ISYS3401 IT Evaluation

Individual Assignment 2

SID: 470011746

Content

1. Task1

Import the dataset to SPSS and Exploratory Factor Analysis (EFA) showed that the value of KMO is 0.803>0.5, which was very suitable for factor analysis. Bartlett's Test of Sphericity showed a significance of less than 0.05.

The results from the Communalities show that most of the variables are well explained by common factors, and the value of Q7 is greater than 0.5, which can be retained.

From the Scree Plot, the first 5 factors should be retained because of the steep slope feature.

After that, the Rotated Component Matrix is constructed, and it results that the best measure model and constructs should be (In descending order of value):

Component 1 is measured by: Q2, Q4, Q3

Component 2 is measured by: Q20, Q18, Q17, Q19

Component 3 is measured by: Q12, Q10, Q11, Q9

Component 4 is measured by: Q16, Q13, Q14

Component 5 is measured by: Q8, Q6, Q5

Q1, Q7, Q15 is excluded since their value are not correlation enough which the biggest values are separately .721, .497 and .712.

Final Model:

Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
Q2	.920	.136	.090	.131	.164
Q4	.918	.175	.095	.183	.163
Q3	.850	.239	.128	.194	.204
Q1	.721	.313	.129	.242	.182
Q7	-.497	-.343	-.053	-.262	-.274
Q20	.233	.886	.173	.238	.172
Q18	.185	.828	.127	.230	.108
Q17	.232	.799	.134	.235	.175
Q19	.254	.771	.190	.210	.173

Q12	.087	.116	.958	.136	.077
Q10	.042	.108	.914	.056	.134
Q11	.117	.107	.874	.198	.031
Q9	.135	.193	.794	.164	.120
Q16	.255	.225	.206	.875	.191
Q13	.162	.204	.229	.819	.116
Q14	.218	.249	.144	.805	.243
Q15	.248	.384	.097	.712	.225
Q8	.248	.182	.100	.212	.912
Q6	.213	.234	.120	.162	.879
Q5	.232	.133	.147	.232	.875

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 6 iterations.

2. Appendix1

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.803
Bartlett's Test of Sphericity	Approx. Chi-Square	5215.601
	df	190
	Sig.	.000

Communalities

	Initial	Extraction
Q1	1.000	.725
Q2	1.000	.918
Q3	1.000	.874
Q4	1.000	.943
Q5	1.000	.913
Q6	1.000	.913
Q7	1.000	.511
Q8	1.000	.981
Q9	1.000	.728
Q10	1.000	.869
Q11	1.000	.829
Q12	1.000	.964
Q13	1.000	.805
Q14	1.000	.838
Q15	1.000	.776
Q16	1.000	.960
Q17	1.000	.796
Q18	1.000	.801
Q19	1.000	.769
Q20	1.000	.955

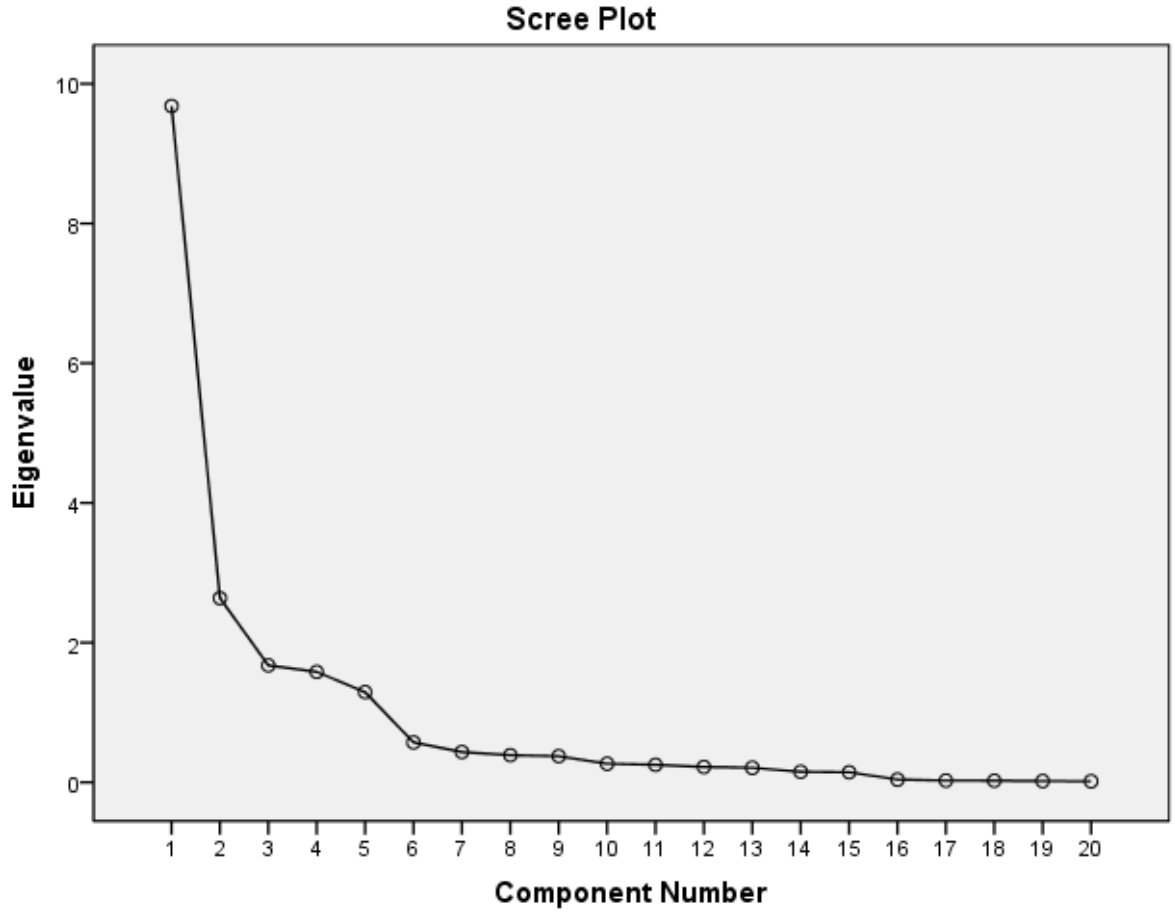
Extraction Method: Principal Component Analysis.

Total Variance Explained.

