

ภาคผนวก ญ

ผลการวิเคราะห์องค์ประกอบเชิงยืนยัน
อันดับสองโดยใช้โปรแกรม LISREL

มหาวิทยาลัยราชภัฏสุราษฎร์ธานี

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BY

Karl G. Jöreskog & Dag Sörbom

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The following lines were read from file C:\LEVEL 2.LPJ:

TI FAC AC

!DA NI=30 NO=507 NG=1 MA=CM

SY='C:\LEVEL 2.dsfl' NG=1

SE

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

19 20 21 22 23 /

MO NY=23 NK=1 NE=7 LY=FU,FI BE=FU,FI GA=FU,FI PH=SY,FR PS=DI,FR TE=SY,FI

LE

BT LB PT BR ME TD RF

LK

AC

FR LY(2,1) LY(4,2) LY(5,2) LY(7,3) LY(8,3) LY(9,3) LY(10,3) LY(12,4) LY(13,4)

FR LY(15,5) LY(16,5) LY(17,5) LY(19,6) LY(20,6) LY(22,7) LY(23,7) GA(2,1) GA(3,1)

FR GA(4,1) GA(5,1) GA(6,1) GA(7,1)

VA 1.00 LY(1,1) LY(3,2) LY(6,3) LY(11,4) LY(14,5) LY(18,6) LY(21,7) GA(1,1) TE 1 1 TE 2 2 TE 3 3

FR TE 4 4 TE 5 5 TE 6 6 TE 7 7 TE 8 8 TE 9 9 TE 10 10 TE 11 11 TE 12 12 TE 13 13 TE 14 14 TE 15 15

FR TE 16 16 TE 17 17 TE 18 18 TE 19 19 TE 20 20 TE 21 21 TE 22 22 TE 23 23 TE 21 18 TE 3 3 TE 13

8 FR TE 22 5 TE 12 1 TE 20 15 TE 23 6 TE 2 1 TE 22 17 TE 19 3 TE 22 6 TE 7 1 TE 8 7 TE 13 9 TE 9
8 FR TE 6 1 TE 15 4 TE 13 3 TE 19 13 TE 23 22 TE 12 3 TE 19 10 TE 21 19 TE 7 5 TE 22 7 TE 22 8 TE
13 4 FR TE 21 20 TE 19 18 TE 20 18 TE 11 4 TE 17 3 TE 17 8 TE 17 9 TE 11 8 TE 18 11 TE 13 10 TE 9
6 TE 20 14 FR TE 19 14 TE 12 6 TE 15 14 TE 21 11 TE 11 7 TE 15 3 TE 23 7 TE 17 13 TE 13 12 TE 23 2
TE 11 9 TE 22 1 FR TE 5 2 TE 14 5 TE 3 2 TE 22 13 TE 22 9 TE 7 4 TE 19 7 TE 4 1 TE 6 4 TE 19 9 TE
9 3 TE 16 3 TE 16 9 FR TE 19 2 TE 7 2 TE 14 2 TE 15 7 TE 20 12 TE 20 1 TE 20 3 TE 23 19 TE 23 10
TE 20 6 TE 20 16 TE 16 11 FR TE 10 2 TE 11 1 TE 22 20 TE 17 16 TE 16 6 TE 10 3 TE 4 2 TE 10 4 TE
14 12 TE 15 12 TE 19 15 TE 17 12 FR TE 21 12 TE 18 12 TE 18 16 TE 14 4 TE 18 17 TE 21 17 TE 18 8 TE
21 8 TE 18 5 TE 18 3 TE 20 8 TE 22 16 FR TE 20 5 TE 13 2 TE 21 5 TE 13 1 TE 23 1 TE 14 8 TE 5 4
TE 19 6 TE 10 6 TE 15 6 TE 17 14 TE 17 11 TE 22 14 FR TE 14 7 TE 23 20 TE 23 8 TE 3 1 TE 23 13 TE
11 3 TE 11 5 TE 14 10 TE 13 7 TE 13 5 TE 9 2 TE 9 1 TE 6 3 FR TE 13 11 TE 8 6 TE 16 13 TE 15 8 TE
16 15 TE 16 8 TE 16 4 TE 23 14 TE 14 11 TE 19 11 TE 20 13 TE 14 9 FR TE 15 2 TE 19 1 TE 22 2 TE 18
4 TE 5 1 TE 18 15 TE 21 6 TE 21 15 TE 22 4 TE 21 4 TE 10 5 TE 21 16 FR TE 23 4 TE 16 7 TE 14 3 TE
8 4 TE 15 5 TE 20 16 TE 15 9 TE 16 2 TE 19 5 TE 17 1 TE 17 2 TE 8 2 TE 19 8 FR TE 8 1 TE 1 1 TE 22
12 TE 20 17 TE 10 9 TE 23 17 TE 19 17 TE 12 2 TE 6 2 TE 22 3 TE 11 2 TE 10 1 TE 17 10 FR TE 21 1 TE
16 14 TE 12 8 TE 19 4 TE 12 9 TE 22 10

