELTA

X7

-----

X7 0.323

(0.040)

7.982

Squared Multiple Correlations for X - Variables

X1	X2	X3	X4	X5	X6
0.669	0.863	0.351	0.459	0.276	0.784

Squared Multiple Correlations for X - Variables

X7
0.279

Goodness of Fit Statistics

Degrees of Freedom = 65

Minimum Fit Function Chi-Square = 81.290 (P = 0.0835)

Normal Theory Weighted Least Squares Chi-Square = 78.328 (P = 0.124)

Estimated Non-centrality Parameter (NCP) = 13.328

90 Percent Confidence Interval for NCP = (0.0 ; 39.771)

Minimum Fit Function Value = 0.546

Population Discrepancy Function Value (F0) = 0.0895

90 Percent Confidence Interval for F0 = (0.0 ; 0.267)

Root Mean Square Error of Approximation (RMSEA) = 0.0371

90 Percent Confidence Interval for RMSEA = (0.0 ; 0.0641)

P-Value for Test of Close Fit (RMSEA < 0.05) = 0.757

Expected Cross-Validation Index (ECVI) = 1.264

90 Percent Confidence Interval for ECVI = (1.174 ; 1.441)

ECVI for Saturated Model = 1.611

ECVI for Independence Model = 15.164

Chi-Square for Independence Model with 105 Degrees of Freedom = 2229.500

Independence AIC = 2259.500

Model AIC = 188.328

Saturated AIC = 240.000

Independence CAIC = 2319.660

Model CAIC = 408.913

Saturated CAIC = 721.276

Normed Fit Index (NFI) = 0.964

Non-Normed Fit Index (NNFI) = 0.988

Parsimony Normed Fit Index (PNFI) = 0.596

Comparative Fit Index (CFI) = 0.992

Incremental Fit Index (IFI) = 0.992

Relative Fit Index (RFI) = 0.941

Critical N (CN) = 174.074

Root Mean Square Residual (RMR) = 0.0328

Standardized RMR = 0.0569

Goodness of Fit Index (GFI) = 0.934

Adjusted Goodness of Fit Index (AGFI) = 0.879

Parsimony Goodness of Fit Index (PGFI) = 0.506

#### CAUSAL RELATIONSHIP MODEL FOR EFFICENCY MODEL

##### Fitted Covariance Matrix

	Y1	Y2	Y3	Y4	Y5	Y6
Y1	0.987					
Y2	0.347	0.727				
Y3	0.399	0.538	0.883			
Y4	0.123	0.140	0.192	0.321		

Y5	0.153	0.206	0.237	0.156	0.561	
Y6	0.074	0.217	0.148	0.196	0.319	0.522
Y7	0.119	0.177	0.148	0.209	0.251	0.368
Y8	0.173	0.233	0.289	0.176	0.217	0.217
X1	0.130	0.176	0.203	0.114	0.140	0.140
X2	0.142	0.192	0.221	0.124	0.153	0.153
X3	0.123	0.258	0.191	0.107	0.132	0.132
X4	0.143	0.193	0.222	0.125	0.154	0.154
X5	0.061	0.083	0.095	0.073	0.090	0.090
X6	0.095	0.128	0.148	0.113	0.140	0.140
X7	0.057	0.077	0.089	0.068	0.084	0.084

Fitted Covariance Matrix

	Y7	Y8	X1	X2	X3	X4
	-----	-----	-----	-----	-----	-----
Y7	0.568					
Y8	0.227	0.416				
X1	0.121	0.159	0.258			
X2	0.132	0.173	0.188	0.238		
X3	0.113	0.149	0.163	0.177	0.436	
X4	0.132	0.174	0.174	0.182	0.225	0.453
X5	0.078	0.102	0.125	0.136	0.117	0.193
X6	0.120	0.159	0.194	0.212	0.183	0.213
X7	0.072	0.095	0.143	0.127	0.109	0.128