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.682	48.411	48.411	9.682	48.411	48.411

2	2.637	13.187	61.597	2.637	13.187	61.597
3	1.674	8.371	69.969	1.674	8.371	69.969
4	1.582	7.908	77.876	1.582	7.908	77.876
5	1.291	6.455	84.331	1.291	6.455	84.331
6	.571	2.857	87.188			
7	.434	2.172	89.360			
8	.388	1.942	91.302			
9	.374	1.872	93.174			
10	.267	1.333	94.506			
11	.251	1.254	95.760			
12	.221	1.105	96.865			
13	.208	1.038	97.903			
14	.151	.754	98.657			
15	.145	.726	99.383			
16	.040	.198	99.581			
17	.026	.130	99.711			
18	.024	.118	99.829			
19	.019	.095	99.924			
20	.015	.076	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component				
	1	2	3	4	5
Q16	.800	.017	-.221	.182	-.488
Q20	.796	-.054	-.422	-.083	.366
Q15	.772	-.097	-.270	.155	-.270
Q3	.761	-.274	.277	-.373	-.061
Q14	.759	-.036	-.215	.224	-.405
Q1	.747	-.227	.145	-.303	-.041
Q19	.743	-.035	-.326	-.091	.318
Q17	.739	-.081	-.374	-.066	.316
Q4	.732	-.316	.324	-.435	-.114
Q8	.709	-.202	.371	.516	.185
Q18	.698	-.059	-.444	-.088	.323
Q13	.695	.091	-.258	.169	-.467
Q5	.689	-.142	.379	.506	.136
Q2	.688	-.316	.368	-.447	-.098
Q6	.688	-.169	.330	.491	.249
Q7	-.669	.231	-.047	.088	-.017
Q12	.537	.800	.160	-.089	.026
Q10	.480	.768	.192	-.039	.102
Q11	.529	.722	.115	-.111	-.047
Q9	.571	.619	.107	-.070	.048

Extraction Method: Principal Component Analysis.

a. 5 components extracted.

Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
Q2	.920	.136	.090	.131	.164
Q4	.918	.175	.095	.183	.163
Q3	.850	.239	.128	.194	.204
Q1	.721	.313	.129	.242	.182
Q7	-.497	-.343	-.053	-.262	-.274
Q20	.233	.886	.173	.238	.172
Q18	.185	.828	.127	.230	.108
Q17	.232	.799	.134	.235	.175
Q19	.254	.771	.190	.210	.173

Q12	.087	.116	.958	.136	.077
Q10	.042	.108	.914	.056	.134
Q11	.117	.107	.874	.198	.031
Q9	.135	.193	.794	.164	.120
Q16	.255	.225	.206	.875	.191
Q13	.162	.204	.229	.819	.116
Q14	.218	.249	.144	.805	.243
Q15	.248	.384	.097	.712	.225
Q8	.248	.182	.100	.212	.912
Q6	.213	.234	.120	.162	.879
Q5	.232	.133	.147	.232	.875

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 6 iterations.

Component Transformation Matrix

Component	1	2	3	4	5
1	.502	.494	.357	.471	.394
2	-.381	-.095	.899	-.014	-.194
3	.440	-.626	.218	-.375	.475
4	-.623	-.122	-.121	.295	.704
5	-.144	.583	.052	-.742	.293

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

3. Task 2

Import the dataset to SPSS and the Cronbach's Alpha value is 0.921 which has an overall internal consistency reliability.

3a. A separately analysis of internal consistency of the measurement items of EACH construct is applied next:

SAT: All variables are positively correlated, and the value of Cronbach's Alpha is 0.906>0.7 which means it has an internal consistency reliability.

PEER: Due to the value of Cronbach's Alpha is 0.678 < 0.7 and negative correlation between PEER3 and other factors, PEER3r after data processing is adopted.

OSUP: The value of Cronbach's Alpha is 0.859>0.7 and All variables are positively correlated.

PU: The value of Cronbach's Alpha is 0.886>0.7 and all variables are positively correlated.

PEOU: The value of Cronbach's Alpha is 0.869>0.7 and all variables are positively correlated.

OSUP: The value of Cronbach's Alpha is 0.932>0.7 and all variables are positively correlated.

When doing the Principal Component Analysis, it is found that Peer3r should be removed since the Extraction is too low.

This means that every component in each construct has same quality excluded PEER3 so that they are meaningful for following conduction.

3b. The value of KMO is0.806,between 0.8 and 0.9.sig <0.05 which means they are suitable for factor analysis. After the same step of analysis as Task1, the Rotated Component Matrix is constructed, and the model should be output:

In descending order of value

Component 1 is measured by: OSUP4, OSUP3, OSUP2, OSUP2

Component 2 is measured by: PEOU4, PEOU2, PEOU3

Component 3 is measured by: PU4, PU2, PU3

Component 4 is measured by: SAT2, SAT1, SAT3, SAT4

Component 5 is measured by: PEER4, PEER2, PEER1

PU1, PEOU1 and PEER3 should be excluded since PEER3r the instead of PEER3's Extraction value is too low and PU1, PEOU1 are not in the right component.

Rotated Component Matrix[a]

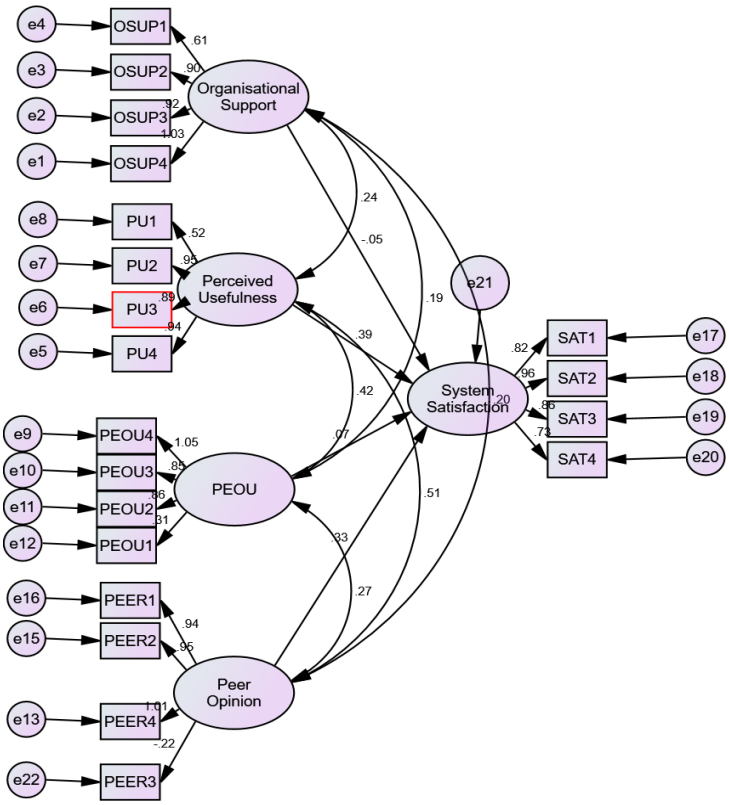
	Component

	1	2	3	4	5
OSUP4	.961	.130	.096	.017	.097
OSUP3	.912	.160	.107	-.023	.031
OSUP2	.911	.090	.065	.112	.149
OSUP1	.772	.118	.120	.212	.098
PEOU4	.144	.912	.242	.156	.140
PEOU2	.119	.856	.210	.178	.085
PU1	.136	.774	.220	.175	.146
PEOU3	.163	.763	.255	.167	.168
PU4	.125	.246	.878	.252	.217
PU2	.129	.259	.849	.169	.205
PU3	.104	.340	.777	.255	.181
PEOU1	.123	.237	.761	.254	.220
SAT2	.085	.215	.212	.852	.250
SAT1	.068	.231	.074	.808	.240
SAT3	.099	.214	.293	.796	.190
SAT4	.087	.060	.270	.783	.101
PEER4	.133	.163	.238	.248	.909
PEER2	.124	.173	.207	.223	.897
PEER1	.139	.165	.256	.251	.871

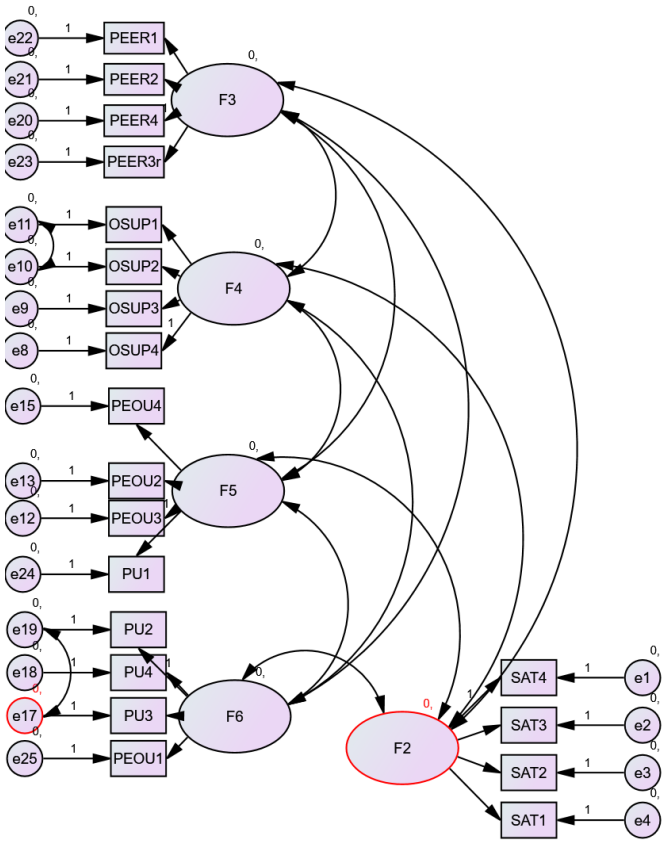
Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.



3c. To measure the reliability, convergent and discriminant validity of the measurement items, Confirmatory Factor Analysis will be confirmed depend on the model. After we calculate the X2/df =5.34>5,RMSEA>0.1,We need to modify the hypothesis model depends on the results of the average of PEOU=0.666 < 0.7, CR=0.876 < 0.9. CR of PEER=0.8648 < 0.9:



Now CMIN/DF<5, REMSEA<0.1,NFI and other indicators are greater than or close to 0.9, and the model has structural validity. All AVE values are greater than 0.7 and all CR values are greater than 0.9. It can be seen that the model has discriminant validity and convergent validity.

CMIN/DF	RMSEA	NFI	RFI	IFI	TLI	CFI
2.838	0.096	0.911	0.893	0.94	0.928	0.94

			Estimate	AVE	CR
SAT4	<---	F2	0.732	0.7187	0.9101
SAT3	<---	F2	0.866		
SAT2	<---	F2	0.953		
SAT1	<---	F2	0.825		
OSUP4	<---	F4	1.045	0.7684	0.928

OSUP3	<---	F4	0.896		
OSUP2	<---	F4	0.885		
OSUP1	<---	F4	0.629		
PEOU3	<---	F5	0.857	0.7451	0.9192
PEOU2	<---	F5	0.867		
PEOU4	<---	F5	1.042		
PU1	<---	F5	0.639		
PU3	<---	F6	0.769	0.7955	0.9389
PU4	<---	F6	1.041		
PU2	<---	F6	0.877		
PEOU1	<---	F6	0.859		
PEER4	<---	F3	1.014	0.7176	0.8965
PEER2	<---	F3	0.949		
PEER1	<---	F3	0.945		
PEER3r	<---	F3	0.23		

	F2	F3	F4	F5	F6
F2	0.7187				
F3	0.489***	0.7176			
F4	0.109***	0.3***	0.7684		
F5	0.109***	0.371***	0.274***	0.7451	
F6	0.381***	0.504***	0.234***	0.382***	0.7955
sqrt	0.8478	0.8471	0.8766	0.8632	0.8919

4. Appendix 2

3a.

Reliability Statistics

Cronbach's Alpha	N of Items
.921	20

SAT:

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
SAT1	16.41	8.173	.759	.646	.890
SAT2	16.44	7.846	.885	.795	.844
SAT3	16.53	7.929	.818	.696	.868
SAT4	16.71	8.699	.698	.513	.910

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.906	.906	4

PEER:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.678	.667	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
PEER1	12.54	5.406	.807	.931	.342

PEER2	12.55	5.727	.808	.937	.359
PEER4	12.46	5.425	.873	.976	.303
PEER3	15.22	12.574	-.271	.086	.976

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.859	.857	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
PEER1	15.8050	8.349	.862	.931	.750
PEER2	15.8150	8.704	.872	.937	.750
PEER4	15.7250	8.472	.906	.976	.733
PEER3r	15.2200	12.574	.271	.086	.976

PU:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.886	.889	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
PU3	15.67	8.445	.842	.747	.817
PU1	15.68	10.390	.502	.277	.945
PU2	15.74	8.445	.843	.846	.817
PU4	15.50	9.055	.857	.830	.817

PEOU:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.869	.870	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
PEOU1	15.25	11.678	.496	.252	.914
PEOU2	15.41	9.358	.757	.893	.819
PEOU3	15.52	9.427	.747	.875	.823
PEOU4	15.28	9.228	.921	.957	.755

OSUP:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.932	.932	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OSUP1	12.65	16.379	.701	.500	.954
OSUP2	13.07	13.945	.872	.905	.901
OSUP3	12.80	14.985	.851	.917	.908
OSUP4	12.72	14.363	.950	.968	.876

Communalities

	Initial	Extraction
SAT1	1.000	.770
SAT2	1.000	.881
SAT3	1.000	.787

SAT4	1.000	.666
PEER1	1.000	.927
PEER2	1.000	.936
PEER4	1.000	.986
OSUP1	1.000	.647
OSUP2	1.000	.881
OSUP3	1.000	.874
OSUP4	1.000	.957
PU1	1.000	.720
PU2	1.000	.856
PU3	1.000	.795
PU4	1.000	.951
PEOU1	1.000	.741
PEOU2	1.000	.814
PEOU3	1.000	.733
PEOU4	1.000	.951
PEER3r	1.000	.154

Extraction Method: Principal Component Analysis.

3b.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.806
Bartlett's Test of Sphericity	Approx. Chi-Square	4789.250
	df	171
	Sig.	.000

Communalities

	Initial	Extraction
SAT1	1.000	.775
SAT2	1.000	.887
SAT3	1.000	.812
SAT4	1.000	.708
PEER1	1.000	.935
PEER2	1.000	.942
PEER4	1.000	.988
OSUP1	1.000	.679
OSUP2	1.000	.878

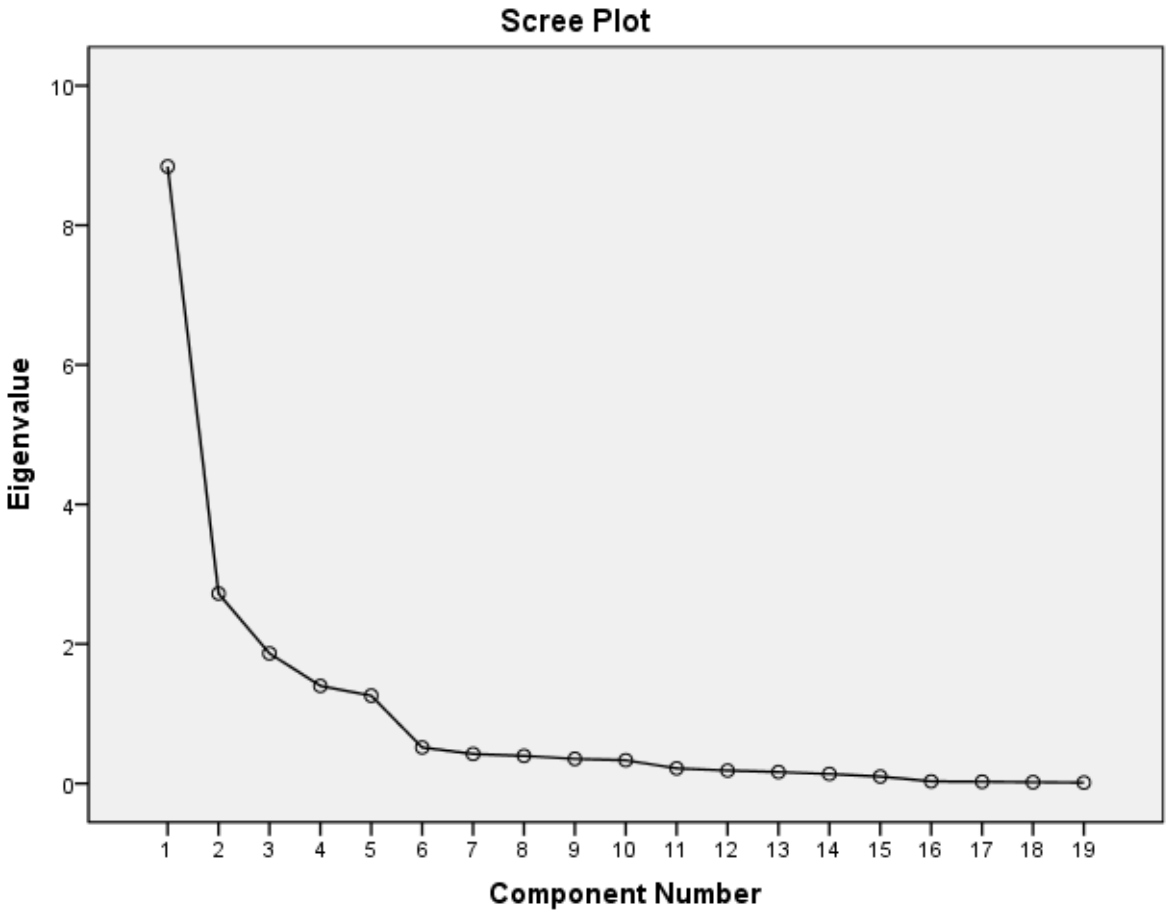
OSUP3	1.000	.870
OSUP4	1.000	.960
PU1	1.000	.717
PU2	1.000	.876
PU3	1.000	.828
PU4	1.000	.957
PEOU1	1.000	.763
PEOU2	1.000	.829
PEOU3	1.000	.729
PEOU4	1.000	.955

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.842	46.536	46.536	8.842	46.536	46.536
2	2.722	14.326	60.862	2.722	14.326	60.862
3	1.865	9.814	70.675	1.865	9.814	70.675
4	1.399	7.363	78.038	1.399	7.363	78.038
5	1.259	6.627	84.664	1.259	6.627	84.664
6	.516	2.718	87.383			
7	.423	2.227	89.610			
8	.396	2.086	91.695			
9	.353	1.858	93.553			
10	.333	1.752	95.305			
11	.217	1.142	96.447			
12	.185	.974	97.421			
13	.165	.868	98.289			
14	.136	.717	99.007			
15	.100	.526	99.533			
16	.031	.166	99.698			
17	.026	.134	99.832			
18	.019	.098	99.930			
19	.013	.070	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component				
	1	2	3	4	5
PU4	.815	-.171	-.127	-.165	-.469
PU3	.788	-.168	-.195	-.112	-.357
PU2	.765	-.135	-.168	-.210	-.447
PEOU1	.753	-.151	-.094	-.134	-.382
PEOU4	.744	-.004	-.546	.013	.320
SAT2	.741	-.268	.271	.436	.053
PEER4	.741	-.140	.430	-.415	.249
PEER1	.740	-.134	.407	-.395	.221
SAT3	.736	-.244	.204	.410	-.034
PEER2	.711	-.133	.411	-.419	.273
PEOU3	.702	.007	-.421	-.003	.245
PEOU2	.679	-.018	-.524	.067	.297
PU1	.675	-.011	-.434	.023	.271

SAT1	.649	-.242	.262	.447	.164
SAT4	.602	-.230	.264	.454	-.129
OSUP4	.490	.842	.092	.021	-.046
OSUP3	.447	.816	.011	.024	-.062
OSUP2	.504	.766	.183	.062	-.017
OSUP1	.523	.603	.141	.139	-.052

Extraction Method: Principal Component Analysis.

a. 5 components extracted.

Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
OSUP4	.961	.130	.096	.017	.097
OSUP3	.912	.160	.107	-.023	.031
OSUP2	.911	.090	.065	.112	.149
OSUP1	.772	.118	.120	.212	.098
PEOU4	.144	.912	.242	.156	.140
PEOU2	.119	.856	.210	.178	.085
PU1	.136	.774	.220	.175	.146
PEOU3	.163	.763	.255	.167	.168
PU4	.125	.246	.878	.252	.217
PU2	.129	.259	.849	.169	.205
PU3	.104	.340	.777	.255	.181
PEOU1	.123	.237	.761	.254	.220
SAT2	.085	.215	.212	.852	.250
SAT1	.068	.231	.074	.808	.240
SAT3	.099	.214	.293	.796	.190
SAT4	.087	.060	.270	.783	.101
PEER4	.133	.163	.238	.248	.909
PEER2	.124	.173	.207	.223	.897
PEER1	.139	.165	.256	.251	.871

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

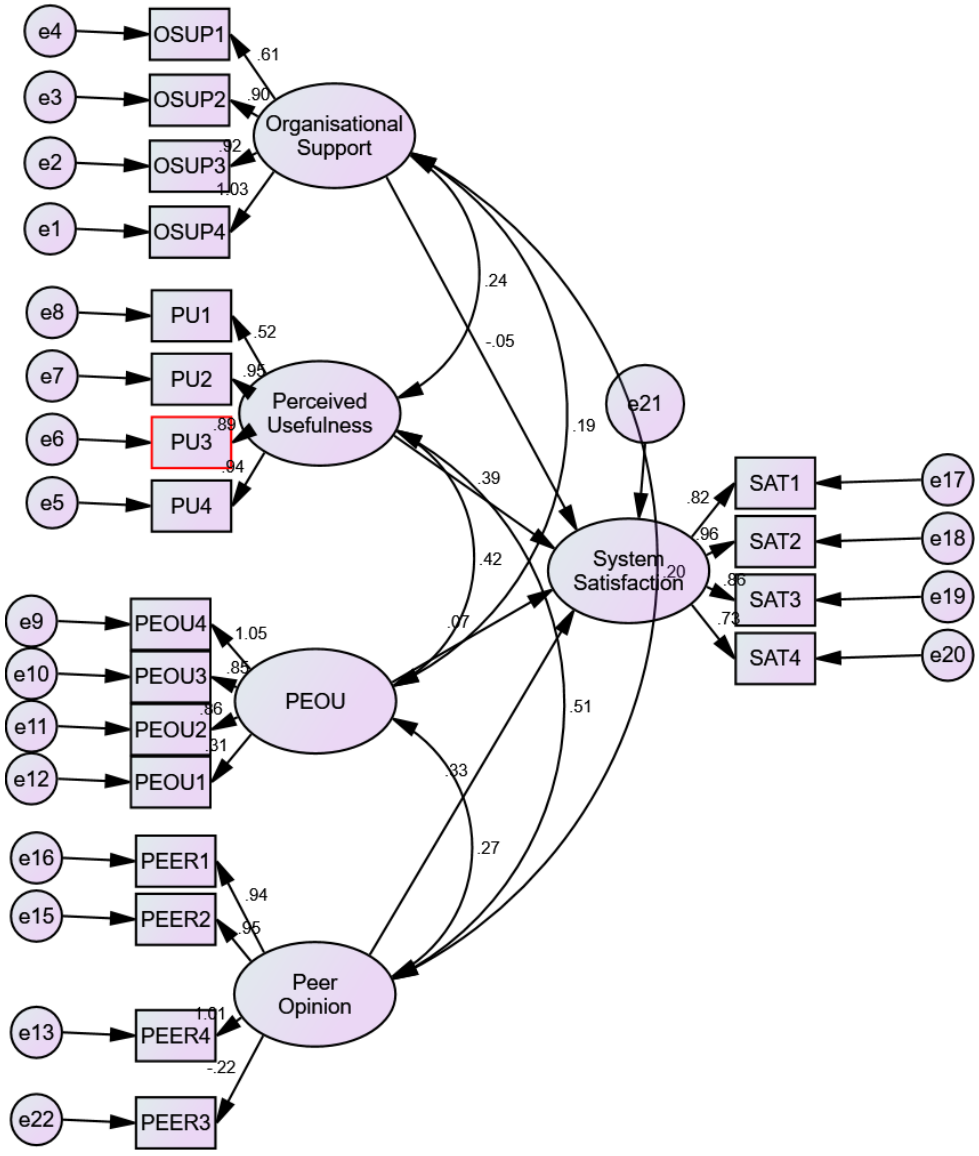
Component Transformation Matrix

Component	1	2	3	4	5

1	.343	.483	.508	.464	.419
2	.919	-.022	-.194	-.308	-.150
3	.153	-.715	-.206	.378	.529
4	.092	.040	-.274	.739	-.607
5	-.079	.504	-.766	.020	.391

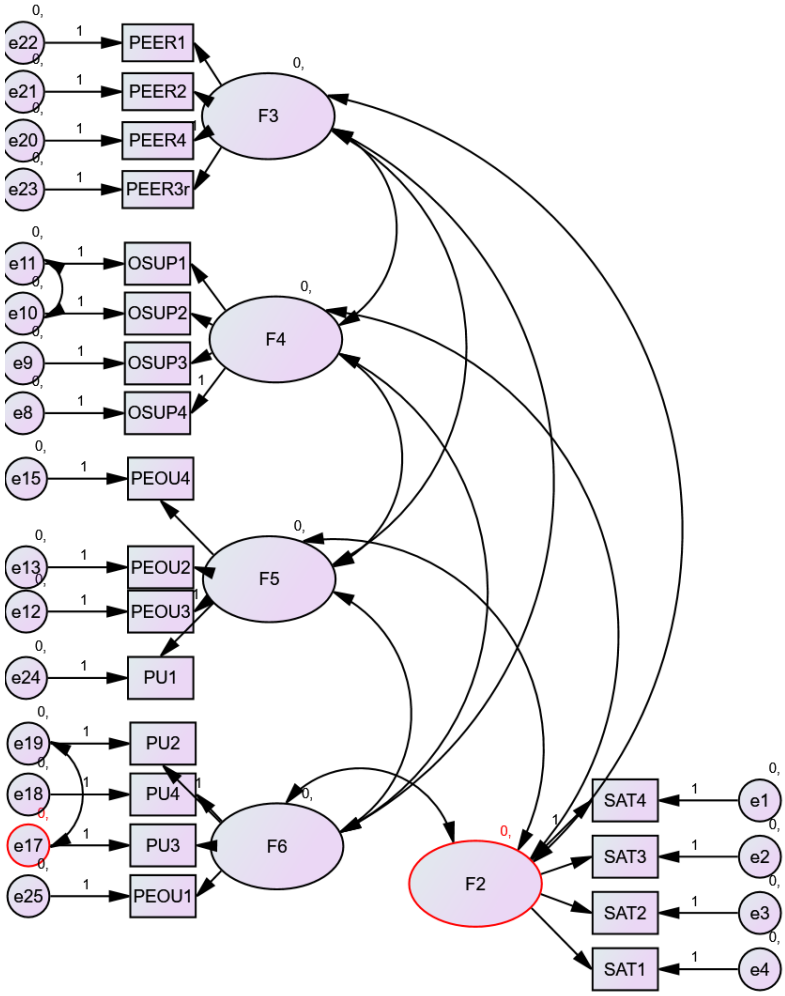
Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.



X2/df	RMSEA	NFI	RFI	IFI	TLI	CFI
5.34	0.148	0.83	0.798	0.857	0.829	0.856

Regression Weights: (Group number 1 - Default model)					
			Estimate	AVE	CR
System_Satisfaction	<---	Organisational_Support	0.047	0.0663	0.1273
System_Satisfaction	<---	Perceived_Usefulness	0.386		
System_Satisfaction	<---	PEOU	0.068		
System_Satisfaction	<---	Peer_Opinion	0.331		
OSUP4	<---	Organisational_Support	1.028	0.7692	0.9281
OSUP3	<---	Organisational_Support	0.916		
OSUP2	<---	Organisational_Support	0.902		
OSUP1	<---	Organisational_Support	0.606		
PU4	<---	Perceived_Usefulness	0.945	0.7108	0.9038
PU3	<---	Perceived_Usefulness	0.886		
PU2	<---	Perceived_Usefulness	0.946		
PU1	<---	Perceived_Usefulness	0.52		
PEOU4	<---	PEOU	1.052	0.666	0.876
PEOU3	<---	PEOU	0.846		
PEOU2	<---	PEOU	0.863		
PEOU1	<---	PEOU	0.311		
PEER4	<---	Peer_Opinion	1.014	0.7176	0.8648
PEER2	<---	Peer_Opinion	0.949		
PEER1	<---	Peer_Opinion	0.945		
PEER3	<---	Peer_Opinion	-0.22		
SAT1	<---	System_Satisfaction	0.824	0.7184	0.91
SAT2	<---	System_Satisfaction	0.955		
SAT3	<---	System_Satisfaction	0.865		
SAT4	<---	System_Satisfaction	0.731		



CMIN/DF	RMSEA	NFI	RFI	IFI	TLI	CFI
2.838	0.096	0.911	0.893	0.94	0.928	0.94

			Estimate	AVE	CR
SAT4	<---	F2	0.732	0.7187	0.9101
SAT3	<---	F2	0.866		
SAT2	<---	F2	0.953		
SAT1	<---	F2	0.825		
OSUP4	<---	F4	1.045	0.7684	0.928
OSUP3	<---	F4	0.896		
OSUP2	<---	F4	0.885		
OSUP1	<---	F4	0.629		
PEOU3	<---	F5	0.857	0.7451	0.9192
PEOU2	<---	F5	0.867		

PEOU4	<---	F5	1.042		
PU1	<---	F5	0.639		
PU3	<---	F6	0.769	0.7955	0.9389
PU4	<---	F6	1.041		
PU2	<---	F6	0.877		
PEOU1	<---	F6	0.859		
PEER4	<---	F3	1.014	0.7176	0.8965
PEER2	<---	F3	0.949		
PEER1	<---	F3	0.945		
PEER3r	<---	F3	0.23		

	F2	F3	F4	F5	F6
F2	0.7187				
F3	0.489***	0.7176			
F4	0.109***	0.3***	0.7684		
F5	0.109***	0.371***	0.274***	0.7451	
F6	0.381***	0.504***	0.234***	0.382***	0.7955
sqrt	0.8478	0.8471	0.8766	0.8632	0.8919

5. Task3

In dataset3, we use doctors and nurses as control variables. Regression analysis was conducted on the four variables of perceived usefulness, perceived ease of use, peer opinion, organizational opinion and satisfaction. Since the dependent variable has four dimensions, we first used factor analysis to obtain the score of common factors of satisfaction and used the score of common factors as the dependent variable for regression.

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-4.090	.454		-9.005	.000
	PEER1	-.066	.204	-.080	-.322	.748
	PEER2	.091	.239	.104	.379	.705
	PEER3	-.010	.055	-.011	-.180	.857
	PEER4	.231	.363	.270	.638	.525
	OSUP1	.111	.064	.142	1.749	.082
	OSUP2	.133	.137	.191	.969	.334
	OSUP3	-.142	.164	-.182	-.868	.387
	OSUP4	-.088	.261	-.112	-.336	.738
	PU1	-.050	.142	-.054	-.352	.725
	PU2	-.471	.169	-.523	-2.784	.006
	PU3	.305	.115	.340	2.654	.009
	PU4	.538	.260	.529	2.067	.040
	PEOU1	.002	.084	.002	.020	.984
	PEOU2	.372	.156	.450	2.376	.019
	PEOU3	.149	.147	.183	1.018	.310
	PEOU4	-.370	.265	-.406	-1.393	.166

a. Dependent Variable: REGR factor score 1 for analysis 1

b. Selecting only cases for which TYPE = 0

The regression mode is hierarchical regression, Above is the table of regression coefficients of doctors as control variables. Above is the table of regression coefficients of doctors as control variables. There is collinearity in all variables, and the regression coefficient of perceived usefulness is significant.

We can see that in fact among physicians, perceived usefulness is the most important factor in

satisfaction, perceived ease of use is next, and organizational support is next.

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.473	.538		-2.739	.007
	PEER1	.021	.154	.026	.135	.893
	PEER2	.007	.173	.009	.040	.968
	PEER3	-.334	.087	-.300	-3.852	.000
	PEER4	.084	.270	.101	.311	.757
	OSUP1	.124	.064	.206	1.927	.056
	OSUP2	-.116	.122	-.212	-.945	.346
	OSUP3	-.019	.131	-.033	-.145	.885
	OSUP4	.063	.235	.103	.268	.789
	PU1	-.278	.129	-.393	-2.154	.033
	PU2	-.265	.135	-.370	-1.969	.051
	PU3	.105	.085	.142	1.245	.215
	PU4	.552	.234	.681	2.363	.020
	PEOU1	.053	.083	.071	.636	.526
	PEOU2	.231	.136	.351	1.696	.092
	PEOU3	.120	.127	.156	.939	.350
	PEOU4	-.263	.249	-.322	-1.057	.292

a. Dependent Variable: REGR factor score 1 for analysis 1

b. Selecting only cases for which TYPE = 1

The table of regression coefficients of nurses as control variables is provided. In nurses, perceived usefulness is still Paramount, perceived ease of use second, peer opinion third, and organizational support last.

We can say that in hospitals, it is common sense that what you most want to see in a system is a system that works. Of course, on the basis of usefulness, easy-to-use systems are more likely to satisfy users. Nurses pay more attention to peer advice, perhaps because their work is less professional than that of doctors, so there is less need for organizational support, training and funding. Doctors need more organizational support.

6. Appendix 3

Factor Analysis:

Communalities

	Initial	Extraction
SAT1	1.000	.764
SAT2	1.000	.915
SAT3	1.000	.865
SAT4	1.000	.951

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.494	87.349	87.349	3.494	87.349	87.349
2	.314	7.853	95.202			
3	.162	4.049	99.250			
4	.030	.750	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
SAT1	.874
SAT2	.956
SAT3	.930
SAT4	.975

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Type 0:

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	PEER4	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

2	PEOU2	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	PU1	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: SAT1

b. Models are based only on cases for which TYPE = 0

Model Summary

Model	R				Change Statistics				
	TYPE = 0 (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.479[a]	.229	.224	.985	.229	47.304	1	159	.000
2	.545[b]	.298	.289	.944	.068	15.341	1	158	.000
3	.561[c]	.315	.302	.935	.018	4.074	1	157	.045

a. Predictors: (Constant), PEER4

b. Predictors: (Constant), PEER4, PEOU2

c. Predictors: (Constant), PEER4, PEOU2, PU1

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45.916	1	45.916	47.304	.000[c]
	Residual	154.333	159	.971		
	Total	200.248	160			
2	Regression	59.575	2	29.787	33.456	.000[d]
	Residual	140.674	158	.890		
	Total	200.248	160			
3	Regression	63.133	3	21.044	24.096	.000[e]
	Residual	137.116	157	.873		
	Total	200.248	160			

a. Dependent Variable: SAT1

b. Selecting only cases for which TYPE = 0

c. Predictors: (Constant), PEER4

d. Predictors: (Constant), PEER4, PEOU2

e. Predictors: (Constant), PEER4, PEOU2, PU1

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.297	.330		9.987	.000
	PEER4	.435	.063	.479	6.878	.000
2	(Constant)	2.531	.372		6.812	.000
	PEER4	.342	.065	.377	5.259	.000
	PEOU2	.246	.063	.280	3.917	.000
3	(Constant)	2.235	.396		5.640	.000
	PEER4	.285	.070	.313	4.041	.000
	PEOU2	.198	.067	.226	2.973	.003
	PU1	.162	.080	.165	2.018	.045

a. Dependent Variable: SAT1

b. Selecting only cases for which TYPE = 0

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	OSUP2	.042[b]	.565	.573	.045	.871
	OSUP3	-.017[b]	-.236	.813	-.019	.922
	PU2	.061[b]	.768	.443	.061	.760
	PU4	.182[b]	2.243	.026	.176	.718
	PEOU2	.280[b]	3.917	.000	.297	.867
	PEOU4	.194[b]	2.595	.010	.202	.836
	PEER1	.170[b]	.645	.520	.051	.070
	PEER2	.034[b]	.118	.906	.009	.059
	PEER3	-.106[b]	-1.491	.138	-.118	.949
	OSUP1	.080[b]	1.088	.278	.086	.898
	OSUP4	-.004[b]	-.051	.959	-.004	.882
	PU1	.252[b]	3.219	.002	.248	.746
	PU3	.174[b]	2.206	.029	.173	.758
	PEOU1	.147[b]	1.973	.050	.155	.862
	PEOU3	.112[b]	1.489	.138	.118	.853
2	OSUP2	.017[c]	.233	.816	.019	.863
	OSUP3	-.075[c]	-1.060	.291	-.084	.885
	PU2	-.064[c]	-.771	.442	-.061	.647
	PU4	.073[c]	.859	.392	.068	.609
	PEOU4	-.223[c]	-1.516	.132	-.120	.204
	PEER1	.060[c]	.235	.814	.019	.069
	PEER2	.003[c]	.011	.991	.001	.059
	PEER3	-.078[c]	-1.134	.258	-.090	.938
	OSUP1	.041[c]	.576	.565	.046	.879
	OSUP4	-.045[c]	-.624	.534	-.050	.864
	PU1	.165[c]	2.018	.045	.159	.651
	PU3	.059[c]	.703	.483	.056	.626
	PEOU1	-.102[c]	-1.011	.314	-.080	.434
	PEOU3	-.071[c]	-.813	.418	-.065	.579
3	OSUP2	.014[d]	.198	.843	.016	.863

OSUP3	-.079[d]	-1.127	.262	-.090	.884
PU2	-.176[d]	-1.926	.056	-.152	.512
PU4	-.168[d]	-1.210	.228	-.096	.225
PEOU4	-.247[d]	-1.692	.093	-.134	.202
PEER1	-.011[d]	-.042	.966	-.003	.068
PEER2	.043[d]	.155	.877	.012	.058
PEER3	-.062[d]	-.906	.366	-.072	.924
OSUP1	.029[d]	.411	.681	.033	.873
OSUP4	-.048[d]	-.676	.500	-.054	.864
PU3	-.024[d]	-.250	.803	-.020	.492
PEOU1	-.138[d]	-1.365	.174	-.109	.423
PEOU3	-.092[d]	-1.051	.295	-.084	.572

a. Dependent Variable: SAT1

b. Predictors in the Model: (Constant), PEER4

c. Predictors in the Model: (Constant), PEER4, PEOU2

d. Predictors in the Model: (Constant), PEER4, PEOU2, PU1

Type1:

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	PEOU4	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

2	PEER3	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	PU1	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	PEOU2	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

5	.	PEOU4	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: SAT1

b. Models are based only on cases for which TYPE = 1

Model Summary

Model	R				Change Statistics				
	TYPE = 1 (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.519[a]	.270	.265	.704	.270	56.451	1	153	.000
2	.561[b]	.314	.305	.685	.045	9.958	1	152	.002
3	.584[c]	.341	.327	.674	.026	5.987	1	151	.016
4	.600[d]	.360	.343	.666	.020	4.590	1	150	.034
5	.600[e]	.360	.347	.664	.000	.034	1	150	.854

a. Predictors: (Constant), PEOU4

b. Predictors: (Constant), PEOU4, PEER3

c. Predictors: (Constant), PEOU4, PEER3, PU1

d. Predictors: (Constant), PEOU4, PEER3, PU1, PEOU2

e. Predictors: (Constant), PEER3, PU1, PEOU2

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.005	1	28.005	56.451	.000[c]
	Residual	75.904	153	.496		

	Total	103.910	154			
2	Regression	32.673	2	16.336	34.857	.000[d]
	Residual	71.237	152	.469		
	Total	103.910	154			
3	Regression	35.390	3	11.797	25.996	.000[e]
	Residual	68.520	151	.454		
	Total	103.910	154			
4	Regression	37.424	4	9.356	21.108	.000[f]
	Residual	66.486	150	.443		
	Total	103.910	154			
5	Regression	37.409	3	12.470	28.314	.000[g]
	Residual	66.501	151	.440		
	Total	103.910	154			

a. Dependent Variable: SAT1

b. Selecting only cases for which TYPE = 1

c. Predictors: (Constant), PEOU4

d. Predictors: (Constant), PEOU4, PEER3

e. Predictors: (Constant), PEOU4, PEER3, PU1

f. Predictors: (Constant), PEOU4, PEER3, PU1, PEOU2

g. Predictors: (Constant), PEER3, PU1, PEOU2

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.719	.324		11.480	.000
	PEOU4	.426	.057	.519	7.513	.000
2	(Constant)	4.668	.435		10.722	.000
	PEOU4	.336	.062	.409	5.406	.000
	PEER3	-.267	.085	-.239	-3.156	.002
3	(Constant)	4.245	.462		9.187	.000
	PEOU4	.275	.066	.335	4.177	.000
	PEER3	-.242	.084	-.216	-2.882	.005
	PU1	.130	.053	.183	2.447	.016

4	(Constant)	4.482	.470		9.538	.000
	PEOU4	.025	.134	.030	.185	.854
	PEER3	-.257	.083	-.230	-3.091	.002
	PU1	.137	.053	.193	2.602	.010
	PEOU2	.215	.101	.326	2.143	.034
5	(Constant)	4.528	.398		11.368	.000
	PEER3	-.261	.080	-.234	-3.260	.001
	PU1	.139	.051	.196	2.731	.007
	PEOU2	.232	.049	.351	4.750	.000

a. Dependent Variable: SAT1

b. Selecting only cases for which TYPE = 1

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	PEER4	.154[b]	2.023	.045	.162	.804
	OSUP2	.021[b]	.296	.767	.024	.929
	OSUP3	.090[b]	1.233	.219	.100	.894
	PU2	.141[b]	1.785	.076	.143	.753
	PU4	.222[b]	2.774	.006	.220	.715
	PEOU2	.253[b]	1.587	.115	.128	.186
	PEER1	.173[b]	2.307	.022	.184	.828
	PEER2	.144[b]	1.858	.065	.149	.777
	PEER3	-.239[b]	-3.156	.002	-.248	.788
	OSUP1	.110[b]	1.472	.143	.119	.847
	OSUP4	.074[b]	1.010	.314	.082	.895
	PU1	.210[b]	2.757	.007	.218	.790
	PU3	.177[b]	2.097	.038	.168	.653
	PEOU1	.149[b]	1.310	.192	.106	.366
	PEOU3	-.065[b]	-.512	.609	-.041	.294
2	PEER4	.114[c]	1.494	.137	.121	.775
	OSUP2	.015[c]	.212	.832	.017	.928
	OSUP3	.064[c]	.891	.375	.072	.881

	PU2	.073[c]	.903	.368	.073	.683
	PU4	.172[c]	2.135	.034	.171	.676
	PEOU2	.302[c]	1.951	.053	.157	.184
	PEER1	.130[c]	1.731	.085	.139	.792
	PEER2	.102[c]	1.324	.188	.107	.749
	OSUP1	.097[c]	1.337	.183	.108	.844
	OSUP4	.054[c]	.757	.451	.061	.888
	PU1	.183[c]	2.447	.016	.195	.778
	PU3	.114[c]	1.329	.186	.108	.605
	PEOU1	.123[c]	1.107	.270	.090	.364
	PEOU3	-.103[c]	-.829	.408	-.067	.292
3	PEER4	.092[d]	1.221	.224	.099	.763
	OSUP2	-.019[d]	-.270	.787	-.022	.892
	OSUP3	.025[d]	.342	.733	.028	.833
	PU2	-.036[d]	-.389	.698	-.032	.504
	PU4	.014[d]	.086	.932	.007	.178
	PEOU2	.326[d]	2.143	.034	.172	.184
	PEER1	.107[d]	1.435	.153	.116	.777
	PEER2	.085[d]	1.107	.270	.090	.742
	OSUP1	.059[d]	.801	.424	.065	.798
	OSUP4	.015[d]	.203	.839	.017	.839
	PU3	.033[d]	.353	.724	.029	.499
	PEOU1	.102[d]	.922	.358	.075	.361
	PEOU3	-.125[d]	-1.019	.310	-.083	.290
4	PEER4	.106[e]	1.417	.159	.115	.758
	OSUP2	-.018[e]	-.266	.791	-.022	.892
	OSUP3	.027[e]	.376	.707	.031	.832
	PU2	-.056[e]	-.608	.544	-.050	.499
	PU4	.016[e]	.101	.920	.008	.178
	PEER1	.108[e]	1.460	.147	.119	.777
	PEER2	.096[e]	1.261	.209	.103	.739
	OSUP1	.062[e]	.842	.401	.069	.797
	OSUP4	.016[e]	.230	.818	.019	.839
	PU3	.045[e]	.487	.627	.040	.497
	PEOU1	.094[e]	.865	.389	.071	.361
	PEOU3	.067[e]	.428	.669	.035	.173

5	PEER4	.104[f]	1.429	.155	.116	.792
	OSUP2	-.017[f]	-.253	.801	-.021	.897
	OSUP3	.028[f]	.392	.696	.032	.838
	PU2	-.056[f]	-.609	.544	-.050	.499
	PU4	.019[f]	.121	.904	.010	.180
	PEER1	.108[f]	1.476	.142	.120	.789
	PEER2	.094[f]	1.276	.204	.104	.774
	OSUP1	.062[f]	.862	.390	.070	.811
	OSUP4	.017[f]	.246	.806	.020	.846
	PU3	.047[f]	.519	.605	.042	.525
	PEOU1	.085[f]	.864	.389	.070	.441
	PEOU3	.034[f]	.393	.695	.032	.555
	PEOU4	.030[f]	.185	.854	.015	.160

a. Dependent Variable: SAT1

b. Predictors in the Model: (Constant), PEOU4

c. Predictors in the Model: (Constant), PEOU4, PEER3

d. Predictors in the Model: (Constant), PEOU4, PEER3, PU1

e. Predictors in the Model: (Constant), PEOU4, PEER3, PU1, PEOU2

f. Predictors in the Model: (Constant), PEER3, PU1, PEOU2