PD

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

TI FAC AC

Number of Input Variables 30
Number of Y – Variables 23
Number of X – Variables 0
Number of ETA – Variables 7
Number of KSI – Variables 1
Number of Observations 507

TI FAC AC

Number of Iterations = 98

LISREL Estimates (Maximum Likelihood)

Squared Multiple Correlations for Structural Equations

BT LB PT BR ME TD

-0.08	1.01	0.98	1.04	0.98	0.98
-------	------	------	------	------	------

Squared Multiple Correlations for Structural Equations

RF
1.00

Squared Multiple Correlations for Reduced Form

BT	LB	PT	BR	ME	TD
-0.08	1.01	0.98	1.04	0.98	0.98

Squared Multiple Correlations for Reduced Form

RF						
THETA-EPS	BMC1	BSF2	LAT3	LRT4	LPD5	PDI6
BMC1	0.81 (0.07) 12.17					
BSF2	0.87	1.00 (0.04) 22.21				
LAT3	-0.01 (0.00) -3.81	-0.03 (0.00) -8.65	0.01 (0.00) 10.92			
LRT4	-0.01 (0.00) -4.30	-0.02 (0.00) -5.88	-- (0.00) 10.14	0.01 (0.00)		
LPD5	0.01	-0.02	--	0.00	0.04	

	(0.00)	(0.00)	(0.00)	(0.00)		
	1.55	-4.99	0.94	15.03		
PDI6	0.02	-0.01	0.00	-0.01	--	0.02
	(0.00)	(0.00)	(0.00)	(0.00)		(0.00)
	6.46	-3.09	-2.76	-7.18		12.41
PCA7	0.01	-0.02	--	-0.01	0.02	--
	(0.00)	(0.00)	(0.00)	(0.00)		
	3.28	-4.61	-6.94	9.34		
PRC8	-0.02	-0.03	--	-0.01	--	-0.01
	(0.01)	(0.01)	(0.00)	(0.00)		
	-3.75	-5.44	-3.82	-6.08		
PA09	-0.02	-0.03	0.01	--	--	-0.01
	(0.00)	(0.00)	(0.00)			(0.00)
	-4.38	-6.41	4.99	-8.01		
PAD10	-0.01	-0.02	0.01	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
	-1.55	-6.39	4.53	1.13	-2.74	2.82
BGP11	0.01	-0.01	-0.01	0.00	-0.01	--
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	
	3.40	-2.58	-5.83	-4.34	-8.44	
BA012	0.00	-0.01	-0.01	--	--	-0.01
	(0.00)	(0.00)	(0.00)			(0.00)
	-1.70	-3.23	-6.66	-6.94		
BBM13	-0.04	-0.05	0.02	0.01	0.01	--
	(0.01)	(0.01)	(0.00)	(0.00)	(0.00)	
	-7.20	-8.99	12.07	6.84	5.03	
MBH14	--	-0.03	0.00	-0.01	-0.02	--
	(0.00)	(0.00)	(0.00)	(0.00)		
	-10.10	-2.36	-7.72	-9.10		
MTL15	--	-0.01	0.00	0.01	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	
	-3.90	-1.49	4.93	2.27	-0.27	
MSP16	--	-0.01	0.00	0.00	--	0.00

		(0.00)	(0.00)	(0.00)		(0.00)	
		-4.28	-2.85	0.11		-0.91	
MVT17	0.00	-0.01	0.00	--	--	--	
		(0.00)	(0.00)				
		0.57	-1.55	-3.05			
TKI18	--	--	0.00	0.01	0.01	--	
			(0.00)	(0.00)	(0.00)		
			4.47	6.06	7.61		
TTK19	-0.01	-0.03	0.01	0.00	-0.01	0.00	
		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	
		-2.43	-8.18	6.27	-2.30	-4.31	2.36
TSD20	0.02	--	0.00	--	0.01	0.01	
		(0.00)	(0.00)		(0.00)	(0.00)	
		9.63	1.52		4.53	5.57	
RCR21	0.00	--	--	0.01	0.01	0.00	
		(0.00)		(0.00)	(0.00)	(0.00)	
		1.78		4.42	5.34	-1.42	
RSD22	0.04	0.00	0.00	0.00	0.04	0.02	
		(0.01)	(0.01)	(0.00)	(0.00)	(0.00)	
		6.06	-0.21	-0.88	-1.56	14.21	12.40
RCG23	0.02	-0.01	--	0.00	--	0.02	
		(0.00)	(0.00)	(0.00)		(0.00)	
		3.51	-3.21	-3.56		11.19	

