

LAMPIRAN

LAMPIRAN 1
QUESTIONNAIRE

❖ About This Survey :

This study, designed and carried out by Welly Sugianto, Master of Management candidate at the Graduate School of Business, Widya Mandala Catholic University, Surabaya, attempts to examine how resource uniqueness, resource uniqueness similarity, culture similarity, trust, commitment and communication affect joint ventures performance. In conducting this research, the researcher is assisted by Henry Tenden, Bachelor of Business Administration candidate at Carnegie Mellon University. Your Participation in this study is voluntary, however, it is very important to the study as well as the completion of my master program.

❖ Confidentiality:

The researcher promises to keep all responses completely confidential. Completed surveys will be coded and will be handled exclusively by the researcher. No individual responses or companies will be identifiable in any reports. Only aggregated data will be used for analysis, interpretation, and in reports.

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INSTRUCTIONS: For all questions, choose one answer that reflects your best judgement on the real conditions. There are no right or wrong answers. Please answer the questions in sequence and do not jump to make sure that you do not pass any single question. To make you easier to understand and answer the questions, specific notes are given on each question..

1. RESPONDENT CHARACTERISTIC

Please check the box that applies to you, or fill in the blank

Company specification:

Manufacturing Service Trading Others (mention) :.....

Industry Specification :.....

Position:.....

2. RESOURCE UNIQUENESS, CULTURE, TRUST, COMMITMENT AND COMMUNICATION

Please answer the following questions by circling the appropriate number

Questions 2.1 to 2.6 are about your company agreement with a partner or some partners in a Joint Venture named.....

1 Resource Uniqueness

The level of unique resources that are contributed by your company to a joint venture in which your company is one of its members.

Customer demand

Customer demand relates to the potential of contributed resources to meet customers' requirements. Customers' requirements include product characteristics as well as product specifications.

Competitive superiority

Competitive superiority relates to the potential of contributed resources to create differentiation or to produce a new and differentiated product.

Substitution

Substitution relates to the level of substitutability of contributed resources with the other ones which have similar or better function.

Inimitability

Inimitability relates to the level of difficulty to imitate the contributed resources.

Rarity

Rarity relates to the level of difficulty to get the contributed resources in spot market

	<i>Kinds of resources that are contributed by your company in this joint venture</i>	CUSTOMER DEMAND How great is the potential of the contributed resource to meet customers' demands? 1 7 Very limited Very strong	COMPETITIVE SUPERIORITY How great is the potential of the contributed resource to create differentiation? 1 7 Very limited Very strong	SUBSTITUTION To what extent is the availability of substitutes for the contributed resource? 1 7 Many Very few	INIMITABILITY How difficult is to imitate the contributed resource? 1 7 Very easy Very difficult	RARITY How rare is the contributed resource in spot market? 1 7 Ample Rare
		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
2		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
3		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
4		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
5		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
6		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
7		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
8		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
9		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
10		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
11		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7

12		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
13		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
14		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
15		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
16		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
17		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
18		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
19		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
20		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
21		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
22		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
23		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
24		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
25		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
26		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
27		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
28		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
29		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
30		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7

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2 Company Culture

Measuring the company culture.

Innovation

❖ Innovation refers to your company's efforts for innovation.

How great is your company's efforts for innovation?	Very few	1	2	3	4	5	6	7	Many
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Risk Taking

❖ Risk taking refers to the degree to which your company wants to take risks.

To what degree does your company want to take risks?	Very low	1	2	3	4	5	6	7	Very high
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Attention to Detail

❖ Attention to detail refers to the degree to which employees are expected to exhibit precision and detailed analysis.

How scrupulous is your company's attention to detail?	Very low	1	2	3	4	5	6	7	Very high
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Outcome Orientation

❖ Outcome orientation refers to the degree to which the management focuses on results or outcomes rather than on techniques and processes used to achieve those outcomes.

How strong is your company's focus on results and outcomes?	Very weak	1	2	3	4	5	6	7	Very strong
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Process Orientation

❖ Process orientation refers to the degree to which the management focuses on processes rather than on results.

How high is your company's focus on processes?	Very weak	1	2	3	4	5	6	7	Very strong
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People Orientation

❖ People orientation refers to your company's attention to the impact of a decision on people or the degree to which management takes into consideration the effect of its decisions on people within the organization.

How great is your company's attention for the effect of its decisions on people?	Little	1	2	3	4	5	6	7	Thorough
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Team Orientation

❖ Team orientation refers to your company's team spirit, i.e., willingness to act for the good of one's team rather than one's individual advantage.

How far is your company's team spirit?	Very low	1	2	3	4	5	6	7	Very high
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Aggressiveness

❖ Aggressiveness refers to the level of your company's aggressiveness with regard to competition.

How far is your company's aggressiveness with regard to competition?	Very low	1	2	3	4	5	6	7	Very high
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Stability

❖ Stability refers to your company's attention to the status quo. Status quo is a condition where each company keeps away from competing with each other.

How far is your company's attention to the status quo?	Very low	1	2	3	4	5	6	7	Very high
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Commitment

Level of willingness your company pledge to provide the required resources for the joint venture.

Relative commitment

Relative commitment refers to company's willingness to provide the required resources for this joint venture.

How far is your company's willingness to provide the required resources for this joint venture?	Little	1	2	3	4	5	6	7	Much
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Individual commitment

Individual commitment refers to your company's willingness to make this joint venture successful.

How far is your company's willingness to make this joint venture successful?	Little	1	2	3	4	5	6	7	Much
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Long term commitment

Long term commitment refers to your company's willingness to be involved in the joint venture for a long time period.

How long does your company expect to be involved in this joint venture?	Temporary	1	2	3	4	5	6	7	Definitely long time
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Communication

Level of information transferred from your company to partners.

Frequency of communication

Frequency of communication refers to frequency of formal and informal communication your company makes with partners.

	Name of partner	Frequently communication How frequent is your company's formal and informal communication made with partners? 1 ⇄ 7 Very rarely ⇄ Very often						
		1	2	3	4	5	6	7
1		1	2	3	4	5	6	7
2		1	2	3	4	5	6	7
3		1	2	3	4	5	6	7
4		1	2	3	4	5	6	7
5		1	2	3	4	5	6	7
6		1	2	3	4	5	6	7
7		1	2	3	4	5	6	7
8		1	2	3	4	5	6	7
9		1	2	3	4	5	6	7
10		1	2	3	4	5	6	7
11		1	2	3	4	5	6	7
12		1	2	3	4	5	6	7

Please turn and complete the last page. Thank You!

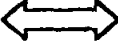

Joint meeting participation

Joint meeting participation refers to frequency of your company's participation in attending joint meetings.

How frequent is your company's participation in attending joint meetings?	Very rarely	1	2	3	4	5	6	7	Very often
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Facilitation in communication

Facilitation in communication refers to your company's eagerness to facilitate communication with partners.

	Name of partner	Facilitation in communication How far is your company's eagerness to facilitate communication with partners?						
		1	2	3	4	5	6	7
		1  7						
		Little  Much						
1		1	2	3	4	5	6	7
2		1	2	3	4	5	6	7
3		1	2	3	4	5	6	7
4		1	2	3	4	5	6	7
5		1	2	3	4	5	6	7
6		1	2	3	4	5	6	7
7		1	2	3	4	5	6	7
8		1	2	3	4	5	6	7
9		1	2	3	4	5	6	7
10		1	2	3	4	5	6	7
11		1	2	3	4	5	6	7
12		1	2	3	4	5	6	7

Thank you for completing this survey

LAMPIRAN 2
DATA PENELITIAN, DESKRIPTIF DATA
PENELITIAN, UJI NORMALITAS DAN UJI
OUTLIERS

No	x1	x2	x3	x4	x5	x6	x7	x8	x9	x10	x11	x12	x13	x14	x15	x16
1	3.422	5.3167	4.3356	3.1065	3.2189	7.426	6.4724	7.4832	4.6687	6.7355	5.2485	5.1435	6.2155	1.3427	5.7291	6.2535
2	2.866	2.8754	4.0862	4.2037	3.2187	8.106	6.2338	8.7624	7.1563	8.2649	3.8144	3.2384	4.2614	4.2861	5.2562	4.2368
3	5.533	5.8924	6.3265	5.5925	5.5013	4.664	5.3978	5.3857	6.3095	4.6587	4.7822	6.3001	5.7727	5.2382	5.7283	5.8672
4	4.104	3.2489	4.1031	3.1421	3.2752	7.204	8.2038	5.8762	8.2896	7.8592	5.2767	4.8298	4.2347	3.2856	4.3647	3.8216
5	6.326	1.4357	2.3266	4.8624	2.8632	8.464	8.3649	8.3735	8.3416	7.3958	8.2872	8.1728	4.7272	8.3224	6.2578	3.2728
6	4.866	5.4296	4.8446	5.8015	4.839	5.347	6.3089	5.3399	5.3165	5.3384	3.7566	3.2178	6.18	4.2273	3.2172	3.2372
7	4.565	4.5031	4.8236	4.5947	5.2123	5.347	5.2864	2.3199	4.7693	5.2684	4.2942	5.2191	4.2714	5.2471	3.8625	3.9144
8	5.364	2.7923	4.3246	5.2398	4.8364	4.864	6.2685	5.2738	4.7523	7.8491	4.1727	3.7903	4.0935	5.3934	5.4566	4.0168
9	3.402	4.4211	2.7321	2.6325	3.3241	6.687	8.3656	7.3256	6.7256	6.329	5.3458	4.3239	3.8643	3.8887	4.256	3.8641
10	4.323	2.7236	3.3546	3.3556	2.7214	5.324	2.3357	2.265	2.3458	2.4282	3.7313	4.0988	3.0565	4.1658	3.6785	3.6687
11	5.362	4.5205	4.5256	4.6547	4.5365	3.654	5.3863	5.4382	5.3864	3.6759	6.2854	5.8334	6.8912	7.2655	7.3551	5.8237
12	4.27	3.4981	2.3912	2.8131	4.2923	7.325	5.3565	5.3208	5.7846	4.6873	9.2865	7.0499	7.2956	5.0503	7.3488	7.0457
13	6.315	5.5296	5.5381	5.4861	6.1854	8.244	7.7589	7.8229	6.7954	8.3421	6.2241	7.7236	7.8547	8.2645	5.8119	7.3248
14	3.365	5.4357	3.3257	2.8566	2.7233	1.363	1.3566	1.2679	1.3087	5.3212	4.2838	7.4584	3.7552	4.1837	4.7827	3.7564
15	3.929	5.1925	6.819	5.2324	3.2299	8.341	8.2886	7.3382	8.3265	6.6815	5.1834	3.7255	5.1856	6.3485	5.0222	4.8922
16	3.287	6.9613	6.0336	5.4325	3.8761	5.468	5.3697	6.4827	5.3297	5.4871	4.1878	4.8726	4.3728	4.3695	4.7725	3.8771
17	3.236	2.6354	3.7825	3.2155	3.3223	4.688	6.3297	5.3248	6.3328	5.2864	7.4828	7.2722	6.8732	6.7293	7.1844	7.1307
18	3.653	4.7912	3.1538	5.3821	4.2866	4.726	4.6816	4.3259	5.4675	6.4475	5.8347	3.2462	5.7684	7.8532	7.2189	6.2556
19	3.768	3.2462	3.8428	5.2341	2.2428	4.76	5.8628	3.8638	7.254	5.1262	4.1742	3.8243	4.8545	4.2477	4.2618	5.2341
20	5.476	6.4664	5.6387	5.5322	5.4762	8.811	9.2911	8.2109	8.8023	7.8352	8.2162	7.2816	6.8258	9.2375	7.7746	7.2485
21	4.145	6.4245	6.879	6.3221	6.1781	4.779	5.2648	4.7522	5.3757	5.2352	5.2671	5.8172	4.8375	5.2416	5.2941	5.2417
22	3.235	3.6856	2.8756	2.3016	3.4316	5.221	3.6492	5.3287	5.3341	5.3278	7.7563	6.7882	8.3123	5.3664	7.7735	7.2034
23	2.863	4.2965	3.3246	4.3449	3.3399	8.294	7.7524	7.8958	6.7185	8.2749	4.3722	4.7582	4.0582	3.6923	4.1833	3.9834
24	3.256	3.127	6.4565	2.6489	2.8231	8.231	3.7589	4.3755	4.2537	3.8795	5.2795	4.6864	4.8532	6.2387	6.4439	5.2452
25	2.656	2.3248	4.8549	4.2498	5.4236	7.256	7.2865	2.2649	6.7388	6.6694	3.7645	4.2581	5.2564	4.3237	3.5844	3.9553
26	5.325	5.4357	4.5645	4.5316	4.5831	5.348	5.4677	5.4287	5.3365	3.7184	4.2556	5.2784	3.8527	5.2263	3.2072	2.8574
27	4.553	5.3256	5.3189	4.5365	4.5255	8.437	6.7245	8.3597	6.7248	6.6631	4.3284	4.8321	5.2223	4.2543	3.8435	3.7534
28	5.429	5.5379	6.6856	5.4564	5.4535	9.245	7.8452	8.7694	8.7382	9.2541	5.1453	6.329	5.2333	6.3433	5.8363	5.0456
29	5.344	5.1657	4.7653	5.2646	4.7263	5.84	5.3796	6.2483	3.9089	5.7589	7.2166	6.8435	5.8397	7.2523	3.2388	6.2465
30	3.811	5.4346	6.6423	6.4162	2.1595	3.891	8.3415	3.7468	3.8549	3.7718	3.6455	5.2456	3.8465	3.7614	4.2565	4.0565
31	5.565	5.3256	6.4135	5.5592	5.7332	5.387	4.6618	4.3719	5.3047	5.4309	4.7476	5.2726	4.1883	5.1897	3.7573	4.2384

No	x1	x2	x3	x4	x5	x6	x7	x8	x9	x10	x11	x12	x13	x14	x15	x16
32	3.176	2.2674	2.2345	3.7785	3.0864	8.876	9.1942	8.8674	8.0677	9.2154	4.2422	4.8426	4.2135	3.8462	4.3187	4.2214
33	5.536	5.537	5.8962	5.5036	5.5366	4.702	3.6782	4.6382	5.2549	5.3917	8.3549	7.103	7.2278	8.1983	3.2082	7.7728
34	5.136	5.6635	5.3026	4.7442	4.7534	5.236	4.7769	5.3623	5.2425	4.8635	6.2472	4.3281	5.2643	1.8242	4.2615	3.8125
35	5.763	6.4366	5.5362	5.5356	5.5232	8.365	9.4408	8.4637	8.5637	9.4527	4.2982	5.0893	4.3527	3.6722	3.5821	4.2826
36	2.588	3.1386	2.3425	2.4198	3.2383	7.216	4.8838	5.2162	7.2586	4.7535	4.8236	7.9631	7.1873	8.8265	7.2185	4.2351
37	4.546	4.5135	4.5564	4.5161	5.3265	7.569	6.7658	7.3428	2.1025	6.6813	4.2645	4.1892	3.7453	3.6479	4.2895	5.4315
38	5.468	5.5758	5.4784	5.3715	5.5235	5.234	5.8647	6.2874	5.1198	5.2754	4.2344	4.2581	3.8517	3.8197	6.2475	4.2347
39	3.779	3.4256	4.5698	3.4109	2.7865	6.735	8.424	6.7749	8.4879	6.7549	5.2647	5.2155	4.8671	3.7485	6.2504	4.2129
40	3.165	3.2465	2.3565	3.3565	3.8331	7.483	6.8741	7.3264	6.7658	2.2684	6.1212	5.3146	5.3623	1.2002	4.7865	5.7389
41	5.476	5.5349	5.4612	5.8736	6.4187	9.266	9.1837	9.2241	7.7859	8.7689	3.8257	3.8274	4.2416	3.8116	5.2754	6.2851
42	2.812	3.0222	5.2357	3.129	3.2355	2.326	2.3719	3.6871	2.3025	2.2764	3.7003	3.7889	3.6884	7.4038	7.3885	7.4903
43	3.277	3.3685	2.7765	4.6746	3.0994	7.91	8.2678	6.9537	7.7645	7.9113	7.2133	7.2673	5.2733	7.8636	6.8126	7.2645
44	5.132	5.3985	4.2798	4.7872	4.8623	7.791	6.7418	8.3094	8.3009	7.2864	5.7644	5.8374	4.2895	7.2492	4.2895	4.2664
45	6.656	5.8235	4.6246	4.2156	3.3265	3.747	3.9972	4.2997	3.7489	3.6912	5.2347	4.7595	5.1982	5.2945	4.8564	4.8354
46	4.525	4.6489	4.5956	5.2245	4.5356	5.286	5.362	5.3769	2.074	5.3296	4.0565	4.2389	3.8775	4.2576	2.9105	3.1563
47	4.564	4.5164	3.8126	6.2156	4.5165	4.721	5.1997	5.2895	4.6674	7.7477	4.2565	3.6894	4.2866	8.4642	4.0564	3.6126
48	5.542	5.9211	5.4761	6.7846	5.4836	8.185	9.3641	8.8421	8.7864	9.2577	3.2167	4.3658	3.2805	3.8229	4.823	4.3276
49	5.421	4.5131	4.5496	4.5332	5.2313	7.294	6.7259	7.2846	2.3169	1.6751	6.2846	6.2756	6.3855	6.3652	6.3413	6.0102
50	5.139	6.2314	5.2399	4.7455	4.7856	8.279	8.265	6.7235	5.6717	8.355	5.8459	5.2516	6.7216	7.2895	5.8341	6.7856
51	3.326	2.7232	5.8233	3.2457	4.3231	5.274	5.2333	4.6533	4.7284	8.2185	3.8645	3.7565	4.2565	3.7652	3.8965	4.1003
52	2.835	2.8313	4.2685	3.4249	3.359	7.736	7.3582	7.7164	6.3207	8.3208	6.6548	7.3204	7.2951	4.7625	6.7752	6.8248
53	4.636	6.8626	4.5365	4.4665	4.4865	6.37	5.7783	6.3248	6.2635	6.7649	5.8249	6.8725	3.1154	8.0498	7.0549	7.1557
54	3.699	2.4366	5.319	1.2056	2.8655	4.837	1.3284	4.6719	5.3246	5.2867	1.2481	6.2561	5.7246	5.8348	6.2084	5.5086
55	4.807	2.9357	4.206	4.7723	5.3068	5.325	6.5865	4.7299	5.3244	5.335	4.2833	4.8164	5.1834	7.1453	3.8315	4.2645
56	3.325	3.3816	2.7634	5.1356	1.4165	7.855	8.2391	7.2844	7.8201	8.2447	3.8216	4.2572	3.2785	8.8341	4.2275	4.2384
57	4.853	1.5256	2.2365	4.2346	1.3245	6.327	6.3185	5.6648	4.7265	5.329	4.1943	4.0726	4.3218	3.7723	7.2288	4.0572
58	4.468	4.5336	4.4965	6.3875	4.3679	7.468	8.4659	7.4933	5.7352	7.4653	4.0287	5.2587	3.749	4.2207	4.2986	4.1859
59	5.22	5.3347	4.7247	4.8892	5.4236	5.103	5.7653	5.3373	7.4757	5.2347	5.8356	8.3298	7.2156	6.8286	5.7623	7.2457
60	5.475	5.7345	5.6246	4.7765	5.4751	5.735	5.2564	6.2982	6.1786	6.2416	8.3248	8.3672	7.2917	7.8144	7.8154	7.2978
61	5.429	5.1672	4.6532	5.3956	4.7765	7.874	6.8432	8.2597	6.1304	8.2459	2.8345	4.2814	5.2357	4.8277	4.2662	3.2574
62	5.625	5.3126	4.8334	4.8565	5.2156	5.279	4.6528	5.3279	8.2123	5.3047	7.2608	3.6895	3.7234	3.8233	3.2565	3.9562

No	x1	x2	x3	x4	x5	x6	x7	x8	x9	x10	x11	x12	x13	x14	x15	x16
63	5.623	5.2384	4.4233	1.8162	1.4262	3.895	4.3781	8.3447	4.3126	3.6781	5.3694	6.3384	6.4951	5.4349	5.0695	5.1676
64	5.564	5.4872	6.3249	6.4137	5.4779	4.743	5.1867	5.2981	4.3674	4.9188	6.2263	7.2861	6.2144	7.8351	3.8214	7.2463
65	5.312	6.3346	5.5632	4.6832	5.5366	4.72	6.3685	6.3479	5.3649	4.7079	5.2056	3.7773	3.2374	5.2583	5.2738	3.7843
66	3.113	4.1962	6.8125	5.0476	6.1428	5.231	6.7622	5.2659	5.8365	5.2375	6.8274	7.2495	5.8246	7.2952	6.2478	7.2951
67	2.657	2.7495	3.3245	4.3456	2.4249	5.317	4.7519	2.064	5.2685	9.6593	6.3267	6.4231	6.3442	6.3347	3.7656	5.2388
68	5.204	6.1682	6.7728	4.2384	6.1875	7.228	4.239	7.1689	5.7404	5.2381	5.2994	3.2685	5.2715	6.2346	3.2678	7.8214
69	3.374	5.2944	2.5821	6.8463	3.1835	5.455	3.6245	8.4027	3.7469	5.4322	4.2234	4.2352	4.2154	5.2466	5.2287	4.2415
70	3.128	4.1872	2.7724	5.2435	2.8671	5.365	5.2785	5.868	6.1657	6.3361	3.8643	2.8714	4.2677	3.2084	4.2115	3.8712
71	2.406	2.5894	2.9646	2.5685	5.3656	5.727	7.4352	5.684	7.4255	7.4362	7.3262	6.6736	7.0724	8.4263	6.7272	7.0995
72	4.436	3.8365	3.2646	2.2358	2.4365	9.375	9.3927	8.3566	9.3627	9.3451	3.888	3.8028	4.3829	4.2755	4.1262	4.1257
73	6.423	6.3656	5.5323	6.3665	5.0235	9.324	8.3481	9.227	9.2637	8.4679	3.7122	5.4084	4.2228	3.8194	3.7924	4.2683
74	4.313	4.2565	4.6146	5.6596	3.8156	3.815	3.6674	4.2864	9.6649	4.3371	5.249	5.3956	5.4856	5.5007	5.2895	5.0564
75	3.239	4.8237	2.9239	2.837	3.2457	2.33	1.3281	2.2765	2.3265	2.315	2.9778	4.2318	3.7384	3.7938	4.3284	3.7783
76	4.526	6.3873	4.4365	4.5681	6.7817	4.762	4.6715	7.454	3.7755	4.6716	3.8947	5.2207	3.2488	4.2018	2.8614	3.8457
77	4.88	4.7655	4.3274	4.7561	5.2165	5.266	5.1378	6.1251	4.7579	5.1345	4.2373	2.8192	4.8314	3.2864	3.7628	3.8113
78	5.322	5.3426	5.8346	4.5216	5.4335	5.703	5.3165	5.7792	5.6935	6.1257	5.8256	6.4832	6.4236	5.2562	5.8692	5.0466
79	4.412	6.2126	3.6126	3.6152	4.3126	3.657	7.6844	3.7856	4.2641	3.8179	4.8973	5.1895	5.0565	7.4316	4.6632	4.6379
80	3.696	3.7765	4.5022	4.5317	4.5656	6.443	7.4538	6.4472	5.3296	5.3847	4.8172	6.2372	4.7327	6.0073	6.1774	6.2732
81	4.727	5.2387	6.3255	4.8957	4.8207	6.721	8.3385	5.7739	7.6824	7.6697	5.0965	4.2646	5.2542	4.0028	4.1853	4.8346
82	5.202	6.4351	4.2103	5.3862	4.6922	8.549	6.8809	8.5699	7.4833	8.4637	8.2547	7.5237	6.8143	7.7544	7.2634	7.2464
83	5.466	5.3256	4.6926	4.6356	5.2827	4.665	5.3867	5.3977	2.6639	5.3847	4.0612	3.7672	4.4837	4.1823	7.4105	4.0934
84	2.779	1.3016	2.8736	3.3232	3.4233	8.192	7.8447	7.8295	8.2249	8.2526	3.2759	3.8946	3.8734	4.2736	4.2395	3.8612
85	3.125	4.1723	3.8871	4.8657	2.8354	5.233	5.2036	4.8277	5.2698	6.0565	8.2571	5.8531	7.3497	7.8154	8.2648	7.1872
86	2.325	2.6946	2.4346	1.0236	1.4459	7.117	9.3867	6.6929	7.3266	6.6681	3.7556	3.8231	4.1896	4.2564	2.8825	4.0531
87	4.235	6.239	5.5356	5.7646	5.1245	9.443	9.3769	8.2682	9.31	7.2748	8.4263	8.3273	4.3937	5.6894	6.6823	7.8172
88	5.214	5.1347	5.8865	4.8923	5.8659	4.83	4.8736	4.9626	5.2389	6.0924	3.8941	4.2679	4.2345	5.2785	3.2516	5.8337
89	4.653	5.1867	3.7976	4.2671	5.3814	5.237	5.1679	6.1377	4.7655	6.2385	3.8258	3.7541	4.8243	5.2615	2.4117	4.3096
90	5.474	5.4446	4.5135	4.5565	4.5898	6.328	4.8755	6.3217	6.3208	6.3977	7.9156	6.8278	6.8807	7.1683	6.1873	7.2076
91	5.336	6.1589	5.7614	6.416	5.8255	5.29	6.2835	6.6749	5.6831	5.7365	7.3623	7.0026	6.7627	6.5876	8.1076	5.4783
92	5.303	4.7658	5.1344	5.1975	5.4328	5.243	7.8362	8.2189	8.1374	6.8625	6.8185	5.7432	4.2198	6.8155	7.2534	6.1835
93	4.821	4.6146	4.5161	5.3546	4.5164	6.908	6.2174	6.7749	6.7365	7.3267	7.2565	4.2646	3.8231	2.7625	3.6865	4.0646

