

ภาคผนวก

ภาคผนวก ก
ตัวอย่างข้อมูลที่ใช้ในการวิเคราะห์

case	a800	a805	a810	a815	a820	a825	a830	a835	a840
1	65399386	64881262	65079502	64849982	63027005	64824875	66481830	68523631	69180885
2	2.38E+06	2.21E+06	2.33E+06	2.25E+06	1.56E+06	2.05E+06	2.42E+06	3.39E+06	3.91E+06
3	1.81E+08	1.79E+08	1.79E+08	1.79E+08	1.75E+08	1.78E+08	1.80E+08	1.83E+08	1.83E+08
4	1.36E+08	1.34E+08	1.34E+08	1.32E+08	1.28E+08	1.30E+08	1.32E+08	1.35E+08	1.35E+08
5	1.98E+08	1.97E+08	1.97E+08	1.96E+08	1.93E+08	1.95E+08	1.97E+08	2.01E+08	2.01E+08
6	53844410	53019251	52778923	52178955	50268445	51155529	52024585	53271864	53444205
7	82328937	81392654	81021632	80328321	78372636	79070230	79830397	81140627	81196981
8	8.23E+07	8.14E+07	8.10E+07	8.03E+07	7.84E+07	7.91E+07	7.98E+07	8.11E+07	8.12E+07
9	1.82E+08	1.81E+08	1.81E+08	1.81E+08	1.78E+08	1.80E+08	1.83E+08	1.86E+08	1.87E+08
10	1.62E+08	1.60E+08	1.58E+08	1.56E+08	1.52E+08	1.52E+08	1.53E+08	1.54E+08	1.54E+08
11	2.10E+08	2.09E+08	2.09E+08	2.08E+08	2.04E+08	2.06E+08	2.08E+08	2.11E+08	2.12E+08
12	1.08E+08	1.07E+08	1.06E+08	1.05E+08	1.02E+08	1.03E+08	1.03E+08	1.04E+08	1.03E+08
13	1.51E+08	1.50E+08	1.50E+08	1.49E+08	1.46E+08	1.48E+08	1.50E+08	1.54E+08	1.54E+08
14	91107898	89421252	88522852	87066730	83728996	84165898	84638919	85790692	85510708
15	9.49E+07	9.40E+07	9.40E+07	9.35E+07	9.12E+07	9.32E+07	9.53E+07	9.81E+07	9.87E+07
16	1.22E+08	1.20E+08	1.18E+08	1.16E+08	1.11E+08	1.12E+08	1.13E+08	1.14E+08	1.14E+08
17	1.22E+08	1.21E+08	1.21E+08	1.20E+08	1.16E+08	1.18E+08	1.20E+08	1.23E+08	1.23E+08
18	78167959	76781239	76147290	75030759	72227713	73020590	73802470	75066993	75043779
19	34777936	34378493	34547259	34369129	32939296	34236893	35456618	36909466	37362320
20	61499254	60538408	60175735	59401447	57217006	57837386	58436965	59469150	59472305
21	24025645	23647140	24170643	24023965	21741171	24038212	26099745	28322725	29199307
22	24990469	24316814	24439846	24002679	21761633	23334500	24726912	26288328	26813964
23	72636390	71915117	72215428	71917897	69415671	72006310	74508006	77452404	78403690
24	6.99E+07	6.83E+07	6.79E+07	6.69E+07	6.31E+07	6.47E+07	6.61E+07	6.81E+07	6.84E+07
25	1.28E+08	1.27E+08	1.27E+08	1.26E+08	1.23E+08	1.24E+08	1.26E+08	1.28E+08	1.28E+08
26	9.67E+07	9.44E+07	9.33E+07	9.13E+07	8.62E+07	8.68E+07	8.73E+07	8.87E+07	8.84E+07
27	1.75E+08	1.73E+08	1.73E+08	1.72E+08	1.68E+08	1.69E+08	1.70E+08	1.72E+08	1.72E+08
28	1.21E+08	1.18E+08	1.17E+08	1.15E+08	1.10E+08	1.10E+08	1.11E+08	1.12E+08	1.12E+08
29	47357682	46354313	46156359	45360472	42642633	43684317	44600568	45897321	46135805
30	35629181	34253254	33726235	32609502	29617187	30574424	31404210	32492455	32665061
31	74633046	73211803	72754202	71622246	68243763	69420373	70549773	72290179	72537266
32	75273145	73203742	72190354	70423047	66248315	66884230	67430195	68517421	68352612
33	73576615	72899187	72862041	72488938	70743525	72098943	73493289	75388735	75872326

case	a800	a805	a810	a815	a820	a825	a830	a835	a840
34	53856531	52032153	51323462	49676868	45255655	45745457	45998972	46736492	46499418
35	9.47E+07	9.39E+07	9.36E+07	9.30E+07	91138679	91778980	92491106	93793436	93882809
36	1.08E+08	1.06E+08	1.05E+08	1.03E+08	98711260	98718466	98575302	99292642	98689191
37	60750512	60200387	60188839	59872140	58336452	59309484	60262739	61620407	61935029
38	59813924	57974898	57174983	55573837	51472068	52110228	52573500	53512341	53356070
39	6.32E+07	6.27E+07	6.26E+07	6.22E+07	6.05E+07	6.15E+07	6.24E+07	6.39E+07	6.42E+07
40	1.56E+08	1.54E+08	1.52E+08	1.50E+08	1.45E+08	1.45E+08	1.46E+08	1.47E+08	1.46E+08
41	6.16E+07	6.11E+07	6.13E+07	6.11E+07	59317748	60866138	62383914	64350660	64899990
42	1.06E+08	1.04E+08	1.03E+08	1.02E+08	9.79E+07	9.78E+07	9.78E+07	9.85E+07	9.80E+07
43	1.43E+08	1.42E+08	1.42E+08	1.41E+08	1.38E+08	1.40E+08	1.42E+08	1.45E+08	1.45E+08
44	62195810	60826583	60061221	58857626	56220291	56388978	56553153	57168060	56894965
45	92747824	92075064	92094608	91788306	90050971	91534071	93045982	95084433	95558288
46	55266181	53903521	53157826	51937016	49235488	49284842	49300476	49737681	49392546
47	48475224	48029279	48091909	47851308	46489127	47630285	48774110	50255583	50657068
48	91950240	89654055	88407211	86253792	81356867	81420502	81393557	82135133	81514234
49	89802925	88879481	88685927	87931229	85364327	86324278	87285824	88852912	88994395
50	97751026	95423567	94415271	92383541	87171094	87618333	87905659	88994183	88580643
51	7.50E+07	7.45E+07	7.44E+07	7.41E+07	7.26E+07	7.36E+07	7.47E+07	7.62E+07	7.65E+07
52	1.45E+08	1.43E+08	1.41E+08	1.40E+08	1.35E+08	1.35E+08	1.35E+08	1.37E+08	1.37E+08
53	77550908	77073085	77146208	76810623	75108073	75983109	76884095	78324752	78589252
54	8.26E+07	8.03E+07	7.93E+07	7.73E+07	7.23E+07	7.31E+07	7.37E+07	7.49E+07	7.47E+07
55	1.76E+08	1.75E+08	1.76E+08	1.75E+08	1.72E+08	1.73E+08	1.75E+08	1.77E+08	1.78E+08
56	66477678	65430494	64930994	64046261	61845145	62296300	62788226	63786062	63735610
57	6.18E+07	6.13E+07	6.13E+07	6.09E+07	5.93E+07	6.02E+07	6.12E+07	6.26E+07	6.29E+07
58	1.18E+08	1.16E+08	1.15E+08	1.14E+08	1.09E+08	1.10E+08	1.11E+08	1.13E+08	1.13E+08
59	1.05E+08	1.04E+08	1.04E+08	1.04E+08	1.02E+08	1.03E+08	1.04E+08	1.06E+08	1.06E+08
60	1.75E+08	1.73E+08	1.72E+08	1.71E+08	1.67E+08	1.68E+08	1.69E+08	1.72E+08	1.72E+08
61	61686446	61232883	61310991	60960235	59198117	60133438	61065615	62495000	62815471
62	98747482	97080557	96641608	95367852	91281799	92701660	94024742	96087871	96344978
63	80008414	79401463	79345623	78872170	76968596	77718333	78492714	79855371	80033156
64	79972985	78036248	77314488	75675735	71142870	72095775	72930202	74474159	74475355
65	23139119	22896541	23141481	23047929	21803485	23127409	24383035	25830943	26404609
66	54727873	53703830	53253228	52358028	50059540	50423913	50767233	51528884	51443320

case	a800	a805	a810	a815	a820	a825	a830	a835	a840
67	56818071	56371675	56422158	56130111	54615138	55674672	56752460	58263967	58680472
68	5.30E+07	5.22E+07	5.19E+07	5.12E+07	4.92E+07	4.99E+07	5.06E+07	5.17E+07	5.18E+07
69	1.06E+08	1.05E+08	1.05E+08	1.05E+08	1.02E+08	1.04E+08	1.06E+08	1.09E+08	1.10E+08
70	4.64E+07	4.52E+07	4.47E+07	4.37E+07	4.13E+07	4.16E+07	4.18E+07	4.24E+07	4.23E+07
71	1.81E+08	1.80E+08	1.81E+08	1.80E+08	1.77E+08	1.79E+08	1.81E+08	1.84E+08	1.85E+08
72	1.07E+08	1.05E+08	1.05E+08	1.04E+08	1.01E+08	1.02E+08	1.03E+08	1.05E+08	1.06E+08
73	77397154	76903353	76865049	76524422	75081976	75640240	76236897	77341341	77459052
74	8.22E+07	8.09E+07	8.04E+07	7.92E+07	7.60E+07	7.59E+07	7.57E+07	7.62E+07	7.57E+07
75	1.68E+08	1.67E+08	1.67E+08	1.66E+08	1.62E+08	1.64E+08	1.65E+08	1.68E+08	1.68E+08
76	91478387	90398872	90049003	89175698	86451196	86481970	86453561	87180474	86826390
77	93032477	92068595	91963039	91153666	88109229	89430746	90724378	92700585	93036789
78	54492076	53367378	52862037	51755048	48921343	48966433	48911368	49291742	48992819
79	81955403	81258397	81093884	80427812	78234746	78659774	79096948	80139840	80105103
80	83315236	82261292	81887149	80841997	77791727	77643822	77386487	77797596	77387539
81	8.17E+07	8.09E+07	8.08E+07	8.03E+07	7.81E+07	7.87E+07	7.92E+07	8.03E+07	8.03E+07
82	1.32E+08	1.30E+08	1.29E+08	1.27E+08	1.23E+08	1.23E+08	1.23E+08	1.24E+08	1.24E+08
83	1.50E+08	1.48E+08	1.48E+08	1.47E+08	1.43E+08	1.44E+08	1.46E+08	1.48E+08	1.48E+08
84	2.09E+08	2.06E+08	2.05E+08	2.03E+08	1.97E+08	1.98E+08	1.98E+08	2.00E+08	1.99E+08
85	1.48E+08	1.45E+08	1.44E+08	1.42E+08	1.37E+08	1.37E+08	1.37E+08	1.38E+08	1.38E+08
86	9.17E+07	9.02E+07	8.96E+07	8.83E+07	8.45E+07	8.46E+07	8.45E+07	8.51E+07	8.47E+07
87	1.42E+08	1.41E+08	1.41E+08	1.40E+08	1.36E+08	1.36E+08	1.36E+08	1.38E+08	1.37E+08
88	95089555	93655888	93013132	91671477	88240728	88427488	88580549	89411819	89087949
89	7.25E+07	7.22E+07	7.25E+07	7.24E+07	7.11E+07	7.22E+07	7.33E+07	7.49E+07	7.53E+07
90	1.16E+08	1.15E+08	1.15E+08	1.14E+08	1.10E+08	1.10E+08	1.11E+08	1.12E+08	1.12E+08
91	7.66E+07	7.62E+07	7.63E+07	7.59E+07	7.42E+07	7.50E+07	7.59E+07	7.72E+07	7.74E+07
92	1.51E+08	1.49E+08	1.48E+08	1.47E+08	1.42E+08	1.42E+08	1.42E+08	1.44E+08	1.43E+08
93	62858246	62241898	62316009	61933563	59904532	61244064	62552936	64363520	64830682
94	81364918	80140926	79735443	78711390	75707927	76220654	76659779	77667926	77564430
95	87606456	87053271	87340712	86977011	84435124	86163720	87840566	90176889	90842078
96	72390986	70834781	70584338	69190593	64382303	65247120	65769709	66921478	66837115
97	7.74E+07	7.67E+07	7.65E+07	7.58E+07	7.36E+07	7.40E+07	7.43E+07	7.53E+07	7.52E+07
98	2.13E+08	2.11E+08	2.10E+08	2.08E+08	2.01E+08	2.00E+08	1.99E+08	2.00E+08	1.99E+08
99	1.44E+08	1.43E+08	1.44E+08	1.43E+08	1.40E+08	1.41E+08	1.42E+08	1.44E+08	1.44E+08

case	a800	a805	a810	a815	a820	a825	a830	a835	a840
102	86779582	85955378	85735403	84947847	82472114	82634539	82776572	83559342	83405282
103	9.24E+07	9.19E+07	9.20E+07	9.16E+07	8.96E+07	9.02E+07	9.08E+07	9.21E+07	9.23E+07
104	1.59E+08	1.57E+08	1.57E+08	1.55E+08	1.50E+08	1.50E+08	1.49E+08	1.50E+08	1.49E+08
105	7.78E+07	7.71E+07	7.68E+07	7.62E+07	7.43E+07	7.48E+07	7.53E+07	7.64E+07	7.64E+07
106	1.65E+08	1.63E+08	1.61E+08	1.58E+08	1.51E+08	1.50E+08	1.49E+08	1.49E+08	1.48E+08
107	7.40E+07	7.33E+07	7.31E+07	7.25E+07	7.04E+07	7.09E+07	7.14E+07	7.24E+07	7.25E+07
108	1.96E+08	1.94E+08	1.92E+08	1.89E+08	1.82E+08	1.81E+08	1.80E+08	1.80E+08	1.78E+08
109	57142492	56593337	56673723	56137741	53779893	54473506	55047766	56091652	56239784
110	77020341	75852260	75361856	74270823	71349772	71246868	71075407	71522687	71170546
111	4.45E+07	4.36E+07	4.36E+07	4.30E+07	4.03E+07	4.20E+07	4.35E+07	4.54E+07	4.61E+07
112	1.52E+08	1.50E+08	1.49E+08	1.47E+08	1.41E+08	1.41E+08	1.40E+08	1.40E+08	1.39E+08
113	1.43E+08	1.42E+08	1.42E+08	1.42E+08	1.39E+08	1.40E+08	1.42E+08	1.44E+08	1.44E+08
114	1.98E+08	1.95E+08	1.94E+08	1.92E+08	1.85E+08	1.84E+08	1.83E+08	1.83E+08	1.82E+08
115	67858741	67458368	67622211	67243214	65242461	65977350	66678423	67934379	68167245
116	76567184	75533161	75207288	74151947	71023577	70749540	70342987	70580508	70127852
117	6.30E+07	6.27E+07	6.29E+07	6.25E+07	6.05E+07	6.12E+07	6.17E+07	6.28E+07	6.30E+07
118	1.91E+08	1.89E+08	1.89E+08	1.87E+08	1.81E+08	1.80E+08	1.79E+08	1.80E+08	1.79E+08
119	1.59E+08	1.59E+08	1.60E+08	1.59E+08	1.56E+08	1.58E+08	1.59E+08	1.62E+08	1.63E+08
120	1.43E+08	1.42E+08	1.41E+08	1.40E+08	1.34E+08	1.34E+08	1.33E+08	1.34E+08	1.33E+08

ภาคผนวก ข
ผลลัพธ์จากโปรแกรม SPSS

การวิเคราะห์ด้วยวิธี PCR

GET

FILE='C:\pna\data\cal\succes_c2.sav'.

EXECUTE .

FACTOR

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/VARIABLES ab800 ab805 ab810 ab815 ab820 ab825 ab830 ab835 ab840 ab845
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ab910 ab915 ab920 ab925 ab930 ab935 ab940 ab945 ab950 ab955 ab960 ab965
ab970 ab975 ab980 ab985 ab990 ab995 ab1000 ab1005 ab1010 ab1015 ab1020
ab1025 ab1030 ab1035 ab1040 ab1045 ab1050 ab1055 ab1060 ab1065 ab1070
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ab1080 ab1085 ab1090 ab1095 ab1100 ab1105 ab1110 ab1115 ab1120 ab1125
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ab1185
ab1190 ab1195 ab1200 ab1205 ab1210 ab1215 ab1220 ab1225 ab1230 ab1235
ab1240
ab1245 ab1250 /MISSING LISTWISE /ANALYSIS ab800 ab805 ab810 ab815 ab820
ab825 ab830 ab835 ab840 ab845 ab850 ab855 ab860 ab865 ab870 ab875 ab880
ab885 ab890 ab895 ab900 ab905 ab910 ab915 ab920 ab925 ab930 ab935 ab940
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ab1170 ab1175 ab1180 ab1185 ab1190 ab1195 ab1200 ab1205 ab1210 ab1215
ab1220
ab1225 ab1230 ab1235 ab1240 ab1245 ab1250
/PRINT INITIAL CORRELATION SIG DET KMO INV REPR AIC EXTRACTION ROTATION
FSCORE
/CRITERIA FACTORS(8) ITERATE(25)
/EXTRACTION PC
/CRITERIA ITERATE(25)
/ROTATION QUARTIMAX
/SAVE REG(ALL)
/METHOD=CORRELATION .

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Factor Analysis

Covariance Matrix^a

a. This matrix is not positive definite.

Communalities

	Initial	Extraction
AB800	1.000	1.000
AB805	1.000	1.000
AB810	1.000	1.000
AB815	1.000	1.000
AB820	1.000	1.000
AB825	1.000	1.000
AB830	1.000	1.000
AB835	1.000	1.000
AB840	1.000	1.000
AB845	1.000	1.000
AB850	1.000	1.000
AB855	1.000	1.000

Extraction Method: Principal Component Analysis.

Communalities

	Initial	Extraction
AB860	1.000	1.000
AB865	1.000	1.000
AB870	1.000	1.000
AB875	1.000	1.000
AB880	1.000	1.000
AB885	1.000	1.000
AB890	1.000	1.000
AB895	1.000	1.000
AB900	1.000	1.000
AB905	1.000	1.000
AB910	1.000	1.000
AB915	1.000	1.000
AB920	1.000	1.000
AB925	1.000	1.000
AB930	1.000	1.000
AB935	1.000	1.000
AB940	1.000	1.000
AB945	1.000	1.000
AB950	1.000	1.000
AB955	1.000	1.000
AB960	1.000	1.000
AB965	1.000	1.000
AB970	1.000	1.000
AB975	1.000	1.000
AB980	1.000	1.000
AB985	1.000	1.000
AB990	1.000	1.000
AB995	1.000	1.000
AB1000	1.000	1.000
AB1005	1.000	1.000
AB1010	1.000	1.000
AB1015	1.000	1.000
AB1020	1.000	1.000
AB1025	1.000	1.000
AB1030	1.000	1.000
AB1035	1.000	1.000
AB1040	1.000	1.000
AB1045	1.000	1.000
AB1050	1.000	1.000
AB1055	1.000	1.000
AB1060	1.000	1.000
AB1065	1.000	1.000
AB1070	1.000	1.000
AB1075	1.000	1.000
AB1080	1.000	1.000
AB1085	1.000	1.000
AB1090	1.000	1.000
AB1095	1.000	1.000
AB1100	1.000	1.000
AB1105	1.000	1.000
AB1110	1.000	1.000
AB1115	1.000	1.000
AB1120	1.000	1.000

Extraction Method: Principal Component Analysis.

Communalities

	Initial	Extraction
AB1125	1.000	1.000
AB1130	1.000	1.000
AB1135	1.000	1.000
AB1140	1.000	1.000
AB1145	1.000	1.000
AB1150	1.000	1.000
AB1155	1.000	1.000
AB1160	1.000	1.000
AB1165	1.000	1.000
AB1170	1.000	1.000
AB1175	1.000	1.000
AB1180	1.000	1.000
AB1185	1.000	1.000
AB1190	1.000	1.000
AB1195	1.000	1.000
AB1200	1.000	1.000
AB1205	1.000	1.000
AB1210	1.000	1.000
AB1215	1.000	1.000
AB1220	1.000	1.000
AB1225	1.000	1.000
AB1230	1.000	1.000
AB1235	1.000	1.000
AB1240	1.000	1.000
AB1245	1.000	1.000
AB1250	1.000	1.000

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	85.681	94.154	94.154
2	5.093	5.596	99.751
3	.212	.233	99.983
4	5.377E-03	5.908E-03	99.989
5	4.107E-03	4.513E-03	99.994
6	3.110E-03	3.417E-03	99.997
7	1.844E-03	2.027E-03	99.999
8	2.791E-04	3.067E-04	100.000
9	1.255E-04	1.379E-04	100.000
10	9.426E-05	1.036E-04	100.000
11	3.047E-05	3.348E-05	100.000
12	1.722E-05	1.892E-05	100.000
13	1.433E-05	1.574E-05	100.000
14	9.592E-06	1.054E-05	100.000
15	6.289E-06	6.911E-06	100.000
16	4.090E-06	4.494E-06	100.000
17	2.114E-06	2.323E-06	100.000
18	1.722E-06	1.892E-06	100.000
19	1.499E-06	1.647E-06	100.000
20	1.247E-06	1.370E-06	100.000
21	6.299E-07	6.922E-07	100.000
22	5.425E-07	5.961E-07	100.000
23	3.380E-07	3.715E-07	100.000
24	2.156E-07	2.369E-07	100.000
25	1.631E-07	1.792E-07	100.000
26	1.413E-07	1.553E-07	100.000
27	1.244E-07	1.367E-07	100.000
28	1.043E-07	1.146E-07	100.000
29	7.584E-08	8.334E-08	100.000
30	6.920E-08	7.604E-08	100.000
31	4.592E-08	5.046E-08	100.000
32	3.588E-08	3.943E-08	100.000
33	3.270E-08	3.593E-08	100.000
34	2.505E-08	2.752E-08	100.000
35	2.149E-08	2.361E-08	100.000
36	1.704E-08	1.873E-08	100.000
37	1.592E-08	1.749E-08	100.000
38	1.344E-08	1.477E-08	100.000
39	1.142E-08	1.254E-08	100.000
40	1.019E-08	1.119E-08	100.000
41	9.343E-09	1.027E-08	100.000
42	5.844E-09	6.422E-09	100.000
43	5.014E-09	5.510E-09	100.000
44	4.152E-09	4.563E-09	100.000
45	3.198E-09	3.515E-09	100.000
46	2.471E-09	2.715E-09	100.000
47	2.257E-09	2.480E-09	100.000
48	1.886E-09	2.072E-09	100.000
49	1.475E-09	1.621E-09	100.000
50	1.271E-09	1.396E-09	100.000
51	9.014E-10	9.905E-10	100.000
52	7.084E-10	7.785E-10	100.000

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
53	6.004E-10	6.598E-10	100.000
54	3.023E-10	3.322E-10	100.000
55	2.449E-10	2.691E-10	100.000
56	1.121E-10	1.232E-10	100.000
57	3.804E-11	4.180E-11	100.000
58	1.556E-11	1.710E-11	100.000
59	1.251E-11	1.375E-11	100.000
60	3.786E-15	4.161E-15	100.000
61	2.030E-15	2.231E-15	100.000
62	1.966E-15	2.161E-15	100.000
63	1.672E-15	1.838E-15	100.000
64	1.525E-15	1.676E-15	100.000
65	1.277E-15	1.403E-15	100.000
66	1.096E-15	1.204E-15	100.000
67	1.006E-15	1.105E-15	100.000
68	8.566E-16	9.413E-16	100.000
69	7.360E-16	8.087E-16	100.000
70	5.838E-16	6.416E-16	100.000
71	4.546E-16	4.995E-16	100.000
72	3.987E-16	4.381E-16	100.000
73	3.640E-16	4.000E-16	100.000
74	1.670E-16	1.835E-16	100.000
75	6.537E-17	7.184E-17	100.000
76	-2.450E-16	-2.692E-16	100.000
77	-2.668E-16	-2.932E-16	100.000
78	-3.736E-16	-4.105E-16	100.000
79	-4.294E-16	-4.718E-16	100.000
80	-5.740E-16	-6.308E-16	100.000
81	-7.116E-16	-7.820E-16	100.000
82	-7.798E-16	-8.570E-16	100.000
83	-8.812E-16	-9.683E-16	100.000
84	-9.211E-16	-1.012E-15	100.000
85	-1.225E-15	-1.346E-15	100.000
86	-1.301E-15	-1.430E-15	100.000
87	-1.645E-15	-1.808E-15	100.000
88	-1.775E-15	-1.950E-15	100.000
89	-1.892E-15	-2.079E-15	100.000
90	-2.032E-15	-2.233E-15	100.000
91	-2.043E-14	-2.245E-14	100.000

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	85.681	94.154	94.154	85.668	94.141	94.141
2	5.093	5.596	99.751	5.082	5.585	99.725
3	.212	.233	99.983	.234	.257	99.983
4	5.377E-03	5.908E-03	99.989	5.179E-03	5.691E-03	99.988
5	4.107E-03	4.513E-03	99.994	4.126E-03	4.534E-03	99.993
6	3.110E-03	3.417E-03	99.997	3.377E-03	3.710E-03	99.997
7	1.844E-03	2.027E-03	99.999	2.463E-03	2.707E-03	99.999
8	2.791E-04	3.067E-04	100.000	2.949E-04	3.240E-04	100.000
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Total Variance Explained

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
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Extraction Method: Principal Component Analysis.