THETA-EPS

	PCA7	PRC8	PA09	PAD10	BGP11	BA012
PCA7	0.03					
	(0.00)					
	14.31					
PRC8	0.01	0.09				
	(0.00)	(0.01)				

	4.50	15.82					
PA09	--	0.02	0.03				
	(0.00)	(0.00)					
	7.82	13.64					
PAD10	--	--	0.00	0.03			
	(0.00)	(0.00)					
	2.49	15.18					
BGP11	-0.01	-0.02	0.00	--	0.01		
	(0.00)	(0.00)	(0.00)	(0.00)			
	-8.71	-8.65	-3.37		10.12		
BA012	--	0.00	0.00	--	--	0.02	
	(0.00)	(0.00)			(0.00)		
	-1.16	1.99			15.00		
BBM13	0.01	0.05	0.03	0.02	0.01	0.02	
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	
	8.02	14.11	13.87	10.73	4.10	10.02	
MBH14	-0.01	-0.02	-0.01	0.00	-0.01	-0.01	
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	
	-4.87	-7.23	-3.32	2.13	-5.27	-9.62	
MTL15	-0.01	-0.02	0.00	--	--	0.00	
	(0.00)	(0.00)	(0.00)		(0.00)		
	-4.65	-6.50	2.51		-0.03		
MSP16	0.00	0.00	0.01	--	0.00	--	
	(0.00)	(0.00)	(0.00)	(0.00)			
	-2.59	0.63	6.47		0.81		
MVT17	--	0.02	0.02	0.00	0.00	0.00	
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	
	6.92	7.80	2.63	1.82	-1.92		
TKI18	--	-0.03	--	--	-0.01	0.02	
	(0.00)		(0.00)	(0.00)	(0.00)		
	-9.67			-4.96	10.07		
TTK19	0.01	0.00	0.01	0.01	0.00	--	
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)		
	4.87	2.34	7.56	9.33	-2.99		
TSD20	--	-0.02	--	--	--	0.00	

		(0.00)			(0.00)	
		-8.50			2.12	
RCR21	--	-0.02	--	--	-0.01	0.02
		(0.00)			(0.00)	(0.00)
		-8.20			-4.58	9.60
RSD22	0.04	0.04	0.01	0.00	--	0.00
	(0.00)	(0.00)	(0.00)	(0.00)		(0.00)
	13.55	10.45	5.05	1.87		1.83
RCG23	0.01	0.00	--	0.01	--	--
	(0.00)	(0.00)		(0.00)		
	7.48	0.57		6.89		

THETA-EPS

	BBM13	MBH14	MTL15	MSP16	MVT17	TKI18
BBM13	0.08					
	(0.00)					
	17.75					
MBH14	--	0.04				
		(0.00)				
		9.97				
MTL15	--	0.00	0.06			
		(0.00)	(0.00)			
		0.95	12.89			
MSP16	0.01	0.00	0.01	0.05		
	(0.00)	(0.00)	(0.00)	(0.00)		
	5.23	-1.52	3.90	12.33		
MVT17	0.02	-0.01	--	0.02	0.06	
	(0.00)	(0.00)		(0.00)	(0.00)	
	7.30	-4.55		5.19	13.72	
TKI18	--	--	0.03	0.00	-0.01	0.07
		(0.00)	(0.00)	(0.00)	(0.00)	
		9.20	1.78	-4.65	15.30	

TTK19	0.02	0.01	0.00	--	0.00	0.00
	(0.00)	(0.00)	(0.00)		(0.00)	(0.00)
	12.57	3.23	-1.93		2.26	0.35
TSD20	0.00	0.01	0.04	0.01	0.00	0.04
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
	-3.29	5.44	11.71	4.10	-1.07	12.24
RCR21	--	--	0.03	0.00	-0.01	0.07
		(0.00)	(0.00)	(0.00)	(0.00)	
		8.68	2.19	-3.34	16.46	

RSD22	0.02	-0.02	--	0.01	0.03	--
	(0.00)	(0.00)		(0.00)	(0.00)	
	6.57	-5.96		4.20	11.83	
RCG23	0.01	0.00	--	--	0.00	--
	(0.00)	(0.00)		(0.00)		
	4.82	1.98		2.05		