No	x1	x2	x3	x4	x5	x6	x7	x8	x9	x10	x11	x12	x13	x14	x15	x16
94	2.937	4.1357	3.2156	3.2547	3.7926	2.778	6.2948	5.2843	5.2644	5.2276	7.8278	4.3781	4.9821	3.6893	7.4927	6.0479
95	2.623	3.4266	3.4162	6.3123	3.3126	2.371	2.4901	2.2387	2.3456	5.3671	3.6577	3.6559	3.6286	3.6879	3.5789	3.577
96	5.483	6.0835	5.4733	5.5348	6.1473	5.48	6.5849	5.3385	5.5923	5.6387	3.8294	3.2917	4.2891	4.2117	5.2418	6.2674
97	4.274	3.7149	4.2332	6.7844	5.4122	4.759	5.2627	4.9003	5.8736	4.7544	4.2649	4.8247	3.8236	4.2617	3.8247	2.0147
98	2.335	2.2464	1.8164	2.8565	5.3124	6.329	4.7628	5.7634	7.8264	6.3512	5.3956	6.3452	4.5891	4.9231	5.2561	5.2892
99	3.366	4.2765	2.8356	2.6956	2.2688	7.363	5.4963	3.7951	7.4385	4.7953	1.2446	6.2874	5.1764	7.8468	5.2461	7.2385
100	5.452	3.6112	4.6125	3.6946	4.5331	2.319	6.6683	7.1485	7.3248	6.7852	4.2985	4.2314	4.2562	4.2865	3.8125	3.6212
101	4.573	2.4357	3.8242	5.3671	5.2341	6.758	5.7646	8.1174	8.2187	7.8621	5.2618	5.8274	4.2517	4.2847	5.8257	4.8541
102	4.624	5.4237	3.3865	2.7863	4.7952	5.433	7.2385	5.8573	7.5087	7.4657	6.2613	5.2542	6.2341	5.8263	5.2364	5.2184
103	5.514	5.5291	3.8805	5.4763	5.5541	8.82	1.8829	7.7988	7.2237	9.2278	4.2537	3.8623	4.5289	4.8369	6.2545	4.5374
104	5.582	6.3712	5.5761	5.8256	5.5635	5.435	5.4602	5.3577	3.6772	5.3467	6.6577	8.3728	5.8729	7.7279	5.8278	7.7513
105	2.773	3.8957	3.2385	3.254	1.3016	1.33	4.6739	5.387	5.2651	4.7295	4.3116	4.2487	3.6508	5.3554	4.7231	5.3561
106	5.534	5.4736	5.4866	4.162	5.6533	4.238	9.2732	6.8389	7.2029	8.8724	4.2047	6.2114	6.1847	4.2296	6.2318	5.5348
107	5.476	6.2751	5.3855	6.1325	5.5355	4.869	5.1657	6.0875	5.1866	4.7625	8.2433	7.5234	6.8274	8.5614	7.8239	7.2614
108	5.357	6.2264	4.8156	4.7461	5.4321	5.747	6.3284	8.2766	5.697	6.2133	6.3322	5.8256	6.2525	5.8364	6.1344	6.0355
109	3.187	4	5.779	4.263	4.2106	4.283	5.1984	4.9098	5.8841	6.9271	5.2476	6.2748	5.2867	5.2105	5.8427	6.8163
110	2.326	4.497	2.6346	1.3414	2.3346	6.739	8.3791	6.7238	6.6754	8.4537	4.2893	5.1584	4.8475	4.2628	5.2557	5.2723
111	4.695	4.5659	4.6956	4.5356	4.5656	7.366	8.3653	6.6922	8.4863	6.6592	6.2545	5.8901	7.2141	7.2612	5.8341	5.253
112	5.563	5.7962	6.6923	5.5646	5.5355	9.476	9.3861	8.4972	9.3869	9.4475	3.7923	4.2593	3.7483	3.284	3.7795	4.1628
113	5.594	4.2632	5.9532	5.5612	5.9546	5.769	4.7671	4.8099	4.6588	5.2873	8.2923	8.1183	6.6704	9.4081	7.3289	7.2678
114	5.473	4.1284	3.8714	5.5345	4.1873	5.187	3.8674	5.1187	5.3129	5.2751	5.8361	4.2518	3.8836	3.7618	5.3248	4.3672
115	3.322	2.7233	6.2656	3.3565	3.2565	2.227	2.4627	2.1756	2.3398	2.4164	8.3678	4.1906	3.1646	3.659	4.0713	4.3565
116	3.329	3.4129	3.3216	5.2322	3.6952	2.266	2.2659	2.2755	6.0248	2.2718	3.7898	3.9737	3.4589	4.0128	3.6387	4.0972
117	5.762	5.8716	5.7816	5.8721	6.0894	3.784	8.837	9.2554	7.8594	3.2477	4.274	4.8297	7.8476	5.2687	4.2897	4.2639
118	6.424	3.2496	3.8156	3.6165	4.2265	4.768	5.3368	8.4102	5.3096	5.3211	3.8231	3.6985	4.2654	4.2452	3.8325	4.1562
119	5.58	6.1376	4.2031	5.5752	5.6712	3.789	6.2509	8.2391	2.2273	7.8031	7.2817	5.1488	5.2454	7.1756	6.2598	5.5344
120	4.478	3.1572	2.7642	2.6816	2.5515	4.748	5.3471	5.2764	4.7534	5.9647	2.7952	4.3217	7.7248	5.3246	5.3274	4.3275
121	3.366	2.4323	2.7655	2.8256	3.2056	7.63	8.2967	6.6649	8.2658	8.2739	4.1869	4.0832	6.8627	4.2728	3.8389	4.1903
122	6.416	2.6265	2.8123	4.3265	3.1456	8.422	3.7864	4.207	3.7487	4.2715	4.1547	4.2846	4.3089	4.2898	4.4346	4.1645
123	4.621	2.2351	1.3352	3.3451	3.7341	5.374	5.3611	4.3738	5.3756	4.7619	3.2738	4.2078	5.3735	4.3079	3.7119	3.7278
124	3.243	6.8264	5.1074	3.7648	6.1385	5.268	7.2604	4.7725	6.0322	8.2952	4.2082	5.2107	3.7531	3.8672	4.2874	3.7723

No	x17	x18	x19	x20	x21	x22	x23	x24	x25	x26	x27	x28	x29	x30	x31
1	6.2648	6.2974	5.8453	5.7236	6.2578	6.8272	5.8417	5.3541	4.7654	5.8156	4.8925	5.2417	1.2954	1.5472	1.4825
2	3.2837	5.2654	5.1473	4.9425	4.3274	6.7425	6.3514	3.5221	6.1865	5.8264	6.3258	6.6822	5.4982	2.2467	5.3361
3	7.4329	6.2746	5.2478	5.2639	5.8106	5.5349	6.3574	6.8648	6.7341	4.2567	5.237	5.2828	4.3762	4.8824	5.2101
4	4.2648	4.1687	3.8247	3.2784	4.2697	3.2575	5.3524	5.8945	6.2545	6.2548	4.4763	4.8925	4.2895	3.7659	4.2851
5	7.3418	8.4635	8.4219	6.4238	6.2742	6.8275	6.7241	6.9244	5.7217	6.8418	5.8972	5.3429	4.8725	5.2698	4.2103
6	3.9521	3.8269	4.2738	3.2874	3.8569	3.1847	2.8365	3.8255	3.5821	1.8892	3.3852	3.2511	4.8628	4.3825	3.8019
7	4.2952	4.2867	3.2941	1.8126	2.2741	3.4532	3.2358	5.1865	6.2115	4.3511	1.8341	1.8635	1.3991	1.2571	1.4825
8	3.8637	4.1877	4.2169	3.2907	4.2736	2.8364	5.2561	3.2471	4.4381	5.8223	5.1811	6.8256	3.2514	2.7822	2.2648
9	5.2027	6.3128	4.8726	4.2056	3.2215	2.8932	4.3458	5.6564	6.3423	3.8263	6.7242	4.263	1.9467	2.1952	1.8952
10	4.2516	3.6747	5.4896	1.3247	2.2467	1.8329	5.8347	4.3521	3.8567	2.5341	3.4236	3.4825	1.1862	4.2982	1.3247
11	7.2467	6.7928	6.2845	4.3652	3.2541	4.8249	5.2841	5.8344	5.2842	6.2422	5.8743	4.5613	1.3528	1.2953	1.2246
12	6.2853	7.4248	6.7824	2.1052	1.8526	4.2841	5.3856	6.1523	5.2647	1.8521	3.1531	2.1524	1.8567	2.2854	2.3641
13	8.3462	7.1389	6.8759	6.3242	6.4485	6.3214	6.8233	6.7351	6.2511	6.7577	6.8245	2.7561	4.6389	5.7265	4.5967
14	3.8178	3.7115	4.2955	3.2579	2.8325	3.8237	3.8274	4.2954	3.2174	3.7133	3.8544	6.2644	1.2764	2.3215	1.0245
15	5.7084	4.7269	8.3514	3.4155	3.3912	5.8231	5.8237	6.2451	4.3891	1.7621	1.862	4.721	1.6923	3.2149	3.8511
16	3.8961	5.2874	4.9247	6.2483	5.2344	5.3699	5.8241	6.2514	3.3524	1.8246	1.8232	6.4344	2.2943	2.6218	2.4638
17	7.3951	6.7153	7.1749	3.2658	4.2681	3.1749	6.3423	6.7425	6.7896	6.3812	6.8341	6.6156	2.4089	1.1433	2.8241
18	8.2468	7.2694	6.2419	3.2564	3.3581	4.4134	5.5371	4.2582	6.529	5.4313	5.6124	6.2544	1.2674	1.3244	1.1745
19	4.8329	4.8267	3.8497	3.3854	2.3184	2.8236	4.2523	4.1467	3.2812	3.8235	3.3852	5.5456	5.2936	1.2449	1.3814
20	8.5431	7.8641	4.8275	6.7214	6.8209	6.5852	6.8277	5.8153	6.7253	6.8266	6.8264	1.8234	3.2681	4.4444	4.5019
21	4.8735	5.2471	6.2831	5.4236	6.8156	5.2685	5.8253	6.2174	6.8425	2.2947	4.5136	4.3626	4.8891	5.8134	4.7247
22	7.7265	8.3518	8.2163	6.4187	6.3246	6.8618	6.3428	6.5825	6.8147	3.2475	3.3814	2.7825	2.1432	2.2851	2.3169
23	4.2567	5.1455	4.3281	3.2458	2.2941	2.0249	6.6718	6.8277	6.3452	5.2812	6.7215	5.3618	1.2511	1.5924	2.3482
24	4.7236	6.2879	6.3217	4.8627	4.3267	4.7428	2.7635	2.3882	3.5274	4.4326	4.3522	2.8234	2.2519	1.1852	2.3652
25	3.3917	5.2174	3.7652	2.2841	4.8975	2.3568	5.2846	5.3567	5.7519	5.2471	2.2841	2.1436	1.8242	1.2952	2.2018
26	3.7659	4.2349	3.8274	5.2849	5.3671	6.3452	4.4346	4.8244	4.7615	6.7528	4.5247	6.3411	2.3685	2.4198	1.2056
27	3.7524	3.8957	4.2654	4.2738	4.8616	3.8245	5.3471	5.8244	4.8247	5.7955	4.7256	6.2423	1.5247	2.3849	1.2574
28	5.8348	6.1896	6.0574	6.2584	6.3426	5.2373	6.7522	5.3514	6.8205	2.2902	6.8244	6.7057	4.7629	4.3915	4.8725
29	6.8467	7.2951	5.8261	3.2674	3.8429	3.5248	4.5632	6.4675	6.2714	6.3175	6.8461	6.4325	5.1855	5.3674	3.8269
30	4.2189	4.2811	3.7816	3.5814	4.2633	3.8265	4.1504	4.4824	3.8462	3.2554	2.5642	2.2543	4.2935	4.2458	2.2761
31	4.2859	5.3364	3.8574	6.7191	6.8467	5.8247	3.2415	3.3524	4.5641	6.4811	4.7561	6.3551	3.8247	4.2638	2.3616

No	x17	x18	x19	x20	x21	x22	x23	X24	x25	x26	x27	x28	x29	x30	x31
32	4.2578	4.1863	4.2817	2.4618	3.2765	3.8426	4.2266	6.8425	6.7258	2.8361	2.7664	4.0635	4.1865	4.8891	4.3517
33	6.8207	8.2492	8.1567	6.4297	6.3851	6.6278	6.7855	6.4185	6.8452	6.7527	5.2814	6.7761	4.2739	4.5287	3.8468
34	3.2475	2.2791	3.8456	4.2157	4.2648	3.5524	5.4173	6.7581	6.8145	2.3524	2.8423	4.2553	4.3521	4.8236	3.8773
35	3.8235	4.2857	5.2697	6.4297	5.3562	6.5917	6.5617	6.8854	6.2825	6.3422	6.8017	6.7621	4.1805	4.2682	3.4825
36	8.7154	8.2641	7.8364	5.7625	5.3844	6.7862	6.2876	5.3241	6.8457	5.3624	6.8245	5.2674	2.2541	2.2422	2.803
37	3.7649	3.8211	4.2641	1.2658	1.8297	3.3516	5.1964	5.3218	4.3521	2.9642	5.8243	6.8242	1.328	1.2652	2.2594
38	4.3692	3.2869	3.8421	6.3285	6.8271	6.2482	3.2085	2.2841	4.4381	5.2823	4.3521	4.2153	3.3156	4.2856	4.8726
39	3.8516	4.2471	4.8325	6.3429	6.8452	5.8726	5.1823	5.2812	3.2457	5.3511	3.8352	3.9315	1.2871	1.3642	1.1874
40	5.2053	4.8266	6.1584	1.2385	3.8214	1.3615	5.2849	5.1765	5.335	1.3341	3.2947	1.4624	2.3825	1.8472	1.2941
41	4.7648	4.2819	3.8462	6.3171	6.8251	6.7337	6.8244	6.9104	5.8246	6.8625	2.2982	6.891	5.2692	4.8122	4.3517
42	3.7244	3.6742	3.3855	2.2569	2.2831	3.8457	3.2477	4.1865	2.8247	2.4538	2.7354	2.8345	1.2473	1.2536	1.2864
43	7.2461	7.1429	5.8679	4.2671	3.3849	4.2742	4.3005	4.8018	6.2841	5.8344	5.2864	6.2735	4.2893	4.3541	5.5766
44	3.8172	4.9216	3.8439	2.3627	2.294	3.3518	3.2356	3.1715	4.2856	3.8213	1.7225	1.8521	1.9198	1.7955	2.001
45	5.2492	4.8229	5.2843	3.2647	4.2531	3.1684	4.2842	3.7985	4.2135	2.8236	4.2536	3.2541	2.3517	1.5243	1.1505
46	2.2839	4.2841	3.8257	1.1452	2.8236	1.2647	4.2832	5.3244	4.5622	1.4612	4.3259	1.2517	1.2965	1.4719	1.5428
47	4.1863	4.2455	3.8119	4.8962	6.2138	5.1285	4.8953	6.8564	5.4529	5.3621	6.8145	5.2567	2.3927	1.3522	1.2507
48	3.8425	5.2761	4.2174	6.8295	6.3282	6.7289	6.4252	6.763	6.8014	3.2514	5.2641	4.8277	5.5925	6.5514	5.3618
49	5.7463	6.2819	6.1345	3.7526	3.5347	1.3291	4.8175	4.5196	5.3918	3.7762	1.1812	1.8625	1.8925	2.312	1.3001
50	2.2148	8.2674	5.8294	1.8219	1.8261	3.3259	5.2944	5.8916	6.3725	3.1844	6.7522	2.8361	1.6834	1.7129	1.6981
51	3.7286	4.3647	4.2174	3.2647	3.7561	2.2634	2.3647	3.1045	3.7541	4.3522	3.1566	3.2823	4.1528	2.4318	2.3472
52	7.4732	7.2159	6.7517	4.3943	2.2565	2.2784	6.1856	3.8841	6.3781	1.3711	2.2736	1.7522	1.2984	1.3485	1.8736
53	8.8365	7.2519	6.8247	3.2764	3.8279	3.2429	5.8611	5.3893	5.2179	5.3415	3.2814	5.2374	2.2449	2.3085	2.8725
54	5.4764	5.5107	7.2451	3.3952	3.4362	3.3521	3.2558	4.7666	5.2164	6.8214	6.7241	6.2144	1.1845	1.2634	1.8922
55	3.8881	5.2104	3.7852	1.8005	2.2398	1.8271	6.2476	5.8453	5.4816	6.8244	6.2834	6.3274	1.8134	1.8241	1.6554
56	1.2866	4.2768	3.8267	6.2516	5.2974	5.3214	5.8624	6.2414	5.3425	6.2314	5.2314	6.7205	3.2741	2.2419	2.3751
57	4.7324	3.6218	5.3957	3.3247	4.2952	3.1252	6.7896	6.2158	6.8456	2.8134	2.3411	3.3241	2.1524	2.7893	2.3861
58	4.2874	4.1864	3.8762	3.4289	3.3247	4.2881	6.2415	6.4244	5.8614	2.8344	3.2985	5.3892	4.8255	3.3524	3.8192
59	7.2468	5.2754	7.2416	3.2547	2.5349	3.4751	6.7824	4.5912	5.8264	5.8601	4.8002	4.9682	5.3278	3.3052	5.4237
60	3.2238	7.1765	6.2842	6.7922	6.8164	5.8824	6.2566	5.8612	6.7655	6.8246	6.2125	6.7529	2.3671	2.8348	2.2178
61	4.1782	5.2697	4.2876	5.8436	5.3806	5.4239	5.8243	6.1825	4.2855	6.8244	6.2435	5.8242	5.5435	4.3618	4.2861
62	3.8547	4.2679	4.2467	4.1654	5.8521	3.3914	3.4239	3.2241	3.8216	4.2189	3.2674	3.3541	2.4825	2.4739	3.0856

No	x17	x18	x19	x20	x21	x22	x23	x24	x25	x26	x27	x28	x29	x30	x31
63	6.3685	5.2866	4.7245	2.3618	2.2717	1.8516	3.2589	3.3589	3.9842	3.8264	3.2145	2.8135	2.2514	2.3246	2.8271
64	7.7467	7.2483	6.8912	5.7948	5.7626	6.3216	6.4825	6.7652	6.8421	6.7385	5.8256	6.8254	5.4811	5.2368	1.2189
65	5.1863	5.3815	5.4829	6.7746	6.3419	6.2953	5.8254	6.8242	6.7385	6.8126	5.7264	5.8213	2.2896	3.2567	3.2117
66	7.2694	6.8854	7.4195	5.5314	2.8574	3.2169	5.8256	5.4125	6.7458	5.8925	6.8524	5.5366	5.2002	4.2816	5.2114
67	6.3218	6.2721	7.4163	3.841	3.1758	3.2548	6.2207	5.1846	5.2874	3.2541	1.8932	1.8641	2.2567	1.1759	1.2463
68	6.3274	3.1836	6.8264	6.5841	2.3585	5.8244	4.1247	6.5561	5.8166	4.3692	5.2846	3.3644	2.2671	1.5874	2.2518
69	3.8297	4.8627	4.2814	2.2948	2.8246	3.2058	2.4389	2.7262	3.3283	4.2536	2.3485	3.2744	2.3472	2.2034	2.1468
70	5.1867	3.8474	4.1794	5.3248	6.1148	5.2105	6.7145	6.8247	4.1524	3.4325	4.2566	3.3096	4.8134	5.2156	5.249
71	7.3247	4.7625	7.4398	6.7952	6.9218	5.8009	5.3112	5.2855	6.349	3.3525	3.823	3.4156	1.2853	2.3685	1.2742
72	4.1432	4.2748	3.8265	3.3515	3.9814	3.3528	6.7644	5.2851	6.7558	4.2519	3.7861	4.8311	2.1347	2.2642	2.2567
73	4.3564	3.8418	4.2765	6.3841	6.8289	6.5281	6.7612	6.3284	6.7615	6.8144	6.4282	6.8524	5.2693	5.1497	4.8628
74	4.2344	4.821	4.1897	3.3457	4.2694	3.2674	3.1274	2.8297	2.2541	2.8344	2.4682	4.4263	2.8963	3.2857	2.4218
75	3.7105	3.7612	3.6814	2.3548	3.8152	2.2658	3.2874	3.2154	4.179	4.3547	3.2824	2.7625	4.2815	2.3465	2.2578
76	5.2674	3.9145	3.8146	6.8865	5.429	4.8265	3.8641	3.2422	4.3821	3.1925	3.8062	3.3511	1.2841	1.2964	1.3524
77	4.2031	2.8429	3.2463	6.8248	6.2048	5.8464	2.3824	2.8147	3.3712	6.8204	3.8439	4.1825	1.8274	1.8963	2.2179
78	5.1627	6.281	7.1468	5.4764	3.3821	1.2652	6.8275	5.5289	5.4298	1.3811	4.7462	1.8264	1.4992	2.1054	1.3847
79	5.0014	4.6274	7.4502	3.2168	3.8148	3.1759	2.8211	3.8617	3.7629	2.8341	3.2541	2.3954	2.8125	2.4653	2.9472
80	5.8264	8.223	1.2987	3.8264	3.2842	3.1874	5.8138	6.2534	4.8254	2.2565	3.2857	2.8621	1.2891	1.3541	1.5275
81	4.2768	3.8457	3.8619	2.2697	5.3218	2.4267	5.3128	6.2477	5.8941	5.3264	1.8247	1.7852	1.9425	2.3185	2.2544
82	6.8426	7.2483	6.2183	5.8661	5.3952	6.2748	5.7616	5.4256	5.8346	4.7622	5.9635	5.3472	4.3852	5.2633	4.2871
83	3.8759	4.2914	3.825	2.1728	3.8916	2.5274	3.2503	3.1475	5.2614	5.2644	4.5248	4.3129	1.9527	1.6438	2.2436
84	3.8672	5.1497	5.2743	3.2859	3.3244	4.3548	5.5374	6.8511	5.3279	5.8964	6.7628	6.3452	4.3629	2.2847	2.5671
85	6.7314	6.2841	8.2375	6.2854	5.5278	6.4235	6.9247	4.3516	6.7681	6.8256	1.535	6.7645	3.2576	3.3143	6.2383
86	5.2198	3.7814	4.2138	2.4395	5.8264	2.2187	4.8641	5.2473	3.8478	1.3231	1.4341	4.8311	1.2841	2.3642	2.1849
87	7.3594	8.2376	7.8425	6.7269	6.3528	6.8349	6.8615	6.8524	6.2084	5.7852	5.9155	6.9247	5.3481	4.8254	4.2238
88	4.1764	4.2815	4.2167	6.2	5.2447	6.8874	3.1152	2.9155	5.3646	3.8266	5.1202	4.2698	4.2377	3.3611	4.2981
89	5.2675	4.1892	4.2691	6.8501	6.8721	6.2387	5.8359	6.3285	2.3518	4.4528	5.2926	4.8927	3.8241	4.2841	5.8641
90	5.8623	5.7269	6.2871	3.2566	3.1087	4.2743	6.7544	6.2422	6.2519	4.2398	5.2915	4.8264	1.2085	2.3471	1.2874
91	7.2641	8.4915	7.8342	1.2485	4.3849	1.5338	3.5124	5.3456	3.2789	2.2152	1.7261	3.8321	2.2344	2.8429	2.4268
92	6.2863	7.2719	6.8452	6.7864	6.8014	5.8263	6.7185	6.2487	6.2174	5.8243	5.7253	5.3625	2.5462	4.6827	4.5274
93	4.2515	4.8961	4.1648	1.8635	1.8271	3.5862	5.3305	5.8256	5.3458	3.2581	1.3325	1.1423	1.2822	1.3541	1.5398

