

ภาคผนวก ๘

ผลการวิเคราะห์รูปแบบโมเดลความสัมพันธ์เชิงสาเหตุ

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BY

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The following lines were read from file

C:\Users\Tong\Desktop\tong\Model.LPJ:

TI

!DA NI=26 NO=640 NG=1 MA=CM

SY='C:\Users\Tong\Desktop\tong\Model.DSF' NG=1

SE

2 3 4 5 6 17 18 19 20 21 22 23 24 25 26 7 8 9 10 11 12 13 14 15 16 /

MO NX=10 NY=15 NK=2 NE=3 LY=FU,FI LX=FU,FI BE=FU,FI GA=FU,FI

PH=SY,FR PS=SY TE=SY TD=SY

LE

E3 E1 E2

LK

K1 K2

FR LY(2,1) LY(3,1) LY(4,1) LY(5,1) LY(7,2) LY(8,2) LY(9,2) LY(10,2) LY(12,3)

FR LY(13,3) LY(14,3) LY(15,3) LX(1,1) LX(2,1) LX(3,1) LX(4,1) LX(5,1) LX(6,2)

LY(1,1) LY(6,2) LY(11,3)

FR LX(7,2) LX(8,2) LX(9,2) LX(10,2) BE(1,2) BE(1,3) GA(1,1) GA(1,2) GA(2,1)

FR GA(2,2) GA(3,1) GA(3,2) TE 3 1 TE 3,2 TE 2,1 TE 12,11 TH 2 14 TE 10,9

FR TE 13,10 TD 10 9 TE 12,9 TH 8,8 TH 8,11 TH 8,2 TH 2 11 TH 7 8 TH 3 12

FR TE 14,5 TH 10 14 TH 1 15 PS 3 2 TH 3 2 TH 8,5 TH 7,3 TH 3 14 TD 5 2

FR TD 10 2 TD 8 5 TD 8 2 TH 9 11 TH 1,4 TE 2 7 TH 10,6 TH 1,5 TE 8,7 TE 5 4

FR TH 1 7 TE 15 4 TH 6 10 TH 6,2 TE 11,10 TH 9,2 TE 12,10 TH 8,6 TH 9,6

FR TH 2,6 TE 7,6 TE 8,6 TH 4,6 TE 8,1 TD 4 3 TH 4,2 TD 3 2 TH 10,7 TH 2,2

FR TH 4 7 TD 6 5 TH 2 7 TH 4 12 TH 4 11 TH 6 12 TH 1 1 TE 15 1 TH 7 11

FR TH 9 13 TH 6 3 TE 10,3 TH 7,1 TD 9 3 TD 7 3 TE 15 7 TE 4 3 TE 7 4 TE 9 4

FR TH 5 4 TE 13 12 TE 13 9 TE 13,8 TE 13,11 TE 14,13 TH 4 13 TE 15 13

FR TH 4 10 TE 13,7 TH 3 6 TE 13 6 TH 9 15 TH 1,13 TH 5 11 TH 2,8 TE 14,9

FR TE 12,4 TH 7 14 TH 7 2 TH 1 14 TH 4 15 TD 8 7 TD 7 1 TE 11 3 TE 12,3

FR TH 4,3 TE 14,8 TH 3 13 TH 9 8 TE 6,1 TE 6,4 TH 2,2 TH 5 8 TH 2,3 TH 3 3

FR TH 5 5 TH 10,3 TE 9,1 TE 6,3 TH 5,2 TH 1,2 TE 5,3 TH 10 15 TD 5 3 TH 1 8

FR TE 12,8 TH 8,9 TH 2 9 TH 2 5 TH 2 10 TE 10,6 TE 10 8 TH 6 10 TH 10 10

FR TE 11 9 TE 15 11 TE 14,12 TD 7 6 TE 14,11 TD 9 7 TH 6,4 TD 10 7 TD 9 5

FR TE 15 10 TH 1 11 TH 7,12 TH 4 1 TH 1,12 TH 9 4 TD 2 1 TE 5,2 TH 3,11

FR TH 10,5 TE 6 5 TD 7 2 TE 7 1 TH 3 1 TH 2 1 TH 1 3 TE 10 1 TH 5,1 TE 13 1

FR TE 7 3 TE 8,3 TH 5,3 TE 14 3 TE 11 1 TH 8 4 TE 11 8 TH 7 15 TH 5 12

FR TD 4 2 TH 6 15 TD 5 1 TH 5 7 TE 12 6 TH 1 6 TH 9 3 TH 10 1 TH 7 7

FR TH 10 8 TH 6 7 TE 14 4 TD 9 8 TD 8 3 TH 3 5 TH 6 8 TD 7 4 TD 6 2

PD

OU ME=ML AM RS EF FS SS SC PT IT=250 AD=OFF

TI

Number of Input Variables 26

Number of Y – Variables 15

Number of X – Variables 10

Number of ETA – Variables 3

Number of KSI – Variables 2

Number of Observations 640

Largest Eigenvalue of B^*B' (Stability Index) is 0.069

Total Effects of ETA on Y

| | E3 | E1 | E2 |
|------|--------|--------|--------|
| ADAP | 0.22 | 0.03 | 0.05 |
| | (0.03) | (0.02) | |
| | 1.04 | 2.76 | |
| SOLV | 0.35 | 0.04 | 0.08 |
| | (0.02) | (0.04) | (0.03) |