THETA-EPS

	TTK19	TSD20	RCR21	RSD22	RCG23
TTK19	0.02				
	(0.00)				
	11.71				
TSD20	--	0.05			
		(0.00)			
		15.21			
RCR21	0.01	0.04	0.06		
	(0.00)	(0.00)	(0.00)		
	4.83	13.96	16.03		
RSD22	--	0.01	--	0.11	
		(0.00)	(0.01)		
		4.37	18.59		
RCG23	0.01	0.00	--	0.02	0.05
	(0.00)	(0.00)	(0.00)	(0.00)	

6.24 3.55 8.23 16.48

Squared Multiple Correlations for Y – Variables

BMC1 BSF2 LAT3 LRT4 LPD5 PDI6

-2.45 -4.05 0.94 0.95 0.87 0.92

Squared Multiple Correlations for Y – Variables

PCA7 PRC8 PAO9 PAD10 BGP11 BAO12

0.88 0.59 0.87 0.84 0.95 0.90

Squared Multiple Correlations for Y – Variables

BBM13 MBH14 MTL15 MSP16 MVT17 TK18

0.68 0.80 0.77 0.77 0.74 0.79

Squared Multiple Correlations for Y – Variables

TTK19 TSD20 RCR21 RSD22 RCG23

0.89 0.82 0.80 0.67 0.77

Goodness of Fit Statistics

Degrees of Freedom = 45

Minimum Fit Function Chi-Square = 43.31 (P = 0.54)

Normal Theory Weighted Least Squares Chi-Square = 44.53 (P = 0.49)

Estimated Non-centrality Parameter (NCP) = 0.0

90 Percent Confidence Interval for NCP = (0.0 ; 19.31)

Minimum Fit Function Value = 0.086

Population Discrepancy Function Value (FO) = 0.0

90 Percent Confidence Interval for FO = (0.0 ; 0.038)

Root Mean Square Error of Approximation (RMSEA) = 0.0

90 Percent Confidence Interval for RMSEA = (0.0 ; 0.029)

P-Value for Test of Close Fit (RMSEA < 0.05) = 1.00

Expected Cross-Validation Index (ECVI) = 1.00

90 Percent Confidence Interval for ECVI = (1.00 ; 1.04)

ECVI for Saturated Model = 1.09

ECVI for Independence Model = 152.19

Chi-Square for Independence Model with 253 Degrees of Freedom = 76963.81

Independence AIC = 77009.81

Model AIC = 506.53

Saturated AIC = 552.00

Independence CAIC = 77130.06

Model CAIC = 1714.31

Saturated CAIC = 1995.07

Normed Fit Index (NFI) = 1.00

Non-Normed Fit Index (NNFI) = 1.00

Parsimony Normed Fit Index (PNFI) = 0.18

Comparative Fit Index (CFI) = 1.00

Incremental Fit Index (IFI) = 1.00

Relative Fit Index (RFI) = 1.00

Critical N (CN) = 818.29

Root Mean Square Residual (RMR) = 0.0032

Standardized RMR = 0.012

Goodness of Fit Index (GFI) = 0.99

Adjusted Goodness of Fit Index (AGFI) = 0.95

Parsimony Goodness of Fit Index (PGFI) = 0.16

TI FAC AC

Factor Scores Regressions

	ETA					
	BMC1	BSF2	LAT3	LRT4	LPD5	PDI6
BT	2.55	-9.64	0.94	-1.42	-3.07	-2.18
LB	-0.56	0.62	0.20	-0.20	0.35	0.27
PT	-0.66	0.74	0.23	0.04	0.42	0.73
BR	-0.69	0.87	0.87	0.73	0.52	0.71
ME	-0.46	0.52	0.43	-0.10	0.35	0.22

TD	-0.60	0.67	0.24	-0.06	0.42	0.20
RF	-0.59	0.67	0.48	-0.06	0.45	0.27

ETA

	PCA7	PRC8	PAO9	PAD10	BGP11	BAO12
--	------	------	------	-------	-------	-------

BT	-0.63	0.96	0.40	-0.63	6.95	6.16
LB	0.23	0.27	-0.04	-0.08	0.55	0.13
PT	0.48	0.33	0.22	0.01	0.13	-0.13
BR	0.29	0.31	0.34	0.02	-1.08	-0.64
ME	0.16	0.21	-0.10	-0.08	0.16	0.14
TD	0.15	0.37	-0.09	-0.15	0.49	0.09
RF	0.17	0.28	-0.03	-0.09	0.35	0.12