No	x17	x18	x19	x20	x21	x22	x23	x24	x25	x26	x27	x28	x29	x30	x31
94	3.8951	4.2641	3.7458	3.3276	3.2168	4.5289	3.2412	3.2511	4.3815	3.2851	2.3425	2.8562	1.2398	4.5362	1.2845
95	3.8148	5.2674	4.2591	2.2874	4.8236	2.2805	4.8264	3.7925	3.2537	4.2566	4.8236	2.7628	2.3248	2.4215	4.1452
96	3.8486	3.2547	4.2698	5.8439	5.3277	5.2648	5.8285	6.2156	5.3715	6.8433	5.8362	6.7382	3.843	4.7468	3.3825
97	3.7253	5.2648	4.3781	2.3108	2.8697	4.2274	1.3302	6.6814	6.8174	5.2135	5.8961	6.1035	4.8537	2.2096	4.5874
98	5.3641	4.7829	5.2814	4.2817	3.1529	2.8254	3.1896	6.2179	5.2741	4.2656	5.2642	3.8645	2.3676	2.2754	1.8241
99	6.2438	7.2865	5.2457	3.3249	3.2517	2.4167	3.5245	2.8457	3.2416	3.8232	3.3483	3.2685	3.2471	2.3682	1.2471
100	3.8147	3.9264	3.7648	3.8693	1.4131	1.5824	6.2378	5.3948	6.1472	1.2536	1.3241	3.8341	1.2876	1.1496	1.2613
101	4.8217	4.7594	7.2431	5.2482	6.8291	6.2658	6.5237	6.2544	5.8341	4.8356	4.3825	5.2892	4.2879	4.4233	4.8022
102	5.2673	6.2857	5.2647	3.2642	3.3575	2.2596	5.8136	5.3498	5.8336	4.2531	3.8514	3.3255	4.3261	4.8722	4.9361
103	4.2857	6.2672	3.8257	6.5274	6.7957	3.485	6.7214	6.2564	6.8	5.2656	6.3825	4.8265	4.5646	2.3568	4.3521
104	5.8674	8.2691	7.8215	5.1862	5.3054	5.7849	6.2537	6.3105	5.8834	5.8612	1.6522	1.7351	2.3185	2.2817	1.3587
105	5.2385	4.2971	3.8427	2.2816	2.3187	2.8395	3.1847	2.3614	3.2547	3.2537	5.8225	3.3254	2.2962	1.4011	1.3605
106	3.8427	3.8645	4.2851	6.3285	4.4175	6.7518	4.2334	6.8231	6.3	6.2387	6.7285	5.2394	5.301	2.2247	5.4281
107	7.7298	7.217	5.8326	6.7815	6.2285	6.9141	6.8246	4.823	6.91	5.8296	6.9722	6.8236	4.8716	4.448	4.3271
108	5.8495	5.7108	6.3216	2.2036	1.7219	1.8253	5.1878	4.8285	4.3265	1.7681	3.2942	1.8254	1.3052	1.2431	2.2815
109	5.7964	5.2814	5.5267	5.1247	4.3352	5.8541	6.5856	4.8321	6.8524	6.3142	4.5268	6.6725	4.9315	4.3628	5.1711
110	4.2922	5.2814	3.8576	5.3648	5.2817	6.1845	5.2564	4.8657	6.8824	3.8155	2.8344	4.8312	2.2674	2.4285	1.2761
111	5.8499	6.1836	5.2687	5.8237	6.2544	4.9235	5.2617	5.3423	6.2445	5.2641	5.8764	5.3581	2.7925	3.2563	3.8147
112	3.2839	4.3728	3.8415	6.7592	6.8409	5.1672	6.7682	6.5314	6.8244	6.7588	6.8541	5.5314	5.1674	5.2617	4.3829
113	7.4128	6.8953	3.3685	6.3854	6.7538	6.8251	4.8252	5.8514	6.8234	3.2517	5.2741	4.3411	4.3518	5.2436	4.2687
114	3.8675	5.2846	4.2514	6.8147	4.7958	5.3264	6.7541	5.2644	5.7825	6.2533	6.4835	6.3525	4.2389	5.2946	4.8265
115	4.2611	3.8274	4.2136	2.2941	2.2854	4.8234	3.3685	3.8544	3.7958	2.2656	2.3566	2.8234	2.3657	1.4215	1.8243
116	3.4496	5.3574	4.2196	2.8647	3.2561	2.8241	6.7925	4.3257	4.2567	3.3255	3.8291	5.2166	1.8647	1.241	2.2864
117	5.8736	4.2892	6.2188	5.3634	5.7408	6.8258	6.8254	4.5241	6.8	6.8105	6.1936	6.7522	5.8205	4.1756	4.2185
118	4.2208	3.8475	4.2636	2.2467	3.2766	4.8245	3.5471	3.8638	3.475	4.3528	4.2582	4.8247	3.4185	2.5347	3.1105
119	8.5728	7.6455	6.8534	6.5534	6.3451	5.2681	3.2825	6.7256	5.8231	4.8622	6.8523	6.5266	5.2561	3.8711	3.7117
120	4.3518	3.8419	5.3644	2.4616	3.2748	4.4418	3.3859	3.2514	2.2154	2.8325	3.2413	3.1055	2.3671	1.2874	2.2168
121	3.8715	3.2647	3.3574	4.2648	3.2845	3.3251	4.8561	6.8235	6.4457	6.7521	6.2421	5.8212	3.4825	3.2647	2.1463
122	4.3287	3.8425	4.2741	2.3716	3.1765	2.8439	5.8614	4.5285	5.2641	2.4135	2.7569	2.8342	3.3692	3.2415	3.0252
123	4.3285	4.2674	4.1864	5.2618	5.8674	5.3248	6.8346	6.7658	6.8255	6.2755	6.3754	5.2741	2.2679	3.2856	3.1198
124	2.8274	4.2348	4.2635	2.4813	4.3657	3.3841	5.4385	4.4457	3.2515	6.8266	5.2965	6.5756	5.2644	2.3471	5.3157

Descriptive Statistics (unstandardized)

	N	Minimum	Maximum	Mean	Std. Deviation
X1	124	2.3246	6.6564	4.440080	1.116493
X2	124	1.3016	6.9613	4.534952	1.371214
X3	124	1.3352	6.8790	4.452031	1.290383
X4	124	1.0236	6.8463	4.506173	1.260615
X5	124	1.3016	6.7817	4.338975	1.283117
X6	124	1.3295	9.4759	5.946481	1.873261
X7	124	1.3281	9.4408	6.076386	1.940132
X8	124	1.2679	9.2554	6.053220	1.816979
X9	124	1.3087	9.6649	5.949768	1.868234
X10	124	1.6751	9.6593	6.134631	1.821649
X11	124	1.2446	9.2865	5.204456	1.619249
X12	124	2.8192	8.3728	5.257118	1.412896
X13	124	3.0565	8.3123	5.096231	1.284744
X14	124	1.2002	9.4081	5.370920	1.749641
X15	124	2.4117	8.2648	5.145238	1.413469
X16	124	2.0147	7.8214	5.110903	1.374300
X17	124	1.2866	8.8365	5.100305	1.553620
X18	124	2.2791	8.4915	5.312253	1.477639
X19	124	1.2987	8.4219	5.166792	1.458980
X20	124	1.1452	6.8865	4.337284	1.750004
X21	124	1.4131	6.9218	4.445412	1.589284
X22	124	1.2647	6.9141	4.350421	1.665702
X23	124	1.3302	6.9247	5.165247	1.384729
X24	124	2.2841	6.9244	5.223821	1.305965
X25	124	2.2154	6.9100	5.317355	1.297399
X26	124	1.2536	6.8625	4.527803	1.701508
X27	124	1.1812	6.9722	4.469657	1.693252
X28	124	1.1423	6.9247	4.523516	1.673262
X29	124	1.1845	5.8205	3.079209	1.442982
X30	124	1.1433	6.5514	2.958548	1.393546
X31	124	1.0245	6.2383	2.945873	1.417595
Valid N (listwise)	124				

Descriptive Statistics (standardized)

	N	Minimum	Maximum	Mean	Std. Deviation
Zscore(X1)	124	-1.89475	1.98507	-9.7491459E-16	1.0000000
Zscore(X2)	124	-2.35802	1.76949	-4.1806836E-16	1.0000000
Zscore(X3)	124	-2.41543	1.88081	2.775558E-17	1.0000000
Zscore(X4)	124	-2.76260	1.85634	1.884777E-15	1.0000000
Zscore(X5)	124	-2.36718	1.90374	1.023487E-15	1.0000000
Zscore(X6)	124	-2.46468	1.88410	6.591949E-16	1.0000000
Zscore(X7)	124	-2.44740	1.73412	5.403664E-16	1.0000000
Zscore(X8)	124	-2.63367	1.76236	1.305379E-15	1.0000000
Zscore(X9)	124	-2.48420	1.98858	2.232860E-15	1.0000000
Zscore(X10)	124	-2.44807	1.93488	-5.0133508E-16	1.0000000
Zscore(X11)	124	-2.44549	2.52095	7.520026E-16	1.0000000
Zscore(X12)	124	-1.72548	2.20517	-5.5565361E-16	1.0000000
Zscore(X13)	124	-1.58766	2.50328	-5.5337679E-16	1.0000000
Zscore(X14)	124	-2.38376	2.30743	-3.4520997E-16	1.0000000
Zscore(X15)	124	-1.93392	2.20702	9.445569E-16	1.0000000
Zscore(X16)	124	-2.25293	1.97228	2.706169E-16	1.0000000
Zscore(X17)	124	-2.45472	2.40483	1.283695E-16	1.0000000
Zscore(X18)	124	-2.05270	2.15157	-1.9576354E-15	1.0000000
Zscore(X19)	124	-2.65123	2.23108	2.014014E-15	1.0000000
Zscore(X20)	124	-1.82404	1.45669	1.172673E-15	1.0000000
Zscore(X21)	124	-1.90797	1.55818	1.325329E-15	1.0000000
Zscore(X22)	124	-1.85250	1.53910	6.774095E-16	1.0000000
Zscore(X23)	124	-2.76953	1.27061	1.758576E-16	1.0000000
Zscore(X24)	124	-2.25099	1.30216	-5.9067334E-16	1.0000000
Zscore(X25)	124	-2.39090	1.22757	-8.4654506E-16	1.0000000
Zscore(X26)	124	-1.92429	1.37213	-3.7643499E-16	1.0000000
Zscore(X27)	124	-1.94210	1.47795	1.019150E-15	1.0000000
Zscore(X28)	124	-2.02073	1.43503	-1.3548190E-15	1.0000000
Zscore(X29)	124	-1.31305	1.89974	6.349088E-16	1.0000000
Zscore(X30)	124	-1.30261	2.57821	-2.9186722E-16	1.0000000
Zscore(X31)	124	-1.35537	2.32254	-6.6960326E-16	1.0000000
Valid N (listwise)	124				

Mahalanobis Distance

Observations farthest from the centroid (Mahalanobis distance)

Observation number	Mahalanobis d-squared	p1	p2
68	52.622	0.009	0.675
54	52.102	0.010	0.362
5	50.624	0.014	0.268
117	50.408	0.015	0.122
103	49.605	0.018	0.079
97	49.124	0.020	0.043
50	48.202	0.025	0.038
85	47.885	0.027	0.020
124	46.869	0.034	0.025
80	45.496	0.045	0.054
100	45.374	0.046	0.029
119	45.114	0.049	0.018
14	45.020	0.050	0.009
56	44.769	0.052	0.005
99	44.430	0.056	0.004
106	44.409	0.056	0.002
40	43.068	0.073	0.009
15	42.933	0.075	0.005
42	42.866	0.076	0.003
18	42.596	0.080	0.002
94	42.094	0.088	0.003
86	41.932	0.091	0.002
36	41.805	0.093	0.001
63	41.624	0.096	0.001
115	41.364	0.101	0.001
49	40.401	0.120	0.003
91	40.095	0.127	0.003
69	39.726	0.135	0.004
67	39.428	0.142	0.004
89	39.169	0.149	0.004
19	38.838	0.157	0.005
71	38.670	0.162	0.004
113	37.719	0.189	0.022
24	37.622	0.192	0.016
37	37.394	0.199	0.016
95	37.172	0.206	0.016
30	37.131	0.207	0.010
104	36.347	0.234	0.038
1	35.954	0.248	0.055
20	35.595	0.261	0.074
79	35.326	0.271	0.084
2	35.226	0.275	0.070
53	35.133	0.279	0.058
76	35.108	0.280	0.041
74	34.416	0.308	0.109

60	34.155	0.318	0.124
16	33.960	0.327	0.127
33	33.677	0.339	0.151
10	33.526	0.346	0.144
64	33.332	0.354	0.149
57	32.737	0.382	0.278
52	32.144	0.410	0.448
105	31.923	0.420	0.472
98	31.790	0.427	0.458
47	31.591	0.437	0.474
66	31.163	0.458	0.591
25	31.103	0.461	0.547
78	31.016	0.465	0.514
122	30.703	0.481	0.583
41	30.195	0.507	0.729
116	29.803	0.527	0.811
110	29.595	0.538	0.828
59	29.444	0.546	0.827
12	29.210	0.558	0.850
22	28.503	0.595	0.955
62	28.467	0.597	0.940
75	28.373	0.602	0.931
87	28.044	0.619	0.955
120	27.735	0.635	0.970
102	27.390	0.652	0.983
44	27.370	0.653	0.975
34	27.182	0.663	0.978
43	27.172	0.664	0.967
70	27.087	0.668	0.960
101	27.017	0.671	0.951
28	27.016	0.671	0.929
81	26.783	0.683	0.941
121	26.617	0.691	0.943
39	26.318	0.706	0.961
51	26.285	0.708	0.946
88	25.810	0.730	0.977
29	25.681	0.736	0.975
77	25.650	0.738	0.965
8	25.611	0.740	0.951
93	25.453	0.747	0.951
7	25.424	0.748	0.932
118	25.197	0.759	0.942
13	24.919	0.771	0.956
32	24.478	0.791	0.979
17	24.156	0.804	0.987
114	23.734	0.821	0.994
123	23.591	0.827	0.994
21	23.583	0.827	0.989
92	23.322	0.837	0.992
55	23.286	0.839	0.987
83	23.140	0.844	0.985

Mahalanobis distance adalah jarak statistik kuadrat suatu datum pada titik tertentu (μ). Proses perhitungan mahalanobis distance di atas adalah sebagai berikut:

$$\begin{aligned}
 (\text{Statistic distance})^2 &= \begin{bmatrix} x_1 - \mu_1 & x_2 - \mu_2 & \dots & x_{31} - \mu_{31} \end{bmatrix} \begin{bmatrix} a_{11} & a_{12} & a_{13} \dots a_{1,31} \\ a_{21} & a_{22} & a_{23} \dots a_{2,31} \\ a_{31} & a_{32} & a_{33} \dots a_{3,31} \\ \vdots & \vdots & \vdots & \vdots \\ a_{31,1} & a_{31,2} & a_{31,3} \dots a_{31,31} \end{bmatrix} \begin{bmatrix} x_1 - \mu_1 \\ x_2 - \mu_2 \\ x_3 - \mu_3 \\ \vdots \\ x_{31} - \mu_{31} \end{bmatrix} \\
 &= (\mathbf{x} - \boldsymbol{\mu})' \mathbf{A} (\mathbf{x} - \boldsymbol{\mu})
 \end{aligned}$$

Matriks A didekati dengan Σ^{-1} sehingga persamaan di atas menjadi:

$$\begin{aligned}
 (\text{Statistic distance})^2 &= (\mathbf{x} - \boldsymbol{\mu})' \Sigma^{-1} (\mathbf{x} - \boldsymbol{\mu}) \\
 (\text{Statistic distance})^2 &= \begin{bmatrix} x_1 - \mu_1 & x_2 - \mu_2 & \dots & x_{31} - \mu_{31} \end{bmatrix} \begin{bmatrix} \Sigma_{11} & \Sigma_{12} & \Sigma_{13} & \dots & \Sigma_{1,31} \\ \Sigma_{21} & \Sigma_{22} & \Sigma_{23} & \dots & \Sigma_{2,31} \\ \Sigma_{31} & \Sigma_{32} & \Sigma_{33} & \dots & \Sigma_{3,31} \\ \vdots & \vdots & \vdots & \vdots & \vdots \\ \Sigma_{31,1} & \Sigma_{31,2} & \Sigma_{31,3} & \dots & \Sigma_{31,31} \end{bmatrix}^{-1} \begin{bmatrix} x_1 - \mu_1 \\ x_2 - \mu_2 \\ x_3 - \mu_3 \\ \vdots \\ x_{31} - \mu_{31} \end{bmatrix}
 \end{aligned}$$

Σ^{-1} (p x p) dapat diuraikan menjadi p eigenvalues dan p eigenvectors.

$$\begin{aligned}
 \begin{bmatrix} \Sigma_{11} & \Sigma_{12} & \Sigma_{13} & \dots & \Sigma_{1,31} \\ \Sigma_{21} & \Sigma_{22} & \Sigma_{23} & \dots & \Sigma_{2,31} \\ \Sigma_{31} & \Sigma_{32} & \Sigma_{33} & \dots & \Sigma_{3,31} \\ \vdots & \vdots & \vdots & \vdots & \vdots \\ \Sigma_{31,1} & \Sigma_{31,2} & \Sigma_{31,3} & \dots & \Sigma_{31,31} \end{bmatrix}^{-1} &= \lambda_1^{-1} \begin{bmatrix} e_{1,1} \\ e_{2,1} \\ e_{3,1} \\ \vdots \\ e_{31,1} \end{bmatrix} \begin{bmatrix} e_{1,1} & e_{2,1} \dots e_{31,1} \end{bmatrix} + \lambda_2^{-1} \begin{bmatrix} e_{1,2} \\ e_{2,2} \\ e_{3,2} \\ \vdots \\ e_{31,2} \end{bmatrix} \begin{bmatrix} e_{1,2} & e_{2,2} \dots e_{31,2} \end{bmatrix} + \\
 &\dots + \lambda_{31}^{-1} \begin{bmatrix} e_{1,31} \\ e_{2,31} \\ e_{3,31} \\ \vdots \\ e_{31,31} \end{bmatrix} \begin{bmatrix} e_{1,31} & e_{2,31} \dots e_{31,31} \end{bmatrix}
 \end{aligned}$$

$$\Sigma^{-1} = \lambda_1^{-1} \mathbf{e}_1(\mathbf{e}_1)' + \lambda_2^{-1} \mathbf{e}_2(\mathbf{e}_2)' + \dots + \lambda_{31}^{-1} \mathbf{e}_{31}(\mathbf{e}_{31})'$$

di mana $\lambda_1 > \lambda_2 > \dots > \lambda_{30} > \lambda_{31}$

$$\begin{aligned}
(\text{Statistic distance})^2 &= (\mathbf{x} - \boldsymbol{\mu})' \boldsymbol{\Sigma}^{-1} (\mathbf{x} - \boldsymbol{\mu}) \\
&= (\mathbf{x} - \boldsymbol{\mu})' \{ \lambda_1^{-1} \mathbf{e}_1(\mathbf{e}_1)' + \lambda_2^{-1} \mathbf{e}_2(\mathbf{e}_2)' + \dots + \lambda_{31}^{-1} \mathbf{e}_{31}(\mathbf{e}_{31})' \} (\mathbf{x} - \boldsymbol{\mu}) \\
&= \lambda_1^{-1} (\mathbf{x} - \boldsymbol{\mu})' \mathbf{e}_1(\mathbf{e}_1)' (\mathbf{x} - \boldsymbol{\mu}) + \lambda_2^{-1} (\mathbf{x} - \boldsymbol{\mu})' \mathbf{e}_2(\mathbf{e}_2)' (\mathbf{x} - \boldsymbol{\mu}) + \dots + \\
&\quad \lambda_{31}^{-1} (\mathbf{x} - \boldsymbol{\mu})' \mathbf{e}_{31}(\mathbf{e}_{31})' (\mathbf{x} - \boldsymbol{\mu}) \\
&= \lambda_1^{-1} [(\mathbf{x} - \boldsymbol{\mu})' \mathbf{e}_1]^2 + \lambda_2^{-1} [(\mathbf{x} - \boldsymbol{\mu})' \mathbf{e}_2]^2 + \dots + \lambda_{31}^{-1} [(\mathbf{x} - \boldsymbol{\mu})' \mathbf{e}_{31}]^2
\end{aligned}$$

Faktor $[(\mathbf{x} - \boldsymbol{\mu})' \mathbf{e}_i]$ menunjukkan bahwa koordinat atau vektor posisi $(\mathbf{x} - \boldsymbol{\mu})$ diproyeksikan ke sumbu yang baru yang diwakili oleh \mathbf{e}_i . Proyeksi pada \mathbf{e}_i akan menghasilkan koordinat baru pada sumbu \mathbf{e}_i . Terdapat 31 *eigenvectors* (\mathbf{e}_i) sehingga terdapat 31 sumbu koordinat yang baru. Vektor posisi $(\mathbf{x} - \boldsymbol{\mu})$ diproyeksikan pada 31 sumbu yang baru sehingga dihasilkan 31 koordinat yang baru. Suku $\lambda_i^{-1} [(\mathbf{x} - \boldsymbol{\mu})' \mathbf{e}_i]^2$ dapat diubah menjadi $[(\mathbf{x} - \boldsymbol{\mu})' \mathbf{e}_i / \lambda_i^{1/2}]^2$. Hal ini menunjukkan bahwa setelah dilakukan proyeksi, faktor $(\mathbf{x} - \boldsymbol{\mu})' \mathbf{e}_i$ dibagi dengan deviasi standar sebesar $\lambda_i^{1/2}$ kemudian hasil pembagian tersebut dikuadratkan. Hal ini dilakukan pada 31 variabel dan sesuai hukum *pythagorean*, hasilnya dijumlahkan untuk membentuk jarak statistik kuadrat (*square statistic distance*) antara suatu titik $(\mathbf{x} - \boldsymbol{\mu})$ dan titik pusat ($\mathbf{0}$).

LAMPIRAN 3
KORELASI ITEM – TOTAL ITEM

HASIL UJI KORELASI ITEM-TOTAL ITEM

Variabel *Resource uniqueness*

		X1	X2	X3	X4	X5	TOTAL
X1	Pearson Correlation	1	.493**	.415**	.478**	.525**	.732**
	Sig. (2-tailed)		0	0	0	0	0
	N	124	124	124	124	124	124
X2	Pearson Correlation	.493**	1	.572**	.476**	.554**	.806**
	Sig. (2-tailed)	0		0	0	0	0
	N	124	124	124	124	124	124
X3	Pearson Correlation	.415**	.572**	1	.467**	.561**	.781**
	Sig. (2-tailed)	0	0		0	0	0
	N	124	124	124	124	124	124
X4	Pearson Correlation	.478**	.476**	.467**	1	.524**	.755**
	Sig. (2-tailed)	0	0	0		0	0
	N	124	124	124	124	124	124
X5	Pearson Correlation	.525**	.554**	.561**	.524**	1	.815**
	Sig. (2-tailed)	0	0	0	0		0
	N	124	124	124	124	124	124
TOTAL	Pearson Correlation	.732**	.806**	.781**	.755**	.815**	1
	Sig. (2-tailed)	0	0	0	0	0	
	N	124	124	124	124	124	124

** Correlation is significant at the 0.01 level (2-tailed).

Variabel *resource uniqueness similarity*

		X6	X7	X8	X9	X10	TOTAL
X6	Pearson Correlation	1	.590**	.623**	.577**	.598**	.829**
	Sig. (2-tailed)		0	0	0	0	0
	N	124	124	124	124	124	124
X7	Pearson Correlation	.590**	1	.627**	.623**	.586**	.842**
	Sig. (2-tailed)	0		0	0	0	0
	N	124	124	124	124	124	124
X8	Pearson Correlation	.623**	.627**	1	.523**	.530**	.806**
	Sig. (2-tailed)	0	0		0	0	0
	N	124	124	124	124	124	124
X9	Pearson Correlation	.577**	.623**	.523**	1	.568**	.806**
	Sig. (2-tailed)	0	0	0		0	0
	N	124	124	124	124	124	124
X10	Pearson Correlation	.598**	.586**	.530**	.568**	1	.801**
	Sig. (2-tailed)	0	0	0	0		0
	N	124	124	124	124	124	124
TOTAL	Pearson Correlation	.829**	.842**	.806**	.806**	.801**	1
	Sig. (2-tailed)	0	0	0	0	0	
	N	124	124	124	124	124	124

** Correlation is significant at the 0.01 level (2-tailed).

Variabel culture similarity

		X11	X12	X13	X14	X15	X16	X17	X18	X19	TOTAL
X11	Pearson Correlation	1	.604**	.488**	.434**	.517**	.579**	.559**	.589**	.526**	.757**
	Sig. (2-tailed)		0	0	0	0	0	0	0	0	0
	N	124	124	124	124	124	124	124	124	124	124
X12	Pearson Correlation	.604**	1	.563**	.582**	.522**	.609**	.637**	.707**	.585**	.824**
	Sig. (2-tailed)	0		0	0	0	0	0	0	0	0
	N	124	124	124	124	124	124	124	124	124	124
X13	Pearson Correlation	.488**	.563**	1	.473**	.475**	.569**	.564**	.506**	.554**	.727**
	Sig. (2-tailed)	0	0		0	0	0	0	0	0	0
	N	124	124	124	124	124	124	124	124	124	124
X14	Pearson Correlation	.434**	.582**	.473**	1	.460**	.565**	.576**	.631**	.488**	.753**
	Sig. (2-tailed)	0	0	0		0	0	0	0	0	0
	N	124	124	124	124	124	124	124	124	124	124
X15	Pearson Correlation	.517**	.522**	.475**	.460**	1	.598**	.525**	.567**	.466**	.725**
	Sig. (2-tailed)	0	0	0	0		0	0	0	0	0
	N	124	124	124	124	124	124	124	124	124	124
X16	Pearson Correlation	.579**	.609**	.569**	.565**	.598**	1	.643**	.591**	.532**	.804**
	Sig. (2-tailed)	0	0	0	0	0		0	0	0	0
	N	124	124	124	124	124	124	124	124	124	124
X17	Pearson Correlation	.559**	.637**	.564**	.576**	.525**	.643**	1	.684**	.662**	.834**
	Sig. (2-tailed)	0	0	0	0	0	0		0	0	0
	N	124	124	124	124	124	124	124	124	124	124
X18	Pearson Correlation	.589**	.707**	.506**	.631**	.567**	.591**	.684**	1	.608**	.839**
	Sig. (2-tailed)	0	0	0	0	0	0	0		0	0
	N	124	124	124	124	124	124	124	124	124	124
X19	Pearson Correlation	.526**	.585**	.554**	.488**	.466**	.532**	.662**	.608**	1	.769**
	Sig. (2-tailed)	0	0	0	0	0	0	0	0		0
	N	124	124	124	124	124	124	124	124	124	124
TOTAL	Pearson Correlation	.757**	.824**	.727**	.753**	.725**	.804**	.834**	.839**	.769**	1
	Sig. (2-tailed)	0	0	0	0	0	0	0	0	0	
	N	124	124	124	124	124	124	124	124	124	124

** Correlation is significant at the 0.01 level (2-tailed).

Variabel *trust*

		X20	X21	X22	TOTAL
X20	Pearson Correlation	1	.780**	.789**	.941**
	Sig. (2-tailed)		0	0	0
	N	124	124	124	124
X21	Pearson Correlation	.780**	1	.687**	.896**
	Sig. (2-tailed)	0		0	0
	N	124	124	124	124
X22	Pearson Correlation	.789**	.687**	1	.904**
	Sig. (2-tailed)	0	0		0
	N	124	124	124	124
TOTAL	Pearson Correlation	.941**	.896**	.904**	1
	Sig. (2-tailed)	0	0	0	
	N	124	124	124	124

** Correlation is significant at the 0.01 level (2-tailed).

Variabel *commitment*

		X23	X24	X25	TOTAL
X23	Pearson Correlation	1	.595**	.572**	.855**
	Sig. (2-tailed)		0	0	0
	N	124	124	124	124
X24	Pearson Correlation	.595**	1	.598**	.855**
	Sig. (2-tailed)	0		0	0
	N	124	124	124	124
X25	Pearson Correlation	.572**	.598**	1	.845**
	Sig. (2-tailed)	0	0		0
	N	124	124	124	124
TOTAL	Pearson Correlation	.855**	.855**	.845**	1
	Sig. (2-tailed)	0	0	0	
	N	124	124	124	124

** Correlation is significant at the 0.01 level (2-tailed).

Variabel communication

		X26	X27	X28	TOTAL
X26	Pearson Correlation	1	.578**	.597**	.855**
	Sig. (2-tailed)		0	0	0
	N	124	124	124	124
X27	Pearson Correlation	.578**	1	.572**	.844**
	Sig. (2-tailed)	0		0	0
	N	124	124	124	124
X28	Pearson Correlation	.597**	.572**	1	.850**
	Sig. (2-tailed)	0	0		0
	N	124	124	124	124
TOTAL	Pearson Correlation	.855**	.844**	.850**	1
	Sig. (2-tailed)	0	0	0	
	N	124	124	124	124