17.23 1.04 2.77

ACHI 0.30 0.04 0.07
 (0.01) (0.03) (0.03)
 20.02 1.04 2.78

MANA 0.36 0.04 0.08
 (0.02) (0.04) (0.03)
 15.45 1.05 2.78

SATI 0.39 0.05 0.09
 (0.03) (0.04) (0.03)
 15.48 1.05 2.78

COUR -- 0.43 --

STAN -- 0.46 --
 (0.01)
 39.17

EVAL -- 0.49 --
 (0.01)
 38.75

DEVE -- 0.42 --
 (0.01)
 31.63

| | | | |
|------|----|--------|------|
| RESO | -- | 0.44 | -- |
| | | (0.02) | |
| | | 27.17 | |
| VISI | -- | -- | 0.45 |
| STRU | -- | -- | 0.42 |
| | | (0.01) | |
| | | 37.24 | |
| INFO | -- | -- | 0.36 |
| | | (0.01) | |
| | | 25.93 | |
| ALLO | -- | -- | 0.50 |
| | | (0.02) | |
| | | 29.77 | |
| LEAR | -- | -- | 0.42 |
| | | (0.01) | |
| | | 31.14 | |

Indirect Effects of ETA on Y

| | E3 | E1 | E2 |
|------|----|------|------|
| ADAP | -- | 0.03 | 0.05 |

| | | | |
|------|----|--------|--------|
| | | (0.03) | (0.02) |
| | | 1.04 | 2.76 |
| SOLV | -- | 0.04 | 0.08 |
| | | (0.04) | (0.03) |
| | | 1.04 | 2.77 |
| ACHI | -- | 0.04 | 0.07 |
| | | (0.03) | (0.03) |
| | | 1.04 | 2.78 |
| MANA | -- | 0.04 | 0.08 |
| | | (0.04) | (0.03) |
| | | 1.05 | 2.78 |
| SATI | -- | 0.05 | 0.09 |
| | | (0.04) | (0.03) |
| | | 1.05 | 2.78 |
| COUR | -- | -- | -- |
| STAN | -- | -- | -- |
| EVAL | -- | -- | -- |
| DEVE | -- | -- | -- |
| RESO | -- | -- | -- |

VISI - - - - -

STRU - - - - -

INFO - - - - -

ALLO - - - - -

LEAR - - - - -

Total Effects of KSI on Y

K1 K2

----- -----

ADAP 0.28 -0.03
 (0.02) (0.01)
 13.05 -2.38

SOLV 0.45 -0.05
 (0.03) (0.02)
 15.93 -2.40

ACHI 0.39 -0.04
 (0.02) (0.02)
 17.04 -2.41

| | | |
|------|--------|--------|
| MANA | 0.48 | -0.05 |
| | (0.02) | (0.02) |
| | 19.89 | -2.46 |
| SATI | 0.51 | -0.05 |
| | (0.03) | (0.02) |
| | 19.87 | -2.45 |
| COUR | -0.01 | 0.42 |
| | (0.01) | (0.02) |
| | -0.97 | 20.29 |
| STAN | -0.01 | 0.45 |
| | (0.01) | (0.02) |
| | -0.97 | 21.34 |
| EVAL | -0.02 | 0.48 |
| | (0.02) | (0.02) |
| | -0.97 | 21.88 |
| DEVE | -0.01 | 0.41 |
| | (0.01) | (0.02) |
| | -0.97 | 20.79 |
| RESO | -0.01 | 0.43 |
| | (0.01) | (0.02) |
| | -0.97 | 19.80 |

VISI 0.01 0.39

(0.02) (0.02)

0.90 18.34

STRU 0.01 0.37

(0.01) (0.02)

0.90 18.19

INFO 0.01 0.32

(0.01) (0.02)

0.90 15.81

ALLO 0.02 0.44

(0.02) (0.02)

0.90 19.07

LEAR 0.01 0.37

(0.01) (0.02)

0.90 18.33

TI

Standardized Total and Indirect Effects

Standardized Total Effects of KSI on ETA

K1 K2

| E3 | 0.80 | 0.77 |
|----|------|------|
| E1 | 0.03 | 0.97 |
| E2 | 0.03 | 0.88 |

Standardized Indirect Effects of KSI on ETA

| | K1 | K2 |
|----|------|------|
| E3 | 0.00 | 0.32 |
| E1 | -- | -- |
| E2 | -- | -- |

Standardized Total Effects of ETA on ETA

| | E3 | E1 | E2 |
|----|----|------|------|
| E3 | -- | 0.12 | 0.23 |
| E1 | -- | -- | -- |
| E2 | -- | -- | -- |

Standardized Total Effects of ETA on Y

| | E3 | E1 | E2 |
|------|------|------|------|
| ADAP | 0.22 | 0.03 | 0.05 |
| SOLV | 0.35 | 0.04 | 0.08 |
| ACHI | 0.30 | 0.04 | 0.07 |