Fitted Covariance Matrix

	X5	X6	X7
	-----	-----	-----

X5	0.520		
X6	0.223	0.442	
X7	0.134	0.208	0.447

Fitted Residuals

	Y1	Y2	Y3	Y4	Y5	Y6
Y1	0.001					
Y2	-0.006	0.004				
Y3	-0.005	0.012	0.008			
Y4	-0.023	-0.028	-0.044	0.000		
Y5	0.008	0.004	-0.008	0.005	0.000	
Y6	0.008	-0.006	-0.019	0.009	0.006	0.005
Y7	-0.001	-0.010	-0.026	0.005	0.005	0.004
Y8	0.041	0.003	0.012	-0.002	0.000	-0.010
X1	0.025	-0.026	-0.027	0.009	0.006	0.012
X2	0.049	-0.031	-0.013	0.017	-0.005	0.005
X3	0.078	-0.002	0.001	-0.013	-0.056	-0.008
X4	0.166	0.073	0.078	-0.028	-0.027	-0.037
X5	0.137	0.037	0.037	0.010	-0.022	-0.022
X6	0.100	-0.044	-0.019	0.033	0.010	0.028
X7	0.084	0.045	-0.023	-0.005	0.031	0.045

Fitted Residuals

	Y7	Y8	X1	X2	X3	X4
Y7	0.003					
Y8	-0.005	-0.001				

X1	0.007	-0.010	0.002			
X2	0.014	-0.003	0.001	0.000		
X3	0.004	-0.052	0.010	-0.010	-0.007	
X4	-0.028	0.017	0.001	-0.001	0.002	-0.001
X5	0.051	0.010	-0.013	-0.001	-0.003	-0.017
X6	0.040	-0.030	0.007	0.002	-0.008	-0.033
X7	0.006	-0.012	0.015	0.020	0.041	-0.013

Fitted Residuals

	X5	X6	X7
	-----	-----	-----
X5	-0.007		
X6	0.003	0.000	
X7	-0.028	-0.004	0.002

Summary Statistics for Fitted Residuals

Smallest Fitted Residual = -0.056

Median Fitted Residual = 0.001

Largest Fitted Residual = 0.166

Stemleaf Plot

```

- 5|62
- 4|44
- 3|7310
- 2|888877663322
- 1|997333320000
- 0|88877665555433221111100000

```

0|11112222333444455556667788899

1|00002224577

2|058

3|1377

4|011559

5|1

6|

7|388

8|4

9|

10|0

11|

12|

13|7

14|

15|

16|6

### Standardized Residuals

	Y1	Y2	Y3	Y4	Y5	Y6
Y1	0.264					
Y2	-0.227	0.287				
Y3	-0.236	0.921	1.198			
Y4	-0.634	-2.144	-1.990	0.189		
Y5	0.156	0.145	-0.245	0.281	--	
Y6	0.274	-0.277	-1.272	1.130	0.616	0.550
Y7	-0.031	-0.328	-1.446	1.114	0.650	0.620
Y8	1.155	0.174	1.288	-0.209	-0.029	-0.950

X1	0.826	-1.468	-1.488	0.709	0.345	0.779
X2	1.916	-2.711	-1.107	2.014	-0.402	0.458
X3	1.758	-0.084	0.034	-0.613	-1.893	-0.292
X4	3.817	2.534	2.560	-1.434	-1.000	-1.439
X5	2.544	0.911	0.827	0.376	-0.601	-0.627
X6	2.324	-2.006	-0.932	1.850	0.406	1.204
X7	1.681	1.185	-0.571	-0.213	0.920	1.400

Standardized Residuals

	Y7	Y8	X1	X2	X3	X4
Y7	0.774					
Y8	-0.902	-1.070				
X1	0.428	-0.897	1.611			
X2	1.380	-0.439	0.494	--		
X3	0.145	-2.403	0.908	-1.764	-1.121	
X4	-1.010	0.912	0.224	-0.294	0.266	-0.282
X5	1.349	0.356	-0.773	-0.048	-0.087	-1.342
X6	1.501	-2.228	0.772	0.467	-0.430	-2.205
X7	0.163	-0.472	1.812	1.855	1.536	-0.542