** Correlation is significant at the 0.01 level (2-tailed).

Variabel performance

		X29	X30	X31	TOTAL
X29	Pearson Correlation	1	.711**	.752**	.913**
	Sig. (2-tailed)		0	0	0
	N	124	124	124	124
X30	Pearson Correlation	.711**	1	.691**	.886**
	Sig. (2-tailed)	0		0	0
	N	124	124	124	124
X31	Pearson Correlation	.752**	.691**	1	.904**
	Sig. (2-tailed)	0	0		0
	N	124	124	124	124
TOTAL	Pearson Correlation	.913**	.886**	.904**	1
	Sig. (2-tailed)	0	0	0	
	N	124	124	124	124

** Correlation is significant at the 0.01 level (2-tailed).

		<i>Resource uniqueness</i>	<i>Resource uniqueness similarity</i>	<i>Cultural similarity</i>	<i>Trust</i>	<i>Commitment</i>	<i>Communication</i>	<i>Alliance Performance</i>
<i>Resource uniqueness</i>	Pearson Correlation	1	0.12203	0.14398	0.38667**	0.20308*	0.24337**	0.41308**
	Sig. (2-tailed)		0.17697	0.11062	9.2E-06	0.02369	0.00646	1.9E-06
	N	124	124	124	124	124	124	124
<i>Resource uniqueness similarity</i>	Pearson Correlation	0.12203	1	0.07376	0.31366**	0.49918**	0.26807**	0.34075**
	Sig. (2-tailed)	0.17697		0.41558	0.00039	3.6E-09	0.00261	0.00011
	N	124	124	124	124	124	124	124
<i>Cultural Similarity</i>	Pearson Correlation	0.14398	0.07376	1	0.24607**	0.34073**	0.13179	0.10691
	Sig. (2-tailed)	0.11062	0.41558		0.00587	0.00011	0.14456	0.23727
	N	124	124	124	124	124	124	124
<i>Trust</i>	Pearson Correlation	0.38667**	0.31366**	0.24607**	1	0.40342**	0.52411**	0.5251**
	Sig. (2-tailed)	9.2E-06	0.00039	0.00587		3.4E-06	3.9E-10	3.6E-10
	N	124	124	124	124	124	124	124
<i>Commitment</i>	Pearson Correlation	0.20308*	0.49918**	0.34073**	0.40342**	1	0.40924**	0.36926**
	Sig. (2-tailed)	0.02369	3.6E-09	0.00011	3.4E-06		2.4E-06	2.4E-05
	N	124	124	124	124	124	124	124
<i>Communication</i>	Pearson Correlation	0.24337**	0.26807**	0.13179	0.52411**	0.40924**	1	0.45455**
	Sig. (2-tailed)	0.00646	0.00261	0.14456	3.9E-10	2.4E-06		1.1E-07
	N	124	124	124	124	124	124	124
<i>Alliance Performance</i>	Pearson Correlation	0.41308**	0.34075**	0.10691	0.5251**	0.36926**	0.45455**	1
	Sig. (2-tailed)	1.9E-06	0.00011	0.23727	3.6E-10	2.4E-05	1.1E-07	
	N	124	124	124	124	124	124	124

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

LAMPIRAN 5
*MULTIVARIATE UNIDIMENSION FACTOR
ANALYSIS DAN MULTIVARIATE UNIDIMENSION
PRINCIPAL
COMPONENT ANALYSIS* UNTUK TIAP
VARIABEL LATEN

5.1 Variabel *resource uniqueness*

Communalities

	Initial	Extraction
X1	1	0.550627118
X2	1	0.639010966
X3	1	0.603414657
X4	1	0.565776498
X5	1	0.671013332

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.02984	60.59685143	60.5968514	3.02984	60.59685143	60.5968514
2	0.60794	12.15889661	72.755748			
3	0.5279	10.55805669	83.3138047			
4	0.43628	8.725537352	92.0393421			
5	0.39803	7.960657915	100			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component (loading factor = $\lambda^{1/2} \cdot e$)	Eigenvector (e) (loading factor / $\lambda^{1/2}$) $\lambda=3.02984$
	1	
X1	0.742043	0.426304
X2	0.799382	0.459245
X3	0.776798	0.446271
X4	0.752181	0.432128
X5	0.819154	0.470604

Extraction Method: Principal Component Analysis.

1 components extracted.

Hasil analisis SPSS di atas dijabarkan ke dalam bentuk persamaan *principal component* dan *factor analysis* sebagai berikut:

5.1.1 *Principal component analysis*

Variabel laten *resource uniqueness* diukur dengan menggunakan 5 variabel *observed*. Matriks kovarian memiliki derajat 5 x 5 yang dapat dijabarkan menjadi 5 *eigenvalues* (konstanta, dilambangkan dengan simbol λ_i) dan 5 *eigenvector* (vektor dengan derajat 5x1, dilambangkan dengan e_i). Kelima *eigenvalues* dan *eigenvectors* ini digunakan untuk membentuk lima persamaan *principal component*. Hasil analisis SPSS hanya menunjukkan sebuah *eigenvector* dan sebuah *eigenvalue* yang jika disusun menjadi persamaan linier maka variabel baru (y_1) yang disusun dari kedua komponen tersebut akan memiliki varians terbesar (Nilai varians sama dengan *eigenvalue*). Persamaan *principal component* sebagai berikut:

$$y_1 = e_1' \cdot x ; \text{ di mana } e_1' = (0,426304 \ 0,459245 \ 0,446271 \ 0,432128 \ 0,470604)$$

$$x = \begin{pmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \end{pmatrix}$$

$$y_1 = (0,426304 \ 0,459245 \ 0,446271 \ 0,432128 \ 0,470604)x$$

$$\text{Var } y_1 = \lambda_1 = 3,02984$$

Principal component analysis menghasilkan 5 variabel baru yaitu y_1, y_2, y_3, y_4 dan y_5 di mana varians $y_1 > y_2 > y_3 > y_4 > y_5$. Kelima variabel baru tersebut merupakan fungsi dari x . Koefisien regresinya sama dengan *eigenvector* (e). Masing-masing y memiliki varians. Hasil analisis SPSS hanya menunjukkan y_1 beserta koefisien regresinya. Hasil analisis SPSS menunjukkan bahwa kelima variabel (x_1, x_2, x_3, x_4 dan x_5) dapat diringkas menjadi satu variabel yaitu y_1 karena dua hal yaitu:

- ❖ Varians y_1 terbesar daripada varians y yang lain ($3,02984 > 0,60794 > 0,5279 > 0,43628 > 0,39803$).
- ❖ Prosentase varians y_1 terhadap total varians lebih besar dari 60%:

$$\text{Total varians } y_i = \text{var } y_1 + \text{var } y_2 + \text{var } y_3 + \text{var } y_4 + \text{var } y_5$$

$$\begin{aligned} \text{var } y_1 + \text{var } y_2 + \text{var } y_3 + \text{var } y_4 + \text{var } y_5 &= \text{var } x_1 + \text{var } x_2 + \text{var } x_3 + \text{var } x_4 + \text{var } x_5 \\ &= 5 \text{ (pada data standar varians } x_i = 1) \end{aligned}$$

Persentase varians $y_1 = 3,02984 / 5 = 0,605968 = 60,5968\%$ (hasil ini sesuai dengan perhitungan SPSS).

5.1.2 Factor analysis

Loading factor yang merupakan hasil estimasi SPSS digunakan untuk membentuk persamaan faktor. Hasilnya sebagai berikut:

$$\mathbf{X} = \mathbf{L}\mathbf{F} + \boldsymbol{\varepsilon}$$

$$\begin{pmatrix} x_1 - \mu_1 \\ x_2 - \mu_2 \\ x_3 - \mu_3 \\ x_4 - \mu_4 \\ x_5 - \mu_5 \end{pmatrix} = \begin{pmatrix} 0,742043 \\ 0,799382 \\ 0,776798 \\ 0,752181 \\ 0,819154 \end{pmatrix} F_1 + \begin{pmatrix} \varepsilon_1 \\ \varepsilon_2 \\ \varepsilon_3 \\ \varepsilon_4 \\ \varepsilon_5 \end{pmatrix}$$

Jika *loading factor* dihitung secara manual maka akan dihasilkan matriks *loading factor* yang simetris dengan derajat 5x5. Tiap x_i dipengaruhi oleh 5 faktor. Persamaannya sebagai berikut:

$$X_1 = 0,742043.F_1 + l_2F_2 + l_3F_3 + l_4F_4 + l_5F_5$$

Pada hasil output SPSS hanya ditampilkan matriks *loading factor* dengan derajat 5x1. Hal ini menunjukkan bahwa tiap x_i hanya dipengaruhi oleh satu faktor yaitu F_1 . Pemilihan derajat *loading factor* berdasarkan persentase varians yang dapat dijelaskan oleh matriks *loading factor* tersebut.

$$\boldsymbol{\Sigma} = \mathbf{L}\mathbf{L}' + \boldsymbol{\psi}$$

$$(5 \times 5) \quad (5 \times 1)(1 \times 5) \quad (5 \times 5)$$

Pada data standar, varians x sama dengan 1, tetapi $\text{cov}(x_i, x_j) \neq 0$

$$\begin{pmatrix} \Sigma_{11} & \Sigma_{12} & \Sigma_{13} & \Sigma_{14} & \Sigma_{15} \\ \Sigma_{21} & \Sigma_{22} & \Sigma_{23} & \Sigma_{24} & \Sigma_{25} \\ \Sigma_{31} & \Sigma_{32} & \Sigma_{33} & \Sigma_{34} & \Sigma_{35} \\ \Sigma_{41} & \Sigma_{42} & \Sigma_{43} & \Sigma_{44} & \Sigma_{45} \\ \Sigma_{51} & \Sigma_{52} & \Sigma_{53} & \Sigma_{54} & \Sigma_{55} \end{pmatrix} = \begin{pmatrix} l_{11} & l_{12} & l_{13} & l_{14} & l_{15} \\ l_{21} & l_{22} & l_{23} & l_{24} & l_{25} \\ l_{31} & l_{32} & l_{33} & l_{34} & l_{35} \\ l_{41} & l_{42} & l_{43} & l_{44} & l_{45} \\ l_{51} & l_{52} & l_{53} & l_{54} & l_{55} \end{pmatrix} \begin{pmatrix} l_{11} & l_{21} & l_{31} & l_{41} & l_{51} \\ l_{12} & l_{22} & l_{32} & l_{42} & l_{52} \\ l_{13} & l_{23} & l_{33} & l_{43} & l_{53} \\ l_{14} & l_{24} & l_{34} & l_{44} & l_{54} \\ l_{15} & l_{25} & l_{35} & l_{45} & l_{55} \end{pmatrix}, \boldsymbol{\psi} = \mathbf{0} \text{ karena } m=p$$

(5x5) (5x5) (5x5) (5x5)

Hasil estimasi SPSS menunjukkan bahwa *loading factor* memiliki derajat 5x1 ($m < p$) sehingga:

$$\begin{pmatrix} \Sigma_{11} & \Sigma_{12} & \Sigma_{13} & \Sigma_{14} & \Sigma_{15} \\ \Sigma_{21} & \Sigma_{22} & \Sigma_{23} & \Sigma_{24} & \Sigma_{25} \\ \Sigma_{31} & \Sigma_{32} & \Sigma_{33} & \Sigma_{34} & \Sigma_{35} \\ \Sigma_{41} & \Sigma_{42} & \Sigma_{43} & \Sigma_{44} & \Sigma_{45} \\ \Sigma_{51} & \Sigma_{52} & \Sigma_{53} & \Sigma_{54} & \Sigma_{55} \end{pmatrix} = \begin{pmatrix} l_{11} \\ l_{21} \\ l_{31} \\ l_{41} \\ l_{51} \end{pmatrix} \begin{bmatrix} l_{11} & l_{21} & l_{31} & l_{41} & l_{51} \end{bmatrix} + \begin{pmatrix} \Psi_{11} & \Psi_{12} & \Psi_{13} & \Psi_{14} & \Psi_{15} \\ \Psi_{21} & \Psi_{22} & \Psi_{23} & \Psi_{24} & \Psi_{25} \\ \Psi_{31} & \Psi_{32} & \Psi_{33} & \Psi_{34} & \Psi_{35} \\ \Psi_{41} & \Psi_{42} & \Psi_{43} & \Psi_{44} & \Psi_{45} \\ \Psi_{51} & \Psi_{52} & \Psi_{53} & \Psi_{54} & \Psi_{55} \end{pmatrix}$$

(5x5)
(5x1)
(1x5)
(5x5)

Jika hasil estimasi SPSS disubstitusikan pada persamaan matriks di atas maka:

$$\begin{pmatrix} 1 & \Sigma_{12} & \Sigma_{13} & \Sigma_{14} & \Sigma_{15} \\ \Sigma_{21} & 1 & \Sigma_{23} & \Sigma_{24} & \Sigma_{25} \\ \Sigma_{31} & \Sigma_{32} & 1 & \Sigma_{34} & \Sigma_{35} \\ \Sigma_{41} & \Sigma_{42} & \Sigma_{43} & 1 & \Sigma_{45} \\ \Sigma_{51} & \Sigma_{52} & \Sigma_{53} & \Sigma_{54} & 1 \end{pmatrix} = \begin{pmatrix} 0,7420 \\ 0,7994 \\ 0,7768 \\ 0,7522 \\ 0,8192 \end{pmatrix} \begin{bmatrix} 0,7420 & 0,7994 & 0,7768 & 0,7522 & 0,8192 \end{bmatrix} + \Psi$$

(5x5)
(5x1)
(1x5)
(5x5)

$$\text{Varians } x_1 = \Sigma_{11} = 1$$

Varians x_1 didekati dengan *loading factor*:

$$\text{Varians } x_1 \approx l_{11}l_{11} = 0,7420 \cdot 0,7420 = 0,5506 = \textit{communality}$$

Communality merupakan pendekatan nilai varians dengan menggunakan *loading factor*. Nilai $0,5506 < 1$. Hal ini menunjukkan bahwa *loading factor* hanya dapat menjelaskan 55,06% varians x_1 . Persentase ini lebih besar dari 50%. Hal ini juga terjadi pada keempat variabel x yang lain sehingga *loading factor* dengan derajat 5×1 digunakan untuk mendekati nilai varians. *Loading factor* yang digunakan memiliki derajat 5×1 , sehingga pada persamaan *factor*, hanya satu faktor yang digunakan untuk mengestimasi perubahan x_1 dari rata-ratanya (μ_1) atau dengan kalimat lain perubahan tiap x (x_1, x_2, x_3, x_4, x_5) disebabkan oleh satu faktor yaitu F_1 . Kelima variabel x tersebut merupakan satu konstruk atau dengan kalimat lain perubahan kelima variabel tersebut dari rata-ratanya disebabkan oleh satu faktor yaitu F_1 .

Cara penjabaran hasil SPSS untuk variabel selanjutnya sama dengan variabel *resource uniqueness*.

5.2 Variabel resource uniqueness similarity

Communalities

	Initial	Extraction
X6	1	0.690234754
X7	1	0.70755637
X8	1	0.652580098
X9	1	0.646788826
X10	1	0.642201536

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.33936	66.78723165	66.7872317	3.33936	66.78723165	66.7872317
2	0.49767	9.953409021	76.7406407			
3	0.45087	9.017481652	85.7581223			
4	0.39147	7.829336892	93.5874592			
5	0.32063	6.412540785	100			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component
	1
X6	0.8308
X7	0.84116
X8	0.80782
X9	0.80423
X10	0.80137

Extraction Method: Principal Component Analysis.

A

1 components extracted.

5.3 Variabel *cultural similarity*

Communalities

	Initial	Extraction
X11	1	0.563833116
X12	1	0.687983647
X13	1	0.538334853
X14	1	0.545533863
X15	1	0.523998082
X16	1	0.654601692
X17	1	0.69850601
X18	1	0.706632571
X19	1	0.594056619

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.51348	61.26089393	61.2608939	5.51348	61.26089393	61.2608939
2	0.60978	6.775279242	68.0361732			
3	0.58369	6.485458689	74.5216319			
4	0.53494	5.943722529	80.4653544			
5	0.45929	5.103215435	85.5685698			
6	0.39426	4.380717263	89.9492871			
7	0.34816	3.86846428	93.8177514			
8	0.30423	3.380369127	97.1981205			
9	0.25217	2.801879502	100			

Extraction Method: Principal Component Analysis.

Component Matrix

X11	0.75089
X12	0.82945
X13	0.73371
X14	0.7386
X15	0.72388
X16	0.80907
X17	0.83577
X18	0.84061
X19	0.77075

Extraction Method: Principal Component Analysis.

a 1 components extracted.

5.4 Variabel *trust*

Communalities

	Initial	Extraction
X20	1	0.882166945
X21	1	0.807943162
X22	1	0.814929361

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.50504	83.50131562	83.5013156	2.50504	83.50131562	83.5013156
2	0.31326	10.44214541	93.943461			
3	0.1817	6.056538972	100			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component
	1
X20	0.93924
X21	0.89886
X22	0.90273

Extraction Method: Principal Component Analysis.

a 1 components extracted.

5.5 Variabel *commitment*

Communalities

	Initial	Extraction
X23	1	0.717745222
X24	1	0.739082606
X25	1	0.720347636

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.17718	72.57251545	72.5725155	2.17718	72.57251545	72.5725155
2	0.42791	14.26364091	86.8361564			
3	0.39492	13.16384364	100			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component
	1
X23	0.8472
X24	0.8597
X25	0.84873

Extraction Method: Principal Component Analysis.

a 1 components extracted.

5.6 Variabel *communication*

Communalities

	Initial	Extraction
X26	1	0.730099769
X27	1	0.709491039
X28	1	0.725586183

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.16518	72.17256637	72.1725664	2.16518	72.17256637	72.1725664
2	0.43245	14.41510074	86.5876671			
3	0.40237	13.41233289	100			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component
	1
X26	0.85446
X27	0.84231
X28	0.85181

Extraction Method: Principal Component Analysis.

a 1 components extracted.

5.7 Variabel performance

Communalities

	Initial	Extraction
X29	1	0.832688608
X30	1	0.785867167
X31	1	0.817787879

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.43634	81.21145514	81.2114551	2.43634	81.21145514	81.2114551
2	0.31812	10.6039701	91.8154252			
3	0.24554	8.184574766	100			
Extraction Method: Principal Component Analysis.						

Component Matrix

	Component
	1
X29	0.91252
X30	0.88649
X31	0.90432

Extraction Method: Principal Component Analysis.

a 1 components extracted.

LAMPIRAN 6
*MULTIVARIATE MULTIDIMENSION FACTOR
ANALYSIS DAN PRINCIPAL COMPONENT
ANALYSIS*

Tabel A *Communalities*

Communalities		
	Initial	Extraction
X1	1	0.575801395
X2	1	0.690926132
X3	1	0.60695994
X4	1	0.630327412
X5	1	0.688544606
X6	1	0.703663409
X7	1	0.722821328
X8	1	0.708441393
X9	1	0.669044534
X10	1	0.660411521
X11	1	0.626896825
X12	1	0.696137544
X13	1	0.552501407
X14	1	0.645078983
X15	1	0.577293504
X16	1	0.673311134
X17	1	0.714016144
X18	1	0.720102246
X19	1	0.608550258
X20	1	0.872416
X21	1	0.813860155
X22	1	0.806377326
X23	1	0.716353521
X24	1	0.778544336
X25	1	0.696885642
X26	1	0.723261481
X27	1	0.748623067
X28	1	0.691773946
X29	1	0.865766025
X30	1	0.807299029
X31	1	0.807220086

Extraction Method: Principal Component Analysis.

Tabel B *Initial eigenvalues, extraction sums of squared loadings*

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.256	26.634	26.634	8.256	26.634	26.634	5.691	18.357	18.357
2	4.823	15.557	42.191	4.823	15.557	42.191	3.578	11.541	29.898
3	3.065	9.887	52.078	3.065	9.887	52.078	3.253	10.493	40.391
4	2.018	6.511	58.589	2.018	6.511	58.589	2.433	7.848	48.239
5	1.298	4.188	62.777	1.298	4.188	62.777	2.413	7.782	56.021
6	1.249	4.030	66.807	1.249	4.030	66.807	2.393	7.719	63.740
7	1.089	3.513	70.320	1.089	3.513	70.320	2.040	6.580	70.320
8	.753	2.430	72.750						
9	.727	2.344	75.094						
10	.641	2.068	77.162						
11	.633	2.042	79.204						
12	.553	1.785	80.989						
13	.516	1.663	82.653						
14	.484	1.561	84.214						
15	.457	1.476	85.689						
16	.443	1.428	87.117						
17	.406	1.310	88.427						
18	.386	1.245	89.672						
19	.383	1.234	90.906						
20	.346	1.115	92.022						
21	.330	1.066	93.087						
22	.315	1.015	94.102						
23	.285	.919	95.021						
24	.274	.884	95.905						
25	.255	.822	96.727						
26	.229	.740	97.467						
27	.192	.619	98.087						
28	.189	.610	98.697						
29	.157	.508	99.205						
30	.137	.443	99.647						
31	.109	.353	100.000						

Extraction Method: Principal Component Analysis.

Tabel C Component matrix

	Component						
	1	2	3	4	5	6	7
X1	0.403	-0.193	0.443	0.372	0.195	-5.25E-02	3.70E-02
X2	0.381	-0.109	0.543	0.441	0.106	0.176	4.98E-02
X3	0.347	-0.124	0.56	0.376	8.81E-02	8.96E-02	1.17E-02
X4	0.414	-0.299	0.485	0.284	-2.02E-03	-0.23	6.49E-03
X5	0.491	-0.161	0.484	0.357	0.243	-3.21E-02	-3.23E-03
X6	0.431	-0.255	-0.586	0.307	1.79E-02	0.106	6.51E-02
X7	0.418	-0.332	-0.522	0.365	-4.79E-02	0.104	0.136
X8	0.499	-0.31	-0.373	0.368	2.63E-02	0.238	0.178
X9	0.469	-0.279	-0.548	0.132	-0.129	0.14	0.133
X10	0.429	-0.382	-0.518	0.154	4.38E-02	9.18E-02	0.165
X11	0.472	0.586	3.91E-02	0.175	-0.101	-5.11E-02	-0.123
X12	0.548	0.617	-9.67E-03	3.39E-02	-3.21E-02	-8.35E-02	7.98E-02
X13	0.43	0.597	-7.53E-02	4.69E-02	-2.72E-03	3.58E-02	5.11E-02
X14	0.467	0.56	9.99E-02	-0.102	0.144	5.41E-02	0.264
X15	0.396	0.604	-7.89E-02	-4.77E-02	-0.11	0.172	7.29E-02
X16	0.494	0.643	4.57E-02	6.76E-02	-2.59E-02	7.01E-02	6.21E-02
X17	0.534	0.638	-2.51E-04	-5.95E-02	-0.13	-1.39E-02	3.06E-02
X18	0.554	0.622	-7.53E-02	1.98E-02	5.11E-02	-7.31E-02	0.107
X19	0.481	0.6	-6.59E-02	-4.30E-02	-7.56E-02	-5.79E-02	-4.24E-02
X20	0.714	-0.198	0.154	-0.241	-4.04E-02	0.41	-0.269
X21	0.612	-0.285	0.175	-0.228	-0.159	0.387	-0.318
X22	0.666	-0.187	0.167	-0.309	-9.75E-02	0.386	-0.213
X23	0.594	-4.28E-02	-0.303	-1.40E-02	0.109	-0.267	-0.431
X24	0.556	-0.158	-0.304	7.40E-02	0.255	-0.356	-0.393
X25	0.662	9.55E-04	-0.263	-1.95E-02	0.216	-0.3	-0.23
X26	0.518	-0.239	7.97E-02	-0.459	0.351	8.69E-02	0.223
X27	0.537	-0.2	2.90E-02	-0.395	0.422	-0.118	0.269
X28	0.476	-0.352	4.11E-02	-0.499	0.235	-6.48E-02	0.176
X29	0.543	-0.432	0.192	-0.172	-0.388	-0.309	0.268
X30	0.631	-0.322	0.192	-4.56E-02	-0.459	-0.23	-4.33E-02
X31	0.589	-0.358	0.112	-0.131	-0.461	-0.247	0.172

Extraction Method: Principal Component Analysis.

a 7 components extracted.