Component Matrix^a

	Component					
	1	2	3	4	5	6
AB800	.915	.377	.144	-1.744E-02	-1.284E-02	8.421E-04
AB805	.915	.381	.133	-1.428E-02	-9.264E-03	8.472E-04
AB810	.917	.380	.124	-1.252E-02	-7.157E-03	-1.764E-03
AB815	.917	.382	.113	-9.331E-03	-4.272E-03	-1.006E-03
AB820	.912	.398	9.774E-02	-2.078E-03	1.721E-03	8.379E-03
AB825	.920	.382	8.327E-02	-9.065E-04	2.963E-04	4.931E-03
AB830	.927	.368	6.897E-02	5.823E-04	-4.183E-04	3.533E-03
AB835	.933	.354	5.646E-02	1.467E-03	-6.007E-04	2.302E-03
AB840	.936	.348	4.759E-02	2.667E-03	6.078E-05	1.560E-03
AB845	.937	.347	3.873E-02	4.868E-03	1.436E-03	2.401E-03
AB850	.938	.346	3.058E-02	6.497E-03	2.806E-03	3.342E-03
AB855	.939	.344	2.319E-02	7.459E-03	4.088E-03	3.031E-03
AB860	.939	.342	1.528E-02	8.711E-03	5.865E-03	3.654E-03
AB865	.940	.340	7.792E-03	9.967E-03	7.131E-03	3.456E-03
AB870	.943	.332	1.541E-03	1.003E-02	7.181E-03	1.657E-03
AB875	.945	.326	-5.889E-03	1.015E-02	7.701E-03	9.527E-04
AB880	.949	.316	-1.224E-02	1.005E-02	7.274E-03	-8.380E-04
AB885	.952	.305	-1.778E-02	9.574E-03	6.526E-03	-2.857E-03
AB890	.954	.298	-2.397E-02	9.857E-03	6.836E-03	-3.416E-03
AB895	.958	.287	-2.842E-02	9.067E-03	6.091E-03	-5.824E-03
AB900	.961	.276	-3.294E-02	8.447E-03	5.518E-03	-7.595E-03
AB905	.963	.267	-3.808E-02	8.930E-03	5.002E-03	-7.885E-03
AB910	.967	.250	-4.195E-02	8.244E-03	3.278E-03	-9.347E-03
AB915	.972	.230	-4.630E-02	8.204E-03	9.269E-04	-9.451E-03
AB920	.978	.201	-4.940E-02	7.811E-03	-2.623E-03	-9.566E-03
AB925	.986	.160	-4.998E-02	7.502E-03	-7.619E-03	-1.033E-02
AB930	.992	.118	-5.000E-02	7.584E-03	-1.186E-02	-8.040E-03
AB935	.996	6.850E-02	-4.578E-02	7.733E-03	-1.610E-02	-7.598E-03
AB940	.999	1.838E-02	-3.956E-02	8.899E-03	-1.945E-02	-6.951E-03
AB945	.999	-3.209E-02	-3.102E-02	9.248E-03	-2.082E-02	-6.100E-03
AB950	.996	-8.335E-02	-2.112E-02	1.109E-02	-2.180E-02	-5.534E-03
AB955	.993	-.120	-9.869E-03	3.931E-03	-1.442E-02	-4.648E-03
AB960	.988	-.154	2.804E-03	-4.718E-03	-5.213E-03	-4.438E-03
AB965	.986	-.164	5.863E-03	-5.777E-03	-3.808E-03	-4.780E-03
AB970	.987	-.162	5.816E-03	-6.842E-03	-3.027E-03	-5.604E-03
AB975	.987	-.163	6.739E-03	-8.952E-03	-1.147E-03	-5.616E-03
AB980	.988	-.154	4.212E-03	-8.495E-03	-1.921E-03	-5.875E-03
AB985	.989	-.147	2.146E-03	-8.748E-03	-2.084E-03	-6.001E-03
AB990	.990	-.138	1.205E-05	-9.703E-03	-1.611E-03	-5.818E-03
AB995	.992	-.128	-3.012E-03	-1.020E-02	-1.494E-03	-5.632E-03
AB1000	.993	-.115	-6.952E-03	-1.044E-02	-1.663E-03	-5.365E-03
AB1005	.995	-.100	-1.133E-02	-1.119E-02	-1.562E-03	-4.870E-03
AB1010	.996	-8.312E-02	-1.649E-02	-1.145E-02	-1.532E-03	-4.293E-03
AB1015	.998	-6.344E-02	-2.216E-02	-1.174E-02	-9.682E-04	-3.438E-03
AB1020	.999	-4.133E-02	-2.839E-02	-1.195E-02	-1.272E-04	-2.378E-03
AB1025	.999	-2.064E-02	-3.400E-02	-1.148E-02	6.839E-04	-1.709E-03
AB1030	.999	9.757E-04	-3.938E-02	-1.163E-02	2.102E-03	-8.809E-04
AB1035	.999	2.025E-02	-4.400E-02	-1.133E-02	3.371E-03	-5.559E-04
AB1040	.998	3.798E-02	-4.802E-02	-1.100E-02	4.680E-03	-4.736E-04
AB1045	.997	5.232E-02	-5.133E-02	-1.036E-02	5.676E-03	-6.803E-04
AB1050	.996	6.415E-02	-5.394E-02	-1.013E-02	6.676E-03	-9.906E-04
AB1055	.996	7.373E-02	-5.668E-02	-9.722E-03	7.352E-03	-4.552E-04

Extraction Method: Principal Component Analysis.

Component Matrix^a

	Component					
	1	2	3	4	5	6
AB1060	.995	8.000E-02	-5.906E-02	-8.882E-03	7.544E-03	1.350E-04
AB1065	.995	8.339E-02	-6.118E-02	-8.129E-03	7.592E-03	1.073E-03
AB1070	.994	8.354E-02	-6.294E-02	-7.414E-03	7.311E-03	2.359E-03
AB1075	.995	7.854E-02	-6.382E-02	-6.509E-03	6.253E-03	3.728E-03
AB1080	.995	6.992E-02	-6.404E-02	-5.756E-03	4.885E-03	5.246E-03
AB1085	.996	5.878E-02	-6.365E-02	-4.645E-03	3.350E-03	6.620E-03
AB1090	.997	4.478E-02	-6.241E-02	-4.049E-03	1.765E-03	8.140E-03
AB1095	.998	2.943E-02	-6.045E-02	-3.316E-03	-1.890E-05	9.301E-03
AB1100	.998	1.255E-02	-5.785E-02	-2.530E-03	-1.819E-03	1.035E-02
AB1105	.998	-4.589E-03	-5.467E-02	-1.683E-03	-3.531E-03	1.105E-02
AB1110	.998	-2.344E-02	-5.055E-02	-1.274E-03	-5.074E-03	1.166E-02
AB1115	.998	-4.739E-02	-4.486E-02	-6.055E-04	-6.682E-03	1.250E-02
AB1120	.996	-7.362E-02	-3.824E-02	4.531E-04	-8.118E-03	1.319E-02
AB1125	.993	-.113	-2.775E-02	2.451E-03	-8.972E-03	1.322E-02
AB1130	.988	-.154	-1.635E-02	4.235E-03	-8.979E-03	1.338E-02
AB1135	.981	-.194	-4.286E-03	5.869E-03	-7.375E-03	1.233E-02
AB1140	.972	-.234	7.852E-03	7.944E-03	-5.129E-03	1.108E-02
AB1145	.967	-.255	1.653E-02	8.133E-03	-3.054E-03	8.832E-03
AB1150	.961	-.275	2.481E-02	8.087E-03	-6.742E-04	5.889E-03
AB1155	.958	-.284	2.969E-02	7.242E-03	9.074E-04	4.125E-03
AB1160	.957	-.287	3.322E-02	5.862E-03	2.195E-03	1.855E-03
AB1165	.956	-.291	3.604E-02	5.052E-03	3.226E-03	4.363E-04
AB1170	.956	-.292	3.753E-02	4.061E-03	3.883E-03	-6.872E-04
AB1175	.955	-.294	3.885E-02	3.868E-03	4.614E-03	-1.442E-03
AB1180	.955	-.294	3.952E-02	3.699E-03	5.295E-03	-1.765E-03
AB1185	.954	-.296	4.071E-02	3.243E-03	5.895E-03	-2.416E-03
AB1190	.954	-.298	4.168E-02	2.976E-03	6.449E-03	-2.935E-03
AB1195	.953	-.299	4.233E-02	2.933E-03	6.626E-03	-3.316E-03
AB1200	.953	-.299	4.309E-02	2.352E-03	6.814E-03	-3.640E-03
AB1205	.953	-.300	4.331E-02	2.576E-03	6.558E-03	-3.677E-03
AB1210	.953	-.299	4.329E-02	2.609E-03	6.178E-03	-3.401E-03
AB1215	.953	-.299	4.296E-02	2.673E-03	5.779E-03	-2.903E-03
AB1220	.953	-.298	4.229E-02	2.843E-03	5.228E-03	-2.099E-03
AB1225	.954	-.297	4.147E-02	3.223E-03	4.682E-03	-1.478E-03
AB1230	.954	-.296	4.052E-02	3.296E-03	4.291E-03	-7.810E-04
AB1235	.955	-.295	3.950E-02	3.851E-03	3.654E-03	-1.554E-04
AB1240	.955	-.293	3.843E-02	4.197E-03	3.037E-03	5.250E-04
AB1245	.956	-.292	3.794E-02	4.649E-03	2.590E-03	8.695E-04
AB1250	.956	-.291	3.778E-02	5.760E-03	2.046E-03	8.362E-04

Extraction Method: Principal Component Analysis.

Component Matrix^a

	Component	
	7	8
AB800	8.720E-03	2.818E-03
AB805	6.676E-03	2.029E-03
AB810	4.266E-03	2.077E-03
AB815	2.064E-03	1.264E-03
AB820	5.102E-04	-1.837E-03
AB825	-1.271E-03	-7.363E-04
AB830	-2.455E-03	-1.372E-04
AB835	-3.418E-03	2.439E-04
AB840	-3.735E-03	3.918E-05
AB845	-4.067E-03	-6.163E-04
AB850	-4.338E-03	-1.195E-03
AB855	-4.265E-03	-1.600E-03
AB860	-4.220E-03	-2.158E-03
AB865	-4.059E-03	-2.540E-03
AB870	-3.664E-03	-2.366E-03
AB875	-3.257E-03	-2.232E-03
AB880	-2.672E-03	-1.764E-03
AB885	-1.939E-03	-1.084E-03
AB890	-1.081E-03	-7.907E-04
AB895	-1.474E-04	3.137E-05
AB900	6.936E-04	7.907E-04
AB905	1.208E-03	1.318E-03
AB910	1.908E-03	2.005E-03
AB915	2.461E-03	2.343E-03
AB920	2.969E-03	2.531E-03
AB925	3.251E-03	2.485E-03
AB930	3.479E-03	1.971E-03
AB935	3.746E-03	1.133E-03
AB940	4.158E-03	-1.973E-04
AB945	4.404E-03	-1.639E-03
AB950	4.240E-03	-2.940E-03
AB955	-3.466E-03	-1.426E-03
AB960	-1.327E-02	9.597E-04
AB965	-1.334E-02	8.677E-04
AB970	-1.206E-02	8.366E-04
AB975	-1.221E-02	7.137E-04
AB980	-8.910E-03	-3.941E-04
AB985	-7.058E-03	-1.050E-03
AB990	-6.091E-03	-1.596E-03
AB995	-4.826E-03	-2.065E-03
AB1000	-3.357E-03	-2.528E-03
AB1005	-2.115E-03	-2.662E-03
AB1010	-1.094E-03	-2.673E-03
AB1015	-6.258E-05	-2.638E-03
AB1020	8.472E-04	-2.460E-03
AB1025	1.421E-03	-2.113E-03
AB1030	1.910E-03	-1.598E-03
AB1035	2.273E-03	-1.066E-03
AB1040	2.467E-03	-4.032E-04
AB1045	2.503E-03	2.186E-04
AB1050	2.520E-03	8.899E-04
AB1055	2.591E-03	1.379E-03

Extraction Method: Principal Component Analysis.

Component Matrix^a

	Component	
	7	8
AB1060	2.576E-03	1.783E-03
AB1065	2.616E-03	1.925E-03
AB1070	2.694E-03	1.918E-03
AB1075	2.633E-03	1.831E-03
AB1080	2.573E-03	1.616E-03
AB1085	2.544E-03	1.253E-03
AB1090	2.545E-03	8.538E-04
AB1095	2.492E-03	5.375E-04
AB1100	2.396E-03	1.932E-04
AB1105	2.090E-03	1.259E-04
AB1110	1.734E-03	1.566E-04
AB1115	1.274E-03	-8.232E-05
AB1120	6.119E-04	-3.009E-04
AB1125	-5.648E-04	-5.062E-04
AB1130	-1.857E-03	-7.699E-04
AB1135	-3.279E-03	4.770E-05
AB1140	-4.871E-03	9.324E-04
AB1145	-5.030E-03	1.825E-03
AB1150	-4.967E-03	3.035E-03
AB1155	-4.291E-03	3.217E-03
AB1160	-2.946E-03	3.233E-03
AB1165	-2.093E-03	3.099E-03
AB1170	-9.880E-04	2.575E-03
AB1175	-2.003E-04	2.277E-03
AB1180	5.271E-04	1.934E-03
AB1185	1.205E-03	1.653E-03
AB1190	1.778E-03	1.417E-03
AB1195	2.419E-03	9.842E-04
AB1200	3.136E-03	5.276E-04
AB1205	3.590E-03	6.161E-05
AB1210	4.041E-03	-4.562E-04
AB1215	4.485E-03	-8.887E-04
AB1220	4.836E-03	-1.269E-03
AB1225	5.201E-03	-1.660E-03
AB1230	5.642E-03	-2.002E-03
AB1235	6.042E-03	-2.360E-03
AB1240	6.465E-03	-2.689E-03
AB1245	7.031E-03	-2.983E-03
AB1250	7.656E-03	-3.298E-03

Extraction Method: Principal Component Analysis.

a. 8 components extracted.

Rotated Component Matrix^a

	Component					
	1	2	3	4	5	6
AB800	.910	.397	.120	-1.492E-02	-4.087E-03	-4.790E-03
AB805	.910	.401	.109	-1.117E-02	-1.922E-03	-3.201E-03
AB810	.912	.399	9.974E-02	-9.139E-03	-1.280E-03	-1.284E-04
AB815	.912	.400	8.810E-02	-5.342E-03	5.470E-04	4.644E-04
AB820	.907	.415	7.178E-02	3.542E-03	6.196E-03	-4.733E-03
AB825	.915	.398	5.842E-02	3.808E-03	3.585E-03	-2.497E-03
AB830	.923	.383	4.508E-02	4.579E-03	2.015E-03	-1.679E-03
AB835	.929	.369	3.352E-02	4.944E-03	1.143E-03	-8.246E-04
AB840	.932	.362	2.502E-02	5.698E-03	9.522E-04	1.160E-04
AB845	.933	.360	1.617E-02	7.718E-03	1.533E-03	8.681E-05
AB850	.933	.359	7.997E-03	9.263E-03	2.342E-03	-9.241E-05
AB855	.934	.356	7.359E-04	9.896E-03	2.844E-03	7.591E-04
AB860	.935	.354	-7.165E-03	1.101E-02	3.968E-03	1.021E-03
AB865	.936	.351	-1.451E-02	1.188E-02	4.373E-03	1.814E-03
AB870	.939	.343	-2.023E-02	1.119E-02	3.620E-03	3.394E-03
AB875	.941	.336	-2.716E-02	1.075E-02	3.587E-03	4.195E-03
AB880	.945	.326	-3.278E-02	9.758E-03	2.458E-03	5.564E-03
AB885	.948	.315	-3.746E-02	8.323E-03	1.102E-03	6.977E-03
AB890	.951	.307	-4.316E-02	7.892E-03	8.170E-04	7.650E-03
AB895	.954	.296	-4.673E-02	6.086E-03	-5.722E-04	9.405E-03
AB900	.957	.285	-5.042E-02	4.603E-03	-1.648E-03	1.068E-02
AB905	.960	.275	-5.489E-02	4.444E-03	-2.520E-03	1.077E-02
AB910	.964	.259	-5.752E-02	2.850E-03	-4.410E-03	1.124E-02
AB915	.969	.238	-6.037E-02	1.980E-03	-6.594E-03	1.030E-02
AB920	.976	.209	-6.134E-02	6.819E-04	-9.649E-03	8.797E-03
AB925	.984	.169	-5.892E-02	-6.714E-04	-1.409E-02	7.239E-03
AB930	.990	.126	-5.592E-02	-9.723E-04	-1.699E-02	3.331E-03
AB935	.996	7.753E-02	-4.820E-02	-1.326E-03	-2.047E-02	1.106E-03
AB940	.999	2.800E-02	-3.851E-02	-5.620E-04	-2.349E-02	-7.613E-04
AB945	.999	-2.176E-02	-2.651E-02	7.480E-05	-2.439E-02	-2.072E-03
AB950	.997	-7.225E-02	-1.320E-02	2.276E-03	-2.545E-02	-2.786E-03
AB955	.994	-.108	3.408E-04	1.468E-03	-1.454E-02	-2.167E-03
AB960	.990	-.142	1.513E-02	5.431E-04	-1.307E-03	-5.606E-04
AB965	.988	-.151	1.886E-02	2.676E-05	2.212E-04	1.993E-04
AB970	.988	-.149	1.872E-02	-1.442E-03	7.221E-04	1.260E-03
AB975	.988	-.150	1.968E-02	-2.827E-03	3.095E-03	1.771E-03
AB980	.990	-.141	1.665E-02	-4.163E-03	1.436E-03	2.056E-03
AB985	.991	-.134	1.416E-02	-5.340E-03	9.036E-04	2.241E-03
AB990	.992	-.126	1.151E-02	-6.592E-03	1.439E-03	2.235E-03
AB995	.993	-.115	7.835E-03	-7.682E-03	1.436E-03	2.165E-03
AB1000	.995	-.103	3.072E-03	-8.731E-03	1.070E-03	1.954E-03
AB1005	.996	-8.825E-02	-2.239E-03	-1.006E-02	1.232E-03	1.565E-03
AB1010	.997	-7.170E-02	-8.502E-03	-1.090E-02	1.219E-03	1.119E-03
AB1015	.998	-5.243E-02	-1.548E-02	-1.167E-02	1.756E-03	6.474E-04
AB1020	.999	-3.079E-02	-2.319E-02	-1.226E-02	2.586E-03	1.118E-04
AB1025	.999	-1.053E-02	-3.022E-02	-1.216E-02	3.112E-03	-2.485E-05
AB1030	.999	1.066E-02	-3.708E-02	-1.241E-02	4.448E-03	-1.296E-04
AB1035	.999	2.956E-02	-4.304E-02	-1.229E-02	5.377E-03	2.009E-04
AB1040	.998	4.695E-02	-4.831E-02	-1.206E-02	6.298E-03	7.577E-04
AB1045	.997	6.103E-02	-5.264E-02	-1.157E-02	6.799E-03	1.462E-03
AB1050	.996	7.263E-02	-5.608E-02	-1.140E-02	7.430E-03	2.206E-03
AB1055	.995	8.199E-02	-5.950E-02	-1.101E-02	7.986E-03	2.081E-03

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

Rotated Component Matrix^a

	Component					
	1	2	3	4	5	6
AB1060	.994	8.807E-02	-6.234E-02	-1.026E-02	8.022E-03	1.746E-03
AB1065	.994	9.130E-02	-6.471E-02	-9.566E-03	8.068E-03	1.025E-03
AB1070	.994	9.133E-02	-6.650E-02	-8.894E-03	7.959E-03	-1.527E-04
AB1075	.994	8.629E-02	-6.704E-02	-8.071E-03	7.195E-03	-1.725E-03
AB1080	.995	7.769E-02	-6.666E-02	-7.371E-03	6.279E-03	-3.587E-03
AB1085	.996	6.661E-02	-6.550E-02	-6.393E-03	5.052E-03	-5.340E-03
AB1090	.997	5.275E-02	-6.329E-02	-5.812E-03	4.019E-03	-7.308E-03
AB1095	.997	3.759E-02	-6.027E-02	-5.147E-03	2.679E-03	-9.022E-03
AB1100	.998	2.094E-02	-5.651E-02	-4.405E-03	1.291E-03	-1.064E-02
AB1105	.999	4.068E-03	-5.215E-02	-3.534E-03	-9.974E-05	-1.190E-02
AB1110	.999	-1.445E-02	-4.674E-02	-2.954E-03	-1.191E-03	-1.307E-02
AB1115	.998	-3.796E-02	-3.942E-02	-1.988E-03	-2.302E-03	-1.446E-02
AB1120	.997	-6.368E-02	-3.105E-02	-5.418E-04	-3.394E-03	-1.559E-02
AB1125	.994	-.103	-1.796E-02	2.160E-03	-4.344E-03	-1.581E-02
AB1130	.990	-.142	-3.936E-03	4.949E-03	-4.415E-03	-1.581E-02
AB1135	.983	-.182	1.070E-02	7.795E-03	-3.390E-03	-1.406E-02
AB1140	.975	-.220	2.528E-02	1.118E-02	-1.994E-03	-1.181E-02
AB1145	.970	-.242	3.535E-02	1.191E-02	-7.936E-04	-8.846E-03
AB1150	.964	-.260	4.486E-02	1.225E-02	4.751E-04	-5.137E-03
AB1155	.962	-.269	5.035E-02	1.148E-02	1.500E-03	-2.899E-03
AB1160	.961	-.272	5.414E-02	9.747E-03	2.121E-03	-3.423E-04
AB1165	.959	-.276	5.727E-02	8.779E-03	2.690E-03	1.358E-03
AB1170	.959	-.277	5.883E-02	7.450E-03	3.010E-03	2.624E-03
AB1175	.959	-.278	6.027E-02	7.022E-03	3.307E-03	3.668E-03
AB1180	.958	-.279	6.100E-02	6.671E-03	3.696E-03	4.299E-03
AB1185	.958	-.281	6.231E-02	6.049E-03	4.028E-03	5.147E-03
AB1190	.957	-.282	6.342E-02	5.639E-03	4.318E-03	5.870E-03
AB1195	.957	-.283	6.412E-02	5.329E-03	4.227E-03	6.344E-03
AB1200	.957	-.284	6.496E-02	4.534E-03	4.335E-03	6.707E-03
AB1205	.957	-.284	6.522E-02	4.492E-03	3.925E-03	6.702E-03
AB1210	.957	-.284	6.520E-02	4.301E-03	3.573E-03	6.337E-03
AB1215	.957	-.284	6.486E-02	4.159E-03	3.264E-03	5.768E-03
AB1220	.957	-.283	6.417E-02	4.158E-03	2.906E-03	4.866E-03
AB1225	.957	-.282	6.330E-02	4.294E-03	2.412E-03	4.156E-03
AB1230	.958	-.281	6.228E-02	4.166E-03	2.165E-03	3.413E-03
AB1235	.958	-.279	6.117E-02	4.412E-03	1.524E-03	2.688E-03
AB1240	.959	-.278	6.000E-02	4.478E-03	9.866E-04	1.898E-03
AB1245	.959	-.277	5.945E-02	4.580E-03	4.293E-04	1.515E-03
AB1250	.959	-.276	5.925E-02	5.165E-03	-5.689E-04	1.525E-03

Extraction Method: Principal Component Analysis.

Rotation Method: Quartimax with Kaiser Normalization.

Rotated Component Matrix^a

	Component	
	7	8
AB800	-3.413E-04	-3.008E-03
AB805	-2.092E-04	-2.113E-03
AB810	-1.923E-03	-2.048E-03
AB815	-1.885E-03	-1.162E-03
AB820	3.156E-03	1.944E-03
AB825	7.162E-04	8.169E-04
AB830	-3.694E-04	1.727E-04
AB835	-1.290E-03	-2.309E-04
AB840	-1.199E-03	-3.100E-05
AB845	-1.895E-04	6.164E-04
AB850	7.124E-04	1.189E-03
AB855	1.336E-03	1.602E-03
AB860	2.401E-03	2.168E-03
AB865	3.222E-03	2.552E-03
AB870	3.126E-03	2.368E-03
AB875	3.466E-03	2.219E-03
AB880	3.363E-03	1.721E-03
AB885	3.122E-03	1.007E-03
AB890	3.893E-03	6.842E-04
AB895	3.615E-03	-1.647E-04
AB900	3.524E-03	-9.525E-04
AB905	3.922E-03	-1.527E-03
AB910	3.482E-03	-2.275E-03
AB915	3.336E-03	-2.713E-03
AB920	2.729E-03	-3.027E-03
AB925	1.398E-03	-3.121E-03
AB930	1.141E-03	-2.757E-03
AB935	4.158E-04	-2.019E-03
AB940	4.036E-04	-7.566E-04
AB945	4.930E-04	7.044E-04
AB950	7.083E-04	2.054E-03
AB955	-6.563E-03	1.100E-03
AB960	-1.593E-02	-5.879E-04
AB965	-1.613E-02	-4.113E-04
AB970	-1.538E-02	-3.706E-04
AB975	-1.575E-02	-1.637E-04
AB980	-1.291E-02	8.154E-04
AB985	-1.139E-02	1.405E-03
AB990	-1.065E-02	1.927E-03
AB995	-9.572E-03	2.344E-03
AB1000	-8.270E-03	2.730E-03
AB1005	-7.206E-03	2.798E-03
AB1010	-6.161E-03	2.737E-03
AB1015	-4.912E-03	2.641E-03
AB1020	-3.619E-03	2.407E-03
AB1025	-2.524E-03	2.017E-03
AB1030	-1.518E-03	1.484E-03
AB1035	-6.572E-04	9.428E-04
AB1040	1.683E-06	2.836E-04
AB1045	4.566E-04	-3.326E-04
AB1050	7.265E-04	-9.888E-04
AB1055	1.251E-03	-1.486E-03

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

Rotated Component Matrix^a

	Component	
	7	8
AB1060	1.730E-03	-1.911E-03
AB1065	2.284E-03	-2.081E-03
AB1070	2.869E-03	-2.116E-03
AB1075	3.216E-03	-2.086E-03
AB1080	3.474E-03	-1.935E-03
AB1085	3.788E-03	-1.638E-03
AB1090	3.981E-03	-1.299E-03
AB1095	4.019E-03	-1.040E-03
AB1100	3.996E-03	-7.460E-04
AB1105	3.727E-03	-7.132E-04
AB1110	3.279E-03	-7.620E-04
AB1115	2.855E-03	-5.327E-04
AB1120	2.369E-03	-3.055E-04
AB1125	1.638E-03	-2.190E-05
AB1130	9.669E-04	3.575E-04
AB1135	1.616E-04	-2.631E-04
AB1140	-5.507E-04	-9.238E-04
AB1145	-8.564E-04	-1.645E-03
AB1150	-1.155E-03	-2.674E-03
AB1155	-9.841E-04	-2.756E-03
AB1160	-5.764E-04	-2.703E-03
AB1165	-2.471E-04	-2.513E-03
AB1170	2.591E-04	-1.966E-03
AB1175	8.528E-04	-1.643E-03
AB1180	1.511E-03	-1.285E-03
AB1185	1.921E-03	-9.816E-04
AB1190	2.325E-03	-7.259E-04
AB1195	2.816E-03	-2.941E-04
AB1200	3.219E-03	1.623E-04
AB1205	3.626E-03	6.086E-04
AB1210	4.027E-03	1.097E-03
AB1215	4.488E-03	1.495E-03
AB1220	4.948E-03	1.833E-03
AB1225	5.441E-03	2.180E-03
AB1230	5.961E-03	2.481E-03
AB1235	6.523E-03	2.790E-03
AB1240	7.058E-03	3.068E-03
AB1245	7.697E-03	3.322E-03
AB1250	8.474E-03	3.597E-03

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

a. Rotation converged in 4 iterations.

Component Transformation Matrix

Component	1	2	3	4	5	6	7	8
1	1.000	.012	.002	.000	.000	.000	.000	.000
2	-.012	.998	-.069	-.003	-.001	.002	.003	-.001
3	-.003	.069	.996	.049	.018	.012	-.004	.005
4	.000	-.002	-.037	.870	-.346	.136	.321	-.004
5	.000	-.002	-.029	.185	.854	.424	.234	.035
6	.000	.002	-.002	.172	.331	-.888	.267	-.013
7	.000	-.002	.027	-.420	-.201	.108	.878	-.025
8	.000	-.001	.004	.011	.032	.024	-.018	-.999

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

Component Score Coefficient Matrix

	Component							
	1	2	3	4	5	6	7	8
AB800	.011	.074	.678	-3.244	-3.127	.271	4.728	10.098
AB805	.011	.075	.630	-2.657	-2.256	.272	3.620	7.272
AB810	.011	.075	.585	-2.328	-1.743	-.567	2.313	7.443
AB815	.011	.075	.532	-1.736	-1.040	-.324	1.119	4.529
AB820	.011	.078	.462	-.387	.419	2.695	.277	-6.584
AB825	.011	.075	.393	-.169	.072	1.586	-.689	-2.639
AB830	.011	.072	.326	.108	-.102	1.136	-1.331	-.492
AB835	.011	.070	.267	.273	-.146	.740	-1.853	.874
AB840	.011	.068	.225	.496	.015	.502	-2.025	.140
AB845	.011	.068	.183	.905	.350	.772	-2.205	-2.209
AB850	.011	.068	.145	1.208	.683	1.075	-2.352	-4.282
AB855	.011	.067	.110	1.387	.995	.975	-2.312	-5.734
AB860	.011	.067	.072	1.620	1.428	1.175	-2.288	-7.733
AB865	.011	.067	.037	1.854	1.736	1.111	-2.201	-9.103
AB870	.011	.065	.007	1.865	1.749	.533	-1.986	-8.480
AB875	.011	.064	-.028	1.887	1.875	.306	-1.766	-8.000
AB880	.011	.062	-.058	1.869	1.771	-.269	-1.449	-6.320
AB885	.011	.060	-.084	1.781	1.589	-.919	-1.051	-3.886
AB890	.011	.059	-.113	1.833	1.665	-1.099	-.586	-2.834
AB895	.011	.056	-.134	1.686	1.483	-1.873	-.080	.112
AB900	.011	.054	-.156	1.571	1.344	-2.442	.376	2.834
AB905	.011	.052	-.180	1.661	1.218	-2.536	.655	4.724
AB910	.011	.049	-.198	1.533	.798	-3.006	1.034	7.185
AB915	.011	.045	-.219	1.526	.226	-3.039	1.334	8.395
AB920	.011	.040	-.233	1.453	-.639	-3.076	1.610	9.068
AB925	.012	.031	-.236	1.395	-1.855	-3.321	1.763	8.904
AB930	.012	.023	-.236	1.411	-2.887	-2.585	1.886	7.064
AB935	.012	.013	-.216	1.438	-3.919	-2.443	2.031	4.061
AB940	.012	.004	-.187	1.655	-4.737	-2.235	2.255	-.707
AB945	.012	-.006	-.147	1.720	-5.070	-1.962	2.388	-5.873
AB950	.012	-.016	-.100	2.062	-5.307	-1.780	2.299	-10.536
AB955	.012	-.023	-.047	.731	-3.511	-1.495	-1.879	-5.109
AB960	.012	-.030	.013	-.878	-1.269	-1.427	-7.198	3.439
AB965	.012	-.032	.028	-1.074	-.927	-1.537	-7.232	3.110
AB970	.012	-.032	.027	-1.272	-.737	-1.802	-6.540	2.998
AB975	.012	-.032	.032	-1.665	-.279	-1.806	-6.619	2.557

Extraction Method: Principal Component Analysis.

Component Score Coefficient Matrix

	Component							
	1	2	3	4	5	6	7	8
AB980	.012	-.030	.020	-1.580	-.468	-1.889	-4.831	-1.412
AB985	.012	-.029	.010	-1.627	-.507	-1.930	-3.827	-3.763
AB990	.012	-.027	.000	-1.805	-.392	-1.871	-3.302	-5.720
AB995	.012	-.025	-.014	-1.897	-.364	-1.811	-2.616	-7.402
AB1000	.012	-.023	-.033	-1.942	-.405	-1.725	-1.820	-9.058
AB1005	.012	-.020	-.054	-2.082	-.380	-1.566	-1.147	-9.539
AB1010	.012	-.016	-.078	-2.129	-.373	-1.381	-.593	-9.578
AB1015	.012	-.012	-.105	-2.183	-.236	-1.106	-.034	-9.455
AB1020	.012	-.008	-.134	-2.222	-.031	-.765	.459	-8.817
AB1025	.012	-.004	-.161	-2.136	.167	-.549	.770	-7.574
AB1030	.012	.000	-.186	-2.163	.512	-.283	1.036	-5.726
AB1035	.012	.004	-.208	-2.108	.821	-.179	1.233	-3.821
AB1040	.012	.007	-.227	-2.045	1.140	-.152	1.338	-1.445
AB1045	.012	.010	-.243	-1.927	1.382	-.219	1.357	.783
AB1050	.012	.013	-.255	-1.885	1.625	-.319	1.366	3.189
AB1055	.012	.014	-.268	-1.808	1.790	-.146	1.405	4.942
AB1060	.012	.016	-.279	-1.652	1.837	.043	1.397	6.388
AB1065	.012	.016	-.289	-1.512	1.849	.345	1.418	6.897
AB1070	.012	.016	-.297	-1.379	1.780	.759	1.461	6.873
AB1075	.012	.015	-.302	-1.211	1.523	1.199	1.428	6.561
AB1080	.012	.014	-.303	-1.071	1.189	1.687	1.395	5.791
AB1085	.012	.012	-.301	-.864	.816	2.129	1.379	4.491
AB1090	.012	.009	-.295	-.753	.430	2.618	1.380	3.060
AB1095	.012	.006	-.286	-.617	-.005	2.991	1.351	1.926
AB1100	.012	.002	-.273	-.471	-.443	3.329	1.299	.693
AB1105	.012	-.001	-.258	-.313	-.860	3.552	1.133	.451
AB1110	.012	-.005	-.239	-.237	-1.236	3.748	.940	.561
AB1115	.012	-.009	-.212	-.113	-1.627	4.020	.691	-.295
AB1120	.012	-.014	-.181	.084	-1.977	4.242	.332	-1.078
AB1125	.012	-.022	-.131	.456	-2.185	4.253	-.306	-1.814
AB1130	.012	-.030	-.077	.788	-2.186	4.304	-1.007	-2.759
AB1135	.011	-.038	-.020	1.092	-1.796	3.965	-1.778	.171
AB1140	.011	-.046	.037	1.477	-1.249	3.563	-2.641	3.341
AB1145	.011	-.050	.078	1.513	-.744	2.840	-2.727	6.538
AB1150	.011	-.054	.117	1.504	-.164	1.894	-2.693	10.877
AB1155	.011	-.056	.140	1.347	.221	1.326	-2.327	11.528
AB1160	.011	-.056	.157	1.090	.535	.596	-1.597	11.586
AB1165	.011	-.057	.170	.940	.785	.140	-1.135	11.105
AB1170	.011	-.057	.177	.755	.946	-.221	-.536	9.227
AB1175	.011	-.058	.184	.719	1.123	-.464	-.109	8.158
AB1180	.011	-.058	.187	.688	1.289	-.568	.286	6.931
AB1185	.011	-.058	.192	.603	1.436	-.777	.653	5.922
AB1190	.011	-.058	.197	.553	1.570	-.944	.964	5.077
AB1195	.011	-.059	.200	.546	1.613	-1.066	1.311	3.527
AB1200	.011	-.059	.204	.437	1.659	-1.171	1.701	1.891
AB1205	.011	-.059	.205	.479	1.597	-1.183	1.946	.221
AB1210	.011	-.059	.205	.485	1.504	-1.094	2.191	-1.635
AB1215	.011	-.059	.203	.497	1.407	-.934	2.432	-3.185
AB1220	.011	-.059	.200	.529	1.273	-.675	2.622	-4.549
AB1225	.011	-.058	.196	.600	1.140	-.475	2.820	-5.950
AB1230	.011	-.058	.191	.613	1.045	-.251	3.059	-7.173
AB1235	.011	-.058	.187	.716	.890	-.050	3.276	-8.459

Extraction Method: Principal Component Analysis.

Component Score Coefficient Matrix

	Component							
	1	2	3	4	5	6	7	8
AB1240	.011	-.058	.182	.781	.739	.169	3.505	-9.636
AB1245	.011	-.057	.179	.865	.631	.280	3.812	-10.689
AB1250	.011	-.057	.178	1.071	.498	.269	4.151	-11.819

Extraction Method: Principal Component Analysis.

Component Score Covariance Matrix

Component	1	2	3	4	5	6	7	8
1	1.000	.000	.000	.000	.000	.000	.000	.000
2	.000	1.000	.000	.000	.000	.000	.000	.000
3	.000	.000	1.000	.000	.000	.000	.000	.000
4	.000	.000	.000	1.000	.000	-1.393E-16	.000	.000
5	.000	.000	.000	.000	1.000	.000	.000	.000
6	.000	.000	.000	-1.393E-16	.000	1.000	.000	.000
7	.000	.000	.000	.000	.000	.000	1.000	.000
8	.000	.000	.000	.000	.000	.000	.000	1.000

Extraction Method: Principal Component Analysis.
 Rotation Method: Quartimax with Kaiser Normalization.
 Component Scores.

Component Score Coefficient Matrix

	Component	
	7	8
AB800	4.728	10.098
AB805	3.620	7.272
AB810	2.313	7.443
AB815	1.119	4.529
AB820	.277	-6.584
AB825	-.689	-2.639
AB830	-1.331	-.492
AB835	-1.853	.874
AB840	-2.025	.140
AB855	-2.312	-5.734
AB860	-2.288	-7.733
AB865	-2.201	-9.103
AB870	-1.986	-8.480
AB875	-1.766	-8.000
AB880	-1.449	-6.320
AB885	-1.051	-3.886
AB890	-.586	-2.834
AB895	-.080	.112
AB900	.376	2.834
AB905	.655	4.724
AB910	1.034	7.185
AB915	1.334	8.395
AB920	1.610	9.068
AB925	1.763	8.904
AB930	1.886	7.064
AB935	2.031	4.061
AB940	2.255	-.707
AB945	2.388	-5.873
AB950	2.299	-10.536
AB970	-6.540	2.998
AB975	-6.619	2.557
AB980	-4.831	-1.412
AB985	-3.827	-3.763
AB990	-3.302	-5.720
AB995	-2.616	-7.402
AB1000	-1.820	-9.058
AB1005	-1.147	-9.539
AB1135	-1.778	.171
AB1140	-2.641	3.341

Extraction Method: Principal Component Analysis.

Component Score Coefficient Matrix

	Component	
	7	8
AB1065	1.418	6.897
AB1070	1.461	6.873
AB1075	1.428	6.561
AB1080	1.395	5.791
AB1085	1.379	4.491
AB1090	1.380	3.060
AB1095	1.351	1.926
AB1100	1.299	.693
AB1105	1.133	.451
AB1110	.940	.561
AB1115	.691	-.295
AB1120	.332	-1.078
AB1125	-.306	-1.814
AB1130	-1.007	-2.759
AB1135	-1.778	.171
AB1140	-2.641	3.341
AB1145	-2.727	6.538
AB1150	-2.693	10.877
AB1155	-2.327	11.528
AB1160	-1.597	11.586
AB1165	-1.135	11.105
AB1170	-.536	9.227
AB1175	-.109	8.158
AB1180	.286	6.931
AB1185	.653	5.922
AB1190	.964	5.077
AB1195	1.311	3.527
AB1200	1.701	1.891
AB1205	1.946	.221
AB1210	2.191	-1.635
AB1215	2.432	-3.185
AB1220	2.622	-4.549
AB1225	2.820	-5.950
AB1230	3.059	-7.173
AB1235	3.276	-8.459
AB1240	3.505	-9.636
AB1245	3.812	-10.689
AB1250	4.151	-11.819

Extraction Method: Principal Component
Analysis.

Component Score Covariance Matrix

Component	1	2	3	4	5	6
1	1.000	.000	.000	.000	.000	.000
2	.000	1.000	.000	.000	.000	.000
3	.000	.000	1.000	.000	.000	.000
4	.000	.000	.000	1.000	.000	-1.393E-16
5	.000	.000	.000	.000	1.000	.000
6	.000	.000	.000	-1.393E-16	.000	1.000
7	.000	.000	.000	.000	.000	.000
8	.000	.000	.000	.000	.000	.000

Extraction Method: Principal Component Analysis.
 Rotation Method: Quartimax with Kaiser Normalization.
 Component Scores.

Component Score Covariance Matrix

Component	7	8
1	.000	.000
2	.000	.000
3	.000	.000
4	.000	.000
5	.000	.000
6	.000	.000
7	1.000	.000
8	.000	1.000

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

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REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT tss
/METHOD=STEPWISE fac1_1 fac2_1 fac3_1 fac4_1 fac5_1 fac6_1 fac7_1 fac8_1
/RESIDUALS DURBIN
/CASEWISE PLOT(ZRESID) OUTLIERS(3)
/SAVE PRED RESID DRESID .

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Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	REGR factor score 3 for analysis 1		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	REGR factor score 4 for analysis 1		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	REGR factor score 6 for analysis 1		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: TSS

Model Summary^d

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.636 ^a	.404	.394	2.0062
2	.684 ^b	.468	.449	1.9129
3	.719 ^c	.517	.492	1.8373

Model Summary^d

Change Statistics						
Model	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.404	39.333	1	58	.000	
2	.063	6.793	1	57	.012	
3	.050	5.788	1	56	.019	1.746

a. Predictors: (Constant), REGR factor score 3 for analysis 1

b. Predictors: (Constant), REGR factor score 3 for analysis 1, REGR factor score 4 for analysis 1

c. Predictors: (Constant), REGR factor score 3 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 6 for analysis 1

d. Dependent Variable: TSS

ANOVA^d

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	158.305	1	158.305	39.333	.000 ^a
	Residual	233.434	58	4.025		
	Total	391.739	59			
2	Regression	183.162	2	91.581	25.027	.000 ^b
	Residual	208.577	57	3.659		
	Total	391.739	59			
3	Regression	202.701	3	67.567	20.016	.000 ^c
	Residual	189.038	56	3.376		
	Total	391.739	59			

a. Predictors: (Constant), REGR factor score 3 for analysis 1

b. Predictors: (Constant), REGR factor score 3 for analysis 1, REGR factor score 4 for analysis 1

c. Predictors: (Constant), REGR factor score 3 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 6 for analysis 1

d. Dependent Variable: TSS

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	12.903	.259		49.821	.000
	REGR factor score 3 for analysis 1	-1.638	.261	-.636	-6.272	.000
2	(Constant)	12.903	.247		52.249	.000
	REGR factor score 3 for analysis 1	-1.638	.249	-.636	-6.577	.000
	REGR factor score 4 for analysis 1	.649	.249	.252	2.606	.012
3	(Constant)	12.903	.237		54.400	.000
	REGR factor score 3 for analysis 1	-1.638	.239	-.636	-6.848	.000
	REGR factor score 4 for analysis 1	.649	.239	.252	2.714	.009
	REGR factor score 6 for analysis 1	-.575	.239	-.223	-2.406	.019

Coefficients^a

Model				Correlations			Collinearity Statistics	
				Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)							
	REGR factor score for analysis	3 1		-.636	-.636	-.636	1.000	1.000
2	(Constant)							
	REGR factor score for analysis	3 1		-.636	-.657	-.636	1.000	1.000
	REGR factor score for analysis	4 1		.252	.326	.252	1.000	1.000
3	(Constant)							
	REGR factor score for analysis	3 1		-.636	-.675	-.636	1.000	1.000
	REGR factor score for analysis	4 1		.252	.341	.252	1.000	1.000
	REGR factor score for analysis	6 1		-.223	-.306	-.223	1.000	1.000

a. Dependent Variable: TSS

Excluded Variables^d

Model				Beta In	t	Sig.	Partial Correlation
1	REGR factor score for analysis	1 1		.136 ^a	1.353	.181	.176
	REGR factor score for analysis	2 1		-.014 ^a	-.139	.890	-.018
	REGR factor score for analysis	4 1		.252 ^a	2.606	.012	.326
	REGR factor score for analysis	5 1		.133 ^a	1.325	.190	.173
	REGR factor score for analysis	6 1		-.223 ^a	-2.282	.026	-.289
	REGR factor score for analysis	7 1		-.149 ^a	-1.484	.143	-.193
	REGR factor score for analysis	8 1		-.163 ^a	-1.634	.108	-.211
2	REGR factor score for analysis	1 1		.136 ^b	1.421	.161	.187
	REGR factor score for analysis	2 1		-.014 ^b	-.146	.885	-.019
	REGR factor score for analysis	5 1		.133 ^b	1.392	.169	.183
	REGR factor score for analysis	6 1		-.223 ^b	-2.406	.019	-.306
	REGR factor score for analysis	7 1		-.149 ^b	-1.560	.124	-.204
	REGR factor score for analysis	8 1		-.163 ^b	-1.718	.091	-.224
3	REGR factor score for analysis	1 1		.136 ^c	1.482	.144	.196
	REGR factor score for analysis	2 1		-.014 ^c	-.152	.880	-.020
	REGR factor score for analysis	5 1		.133 ^c	1.452	.152	.192
	REGR factor score for analysis	7 1		-.149 ^c	-1.627	.109	-.214
	REGR factor score for analysis	8 1		-.163 ^c	-1.793	.078	-.235

Excluded Variables^d

Model	Collinearity Statistics			
		Tolerance	VIF	Minimum Tolerance
1	REGR factor score 1 for analysis 1	1.000	1.000	1.000
	REGR factor score 2 for analysis 1	1.000	1.000	1.000
	REGR factor score 4 for analysis 1	1.000	1.000	1.000
	REGR factor score 5 for analysis 1	1.000	1.000	1.000
	REGR factor score 6 for analysis 1	1.000	1.000	1.000
	REGR factor score 7 for analysis 1	1.000	1.000	1.000
	REGR factor score 8 for analysis 1	1.000	1.000	1.000
2	REGR factor score 1 for analysis 1	1.000	1.000	1.000
	REGR factor score 2 for analysis 1	1.000	1.000	1.000
	REGR factor score 5 for analysis 1	1.000	1.000	1.000
	REGR factor score 6 for analysis 1	1.000	1.000	1.000
	REGR factor score 7 for analysis 1	1.000	1.000	1.000
	REGR factor score 8 for analysis 1	1.000	1.000	1.000
3	REGR factor score 1 for analysis 1	1.000	1.000	1.000
	REGR factor score 2 for analysis 1	1.000	1.000	1.000
	REGR factor score 5 for analysis 1	1.000	1.000	1.000
	REGR factor score 7 for analysis 1	1.000	1.000	1.000
	REGR factor score 8 for analysis 1	1.000	1.000	1.000

a. Predictors in the Model: (Constant), REGR factor score 3 for analysis 1

b. Predictors in the Model: (Constant), REGR factor score 3 for analysis 1, REGR factor score 4 for analysis 1

c. Predictors in the Model: (Constant), REGR factor score 3 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 6 for analysis 1

d. Dependent Variable: TSS

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index
1	1	1.000	1.000
	2	1.000	1.000
2	1	1.000	1.000
	2	1.000	1.000
	3	1.000	1.000
3	1	1.000	1.000
	2	1.000	1.000
	3	1.000	1.000
	4	1.000	1.000

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions			
		(Constant)	REGR factor score 3 for analysis 1	REGR factor score 4 for analysis 1	REGR factor score 6 for analysis 1
1	1	.50	.50		
	2	.50	.50		
2	1	.50	.01	.49	
	2	.00	.98	.02	
	3	.50	.01	.49	
3	1	.50	.00	.25	.24
	2	.00	.98	.02	.00
	3	.00	.01	.48	.52
	4	.50	.00	.26	.24

a. Dependent Variable: TSS

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	7.2507	16.7534	12.9033	1.8535	60
Std. Predicted Value	-3.050	2.077	.000	1.000	60
Standard Error of Predicted Value	.2717	.9449	.4555	.1338	60
Adjusted Predicted Value	6.9566	16.9393	12.9040	1.9004	60
Residual	-3.8962	4.0235	1.391E-15	1.7900	60
Std. Residual	-2.121	2.190	.000	.974	60
Stud. Residual	-2.242	2.288	.000	1.009	60
Deleted Residual	-4.3555	4.3905	-6.5161E-04	1.9229	60
Stud. Deleted Residual	-2.329	2.381	.001	1.025	60
Mahal. Distance	.306	14.623	2.950	2.578	60
Cook's Distance	.000	.148	.019	.031	60
Centered Leverage Value	.005	.248	.050	.044	60

a. Dependent Variable: TSS

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REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
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/NOORIGIN
/DEPENDENT tss
/METHOD=STEPWISE fac1_1 fac2_1 fac3_1 fac4_1 fac5_1 fac6_1 fac7_1 fac8_1
fac1fac8
/RESIDUALS DURBIN
/CASEWISE PLOT(ZRESID) OUTLIERS(3)
/SAVE PRED RESID DRESID .

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Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	REGR factor score 3 for analysis 1		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	FAC1FAC8		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	REGR factor score 6 for analysis 1		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	REGR factor score 4 for analysis 1		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
5	REGR factor score 8 for analysis 1		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: TSS

Model Summary^f

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.636 ^a	.404	.394	2.0062
2	.695 ^b	.484	.465	1.8839
3	.750 ^c	.563	.539	1.7490
4	.779 ^d	.607	.579	1.6725
5	.798 ^e	.637	.603	1.6233

Model Summary^f

Change Statistics						
Model	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.404	39.333	1	58	.000	
2	.079	8.770	1	57	.004	
3	.079	10.135	1	56	.002	
4	.045	6.238	1	55	.016	
5	.029	4.385	1	54	.041	1.819

a. Predictors: (Constant), REGR factor score 3 for analysis 1

b. Predictors: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8

c. Predictors: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1

d. Predictors: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1, REGR factor score 4 for analysis 1

e. Predictors: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 8 for analysis 1

f. Dependent Variable: TSS

ANOVA^f

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	158.305	1	158.305	39.333	.000 ^a
	Residual	233.434	58	4.025		
	Total	391.739	59			
2	Regression	189.432	2	94.716	26.686	.000 ^b
	Residual	202.307	57	3.549		
	Total	391.739	59			
3	Regression	220.435	3	73.478	24.020	.000 ^c
	Residual	171.304	56	3.059		
	Total	391.739	59			
4	Regression	237.885	4	59.471	21.260	.000 ^d
	Residual	153.854	55	2.797		
	Total	391.739	59			
5	Regression	249.441	5	49.888	18.932	.000 ^e
	Residual	142.299	54	2.635		
	Total	391.739	59			

a. Predictors: (Constant), REGR factor score 3 for analysis 1

b. Predictors: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8

c. Predictors: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1

d. Predictors: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1, REGR factor score 4 for analysis 1

e. Predictors: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 8 for analysis 1

f. Dependent Variable: TSS

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.903	.259		49.821	.000
	REGR factor score 3 for analysis 1	-1.638	.261	-.636	-6.272	.000
2	(Constant)	12.903	.243		53.053	.000
	REGR factor score 3 for analysis 1	-1.635	.245	-.635	-6.667	.000
	FAC1FAC8	-.740	.250	-.282	-2.961	.004
3	(Constant)	12.903	.226		57.146	.000
	REGR factor score 3 for analysis 1	-1.635	.228	-.634	-7.179	.000
	FAC1FAC8	-.882	.236	-.336	-3.731	.000
	REGR factor score 6 for analysis 1	-.738	.232	-.286	-3.184	.002
4	(Constant)	12.903	.216		59.759	.000
	REGR factor score 3 for analysis 1	-1.635	.218	-.635	-7.509	.000
	FAC1FAC8	-.808	.228	-.308	-3.546	.001
	REGR factor score 6 for analysis 1	-.724	.222	-.281	-3.267	.002
	REGR factor score 4 for analysis 1	.548	.220	.213	2.498	.016
5	(Constant)	12.903	.210		61.571	.000
	REGR factor score 3 for analysis 1	-1.635	.211	-.634	-7.736	.000
	FAC1FAC8	-.821	.221	-.313	-3.712	.000
	REGR factor score 6 for analysis 1	-.727	.215	-.282	-3.377	.001
	REGR factor score 4 for analysis 1	.547	.213	.212	2.566	.013
	REGR factor score 8 for analysis 1	-.443	.211	-.172	-2.094	.041

Coefficients^a

Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	REGR factor score 3 for analysis 1	-.636	-.636	-.636	1.000	1.000
2	(Constant)					
	REGR factor score 3 for analysis 1	-.636	-.662	-.635	1.000	1.000
	FAC1FAC8	-.284	-.365	-.282	1.000	1.000
3	(Constant)					
	REGR factor score 3 for analysis 1	-.636	-.692	-.634	1.000	1.000
	FAC1FAC8	-.284	-.446	-.330	.965	1.037
	REGR factor score 6 for analysis 1	-.223	-.391	-.281	.965	1.037
4	(Constant)					
	REGR factor score 3 for analysis 1	-.636	-.711	-.635	1.000	1.000
	FAC1FAC8	-.284	-.431	-.300	.949	1.054
	REGR factor score 6 for analysis 1	-.223	-.403	-.276	.964	1.037
	REGR factor score 4 for analysis 1	.252	.319	.211	.983	1.017
5	(Constant)					
	REGR factor score 3 for analysis 1	-.636	-.725	-.634	1.000	1.000
	FAC1FAC8	-.284	-.451	-.304	.948	1.055
	REGR factor score 6 for analysis 1	-.223	-.418	-.277	.964	1.037
	REGR factor score 4 for analysis 1	.252	.330	.210	.983	1.017
	REGR factor score 8 for analysis 1	-.163	-.274	-.172	.999	1.001

a. Dependent Variable: TSS

Excluded Variables^f

Model		Beta In	t	Sig.	Partial Correlation
1	REGR factor score 1 for analysis 1	.136 ^a	1.353	.181	.176
	REGR factor score 2 for analysis 1	-.014 ^a	-.139	.890	-.018
	REGR factor score 4 for analysis 1	.252 ^a	2.606	.012	.326
	REGR factor score 5 for analysis 1	.133 ^a	1.325	.190	.173
	REGR factor score 6 for analysis 1	-.223 ^a	-2.282	.026	-.289
	REGR factor score 7 for analysis 1	-.149 ^a	-1.484	.143	-.193
	REGR factor score 8 for analysis 1	-.163 ^a	-1.634	.108	-.211
	FAC1FAC8	-.282 ^a	-2.961	.004	-.365
2	REGR factor score 1 for analysis 1	.104 ^b	1.083	.283	.143
	REGR factor score 2 for analysis 1	-.022 ^b	-.233	.816	-.031
	REGR factor score 4 for analysis 1	.220 ^b	2.381	.021	.303
	REGR factor score 5 for analysis 1	.098 ^b	1.022	.311	.135
	REGR factor score 6 for analysis 1	-.286 ^b	-3.184	.002	-.391
	REGR factor score 7 for analysis 1	-.066 ^b	-.655	.515	-.087
	REGR factor score 8 for analysis 1	-.171 ^b	-1.834	.072	-.238
3	REGR factor score 1 for analysis 1	.097 ^c	1.093	.279	.146
	REGR factor score 2 for analysis 1	-.024 ^c	-.269	.789	-.036
	REGR factor score 4 for analysis 1	.213 ^c	2.498	.016	.319
	REGR factor score 5 for analysis 1	.091 ^c	1.020	.312	.136
	REGR factor score 7 for analysis 1	-.047 ^c	-.503	.617	-.068
	REGR factor score 8 for analysis 1	-.173 ^c	-2.004	.050	-.261
4	REGR factor score 1 for analysis 1	.101 ^d	1.186	.241	.159
	REGR factor score 2 for analysis 1	-.023 ^d	-.272	.787	-.037
	REGR factor score 5 for analysis 1	.095 ^d	1.113	.271	.150
	REGR factor score 7 for analysis 1	-.057 ^d	-.638	.526	-.087
	REGR factor score 8 for analysis 1	-.172 ^d	-2.094	.041	-.274
5	REGR factor score 1 for analysis 1	.100 ^e	1.216	.230	.165
	REGR factor score 2 for analysis 1	-.023 ^e	-.282	.779	-.039
	REGR factor score 5 for analysis 1	.094 ^e	1.139	.260	.155
	REGR factor score 7 for analysis 1	-.056 ^e	-.637	.527	-.087

Excluded Variables^f

Model	Collinearity Statistics				
		Tolerance	VIF	Minimum Tolerance	
1	REGR factor score 1 for analysis 1	1.000	1.000	1.000	
	REGR factor score 2 for analysis 1	1.000	1.000	1.000	
	REGR factor score 4 for analysis 1	1.000	1.000	1.000	
	REGR factor score 5 for analysis 1	1.000	1.000	1.000	
	REGR factor score 6 for analysis 1	1.000	1.000	1.000	
	REGR factor score 7 for analysis 1	1.000	1.000	1.000	
	REGR factor score 8 for analysis 1	1.000	1.000	1.000	
	FAC1FAC8	1.000	1.000	1.000	
2	REGR factor score 1 for analysis 1	.985	1.015	.985	
	REGR factor score 2 for analysis 1	.999	1.001	.999	
	REGR factor score 4 for analysis 1	.984	1.016	.984	
	REGR factor score 5 for analysis 1	.983	1.018	.983	
	REGR factor score 6 for analysis 1	.965	1.037	.965	
	REGR factor score 7 for analysis 1	.899	1.112	.899	
	REGR factor score 8 for analysis 1	.999	1.001	.999	
	3	REGR factor score 1 for analysis 1	.985	1.015	.950
REGR factor score 2 for analysis 1		.999	1.001	.964	
REGR factor score 4 for analysis 1		.983	1.017	.949	
REGR factor score 5 for analysis 1		.982	1.018	.947	
REGR factor score 7 for analysis 1		.896	1.116	.864	
REGR factor score 8 for analysis 1		.999	1.001	.964	
4		REGR factor score 1 for analysis 1	.985	1.016	.934
		REGR factor score 2 for analysis 1	.999	1.001	.948
	REGR factor score 5 for analysis 1	.982	1.019	.931	
	REGR factor score 7 for analysis 1	.894	1.119	.848	
	REGR factor score 8 for analysis 1	.999	1.001	.948	
	5	REGR factor score 1 for analysis 1	.985	1.016	.933
REGR factor score 2 for analysis 1		.999	1.001	.947	
REGR factor score 5 for analysis 1		.982	1.019	.931	
REGR factor score 7 for analysis 1		.894	1.119	.847	

a. Predictors in the Model: (Constant), REGR factor score 3 for analysis 1

b. Predictors in the Model: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8

c. Predictors in the Model: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1

Excluded Variables^f

- d. Predictors in the Model: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1, REGR factor score 4 for analysis 1
- e. Predictors in the Model: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 8 for analysis 1
- f. Dependent Variable: TSS

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index
1	1	1.000	1.000
	2	1.000	1.000
2	1	1.004	1.000
	2	1.000	1.002
	3	.996	1.004
3	1	1.188	1.000
	2	1.000	1.090
	3	1.000	1.090
	4	.812	1.210
4	1	1.227	1.000
	2	1.000	1.108
	3	1.000	1.108
	4	1.000	1.108
	5	.773	1.260
5	1	1.228	1.000
	2	1.000	1.108
	3	1.000	1.108
	4	1.000	1.108
	5	1.000	1.108
	6	.772	1.262

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions		
		(Constant)	REGR factor score 3 for analysis 1	FAC1FAC8
1	1	.50	.50	
	2	.50	.50	
2	1	.00	.50	.50
	2	1.00	.00	.00
	3	.00	.50	.50
3	1	.00	.00	.41
	2	.50	.50	.00
	3	.50	.50	.00
	4	.00	.00	.59
4	1	.00	.00	.39
	2	.50	.00	.00
	3	.00	.99	.00
	4	.50	.00	.00
	5	.00	.00	.61
5	1	.00	.00	.39
	2	.50	.00	.00
	3	.00	.20	.00
	4	.00	.80	.00
	5	.50	.00	.00
	6	.00	.00	.61

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions		
		REGR factor score 6 for analysis 1	REGR factor score 4 for analysis 1	REGR factor score 8 for analysis 1
1	1			
	2			
2	1			
	2			
	3			
3	1	.41		
	2	.00		
	3	.00		
	4	.59		
4	1	.27	.13	
	2	.15	.33	
	3	.00	.01	
	4	.15	.33	
	5	.43	.20	
5	1	.27	.12	.01
	2	.04	.03	.42
	3	.18	.50	.10
	4	.05	.11	.04
	5	.04	.03	.42
	6	.42	.20	.01

a. Dependent Variable: TSS

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	7.2267	17.3256	12.9033	2.0562	60
Std. Predicted Value	-2.761	2.151	.000	1.000	60
Standard Error of Predicted Value	.2524	.9747	.4934	.1429	60
Adjusted Predicted Value	6.9249	17.4863	12.9218	2.1015	60
Residual	-3.3393	3.9023	6.217E-16	1.5530	60
Std. Residual	-2.057	2.404	.000	.957	60
Stud. Residual	-2.186	2.516	-.005	1.001	60
Deleted Residual	-3.7697	4.2731	-1.8457E-02	1.7045	60
Stud. Deleted Residual	-2.268	2.652	-.003	1.019	60
Mahal. Distance	.443	20.288	4.917	3.698	60
Cook's Distance	.000	.103	.016	.022	60
Centered Leverage Value	.008	.344	.083	.063	60

a. Dependent Variable: TSS

Collinearity Diagnostics ^a

		Variance Proportions					
Model	Dimension	(Constant)	REGR factor score 3 for analysis	FAC1FAC8	REGR factor score 6 for analysis	REGR factor score 4 for analysis	REGR factor score 8 for analysis
1	1	.50	.50				
	2	.50	.50				
2	1	.00	.50	.50			
	2	1.00	.00	.00			
	3	.00	.50	.50			
3	1	.00	.00	.41	.41		
	2	.50	.50	.00	.00		
	3	.50	.50	.00	.00		
	4	.00	.00	.59	.59		
4	1	.00	.00	.39	.27	.13	
	2	.50	.00	.00	.15	.33	
	3	.00	.99	.00	.00	.01	
	4	.50	.00	.00	.15	.33	
	5	.00	.00	.61	.43	.20	
5	1	.00	.00	.39	.27	.12	.01
	2	.50	.00	.00	.04	.03	.42
	3	.00	.20	.00	.18	.50	.10
	4	.00	.80	.00	.05	.11	.04
	5	.50	.00	.00	.04	.03	.42
	6	.00	.00	.61	.42	.20	.01

^a. Dependent Variable: TSS

Residuals Statistics ^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	7.2267	17.3256	12.9033	2.0562	60
Std. Predicted Value	-2.761	2.151	.000	1.000	60
Standard Error of Predicted Value	.2524	.9747	.4934	.1429	60
Adjusted Predicted Value	6.9249	17.4863	12.9218	2.1015	60
Residual	-3.3393	3.9023	6.217E-16	1.5530	60
Std. Residual	-2.057	2.404	.000	.957	60
Stud. Residual	-2.186	2.516	-.005	1.001	60
Deleted Residual	-3.7697	4.2731	-1.8457E-02	1.7045	60
Stud. Deleted Residual	-2.268	2.652	-.003	1.019	60
Mahal. Distance	.443	20.288	4.917	3.698	60
Cook's Distance	.000	.103	.016	.022	60
Centered Leverage Value	.008	.344	.083	.063	60

^a. Dependent Variable: TSS

```

EXAMINE
  VARIABLES=res_1 res_2
  /PLOT NPLOT
  /STATISTICS DESCRIPTIVES
  /CINTERVAL 95
  /MISSING LISTWISE
  /NOTOTAL.

```

Explore

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Unstandardized Residual	60	100.0%	0	.0%	60	100.0%
Unstandardized Residual	60	100.0%	0	.0%	60	100.0%

Descriptives

			Statistic	Std. Error
Unstandardized Residual	Mean		1.154632E-15	.2310856
	95% Confidence Interval for Mean	Lower Bound	-.4624013	
		Upper Bound	.4624013	
	5% Trimmed Mean		-9.6226978E-04	
	Median		-.1230900	
	Variance		3.204	
	Std. Deviation		1.7899816	
	Minimum		-3.89619	
	Maximum		4.02349	
	Range		7.91968	
	Interquartile Range		2.3562362	
	Skewness		.117	.309
	Kurtosis		-.406	.608
Unstandardized Residual	Mean		4.144833E-16	.2004928
	95% Confidence Interval for Mean	Lower Bound	-.4011851	
		Upper Bound	.4011851	
	5% Trimmed Mean		-3.1124149E-02	
	Median		-.3203625	
	Variance		2.412	
	Std. Deviation		1.5530103	
	Minimum		-3.33930	
	Maximum		3.90228	
	Range		7.24158	
	Interquartile Range		2.2486800	
	Skewness		.277	.309
	Kurtosis		-.057	.608

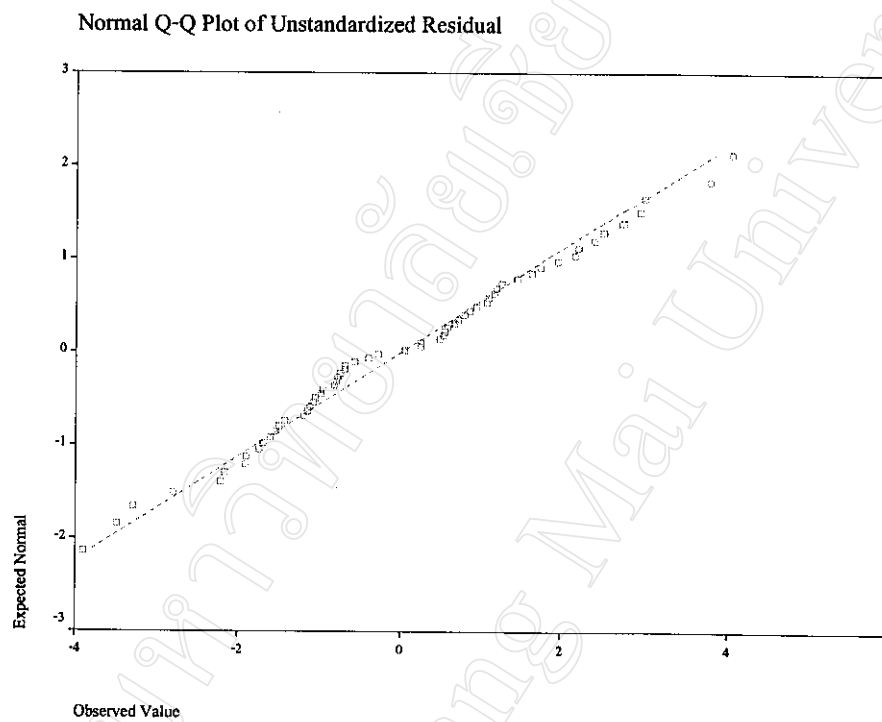
Tests of Normality

	Kolmogorov-Smirnov ^a		
	Statistic	df	Sig.
Unstandardized Residual	.100	60	.200*
Unstandardized Residual	.119	60	.103

*. This is a lower bound of the true significance.

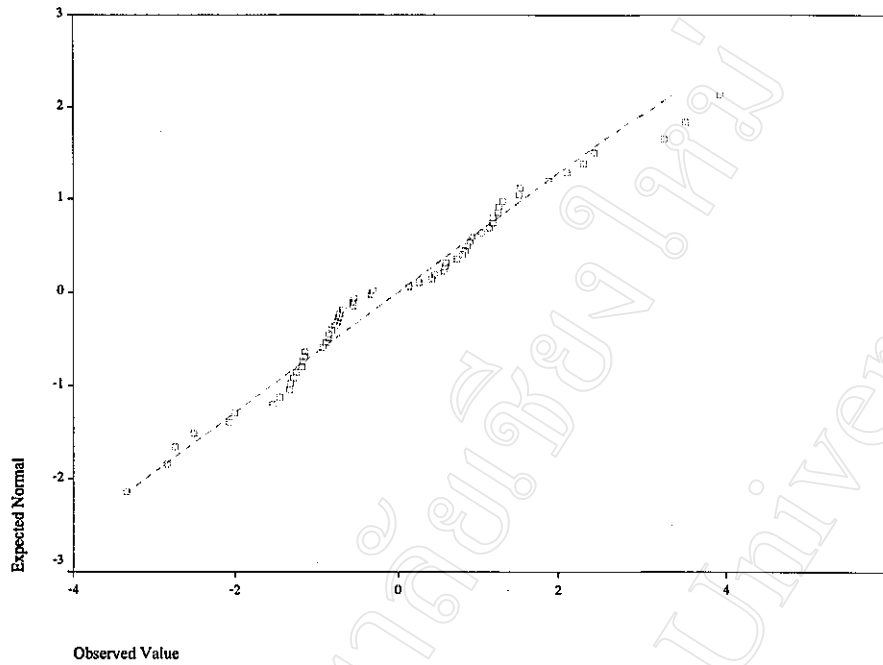
a. Lilliefors Significance Correction

Unstandardized Residual



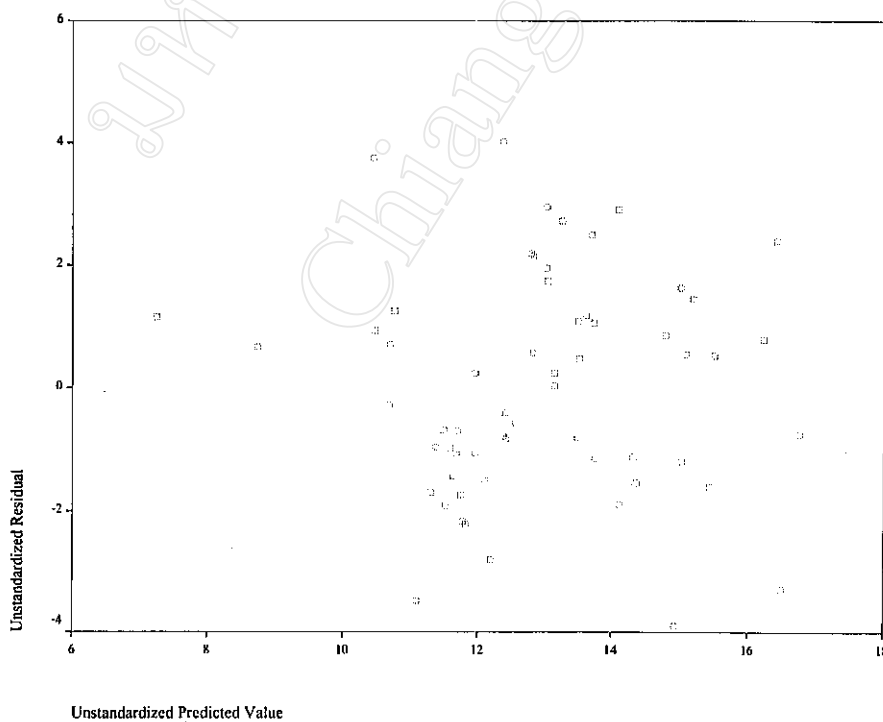
Unstandardized Residual

Normal Q-Q Plot of Unstandardized Residual



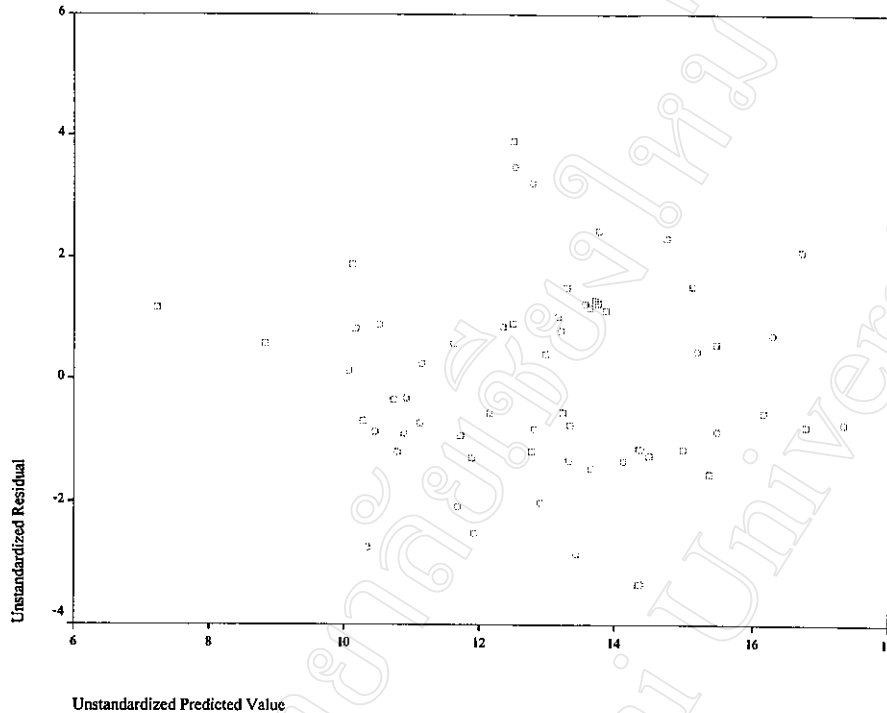
```
GRAPH
  /SCATTERPLOT(BIVAR)=pre_1 WITH res_1
  /MISSING=LISTWISE .
```

Graph



```
GRAPH
  /SCATTERPLOT(BIVAR)=pre_2 WITH res_2
  /MISSING=LISTWISE .
```

Graph



```

COMPUTE press_1 = dre_1**2 .
EXECUTE .
COMPUTE press_2 = dre_2**2 .
EXECUTE .
DESCRIPTIVES
  VARIABLES=press_1 press_2
  /STATISTICS=SUM .

```

Descriptives

Descriptive Statistics

	N	Sum
PRESS_1	60	218.16
PRESS_2	60	171.43
Valid N (listwise)	60	

```

COMPUTE res1_abs = ABS(res_1) .
EXECUTE .
COMPUTE res2_abs = ABS(res_2) .
EXECUTE .
* Weight Estimation.
WLS tss WITH fac3_1 fac4_1 fac6_1
  /SOURCE res1_abs
  /POWER -2 TO 2 BY 0.5
  /CONSTANT
  /SAVE WEIGHT
  /PRINT BEST.

```

Weighted Least Squares

MODEL: MOD_1.

Source variable.. RES1_ABS Dependent variable.. TSS

Log-likelihood Function = -171.991564	POWER value = -2.000
Log-likelihood Function = -157.855928	POWER value = -1.500
Log-likelihood Function = -144.238720	POWER value = -1.000
Log-likelihood Function = -131.385126	POWER value = -.500
Log-likelihood Function = -119.634207	POWER value = .000
Log-likelihood Function = -109.389629	POWER value = .500
Log-likelihood Function = -101.130017	POWER value = 1.000
Log-likelihood Function = -95.396884	POWER value = 1.500
Log-likelihood Function = -92.640394	POWER value = 2.000

The Value of POWER Maximizing Log-likelihood Function = 2.000

Source variable.. RES1_ABS POWER value = 2.000

Dependent variable.. TSS

Listwise Deletion of Missing Data

Multiple R .92473
 R Square .85512
 Adjusted R Square .84736
 Standard Error 1.01721

Analysis of Variance:

	DF	Sum of Squares	Mean Square
Regression	3	342.00228	114.00076
Residuals	56	57.94383	1.03471

F = 110.17639 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
FAC3_1	-1.734690	.106020	-1.031820	-16.362	.0000
FAC4_1	.671489	.070744	.597477	9.492	.0000
FAC6_1	-.561242	.082612	-.347420	-6.794	.0000
(Constant)	12.885832	.096644		133.333	.0000

Log-likelihood Function = -92.640394

The following new variables are being created:

Name	Label
WGT_1	Weight for TSS from WLS, MOD_1 RES1_ABS** -2.000

REGRESSION
 /MISSING LISTWISE
 /REGWGT=wgt_1
 /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN

```

/DEPENDENT tss
/METHOD=STEPWISE fac3_1 fac4_1 fac6_1
/RESIDUALS DURBIN
/CASEWISE PLOT(ZRESID) OUTLIERS(3)
/SAVE PRED RESID DRESID .

```

Regression

Variables Entered/Removed^{a,b}

Model	Variables Entered	Variables Removed	Method
1	REGR factor score 3 for analysis 1	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	REGR factor score 4 for analysis 1	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	REGR factor score 6 for analysis 1	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: TSS

b. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_4 RES1_ABS** -2.000

Model Summary^{d,e}

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.715 ^a	.511	.503	1.8362
2	.858 ^b	.736	.726	1.3618
3	.925 ^c	.855	.847	1.0172

Model Summary^{d,e}

Change Statistics						
Model	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.511	60.620	1	58	.000	
2	.225	48.455	1	57	.000	
3	.119	46.155	1	56	.000	1.882

a. Predictors: (Constant), REGR factor score 3 for analysis 1

b. Predictors: (Constant), REGR factor score 3 for analysis 1, REGR factor score 4 for analysis 1

c. Predictors: (Constant), REGR factor score 3 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 6 for analysis 1

d. Dependent Variable: TSS

e. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_4 RES1_ABS** -2.000

ANOVA^{d,e}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	204.390	1	204.390	60.620	.000 ^a
	Residual	195.556	58	3.372		
	Total	399.946	59			
2	Regression	294.245	2	147.123	79.337	.000 ^b
	Residual	105.701	57	1.854		
	Total	399.946	59			
3	Regression	342.002	3	114.001	110.176	.000 ^c
	Residual	57.944	56	1.035		
	Total	399.946	59			

a. Predictors: (Constant), REGR factor score 3 for analysis 1

b. Predictors: (Constant), REGR factor score 3 for analysis 1, REGR factor score 4 for analysis 1

c. Predictors: (Constant), REGR factor score 3 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 6 for analysis 1

d. Dependent Variable: TSS

e. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_4 RES1_ABS** -2.000

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	12.203	.134		90.916	.000
	REGR factor score 3 for analysis 1	-1.202	.154	-.715	-7.786	.000
2	(Constant)	12.553	.112		112.548	.000
	REGR factor score 3 for analysis 1	-1.782	.142	-1.060	-12.584	.000
	REGR factor score 4 for analysis 1	.659	.095	.586	6.961	.000
3	(Constant)	12.886	.097		133.333	.000
	REGR factor score 3 for analysis 1	-1.735	.106	-1.032	-16.362	.000
	REGR factor score 4 for analysis 1	.671	.071	.597	9.492	.000
	REGR factor score 6 for analysis 1	-.561	.083	-.347	-6.794	.000

Coefficients^{a,b}

Model	Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance VIF
1	(Constant)				
	REGR factor score for analysis 1 3	-.715	-.715	-.715	1.000 1.000
2	(Constant)				
	REGR factor score for analysis 1 3	-.715	-.858	-.857	.653 1.530
	REGR factor score for analysis 1 4	-.038	.678	.474	.653 1.530
3	(Constant)				
	REGR factor score for analysis 1 3	-.715	-.909	-.832	.651 1.537
	REGR factor score for analysis 1 4	-.038	.785	.483	.653 1.532
	REGR factor score for analysis 1 6	-.403	-.672	-.346	.989 1.011

a. Dependent Variable: TSS

b. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_4 RES1_ABS** -2.000

Excluded Variables^{c,d}

Model		Beta In	t	Sig.	Partial Correlation
1	REGR factor score for analysis 1 4	.586 ^a	6.961	.000	.678
	REGR factor score for analysis 1 6	-.335 ^a	-4.091	.000	-.476
2	REGR factor score for analysis 1 6	-.347 ^b	-6.794	.000	-.672

Excluded Variables^{c,d}

Model		Collinearity Statistics		
		Tolerance	VIF	Minimum Tolerance
1	REGR factor score 4 for analysis 1	.653	1.530	.653
	REGR factor score 6 for analysis 1	.990	1.010	.990
2	REGR factor score 6 for analysis 1	.989	1.011	.651

a. Predictors in the Model: (Constant), REGR factor score 3 for analysis 1

b. Predictors in the Model: (Constant), REGR factor score 3 for analysis 1, REGR factor score 4 for analysis 1

c. Dependent Variable: TSS

d. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_4 RES1_ABS** -2.000

Collinearity Diagnostics^{a,b}

Model	Dimension	Eigenvalue	Condition Index
1	1	1.443	1.000
	2	.557	1.610
2	1	2.059	1.000
	2	.614	1.832
	3	.327	2.511
3	1	2.106	1.000
	2	1.053	1.414
	3	.514	2.024
	4	.327	2.539

Collinearity Diagnostics^{a,b}

Model	Dimension	Variance Proportions			
		(Constant)	REGR factor score 3 for analysis 1	REGR factor score 4 for analysis 1	REGR factor score 6 for analysis 1
1	1	.28	.28		
	2	.72	.72		
2	1	.10	.09	.09	
	2	.90	.13	.10	
	3	.00	.78	.81	
3	1	.09	.08	.08	.02
	2	.05	.04	.03	.67
	3	.86	.10	.08	.31
	4	.00	.78	.81	.00

a. Dependent Variable: TSS

b. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_4 RES1_ABS** -2.000

Residuals Statistics^{b,c}

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	6.9818	16.8921	12.8858	1.9429	60
Std. Predicted Value ^a					0
Standard Error of Predicted Value	3.745E-02	.3489	.1706	5.441E-02	60
Adjusted Predicted Value	6.8432	17.0242	12.8887	1.9560	60
Residual	-4.0661	4.0120	1.750E-02	1.7928	60
Std. Residual ^a					0
Stud. Residual	-1.289	1.395	-.016	1.017	60
Deleted Residual	-4.0741	4.0130	1.463E-02	1.8138	60
Stud. Deleted Residual	-1.297	1.407	-.015	1.018	60
Mahal. Distance	.010	25.139	2.950	4.886	60
Cook's Distance	.000	21.298	.374	2.747	60
Centered Leverage Value	.000	.426	.050	.083	60

a. Not computed for Weighted Least Squares regression.

b. Dependent Variable: TSS

c. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_4 RES1_ABS** -2.000

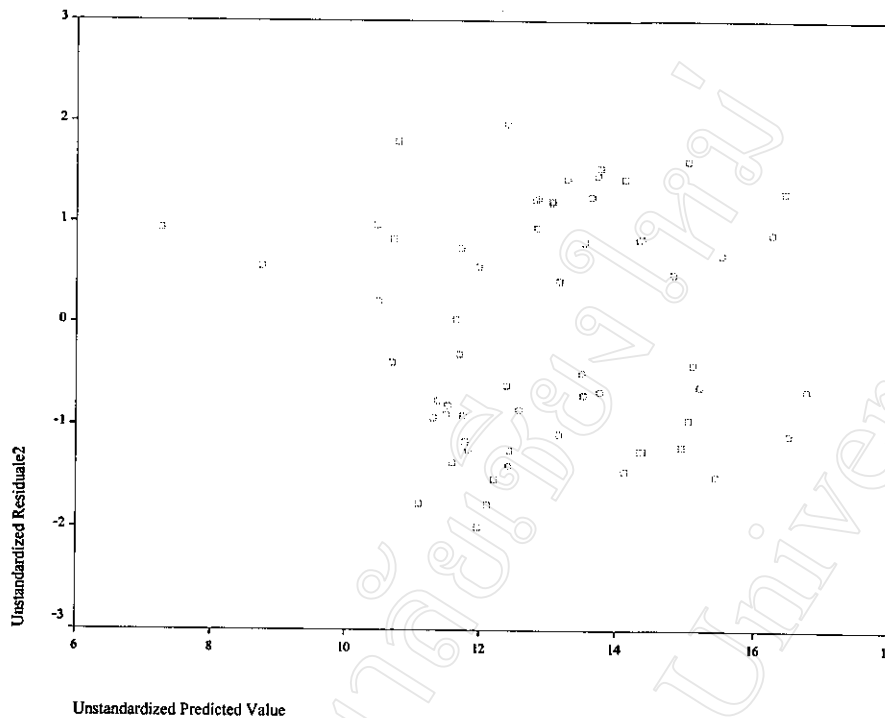
GRAPH

```

/SCATTERPLOT(BIVAR)=pre_e1 WITH res_e1
/MISSING=LISTWISE .

```

Graph



```
* Weight Estimation.
WLS tss WITH fac3_1 fac4_1 fac6_1 fac1fac8 fac8_1
/SOURCE res2_abs
/POWER -2 TO 2 BY 0.5
/CONSTANT
/SAVE WEIGHT
/PRINT BEST.
```

Weighted Least Squares

MODEL: MOD_2.

Source variable.. RES2_ABS

Dependent variable.. TSS

Log-likelihood Function = -163.472035	POWER value = -2.000
Log-likelihood Function = -149.322687	POWER value = -1.500
Log-likelihood Function = -135.633795	POWER value = -1.000
Log-likelihood Function = -122.781009	POWER value = -.500
Log-likelihood Function = -111.204624	POWER value = .000
Log-likelihood Function = -101.414878	POWER value = .500
Log-likelihood Function = -93.954346	POWER value = 1.000
Log-likelihood Function = -89.244655	POWER value = 1.500
Log-likelihood Function = -87.401071	POWER value = 2.000

The Value of POWER Maximizing Log-likelihood Function = 2.000

Source variable.. RES2_ABS

POWER value = 2.000

Dependent variable.. TSS

Listwise Deletion of Missing Data

Multiple R .95524
 R Square .91248
 Adjusted R Square .90438
 Standard Error 1.04557

Analysis of Variance:

	DF	Sum of Squares	Mean Square
Regression	5	615.47982	123.09596
Residuals	54	59.03397	1.09322

F = 112.59927 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
FAC3_1	-1.554780	.123918	-.574030	-12.547	.0000
FAC4_1	.562573	.105103	.230998	5.353	.0000
FAC6_1	-.710424	.092684	-.338587	-7.665	.0000
FAC1FAC8	-.812245	.108722	-.361021	-7.471	.0000
FAC8_1	-.418555	.091435	-.222005	-4.578	.0000
(Constant)	12.883909	.099772		129.133	.0000

Log-likelihood Function = -87.401071

The following new variables are being created:

Name	Label
WGT_2	Weight for TSS from WLS, MOD_2 RES2_ABS** -2.000

```
REGRESSION
/MISSING LISTWISE
/REGWGT=wgt_2
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT tss
/METHOD=STEPWISE fac3_1 fac4_1 fac6_1 fac1fac8 fac8_1
/RESIDUALS DURBIN
/CASEWISE PLOT(ZRESID) OUTLIERS(3)
/SAVE PRED RESID DRESID .
```

Regression

Variables Entered/Removed^{a,b}

Model	Variables Entered	Variables Removed	Method
1	REGR factor score 3 for analysis 1		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	FAC1FAC8		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	REGR factor score 6 for analysis 1		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	REGR factor score 4 for analysis 1		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
5	REGR factor score 8 for analysis 1		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: TSS

b. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_5 RES2_ABS** -2.000

Model Summary^{f,g}

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.806 ^a	.650	.644	2.0183
2	.872 ^b	.761	.752	1.6824
3	.917 ^c	.841	.833	1.3831
4	.937 ^d	.879	.870	1.2206
5	.955 ^e	.912	.904	1.0456

Model Summary^{f,g}

Change Statistics						
Model	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.650	107.578	1	58	.000	
2	.111	26.478	1	57	.000	
3	.080	28.341	1	56	.000	
4	.037	16.900	1	55	.000	
5	.034	20.955	1	54	.000	1.885

a. Predictors: (Constant), REGR factor score 3 for analysis 1

b. Predictors: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8

c. Predictors: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1

d. Predictors: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1, REGR factor score 4 for analysis 1

e. Predictors: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 8 for analysis 1

f. Dependent Variable: TSS

g. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_5 RES2_ABS** -2.000

ANOVA^{a,9}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	438.239	1	438.239	107.578	.000 ^a
	Residual	236.275	58	4.074		
	Total	674.514	59			
2	Regression	513.181	2	256.591	90.655	.000 ^b
	Residual	161.333	57	2.830		
	Total	674.514	59			
3	Regression	567.393	3	189.131	98.873	.000 ^c
	Residual	107.121	56	1.913		
	Total	674.514	59			
4	Regression	592.572	4	148.143	99.435	.000 ^d
	Residual	81.942	55	1.490		
	Total	674.514	59			
5	Regression	615.480	5	123.096	112.599	.000 ^e
	Residual	59.034	54	1.093		
	Total	674.514	59			

a. Predictors: (Constant), REGR factor score 3 for analysis 1

b. Predictors: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8

c. Predictors: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1

d. Predictors: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1, REGR factor score 4 for analysis 1

e. Predictors: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 8 for analysis 1

f. Dependent Variable: TSS

g. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_5 RES2_ABS** -2.000

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.515	.181		69.137	.000
	REGR factor score 3 for analysis 1	-2.183	.210	-.806	-10.372	.000
2	(Constant)	12.779	.159		80.190	.000
	REGR factor score 3 for analysis 1	-1.904	.184	-.703	-10.368	.000
	FAC1FAC8	-.785	.153	-.349	-5.146	.000
3	(Constant)	12.855	.132		97.550	.000
	REGR factor score 3 for analysis 1	-1.873	.151	-.692	-12.400	.000
	FAC1FAC8	-1.037	.134	-.461	-7.735	.000
	REGR factor score 6 for analysis 1	-.637	.120	-.304	-5.324	.000
4	(Constant)	12.859	.116		110.567	.000
	REGR factor score 3 for analysis 1	-1.710	.139	-.631	-12.284	.000
	FAC1FAC8	-.986	.119	-.438	-8.290	.000
	REGR factor score 6 for analysis 1	-.621	.106	-.296	-5.869	.000
	REGR factor score 4 for analysis 1	.500	.122	.205	4.111	.000
5	(Constant)	12.884	.100		129.133	.000
	REGR factor score 3 for analysis 1	-1.555	.124	-.574	-12.547	.000
	FAC1FAC8	-.812	.109	-.361	-7.471	.000
	REGR factor score 6 for analysis 1	-.710	.093	-.339	-7.665	.000
	REGR factor score 4 for analysis 1	.563	.105	.231	5.353	.000
	REGR factor score 8 for analysis 1	-.419	.091	-.222	-4.578	.000

Coefficients^{a,b}

Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	REGR factor score 3 for analysis 1	-.806	-.806	-.806	1.000	1.000
2	(Constant)					
	REGR factor score 3 for analysis 1	-.806	-.808	-.672	.913	1.096
	FAC1FAC8	-.557	-.563	-.333	.913	1.096
3	(Constant)					
	REGR factor score 3 for analysis 1	-.806	-.866	-.660	.911	1.097
	FAC1FAC8	-.557	-.719	-.412	.799	1.252
	REGR factor score 6 for analysis 1	-.089	-.580	-.283	.871	1.148
4	(Constant)					
	REGR factor score 3 for analysis 1	-.806	-.866	-.577	.837	1.195
	FAC1FAC8	-.557	-.745	-.390	.790	1.265
	REGR factor score 6 for analysis 1	-.089	-.621	-.276	.870	1.150
	REGR factor score 4 for analysis 1	.484	.485	.193	.885	1.130
5	(Constant)					
	REGR factor score 3 for analysis 1	-.806	-.863	-.505	.774	1.291
	FAC1FAC8	-.557	-.713	-.301	.694	1.441
	REGR factor score 6 for analysis 1	-.089	-.722	-.309	.831	1.204
	REGR factor score 4 for analysis 1	.484	.589	.215	.870	1.149
	REGR factor score 8 for analysis 1	-.481	-.529	-.184	.689	1.451

a. Dependent Variable: TSS

b. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_5 RES2_ABS** -2.000

Excluded Variables^{e,f}

Model		Beta In	t	Sig.	Partial Correlation
1	REGR factor score for analysis 1 4	.249 ^a	3.271	.002	.397
	REGR factor score for analysis 1 6	-.148 ^a	-1.944	.057	-.249
	FAC1FAC8	-.349 ^a	-5.146	.000	-.563
	REGR factor score for analysis 1 8	-.236 ^a	-3.066	.003	-.376
2	REGR factor score for analysis 1 4	.217 ^b	3.435	.001	.417
	REGR factor score for analysis 1 6	-.304 ^b	-5.324	.000	-.580
	REGR factor score for analysis 1 8	-.109 ^b	-1.450	.153	-.190
3	REGR factor score for analysis 1 4	.205 ^c	4.111	.000	.485
	REGR factor score for analysis 1 8	-.188 ^c	-3.195	.002	-.396
4	REGR factor score for analysis 1 8	-.222 ^d	-4.578	.000	-.529

Excluded Variables^{a,f}

		Collinearity Statistics		
Model		Tolerance	VIF	Minimum Tolerance
1	REGR factor score 4 for analysis 1	.895	1.118	.895
	REGR factor score 6 for analysis 1	.995	1.005	.995
	FAC1FAC8	.913	1.096	.913
	REGR factor score 8 for analysis 1	.887	1.128	.887
2	REGR factor score 4 for analysis 1	.886	1.128	.837
	REGR factor score 6 for analysis 1	.871	1.148	.799
	REGR factor score 8 for analysis 1	.735	1.361	.735
3	REGR factor score 4 for analysis 1	.885	1.130	.790
	REGR factor score 8 for analysis 1	.701	1.427	.701
4	REGR factor score 8 for analysis 1	.689	1.451	.689

a. Predictors in the Model: (Constant), REGR factor score 3 for analysis 1

b. Predictors in the Model: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8

c. Predictors in the Model: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1

d. Predictors in the Model: (Constant), REGR factor score 3 for analysis 1, FAC1FAC8, REGR factor score 6 for analysis 1, REGR factor score 4 for analysis 1

e. Dependent Variable: TSS

f. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_5 RES2_ABS** -2.000

Collinearity Diagnostics^{a,b}

Model	Dimension	Eigenvalue	Condition Index
1	1	1.327	1.000
	2	.673	1.404
2	1	1.670	1.000
	2	.698	1.546
	3	.632	1.626
3	1	1.771	1.000
	2	1.040	1.305
	3	.670	1.625
	4	.519	1.846
4	1	1.940	1.000
	2	1.092	1.333
	3	.863	1.499
	4	.586	1.820
	5	.519	1.933
5	1	2.321	1.000
	2	1.174	1.406
	3	.871	1.632
	4	.677	1.852
	5	.524	2.104
	6	.433	2.316

Collinearity Diagnostics^{a,b}

Model	Dimension	Variance Proportions		
		(Constant)	REGR factor score 3 for analysis 1	FAC1FAC8
1	1	.34	.34	
	2	.66	.66	
2	1	.16	.17	.17
	2	.82	.10	.29
	3	.02	.73	.54
3	1	.11	.13	.15
	2	.18	.09	.03
	3	.63	.58	.00
	4	.08	.20	.82
4	1	.08	.11	.11
	2	.03	.05	.07
	3	.50	.00	.00
	4	.31	.64	.02
	5	.07	.20	.80
5	1	.05	.06	.07
	2	.06	.07	.01
	3	.42	.00	.00
	4	.38	.19	.00
	5	.02	.42	.49
	6	.07	.25	.42

Collinearity Diagnostics^{a,b}

Model	Dimension	Variance Proportions		
		REGR factor score 6 for analysis 1	REGR factor score 4 for analysis 1	REGR factor score 8 for analysis 1
1	1			
	2			
2	1			
	2			
	3			
3	1	.06		
	2	.52		
	3	.02		
	4	.39		
4	1	.03	.07	
	2	.50	.12	
	3	.04	.45	
	4	.04	.36	
	5	.39	.00	
5	1	.03	.03	.06
	2	.27	.21	.05
	3	.10	.43	.01
	4	.25	.08	.23
	5	.34	.04	.02
	6	.00	.21	.63

a. Dependent Variable: TSS

b. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_5 RES2_ABS** -2.000

Residuals Statistics^{b,c}

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	7.4581	17.2159	12.8839	1.9851	60
Std. Predicted Value ^a					0
Standard Error of Predicted Value	.1119	.5735	.2351	8.635E-02	60
Adjusted Predicted Value	7.3694	17.3268	12.8886	2.0067	60
Residual	-3.2055	3.9825	1.942E-02	1.5554	60
Std. Residual ^a					0
Stud. Residual	-1.502	1.263	-.023	1.016	60
Deleted Residual	-3.2352	3.9998	1.473E-02	1.5998	60
Stud. Deleted Residual	-1.520	1.270	-.023	1.017	60
Mahal. Distance	.056	26.880	4.917	6.544	60
Cook's Distance	.000	.512	.034	.086	60
Centered Leverage Value	.001	.456	.083	.111	60

a. Not computed for Weighted Least Squares regression.

b. Dependent Variable: TSS

c. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_5 RES2_ABS** -2.000

EXAMINE

```

VARIABLES=res_e1 res_e2
/PLOT NPLOT
/STATISTICS DESCRIPTIVES
/CINTERVAL 95
/MISSING LISTWISE
/NOTOTAL.

```

Explore

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Unstandardized Residual	60	100.0%	0	.0%	60	100.0%
Unstandardized Residual2	60	100.0%	0	.0%	60	100.0%

Descriptives

		Statistic	Std. Error
Unstandardized Residual	Mean	1.750144E-02	.2314477
	95% Confidence Interval for Mean	Lower Bound	-.4456243
		Upper Bound	.4806272
	5% Trimmed Mean	2.103272E-02	
	Median	-.1294782	
	Variance	3.214	
	Std. Deviation	1.7927862	
	Minimum	-2.06613	
	Maximum	2.01202	
	Range	4.07816	
	Interquartile Range	2.5919291	
	Skewness	.091	.309
	Kurtosis	-.330	.608
Unstandardized Residual2	Mean	1.942463E-02	.2008048
	95% Confidence Interval for Mean	Lower Bound	-.3823848
		Upper Bound	.4212341
	5% Trimmed Mean	-1.3668589E-02	
	Median	-.3410585	
	Variance	2.419	
	Std. Deviation	1.5554272	
	Minimum	-2.20553	
	Maximum	2.98253	
	Range	5.18806	
	Interquartile Range	2.0133283	
	Skewness	.304	.309
	Kurtosis	-.055	.608

Tests of Normality

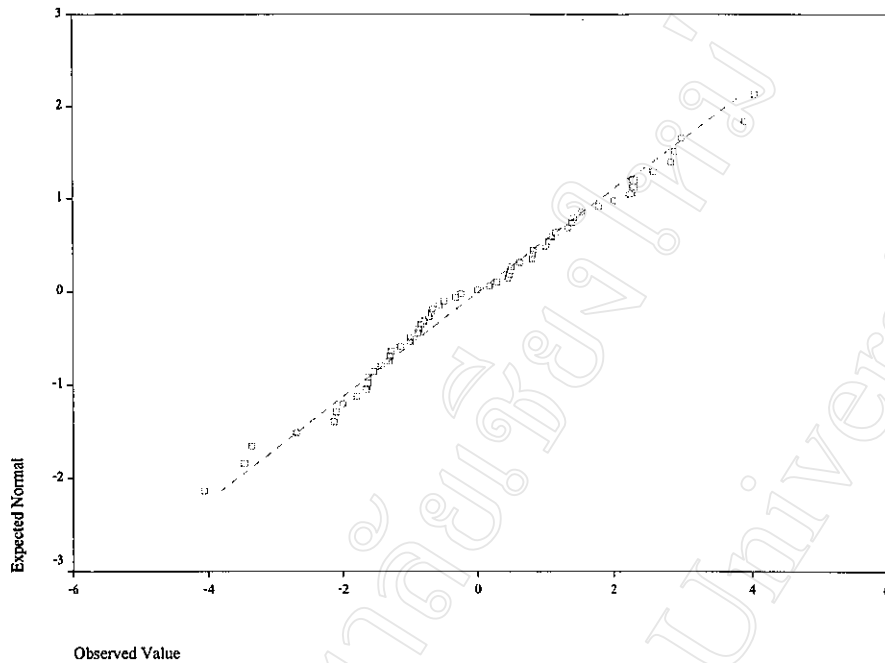
	Kolmogorov-Smirnov ^a		
	Statistic	df	Sig.
Unstandardized Residual	.083	60	.200*
Unstandardized Residual2	.106	60	.091

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

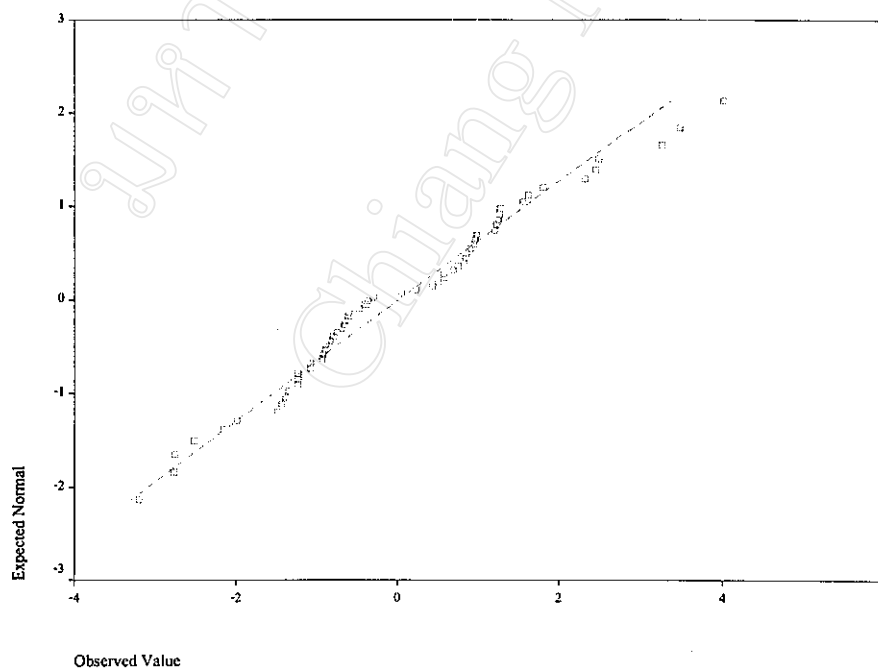
Unstandardized Residual

Normal Q-Q Plot of Unstandardized Residual



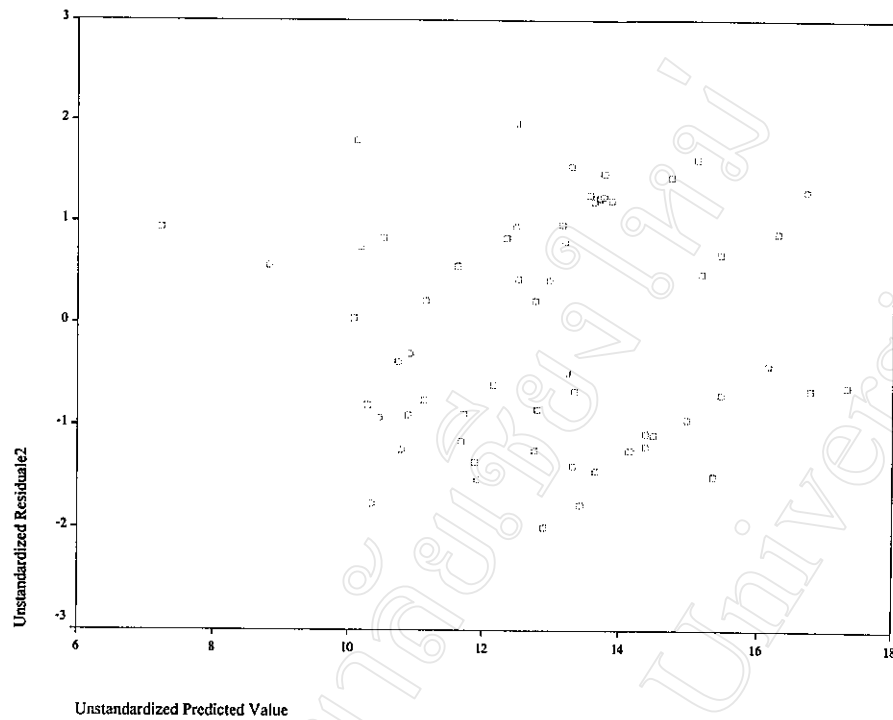
Unstandardized Residual2

Normal Q-Q Plot of Unstandardized Residual2



```
GRAPH
  /SCATTERPLOT(BIVAR)=pre_e2 WITH res_e2
  /MISSING=LISTWISE .
```

Graph



```

COMPUTE press_e1 = dre_3**2 .
EXECUTE .
COMPUTE press_e2 = dre_4**2 .
EXECUTE .
DESCRIPTIVES
  VARIABLES=press_e1 press_e2
  /STATISTICS=SUM .

```

Descriptives

Descriptive Statistics

	N	Sum
PRESS_E1	60	194.12
PRESS_E2	60	151.02
Valid N (listwise)	60	

```

GET
  FILE='C:\pna\data\val\succ_v.sav'.
EXECUTE .
DESCRIPTIVES
  VARIABLES=tss tss_2 tss_3
  /STATISTICS=MEAN STDDEV MIN MAX .

```

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
TSS	60	8.20	17.40	12.7433	2.3636
TSS_2	60	9.36	18.54	12.8860	1.9430
TSS_3	60	8.64	18.82	12.8840	2.0981
Valid N (listwise)	60				

การวิเคราะห์ความสัมพันธ์ระหว่างTSSจากสมการและTSSที่วัดได้ทางเคมี

CORRELATIONS

```

/VARIABLES=tss tss_2 tss_3
/PRINT=TWOTAIL NOSIG
/MISSING=PAIRWISE .

```

Correlations

		TSS	TSS_2	TSS_3
Pearson Correlation	TSS	1.000	.570**	.661**
	TSS_2	.570**	1.000	.874**
	TSS_3	.661**	.874**	1.000
Sig. (2-tailed)	TSS	.	.000	.000
	TSS_2	.000	.	.000
	TSS_3	.000	.000	.
N	TSS	60	60	60
	TSS_2	60	60	60
	TSS_3	60	60	60

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

DESCRIPTIVES

```

VARIABLES=error2 error3
/STATISTICS=MEAN STDDEV MIN MAX .

```

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ERROR2	60	-4.54	6.20	-.1427	2.0316
ERROR3	60	-4.10	3.73	-.1407	1.8508
Valid N (listwise)	60				

REGRESSION

```

/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT tss_2
/METHOD=ENTER tss
/SAVE RESID .

```

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	TSS ^a		Enter

a. All requested variables entered.

b. Dependent Variable: TSS_2

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.570 ^a	.325	.313	1.6103

a. Predictors: (Constant), TSS

b. Dependent Variable: TSS_2

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	72.342	1	72.342	27.899	.000 ^a
	Residual	150.394	58	2.593		
	Total	222.736	59			

a. Predictors: (Constant), TSS

b. Dependent Variable: TSS_2

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.916	1.149		6.018	.000
	TSS	.468	.089	.570	5.282	.000

a. Dependent Variable: TSS_2

Casewise Diagnostics^a

Case Number	Std. Residual	TSS_2
12	3.145	18.54

a. Dependent Variable: TSS_2

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	10.7575	15.0676	12.8860	1.1073	60
Residual	-4.8267	5.0648	-3.6711E-15	1.5966	60
Std. Predicted Value	-1.922	1.970	.000	1.000	60
Std. Residual	-2.997	3.145	.000	.991	60

a. Dependent Variable: TSS_2

* Weight Estimation.

```

WLS tss_2 WITH tss
/SOURCE res1_abs
/POWER -2 TO 2 BY 0.5
/CONSTANT
/SAVE WEIGHT
/PRINT BEST.

```

Weighted Least Squares

MODEL: MOD_1.

Source variable.. RES1_ABS

Dependent variable.. TSS_2

Log-likelihood Function = -331.095579	POWER value = -2.000
Log-likelihood Function = -273.973228	POWER value = -1.500
Log-likelihood Function = -217.131193	POWER value = -1.000
Log-likelihood Function = -162.391533	POWER value = -.500
Log-likelihood Function = -112.720839	POWER value = .000
Log-likelihood Function = -73.187452	POWER value = .500
Log-likelihood Function = -53.258816	POWER value = 1.000
Log-likelihood Function = -78.306189	POWER value = 1.500
Log-likelihood Function = -152.000797	POWER value = 2.000

The Value of POWER Maximizing Log-likelihood Function = 1.000

Source variable.. RES1_ABS

POWER value = 1.000

Dependent variable.. TSS_2

Listwise Deletion of Missing Data

Multiple R	.99881
R Square	.99761
Adjusted R Square	.99757
Standard Error	1.00796

Analysis of Variance:

	DF	Sum of Squares	Mean Square
Regression	1	24620.828	24620.828
Residuals	58	58.927	1.016

F = 24233.36550 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
TSS	.471354	.003028	.998805	155.671	.0000
(Constant)	6.885648	.032700		210.571	.0000

Log-likelihood Function = -53.258816

The following new variables are being created:

Name	Label
------	-------

WGT_1	Weight for TSS_2 from WLS, MOD_1 RES1_ABS** -1.000
-------	--

```

REGRESSION
/MISSING LISTWISE
/REGWGT=wgt_1
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT tss_2
/METHOD=ENTER tss
/SAVE RESID .

```

Regression

Variables Entered/Removed^{b,c}

Model	Variables Entered	Variables Removed	Method
1	TSS ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: TSS_2

c. Weighted Least Squares Regression - Weighted by Weight for TSS_2 from WLS, MOD_1 RES1_ABS** -1.000

Model Summary^{b,c}

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.999 ^a	.998	.998	1.0080

a. Predictors: (Constant), TSS

b. Dependent Variable: TSS_2

c. Weighted Least Squares Regression - Weighted by Weight for TSS_2 from WLS, MOD_1 RES1_ABS** -1.000

ANOVA^{b,c}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24620.828	1	24620.828	24233.365	.000 ^a
	Residual	58.927	58	1.016		
	Total	24679.756	59			

a. Predictors: (Constant), TSS

b. Dependent Variable: TSS_2

c. Weighted Least Squares Regression - Weighted by Weight for TSS_2 from WLS, MOD_1 RES1_ABS** -1.000

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.886	.033		210.571	.000
	TSS	.471	.003	.999	155.671	.000

a. Dependent Variable: TSS_2

b. Weighted Least Squares Regression - Weighted by Weight for TSS_2 from WLS, MOD_1 RES1_ABS** -1.000

Residuals Statistics^{b,c}

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	10.7508	15.0872	12.8923	1.1141	60
Residual	-4.8412	5.0549	-6.2752E-03	1.5966	60
Std. Predicted Value ^a	.	.	.	.	0
Std. Residual ^a	.	.	.	.	0

a. Not computed for Weighted Least Squares regression.

b. Dependent Variable: TSS_2

c. Weighted Least Squares Regression - Weighted by Weight for TSS_2 from WLS, MOD_1 RES1_ABS** -1.000

```

REGRESSION
/MISSING LISTWISE
/REGWGT=wt_1
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT tss_2
/METHOD=ENTER tss

```

Regression

Variables Entered/Removed^{b,c}

Model	Variables Entered	Variables Removed	Method
1	TSS ^a		Enter

a. All requested variables entered.

b. Dependent Variable: TSS_2

c. Weighted Least Squares Regression - Weighted by Weight for TSS_2 from WLS, MOD_1 RES1_ABS** -1.000

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.998 ^a	.996	.998	1.0080

a. Predictors: (Constant), TSS

ANOVA^{b,c}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24620.828	1	24620.828	24233.365	.000 ^a
	Residual	58.927	58	1.016		
	Total	24679.756	59			

a. Predictors: (Constant), TSS

b. Dependent Variable: TSS_2

c. Weighted Least Squares Regression - Weighted by Weight for TSS_2 from WLS, MOD_1 RES1_ABS** -1.000

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.886	.033		210.571	.000
	TSS	.471	.003	.999	155.671	.000

a. Dependent Variable: TSS_2

b. Weighted Least Squares Regression - Weighted by Weight for TSS_2 from WLS, MOD_1 RES1_ABS** -1.000

* Weight Estimation.

```
WLS tss_3 WITH tss
/SOURCE res3_abs
/POWER -2 TO 2 BY 0.5
/CONSTANT
/SAVE WEIGHT
/PRINT BEST.
```

Weighted Least Squares

MODEL: MOD_2.

Source variable.. RES3_ABS

Dependent variable.. TSS_3

Log-likelihood Function = -257.736442
 Log-likelihood Function = -218.070399
 Log-likelihood Function = -179.674106

POWER value = -2.000
 POWER value = -1.500
 POWER value = -1.000

Log-likelihood Function = -143.630973	POWER value = -.500
Log-likelihood Function = -111.906728	POWER value = .000
Log-likelihood Function = -87.208835	POWER value = .500
Log-likelihood Function = -74.150149	POWER value = 1.000
Log-likelihood Function = -90.163133	POWER value = 1.500
Log-likelihood Function = -152.931166	POWER value = 2.000

The Value of POWER Maximizing Log-likelihood Function = 1.000

Source variable.. RES3_ABS POWER value = 1.000

Dependent variable.. TSS_3

Listwise Deletion of Missing Data

Multiple R	.99595
R Square	.99192
Adjusted R Square	.99178
Standard Error	1.00376

Analysis of Variance:

	DF	Sum of Squares	Mean Square
Regression	1	7173.3966	7173.3966
Residuals	58	58.4369	1.0075

F = 7119.76217 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
TSS	.589327	.006984	.995952	84.379	.0000
(Constant)	5.376894	.070287		76.499	.0000

Log-likelihood Function = -74.150149

The following new variables are being created:

Name	Label
------	-------

WGT_2	Weight for TSS_3 from WLS, MOD_2 RES3_ABS** -1.000
-------	--

```

REGRESSION
/MISSING LISTWISE
/REGWGT=wgt_2
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT tss_3
/METHOD=ENTER tss
/SAVE RESID .

```

Regression

Variables Entered/Removed^{b,c}

Model	Variables Entered	Variables Removed	Method
1	TSS ^a		Enter

a. All requested variables entered.

b. Dependent Variable: TSS_3

c. Weighted Least Squares Regression - Weighted by Weight for TSS_3 from WLS, MOD_2 RES3_ABS** -1.000

Model Summary^{b,c}

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.996 ^a	.992	.992	1.0038

a. Predictors: (Constant), TSS

b. Dependent Variable: TSS_3

c. Weighted Least Squares Regression - Weighted by Weight for TSS_3 from WLS, MOD_2 RES3_ABS** -1.000

ANOVA^{b,c}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7173.397	1	7173.397	7119.762	.000 ^a
	Residual	58.437	58	1.008		
	Total	7231.834	59			

a. Predictors: (Constant), TSS

b. Dependent Variable: TSS_3

c. Weighted Least Squares Regression - Weighted by Weight for TSS_3 from WLS, MOD_2 RES3_ABS** -1.000

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.377	.070		76.499	.000
	TSS	.589	.007	.996	84.379	.000

a. Dependent Variable: TSS_3

b. Weighted Least Squares Regression - Weighted by Weight for TSS_3 from WLS, MOD_2 RES3_ABS** -1.000

Residuals Statistics^{b,c}

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	10.2094	15.6312	12.8869	1.3929	60
Residual	-3.6941	3.7361	-2.8805E-03	1.5751	60
Std. Predicted Value ^a	.	.	.	.	0
Std. Residual ^a	.	.	.	.	0

a. Not computed for Weighted Least Squares regression.

b. Dependent Variable: TSS_3

c. Weighted Least Squares Regression - Weighted by Weight for TSS_3 from WLS, MOD_2 RES3_ABS** -1.000

ANOVA^{a,b,c}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24620.828	1	24620.828	24233.365	.000 ^a
	Residual	58.927	58	1.016		
	Total	24679.756	59			

a. Predictors: (Constant), TSS

b. Dependent Variable: TSS_2

c. Weighted Least Squares Regression - Weighted by Weight for TSS_2 from WLS, MOD_1 RES1_ABS** -1.000

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.886	.033		210.571	.000
	TSS	.471	.003	.999	155.671	.000

a. Dependent Variable: TSS_2

b. Weighted Least Squares Regression - Weighted by Weight for TSS_2 from WLS, MOD_1 RES1_ABS** -1.000

* Weight Estimation.

WLS tss_3 WITH tss
 /SOURCE res3_abs
 /POWER -2 TO 2 BY 0.5
 /CONSTANT
 /SAVE WEIGHT
 /PRINT BEST.

Weighted Least Squares

MODEL: MOD_2.

Source variable.. RES3_ABS

Dependent variable.. TSS_3

Log-likelihood Function = -257.736442	POWER value = -2.000
Log-likelihood Function = -218.070399	POWER value = -1.500
Log-likelihood Function = -179.674106	POWER value = -1.000
Log-likelihood Function = -143.630973	POWER value = -.500
Log-likelihood Function = -111.906728	POWER value = .000
Log-likelihood Function = -87.208835	POWER value = .500
Log-likelihood Function = -74.150149	POWER value = 1.000
Log-likelihood Function = -90.163133	POWER value = 1.500
Log-likelihood Function = -152.931166	POWER value = 2.000

The Value of POWER Maximizing Log-likelihood Function = 1.000

Source variable.. RES3_ABS

POWER value = 1.000

Dependent variable.. TSS_3

Listwise Deletion of Missing Data

Multiple R .99595
R Square .99192
Adjusted R Square .99178
Standard Error 1.00376

Analysis of Variance:

	DF	Sum of Squares	Mean Square
Regression	1	7173.3966	7173.3966
Residuals	58	58.4369	1.0075

F = 7119.76217 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
TSS	.589327	.006984	.995952	84.379	.0000
(Constant)	5.376894	.070287		76.499	.0000

Log-likelihood Function = -74.150149

The following new variables are being created:

Name	Label
WGT_2	Weight for TSS_3 from WLS, MOD_2 RES3_ABS** -1.000

REGRESSION
/MISSING LISTWISE
/REGWGT=wgt_2
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT tss_3
/METHOD=ENTER tss
/SAVE RESID .

Regression

Variables Entered/Removed^{b,c}

Model	Variables Entered	Variables Removed	Method
1	TSS ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: TSS_3

c. Weighted Least Squares Regression - Weighted by Weight for TSS_3 from WLS, MOD_2 RES3_ABS** -1.000

Model Summary^{b,c}

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.996 ^a	.992	.992	1.0038

a. Predictors: (Constant), TSS

b. Dependent Variable: TSS_3

c. Weighted Least Squares Regression - Weighted by Weight for TSS_3 from WLS, MOD_2 RES3_ABS** -1.000

ANOVA^{b,c}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7173.397	1	7173.397	7119.762	.000 ^a
	Residual	58.437	58	1.008		
	Total	7231.834	59			

a. Predictors: (Constant), TSS

b. Dependent Variable: TSS_3

c. Weighted Least Squares Regression - Weighted by Weight for TSS_3 from WLS, MOD_2 RES3_ABS** -1.000

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardize d Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.377	.070		76.499	.000
	TSS	.589	.007	.996	84.379	.000

a. Dependent Variable: TSS_3

b. Weighted Least Squares Regression - Weighted by Weight for TSS_3 from WLS, MOD_2 RES3_ABS** -1.000

Residuals Statistics^{b,c}

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	10.2094	15.6312	12.8869	1.3929	60
Residual	-3.6941	3.7361	-2.8805E-03	1.5751	60
Std. Predicted Value ^a					0
Std. Residual ^a					0

a. Not computed for Weighted Least Squares regression.

b. Dependent Variable: TSS_3

c. Weighted Least Squares Regression - Weighted by Weight for TSS_3 from WLS, MOD_2 RES3_ABS** -1.000

วิเคราะห์วิธีถดถอยพหุคูณ

```

REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT tss
  /METHOD=BACKWARD ab1000 ab1005 ab1010 ab1015 ab1020 ab1025 ab1030 ab1035
  ab1040 ab1045 ab1050 ab1055 ab1060 ab1065 ab1070 ab1075 ab1080 ab1085
  ab1090
  ab1095 ab1100 ab1105 ab1110 ab1115 ab1120 ab1125 ab1130 ab1135 ab1140
  ab1145
  ab1150 ab1155 ab1160 ab1165 ab1170 ab1175 ab1180 ab1185 ab1190 ab1195
  ab1200
  ab1205 ab1210 ab1215 ab1220 ab1225 ab1230 ab1235 ab1240 ab1245 ab1250
  ab1255
  ab1260 ab1265 ab1270 ab1275 ab1280 ab1285 ab1290 ab1295 ab1300 ab1305
  ab1310
  ab1315 ab1320 ab1325 ab1330 ab1335 ab1340 ab1345 ab1350 ab1355 ab1360
  ab1365
  ab1370 ab1375 ab1380 ab1385 ab1390 ab1395 ab1400 ab1405 ab1410 ab1415
  ab1420
  ab1425 ab1430 ab1435 ab1440 ab1445 ab1450 ab1455 ab1460 ab1465 ab1470
  ab1475
  ab1480 ab1485 ab1490 ab1495 ab1500 ab1505 ab1510 ab1515 ab1520 ab1525
  ab1530
  ab1535 ab1540 ab1545 ab1550 ab1555 ab1560 ab1565 ab1570 ab1575 ab1580
  ab1585
  ab1590 ab1595 ab1600 ab1605 ab1610 ab1615 ab1620 ab1625 ab1630 ab1635
  ab1640
  ab1645 ab1650 ab1655 ab1660 ab1665 ab1670 ab1675 ab1680 ab1685 ab1690
  ab1695
  ab1700 ab800 ab805 ab810 ab815 ab820 ab825 ab830 ab835 ab840 ab845 ab850
  ab855 ab860 ab865 ab870 ab875 ab880 ab885 ab890 ab895 ab900 ab905 ab910
  ab915 ab920 ab925 ab930 ab935 ab940 ab945 ab950 ab955 ab960 ab965 ab970
  ab975 ab980 ab985 ab990 ab995
  /RESIDUALS DURBIN
  /CASEWISE PLOT(ZRESID) OUTLIERS(3)
  /SAVE PRED RESID DRESID .

```

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	AB995, AB820, AB1450, AB915, AB1660, AB1385, AB950, AB1100, AB800 ^a		Enter
2		AB915	Backward (criterion: Probability of F-to-remove >= .100).
3		AB1660	Backward (criterion: Probability of F-to-remove >= .100).

a. Tolerance = .000 limits reached.

b. Dependent Variable: TSS

Model Summary^d

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.809 ^a	.654	.592	1.6462
2	.809 ^b	.654	.600	1.6306
3	.806 ^c	.649	.602	1.6254

Model Summary^d

Change Statistics						
Model	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.654	10.506	9	50	.000	
2	.000	.038	1	52	.846	
3	-.005	.669	1	53	.417	1.631

a. Predictors: (Constant), AB995, AB820, AB1450, AB915, AB1660, AB1385, AB950, AB1100, AB800

b. Predictors: (Constant), AB995, AB820, AB1450, AB1660, AB1385, AB950, AB1100, AB800

c. Predictors: (Constant), AB995, AB820, AB1450, AB1385, AB950, AB1100, AB800

d. Dependent Variable: TSS

ANOVA^d

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	256.243	9	28.471	10.506	.000 ^a
	Residual	135.496	50	2.710		
	Total	391.739	59			
2	Regression	256.140	8	32.018	12.042	.000 ^b
	Residual	135.599	51	2.659		
	Total	391.739	59			
3	Regression	254.362	7	36.337	13.754	.000 ^c
	Residual	137.377	52	2.642		
	Total	391.739	59			

a. Predictors: (Constant), AB995, AB820, AB1450, AB915, AB1660, AB1385, AB950, AB1100, AB800

b. Predictors: (Constant), AB995, AB820, AB1450, AB1660, AB1385, AB950, AB1100, AB800

c. Predictors: (Constant), AB995, AB820, AB1450, AB1385, AB950, AB1100, AB800

d. Dependent Variable: TSS

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	13.568	18.363		.739	.463
	AB1100	-249.687	79.533	-.16.101	-3.139	.003
	AB1385	-137.100	94.460	-.7.209	-1.451	.153
	AB1450	102.668	54.873	.5.315	1.871	.067
	AB1660	-43.330	52.029	-.2.249	-.833	.409
	AB800	-267.503	68.646	-.23.525	-3.897	.000
	AB820	255.387	84.513	.23.217	3.022	.004
	AB915	13.958	71.623	.1.065	.195	.846
	AB950	147.482	77.008	.8.909	1.915	.061
	AB995	179.433	87.429	10.555	2.052	.045
2	(Constant)	13.165	18.074		.728	.470
	AB1100	-241.802	67.824	-.15.592	-3.565	.001
	AB1385	-152.664	49.957	-.8.027	-3.056	.004
	AB1450	111.232	32.550	.5.758	3.417	.001
	AB1660	-41.237	50.427	-.2.140	-.818	.417
	AB800	-277.735	43.804	-.24.425	-6.340	.000
	AB820	269.142	46.047	.24.468	5.845	.000
	AB950	158.422	52.217	.9.570	3.034	.004
	AB995	175.974	84.797	10.351	2.075	.043
3	(Constant)	20.611	15.563		1.324	.191
	AB1100	-208.501	54.066	-.13.445	-3.856	.000
	AB1385	-167.678	46.313	-.8.816	-3.621	.001
	AB1450	103.223	30.942	.5.344	3.336	.002
	AB800	-279.105	43.632	-.24.545	-6.397	.000
	AB820	269.333	45.899	.24.485	5.868	.000
	AB950	158.001	52.048	.9.545	3.036	.004
	AB995	126.562	59.305	7.445	2.134	.038

Coefficients^a

Model		Correlations		Part	Collinearity Statistics	
		Zero-order	Partial		Tolerance	VIF
1	(Constant)					
	AB1100	.169	-.406	-.261	.000	3802.052
	AB1385	.096	-.201	-.121	.000	3565.868
	AB1450	.074	.256	.156	.001	1166.432
	AB1660	.068	-.117	-.069	.001	1054.293
	AB800	.019	-.483	-.324	.000	5268.348
	AB820	.056	.393	.251	.000	8533.343
	AB915	.162	.028	.016	.000	4313.959
	AB950	.151	.261	.159	.000	3128.330
	AB995	.138	.279	.171	.000	3823.497
2	(Constant)					
	AB1100	.169	-.447	-.294	.000	2818.194
	AB1385	.096	-.393	-.252	.001	1016.545
	AB1450	.074	.432	.282	.002	418.316
	AB1660	.068	-.114	-.067	.001	1009.404
	AB800	.019	-.664	-.522	.000	2186.461
	AB820	.056	.633	.482	.000	2581.909
	AB950	.151	.391	.250	.001	1465.972
	AB995	.138	.279	.171	.000	3665.860
3	(Constant)					
	AB1100	.169	-.472	-.317	.001	1802.257
	AB1385	.096	-.449	-.297	.001	879.254
	AB1450	.074	.420	.274	.003	380.447
	AB800	.019	-.664	-.525	.000	2183.262
	AB820	.056	.631	.482	.000	2581.842
	AB950	.151	.388	.249	.001	1465.829
	AB995	.138	.284	.175	.001	1804.589

a. Dependent Variable: TSS

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index
1	1	9.999	1.000
	2	8.005E-04	111.763
	3	1.687E-04	243.439
	4	2.318E-05	656.737
	5	2.107E-06	2178.189
	6	3.669E-07	5220.141
	7	2.859E-07	5914.263
	8	2.012E-07	7048.918
	9	4.799E-08	14434.393
	10	2.166E-08	21487.279
2	1	8.999	1.000
	2	7.308E-04	110.968
	3	1.687E-04	230.955
	4	1.620E-05	745.413
	5	1.527E-06	2427.932
	6	3.357E-07	5177.596
	7	2.279E-07	6283.479
	8	1.052E-07	9248.492
	9	4.759E-08	13751.309
3	1	7.999	1.000
	2	6.903E-04	107.645
	3	1.586E-04	224.550
	4	1.427E-05	748.595
	5	1.034E-06	2781.587
	6	3.215E-07	4987.790
	7	1.695E-07	6869.883
	8	6.564E-08	11039.433

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions						
		(Constant)	AB1100	AB1385	AB1450	AB1660	AB800	AB820
1	1	.00	.00	.00	.00	.00	.00	.00
	2	.04	.00	.00	.00	.00	.00	.00
	3	.51	.00	.00	.00	.00	.00	.00
	4	.10	.00	.00	.00	.00	.00	.00
	5	.07	.00	.00	.04	.01	.00	.00
	6	.00	.01	.07	.05	.03	.05	.07
	7	.18	.02	.00	.04	.34	.07	.03
	8	.01	.15	.01	.01	.00	.00	.00
	9	.10	.70	.00	.09	.51	.10	.07
	10	.00	.13	.92	.78	.12	.78	.84
2	1	.00	.00	.00	.00	.00	.00	.00
	2	.04	.00	.00	.00	.00	.00	.00
	3	.51	.00	.00	.00	.00	.00	.00
	4	.13	.00	.00	.01	.00	.00	.00
	5	.02	.01	.00	.12	.04	.02	.02
	6	.03	.00	.19	.31	.02	.21	.26
	7	.05	.06	.17	.01	.16	.04	.02
	8	.13	.03	.57	.16	.33	.34	.30
	9	.08	.90	.07	.39	.45	.39	.40
3	1	.00	.00	.00	.00		.00	.00
	2	.08	.00	.00	.00		.00	.00
	3	.65	.00	.00	.00		.00	.00
	4	.18	.01	.00	.01		.00	.00
	5	.07	.04	.00	.09		.07	.06
	6	.01	.03	.37	.38		.13	.18
	7	.00	.03	.01	.03		.00	.00
	8	.01	.89	.62	.48		.80	.76

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions		
		AB915	AB950	AB995
1	1	.00	.00	.00
	2	.00	.00	.00
	3	.00	.00	.00
	4	.00	.00	.00
	5	.01	.01	.01
	6	.03	.00	.00
	7	.05	.05	.00
	8	.04	.25	.08
	9	.00	.00	.87
	10	.86	.70	.04
2	1		.00	.00
	2		.00	.00
	3		.00	.00
	4		.00	.00
	5		.01	.01
	6		.02	.00
	7		.45	.04
	8		.48	.11
	9		.04	.84
3	1		.00	.00
	2		.00	.00
	3		.00	.00
	4		.00	.00
	5		.02	.03
	6		.00	.00
	7		.79	.44
	8		.18	.53

a. Dependent Variable: TSS

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	8.0199	17.9445	12.9033	2.0763	60
Std. Predicted Value	-2.352	2.428	.000	1.000	60
Standard Error of Predicted Value	.3778	1.0189	.5774	.1386	60
Adjusted Predicted Value	7.3987	18.6903	12.9209	2.1480	60
Residual	-3.1361	3.3927	-4.2197E-13	1.5259	60
Std. Residual	-1.929	2.087	.000	.939	60
Stud. Residual	-2.146	2.223	-.005	1.008	60
Deleted Residual	-3.8793	3.8480	-1.7589E-02	1.7664	60
Stud. Deleted Residual	-2.226	2.314	-.004	1.024	60
Mahal. Distance	2.205	22.201	6.883	4.123	60
Cook's Distance	.000	.136	.020	.027	60
Centered Leverage Value	.037	.376	.117	.070	60

a. Dependent Variable: TSS

EXAMINE

```

VARIABLES=res_1
/PLOT NPLOT
/STATISTICS DESCRIPTIVES
/CINTERVAL 95
/MISSING LISTWISE

```

/NOTOTAL.

Explore

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Unstandardized Residual	60	100.0%	0	.0%	60	100.0%

Descriptives

			Statistic	Std. Error
Unstandardized Residual	Mean		-4.2182554E-13	.1969953
	95% Confidence Interval for Mean	Lower Bound	-.3941867	
		Upper Bound	.3941867	
	5% Trimmed Mean		-1.7777339E-02	
	Median		2.864475E-03	
	Variance		2.328	
	Std. Deviation		1.5259190	
	Minimum		-3.13610	
	Maximum		3.39268	
	Range		6.52878	
	Interquartile Range		2.0896717	
	Skewness		.126	.309
	Kurtosis		-.450	.608

Tests of Normality

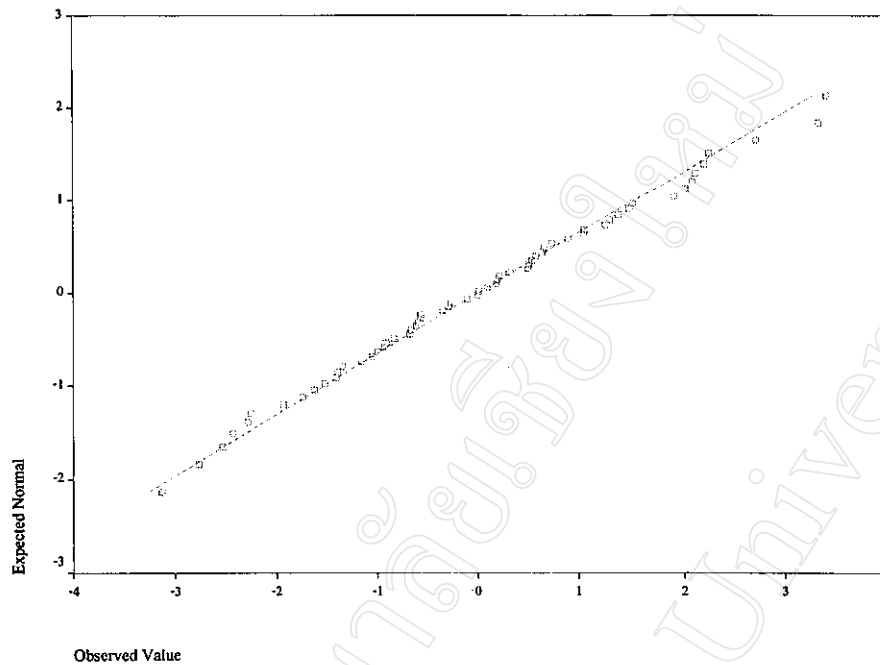
	Kolmogorov-Smirnov ^a		
	Statistic	df	Sig.
Unstandardized Residual	.061	60	.200*

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

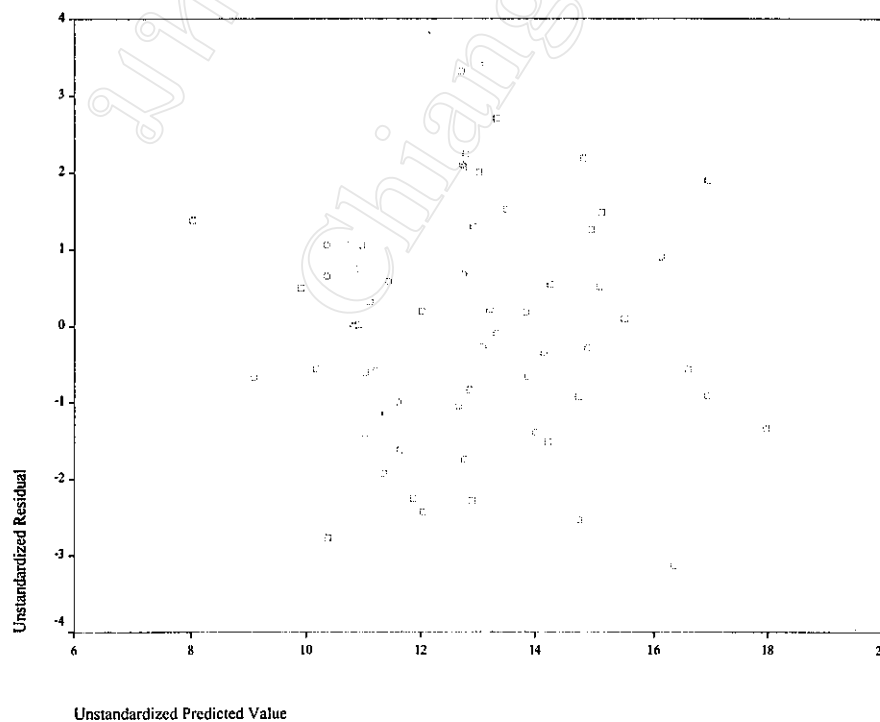
Unstandardized Residual

Normal Q-Q Plot of Unstandardized Residual



```
GRAPH
  /SCATTERPLOT(BIVAR)=pre_1 WITH res_1
  /MISSING=LISTWISE .
```

Graph



```
COMPUTE press1 = dre_1**2 .
EXECUTE .
DESCRIPTIVES
```

```
VARIABLES=press1
/STATISTICS=SUM .
```

Descriptives

Descriptive Statistics

	N	Sum
PRESS1	60	184.11
Valid N (listwise)	60	

เมื่อแปลงข้อมูลเป็น $A_i - A_{i-1}$

```
REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT tss
/METHOD=BACKWARD ab1000 ab1005 ab1010 ab1015 ab1020 ab1025 ab1030 ab1035
ab1040 ab1045 ab1050 ab1055 ab1060 ab1065 ab1070 ab1075 ab1080 ab1085
ab1090
ab1095 ab1100 ab1105 ab1110 ab1115 ab1120 ab1125 ab1130 ab1135 ab1140
ab1145
ab1150 ab1155 ab1160 ab1165 ab1170 ab1175 ab1180 ab1185 ab1190 ab1195
ab1200
ab1205 ab1210 ab1215 ab1220 ab1225 ab1230 ab1235 ab1240 ab1245 ab1250
ab1255
ab1260 ab1265 ab1270 ab1275 ab1280 ab1285 ab1290 ab1295 ab1300 ab1305
ab1310
ab1315 ab1320 ab1325 ab1330 ab1335 ab1340 ab1345 ab1350 ab1355 ab1360
ab1365
ab1370 ab1375 ab1380 ab1385 ab1390 ab1395 ab1400 ab1405 ab1410 ab1415
ab1420
ab1425 ab1430 ab1435 ab1440 ab1445 ab1450 ab1455 ab1460 ab1465 ab1470
ab1475
ab1480 ab1485 ab1490 ab1495 ab1500 ab1505 ab1510 ab1515 ab1520 ab1525
ab1530
ab1535 ab1540 ab1545 ab1550 ab1555 ab1560 ab1565 ab1570 ab1575 ab1580
ab1585
ab1590 ab1595 ab1600 ab1605 ab1610 ab1615 ab1620 ab1625 ab1630 ab1635
ab1640
ab1645 ab1650 ab1655 ab1660 ab1665 ab1670 ab1675 ab1680 ab1685 ab1690
ab1695
ab1700 ab800 ab805 ab810 ab815 ab820 ab825 ab830 ab835 ab840 ab845 ab850
ab855 ab860 ab865 ab870 ab875 ab880 ab885 ab890 ab895 ab900 ab905 ab910
ab915 ab920 ab925 ab930 ab935 ab940 ab945 ab950 ab955 ab960 ab965 ab970
ab975 ab980 ab985 ab990 ab995
/RESIDUALS DURBIN .
```

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	AB995, AB820, AB1450, AB800, AB950, AB1385 ^a , AB1100 ^a		Enter
2		AB1100	Backward (criterion: Probability of F-to-remove >= .100).
3		AB1450	Backward (criterion: Probability of F-to-remove >= .100).
4		AB1385	Backward (criterion: Probability of F-to-remove >= .100).

a. Tolerance = .000 limits reached.

b. Dependent Variable: TSS

Model Summary^a

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.867 ^a	.751	.706	1.4679
2	.867 ^b	.751	.712	1.4540
3	.866 ^c	.750	.716	1.4438
4	.865 ^d	.748	.719	1.4360

Model Summary^a

Change Statistics						
Model	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.751	16.773	9	50	.000	
2	.000	.038	1	52	.845	
3	-.001	.274	1	53	.603	
4	-.002	.428	1	54	.516	1.304

a. Predictors: (Constant), AB995, AB820, AB1450, AB800, AB950, AB1385, AB1100

b. Predictors: (Constant), AB995, AB820, AB1450, AB800, AB950, AB1385

c. Predictors: (Constant), AB995, AB820, AB800, AB950, AB1385

d. Predictors: (Constant), AB995, AB820, AB800, AB950

e. Dependent Variable: TSS

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	325.299	7	36.144	16.773	.000 ^a
	Residual	107.743	52	2.155		
	Total	433.042	59			
2	Regression	325.216	6	40.652	19.228	.000 ^b
	Residual	107.826	53	2.114		
	Total	433.042	59			
3	Regression	324.637	5	46.377	22.246	.000 ^c
	Residual	108.404	54	2.085		
	Total	433.042	59			
4	Regression	323.744	4	53.957	26.165	.000 ^d
	Residual	109.298	55	2.062		
	Total	433.042	59			

a. Predictors: (Constant), AB995, AB820, AB1450, AB800, AB950, AB1385, AB1100

b. Predictors: (Constant), AB995, AB820, AB1450, AB800, AB950, AB1385

c. Predictors: (Constant), AB995, AB820, AB800, AB950, AB1385

d. Predictors: (Constant), AB995, AB820, AB800, AB950

e. Dependent Variable: TSS

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	12.749	.196		65.039	.000
	AB1100	-13.325	68.006	-.1210	-.196	.845
	AB1385	64.276	81.481	.4826	.789	.434
	AB1450	-21.731	42.592	-.1602	-.510	.612
	AB800	-79.407	31.052	-.10449	-2.557	.014
	AB820	81.818	30.101	.11370	2.718	.009
	AB950	135.440	48.373	.11466	2.800	.007
	AB995	-75.012	61.622	-.6255	-1.217	.229
2	(Constant)	12.753	.193		66.038	.000
	AB1385	61.890	79.803	.4647	.776	.442
	AB1450	-22.053	42.157	-.1626	-.523	.603
	AB800	-76.493	27.002	-.10066	-2.833	.007
	AB820	79.871	28.144	.11099	2.838	.007
	AB950	136.282	47.725	.11537	2.856	.006
	AB995	-84.817	35.620	-.7072	-2.381	.021
3	(Constant)	12.759	.191		66.650	.000
	AB1385	25.569	39.064	.1920	.655	.516
	AB800	-86.863	18.207	-.11430	-4.771	.000
	AB820	91.195	17.861	.12673	5.106	.000
	AB950	151.049	38.211	.12787	3.953	.000
	AB995	-78.504	33.278	-.6546	-2.359	.022
4	(Constant)	12.753	.190		67.053	.000
	AB800	-96.377	10.905	-.12682	-8.838	.000
	AB820	99.193	12.955	.13784	7.657	.000
	AB950	146.844	37.464	.12431	3.920	.000
	AB995	-77.930	33.086	-.6498	-2.355	.022

Coefficients^a

Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	AB1100	.389	-.028	-.014	.000	7666.873
	AB1385	.302	.111	.056	.000	7522.190
	AB1450	.268	-.072	-.036	.001	1980.932
	AB800	.175	-.340	-.180	.000	3355.353
	AB820	.220	.359	.192	.000	3516.200
	AB950	.361	.368	.198	.000	3370.081
2	(Constant)					
	AB1385	.302	.108	.054	.000	7354.097
	AB1450	.268	-.073	-.037	.001	1977.990
	AB800	.175	-.369	-.198	.000	2585.908
	AB820	.220	.369	.198	.000	3132.990
	AB950	.361	.371	.200	.000	3343.503
	AB995	.347	-.316	-.166	.001	1806.785
3	(Constant)					
	AB1385	.302	.090	.045	.001	1787.122
	AB800	.175	-.552	-.331	.001	1192.316
	AB820	.220	.578	.354	.001	1279.618
	AB950	.361	.481	.274	.000	2173.697
4	(Constant)					
	AB800	.175	-.772	-.610	.002	432.371
	AB820	.220	.725	.528	.001	680.568
	AB950	.361	.474	.270	.000	2112.264
	AB995	.347	-.308	-.163	.001	1598.229

a. Dependent Variable: TSS

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index
1	1	8.064	1.000
	2	1.003	2.835
	3	.848	3.084
	4	7.726E-02	10.216
	5	5.122E-03	39.679
	6	1.957E-03	64.190
	7	4.194E-04	138.664
	8	2.478E-04	180.377
2	1	7.083	1.000
	2	1.003	2.658
	3	.847	2.893
	4	6.085E-02	10.789
	5	4.823E-03	38.324
	6	1.748E-03	63.651
	7	3.816E-04	136.238
3	1	6.232	1.000
	2	1.000	2.497
	3	.710	2.962
	4	5.344E-02	10.799
	5	3.157E-03	44.430
	6	9.906E-04	79.317
4	1	5.408	1.000
	2	.998	2.328
	3	.543	3.156
	4	4.768E-02	10.651
	5	1.722E-03	56.044

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions				
		(Constant)	AB1100	AB1385	AB1450	AB800
1	1	.00	.00	.00	.00	.00
	2	.89	.00	.00	.00	.00
	3	.04	.00	.00	.00	.00
	4	.00	.00	.00	.00	.00
	5	.00	.00	.00	.03	.01
	6	.03	.00	.01	.04	.02
	7	.02	.02	.01	.12	.05
	8	.00	.02	.04	.04	.00
2	1	.00		.00	.00	.00
	2	.91		.00	.00	.00
	3	.04		.00	.00	.00
	4	.01		.00	.00	.00
	5	.00		.00	.03	.01
	6	.03		.02	.04	.04
	7	.02		.00	.13	.03
3	1	.00		.00		.00
	2	.94		.00		.00
	3	.01		.00		.00
	4	.01		.00		.00
	5	.01		.05		.05
	6	.03		.00		.06
4	1	.00				.00
	2	.95				.00
	3	.00				.00
	4	.01				.01
	5	.01				.50

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions		
		AB820	AB950	AB995
1	1	.00	.00	.00
	2	.00	.00	.00
	3	.00	.00	.00
	4	.00	.00	.00
	5	.00	.01	.00
	6	.03	.01	.01
	7	.03	.06	.16
	8	.01	.49	.01
2	1	.00	.00	.00
	2	.00	.00	.00
	3	.00	.00	.00
	4	.00	.00	.00
	5	.00	.01	.01
	6	.05	.00	.03
	7	.02	.03	.70
3	1	.00	.00	.00
	2	.00	.00	.00
	3	.00	.00	.00
	4	.00	.00	.00
	5	.05	.02	.01
	6	.12	.00	.26
4	1	.00	.00	.00
	2	.00	.00	.00
	3	.00	.00	.00
	4	.00	.00	.00
	5	.29	.04	.00

a. Dependent Variable: TSS

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	8.1838	17.8657	12.6383	2.3425	60
Residual	-3.1375	2.8977	5.329E-16	1.3611	60
Std. Predicted Value	-1.902	2.232	.000	1.000	60
Std. Residual	-2.185	2.018	.000	.948	60

a. Dependent Variable: TSS

* Weight Estimation.

TSET NEWVAR=NONE.

WLS tss WITH ab995 ab950 ab820 ab800 ab1660 ab915

/SOURCE res1_abs

/POWER -2 TO 2 BY 0.5

/CONSTANT

/PRINT BEST.

Weighted Least Squares

MODEL: MOD_2.

Source variable.. RES1_ABS

Dependent variable.. TSS

Log-likelihood Function = -156.757233	POWER value = -2.000
Log-likelihood Function = -142.405510	POWER value = -1.500
Log-likelihood Function = -128.601954	POWER value = -1.000
Log-likelihood Function = -115.522455	POWER value = -.500
Log-likelihood Function = -103.349769	POWER value = .000
Log-likelihood Function = -92.361944	POWER value = .500
Log-likelihood Function = -82.999229	POWER value = 1.000
Log-likelihood Function = -75.868653	POWER value = 1.500
Log-likelihood Function = -71.578148	POWER value = 2.000

The Value of POWER Maximizing Log-likelihood Function = 2.000

Source variable.. RES1_ABS POWER value = 2.000

Dependent variable.. TSS

Listwise Deletion of Missing Data

Multiple R .96725
 R Square .93531
 Adjusted R Square .93138
 Standard Error 1.35338

Analysis of Variance:

	DF	Sum of Squares	Mean Square
Regression	4	1501.3969	250.23281
Residuals	55	53.9539	1.01800

F = 245.80894 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
AB995	-32.158661	12.592761	-7.856747	-4.517	.0000
AB950	41.705160	16.758456	17.930343	7.642	.0000
AB820	76.104304	5.238717	39.067378	17.811	.0000
AB800	-84.120675	4.420299	-35.457680	-20.602	.0000
(Constant)	12.827971	.065422		196.020	.0000

Log-likelihood Function = -71.578148

```

REGRESSION
  /MISSING LISTWISE
  /REGWGT=wgt_1
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT tss
  /METHOD=BACKWARD ab995 ab950 ab800 ab820
  /RESIDUALS DURBIN .

```

Regression

Variables Entered/Removed^{b,c}

Model	Variables Entered	Variables Removed	Method
1	AB820, AB995, AB950 ^a AB800		Enter

a. All requested variables entered.

b. Dependent Variable: TSS

c. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_2 RES1_ABS** -2.000

Model Summary^{b,c}

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.967 ^a	.935	.931	1.3534

Model Summary^{b,c}

Change Statistics						
Model	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.935	198.523	4	55	.000	1.998

a. Predictors: (Constant), AB820, AB995, AB950, AB800

b. Dependent Variable: TSS

c. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_2 RES1_ABS** -2.000

ANOVA^{b,c}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1454.603	4	363.651	198.523	.000 ^a
	Residual	100.748	55	1.832		
	Total	1555.351	59			

a. Predictors: (Constant), AB820, AB995, AB950, AB800

b. Dependent Variable: TSS

c. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_2 RES1_ABS** -2.000

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	12.836	.087		147.924	.000
	AB995	-32.159	8.410	-.442	-3.824	.000
	AB950	41.705	8.428	.5839	4.949	.000
	AB800	-84.120	3.807	-.32.753	-22.096	.000
	AB820	76.164	3.494	.31.890	21.798	.000

Coefficients^{a,b}

Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	AB995	.555	-.458	-.131	.001	1145.807
	AB950	.549	.555	.170	.001	1182.146
	AB800	.424	-.948	-.758	.001	1865.629
	AB820	.442	.947	.748	.001	1817.431

a. Dependent Variable: TSS

b. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_2 RES1_ABS** -2.000

Collinearity Diagnostics^{a,b}

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	AB995	AB950	AB800	AB820
1	1	3.836	1.000	.00	.00	.00	.00	.00
	2	1.007	1.952	.81	.00	.00	.00	.00
	3	.157	4.948	.05	.00	.00	.00	.00
	4	5.978E-04	80.101	.10	.54	.53	.11	.12
	5	2.301E-04	129.113	.04	.46	.47	.89	.88

a. Dependent Variable: TSS

b. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_2 RES1_ABS** -2.000

Residuals Statistics^{b,c}

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	8.3385	17.3370	12.7180	2.3826	60
Residual	-4.7150	2.7600	-7.9714E-02	1.4937	60
Std. Predicted Value ^a					0
Std. Residual ^a					0

a. Not computed for Weighted Least Squares regression.

b. Dependent Variable: TSS

c. Weighted Least Squares Regression - Weighted by Weight for TSS from WLS, MOD_2 RES1_ABS** -2.000

EXAMINE

```

VARIABLES=res_3
/PLOT NPLOT
/STATISTICS DESCRIPTIVES
/CINTERVAL 95
/MISSING LISTWISE
/NOTOTAL.

```

Explore

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Unstandardized Residual	60	100.0%	0	.0%	60	100.0%

Descriptives

			Statistic	Std. Error
Unstandardized Residual	Mean		-7.9713673E-02	.1928361
	95% Confidence Interval for Mean	Lower Bound	-.4655778	
		Upper Bound	.3061505	
	5% Trimmed Mean		-1.0044722E-02	
	Median		-1.6380087E-02	
	Variance		2.231	
	Std. Deviation		1.4937021	
	Minimum		-2.07150	
	Maximum		2.17600	
	Range		4.24750	
	Interquartile Range		2.0069189	
	Skewness		-.643	.309
	Kurtosis		.729	.608

Tests of Normality

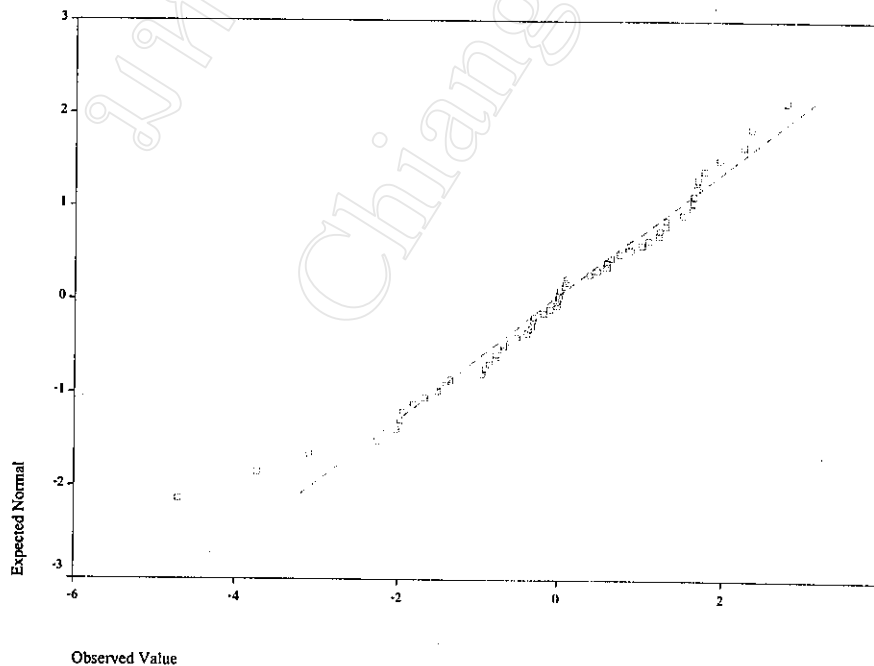
Kolmogorov-Smirnov ^a			
	Statistic	df	Sig.
Unstandardized Residual	.076	60	.200*

*. This is a lower bound of the true significance.

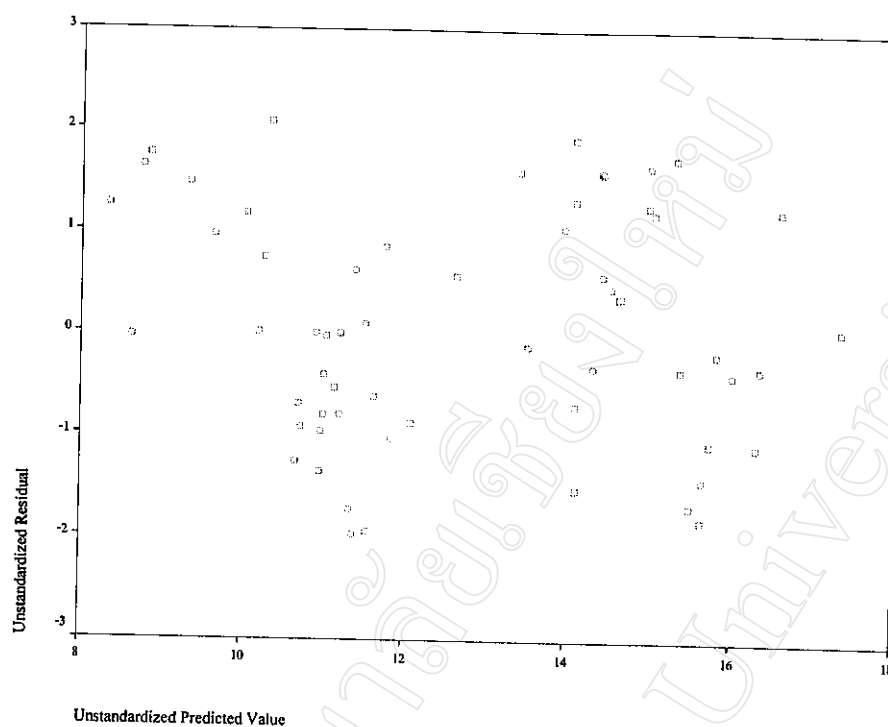
a. Lilliefors Significance Correction

Unstandardized Residual

Normal Q-Q Plot of Unstandardized Residual



Graph



DESCRIPTIVES
VARIABLES=press3
/STATISTICS=SUM .

Descriptives

Descriptive Statistics

	N	Sum
PRESS3	60	170.37
Valid N (listwise)	60	

วิเคราะห์ความสัมพันธ์ระหว่าง TSS ที่พยากรณ์ได้
กับ TSS ที่วัดได้ทางเคมี

GET
FILE='C:\pna\data\dif_da2v.sav'.
EXECUTE .
CORRELATIONS
/VARIABLES=tss tss_pm
/PRINT=TWOTAIL NOSIG
/MISSING=PAIRWISE .

Correlations

Correlations

		TSS	TSS_PM
Pearson Correlation	TSS	1.000	.663**
	TSS_PM	.663**	1.000
Sig. (2-tailed)	TSS	.	.000
	TSS_PM	.000	.
N	TSS	60	60
	TSS_PM	60	60

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

REGRESSION

```

/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT tss_pm
/METHOD=ENTER tss .

```

Regression

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	TSS ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: TSS_PM

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.663 ^a	.440	.430	1.0071

a. Predictors: (Constant), TSS

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46.186	1	46.186	45.540	.000 ^a
	Residual	58.823	58	1.014		
	Total	105.009	59			

a. Predictors: (Constant), TSS

b. Dependent Variable: TSS_PM

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.754	.787		9.854	.000
	TSS	.403	.060	.663	6.748	.000

a. Dependent Variable: TSS_PM

* Weight Estimation.
TSET NEWVAR=NONE.

```

WLS tss_pm WITH tss
/SOURCE res6_abs
/POWER -2 TO 2 BY 0.5
/CONSTANT
/PRINT BEST.

```

Weighted Least Squares

MODEL: MOD_4.

Source variable.. RES6_ABS

Dependent variable.. TSS_PM

Log-likelihood Function = -154.052537	POWER value = -2.000
Log-likelihood Function = -135.545663	POWER value = -1.500
Log-likelihood Function = -117.542160	POWER value = -1.000
Log-likelihood Function = -100.410510	POWER value = -.500
Log-likelihood Function = -84.559177	POWER value = .000
Log-likelihood Function = -70.448489	POWER value = .500
Log-likelihood Function = -58.580911	POWER value = 1.000
Log-likelihood Function = -49.579166	POWER value = 1.500
Log-likelihood Function = -44.835822	POWER value = 2.000

The Value of POWER Maximizing Log-likelihood Function = 2.000

Source variable.. RES6_ABS

POWER value = 2.000

Dependent variable.. TSS_PM

Listwise Deletion of Missing Data

Multiple R	.99124
R Square	.98256
Adjusted R Square	.98226
Standard Error	1.00047

Analysis of Variance:

	DF	Sum of Squares	Mean Square
Regression	1	3270.4261	3270.4261
Residuals	58	58.0548	1.0009

F = 3267.34178 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
TSS	.398397	.006970	.991241	57.161	.0000
(Constant)	7.821587	.094391		82.864	.0000

Log-likelihood Function = -44.835822

REGRESSION

/MISSING LISTWISE

/REGWGT=wgt_4

/STATISTICS COEFF OUTS R ANOVA

```

/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT tss_pm
/METHOD=ENTER tss .

```

Regression

Variables Entered/Removed^{a,c}

Model	Variables Entered	Variables Removed	Method
1	TSS ^a		Enter

a. All requested variables entered.

b. Dependent Variable: TSS_PM

c. Weighted Least Squares Regression - Weighted by Weight for TSS_PM from WLS, MOD_1 RES6_ABS** -2.000

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.991 ^a	.983	.982	1.0005

a. Predictors: (Constant), TSS

ANOVA^{b,c}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3270.426	1	3270.426	3267.342	.000 ^a
	Residual	58.055	58	1.001		
	Total	3328.481	59			

a. Predictors: (Constant), TSS

b. Dependent Variable: TSS_PM

c. Weighted Least Squares Regression - Weighted by Weight for TSS_PM from WLS, MOD_1 RES6_ABS** -2.000

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.822	.094		82.864	.000
	TSS	.398	.007	.991	57.161	.000

a. Dependent Variable: TSS_PM

b. Weighted Least Squares Regression - Weighted by Weight for TSS_PM from WLS, MOD_1 RES6_ABS** -2.000

Correlations

Correlations			
		TSS	TSS_PM
Pearson Correlation	TSS	1.000	.663**
	TSS_PM	.663**	1.000
Sig. (2-tailed)	TSS	.	.000
	TSS_PM	.000	.
N	TSS	60	60
	TSS_PM	60	60

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

REGRESSION

```

/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT tss_pm
/METHOD=ENTER tss

```

Regression

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	TSS ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: TSS_PM

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.663 ^a	.440	.430	1.0071

a. Predictors: (Constant), TSS

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46.186	1	46.186	45.540	.000 ^a
	Residual	58.823	58	1.014		
	Total	105.009	59			

a. Predictors: (Constant), TSS

b. Dependent Variable: TSS_PM

Coefficients ^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.754	.787		9.854	.000
	TSS	.403	.060	.663	6.748	.000

^a. Dependent Variable: TSS_PM

* Weight Estimation.
TSET NEWVAR=NONE.
WLS tss_pm WITH tss
/SOURCE res6_abs
/POWER -2 TO 2 BY 0.5
/CONSTANT
/PRINT BEST.

Weighted Least Squares

MODEL: MOD_4.

Source variable.. RES6_ABS Dependent variable.. TSS_PM

Log-likelihood Function = -154.052537	POWER value = -2.000
Log-likelihood Function = -135.545663	POWER value = -1.500
Log-likelihood Function = -117.542160	POWER value = -1.000
Log-likelihood Function = -100.410510	POWER value = -.500
Log-likelihood Function = -84.559177	POWER value = .000
Log-likelihood Function = -70.448489	POWER value = .500
Log-likelihood Function = -58.580911	POWER value = 1.000
Log-likelihood Function = -49.579166	POWER value = 1.500
Log-likelihood Function = -44.835822	POWER value = 2.000

The Value of POWER Maximizing Log-likelihood Function = 2.000

Source variable.. RES6_ABS POWER value = 2.000

Dependent variable.. TSS_PM

Listwise Deletion of Missing Data

Multiple R .99124
R Square .98256
Adjusted R Square .98226
Standard Error 1.00047

Analysis of Variance:

	DF	Sum of Squares	Mean Square
Regression	1	3270.4261	3270.4261
Residuals	58	58.0548	1.0009

F = 3267.34178 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
TSS	.398397	.006970	.991241	57.161	.0000

(Constant) 7.821587 .094391 82.864 .0000

Log-likelihood Function = -44.835822

REGRESSION

/MISSING LISTWISE
/REGWGT=wgt_4
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT tss_pm
/METHOD=ENTER tss

Regression

Variables Entered/Removed^{b,c}

Model	Variables Entered	Variables Removed	Method
1	TSS ^a		Enter

a. All requested variables entered.

b. Dependent Variable: TSS_PM

c. Weighted Least Squares Regression - Weighted by Weight for TSS_PM from WLS, MOD_1 RES6_ABS** -2.000

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.991 ^a	.983	.982	1.0005

a. Predictors: (Constant), TSS

ANOVA^{b,c}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3270.426	1	3270.426	3267.342	.000 ^a
	Residual	58.055	58	1.001		
	Total	3328.481	59			

a. Predictors: (Constant), TSS

b. Dependent Variable: TSS_PM

c. Weighted Least Squares Regression - Weighted by Weight for TSS_PM from WLS, MOD_1 RES6_ABS** -2.000

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardize ^d Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.822	.094		82.864	.000
	TSS	.398	.007	.991	57.161	.000

a. Dependent Variable: TSS_PM

b. Weighted Least Squares Regression - Weighted by Weight for TSS_PM from WLS, MOD_1 RES6_ABS** -2.000

REGRESSION

```

/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT tss_dif
/METHOD=STEPWISE ab1000 ab1005 ab1010 ab1015 ab1020 ab1025 ab1030 ab1035
ab1040 ab1045 ab1050 ab1055 ab1060 ab1065 ab1070 ab1075 ab1080 ab1085 ab1090
ab1095 ab1100 ab1105 ab1110 ab1115 ab1120 ab1125 ab1130 ab1135 ab1140 ab1145
ab1150 ab1155 ab1160 ab1165 ab1170 ab1175 ab1180 ab1185 ab1190 ab1195 ab1200
ab1205 ab1210 ab1215 ab1220 ab1225 ab1230 ab1235 ab1240 ab1245 ab1250 ab1255
ab1260 ab1265 ab1270 ab1275 ab1280 ab1285 ab1290 ab1295 ab1300 ab1305 ab1310
ab1315 ab1320 ab1325 ab1330 ab1335 ab1340 ab1345 ab1350 ab1355 ab1360 ab1365
ab1370 ab1375 ab1380 ab1385 ab1390 ab1395 ab1400 ab1405 ab1410 ab1415 ab1420
ab1425 ab1430 ab1435 ab1440 ab1445 ab1450 ab1455 ab1460 ab1465 ab1470 ab1475
ab1480 ab1485 ab1490 ab1495 ab1500 ab1505 ab1510 ab1515 ab1520 ab1525 ab1530
ab1535 ab1540 ab1545 ab1550 ab1555 ab1560 ab1565 ab1570 ab1575 ab1580 ab1585
ab1590 ab1595 ab1600 ab1605 ab1610 ab1615 ab1620 ab1625 ab1630 ab1635 ab1640
ab1645 ab1650 ab1655 ab1660 ab1665 ab1670 ab1675 ab1680 ab1685 ab1690 ab1695
ab1700 ab800 ab805 ab810 ab815 ab820 ab825 ab830 ab835 ab840 ab845 ab850
ab855 ab860 ab865 ab870 ab875 ab880 ab885 ab890 ab895 ab900 ab905 ab910
ab915 ab920 ab925 ab930 ab935 ab940 ab945 ab950 ab955 ab960 ab965 ab970
ab975 ab980 ab985 ab990 ab995
/RESIDUALS DURBIN
/SAVE PRED RESID DRESID .

```

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	AB1090		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	AB1045		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	AB865		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: TSS_DIF

Model Summary^d

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.471 ^a	.222	.209	4.1163
2	.792 ^b	.627	.614	2.8752
3	.826 ^c	.683	.666	2.6755

Model Summary^d

Model	Change Statistics					
	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.222	16.547	1	58	.000	
2	.405	61.882	1	57	.000	
3	.056	9.826	1	56	.003	2.600

a. Predictors: (Constant), AB1090

b. Predictors: (Constant), AB1090, AB1045

c. Predictors: (Constant), AB1090, AB1045, AB865

d. Dependent Variable: TSS_DIF

ANOVA^d

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	280.379	1	280.379	16.547	.000 ^a
	Residual	982.770	58	16.944		
	Total	1263.149	59			
2	Regression	791.943	2	395.972	47.899	.000 ^b
	Residual	471.205	57	8.267		
	Total	1263.149	59			
3	Regression	862.283	3	287.428	40.153	.000 ^c
	Residual	400.865	56	7.158		
	Total	1263.149	59			

a. Predictors: (Constant), AB1090

b. Predictors: (Constant), AB1090, AB1045

c. Predictors: (Constant), AB1090, AB1045, AB865

d. Dependent Variable: TSS_DIF

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error				Zero-order	Partial	Part
1	(Constant)	-4.809E-02	.532		-.090	.928			
	AB1090	8.673	2.132	.471	4.068	.000	.471	.471	.471
2	(Constant)	-5.601E-02	.372		-.151	.881			
	AB1090	797.584	100.298	.43.326	7.952	.000	.471	.725	.643
	AB1045	-788.231	100.201	-.42.859	-7.867	.000	.462	-.721	-.636
3	(Constant)	-8.652E-02	.346		-.250	.803			
	AB1090	1031.037	119.403	.56.007	8.635	.000	.471	.756	.650
	AB1045	-1037.192	122.481	-.56.396	-8.468	.000	.462	-.749	-.637
	AB865	12.486	3.983	.909	3.135	.003	.363	.386	.236

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	AB1090	1.000	1.000
2	(Constant)		
	AB1090	.000	4535.668
	AB1045	.000	4535.668
3	(Constant)		
	AB1090	.000	7423.573
	AB1045	.000	7826.402
	AB865	.067	14.825

a. Dependent Variable: TSS_DIF

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	AB1090	AB1045	AB865
1	1	1.049	1.000	.48	.48		
	2	.951	1.051	.52	.52		
2	1	2.005	1.000	.00	.00	.00	
	2	.995	1.419	1.00	.00	.00	
	3	1.100E-04	135.016	.00	1.00	1.00	
3	1	2.926	1.000	.00	.00	.00	.01
	2	.997	1.713	1.00	.00	.00	.00
	3	7.747E-02	6.146	.00	.00	.00	.59
	4	6.541E-05	211.498	.00	1.00	1.00	.41

a. Dependent Variable: TSS_DIF

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-7.3121	8.1925	-.1550	3.8230	60
Std. Predicted Value	-1.872	2.184	.000	1.000	60
Standard Error of Predicted Value	.3603	2.1500	.6473	.2433	60
Adjusted Predicted Value	-7.3428	8.3645	-2.6868E-02	3.9263	60
Residual	-5.4463	5.3236	8.386E-15	2.6066	60
Std. Residual	-2.036	1.990	.000	.974	60
Stud. Residual	-2.953	2.072	-.017	1.049	60
Deleted Residual	-13.2740	5.7721	-.1281	3.1966	60
Stud. Deleted Residual	-3.185	2.137	-.022	1.072	60
Mahal. Distance	.087	37.116	2.950	4.737	60
Cook's Distance	.000	3.974	.081	.512	60
Centered Leverage Value	.001	.629	.050	.080	60

a. Dependent Variable: TSS_DIF

```

COMPUTE res1_abs = ABS(res_1) .
EXECUTE .
EXAMINE
  VARIABLES=res_1
  /PLOT NPLOT
  /STATISTICS DESCRIPTIVES
  /CINTERVAL 95
  /MISSING LISTWISE

```

/NOTOTAL.

Explore

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Unstandardized Residual	60	100.0%	0	.0%	60	100.0%

Descriptives

			Statistic	Std. Error
Unstandardized Residual	Mean		8.260059E-15	.3365096
	95% Confidence Interval for Mean	Lower Bound	-.6733542	
		Upper Bound	.6733542	
	5% Trimmed Mean		1.115688E-02	
	Median		.1499198	
	Variance		6.794	
	Std. Deviation		2.6065924	
	Minimum		-5.44634	
	Maximum		5.32358	
	Range		10.76992	
	Interquartile Range		3.6832474	
	Skewness		-.158	.309
	Kurtosis		-.500	.608

Tests of Normality

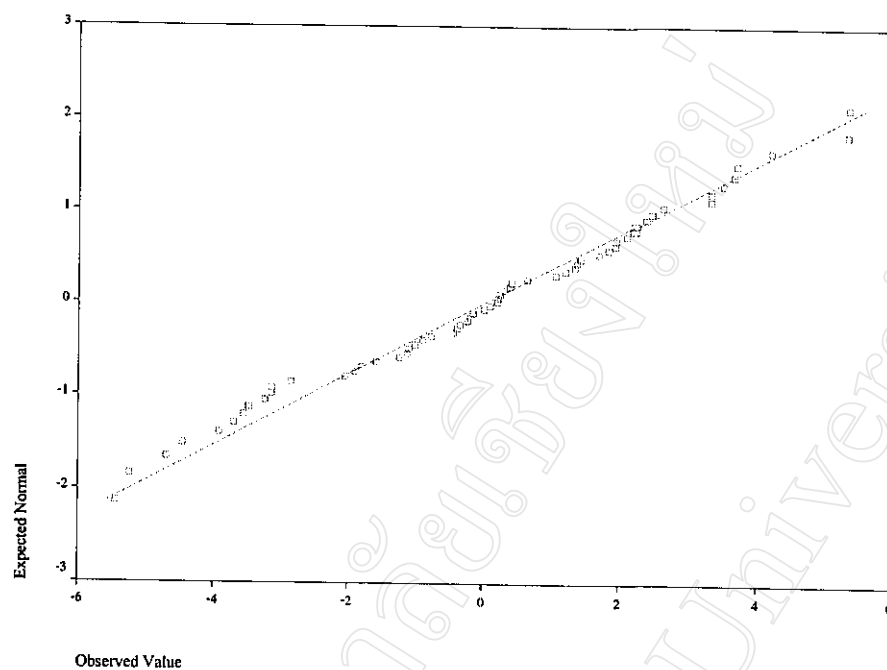
	Kolmogorov-Smirnov ^a		
	Statistic	df	Sig.
Unstandardized Residual	.070	60	.200*

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Unstandardized Residual

Normal Q-Q Plot of Unstandardized Residual



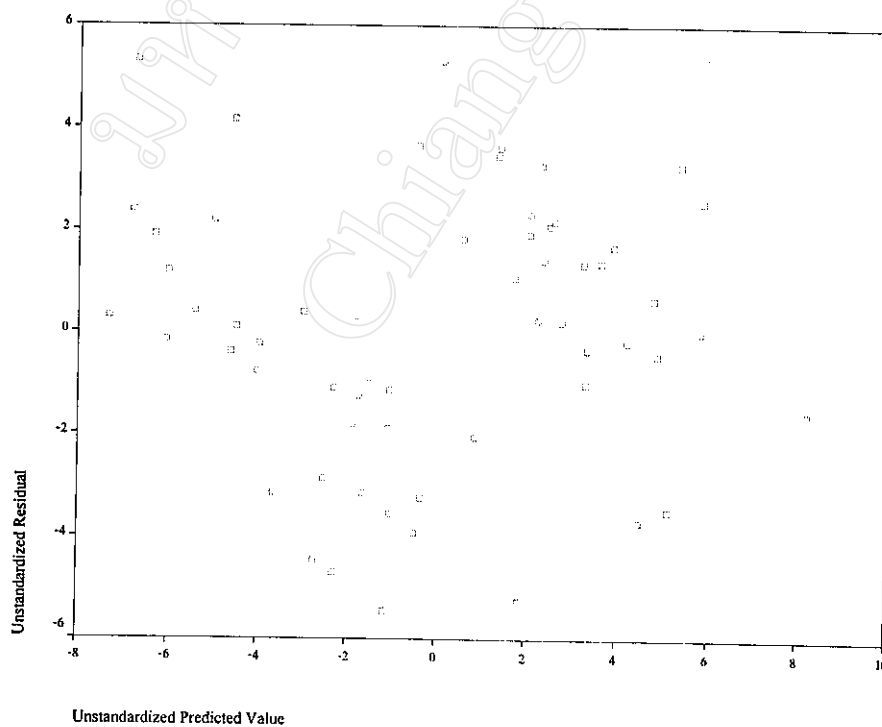
GRAPH

```

/SCATTERPLOT(BIVAR)=pre_1 WITH res_1
/MISSING=LISTWISE.

```

Graph



*.Weight Estimation.

```

WLS tss_dif WITH ab865 ab1045 ab1090
/SOURCE res1_abs

```

```

/POWER -2 TO 2 BY 0.5
/CONSTANT
/SAVE WEIGHT
/PRINT BEST.

```

Weighted Least Squares

MODEL: MOD_1.

Source variable.. RES1_ABS	Dependent variable.. TSS_DIF
Log-likelihood Function = -211.825521	POWER value = -2.000
Log-likelihood Function = -197.487762	POWER value = -1.500
Log-likelihood Function = -184.608539	POWER value = -1.000
Log-likelihood Function = -157.817566	POWER value = -.500
Log-likelihood Function = -142.184510	POWER value = .000
Log-likelihood Function = -127.496398	POWER value = .500
Log-likelihood Function = -174.956681	POWER value = 1.000
Log-likelihood Function = -189.987394	POWER value = 1.500
Log-likelihood Function = -210.446732	POWER value = 2.000

The Value of POWER Maximizing Log-likelihood Function = .500

Source variable.. RES1_ABS POWER value = .500

Dependent variable.. TSS_DIF

Listwise Deletion of Missing Data

Multiple R	.92235
R Square	.85073
Adjusted R Square	.84273
Standard Error	1.96179

Analysis of Variance:

	DF	Sum of Squares	Mean Square
Regression	3	1228.3076	409.43586
Residuals	56	215.5225	3.84862

F = 106.38523 Signif F = .0000

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
AB865	12.621936	3.445284	.797334	3.664	.0006
AB1045	-1065.894721	86.798700	-57.184353	-12.280	.0000
AB1090	1059.170412	84.110734	57.032590	12.593	.0000
(Constant)	-.059731	.241129		-.248	.8053

Log-likelihood Function = -127.496398

The following new variables are being created:

Name	Label
------	-------

```

WGT_1      Weight for TSS_DIF from WLS, MOD_1  RES1_ABS**  -.500

FORMATS wgt_2 (F11.5).
FORMATS wgt_2 (F11.5).
VARIABLE LABELS wgt_2 "Weight for TSS_DIF from WLS, MOD_1  RES1_ABS**  -.500".
VALUE LABELS wgt_2
.
MISSING VALUES wgt_2 (.).
REGRESSION
  /MISSING LISTWISE
  /REGWGT=wgt_1
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT tss_dif
  /METHOD=STEPWISE ab1000 ab1005 ab1010 ab1015 ab1020 ab1025 ab1030 ab1035
ab1040 ab1045 ab1050 ab1055 ab1060 ab1065 ab1070 ab1075 ab1080 ab1085 ab1090
ab1095 ab1100 ab1105 ab1110 ab1115 ab1120 ab1125 ab1130 ab1135 ab1140 ab1145
ab1150 ab1155 ab1160 ab1165 ab1170 ab1175 ab1180 ab1185 ab1190 ab1195 ab1200
ab1205 ab1210 ab1215 ab1220 ab1225 ab1230 ab1235 ab1240 ab1245 ab1250 ab1255
ab1260 ab1265 ab1270 ab1275 ab1280 ab1285 ab1290 ab1295 ab1300 ab1305 ab1310
ab1315 ab1320 ab1325 ab1330 ab1335 ab1340 ab1345 ab1350 ab1355 ab1360 ab1365
ab1370 ab1375 ab1380 ab1385 ab1390 ab1395 ab1400 ab1405 ab1410 ab1415 ab1420
ab1425 ab1430 ab1435 ab1440 ab1445 ab1450 ab1455 ab1460 ab1465 ab1470 ab1475
ab1480 ab1485 ab1490 ab1495 ab1500 ab1505 ab1510 ab1515 ab1520 ab1525 ab1530
ab1535 ab1540 ab1545 ab1550 ab1555 ab1560 ab1565 ab1570 ab1575 ab1580 ab1585
ab1590 ab1595 ab1600 ab1605 ab1610 ab1615 ab1620 ab1625 ab1630 ab1635 ab1640
ab1645 ab1650 ab1655 ab1660 ab1665 ab1670 ab1675 ab1680 ab1685 ab1690 ab1695
ab1700 ab800 ab805 ab810 ab815 ab820 ab825 ab830 ab835 ab840 ab845 ab850
ab855 ab860 ab865 ab870 ab875 ab880 ab885 ab890 ab895 ab900 ab905 ab910
ab915 ab920 ab925 ab930 ab935 ab940 ab945 ab950 ab955 ab960 ab965 ab970
ab975 ab980 ab985 ab990 ab995
  /RESIDUALS DURBIN
  /SAVE PRED RESID DRESID .

```

Regression

Variables Entered/Removed^{a, b}

Model	Variables Entered	Variables Removed	Method
1	AB1090		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	AB1045		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	AB865		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: TSS_DIF

b. Weighted Least Squares Regression - Weighted by Weight for TSS_DIF from WLS, MOD_1 RES1_ABS** -.500

Model Summary^{d,e}

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.613 ^a	.376	.365	3.9405
2	.903 ^b	.815	.808	2.1650
3	.922 ^c	.851	.843	1.9618

Model Summary^{d,e}

Change Statistics						
Model	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.376	34.984	1	58	.000	
2	.439	135.137	1	57	.000	
3	.036	13.422	1	56	.001	2.548

a. Predictors: (Constant), AB1090

b. Predictors: (Constant), AB1090, AB1045

c. Predictors: (Constant), AB1090, AB1045, AB865

d. Dependent Variable: TSS_DIF

e. Weighted Least Squares Regression - Weighted by Weight for TSS_DIF from WLS, MOD_1 RES1_ABS** -.500

ANOVA^{d,e}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	543.222	1	543.222	34.984	.000 ^a
	Residual	900.608	58	15.528		
	Total	1443.830	59			
2	Regression	1176.653	2	588.327	125.515	.000 ^b
	Residual	267.177	57	4.687		
	Total	1443.830	59			
3	Regression	1228.308	3	409.436	106.385	.000 ^c
	Residual	215.522	56	3.849		
	Total	1443.830	59			

a. Predictors: (Constant), AB1090

b. Predictors: (Constant), AB1090, AB1045

c. Predictors: (Constant), AB1090, AB1045, AB865

d. Dependent Variable: TSS_DIF

e. Weighted Least Squares Regression - Weighted by Weight for TSS_DIF from WLS, MOD_1 RES1_ABS** -.500

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	.264	.481		.548	.586			
	AB1090	11.391	1.926	.613	5.915	.000	.613	.613	.613
2	(Constant)	1.896E-02	.265		.072	.943			
	AB1090	874.116	74.221	.47.068	11.777	.000	.613	.842	.671
	AB1045	-865.986	74.494	-.46.459	-11.625	.000	.604	-.839	-.662
3	(Constant)	-5.973E-02	.241		-.248	.805			
	AB1090	1059.170	84.111	.57.033	12.593	.000	.613	.860	.650
	AB1045	-1065.895	86.799	-.57.184	-12.280	.000	.604	-.854	-.634
	AB865	12.622	3.445	.797	3.664	.001	.502	.440	.189

Coefficients^{a,b}

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	AB1090	1.000	1.000
2	(Constant)		
	AB1090	.000	4919.989
	AB1045	.000	4919.989
3	(Constant)		
	AB1090	.000	7695.359
	AB1045	.000	8135.116
	AB865	.056	17.770

a. Dependent Variable: TSS_DIF

b. Weighted Least Squares Regression - Weighted by Weight for TSS_DIF from WLS, MOD_1 RES1_ABS** -.500

Collinearity Diagnostics^{a,b}

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	AB1090	AB1045	AB865
1	1	1.007	1.000	.50	.50		
	2	.993	1.007	.50	.50		
2	1	2.000	1.000	.00	.00	.00	
	2	1.000	1.414	.99	.00	.00	
	3	1.016E-04	140.284	.01	1.00	1.00	
3	1	2.938	1.000	.00	.00	.00	.01
	2	1.000	1.714	.99	.00	.00	.00
	3	6.162E-02	6.906	.00	.00	.00	.61
	4	6.316E-05	215.689	.01	1.00	1.00	.38

a. Dependent Variable: TSS_DIF

b. Weighted Least Squares Regression - Weighted by Weight for TSS_DIF from WLS, MOD_1 RES1_ABS** -.500

Residuals Statistics^{b,c}

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-7.4381	8.2610	-.1224	3.8433	60
Std. Predicted Value ^a					0
Standard Error of Predicted Value	.2547	2.0812	.4719	.2397	60
Adjusted Predicted Value	-7.5121	8.3550	-3.1823E-02	3.8884	60
Residual	-5.3865	5.4363	-3.2592E-02	2.6106	60
Std. Residual ^a					0
Stud. Residual	-2.671	1.853	-.017	1.021	60
Deleted Residual	-11.1260	5.6073	-.1232	2.9733	60
Stud. Deleted Residual	-2.834	1.895	-.020	1.036	60
Mahal. Distance	.061	30.216	2.950	4.384	60
Cook's Distance	.000	1.925	.040	.248	60
Centered Leverage Value	.001	.512	.050	.074	60

a. Not computed for Weighted Least Squares regression.

b. Dependent Variable: TSS_DIF

c. Weighted Least Squares Regression - Weighted by Weight for TSS_DIF from WLS, MOD_1 RES1_ABS** -.500

EXAMINE

VARIABLES=res_2

/PLOT NPLOT

/STATISTICS DESCRIPTIVES

/CINTERVAL 95
/MISSING LISTWISE
/NOTOTAL.

Explore

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Unstandardized Residual	60	100.0%	0	.0%	60	100.0%

Descriptives

			Statistic	Std. Error
Unstandardized Residual	Mean		-3.2591860E-02	.3370251
	95% Confidence Interval for Mean	Lower Bound	-.7069776	
		Upper Bound	.6417938	
	5% Trimmed Mean		-1.8274836E-02	
	Median		-1.7371047E-02	
	Variance		6.815	
	Std. Deviation		2.6105853	
	Minimum		-5.38645	
	Maximum		5.43635	
	Range		10.82280	
	Interquartile Range		3.6074655	
	Skewness		-.160	.309
	Kurtosis		-.412	.608

Tests of Normality

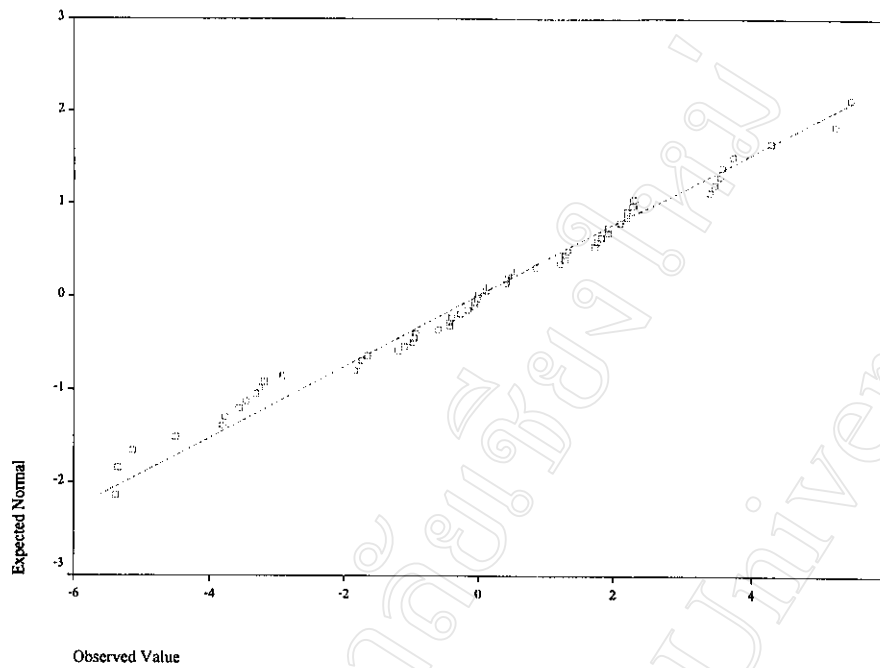
	Kolmogorov-Smirnov ^a		
	Statistic	df	Sig.
Unstandardized Residual	.072	60	.200*

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

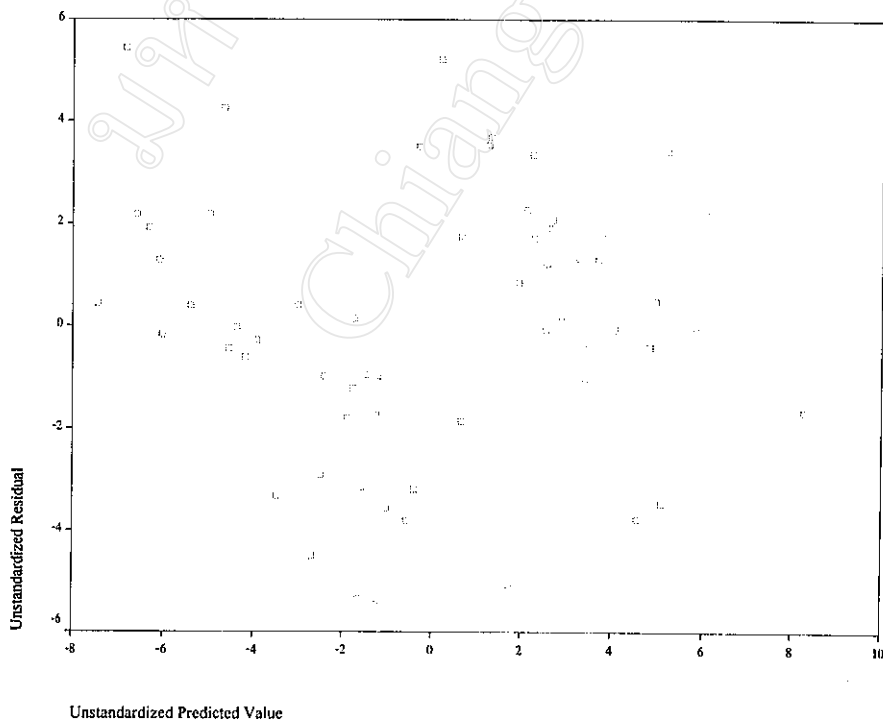
Unstandardized Residual

Normal Q-Q Plot of Unstandardized Residual



```
GRAPH
  /SCATTERPLOT(BIVAR)=pre_2 WITH res_2
  /MISSING=LISTWISE .
```

Graph



```
DESCRIPTIVES
  VARIABLES=press1 press2
  /STATISTICS=SUM .
```

Descriptives

Descriptive Statistics

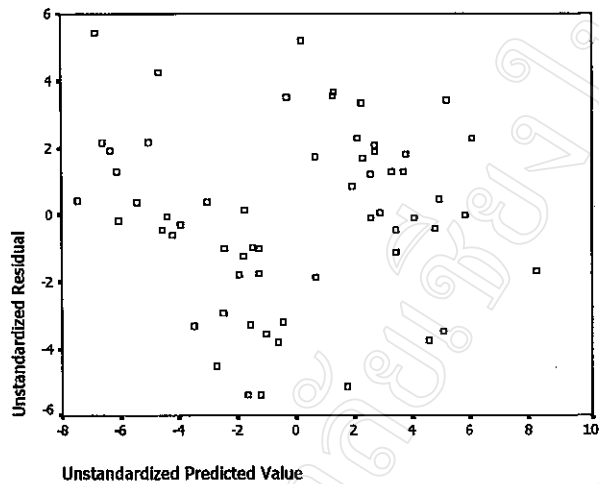
	N	Sum
PRESS1	60	603.87
PRESS2	60	522.52
Valid N (listwise)	60	

```

GRAPH
  /SCATTERPLOT(BIVAR)=pre_2 WITH res_2
  /MISSING=LISTWISE .

```

Graph



```

DESCRIPTIVES
  VARIABLES=press1 press2
  /STATISTICS=SUM .

```

Descriptives

Descriptive Statistics

	N	Sum
PRESS1	60	603.87
PRESS2	60	522.52
Valid N (listwise)	60	

ประวัติผู้เขียน

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วัน เดือน ปีเกิด วันที่ 27 พฤศจิกายน พ.ศ. 2518
ที่อยู่ปัจจุบัน บ้านเลขที่ 328 หมู่ที่ 3 ตำบลล้อมแรด อำเภอเถิน จังหวัดลำปาง

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ประสบการณ์
 เป็นผู้สอนเสริม(Tutor) กระบวนวิชาสถิติเบื้องต้นให้นักศึกษาระดับปริญญาตรี มหาวิทยาลัยเชียงใหม่