| | | | |
|------|------|------|------|
| MANA | 0.36 | 0.04 | 0.08 |
| SATI | 0.39 | 0.05 | 0.09 |
| COUR | -- | 0.43 | -- |
| STAN | -- | 0.46 | -- |
| EVAL | -- | 0.49 | -- |
| DEVE | -- | 0.42 | -- |
| RESO | -- | 0.44 | -- |
| VISI | -- | -- | 0.45 |
| STRU | -- | -- | 0.42 |
| INFO | -- | -- | 0.36 |
| ALLO | -- | -- | 0.50 |
| LEAR | -- | -- | 0.42 |

Completely Standardized Total Effects of ETA on Y

| | E3 | E1 | E2 |
|------|------|------|------|
| ADAP | 0.60 | 0.07 | 0.14 |
| SOLV | 0.77 | 0.09 | 0.18 |
| ACHI | 0.81 | 0.10 | 0.19 |
| MANA | 0.77 | 0.09 | 0.18 |
| SATI | 0.77 | 0.09 | 0.18 |
| COUR | -- | 0.88 | -- |
| STAN | -- | 0.92 | -- |
| EVAL | -- | 0.95 | -- |
| DEVE | -- | 0.89 | -- |
| RESO | -- | 0.84 | -- |
| VISI | -- | -- | 0.87 |

| | | | |
|------|----|----|------|
| STRU | -- | -- | 0.85 |
| INFO | -- | -- | 0.73 |
| ALLO | -- | -- | 0.92 |
| LEAR | -- | -- | 0.88 |

Standardized Indirect Effects of ETA on Y

| | E3 | E1 | E2 |
|------|----|------|------|
| ADAP | -- | 0.03 | 0.05 |
| SOLV | -- | 0.04 | 0.08 |
| ACHI | -- | 0.04 | 0.07 |
| MANA | -- | 0.04 | 0.08 |
| SATI | -- | 0.05 | 0.09 |
| COUR | -- | -- | -- |
| STAN | -- | -- | -- |
| EVAL | -- | -- | -- |
| DEVE | -- | -- | -- |
| RESO | -- | -- | -- |
| VISI | -- | -- | -- |
| STRU | -- | -- | -- |
| INFO | -- | -- | -- |
| ALLO | -- | -- | -- |
| LEAR | -- | -- | -- |

Completely Standardized Indirect Effects of ETA on Y

| | E3 | E1 | E2 |
|------|----|----|----|
| ADAP | -- | -- | -- |

| | | | |
|------|----|------|------|
| ADAP | -- | 0.07 | 0.14 |
| SOLV | -- | 0.09 | 0.18 |
| ACHI | -- | 0.10 | 0.19 |
| MANA | -- | 0.09 | 0.18 |
| SATI | -- | 0.09 | 0.18 |
| COUR | -- | -- | -- |
| STAN | -- | -- | -- |
| EVAL | -- | -- | -- |
| DEVE | -- | -- | -- |
| RESO | -- | -- | -- |
| VISI | -- | -- | -- |
| STRU | -- | -- | -- |
| INFO | -- | -- | -- |
| ALLO | -- | -- | -- |
| LEAR | -- | -- | -- |

Standardized Total Effects of KSI on Y

| | K1 | K2 |
|------|-------|-------|
| ADAP | 0.28 | -0.03 |
| SOLV | 0.45 | -0.05 |
| ACHI | 0.39 | -0.04 |
| MANA | 0.48 | -0.05 |
| SATI | 0.51 | -0.05 |
| COUR | -0.01 | 0.42 |
| STAN | -0.01 | 0.45 |
| EVAL | -0.02 | 0.48 |

| | | |
|------|-------|------|
| DEVE | -0.01 | 0.41 |
| RESO | -0.01 | 0.43 |
| VISI | 0.01 | 0.39 |
| STRU | 0.01 | 0.37 |
| INFO | 0.01 | 0.32 |
| ALLO | 0.02 | 0.44 |
| LEAR | 0.01 | 0.37 |

Completely Standardized Total Effects of KSI on Y

| | K1 | K2 |
|------|-------|-------|
| ADAP | 0.78 | -0.08 |
| SOLV | 1.00 | -0.10 |
| ACHI | 1.06 | -0.11 |
| MANA | 1.01 | -0.10 |
| SATI | 1.01 | -0.10 |
| COUR | -0.03 | 0.86 |
| STAN | -0.03 | 0.89 |
| EVAL | -0.03 | 0.92 |
| DEVE | -0.03 | 0.86 |
| RESO | -0.03 | 0.82 |
| VISI | 0.03 | 0.76 |
| STRU | 0.03 | 0.75 |
| INFO | 0.02 | 0.65 |
| ALLO | 0.03 | 0.81 |
| LEAR | 0.03 | 0.78 |

Time used: 0.718 Seconds