Menurut Johnson & Wichern 2002:

$\Sigma = L \cdot L'$, jika $m=p$ (jumlah faktor sama dengan jumlah variabel)

(31x31) (31x31)(31x31)

$$\begin{pmatrix} \Sigma_{11} & \Sigma_{12} & \Sigma_{13} & \dots & \Sigma_{1,31} \\ \Sigma_{21} & \Sigma_{22} & \Sigma_{23} & \dots & \Sigma_{2,31} \\ \Sigma_{31} & \Sigma_{32} & \Sigma_{33} & \dots & \Sigma_{3,31} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ \Sigma_{31,1} & \Sigma_{31,2} & \Sigma_{31,3} & \dots & \Sigma_{31,31} \end{pmatrix} = \begin{pmatrix} l_{1,1} & l_{1,2} & l_{1,3} & \dots & l_{1,31} \\ l_{2,1} & l_{2,2} & l_{2,3} & \dots & l_{2,31} \\ l_{3,1} & l_{3,2} & l_{3,3} & \dots & l_{3,31} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ l_{31,1} & l_{31,2} & l_{31,3} & \dots & l_{31,31} \end{pmatrix} \begin{pmatrix} l_{1,1} & l_{2,1} & l_{3,1} & \dots & l_{31,1} \\ l_{1,2} & l_{2,2} & l_{3,2} & \dots & l_{31,2} \\ l_{1,3} & l_{2,3} & l_{3,3} & \dots & l_{31,3} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ l_{1,31} & l_{2,31} & l_{3,31} & \dots & l_{31,31} \end{pmatrix} \quad (\text{Pers. 1})$$

(31x31) (31x31) (31x31)

Matriks kovarian, Σ (pxp) dapat diuraikan menjadi p *eigenvalues* dan p *eigenvectors*.

$$\begin{pmatrix} \Sigma_{11} & \Sigma_{12} & \Sigma_{13} & \dots & \Sigma_{1,31} \\ \Sigma_{21} & \Sigma_{22} & \Sigma_{23} & \dots & \Sigma_{2,31} \\ \Sigma_{31} & \Sigma_{32} & \Sigma_{33} & \dots & \Sigma_{3,31} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ \Sigma_{31,1} & \Sigma_{31,2} & \Sigma_{31,3} & \dots & \Sigma_{31,31} \end{pmatrix} = \lambda_1 \begin{pmatrix} e_{1,1} \\ e_{2,1} \\ e_{3,1} \\ \vdots \\ e_{31,1} \end{pmatrix} \begin{pmatrix} e_{1,1} & e_{2,1} & \dots & e_{31,1} \end{pmatrix} + \lambda_2 \begin{pmatrix} e_{1,2} \\ e_{2,2} \\ e_{3,2} \\ \vdots \\ e_{31,2} \end{pmatrix} \begin{pmatrix} e_{1,2} & e_{2,2} & \dots & e_{31,2} \end{pmatrix} +$$

(31x31) (31x31) (31x31)

$$\dots + \lambda_{31} \begin{pmatrix} e_{1,31} \\ e_{2,31} \\ e_{3,31} \\ \vdots \\ e_{31,31} \end{pmatrix} \begin{pmatrix} e_{1,31} & e_{2,31} & \dots & e_{31,31} \end{pmatrix} \quad (\text{Pers. 2})$$

$$= \lambda_1 \mathbf{e}_1(\mathbf{e}_1)' + \lambda_2 \mathbf{e}_2(\mathbf{e}_2)' + \lambda_3 \mathbf{e}_3(\mathbf{e}_3)' + \dots + \lambda_{31} \mathbf{e}_{31}(\mathbf{e}_{31})' \quad (\text{Pers. 3})$$

di mana $\lambda_1 > \lambda_2 > \dots > \lambda_{31}$

$$\Sigma = \begin{bmatrix} (\lambda_1)^{1/2} \mathbf{e}_1 & | & (\lambda_2)^{1/2} \mathbf{e}_2 & | & \dots & | & (\lambda_{31})^{1/2} \mathbf{e}_{31} \end{bmatrix} \begin{pmatrix} (\lambda_1)^{1/2} (\mathbf{e}_1)' \\ \hline (\lambda_2)^{1/2} (\mathbf{e}_2)' \\ \hline \vdots \\ \hline (\lambda_{31})^{1/2} (\mathbf{e}_{31})' \end{pmatrix} \quad (\text{Pers. 4})$$

$$\Sigma = \mathbf{L} \mathbf{L}'$$

Dari uraian di atas dapat dilihat bahwa $((\lambda_1)^{1/2} \mathbf{e}_1)' = (l_{1,1} \ l_{2,1} \ l_{3,1} \ \dots \ l_{31,1})$. Sehingga $e_{1,1}=l_{1,1}/(\lambda_1)^{1/2}$ atau $e_{im}=l_{im}/(\lambda_1)^{1/2}$, $m =$ jumlah faktor, $i =$ jumlah variabel *observed*(31).

Hasil analisis SPSS hanya menampilkan nilai *loading factor*. Nilai *eigenvector* (e_{im}) dihitung secara manual sebagai berikut:

Tabel D Perhitungan *eigenvectors*

	Faktor 1		Faktor 2		Faktor 3		Faktor 4		Faktor 5		Faktor 6		Faktor 7	
	l_{11}	e_{11}	l_{12}	e_{12}	l_{13}	e_{13}	l_{14}	E_{14}	l_{15}	e_{15}	l_{16}	E_{16}	l_{17}	e_{17}
X1	0.403	0.140	-0.193	-0.088	0.443	0.253	0.372	0.262	0.195	0.171	-0.053	-0.047	0.037	0.035
X2	0.381	0.133	-0.109	-0.050	0.543	0.310	0.441	0.310	0.106	0.093	0.176	0.157	0.050	0.048
X3	0.347	0.121	-0.124	-0.056	0.560	0.320	0.376	0.265	0.088	0.077	0.090	0.080	0.012	0.011
X4	0.414	0.144	-0.299	-0.136	0.485	0.277	0.284	0.200	-0.002	-0.002	-0.230	-0.206	0.006	0.006
X5	0.491	0.171	-0.161	-0.073	0.484	0.276	0.357	0.251	0.243	0.213	-0.032	-0.029	-0.003	-0.003
X6	0.431	0.150	-0.255	-0.116	-0.586	-0.335	0.307	0.216	0.018	0.016	0.106	0.095	0.065	0.062
X7	0.418	0.145	-0.332	-0.151	-0.522	-0.298	0.365	0.257	-0.048	-0.042	0.104	0.093	0.136	0.130
X8	0.499	0.174	-0.310	-0.141	-0.373	-0.213	0.368	0.259	0.026	0.023	0.238	0.213	0.178	0.171
X9	0.469	0.163	-0.279	-0.127	-0.548	-0.313	0.132	0.093	-0.129	-0.113	0.140	0.125	0.133	0.127
X10	0.429	0.149	-0.382	-0.174	-0.518	-0.296	0.154	0.108	0.044	0.038	0.092	0.082	0.165	0.158
X11	0.472	0.164	0.586	0.267	0.039	0.022	0.175	0.123	-0.101	-0.089	-0.051	-0.046	-0.123	-0.118
X12	0.548	0.191	0.617	0.281	-0.010	-0.006	0.034	0.024	-0.032	-0.028	-0.084	-0.075	0.080	0.076
X13	0.430	0.150	0.597	0.272	-0.075	-0.043	0.047	0.033	-0.003	-0.002	0.036	0.032	0.051	0.049
X14	0.467	0.163	0.560	0.255	0.100	0.057	-0.102	-0.072	0.144	0.126	0.054	0.048	0.264	0.253
X15	0.396	0.138	0.604	0.275	-0.079	-0.045	-0.048	-0.034	-0.110	-0.097	0.172	0.154	0.073	0.070
X16	0.494	0.172	0.643	0.293	0.046	0.026	0.068	0.048	-0.026	-0.023	0.070	0.063	0.062	0.060
X17	0.534	0.186	0.638	0.291	0.000	0.000	-0.060	-0.042	-0.130	-0.114	-0.014	-0.012	0.031	0.029
X18	0.554	0.193	0.622	0.283	-0.075	-0.043	0.020	0.014	0.051	0.045	-0.073	-0.065	0.107	0.103
X19	0.481	0.167	0.600	0.273	-0.066	-0.038	-0.043	-0.030	-0.076	-0.066	-0.058	-0.052	-0.042	-0.041
X20	0.714	0.248	-0.198	-0.090	0.154	0.088	-0.241	-0.170	-0.040	-0.035	0.410	0.367	-0.269	-0.258
X21	0.612	0.213	-0.285	-0.130	0.175	0.100	-0.228	-0.160	-0.159	-0.140	0.387	0.346	-0.318	-0.305
X22	0.666	0.232	-0.187	-0.085	0.167	0.095	-0.309	-0.218	-0.098	-0.086	0.386	0.345	-0.213	-0.204
X23	0.594	0.207	-0.043	-0.019	-0.303	-0.173	-0.014	-0.010	0.109	0.096	-0.267	-0.239	-0.431	-0.413
X24	0.556	0.194	-0.158	-0.072	-0.304	-0.174	0.074	0.052	0.255	0.224	-0.356	-0.319	-0.393	-0.377
X25	0.662	0.230	0.001	0.000	-0.263	-0.150	-0.020	-0.014	0.216	0.190	-0.300	-0.268	-0.230	-0.220
X26	0.518	0.180	-0.239	-0.109	0.080	0.046	-0.459	-0.323	0.351	0.308	0.087	0.078	0.223	0.214
X27	0.537	0.187	-0.200	-0.091	0.029	0.017	-0.395	-0.278	0.422	0.370	-0.118	-0.106	0.269	0.258
X28	0.476	0.166	-0.352	-0.160	0.041	0.023	-0.499	-0.351	0.235	0.206	-0.065	-0.058	0.176	0.169
X29	0.543	0.189	-0.432	-0.197	0.192	0.110	-0.172	-0.121	-0.388	-0.341	-0.309	-0.276	0.268	0.257
X30	0.631	0.220	-0.322	-0.147	0.192	0.110	-0.046	-0.032	-0.459	-0.403	-0.230	-0.206	-0.043	-0.041
X31	0.589	0.205	-0.358	-0.163	0.112	0.064	-0.131	-0.092	-0.461	-0.405	-0.247	-0.221	0.172	0.165

Principal component analysis

Dari persamaan 3 dapat dilihat bahwa matriks kovarian (Σ) dengan derajat 31x31 dapat diuraikan menjadi 31 *eigenvectors* dan 31 *eigenvalue*. Ketiga puluh satu *eigenvectors* dan *eigenvalues* tersebut disusun menjadi 31 persamaan *principal component* sebagai berikut:

$$y_1 = (\mathbf{e}_1)' \mathbf{x} = e_{1,1}x_1 + e_{2,1}x_2 + \dots + e_{30,1}x_{30} + e_{31,1}x_{31} = 0,140x_1 + 0,133x_2 + \dots + 0,220x_{30} + 0,205x_{31} \text{ (Varians } y_1 = \lambda_1 = 8,256, \text{ nilai } \lambda_1 \text{ didapat dari tabel B)}$$

$$y_2 = (\mathbf{e}_2)' \mathbf{x} = e_{1,2}x_1 + e_{2,2}x_2 + \dots + e_{30,2}x_{30} + e_{31,2}x_{31} = -0,088x_1 - 0,050x_2 + \dots - 0,147x_{30} - 0,163x_{31} \text{ (Varians } y_2 = \lambda_2 = 4,823)$$

$$y_3 = (\mathbf{e}_3)' \mathbf{x} = e_{1,3}x_1 + e_{2,3}x_2 + \dots + e_{30,3}x_{30} + e_{31,3}x_{31} = 0,253x_1 + 0,310x_2 + \dots + 0,110x_{30} + 0,064x_{31} \text{ (Varians } y_3 = \lambda_3 = 3,065)$$

$$y_4 = (\mathbf{e}_4)' \mathbf{x} = e_{1,4}x_1 + e_{2,4}x_2 + \dots + e_{30,4}x_{30} + e_{31,4}x_{31} = 0,262x_1 + 0,310x_2 + \dots - 0,032x_{30} - 0,092x_{31} \text{ (Varians } y_4 = \lambda_4 = 2,018)$$

$$y_5 = (\mathbf{e}_5)' \mathbf{x} = e_{1,5}x_1 + e_{2,5}x_2 + \dots + e_{30,5}x_{30} + e_{31,5}x_{31} = 0,171x_1 + 0,093x_2 + \dots - 0,403x_{30} - 0,405x_{31} \text{ (Varians } y_5 = \lambda_5 = 1,298)$$

$$y_6 = (\mathbf{e}_6)' \mathbf{x} = e_{1,6}x_1 + e_{2,6}x_2 + \dots + e_{30,6}x_{30} + e_{31,6}x_{31} = -0,047x_1 + 0,157x_2 + \dots - 0,206x_{30} - 0,221x_{31} \text{ (Varians } y_6 = \lambda_6 = 1,249)$$

$$y_7 = (\mathbf{e}_7)' \mathbf{x} = e_{1,7}x_1 + e_{2,7}x_2 + \dots + e_{30,7}x_{30} + e_{31,7}x_{31} = 0,035x_1 + 0,048x_2 + \dots - 0,041x_{30} + 0,165x_{31} \text{ (Varians } y_7 = \lambda_7 = 1,089)$$

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$$y_{31} = (\mathbf{e}_{31})' \mathbf{x} = e_{1,31}x_1 + e_{2,31}x_2 + \dots + e_{30,31}x_{30} + e_{31,31}x_{31} \text{ (Varians } y_{31} = \lambda_{31} = 0,109)$$

Pada tabel 2, nilai *eigenvalue* sama dengan varians tiap y_i .

$$\text{Total varians } y_i = \text{Var } y_1 + \text{Var } y_2 + \dots + \text{Var } y_{31} = 8,256 + 4,823 + \dots + 0,109 = 31$$

$$\text{Total varians } y_i = \text{total varians } Z_i = \text{var } z_1 + \text{var } z_2 + \dots + \text{var } z_{31} = 1 + 1 + \dots + 1 = 31$$

Jika tiap x diubah dalam bentuk standar (z_i), maka varians tiap $z = 1$. Hasil perhitungan SPSS hanya menampilkan 7 *eigenvalues* dan 7 *eigenvectors*. Hal ini menunjukkan bahwa ketujuh y mampu menjelaskan $(8,256 + 4,823 + \dots + 0,109) / 31 = 0,7032$ atau 70,32% dari total varians (*cut off value* > 60%). Dengan kalimat lain, ketiga puluh satu variabel *observed* dapat diringkas menjadi 7 variabel y . Analisis *principal component* tidak menjelaskan pengelompokan variabel ke dalam suatu faktor tetapi memberi masukan ke analisis faktor bahwa ketiga puluh satu variabel *observed* dipengaruhi oleh tujuh faktor.

Factor analysis ($X - \mu = LF + \epsilon$)

Persamaan 1 menunjukkan bahwa *loading factor* (L) memiliki derajat 31×31 . Hal ini menunjukkan bahwa tiap variabel *observed* dipengaruhi oleh 31 faktor. Persamaan berikut menjelaskan hal ini:

$$\begin{pmatrix} x_1 - \mu_1 \\ x_2 - \mu_2 \\ x_3 - \mu_3 \\ \vdots \\ x_{31} - \mu_{31} \end{pmatrix} = \begin{pmatrix} l_{1,1} & l_{1,2} & l_{1,3} & \dots & l_{1,31} \\ l_{2,1} & l_{2,2} & l_{2,3} & \dots & l_{2,31} \\ l_{3,1} & l_{3,2} & l_{3,3} & \dots & l_{3,31} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ l_{31,1} & l_{31,2} & l_{31,3} & \dots & l_{31,31} \end{pmatrix} \begin{pmatrix} f_1 \\ f_2 \\ f_3 \\ \vdots \\ f_{31} \end{pmatrix} \quad \text{Pers. 5}$$

(31x1) (31x31) (31x1)

$x_1 - \mu_1 = l_{1,1}.f_1 + l_{1,2}.f_2 + l_{1,3}.f_3 + \dots + l_{1,31}.f_{31}$ (tiap x_i merupakan fungsi dari $f_1, f_2, f_3, \dots, f_{31}$).

Hasil analisis AMOS yang disajikan pada tabel D menunjukkan bahwa terdapat 7 faktor yang mempengaruhi variabel *observed* (x_i). *Loading factor* pada persamaan 5 yang mula-mula memiliki derajat 31×31 sekarang memiliki derajat 31×7 dan vektor faktor yang mula-mula memiliki derajat 31×1 sekarang memiliki derajat 7×1 . Persamaan 6 menjelaskan hal ini:

$$\begin{pmatrix} x_1 - \mu_1 \\ x_2 - \mu_2 \\ x_3 - \mu_3 \\ \vdots \\ x_{31} - \mu_{31} \end{pmatrix} = \begin{pmatrix} l_{1,1} & l_{1,2} & l_{1,3} & \dots & l_{1,7} \\ l_{2,1} & l_{2,2} & l_{2,3} & \dots & l_{2,7} \\ l_{3,1} & l_{3,2} & l_{3,3} & \dots & l_{3,7} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ l_{31,1} & l_{31,2} & l_{31,3} & \dots & l_{31,7} \end{pmatrix} \begin{pmatrix} f_1 \\ f_2 \\ f_3 \\ \vdots \\ f_7 \end{pmatrix} \quad \text{Pers. 6}$$

(31x1) (31x7) (7x1)

Nilai *loading factor* pada tabel D disubstitusikan pada persamaan 6. Hasilnya disajikan pada persamaan 7:

$$\begin{pmatrix} x_1 - \mu_1 \\ x_2 - \mu_2 \\ x_3 - \mu_3 \\ \vdots \\ x_{31} - \mu_{31} \end{pmatrix} = \begin{pmatrix} 0,403 & -0,193 & 0,443 & \dots & 0,037 \\ 0,381 & -0,109 & 0,543 & \dots & 0,049 \\ 0,347 & -0,124 & 0,560 & \dots & 0,012 \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ 0,589 & -0,358 & 0,112 & \dots & 0,172 \end{pmatrix} \begin{pmatrix} f_1 \\ f_2 \\ f_3 \\ \vdots \\ f_7 \end{pmatrix} \quad \text{Pers. 7}$$

(31x1) (31x7) (7x1)

Pemilihan 7 faktor di atas didasarkan pada *communality* (kontribusi *loading factor* dalam menjelaskan varians tiap variabel *observed*). Persamaan 1 harus ditambah dengan matriks error (Ψ) karena jumlah faktor < 31.

$\Sigma = L.L' + \Psi$, jika $m < p$ (jumlah faktor lebih kecil dari jumlah variabel)

$$(31 \times 31) \quad (31 \times 7)(7 \times 31)$$

$$\begin{pmatrix} \Sigma_{11} & \Sigma_{12} & \Sigma_{13} & \dots & \Sigma_{1,31} \\ \Sigma_{21} & \Sigma_{22} & \Sigma_{23} & \dots & \Sigma_{2,31} \\ \Sigma_{31} & \Sigma_{32} & \Sigma_{33} & \dots & \Sigma_{3,31} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ \Sigma_{31,1} & \Sigma_{31,2} & \Sigma_{31,3} & \dots & \Sigma_{31,31} \end{pmatrix} = \begin{pmatrix} l_{1,1} & l_{1,2} & l_{1,3} & \dots & l_{1,7} \\ l_{2,1} & l_{2,2} & l_{2,3} & \dots & l_{2,7} \\ l_{3,1} & l_{3,2} & l_{3,3} & \dots & l_{3,7} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ l_{31,1} & l_{31,2} & l_{31,3} & \dots & l_{31,7} \end{pmatrix} \begin{pmatrix} l_{1,1} & l_{2,1} & l_{3,1} & \dots & l_{31,1} \\ l_{1,2} & l_{2,2} & l_{3,2} & \dots & l_{31,2} \\ l_{1,3} & l_{2,3} & l_{3,3} & \dots & l_{31,3} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ l_{1,7} & l_{2,7} & l_{3,7} & \dots & l_{31,7} \end{pmatrix} + \Psi \quad \text{Pers. 8}$$

$$(31 \times 31)$$

$$(31 \times 7)$$

$$(7 \times 31)$$

$$\Sigma_{11} = \underbrace{(l_{1,1})^2 + (l_{1,2})^2 + (l_{1,3})^2 + (l_{1,4})^2 + (l_{1,5})^2 + (l_{1,6})^2 + (l_{1,7})^2}_{\text{Communality}} + \psi_{1,1}$$

Communality

Pada penelitian ini tiap x diubah dalam bentuk z (standar). Varians tiap z yang pada matriks kovarian dilambangkan dengan Σ_{11} sama dengan 1. Nilai *loading factor* yang disajikan pada tabel D disubstitusikan pada persamaan 8. Hasilnya sebagai berikut:

$$\begin{pmatrix} 1 & \Sigma_{12} & \Sigma_{13} & \dots & \Sigma_{1,31} \\ \Sigma_{21} & 1 & \Sigma_{23} & \dots & \Sigma_{2,31} \\ \Sigma_{31} & \Sigma_{32} & 1 & \dots & \Sigma_{3,31} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ \Sigma_{31,1} & \Sigma_{31,2} & \Sigma_{31,3} & \dots & 1 \end{pmatrix} = \begin{pmatrix} 0,403 & -0,193 & 0,443 & \dots & 0,037 \\ 0,381 & -0,109 & 0,543 & \dots & 0,049 \\ 0,347 & -0,124 & 0,56 & \dots & 0,012 \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ 0,589 & -0,358 & 0,112 & \dots & 0,172 \end{pmatrix} \begin{pmatrix} 0,403 & 0,381 & 0,347 & \dots & 0,589 \\ -0,193 & -0,109 & -0,124 & \dots & -0,358 \\ 0,443 & 0,543 & 0,56 & \dots & 0,112 \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ 0,037 & 0,049 & 0,012 & \dots & 0,172 \end{pmatrix} + \Psi$$

$$(31 \times 31)$$

$$(31 \times 7)$$

$$(7 \times 31)$$

$$\Sigma_{11} = \underbrace{(l_{1,1})^2 + (l_{1,2})^2 + (l_{1,3})^2 + (l_{1,4})^2 + (l_{1,5})^2 + (l_{1,6})^2 + (l_{1,7})^2}_{\text{Communality}} + \psi_{1,1}$$

Communality

$$= \underbrace{(0,403)^2 + (-0,193)^2 + (0,443)^2 + (0,372)^2 + (0,195)^2 + (-0,053)^2 + (0,037)^2}_{\text{Communality}} + \psi_{1,1}$$

Communality

$$= 0,5758 + \psi_{1,1} \quad (\psi_{1,1} = 1 - 0,5758 = 0,4242)$$

Pada kenyataannya, nilai $\Sigma_{11}=1$, tetapi jika varians z_1 (x_1 yang distandarkan) didekati dengan *loading factor* maka $\Sigma_{11}=0,5758$. *Loading factor* mampu menjelaskan varians z_1 sebesar $(0,5758/1) \times 100\%$ atau 57,58%. Tabel A menunjukkan bahwa *loading factor*

mampu menjelaskan tiap varians z_i dengan persentase $> 50\%$. Hal ini menunjukkan bahwa *loading factor* dengan 7 faktor secara signifikan mampu menjelaskan varians dan kovarians dengan persentase $> 50\%$. *Loading factor* dengan tujuh faktor digunakan pada persamaan faktor seperti yang ditunjukkan pada persamaan 7.

$$\begin{pmatrix} x_1 - \mu_1 \\ x_2 - \mu_2 \\ x_3 - \mu_3 \\ \vdots \\ x_{31} - \mu_{31} \end{pmatrix} = \begin{pmatrix} 0,403 & -0,193 & 0,443 & \dots & 0,037 \\ 0,381 & -0,109 & 0,543 & \dots & 0,049 \\ 0,347 & -0,124 & 0,560 & \dots & 0,012 \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ 0,589 & -0,358 & 0,112 & \dots & 0,172 \end{pmatrix} \begin{pmatrix} f_1 \\ f_2 \\ f_3 \\ \vdots \\ f_7 \end{pmatrix} \quad \text{Pers. 7}$$

(31x1) (31x7) (7x1)

Contoh : $x_1 - \mu_1 = 0,403.f_1 - 0,193.f_2 + 0,443.f_3 + \dots + 0,037.f_7$ (Tiap x_i merupakan fungsi dari f_1, f_2, f_3, \dots , dan f_7 . X_i dipengaruhi oleh tiap faktor. Besarnya pengaruh tiap faktor pada x_i dapat dilihat dari koefisien regresinya (*loading factor*)).

Langkah selanjutnya adalah mencari kesatuan dimensi. X_i pada persamaan 7 merupakan fungsi dari f_1, f_2, f_3, \dots , dan f_7 . Salah satu dari ketujuh faktor ini mempunyai pengaruh paling dominan pada x_i (memiliki *loading factor* atau koefisien regresi terbesar). Untuk mencarinya, matriks *loading factor* dengan 7 faktor harus dirotasi. Melalui rotasi faktor, pengaruh faktor yang paling dominan untuk tiap x_i dapat diketahui. Jika rotasi dilakukan maka L diubah menjadi L^* dan F menjadi F^* . Rotasi tidak mengubah persamaan faktor.

$$L^* = L \cdot T$$

$$F^* = T' \cdot F$$

$$\Sigma = LL' + \Psi = LTT'L' + \Psi$$

$$TT' = T'T = I \text{ (identity matrix)}$$

$$X - \mu = LF + \varepsilon = LTT'F + \varepsilon$$

T merupakan matriks *orthogonal*. Matriks *orthogonal* merupakan matriks bujursangkar (*square matrix*) yang jika kolom dan barisnya dianggap sebagai vektor maka vektor kolom akan saling tegak lurus antar satu dengan yang lain dan vektor baris akan saling tegak lurus antara satu dengan yang lain. Vektor kolom dan vektor baris merupakan vektor satuan ($V / |V|$). Berikut ini adalah salah satu contoh matriks *orthogonal*.

$$\mathbf{T} = \begin{pmatrix} -1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} \\ 1/(\sqrt{7})^{1/2} & -1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} \\ 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & -1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} \\ 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & -1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} \\ 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & -1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} \\ 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & -1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} \\ 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & 1/(\sqrt{7})^{1/2} & -1/(\sqrt{7})^{1/2} \end{pmatrix}$$

Matriks \mathbf{T} merupakan matriks orthogonal di mana antar vektor kolom saling tegak lurus, sebaliknya antar vektor baris juga saling tegak lurus. Vektor kolom dan vektor baris pada matriks \mathbf{T} merupakan vektor satuan. Perkalian \mathbf{L} dengan \mathbf{T} memiliki arti proyeksi skalar vektor baris \mathbf{L} pada vektor kolom \mathbf{T} sehingga vektor baris \mathbf{L} menjadi koordinat baru pada sumbu yang dibentuk oleh vektor kolom \mathbf{T} . Sebagai contoh proyeksi skalar vektor baris pertama matriks \mathbf{L} pada sumbu vektor kolom pertama matriks \mathbf{T} .

$$l_{1,1}^* = \begin{bmatrix} 0,403 & -0,193 & 0,443 & 0,372 & 0,195 & -0,053 & 0,037 \end{bmatrix} \begin{pmatrix} -1/(\sqrt{7})^{1/2} \\ 1/(\sqrt{7})^{1/2} \\ 1/(\sqrt{7})^{1/2} \\ 1/(\sqrt{7})^{1/2} \\ 1/(\sqrt{7})^{1/2} \\ 1/(\sqrt{7})^{1/2} \\ 1/(\sqrt{7})^{1/2} \end{pmatrix}$$

Nilai $l_{i,j}^*$ dibagi dengan h_i (komunalitas variabel i) dan kemudian disubstitusikan pada persamaan *varimax* sebagai berikut:

$$V = p^{-1} \sum_{j=1}^m \left[\sum_{i=1}^p (l_{i,j})^4 - \left(\sum_{i=1}^p l_{i,j} \right)^2 / p \right]$$

Matriks \mathbf{T} dipilih sampai nilai V mencapai angka yang terbesar. Hasil rotasi *loading factor* disajikan pada tabel E.