ETA

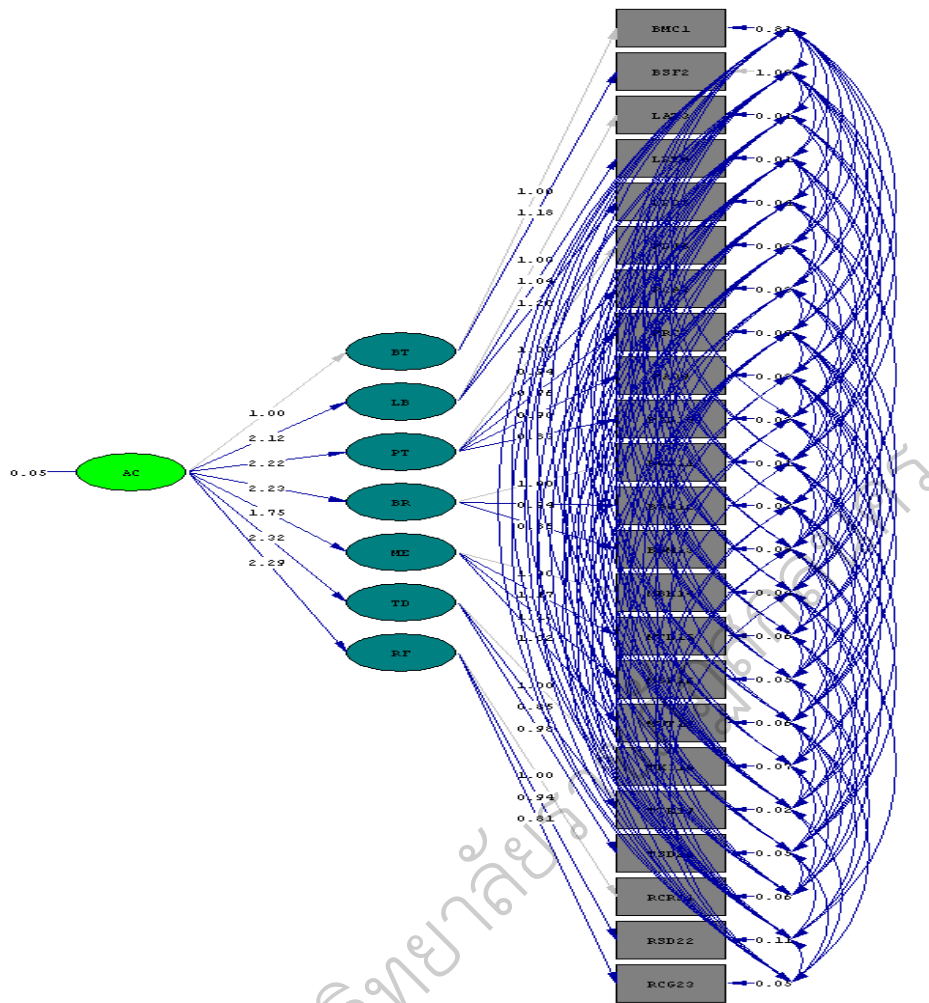
	BBM13	MBH14	MTL15	MSP16	MVT17	TKI18
--	-------	-------	-------	-------	-------	-------

BT	-4.43	-1.23	-0.07	-0.46	0.76	1.88
LB	-0.38	0.30	-0.01	-0.03	-0.04	-0.08
PT	-0.57	0.29	-0.07	-0.03	-0.01	-0.23
BR	-1.11	0.35	-0.12	0.13	0.13	-0.42
ME	-0.43	0.33	0.05	0.04	0.08	-0.15
TD	-0.58	0.29	-0.07	-0.01	-0.03	0.51
RF	-0.53	0.34	-0.04	-0.02	-0.02	-0.29

ETA

	TTK19	TSD20	RCR21	RSD22	RCG23
--	-------	-------	-------	-------	-------

BT	-1.76	0.83	-0.74	1.80	-0.27
LB	0.11	-0.07	-0.15	-0.24	-0.09
PT	-0.08	-0.08	0.01	-0.46	-0.22
BR	0.28	-0.13	0.24	-0.35	-0.06
ME	0.06	-0.15	-0.08	-0.22	-0.07
TD	0.49	0.03	-0.85	-0.24	-0.10
RF	0.09	-0.08	0.01	-0.25	-0.07



Chi-Square=44.53, df=45, P-value=0.49194, RMSEA=0.000

มหาวิทยาลัยราชภัฏวชิรเวศน์