Standardized Residuals

	X5	X6	X7
X5	-2.655		
X6	0.373	--	
X7	-1.075	-0.634	0.741



### Summary Statistics for Standardized Residuals

Smallest Standardized Residual = -2.711

Median Standardized Residual = 0.151

Largest Standardized Residual = 3.817

### Stemleaf Plot

```
- 2|77
- 2|422100
- 1|9855
- 1|44433111100
- 0|9999866666655
- 0|444333322222110000000
0|11222223333344444
0|5555667778888899999
1|1122223344
1|556788999
2|03
2|556
3|
3|8
```

### Largest Negative Standardized Residuals

Residual for X2 and Y2 -2.711

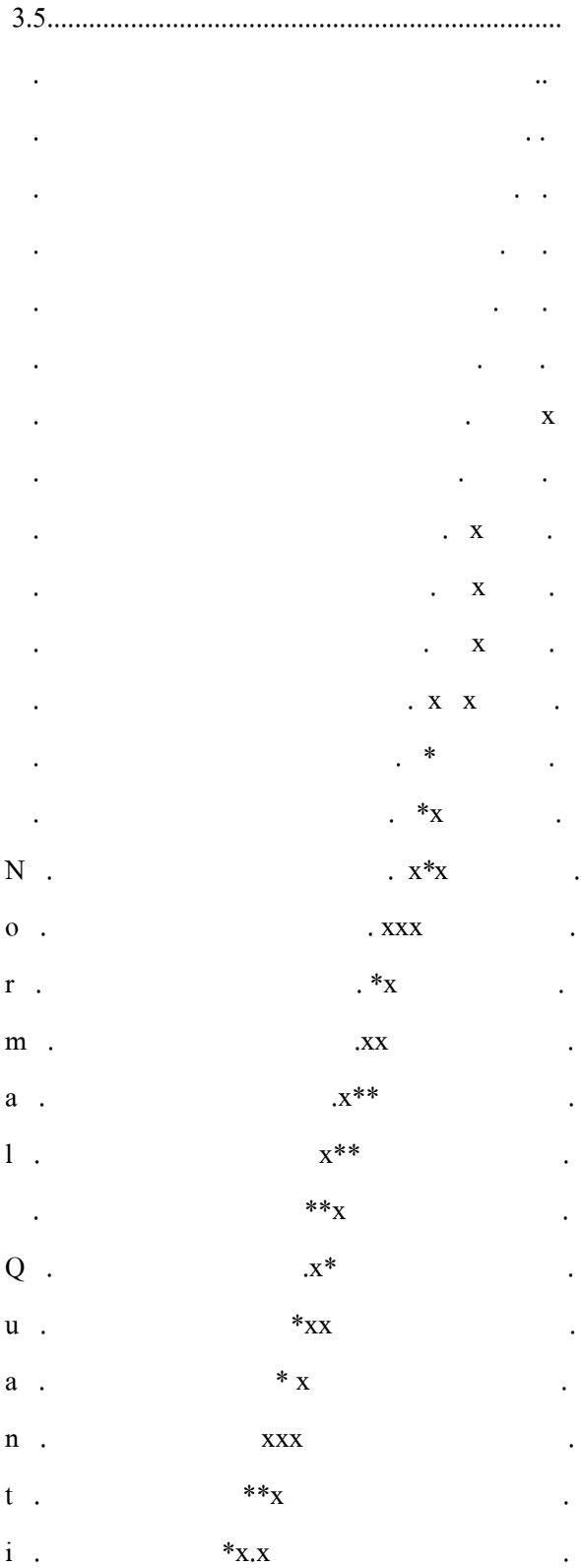
Residual for X5 and X5 -2.655

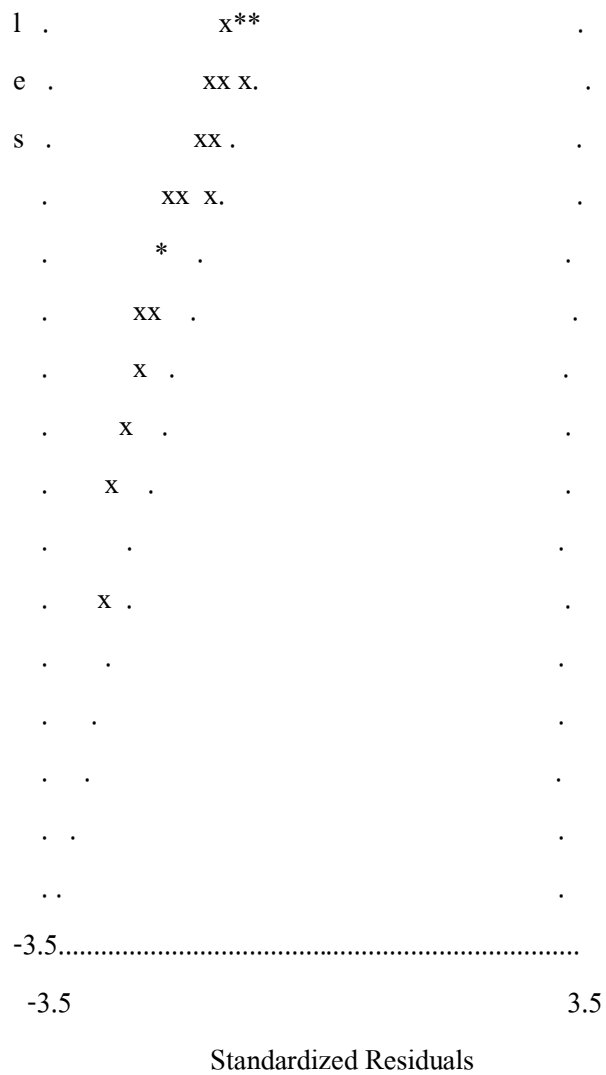
### Largest Positive Standardized Residuals

Residual for X4 and Y1 3.817

CAUSAL RELATIONSHIP MODEL FOR EFFICENCY MODEL

### Qplot of Standardized Residuals





CAUSAL RELATIONSHIP MODEL FOR EFFICENCY MODEL

Factor Scores Regressions

	ETA					
	Y1	Y2	Y3	Y4	Y5	Y6
EFFECY	0.119	0.423	0.489	0.064	-0.033	0.183
VALUE	0.038	0.092	0.085	0.325	0.160	0.208

ETA

	Y7	Y8	X1	X2	X3	X4
EFFECY	-0.004	0.011	0.080	0.232	-0.135	0.082
VALUE	-0.067	0.537	0.120	0.361	-0.015	0.088

ETA

	X5	X6	X7
EFFECY	-0.023	-0.064	-0.018
VALUE	-0.008	0.030	-0.005

KSI

	Y1	Y2	Y3	Y4	Y5	Y6
LEADER	0.012	0.019	0.042	0.036	0.014	0.036
STRUCTUR	-0.008	-0.041	-0.035	0.005	0.008	-0.006

KSI

	Y7	Y8	X1	X2	X3	X4
LEADER	-0.007	0.058	0.362	1.095	0.043	0.249
STRUCTUR	-0.002	0.019	0.100	0.438	0.042	0.063

KSI

	X5	X6	X7
LEADER	-0.009	0.173	0.001

STRUCTUR 0.138 0.906 0.152

CAUSAL RELATIONSHIP MODEL FOR EFFICENCY MODEL

Standardized Solution

LAMBDA-Y

	EFFECY	VALUE
Y1	0.507	--
Y2	0.683	--
Y3	0.788	--
Y4	--	0.355
Y5	--	0.438
Y6	--	0.438
Y7	--	0.377
Y8	--	0.496

LAMBDA-X

	LEADER	STRUCTUR
X1	0.416	--
X2	0.453	--
X3	0.391	--
X4	0.456	--
X5	--	0.379
X6	--	0.589
X7	--	0.353

BETA

	EFFECY	VALUE
EFFECY	--	0.452
VALUE	--	--

GAMMA

	LEADER	STRUCTUR
EFFECY	0.571	-0.379
VALUE	0.914	-0.181

Correlation Matrix of ETA and KSI

	EFFECY	VALUE	LEADER	STRUCTUR
EFFECY	1.000			
VALUE	0.686	1.000		
LEADER	0.619	0.770	1.000	
STRUCTUR	0.319	0.543	0.792	1.000

PSI

Note: This matrix is diagonal.

	EFFECY	VALUE
	0.457	0.394

Regression Matrix ETA on KSI (Standardized)

LEADER STRUCTUR

-----

EFFECY 0.984 -0.461

VALUE 0.914 -0.181

CAUSAL RELATIONSHIP MODEL FOR EFFICENCY MODEL

Completely Standardized Solution

LAMBDA-Y

EFFECY VALUE

-----

Y1 0.510 --

Y2 0.801 --

Y3 0.838 --

Y4 -- 0.626

Y5 -- 0.585

Y6 -- 0.606

Y7 -- 0.500

Y8 -- 0.769

LAMBDA-X

LEADER STRUCTUR

-----

X1 0.818 --

X2	0.929	--
X3	0.593	--
X4	0.678	--
X5	--	0.526
X6	--	0.886
X7	--	0.528

BETA

	EFFECY	VALUE
EFFECY	--	0.452
VALUE	--	--

GAMMA

	LEADER	STRUCTUR
EFFECY	0.571	-0.379
VALUE	0.914	-0.181

Correlation Matrix of ETA and KSI

	EFFECY	VALUE	LEADER	STRUCTUR
EFFECY	1.000			
VALUE	0.686	1.000		
LEADER	0.619	0.770	1.000	
STRUCTUR	0.319	0.543	0.792	1.000



PSI

Note: This matrix is diagonal.

EFFECY VALUE

-----  
0.457 0.394

THETA-EPS

	Y1	Y2	Y3	Y4	Y5	Y6
Y1	0.739					
Y2	--	0.358				
Y3	--	--	0.298			
Y4	--	-0.055	--	0.608		
Y5	--	--	--	--	0.657	
Y6	-0.108	0.020	-0.130	0.100	0.236	0.633
Y7	-0.016	--	-0.079	0.177	0.152	0.373
Y8	--	--	0.035	--	--	--

THETA-EPS

	Y7	Y8
Y7	0.750	
Y8	0.083	0.408

THETA-DELTA-EPS

Y1	Y2	Y3	Y4	Y5	Y6
----	----	----	----	----	----

	-----	-----	-----	-----	-----	-----
X1	--	--	--	--	--	--
X2	--	--	--	--	--	--
X3	--	0.164	--	--	--	--
X4	--	--	--	--	--	--
X5	--	--	--	--	--	--
X6	--	--	--	--	--	--
X7	--	--	--	--	--	--

THETA-DELTA-EPS

	Y7	Y8
	-----	-----
X1	--	--
X2	--	--
X3	--	--
X4	--	--
X5	--	--
X6	--	--
X7	--	--

THETA-DELTA

	X1	X2	X3	X4	X5	X6
	-----	-----	-----	-----	-----	-----
X1	0.331					
X2	--	0.137				
X3	--	--	0.649			
X4	-0.044	-0.076	0.105	0.541		
X5	--	--	--	0.115	0.724	

X6	--	--	--	--	--	0.216
X7	0.079	--	--	--	--	--

THETA-DELTA

X7

-----

X7 0.721

Regression Matrix ETA on KSI (Standardized)

LEADER STRUCTUR

-----

EFFECY 0.984 -0.461

VALUE 0.914 -0.181

CAUSAL RELATIONSHIP MODEL FOR EFFICENCY MODEL

Total and Indirect Effects

Total Effects of KSI on ETA

LEADER STRUCTUR

-----

EFFECY 0.984 -0.461

(0.238) (0.200)

4.140 -2.308

VALUE 0.914 -0.181

(0.199) (0.174)

4.597 -1.042

Indirect Effects of KSI on ETA

LEADER STRUCTUR

-----

EFFECY 0.413 -0.082  
(0.187) (0.080)  
2.212 -1.021

VALUE -- --

Total Effects of ETA on ETA

EFFECY VALUE

-----

EFFECY -- 0.452  
(0.205)  
2.207

VALUE -- --

Largest Eigenvalue of B\*B' (Stability Index) is 0.204

Total Effects of ETA on Y

EFFECY VALUE

-----  
Y1 0.507 0.229  
(0.104)  
2.207

Y2 0.683 0.309  
(0.116) (0.134)  
5.910 2.313

Y3 0.788 0.356  
(0.132) (0.154)  
5.975 2.307

Y4 -- 0.355

Y5 -- 0.438  
(0.077)  
5.672

Y6 -- 0.438  
(0.069)  
6.386

Y7 -- 0.377  
(0.071)  
5.318

Y8 -- 0.496  
(0.074)  
6.745

Indirect Effects of ETA on Y

	EFFECY	VALUE
Y1	--	0.229 (0.104) 2.207
Y2	--	0.309 (0.134) 2.313
Y3	--	0.356 (0.154) 2.307
Y4	--	--
Y5	--	--
Y6	--	--
Y7	--	--
Y8	--	--

Total Effects of KSI on Y

LEADER STRUCTUR

-----  
Y1 0.499 -0.234  
(0.121) (0.101)  
4.140 -2.308

Y2 0.673 -0.315  
(0.136) (0.130)  
4.933 -2.422

Y3 0.775 -0.363  
(0.154) (0.149)  
5.026 -2.431

Y4 0.324 -0.064  
(0.071) (0.062)  
4.597 -1.042

Y5 0.401 -0.079  
(0.090) (0.076)  
4.461 -1.040

Y6 0.400 -0.079  
(0.089) (0.076)  
4.517 -1.041

Y7 0.344 -0.068  
(0.088) (0.066)  
3.917 -1.032

Y8	0.453	-0.090
	(0.090)	(0.086)
	5.026	-1.046

CAUSAL RELATIONSHIP MODEL FOR EFFICENCY MODEL

Standardized Total and Indirect Effects

Standardized Total Effects of KSI on ETA

	LEADER	STRUCTUR
	-----	-----
EFFECY	0.984	-0.461
VALUE	0.914	-0.181

Standardized Indirect Effects of KSI on ETA

	LEADER	STRUCTUR
	-----	-----
EFFECY	0.413	-0.082
VALUE	--	--

Standardized Total Effects of ETA on ETA

	EFFECY	VALUE
	-----	-----
EFFECY	--	0.452
VALUE	--	--



Standardized Total Effects of ETA on Y

	EFFECY	VALUE
	-----	-----
Y1	0.507	0.229
Y2	0.683	0.309
Y3	0.788	0.356
Y4	--	0.355
Y5	--	0.438
Y6	--	0.438
Y7	--	0.377
Y8	--	0.496

Completely Standardized Total Effects of ETA on Y

	EFFECY	VALUE
	-----	-----
Y1	0.510	0.231
Y2	0.801	0.362
Y3	0.838	0.379
Y4	--	0.626
Y5	--	0.585
Y6	--	0.606
Y7	--	0.500
Y8	--	0.769

Standardized Indirect Effects of ETA on Y

	EFFECY	VALUE
--	--------	-------

	-----	-----
Y1	--	0.229
Y2	--	0.309
Y3	--	0.356
Y4	--	--
Y5	--	--
Y6	--	--
Y7	--	--
Y8	--	--

Completely Standardized Indirect Effects of ETA on Y

	EFFECY	VALUE
	-----	-----
Y1	--	0.231
Y2	--	0.362
Y3	--	0.379
Y4	--	--
Y5	--	--
Y6	--	--
Y7	--	--
Y8	--	--

Standardized Total Effects of KSI on Y

	LEADER	STRUCTUR
	-----	-----
Y1	0.499	-0.234
Y2	0.673	-0.315
Y3	0.775	-0.363

Y4	0.324	-0.064
Y5	0.401	-0.079
Y6	0.400	-0.079
Y7	0.344	-0.068
Y8	0.453	-0.090

Completely Standardized Total Effects of KSI on Y

LEADER STRUCTUR

-----

Y1	0.502	-0.235
Y2	0.789	-0.370
Y3	0.825	-0.386
Y4	0.572	-0.113
Y5	0.535	-0.106
Y6	0.554	-0.110
Y7	0.457	-0.091
Y8	0.703	-0.139

Time used: 0.031 Seconds