Tabel E Rotated Component Matrix

Rotated Component Matrix							
	Component						
	1	2	3	4	5	6	7
X1	0.0327498	0.0667490	0.7351795	0.0956218	0.0358258	0.1038140	0.0926288
X2	0.1020083	0.0567012	0.7990000	0.0281417	0.1643389	-0.0139033	-0.1044597
X3	0.0647071	-0.0210088	0.7564525	0.0795880	0.1452541	-0.0044055	-0.0515639
X4	-0.0466554	-0.0065426	0.6820050	0.3653871	0.0339002	0.0688486	0.1535579
X5	0.0959130	0.0491369	0.7890131	0.0740987	0.0970421	0.1443336	0.1365623
X6	0.0494624	0.8078002	-0.0040998	0.0224831	0.0442223	0.0151516	0.2144021
X7	-0.0087904	0.8297798	0.0682775	0.1028536	0.0211785	-0.0100183	0.1357204
X8	0.0507119	0.7982148	0.2143789	0.0430219	0.1198789	0.0699106	0.0406841
X9	0.0657607	0.7630312	-0.0988370	0.1804868	0.1454765	0.0814820	0.1111598
X10	-0.0518786	0.7629928	-0.0150265	0.1049242	0.0649660	0.1921819	0.1522262
X11	0.7312017	-0.0080012	0.1493979	0.0368792	0.0644505	-0.1750099	0.1836156
X12	0.8160722	0.0280738	0.0801035	0.0782022	-0.0067066	0.0517327	0.1188369
X13	0.7359517	0.0608838	0.0156517	-0.0501888	0.0241765	0.0039052	0.0616926
X14	0.7333053	-0.0341390	0.1101401	-0.0403175	-0.0000580	0.2928616	-0.0815637
X15	0.7364089	0.0524397	-0.0804480	-0.0310107	0.1407277	-0.0120980	-0.0697237
X16	0.8085566	0.0102985	0.1156979	-0.0229540	0.0727670	-0.0012048	0.0152278
X17	0.8268098	-0.0210463	-0.0033496	0.1119209	0.1062397	0.0176713	0.0763027
X18	0.8235939	0.0745437	0.0524804	0.0132714	-0.0338977	0.1158902	0.1368525
X19	0.7551419	-0.0103993	-0.0375118	0.0579241	0.0736801	-0.0029789	0.1673408
X20	0.1781286	0.1699781	0.2244538	0.1480847	0.8077019	0.2582743	0.1428187
X21	0.0530086	0.1354148	0.1943231	0.2230092	0.8170273	0.1501723	0.1230169
X22	0.1712213	0.1221392	0.1621374	0.2055670	0.7818218	0.2751338	0.0815622
X23	0.2176100	0.2528662	0.0103489	0.1229191	0.2004213	0.0846803	0.7365476
X24	0.0953521	0.2966880	0.1081583	0.0747089	0.0718652	0.1485576	0.7980695
X25	0.3059770	0.2764246	0.0843359	0.1233510	0.0849390	0.2519389	0.6586633
X26	0.0669678	0.1051178	0.1051533	0.0952181	0.2773146	0.7792394	0.0590418
X27	0.1089011	0.1174937	0.1260141	0.1256738	0.0793891	0.8082709	0.1779912
X28	-0.0490923	0.0875332	0.0296848	0.2558024	0.2376596	0.7334514	0.1447506
X29	-0.0261390	0.1522825	0.2001380	0.8385806	0.1121483	0.2914882	0.0328267
X30	0.0807664	0.1424886	0.2538350	0.7643548	0.2998598	0.0440285	0.1998699
X31	0.0576042	0.2081918	0.1506970	0.8150260	0.1917637	0.1770792	0.0738284

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 6 iterations.

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 6 iterations.

Tabel E menunjukkan bahwa x_1, x_2, x_3, x_4, x_5 sangat dipengaruhi oleh f_3^* .

$$x_1 - \mu_1 = 0,033f_1^* + 0,067f_2^* + \mathbf{0,735}f_3^* + 0,096f_4^* + 0,036f_5^* + 0,104f_6^* + 0,093f_7^*$$

$$x_2 - \mu_2 = 0,102f_1^* + 0,057f_2^* + \mathbf{0,799}f_3^* + 0,028f_4^* + 0,164f_5^* - 0,014f_6^* - 0,104f_7^*$$

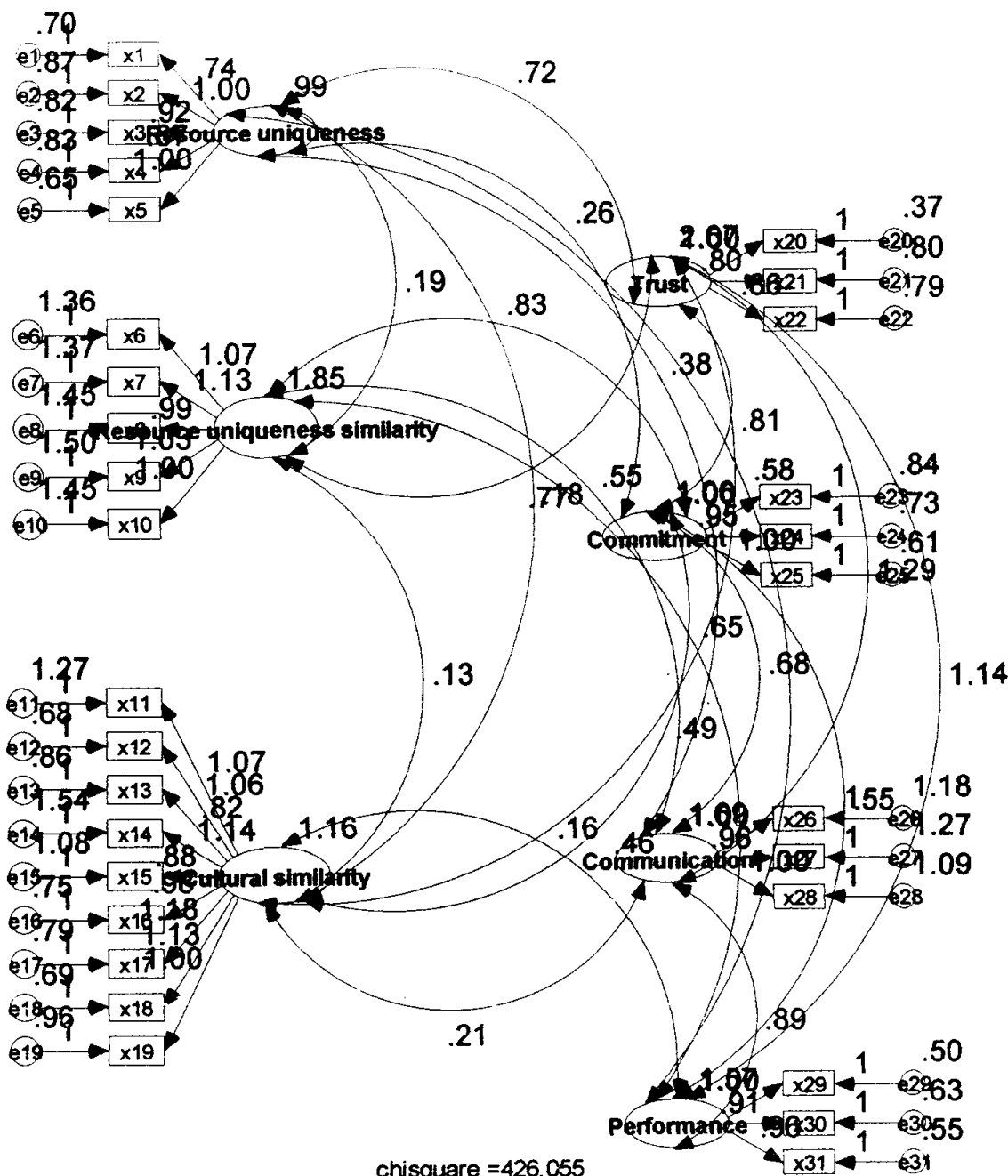
$$x_3 - \mu_3 = 0,065f_1^* - 0,021f_2^* + \mathbf{0,756}f_3^* + 0,079f_4^* + 0,145f_5^* - 0,004f_6^* - 0,052f_7^*$$

$$x_4 - \mu_4 = -0,047f_1^* - 0,006f_2^* + \mathbf{0,682}f_3^* + 0,365f_4^* + 0,034f_5^* + 0,069f_6^* + 0,154f_7^*$$

$$x_5 - \mu_5 = 0,096f_1^* + 0,049f_2^* + \mathbf{0,789}f_3^* + 0,074f_4^* + 0,097f_5^* + 0,144f_6^* + 0,137f_7^*$$

f_3 memiliki pengaruh paling besar pada x_1, x_2, x_3, x_4 dan x_5 . Hal ini menunjukkan bahwa kelima variabel *observed* tersebut merupakan satu kesatuan karena secara dominan dipengaruhi oleh satu faktor yaitu f_3 . Jadi jika f_3 naik maka kelima variabel *observed* tersebut secara bersama-sama juga naik sehingga terdapat konsistensi internal. Kelima variabel tersebut merupakan satu konstruk dan digunakan untuk mengukur skor f_3 (variabel laten). Penjabaran yang sama dilakukan pada faktor-faktor yang lain.

LAMPIRAN 7
CONFIRMATORY FACTOR ANALYSIS



chisquare = 426.055
 rmr = .123
 rmsea = .016
 gfi = .835
 agfi = .801
 df = 413
 cmindf = 1.032
 tli = .993
 cfi = .993

LAMPIRAN 8
KORELASI ANTAR VARIABEL LATEN

Correlations

			Estimate
Trust	<-->	Resource uniqueness	0.446
Commitment	<-->	Resource uniqueness	0.256
Communication	<-->	Resource uniqueness	0.298
Performance	<-->	Resource uniqueness	0.468
Resource uniqueness	<-->	Resource uniqueness similarity	0.143
Resource uniqueness	<-->	Cultural similarity	0.17
Trust	<-->	Resource uniqueness similarity	0.349
Commitment	<-->	Trust	0.48
Trust	<-->	Cultural similarity	0.28
Trust	<-->	Communication	0.608
Trust	<-->	Performance	0.557
Commitment	<-->	Resource uniqueness similarity	0.591
Communication	<-->	Resource uniqueness similarity	0.311
Resource uniqueness similarity	<-->	Cultural similarity	0.088
Performance	<-->	Resource uniqueness similarity	0.381
Commitment	<-->	Cultural similarity	0.412
Commitment	<-->	Communication	0.509
Commitment	<-->	Performance	0.429
Communication	<-->	Cultural similarity	0.149
Communication	<-->	Performance	0.546
Performance	<-->	Cultural similarity	0.12

LAMPIRAN 9
*DETERMINANT OF SAMPLE COVARIANCE
MATRIX, DAN EIGENVALUES*

Sample covariance Matrix

Determinant

228.569

Condition number

90.723

Eigenvalues

19.965

11.445

7.882

4.435

3.108

2.773

2.294

1.835

1.701

1.495

1.403

1.367

1.298

1.228

1.094

1.039

1.003

0.872

0.813

0.719

0.682

0.634

0.616

0.555

0.53

0.486

0.46

0.381

0.363

0.327

0.22

9.1 Determinan matriks kovarian

Multikolinearitas dapat dilihat dari determinan matriks kovarian. Jika determinan matriks kovarian mendekati nol maka korelasi yang kuat terjadi antar variabel. Penjelasan hal ini adalah sebagai berikut:

Jika pada sebuah matriks X terjadi ketergantungan (*dependence*) antar kolom maupun antar baris maka terdapat sebuah vektor a di mana $Xa = 0$ dan determinan matriks $X = 0$.

$$\begin{matrix}
 & \mathbf{X} & & \mathbf{a} & = & \mathbf{0} \\
 \left(\begin{array}{cccc}
 x_{11} & x_{12} & x_{13} & \dots & x_{1,31} \\
 x_{21} & x_{22} & x_{23} & \dots & x_{2,31} \\
 x_{31} & x_{32} & x_{33} & \dots & x_{3,31} \\
 \vdots & \vdots & \vdots & \dots & \vdots \\
 x_{n1} & x_{n2} & x_{n3} & \dots & x_{n,31}
 \end{array} \right) & \left(\begin{array}{c}
 a_1 \\
 a_2 \\
 a_3 \\
 \vdots \\
 a_{31}
 \end{array} \right) & = & \left(\begin{array}{c}
 0 \\
 0 \\
 0 \\
 \vdots \\
 0
 \end{array} \right)
 \end{matrix}$$

Persamaan di atas menunjukkan bahwa pada matriks X terjadi ketergantungan atau terdapat hubungan antar variabel $x_1, x_2, x_3, \dots, x_{31}$. Sehingga x_i adalah fungsi dari x_j yang lain, sebagai contoh:

$$a_1 x_{11} + a_2 x_{12} + a_3 x_{13} + \dots + a_{31} x_{1,31} = 0$$

$$a_1 x_{11} = -a_2 x_{12} - a_3 x_{13} - \dots - a_{31} x_{1,31}$$

Persamaan di bawah ini menunjukkan bahwa matriks kovarian dapat difaktorkan menjadi dua faktor yaitu $(X - 1\mu_x)'$ dan $(X - 1\mu_x)$

$$\begin{matrix}
 \Sigma & = & (X - 1\mu_x)' & (X - 1\mu_x) \\
 \left(\begin{array}{cccc}
 \Sigma_{11} & \Sigma_{12} & \Sigma_{13} & \dots & \Sigma_{1,31} \\
 \Sigma_{21} & \Sigma_{22} & \Sigma_{23} & \dots & \Sigma_{2,31} \\
 \Sigma_{31} & \Sigma_{32} & \Sigma_{33} & \dots & \Sigma_{3,31} \\
 \vdots & \vdots & \vdots & \dots & \vdots \\
 \Sigma_{31,1} & \Sigma_{31,2} & \Sigma_{31,3} & \dots & \Sigma_{31,31}
 \end{array} \right) & = & \left(\begin{array}{ccc}
 X_{11}-\mu_{x1} & X_{21}-\mu_{x1} & \dots & X_{n1}-\mu_{x1} \\
 X_{12}-\mu_{x2} & X_{22}-\mu_{x2} & \dots & X_{n2}-\mu_{x2} \\
 X_{13}-\mu_{x3} & X_{23}-\mu_{x3} & \dots & X_{n3}-\mu_{x3} \\
 \vdots & \vdots & \dots & \vdots \\
 X_{1,31}-\mu_{x31} & X_{2,31}-\mu_{x31} & \dots & X_{n,31}-\mu_{x31}
 \end{array} \right) & \left(\begin{array}{ccc}
 X_{11}-\mu_{x1} & X_{12}-\mu_{x2} & \dots & X_{1,31}-\mu_{x31} \\
 X_{21}-\mu_{x1} & X_{22}-\mu_{x2} & \dots & X_{2,31}-\mu_{x31} \\
 X_{31}-\mu_{x1} & X_{32}-\mu_{x2} & \dots & X_{3,31}-\mu_{x31} \\
 \vdots & \vdots & \dots & \vdots \\
 X_{n1}-\mu_{x1} & X_{n2}-\mu_{x2} & \dots & X_{n,31}-\mu_{x31}
 \end{array} \right) \\
 (31 \times 31) & & (31 \times n) & & (n \times 31)
 \end{matrix}$$

Jika determinan matriks Σ samadengan nol maka terdapat a sehingga $\Sigma a = 0$

$$\Sigma a = (X - 1\mu_x)'(X - 1\mu_x)a$$

Jika terdapat korelasi yang kuat antar variabel maka faktor $(X - 1\mu_x)a = 0$ sehingga $\Sigma a = 0$ dan determinan $\Sigma = 0$. Pada penelitian ini determinan $\Sigma > 0$. Hal ini menunjukkan bahwa korelasi antar 31 variabel *observed* tidak terlalu besar. Estimasi koefisien regresi populasi menjadi lebih akurat.

9.2 Eigenvalues

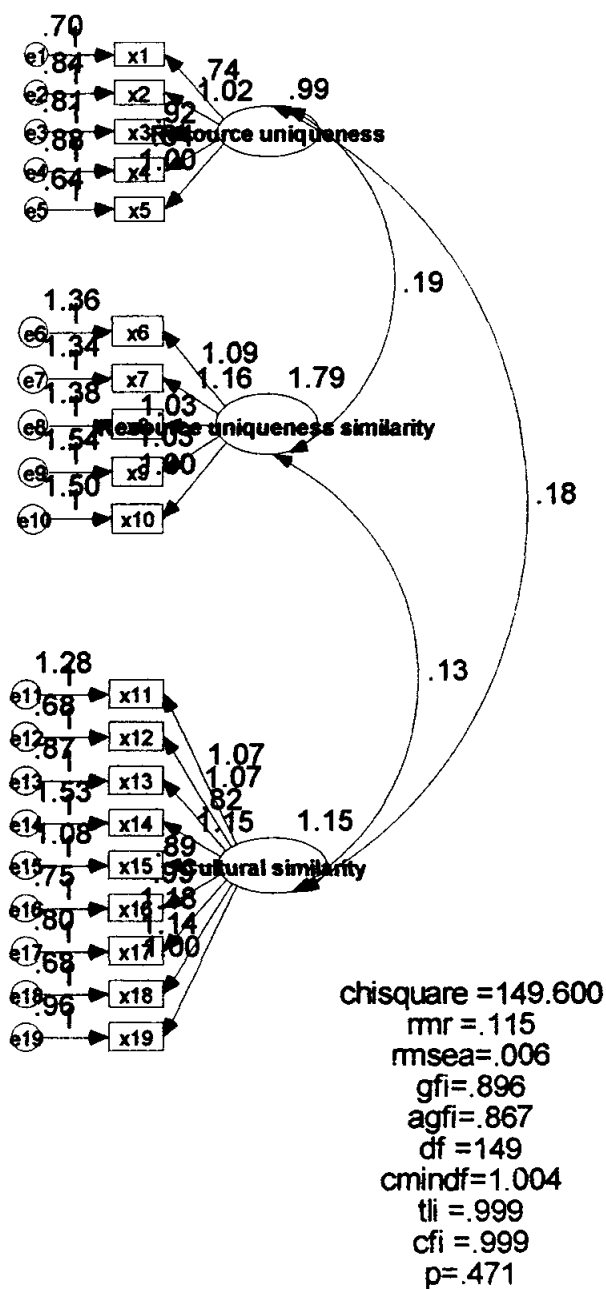
Nilai *eigenvalues* pada lampiran 9 merupakan hasil perhitungan AMOS. Hasil ini berbeda dengan SPSS. Estimasi *eigenvalues* pada lampiran 9 menggunakan matriks kovarian. Estimasi *eigenvalues* pada lampiran 6 yang merupakan *output* SPSS menggunakan matriks korelasi. Jika *eigenvalues* pada lampiran 6 dijumlahkan maka akan samadengan 31.

$$\begin{aligned} \text{Total varians } y_i &= \text{Var } y_1 + \text{Var } y_2 + \dots + \text{Var } y_{31} = \lambda_1 + \lambda_2 + \lambda_3 + \dots + \lambda_{31} \\ &= 8,256 + 4,823 + \dots + 0,109 = 31 \end{aligned}$$

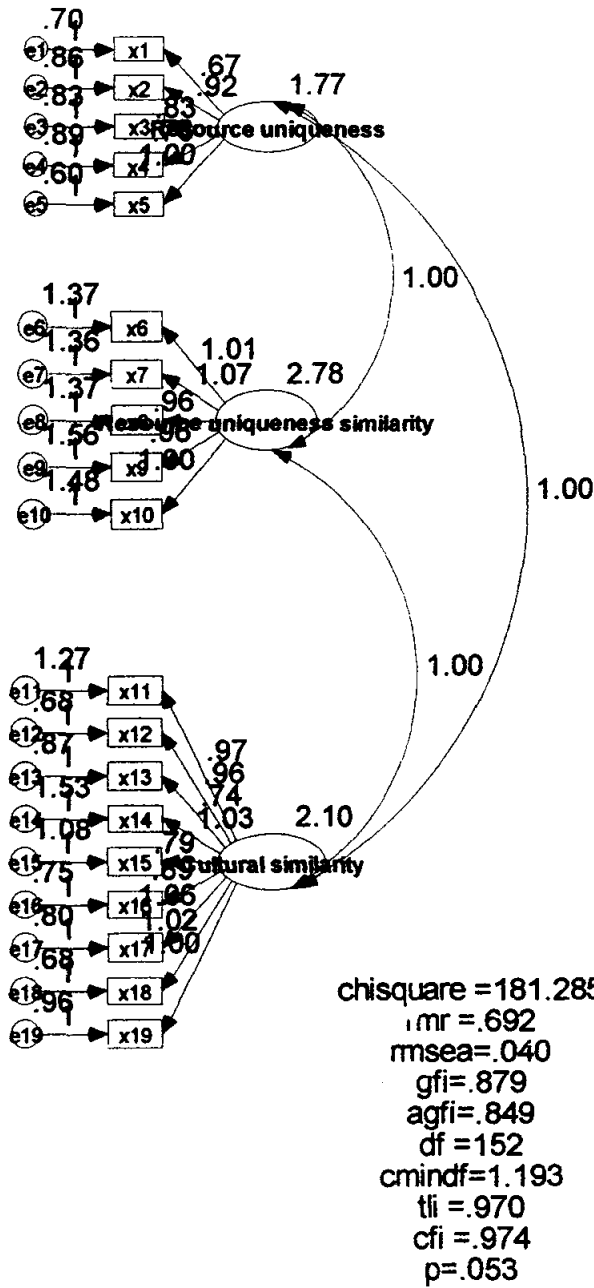
$$\begin{aligned} \text{Total varians } y_i = \text{total varians } Z_i &= \text{var } z_1 + \text{var } z_2 + \dots + \text{var } z_{31} = r_{11} + r_{22} + \dots + r_{31} \\ &= 1 + 1 + \dots + 1 = 31 \end{aligned}$$

LAMPIRAN 10
UJI VALIDITAS DISKRIMINAN

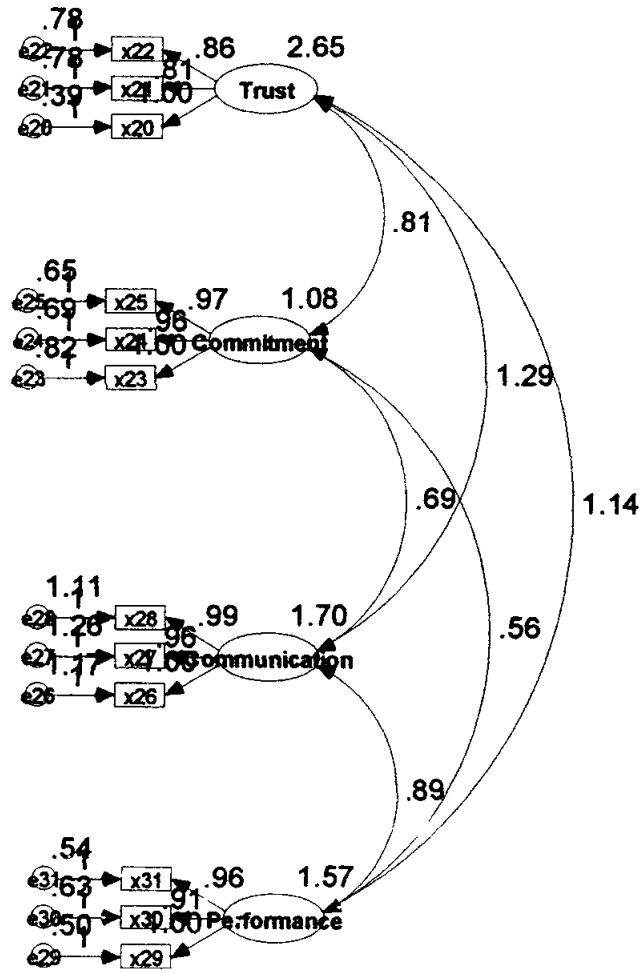
Free model untuk variabel laten eksogen



Constrained model untuk variabel laten eksogen

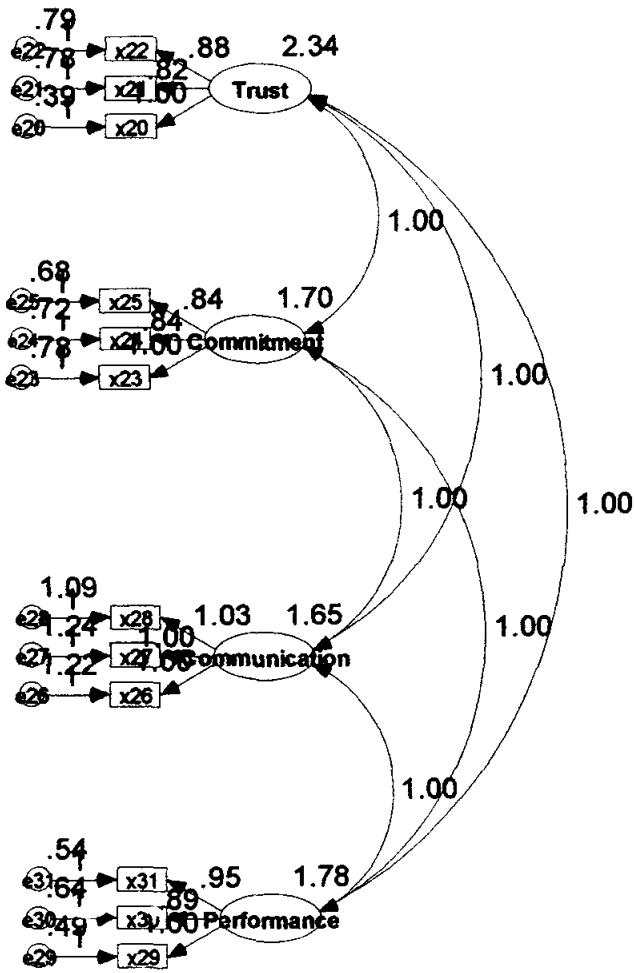


Free model untuk variabel laten endogen



chisquare =59.428
 rnr =.097
 rmsea=.044
 gfi=.929
 agfi=.885
 df =48
 cmindf=1.238
 tli =.980
 cfi =.986
 p=.125

Constrained model untuk variabel laten endogen



chisquare = 72.336
 rnr = .239
 rmsea = .053
 gfi = .917
 agfi = .880
 df = 54
 cmindf = 1.340
 tli = .972
 cfi = .977
 p = .049

LAMPIRAN 11
UJI RELIABILITAS

Hasil uji reliabilitas untuk variabel *resource uniqueness*

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)**Analysis of Variance**

Source of Variation	Sum of Sq.	DF	Mean Square	F	Prob.
Between People	597.2192	123	4.8554		
Within People	392.9677	496	.7923		
Between Measures	2.8151	4	.7038	.8875	.4712
Residual	390.1526	492	.7930		
Total	990.1869	619	1.5997		
Grand Mean	4.4544				

Reliability Coefficients

N of Cases = 124.0

N of Items = 5

Alpha = .8367

Hasil uji reliabilitas untuk variabel *resource uniqueness similarity*

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)**Analysis of Variance**

Source of Variation	Sum of Sq.	DF	Mean Square	F	Prob.
Between People	1427.8155	123	11.6083		
Within People	713.6861	496	1.4389		
Between Measures	3.3516	4	.8379	.5804	.6770
Residual	710.3344	492	1.4438		
Total	2141.5015	619	3.4596		
Grand Mean	6.0321				

Reliability Coefficients

N of Cases = 124.0

N of Items = 5

Alpha = .8756

Hasil uji reliabilitas untuk variabel *cultural similarity*

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Analysis of Variance

Source of Variation	Sum of Sq.	DF	Mean Square	F	Prob.
Between People	1485.9391	123	12.0808		
Within People	976.6139	992	.9845		
Between Measures	9.6350	8	1.2044	1.2256	.2804
Residual	966.9789	984	.9827		
Total	2462.5530	1115	2.2086		
Grand Mean	5.1960				

Reliability Coefficients

N of Cases = 124.0

N of Items = 9

Alpha = .9187

Hasil uji reliabilitas untuk variabel *trust*

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Analysis of Variance

Source of Variation	Sum of Sq.	DF	Mean Square	F	Prob.
Between People	858.5362	123	6.9800		
Within People	70.9637	248	.6894		
Between Measures	.8634	2	.4317	.6243	.5365
Residual	170.1003	246	.6915		
Total	029.4999	371	2.7749		
Grand Mean	4.3777				

Reliability Coefficients

N of Cases = 124.0

N of Items = 3

Alpha = .9009

Hasil uji reliabilitas untuk variabel *commitment*

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Analysis of Variance

Source of Variation	Sum of Sq.	DF	Mean Square	F	Prob.
Between People	473.2323	123	3.8474		
Within People	180.8982	248	.7294		
Between Measures	1.4597	2	.7299	1.0006	.3691
Residual	179.4384	246	.7294		
Total	654.1305	371	1.7632		
Grand Mean	5.2355				

Reliability Coefficients

N of Cases = 124.0

N of Items = 3

Alpha = .8104

Hasil uji reliabilitas untuk variabel *communication*

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Analysis of Variance

Source of Variation	Sum of Sq.	DF	Mean Square	F	Prob.
Between People	760.0168	123	6.1790		
Within People	293.3741	248	1.1830		
Between Measures	.2604	2	.1302	.1093	.8965
Residual	293.1137	246	1.1915		
Total	1053.3910	371	2.8393		
Grand Mean	4.5070				

Reliability Coefficients

N of Cases = 124.0

N of Items = 3

Alpha = .8072

Hasil uji reliabilitas untuk variabel *alliance performance*

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Analysis of Variance

Source of Variation	Sum of Sq.	DF	Mean Square	F	Prob.
Between People	602.7039	123	4.9000		
Within People	140.7898	248	.5677		
Between Measures	1.3433	2	.6716	1.1848	.3075
Residual	139.4466	246	.5669		
Total	743.4938	371	2.0040		
Grand Mean	2.9945				

Reliability Coefficients

N of Cases = 124.0

N of Items = 3

Alpha = .8843

LAMPIRAN 12
ANALISIS JALUR

Regression Weights

	Estimate	S.E.	C.R.	P	Label
Trust <-- Resource uniqueness	0.896	0.223	4.024	0.000	par-23
Communication <-- Resource uniqueness	0.517	0.196	2.635	0.008	par-24
Commitment <-- Resource uniqueness	0.225	0.128	1.764	0.078	par-25
Trust <-- Resource uniqueness similarity	0.357	0.102	3.517	0.000	par-26
Commitment <-- Resource uniqueness similarity	0.403	0.075	5.375	0.000	par-27
Communication <-- Resource uniqueness similarity	0.285	0.095	2.998	0.003	par-28
Trust <-- Cultural similarity	0.295	0.123	2.400	0.016	par-29
Commitment <-- Cultural similarity	0.314	0.085	3.705	0.000	par-30
Communication <-- Cultural similarity	0.117	0.112	1.042	0.298	par-31
Performa <-- Commitment	0.076	0.166	0.456	0.648	par-34
Performa <-- Communication	0.232	0.107	2.174	0.030	par-35
Performa <-- Resource uniqueness	0.432	0.171	2.529	0.011	par-36
Performa <-- Resource uniqueness similarity	0.129	0.101	1.271	0.204	par-37
Performa <-- Cultural similarity	-0.063	0.100	-0.625	0.532	par-38
Performa <-- Trust	0.169	0.084	2.015	0.044	par-39
x1 <-- Resource uniqueness	1.000				
x2 <-- Resource uniqueness	1.338	0.203	6.602	0.000	par-1
x3 <-- Resource uniqueness	1.233	0.193	6.373	0.000	par-2
x4 <-- Resource uniqueness	1.188	0.184	6.447	0.000	par-3
x7 <-- Resource uniqueness similarity	1.048	0.119	8.779	0.000	par-4
x8 <-- Resource uniqueness similarity	0.920	0.110	8.356	0.000	par-5
x9 <-- Resource uniqueness similarity	0.974	0.115	8.451	0.000	par-6
x10 <-- Resource uniqueness similarity	0.949	0.111	8.518	0.000	par-7
x11 <-- Cultural similarity	1.000				
x12 <-- Cultural similarity	0.993	0.115	8.663	0.000	par-8
x13 <-- Cultural similarity	0.765	0.105	7.321	0.000	par-9
x14 <-- Cultural similarity	1.069	0.144	7.447	0.000	par-10
x15 <-- Cultural similarity	0.830	0.115	7.239	0.000	par-11
x16 <-- Cultural similarity	0.920	0.112	8.254	0.000	par-12
x17 <-- Cultural similarity	1.105	0.127	8.692	0.000	par-13
x18 <-- Cultural similarity	1.061	0.121	8.798	0.000	par-14
x19 <-- Cultural similarity	0.939	0.119	7.895	0.000	par-15
x5 <-- Resource uniqueness	1.355	0.193	7.014	0.000	par-16
x20 <-- Trust	1.000				
x21 <-- Trust	0.797	0.063	12.569	0.000	par-17
x22 <-- Trust	0.846	0.066	12.839	0.000	par-18
x23 <-- Commitment	1.000				
x24 <-- Commitment	0.958	0.123	7.787	0.000	par-19
x25 <-- Commitment	0.984	0.128	7.671	0.000	par-20
x26 <-- Communication	1.000				
x27 <-- Communication	0.978	0.133	7.356	0.000	par-21
x28 <-- Communication	0.987	0.132	7.466	0.000	par-22
x6 <-- Resource uniqueness similarity	1.000				
x31 <-- Performa	1.000				
x30 <-- Performa	0.947	0.090	10.546	0.000	par-32
x29 <-- Performa	1.042	0.090	11.581	0.000	par-33

Standardized Regression Weights

	<u>Estimate</u>
Trust <-- Resource uniqueness	0.412
Communication <-- Resource uniqueness	0.296
Commitment <-- Resource uniqueness	0.164
Trust <-- Resource uniqueness similarity	0.324
Commitment <-- Resource uniqueness similarity	0.582
Communication <-- Resource uniqueness similarity	0.322
Trust <-- Cultural similarity	0.212
Commitment <-- Cultural similarity	0.359
Communication <-- Cultural similarity	0.105
Performa <-- Commitment	0.066
Performa <-- Communication	0.256
Performa <-- Resource uniqueness	0.273
Performa <-- Resource uniqueness similarity	0.161
Performa <-- Cultural similarity	-0.062
Performa <-- Trust	0.233
x1 <-- Resource uniqueness	0.659
x2 <-- Resource uniqueness	0.718
x3 <-- Resource uniqueness	0.703
x4 <-- Resource uniqueness	0.693
x7 <-- Resource uniqueness similarity	0.785
x8 <-- Resource uniqueness similarity	0.736
x9 <-- Resource uniqueness similarity	0.758
x10 <-- Resource uniqueness similarity	0.757
x11 <-- Cultural similarity	0.711
x12 <-- Cultural similarity	0.810
x13 <-- Cultural similarity	0.686
x14 <-- Cultural similarity	0.704
x15 <-- Cultural similarity	0.676
x16 <-- Cultural similarity	0.772
x17 <-- Cultural similarity	0.820
x18 <-- Cultural similarity	0.827
x19 <-- Cultural similarity	0.741
x5 <-- Resource uniqueness	0.777
x20 <-- Trust	0.939
x21 <-- Trust	0.819
x22 <-- Trust	0.830
x23 <-- Commitment	0.740
x24 <-- Commitment	0.752
x25 <-- Commitment	0.778
x26 <-- Communication	0.762
x27 <-- Communication	0.748
x28 <-- Communication	0.765
x6 <-- Resource uniqueness similarity	0.776
x31 <-- Performa	0.843
x30 <-- Performa	0.811
x29 <-- Performa	0.865

total Effects - Estimates

	Cultural similarity	Resource uniqueness similarity	Resource uniqueness	Communication
Communication	0.117	0.285	0.517	0.000
Commitment	0.314	0.403	0.225	0.000
Trust	0.295	0.357	0.896	0.000
Performa	0.038	0.286	0.721	0.232
x29	0.040	0.298	0.752	0.242
x30	0.036	0.271	0.683	0.220
x31	0.038	0.286	0.721	0.232
x28	0.115	0.281	0.510	0.987
x27	0.114	0.278	0.505	0.978
x26	0.117	0.285	0.517	1.000
x25	0.309	0.397	0.221	0.000
x24	0.300	0.386	0.215	0.000
x23	0.314	0.403	0.225	0.000
x22	0.250	0.302	0.758	0.000
x21	0.236	0.285	0.715	0.000
x20	0.295	0.357	0.896	0.000
x5	0.000	0.000	1.355	0.000
x19	0.939	0.000	0.000	0.000
x18	1.061	0.000	0.000	0.000
x17	1.105	0.000	0.000	0.000
x16	0.920	0.000	0.000	0.000
x15	0.830	0.000	0.000	0.000
x14	1.069	0.000	0.000	0.000
x13	0.765	0.000	0.000	0.000
x12	0.993	0.000	0.000	0.000
x11	1.000	0.000	0.000	0.000
x10	0.000	0.949	0.000	0.000
x9	0.000	0.974	0.000	0.000
x8	0.000	0.920	0.000	0.000
x7	0.000	1.048	0.000	0.000
x6	0.000	1.000	0.000	0.000
x4	0.000	0.000	1.188	0.000
x3	0.000	0.000	1.233	0.000
x2	0.000	0.000	1.338	0.000
x1	0.000	0.000	1.000	0.000

Standardized Total Effects - Estimates

	Cultural similarity	Resource uniqueness similarity	Resource uniqueness	Communication
Communication	0.105	0.322	0.296	0.000
Commitment	0.359	0.582	0.164	0.000
Trust	0.212	0.324	0.412	0.000
Performa	0.038	0.357	0.455	0.256
x29	0.033	0.308	0.393	0.221
x30	0.031	0.289	0.369	0.208
x31	0.032	0.301	0.384	0.216
x28	0.080	0.246	0.226	0.765
x27	0.078	0.241	0.221	0.748
x26	0.080	0.245	0.225	0.762
x25	0.279	0.453	0.128	0.000
x24	0.270	0.437	0.124	0.000
x23	0.266	0.431	0.122	0.000
x22	0.176	0.269	0.342	0.000
x21	0.174	0.265	0.337	0.000
x20	0.199	0.304	0.386	0.000
x5	0.000	0.000	0.777	0.000
x19	0.741	0.000	0.000	0.000
x18	0.827	0.000	0.000	0.000
x17	0.820	0.000	0.000	0.000
x16	0.772	0.000	0.000	0.000
x15	0.676	0.000	0.000	0.000
x14	0.704	0.000	0.000	0.000
x13	0.686	0.000	0.000	0.000
x12	0.810	0.000	0.000	0.000
x11	0.711	0.000	0.000	0.000
x10	0.000	0.757	0.000	0.000
x9	0.000	0.758	0.000	0.000
x8	0.000	0.736	0.000	0.000
x7	0.000	0.785	0.000	0.000
x6	0.000	0.776	0.000	0.000
x4	0.000	0.000	0.693	0.000
x3	0.000	0.000	0.703	0.000
x2	0.000	0.000	0.718	0.000
x1	0.000	0.000	0.659	0.000

Direct Effects - Estimates

	Cultural similarity	Resource uniqueness similarity	Resource uniqueness	Communication
Communication	0.117	0.285	0.517	0.000
Commitment	0.314	0.403	0.225	0.000
Trust	0.295	0.357	0.896	0.000
Performa	-0.063	0.129	0.432	0.232
x29	0.000	0.000	0.000	0.000
x30	0.000	0.000	0.000	0.000
x31	0.000	0.000	0.000	0.000
x28	0.000	0.000	0.000	0.987
x27	0.000	0.000	0.000	0.978
x26	0.000	0.000	0.000	1.000
x25	0.000	0.000	0.000	0.000
x24	0.000	0.000	0.000	0.000
x23	0.000	0.000	0.000	0.000
x22	0.000	0.000	0.000	0.000
x21	0.000	0.000	0.000	0.000
x20	0.000	0.000	0.000	0.000
x5	0.000	0.000	1.355	0.000
x19	0.939	0.000	0.000	0.000
x18	1.061	0.000	0.000	0.000
x17	1.105	0.000	0.000	0.000
x16	0.920	0.000	0.000	0.000
x15	0.830	0.000	0.000	0.000
x14	1.069	0.000	0.000	0.000
x13	0.765	0.000	0.000	0.000
x12	0.993	0.000	0.000	0.000
x11	1.000	0.000	0.000	0.000
x10	0.000	0.949	0.000	0.000
x9	0.000	0.974	0.000	0.000
x8	0.000	0.920	0.000	0.000
x7	0.000	1.048	0.000	0.000
x6	0.000	1.000	0.000	0.000
x4	0.000	0.000	1.188	0.000
x3	0.000	0.000	1.233	0.000
x2	0.000	0.000	1.338	0.000
x1	0.000	0.000	1.000	0.000

Standardized Direct Effects - Estimates

	Cultural similarity	Resource uniqueness similarity	Resource uniqueness	Communication
Communication	0.105	0.322	0.296	0.000
Commitment	0.359	0.582	0.164	0.000
Trust	0.212	0.324	0.412	0.000
Performa	-0.062	0.161	0.273	0.256
x29	0.000	0.000	0.000	0.000
x30	0.000	0.000	0.000	0.000
x31	0.000	0.000	0.000	0.000
x28	0.000	0.000	0.000	0.765
x27	0.000	0.000	0.000	0.748
x26	0.000	0.000	0.000	0.762
x25	0.000	0.000	0.000	0.000
x24	0.000	0.000	0.000	0.000
x23	0.000	0.000	0.000	0.000
x22	0.000	0.000	0.000	0.000
x21	0.000	0.000	0.000	0.000
x20	0.000	0.000	0.000	0.000
x5	0.000	0.000	0.777	0.000
x19	0.741	0.000	0.000	0.000
x18	0.827	0.000	0.000	0.000
x17	0.820	0.000	0.000	0.000
x16	0.772	0.000	0.000	0.000
x15	0.676	0.000	0.000	0.000
x14	0.704	0.000	0.000	0.000
x13	0.686	0.000	0.000	0.000
x12	0.810	0.000	0.000	0.000
x11	0.711	0.000	0.000	0.000
x10	0.000	0.757	0.000	0.000
x9	0.000	0.758	0.000	0.000
x8	0.000	0.736	0.000	0.000
x7	0.000	0.785	0.000	0.000
x6	0.000	0.776	0.000	0.000
x4	0.000	0.000	0.693	0.000
x3	0.000	0.000	0.703	0.000
x2	0.000	0.000	0.718	0.000
x1	0.000	0.000	0.659	0.000

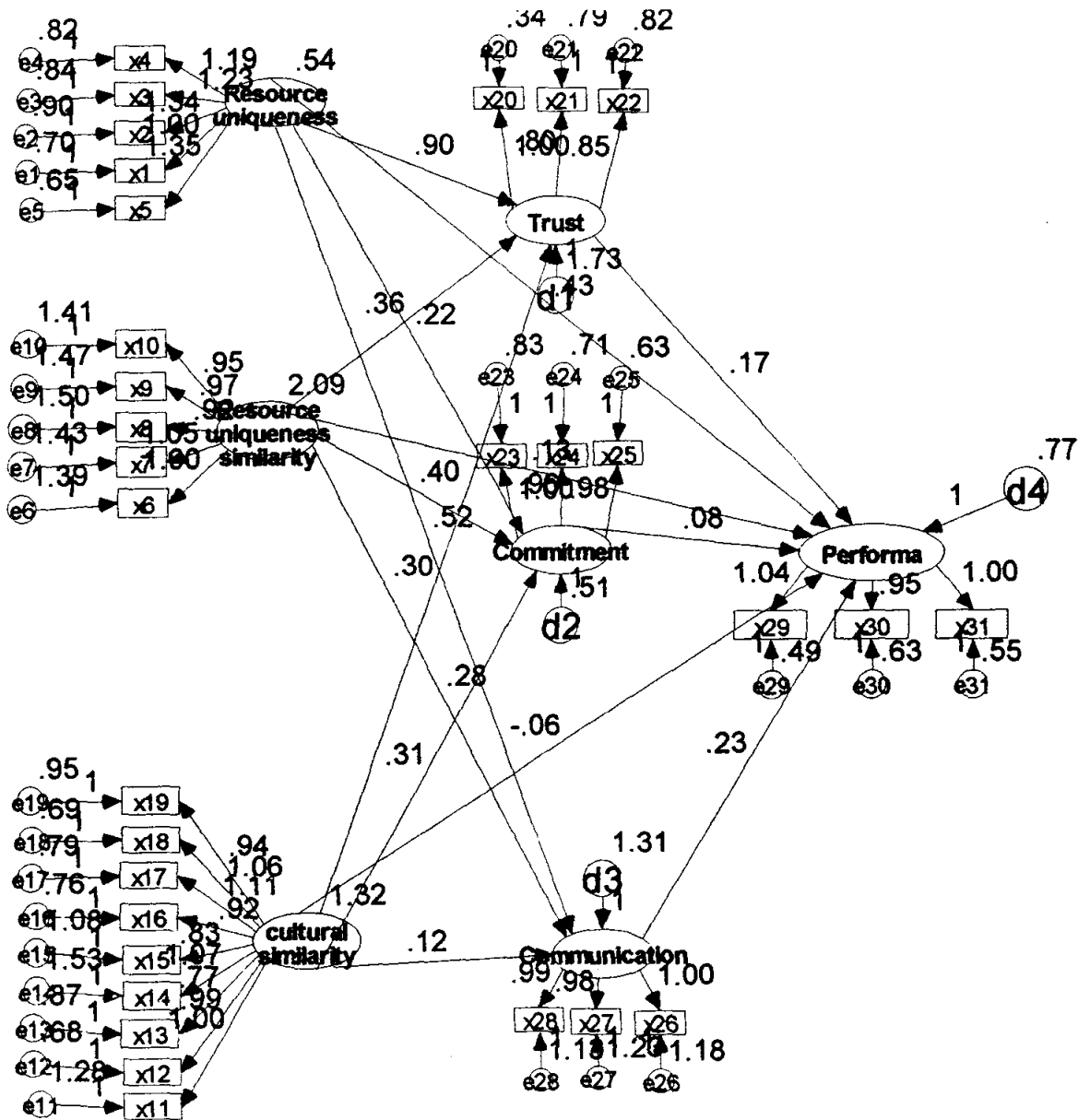
Indirect Effects - Estimates

	Cultural similarity	Resource uniqueness similarity	Resource uniqueness	Communication
Communication	0.000	0.000	0.000	0.000
Commitment	0.000	0.000	0.000	0.000
Trust	0.000	0.000	0.000	0.000
Performa	0.101	0.157	0.289	0.000
x29	0.040	0.298	0.752	0.242
x30	0.036	0.271	0.683	0.220
x31	0.038	0.286	0.721	0.232
x28	0.115	0.281	0.510	0.000
x27	0.114	0.278	0.505	0.000
x26	0.117	0.285	0.517	0.000
x25	0.309	0.397	0.221	0.000
x24	0.300	0.386	0.215	0.000
x23	0.314	0.403	0.225	0.000
x22	0.250	0.302	0.758	0.000
x21	0.236	0.285	0.715	0.000
x20	0.295	0.357	0.896	0.000
x5	0.000	0.000	0.000	0.000
x19	0.000	0.000	0.000	0.000
x18	0.000	0.000	0.000	0.000
x17	0.000	0.000	0.000	0.000
x16	0.000	0.000	0.000	0.000
x15	0.000	0.000	0.000	0.000
x14	0.000	0.000	0.000	0.000
x13	0.000	0.000	0.000	0.000
x12	0.000	0.000	0.000	0.000
x11	0.000	0.000	0.000	0.000
x10	0.000	0.000	0.000	0.000
x9	0.000	0.000	0.000	0.000
x8	0.000	0.000	0.000	0.000
x7	0.000	0.000	0.000	0.000
x6	0.000	0.000	0.000	0.000
x4	0.000	0.000	0.000	0.000
x3	0.000	0.000	0.000	0.000
x2	0.000	0.000	0.000	0.000
x1	0.000	0.000	0.000	0.000

Standardized Indirect Effects - Estimates

	Cultural similarity	Resource uniqueness similarity	Resource uniqueness	Communication
Communication	0.000	0.000	0.000	0.000
Commitment	0.000	0.000	0.000	0.000
Trust	0.000	0.000	0.000	0.000
Performa	0.100	0.196	0.182	0.000
x29	0.033	0.308	0.393	0.221
x30	0.031	0.289	0.369	0.208
x31	0.032	0.301	0.384	0.216
x28	0.080	0.246	0.226	0.000
x27	0.078	0.241	0.221	0.000
x26	0.080	0.245	0.225	0.000
x25	0.279	0.453	0.128	0.000
x24	0.270	0.437	0.124	0.000
x23	0.266	0.431	0.122	0.000
x22	0.176	0.269	0.342	0.000
x21	0.174	0.265	0.337	0.000
x20	0.199	0.304	0.386	0.000
x5	0.000	0.000	0.000	0.000
x19	0.000	0.000	0.000	0.000
x18	0.000	0.000	0.000	0.000
x17	0.000	0.000	0.000	0.000
x16	0.000	0.000	0.000	0.000
x15	0.000	0.000	0.000	0.000
x14	0.000	0.000	0.000	0.000
x13	0.000	0.000	0.000	0.000
x12	0.000	0.000	0.000	0.000
x11	0.000	0.000	0.000	0.000
x10	0.000	0.000	0.000	0.000
x9	0.000	0.000	0.000	0.000
x8	0.000	0.000	0.000	0.000
x7	0.000	0.000	0.000	0.000
x6	0.000	0.000	0.000	0.000
x4	0.000	0.000	0.000	0.000
x3	0.000	0.000	0.000	0.000
x2	0.000	0.000	0.000	0.000
x1	0.000	0.000	0.000	0.000

LAMPIRAN 13
PATH DIAGRAM DAN FIT MEASUREMENT

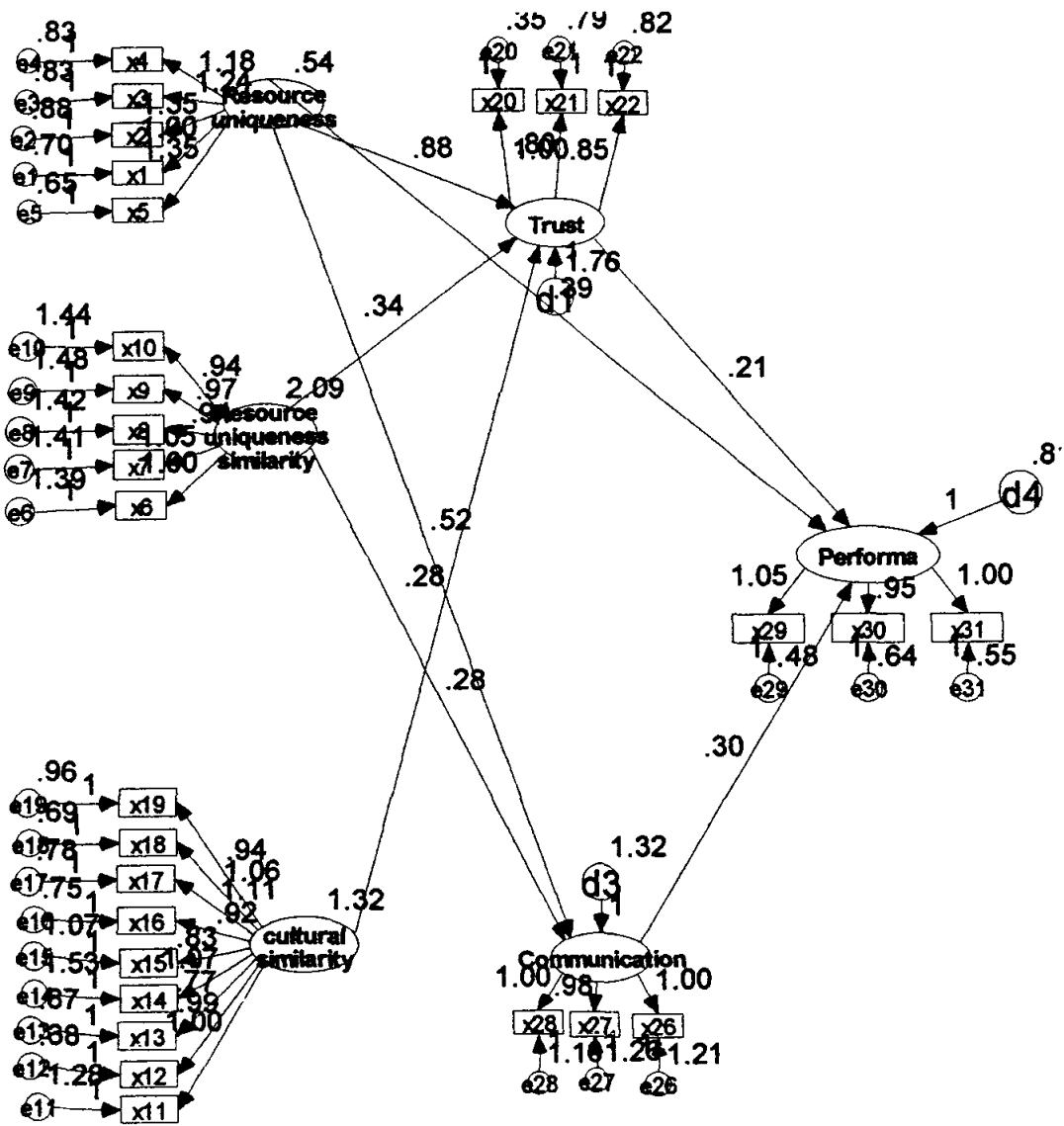


chisquare = 462.078
 nmr = .193
 rmsea = .029
 gfi = .823
 agfi = .791
 df = 419
 cmin/df = 1.103
 tli = .976
 cfi = .978

Fit Measures

Fit Measure	Default model	Saturated	Independence	Macro
Discrepancy	462.078	0.000	2447.553	CMIN
Degrees of freedom	419	0	465	DF
P	0.072		0.000	P
Number of parameters	77	496	31	NPAR
Discrepancy / df	1.103		5.264	CMINDF
RMR	0.193	0.000	0.690	RMR
GFI	0.823	1.000	0.273	GFI
Adjusted GFI	0.791		0.224	AGFI
Parsimony-adjusted GFI	0.696		0.256	PGFI
Normed fit index	0.811	1.000	0.000	NFI
Relative fit index	0.790		0.000	RFI
Incremental fit index	0.979	1.000	0.000	IFI
Tucker-Lewis index	0.976		0.000	TLI
Comparative fit index	0.978	1.000	0.000	CFI
Parsimony ratio	0.901	0.000	1.000	PRATIO
Parsimony-adjusted NFI	0.731	0.000	0.000	PNFI
Parsimony-adjusted CFI	0.881	0.000	0.000	PCFI
Noncentrality parameter estimate	43.078	0.000	1982.553	NCP
NCP lower bound	0.000	0.000	1831.404	NCPLO
NCP upper bound	99.561	0.000	2141.157	NCPHI
FMIN	3.757	0.000	19.899	FMIN
F0	0.350	0.000	16.118	F0
F0 lower bound	0.000	0.000	14.889	F0LO
F0 upper bound	0.809	0.000	17.408	F0HI
RMSEA	0.029		0.186	RMSEA
RMSEA lower bound	0.000		0.179	RMSEALO
RMSEA upper bound	0.044		0.193	RMSEAHl
P for test of close fit	0.993		0.000	PCLOSE
Akaike information criterion (AIC)	616.078	992.000	2509.553	AIC
Browne-Cudeck criterion	670.231	1340.835	2531.355	BCC
Bayes information criterion	1097.656	4094.117	2703.435	BIC
Consistent AIC	910.239	2886.860	2627.982	CAIC
Expected cross validation index	5.009	8.065	20.403	ECVI
ECVI lower bound	4.659	8.065	19.174	ECVILO
ECVI upper bound	5.468	8.065	21.692	ECVIHI
MECVI	5.449	10.901	20.580	MECVI
Hoelter .05 index	125		26	HFIVE
Hoelter .01 index	131		28	HONE

LAMPIRAN 14
*MODIFIED PATH DIAGRAM DAN FIT
MEASUREMENT*



chisquare = 375.232
 nmr = .217
 rmsea = .028
 gfi = .837
 agfi = .806
 df = 342
 cmin/df = 1.097
 li = .980
 cfi = .981

Fit Measures

Fit Measure	Default model	Saturated	Independence	Macro
Discrepancy	375.232	0.000	2172.813	CMIN
Degrees of freedom	342	0	378	DF
P	0.104		0.000	P
Number of parameters	64	406	28	NPAR
Discrepancy / df	1.097		5.748	CMINDF
RMR	0.217	0.000	0.708	RMR
GFI	0.837	1.000	0.291	GFI
Adjusted GFI	0.806		0.239	AGFI
Parsimony-adjusted GFI	0.705		0.271	PGFI
Normed fit index	0.827	1.000	0.000	NFI
Relative fit index	0.809		0.000	RFI
Incremental fit index	0.982	1.000	0.000	IFI
Tucker-Lewis index	0.980		0.000	TLI
Comparative fit index	0.981	1.000	0.000	CFI
Parsimony ratio	0.905	0.000	1.000	PRATIO
Parsimony-adjusted NFI	0.749	0.000	0.000	PNFI
Parsimony-adjusted CFI	0.888	0.000	0.000	PCFI
Noncentrality parameter estimate	33.232	0.000	1794.813	NCP
NCP lower bound	0.000	0.000	1651.968	NCPLO
NCP upper bound	84.454	0.000	1945.110	NCPHI
FMIN	3.051	0.000	17.665	FMIN
F0	0.270	0.000	14.592	F0
F0 lower bound	0.000	0.000	13.431	F0LO
F0 upper bound	0.687	0.000	15.814	F0HI
RMSEA	0.028		0.196	RMSEA
RMSEA lower bound	0.000		0.188	RMSEALO
RMSEA upper bound	0.045		0.205	RMSEAH1
P for test of close fit	0.988		0.000	PCLOSE
Akaike information criterion (AIC)	503.232	812.000	2228.813	AIC
Browne-Cudeck criterion	542.722	1062.511	2246.090	BCC
Bayes information criterion	896.992	3309.909	2401.083	BIC
Consistent AIC	747.730	2363.034	2335.781	CAIC
Expected cross validation index	4.091	6.602	18.120	ECVI
ECVI lower bound	3.821	6.602	16.959	ECVILO
ECVI upper bound	4.508	6.602	19.342	ECVIHI
MECVI	4.412	8.638	18.261	MECVI
Hoelter .05 index	127		25	HFIVE
Hoelter .01 index	134		26	HONE

LAMPIRAN 15
ANOVA
(ONE WAY)

Metode ANOVA satu arah atau satu level digunakan untuk melihat tingkat kesamaan nilai rata-rata antar populasi, sebagai contoh:

Populasi 1(μ_1) : $X_{11}, X_{12}, X_{13}, \dots, X_{1,n1}$

Populasi 2(μ_2) : $X_{21}, X_{22}, X_{23}, \dots, X_{2,n2}$

Populasi 3(μ_3) : $X_{31}, X_{32}, X_{33}, \dots, X_{3,n3}$

⋮

Populasi g(μ_g) : $X_{g1}, X_{g2}, X_{g3}, \dots, X_{g,ng}$

Rata-rata total (*overall mean*) = μ .

Metode ANOVA digunakan untuk menguji $H_0 : \mu_1 = \mu_2 = \mu_3 = \dots = \mu_g$

$$\mu_1 = \mu + \tau_1 \quad (\text{persamaan 1})$$

(*1st population mean*)
(*overall mean*)
(*1st population treatment effect*)

$$x_{ij} = \mu + \tau_i + e_{ij} \quad (\text{persamaan 2})$$

(*overall mean*)
(*treatment effect*)
(*random error*)

Di mana $i =$ populasi ($1-g$), $j =$ jumlah populasi ($n_1, n_2, n_j, \dots, n_g$). ANOVA dalam penelitian ini diterapkan pada sampel sehingga persamaan 2 menjadi:

$$x_{ij} = \bar{x} + (\bar{x}_i - \bar{x}) + (x_{ij} - \bar{x}_i) \quad (\text{persamaan 2})$$

(*overall sample mean*)
(*estimated treatment effect*)
(*residual*)

$$(x_{ij} - \bar{x})^2 = \{(\bar{x}_i - \bar{x}) + (x_{ij} - \bar{x}_i)\}^2$$

$$(x_{ij} - \bar{x})^2 = (\bar{x}_i - \bar{x})^2 + (x_{ij} - \bar{x}_i)^2 + 2(\bar{x}_i - \bar{x})(x_{ij} - \bar{x}_i) \quad (\text{persamaan 4})$$

Jika persamaan 4 dijumlahkan secara antar populasi maka

$$\sum_{j=1}^{n_i} (x_{ij} - \bar{x})^2 = \sum_{j=1}^{n_i} (\bar{x}_i - \bar{x})^2 + \sum_{j=1}^{n_i} (x_{ij} - \bar{x}_i)^2 + 2 \sum_{j=1}^{n_i} (\bar{x}_i - \bar{x})(x_{ij} - \bar{x}_i) \quad (\text{persamaan 5})$$

Suku 2 $\sum_{j=1}^{n_i} (\bar{x}_i - \bar{x})(x_{ij} - \bar{x}_i)$ pada persamaan 5 sama dengan 0.

$$\sum_{j=1}^{n_i} (x_{ij} - \bar{x})^2 = \sum_{j=1}^{n_i} (\bar{x}_i - \bar{x})^2 + \sum_{j=1}^{n_i} (x_{ij} - \bar{x}_i)^2 \quad (\text{persamaan 6})$$

Jika persamaan 6 dijumlahkan secara antar populasi maka persamaan 7 dihasilkan.

$$\sum_{i=1}^g \sum_{j=1}^{n_i} (x_{ij} - \bar{x})^2 = \sum_{i=1}^g \sum_{j=1}^{n_i} (\bar{x}_i - \bar{x})^2 + \sum_{i=1}^g \sum_{j=1}^{n_i} (x_{ij} - \bar{x}_i)^2 \quad (\text{persamaan 7})$$

corrected sum of squares (SS_c)
 Treatment sum of squares (SS_{tr})
 Residual sum of squares (SS_{res})

Uji F menolak Ho: $\tau_1 = \tau_2 = \tau_3 = \dots = \tau_g = 0$ (Atau $\mu_1 = \mu_2 = \dots = \mu_g$) pada selang kepercayaan (α) jika

$$F = \frac{SS_{tr} / (g-1)}{SS_{res} / (\sum_{i=1}^g n_i - g)} > F_{g-1, \sum n_i - g} (\alpha)$$

Atau dengan kata lain Ho ditolak apabila nilai A mendekati 0 atau sangat kecil

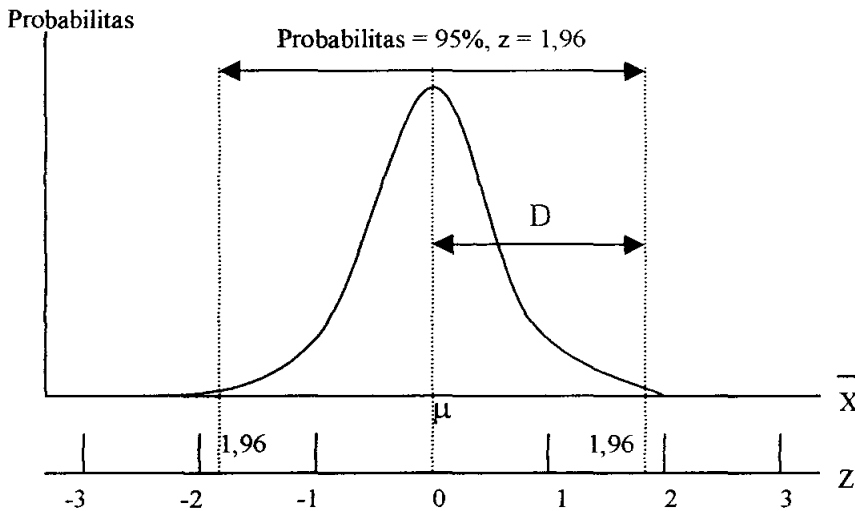
$$A = SS_{res} / (SS_{res} + SS_{tr})$$

Di mana $0 \leq A \leq 1$

LAMPIRAN 16
SAMPLE SIZE

16.1 Means

Jika sampel sebesar n diambil dari suatu populasi kemudian diukur parameternya (x) dan dirata-rata (\bar{x}) maka akan menghasilkan distribusi sampel dengan rata-rata μ dan standar deviasi $\sigma_{\bar{x}}$ sebesar $\sigma_x / (n)^{1/2}$.



Distribusi di atas dapat diubah dalam bentuk standar dengan persamaan berikut:

$$Z = (\bar{X} - \mu) / (\sigma_x / n^{1/2})$$

Standar deviasi sampel akan semakin kecil jika jumlah sampel semakin besar. Hal ini terjadi karena jumlah sampel (n) berbanding terbalik dengan standar deviasi sampel. Semakin besar jumlah sampel, standar deviasi distribusi sampel semakin kecil, kurva distribusi sampel semakin menyempit dan pendugaan rata-rata populasi menjadi semakin akurat. Persamaan yang digunakan untuk standarisasi dapat digunakan untuk menghitung sampel :

$$Z = (\bar{X} - \mu) / (\sigma_x / n^{1/2})$$

$$n^{1/2} = (Z \sigma_x) / (\bar{X} - \mu)$$

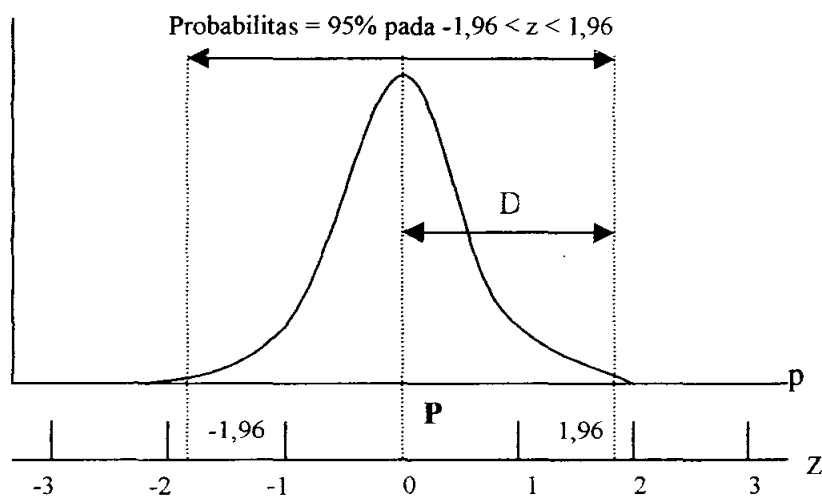
$$n = Z^2 \sigma_x^2 / (\bar{X} - \mu)^2$$

Pada Maholtra faktor $(\bar{X} - \mu)$ dilambangkan dengan D . Untuk menghitung jumlah sampel, ditetapkan nilai $Z = 1,96$ (pada probabilitas distribusi 95%). Nilai D ditetapkan 0,1. Hal ini menunjukkan bahwa dengan sampel sebesar n , selisih nilai X

dari rata-rata μ adalah 0,1 atau dengan kalimat lain 95% pendugaan μ berada pada selang ($0 \leq X \leq 0,1$). Nilai D menentukan ketepatan pendugaan parameter. Semakin kecil nilai D maka pendugaan nilai μ (rata-rata populasi) menjadi semakin akurat. Jika nilai D ditetapkan 0 maka jumlah sampel \sim (tak terhingga) atau sama dengan jumlah populasi.

16.2 Proportion (binomial)

Populasi binomial merupakan populasi di mana tiap anggotanya digolongkan hanya dalam dua himpunan yaitu P dan Q. Proporsi P sama dengan jumlah anggota yang tergolong sebagai P dibagi dengan jumlah populasi. Nilai proporsi P pada populasi dilambangkan dengan π . Proporsi Q sama dengan jumlah anggota yang tergolong sebagai Q dibagi dengan jumlah populasi. Nilai proporsi Q dilambangkan dengan $(1-\pi)$. Pengambilan sampel tanpa pemulihan dari populasi binomial akan menghasilkan distribusi proporsi sampel (p) dengan rata-rata sama dengan proporsi populasi (P) dan deviasi standar sebesar $(\pi(1-\pi) / n)^{1/2} \cdot ((N-n) / (N-1))^{1/2}$. Deviasi standar distribusi proporsi sampel berbanding terbalik dengan jumlah sampel (n). Semakin besar n maka deviasi standar semakin kecil dan kurva distribusi proporsi sampel semakin menyempit.



Distribusi di atas dapat diubah menjadi distribusi Z dengan persamaan:

$$Z = (p - P) / (\pi(1-\pi) / n)^{1/2} \cdot ((N-n) / (N-1))^{1/2}$$

Persamaan di atas dapat diubah menjadi persamaan untuk menghitung jumlah sampel:

$$n = (\pi(1 - \pi) Z^2 N) / (D^2(N - 1) + \pi(1 - \pi) Z^2)$$

Di mana : π = Proporsi populasi binomial

Z = Nilai Z pada selang kepercayaan tertentu (biasanya $\alpha = 5\%$)

D = Selisih nilai proporsi sampel dengan proporsi populasi pada nilai $Z_{\alpha/2}$ pada distribusi proporsi sampel.

Sesuai dengan penelitian sebelumnya seperti penelitian Johnson 1996, Park & Ungson (1997), P didefinisikan sebagai proporsi *joint ventures* yang sukses pada suatu populasi *joint ventures* yang terdaftar pada NYSE di mana *treynor index* relatifnya lebih besar dari 1,5. Q didefinisikan sebagai proporsi *joint ventures* yang gagal pada suatu populasi *joint ventures* yang terdaftar pada NYSE di mana *treynor index* relatifnya kurang dari 1,5. Hasil sensus yang dilakukan oleh peneliti didapat nilai proporsi P sebesar 56%. Nilai ini akan digunakan untuk menghitung jumlah sampel. Nilai Z ditetapkan sebesar 1,96 pada $\alpha/2 = 2,5\%$. Nilai D yang merupakan selisih antara proporsi sampel pada $Z = 1,96$ dengan rata-rata proporsi (rata-rata proporsi populasi) ditetapkan sebesar 0,1. Hal ini menunjukkan bahwa dengan sampel sebesar n , selisih nilai p dari rata-rata proporsi (P) adalah 0,1 atau dengan kalimat lain 95% pendugaan proporsi populasi (P) berada pada selang ($0 \leq p \leq 0,1$). Nilai D menentukan ketepatan pendugaan parameter. Semakin kecil nilai D maka pendugaan nilai P (rata-rata populasi) menjadi semakin akurat. Jika nilai D ditetapkan 0 maka jumlah sampel \sim (tak terhingga) atau sama dengan jumlah populasi.

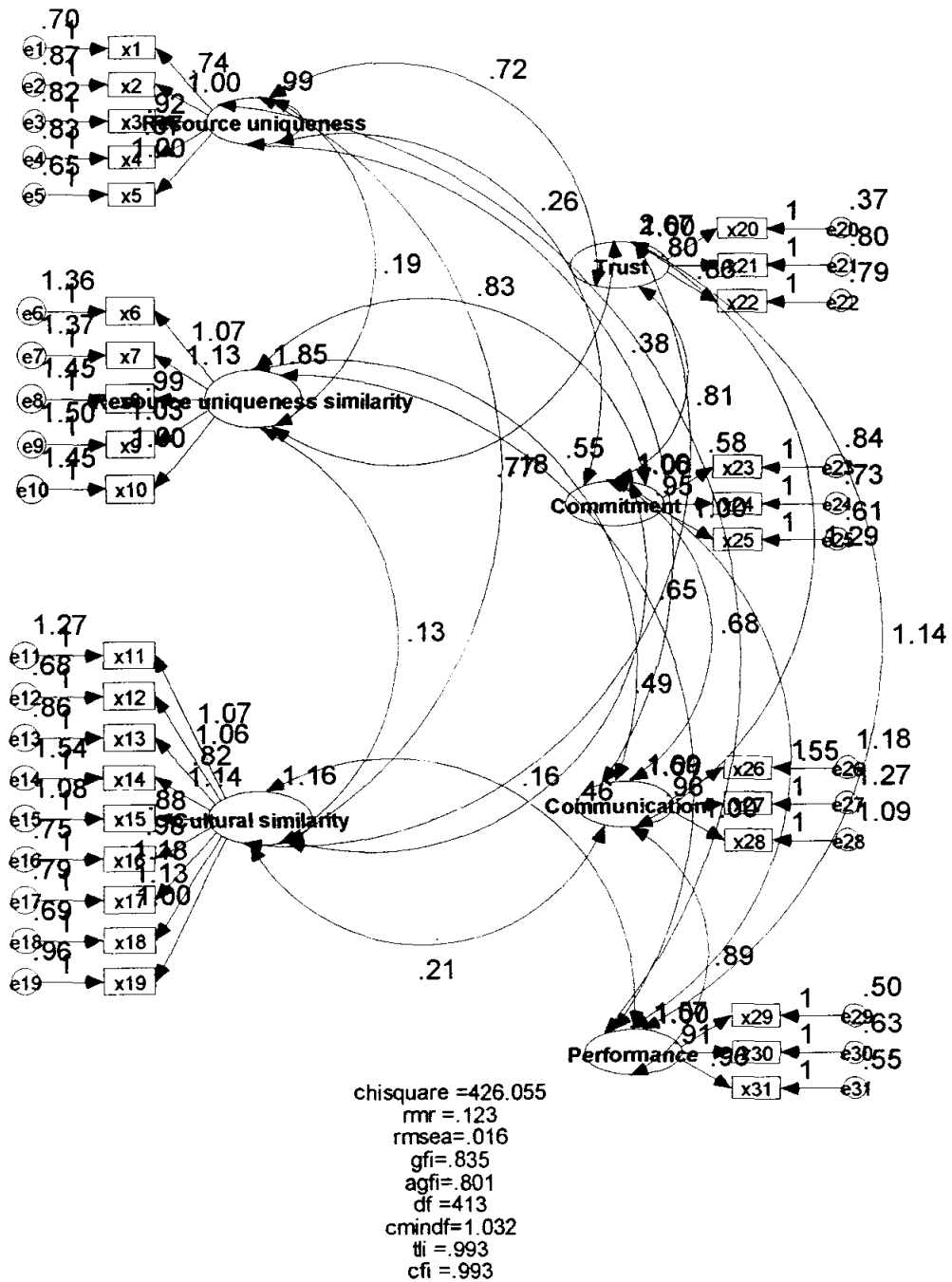
LAMPIRAN 17
VARIANCE

Variations

	Estimate	S.E.	C.R.	P	Label
Resource uniqueness	0.537	0.140	3.826	0.000	par-40
Resource uniqueness similarity	2.094	0.429	4.882	0.000	par-41
Cultural similarity	1.317	0.297	4.433	0.000	par-42
d1	1.732	0.285	6.066	0.000	par-43
d2	0.509	0.134	3.788	0.000	par-44
d3	1.306	0.303	4.306	0.000	par-45
d4	0.773	0.154	5.011	0.000	par-46
e1	0.700	0.104	6.754	0.000	par-47
e2	0.904	0.144	6.267	0.000	par-48
e3	0.836	0.130	6.418	0.000	par-49
e4	0.819	0.127	6.468	0.000	par-50
e6	1.386	0.223	6.228	0.000	par-51
e7	1.432	0.234	6.120	0.000	par-52
e8	1.500	0.229	6.558	0.000	par-53
e9	1.474	0.230	6.407	0.000	par-54
e10	1.406	0.219	6.424	0.000	par-55
e11	1.284	0.178	7.196	0.000	par-56
e12	0.681	0.103	6.634	0.000	par-57
e13	0.866	0.119	7.276	0.000	par-58
e14	1.533	0.212	7.222	0.000	par-59
e15	1.076	0.147	7.308	0.000	par-60
e16	0.758	0.110	6.892	0.000	par-61
e17	0.786	0.120	6.542	0.000	par-62
e18	0.685	0.106	6.458	0.000	par-63
e19	0.952	0.135	7.069	0.000	par-64
e5	0.648	0.114	5.669	0.000	par-65
e20	0.343	0.126	2.718	0.007	par-66
e21	0.792	0.128	6.196	0.000	par-67
e22	0.824	0.137	6.026	0.000	par-68
e23	0.832	0.144	5.756	0.000	par-69
e24	0.710	0.127	5.581	0.000	par-70
e25	0.634	0.123	5.156	0.000	par-71
e26	1.183	0.227	5.202	0.000	par-72
e27	1.229	0.229	5.364	0.000	par-73
e31	0.547	0.104	5.276	0.000	par-74
e30	0.629	0.110	5.691	0.000	par-75
e29	0.495	0.106	4.672	0.000	par-76
e28	1.132	0.223	5.082	0.000	par-77

LAMPIRAN 18
KOVARIAN DAN KORELASI PADA AMOS

Pada analisis faktor konfirmatori (Gambar 5.1), data yang digunakan pada analisis tersebut adalah data tidak standar (*unstandardized estimate*), nilai yang berada di antara garis \longleftrightarrow adalah kovarian yang berkisar antara $-1 < \text{kovarian} < 1$. Jadi nilai kovarian dapat >1 dan < -1 (nilai kovarian antara variabel *trust* dan *performance* adalah 1,14). Nilai yang berada di antara garis hubung pada gambar 5.1 merupakan nilai kovarian di mana ada yang lebih besar dari 1.



Jika analisis faktor konfirmatori (Gambar 5.1) dilakukan dengan data standar (*standardized estimate*) maka nilai yang ada di antara garis hubung adalah korelasi yang mana berkisar antara $-1 \leq \text{korelasi} \leq 1$ (sebagai contoh nilai korelasi antara *trust* dan *performance* adalah 0,56). Hasil *standardized estimate* sebagai berikut:

