

Answer to comment on the manuscript entitled “Effects of climate variability on Savannah fire regimes in West Africa”

by E. T. N’Datchoh et al.

Referee 3

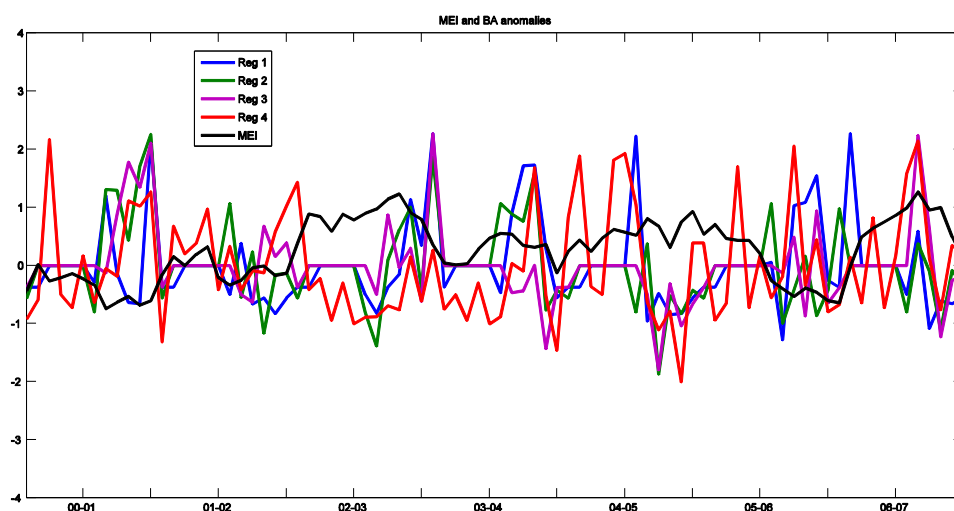
Great thanks for your comments and suggestions.

1. Method to access the influence of climate indexes

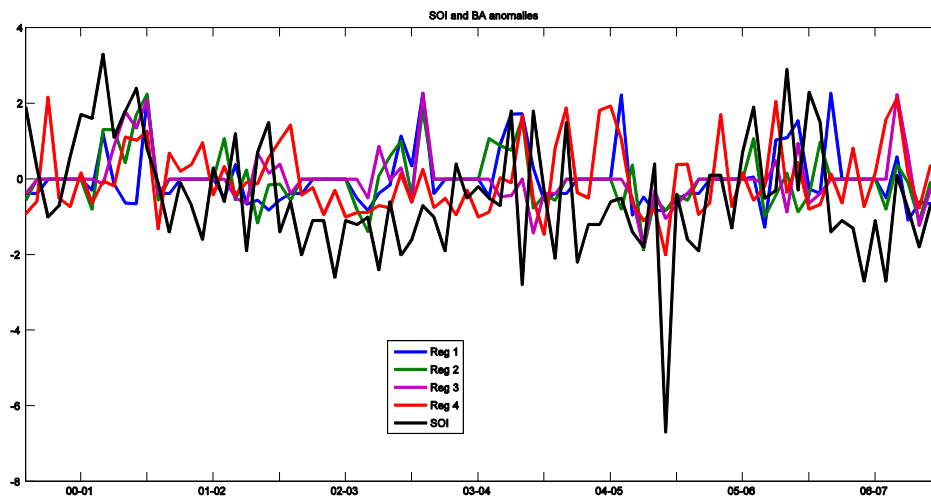
We have calculated the standardized monthly burned areas anomalies during dry season months (October, November, December, January, February and March) over 7 years . For each month of dry season, we have computed anomalies base on the whole dry season burned areas mean. Then we have considered each month of dry season during the study period that we correlated with each month indexes during the entire study period. For example, we correlated the burned anomalies of October with SOI indexes from January to December and we retained only where we found a correlation coefficient greater or equal to 0.8 in absolute value.

2. Time series of climatic oscillations indexes over the study period and burned areas anomalies

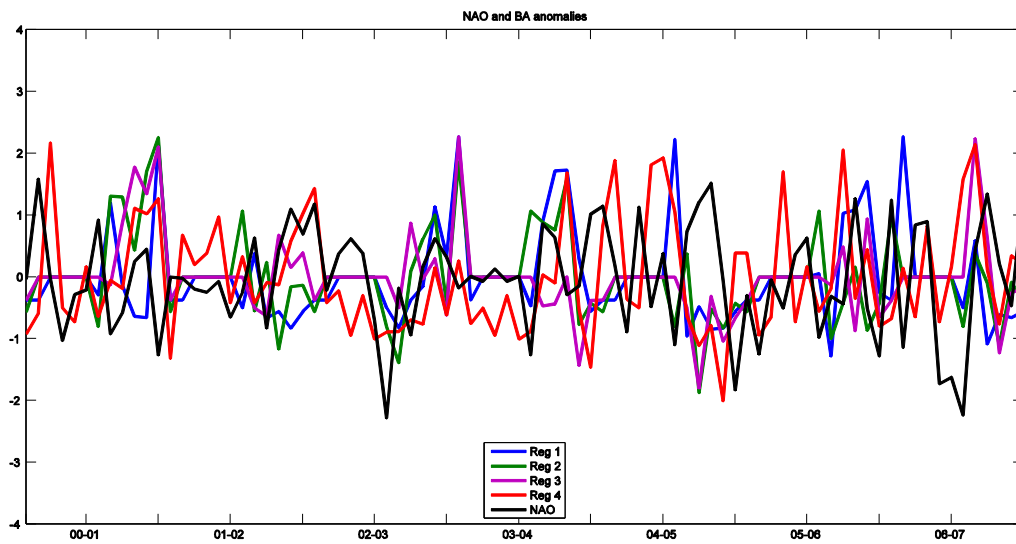
For each fire region defined in this study, the time series of climatic oscillation indexes is presented on the following figures:



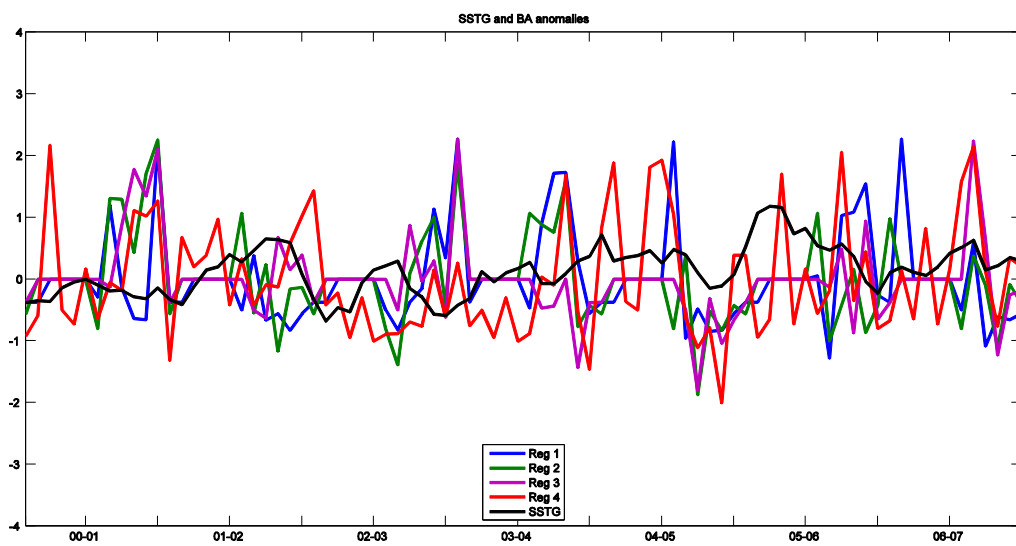
MEI indexes and burned areas anomalies over the study period.



SOI indexes and Burned areas anomalies over the study period.



NAO indexes and burned areas anomalies over the study period.



SSTG indexes and burned areas anomalies over the study period.

3. As climatic anomalies could have an influence on the preceding rainy season, how can the authors assess the influence the 'Atlantic and Pacific basins' on burnt areas anomalies for specific months. I don't understand this well, correlation coefficients are generally calculated over the whole time series; otherwise there is no evidence of a causal link between the variables.

The purpose here is to look for some indicator in monthly climate indexes and dry months burned areas extent in term of predictability. Since biomass burning is a seasonal practice (during dry season, almost other 3 regions there were no burned areas during wet season), we cannot calculate correlation coefficient with wet season months.

4. Principal component analysis (PCA)

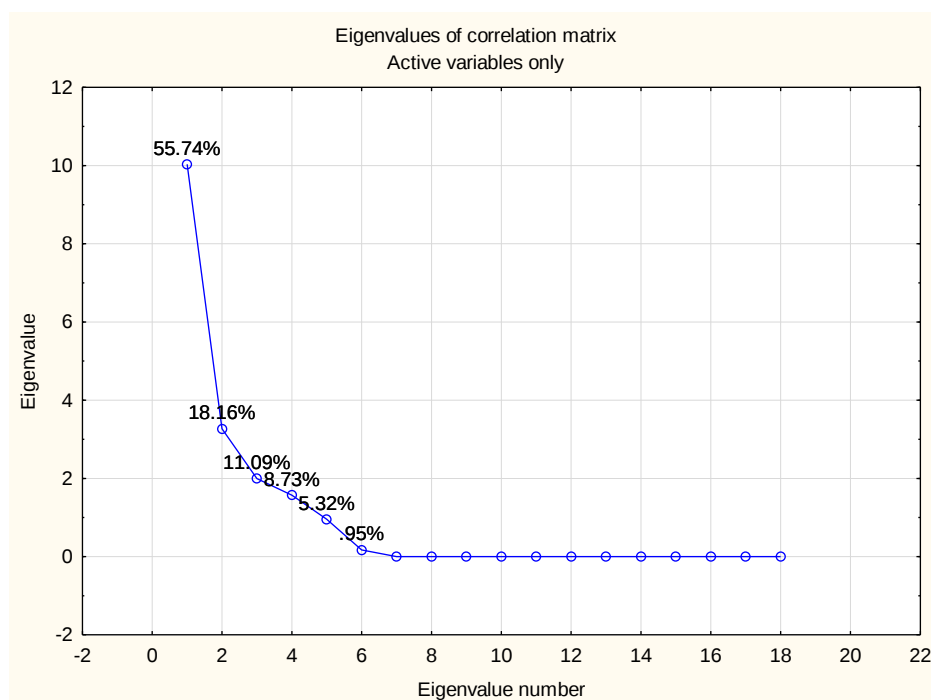
We have also done PCA computation as you advice us in your comment, the results are below and a section has been introduce in the new version of the manuscript. We are aware of the fact that PCA method is more adequate for a large amount of data; we have applied to this short time series, as we said in the manuscript the main purpose of the study is not to establish rigorous relationship but to show how accurate and continuous database on fire practice is necessary for studies of complex practice involving climate, ecology and society in this vulnerable West Africa region.

MEI Vs BA

Zone 1

Factor Loadings (MEI and BA zone 1) Extraction: Principal components (Marked loadings are >.700000)			
	Factor - 1	Factor - 2	Factor - 3
BA_October	-0.29362	-0.747026	-0.583262
BA_November	0.16481	-0.902457	0.192203
BA_December	0.76554	0.048282	0.537877
BA_January	0.61843	0.159424	0.573316
BA_February	0.36377	0.292169	0.562202
BA_March	0.73347	-0.188239	0.137074
MEI April	-0.22746	0.831004	-0.146103
MEI May	-0.43336	0.855857	-0.134307
MEI June	-0.82018	0.341749	0.058151
MEI July	-0.88828	0.039309	-0.252705
MEI August	-0.96750	0.094788	-0.051990
MEI September	-0.91646	-0.110480	0.235933
MEI October	-0.86665	-0.236205	0.410108
MEI November	-0.92834	-0.279979	0.215792
MEI December	-0.92391	-0.167887	0.280672
MEI January	-0.87980	-0.127052	0.406642
MEI February	-0.92672	-0.028550	0.205460
MEI March	-0.83880	0.079594	0.015953
Expl.Var	10.03240	3.269267	1.996351
Prp.Totl	1.14210	-0.423696	-0.718400

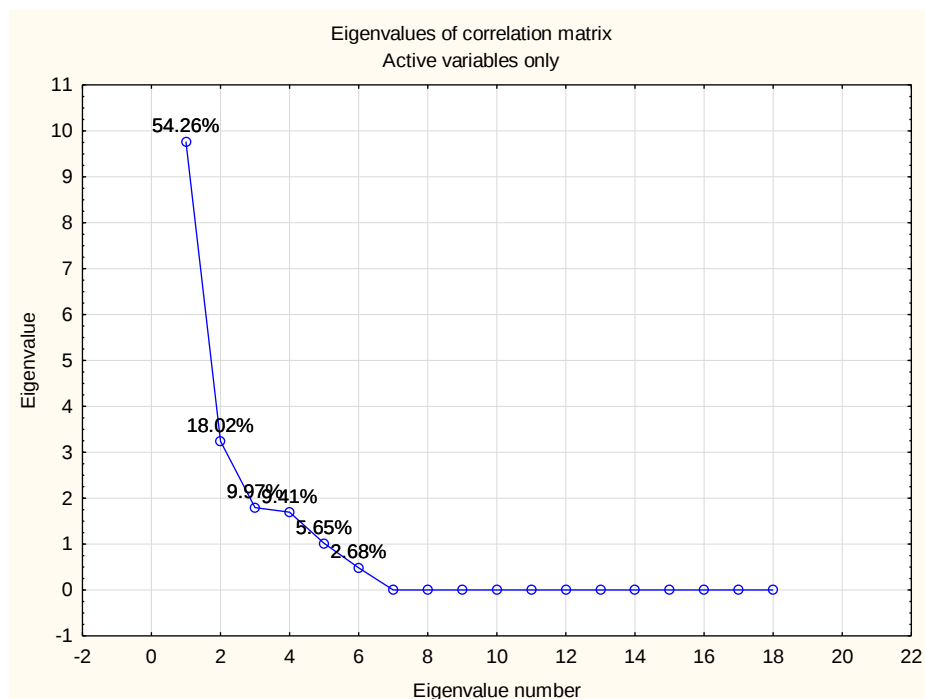
Eigenvalues (MEI and BA zone 1) Extraction: Principal components				
	Eigenvalue	% Total - variance	Cumulative - Eigenvalue	Cumulative - %
1	10.03240	55.73554	10.03240	55.73554
2	3.26927	18.16260	13.30167	73.89814
3	1.99635	11.09084	15.29802	84.98898



Zone 2

Factor Loadings (MEI and BA Zone 2) Extraction: Principal components (Marked loadings are >.700000)			
	Factor - 1	Factor - 2	Factor - 3
BA_October	0.350573	0.708508	-0.218729
BA_November	0.473155	-0.649464	-0.256959
BA_December	0.601744	-0.324538	0.437488
BA_January	0.147311	0.097861	0.687464
BA_February	0.285817	-0.570376	0.634987
BA_March	0.769103	-0.470566	0.298889
MEI April	-0.254599	0.784651	0.355070
MEI May	-0.479237	0.612693	0.511156
MEI June	-0.851994	0.233946	0.264340
MEI July	-0.890841	0.172789	-0.162347
MEI August	-0.976155	0.098697	-0.022790
MEI September	-0.913122	-0.184463	0.041469
MEI October	-0.861606	-0.400945	0.068312
MEI November	-0.914571	-0.320364	-0.114666
MEI December	-0.921290	-0.327440	0.012353
MEI January	-0.890638	-0.323200	0.131907
MEI February	-0.921752	-0.195247	0.036353
MEI March	-0.832349	-0.157787	0.035679
Expl.Var	9.767684	3.242959	1.794203
Prp.Totl	0.542649	0.180164	0.099678

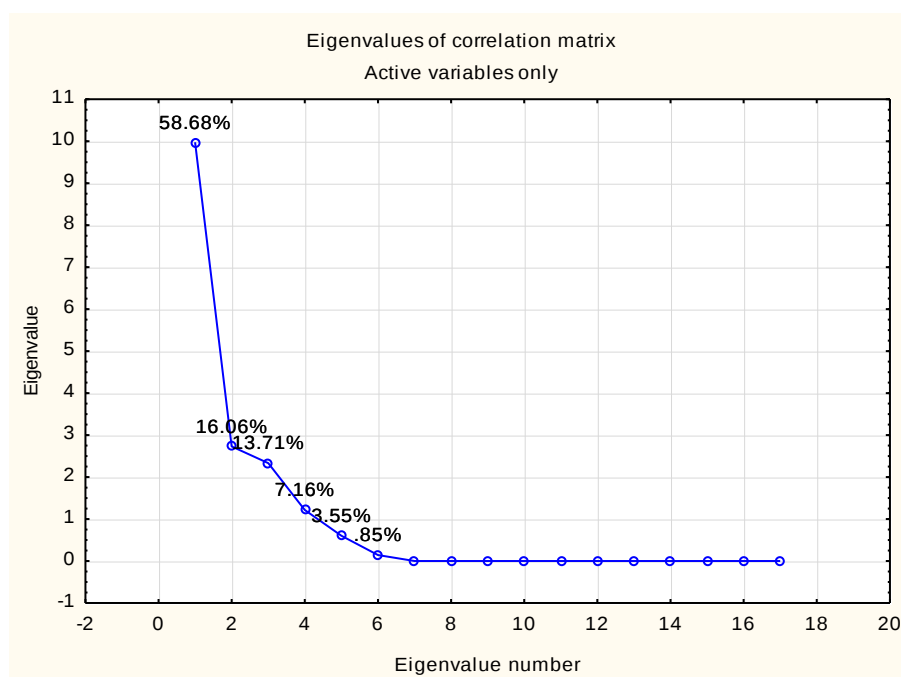
Eigenvalues (MEI and BA zone 2) Extraction: Principal components				
	Eigenvalue	% Total - variance	Cumulative - Eigenvalue	Cumulative - %
1	9.767684	54.26491	9.76768	54.26491
2	3.242959	18.01644	13.01064	72.28135
3	1.794203	9.96779	14.80485	82.24915



Zone 3

Factor Loadings (MEI and BA zone 3) Extraction: Principal components (Marked loadings are >.700000)			
	Factor - 1	Factor - 2	Factor - 3
BA_November	-0.290430	-0.841407	0.287343
BA_December	0.143749	-0.376247	0.784416
BA_January	0.746195	0.008377	-0.254592
BA_February	0.555088	-0.033153	0.760273
BA_March	0.809693	-0.429598	-0.029395
MEI April	-0.232516	0.912898	0.039086
MEI May	-0.401316	0.724484	0.502421
MEI June	-0.820361	0.157414	0.544751
MEI July	-0.862812	0.029465	0.354515
MEI August	-0.955303	0.067093	0.209070
MEI September	-0.946443	-0.155965	0.043807
MEI October	-0.903396	-0.297426	-0.120902
MEI November	-0.947404	-0.251802	-0.185198
MEI December	-0.932974	-0.186043	-0.174560
MEI January	-0.903032	-0.252526	0.010097
MEI February	-0.930903	0.026315	-0.291386
MEI March	-0.801831	0.175354	-0.321083
Expl.Var	9.975578	2.729675	2.331078
Prp.Totl	0.586799	0.160569	0.137122

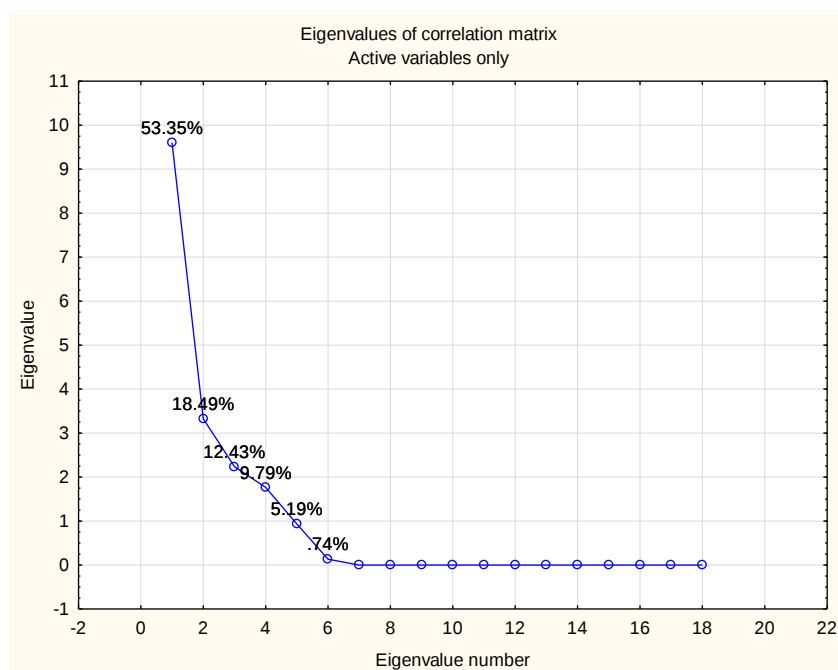
Eigenvalues (MEI and BA zone 3) Extraction: Principal components				
	Eigenvalue	% Total - variance	Cumulative - Eigenvalue	Cumulative - %
1	9.975578	58.67987	9.97558	58.67987
2	2.729675	16.05691	12.70525	74.73678
3	2.331078	13.71222	15.03633	88.44900



Zone 4

Factor Loadings (MEI and BA zone 4) Extraction: Principal components (Marked loadings are >.700000)			
	Factor - 1	Factor - 2	Factor - 3
BA_October	-0.386161	-0.717035	-0.179130
BA_November	-0.132257	-0.733545	-0.509577
BA_December	0.397859	0.344633	-0.782929
BA_January	0.647065	-0.000335	0.429162
BA_February	0.529549	-0.102046	-0.558679
BA_March	0.373850	-0.590766	0.067211
MEI April	-0.180879	0.933824	0.163080
MEI May	-0.403892	0.808774	-0.177449
MEI June	-0.806017	0.342483	-0.446193
MEI July	-0.853073	0.064493	-0.453293
MEI August	-0.951249	0.110915	-0.242970
MEI September	-0.929522	-0.027822	-0.089632
MEI October	-0.904399	-0.188377	0.087057
MEI November	-0.948069	-0.225175	0.073483
MEI December	-0.953951	-0.173159	0.151323
MEI January	-0.915689	-0.144105	-0.004444
MEI February	-0.947903	-0.009501	0.304772
MEI March	-0.856737	0.022909	0.417178
Expl.Var	9.603713	3.328644	2.238088
Prp.Totl	0.533540	0.184925	0.124338

Eigenvalues (MEI and BA zone 4) Extraction: Principal components				
	Eigenvalue	% Total - variance	Cumulative - Eigenvalue	Cumulative - %
1	9.603713	53.35396	9.60371	53.35396
2	3.328644	18.49246	12.93236	71.84643
3	2.238088	12.43382	15.17044	84.28025

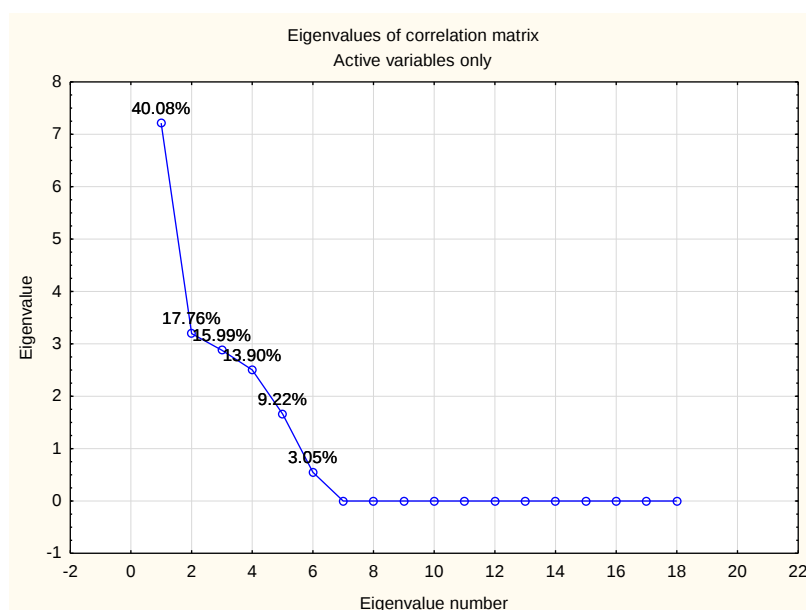


SOI Vs BA

Zone 1

Factor Loadings (SOI and BA zone 1) Extraction: Principal components (Marked loadings are >.700000)			
	Factor - 1	Factor - 2	Factor - 3
BA_October	0.502917	0.314555	-0.033254
BA_November	-0.162427	0.668988	0.443514
BA_December	-0.899028	0.258018	0.070284
BA_January	-0.723347	-0.074233	0.559944
BA_February	-0.566396	0.308094	-0.512568
BA_March	-0.679242	0.354972	-0.350709
SOI_April	-0.466444	0.858183	-0.073277
SOI May	0.029635	-0.183554	0.292500
SOI June	-0.372093	-0.012648	-0.725832
SOI July	-0.524433	-0.468076	0.445654
SOI August	-0.783382	-0.263480	0.351712
SOI September	-0.912801	-0.216729	-0.148015
SOI October	-0.736305	-0.637857	-0.170065
SOI November	-0.793151	0.440874	-0.238333
SOI December	-0.696925	0.012608	0.668525
SOI January	-0.419823	-0.493394	-0.688358
SOI February	-0.789925	0.376859	0.079680
SOI March	-0.534603	-0.514455	-0.028557
Expl.Var	7.214760	3.196834	2.877637
Prp.Totl	0.400820	0.177602	0.159869

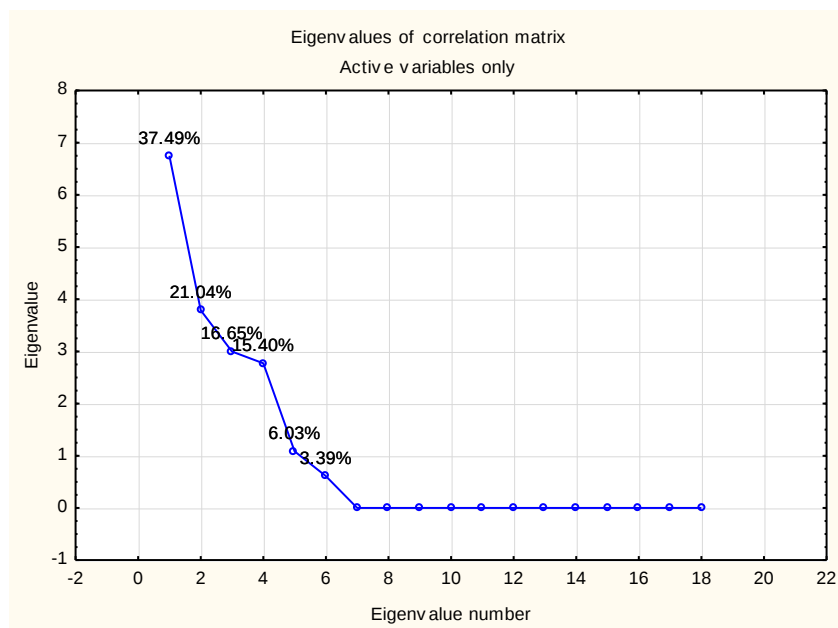
Eigenvalues (SOI and BA zone 1) Extraction: Principal components				
	Eigenvalue	% Total - variance	Cumulative - Eigenvalue	Cumulative - %
1	7.214760	40.08200	7.21476	40.08200
2	3.196834	17.76019	10.41159	57.84219
3	2.877637	15.98687	13.28923	73.82906



Zone 2

Factor Loadings (SOI and BA zone 2) Extraction: Principal components (Marked loadings are >.700000)			
	Factor - 1	Factor - 2	Factor - 3
BA_October	-0.206805	-0.823589	0.154833
BA_November	-0.506413	0.440003	-0.610461
BA_December	-0.743197	0.183096	0.344793
BA_January	-0.374334	-0.274546	-0.387754
BA_February	-0.449122	0.674127	0.337732
BA_March	-0.838366	0.474438	-0.019331
SOI_April	-0.496853	0.687836	0.369265
SOI May	-0.097965	0.380014	-0.774388
SOI June	-0.269567	-0.384188	0.832291
SOI July	-0.486958	-0.764896	-0.167118
SOI August	-0.842443	-0.033544	-0.486195
SOI September	-0.917891	-0.153888	0.019041
SOI October	-0.713807	-0.461661	-0.120399
SOI November	-0.814602	0.422476	0.295528
SOI Decembre	-0.747450	-0.129758	-0.396798
SOI January	-0.384826	-0.283169	0.221912
SOI February	-0.748654	-0.070249	0.430351
SOI March	-0.541923	-0.508963	-0.172928
Expl.Var	6.748780	3.787957	2.997358
Prp.Totl	0.374932	0.210442	0.166520

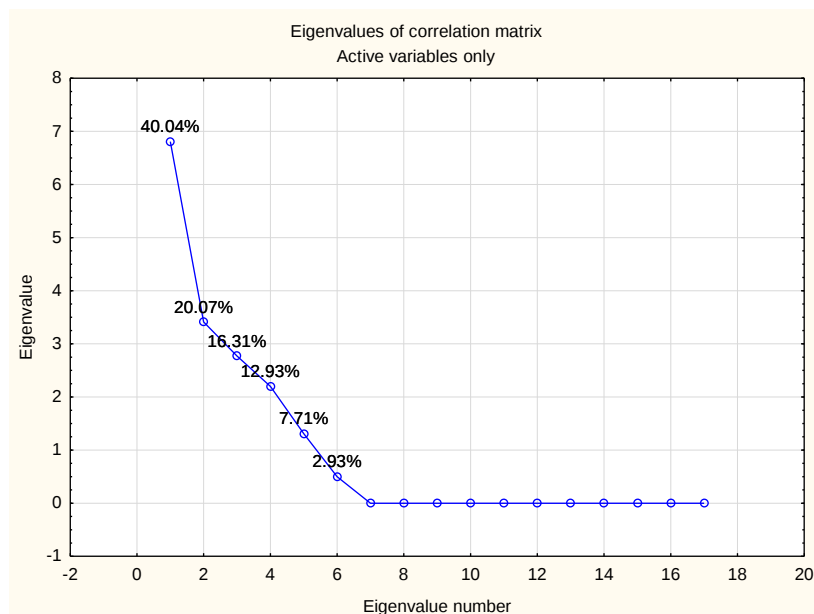
Eigenvalues (SOI and BA zone 2) Extraction: Principal components				
	Eigenvalue	% Total - variance	Cumulative - Eigenvalue	Cumulative - %
1	6.748780	37.49322	6.74878	37.49322
2	3.787957	21.04421	10.53674	58.53743
3	2.997358	16.65199	13.53410	75.18942



Zone 3

Factor Loadings (SOI and BA zone 3) Extraction: Principal components (Marked loadings are >.700000)			
	Factor - 1	Factor - 2	Factor - 3
BA_November	0.200046	0.698901	0.129642
BA_December	-0.422322	0.726409	-0.209258
BA_January	-0.711109	-0.144329	0.472037
BA_February	-0.720688	0.391415	-0.363236
BA_March	-0.828025	0.182812	0.491478
SOI April	-0.460419	0.708653	0.514232
SOI May	-0.051944	-0.625830	0.574535
SOI June	-0.453864	0.441942	-0.662578
SOI July	-0.384513	-0.388885	-0.343243
SOI August	-0.763219	-0.541241	0.315601
SOI September	-0.964004	-0.220983	-0.048384
SOI October	-0.782370	-0.471929	-0.379864
SOI November	-0.850448	0.304083	0.359332
SOI Decembre	-0.558995	-0.194129	0.252635
SOI January	-0.590887	-0.183673	-0.524714
SOI February	-0.692965	0.382516	0.067065
SOI March	-0.565826	-0.272004	-0.496123
Expl.Var	6.806747	3.412672	2.773403
Prp.Totl	0.400397	0.200745	0.163141

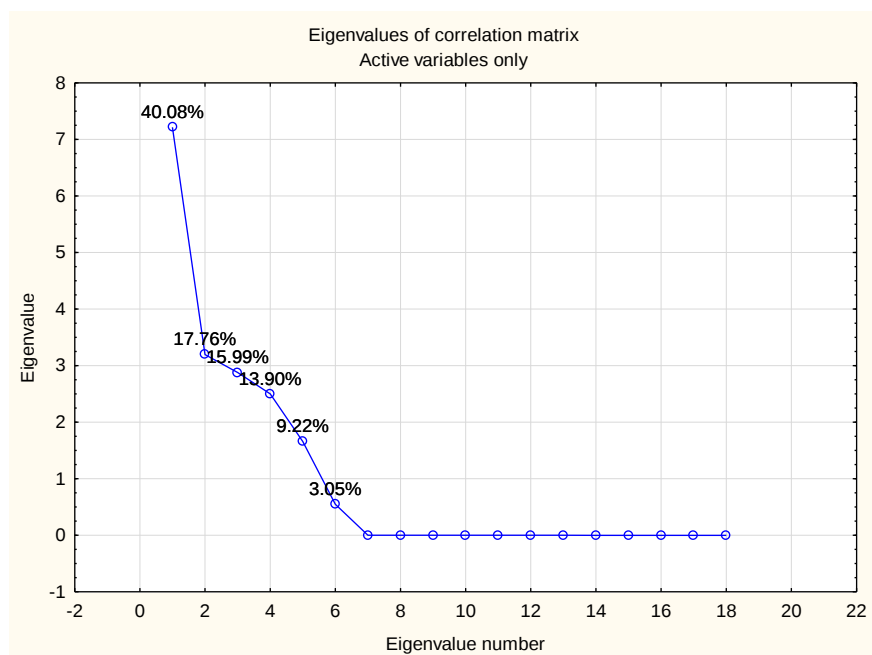
Eigenvalues (SOI and B A zone 3) Extraction: Principal components				
	Eigenvalue	% Total - variance	Cumulative - Eigenvalue	Cumulative - %
1	6.806747	40.03969	6.80675	40.03969
2	3.412672	20.07454	10.21942	60.11423
3	2.773403	16.31414	12.99282	76.42837



Zone 4

Factor Loadings (SOI and BA zone 4) Extraction: Principal components (Marked loadings are >.700000)			
	Factor - 1	Factor - 2	Factor - 3
BA_October	0.603789	0.418759	-0.189384
BA_November	0.098571	0.577536	0.090903
BA_December	-0.582568	-0.019910	0.683163
BA_January	-0.680305	-0.229536	-0.351162
BA_February	-0.630185	0.659391	0.327462
BA_March	-0.079410	0.643271	-0.562540
SOI_April	-0.300964	0.823345	-0.261625
SOI May	0.117419	-0.248837	-0.896661
SOI June	-0.481087	0.421522	0.622740
SOI July	-0.663061	-0.545193	0.292223
SOI August	-0.739668	-0.284662	-0.608051
SOI September	-0.917886	0.035647	-0.268758
SOI October	-0.813826	-0.359659	-0.060151
SOI November	-0.670167	0.605881	-0.408112
SOI December	-0.692124	-0.204226	-0.238889
SOI January	-0.500553	0.011256	0.062202
SOI February	-0.762940	0.362889	0.135639
SOI March	-0.675777	-0.272366	0.153234
Expl.Var	6.624781	3.451774	3.118433
Prp.Totl	0.368043	0.191765	0.173246

Eigenvalues (SOI and B A zone 4) Extraction: Principal components				
	Eigenvalue	% Total - variance	Cumulative - Eigenvalue	Cumulative - %
1	6.624781	36.80434	6.62478	36.80434
2	3.451774	19.17652	10.07655	55.98086
3	3.118433	17.32463	13.19499	73.30548

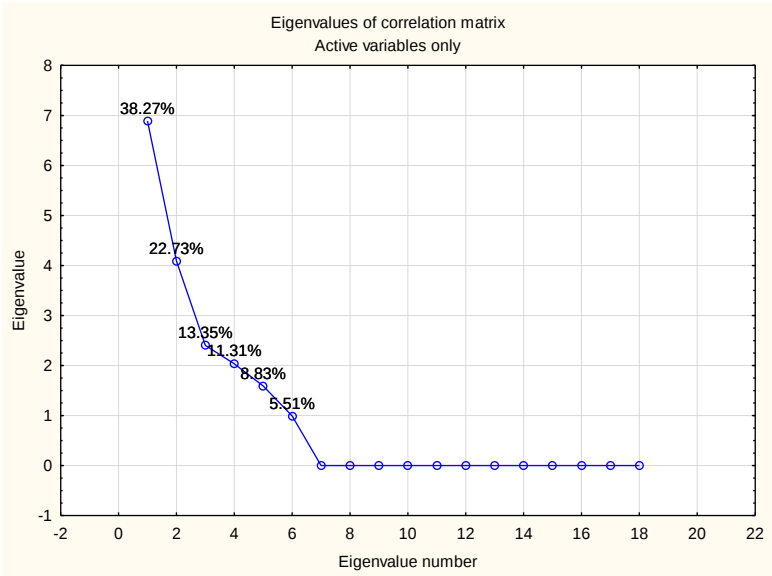


NAO Vs BA

Zone 1

Factor Loadings (NAO and BA zone 1) Extraction: Principal components (Marked loadings are >.700000)			
	Factor - 1	Factor - 2	Factor - 3
BA_October	-0.747387	0.027768	-0.492298
BA_November	-0.293499	0.644912	-0.669136
BA_December	0.760414	0.541898	-0.097250
BA_January	0.687566	0.153751	-0.177864
BA_February	0.667771	0.464591	0.301958
BA_March	0.667364	0.246687	-0.453366
NAO April	-0.675458	0.086743	0.226918
NAO May	0.651255	-0.024164	-0.396392
NAO June	-0.157318	0.870821	0.289973
NAO July	-0.886673	-0.092713	0.215291
NAO August	0.640024	-0.474341	0.551499
NAO September	0.350231	-0.844913	-0.083451
NAO October	0.757014	-0.161766	-0.589658
NAO November	-0.684542	-0.118388	-0.060471
NAO Decembre	-0.792606	-0.022690	-0.496476
NAO January	-0.212214	-0.836937	-0.124123
NAO February	0.506952	0.092127	0.235430
NAO March	-0.324622	0.785145	0.237781
Expl.Var	6.887911	4.090686	2.403294
Prp.Totl	0.382662	0.227260	0.133516

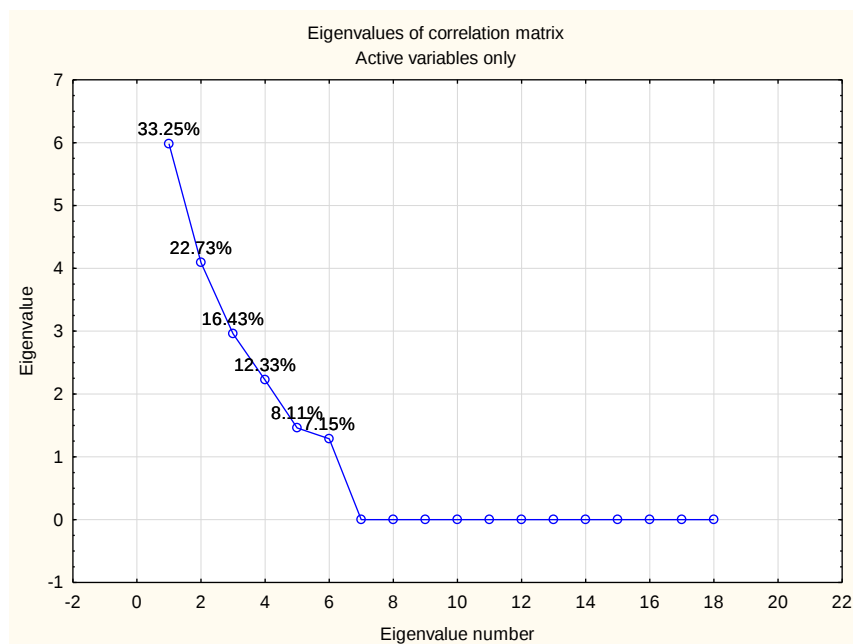
Eigenvalues (NAO and B A zone 1) Extraction: Principal components				
	Eigenvalue	% Total - variance	Cumulative - Eigenvalue	Cumulative - %
1	6.887911	38.26617	6.88791	38.26617
2	4.090686	22.72604	10.97860	60.99221
3	2.403294	13.35164	13.38189	74.34385



Zone 2

Factor Loadings (NAO and BA zone 2) Extraction: Principal components (Marked loadings are >.700000)			
	Factor - 1	Factor - 2	Factor - 3
BA_October	0.128653	-0.428430	-0.777930
BA_November	0.241682	0.198516	0.528412
BA_December	0.688327	0.582146	-0.344079
BA_January	0.393875	-0.074855	-0.304290
BA_February	0.625043	0.612384	0.276997
BA_March	0.835884	0.246919	0.458439
NAO April	-0.656083	0.344590	0.466651
NAO May	0.737233	0.095171	0.480435
NAO June	-0.165460	0.815308	-0.316374
NAO July	-0.891739	0.080053	0.223248
NAO August	0.503925	-0.517472	-0.473543
NAO September	0.302005	-0.906812	0.015292
NAO October	0.834938	-0.216612	0.271970
NAO November	-0.683329	-0.138282	-0.180872
NAO Decembre	-0.696855	0.007393	0.422516
NAO January	-0.226009	-0.778535	0.395403
NAO February	0.485608	0.194163	-0.095141
NAO March	-0.336345	0.699088	-0.549338
Expl.Var	5.984646	4.091099	2.957629
Prp.Totl	0.332480	0.227283	0.164313

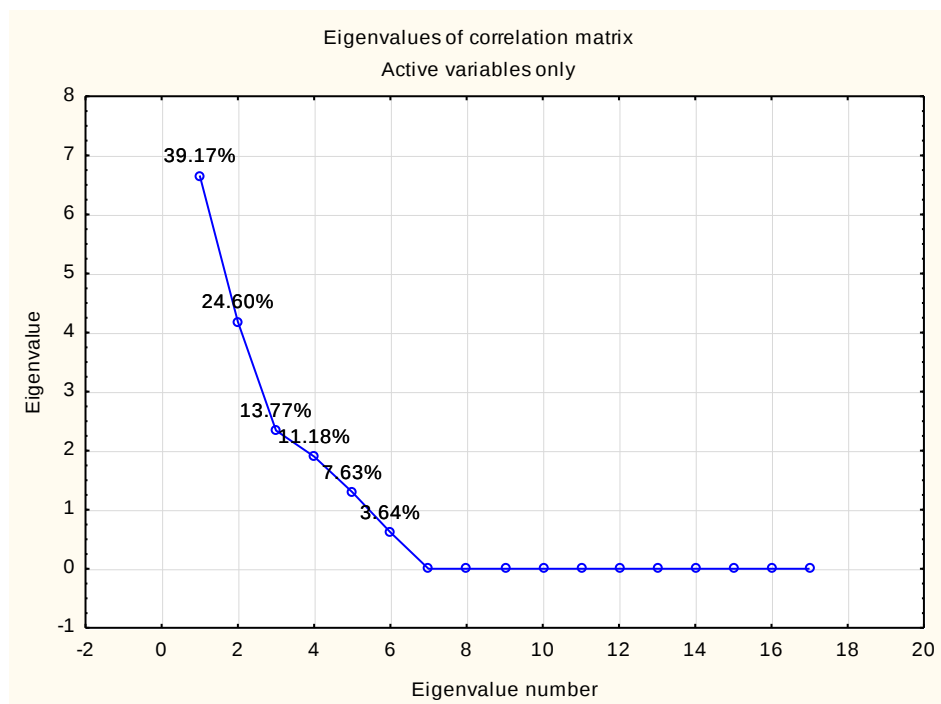
Eigenvalues (NAO and BA zone2) Extraction: Principal components				
	Eigenvalue	% Total - variance	Cumulative - Eigenvalue	Cumulative - %
1	5.984646	33.24803	5.98465	33.24803
2	4.091099	22.72833	10.07574	55.97636
3	2.957629	16.43127	13.03337	72.40763



Zone 3

Factor Loadings (NAO and BA zone 3) Extraction: Principal components (Marked loadings are >.700000)			
	Factor - 1	Factor - 2	Factor - 3
BA_November	-0.623490	0.589987	0.149187
BA_December	0.183518	0.853006	0.425663
BA_January	0.860802	0.129651	-0.467290
BA_February	0.638621	0.472878	0.511906
BA_March	0.706012	0.447058	-0.285069
NAO April	-0.642104	0.059559	-0.119561
NAO May	0.705604	-0.021422	-0.539430
NAO June	-0.358998	0.903205	0.177678
NAO July	-0.855445	-0.258650	-0.186396
NAO August	0.608179	-0.338069	0.234323
NAO September	0.443547	-0.772478	0.346159
NAO October	0.865285	-0.068320	-0.169612
NAO November	-0.641949	-0.436701	-0.505282
NAO Decembre	-0.741131	-0.253537	-0.161364
NAO January	0.007293	-0.677694	0.501446
NAO February	0.540548	0.130305	-0.552783
NAO March	-0.499166	0.576862	-0.403844
Expl.Var	6.658647	4.182359	2.341668
Prp.Totl	0.391685	0.246021	0.137745

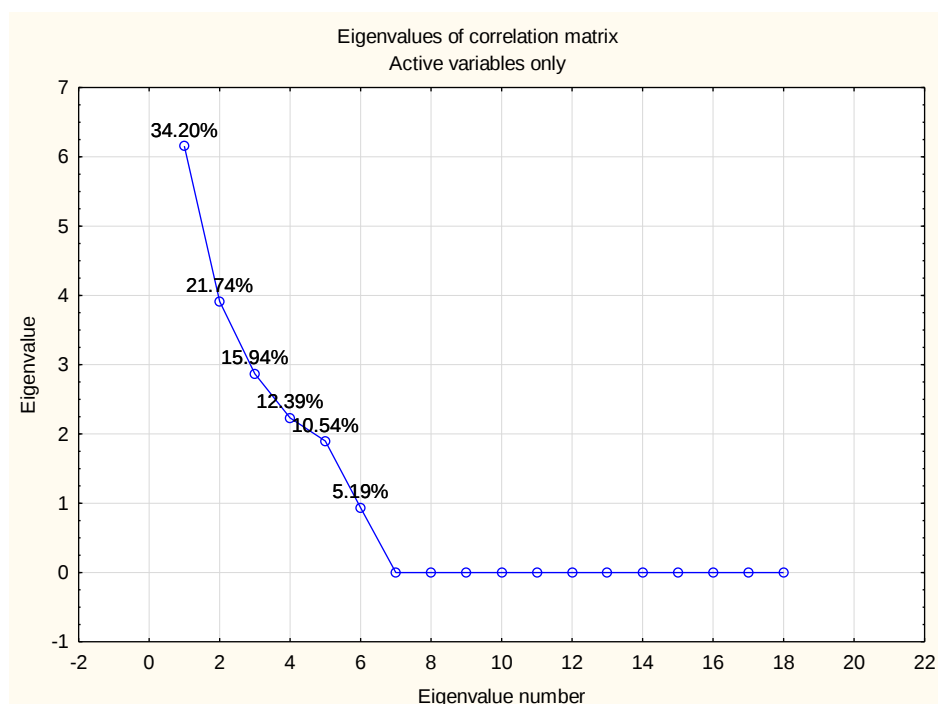
Eigenvalues (NAO and BA zone 3) Extraction: Principal components				
	Eigenvalue	% Total - variance	Cumulative - Eigenvalue	Cumulative - %
1	6.658647	39.16851	6.65865	39.16851
2	4.182359	24.60211	10.84101	63.77062
3	2.341668	13.77452	13.18267	77.54514



Zone 4

Factor Loadings (NAO and BA zone 4) Extraction: Principal components (Marked loadings are >.700000)			
	Factor - 1	Factor - 2	Factor - 3
BA_October	-0.766194	-0.203912	0.320096
BA_November	-0.661901	0.519613	-0.057298
BA_December	0.238040	0.272647	-0.769326
BA_January	0.527216	0.294412	-0.019996
BA_February	0.374634	0.850197	0.006898
BA_March	0.144592	0.008874	0.815625
NAO April	-0.752531	-0.206422	0.344943
NAO May	0.573336	-0.074589	0.689751
NAO June	-0.392732	0.855047	-0.142864
NAO July	-0.856731	-0.383957	0.064309
NAO August	0.764264	-0.204662	-0.313444
NAO September	0.590808	-0.668304	-0.414684
NAO October	0.771946	-0.020519	0.376921
NAO November	-0.569730	-0.297121	-0.018199
NAO Decembre	-0.755478	-0.302925	-0.045555
NAO January	0.015720	-0.785726	-0.158675
NAO February	0.439978	0.136445	0.667916
NAO March	-0.482635	0.697536	-0.002128
Expl.Var	6.155445	3.913730	2.868568
Prp.Totl	0.341969	0.217429	0.159365

Eigenvalues (Spreadsheet23) Extraction: Principal components				
	Eigenvalue	% Total - variance	Cumulative - Eigenvalue	Cumulative - %
1	6.155445	34.19692	6.15545	34.19692
2	3.913730	21.74294	10.06918	55.93986
3	2.868568	15.93649	12.93774	71.87635

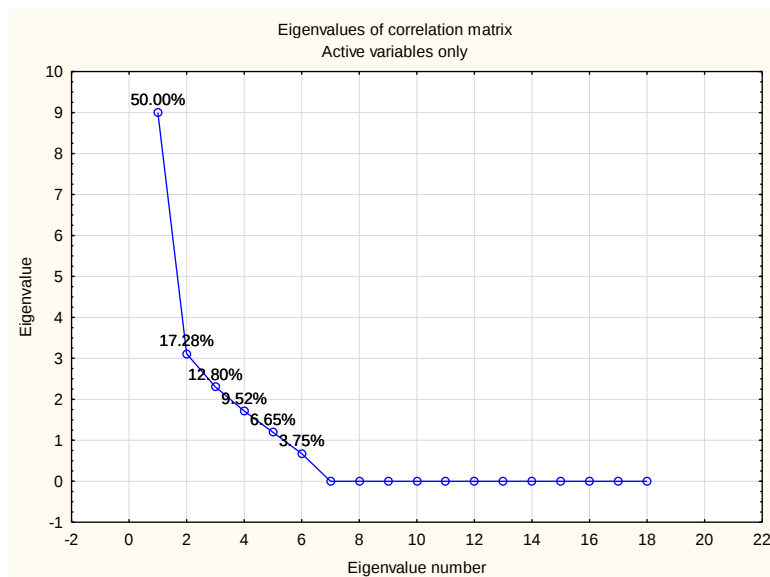


SSTG Vs BA

Zone 1

Factor Loadings (SSTG and BA zone 1) Extraction: Principal components (Marked loadings are >.700000)			
	Factor - 1	Factor - 2	Factor - 3
BA_October	-0.665681	0.476429	0.400503
BA_November	-0.017636	0.779859	0.047910
BA_December	0.568206	0.261041	-0.744514
BA_January	0.675355	0.171537	-0.446026
BA_February	0.653698	-0.308699	-0.361512
BA_March	0.540980	0.137929	-0.310803
SSTG April	-0.800557	-0.386632	0.211877
SSTG May	-0.832317	-0.229310	-0.270566
SSTG June	-0.842816	-0.201939	-0.358431
SSTG July	-0.830025	-0.161906	-0.460347
SSTG August	-0.912004	-0.252430	-0.230569
SSTG September	-0.874698	-0.131318	-0.378721
SSTG October	-0.928054	-0.053108	0.249448
SSTG November	-0.784327	-0.039016	0.292994
SSTG Decembre	-0.750346	0.132617	-0.406435
SSTG January	-0.629793	0.478817	-0.402653
SSTG February	-0.458901	0.843692	-0.116712
SSTG March	-0.286108	0.866065	0.125656
Expl.Var	9.000716	3.110157	2.303109
Prp.Totl	0.500040	0.172787	0.127950

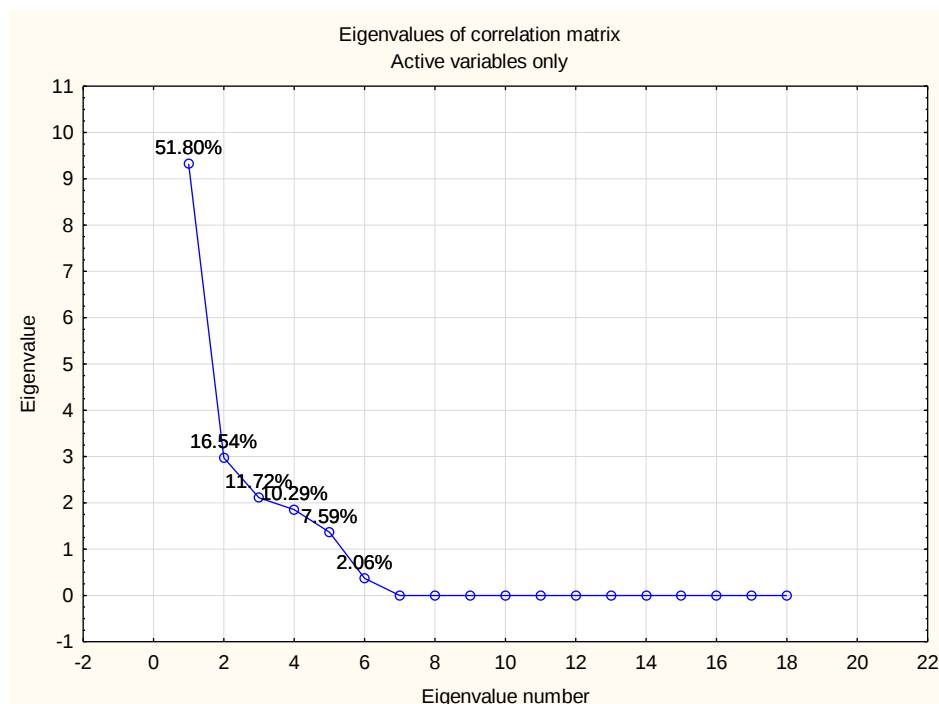
Eigenvalues (SSTG and BA zone 1) Extraction: Principal components				
	Eigenvalue	% Total - variance	Cumulative - Eigenvalue	Cumulative - %
1	9.000716	50.00398	9.00072	50.00398
2	3.110157	17.27865	12.11087	67.28263
3	2.303109	12.79505	14.41398	80.07768



Zone 2

Factor Loadings (SSTG and BA zone 2) Extraction: Principal components (Marked loadings are >.700000)			
	Factor - 1	Factor - 2	Factor - 3
BA_October	-0.465572	0.651575	0.146137
BA_November	0.391508	0.316191	0.639907
BA_December	0.647193	0.541283	0.086661
BA_January	0.446630	-0.029199	0.537507
BA_February	0.837776	-0.180394	-0.200696
BA_March	0.648036	0.041160	0.347134
SSTG April	-0.744825	-0.548827	0.230074
SSTG May	-0.825518	-0.254001	0.412534
SSTG June	-0.871632	-0.115978	0.429332
SSTG July	-0.862743	-0.052165	0.387826
SSTG August	-0.927777	-0.195901	0.273306
SSTG September	-0.921020	0.001257	-0.048821
SSTG October	-0.900297	-0.158890	-0.109130
SSTG November	-0.750750	-0.157514	-0.578140
SSTG Decembre	-0.809397	0.323412	-0.254265
SSTG January	-0.687463	0.648074	-0.255018
SSTG February	-0.459969	0.830592	-0.111861
SSTG March	-0.226837	0.662878	0.312927
Expl.Var	9.324465	2.976823	2.109250
Prp.Totl	0.518026	0.165379	0.117181

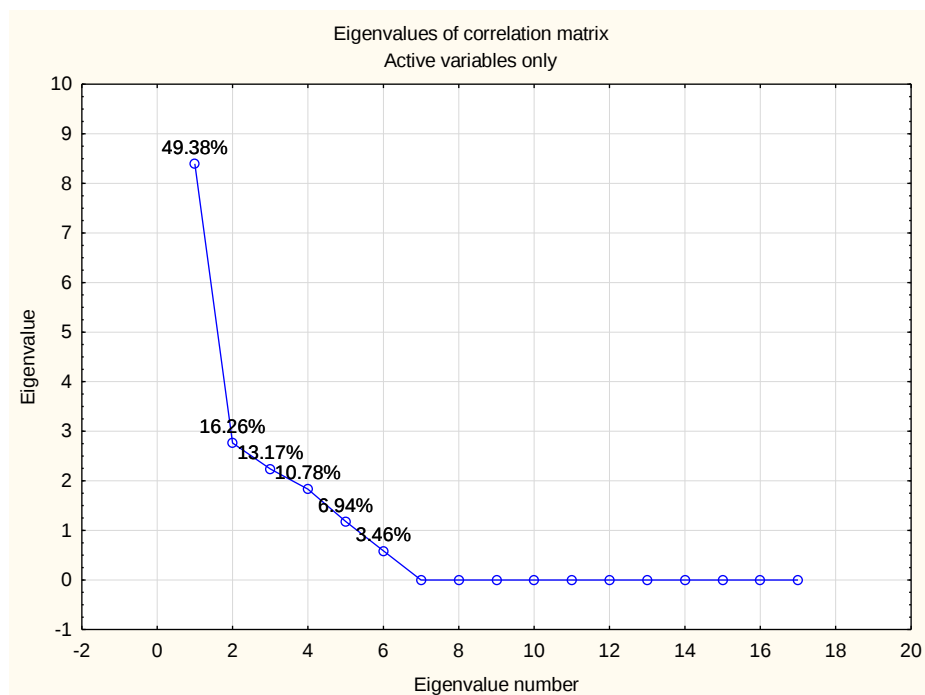
Eigenvalues (SSTG and BA zone 2) Extraction: Principal components				
	Eigenvalue	% Total - variance	Cumulative - Eigenvalue	Cumulative - %
1	9.324465	51.80259	9.32447	51.80259
2	2.976823	16.53790	12.30129	68.34049
3	2.109250	11.71805	14.41054	80.05854



Zone 3

Factor Loadings (SSTG and BA zone 3) Extraction: Principal components (Marked loadings are >.700000)			
	Factor - 1	Factor - 2	Factor - 3
BA_November	-0.248688	-0.168018	0.131755
BA_December	0.330874	0.535913	0.298746
BA_January	0.774176	0.106131	0.379787
BA_February	0.178703	0.810578	0.524713
BA_March	0.628351	0.158013	0.584546
SSTG_April	-0.773673	0.245608	-0.398721
SSTG_May	-0.860716	0.353687	-0.028650
SSTG_June	-0.889388	0.252677	-0.026582
SSTG_July	-0.858933	0.302321	0.171145
SSTG_August	-0.927162	0.241933	-0.042096
SSTG_September	-0.914483	0.249546	0.241108
SSTG_October	-0.925664	-0.146235	-0.274245
SSTG_November	-0.748198	-0.053178	0.000874
SSTG_Decembre	-0.747271	0.002234	0.546807
SSTG_January	-0.636683	-0.303157	0.655338
SSTG_February	-0.434564	-0.721309	0.537829
SSTG_March	-0.254098	-0.810720	0.169690
Expl.Var	8.395364	2.763843	2.239298
Prp.Totl	0.493845	0.162579	0.131723

Eigenvalues (SSTG and BA zone 3) Extraction: Principal components				
	Eigenvalue	% Total - variance	Cumulative - Eigenvalue	Cumulative - %
1	8.395364	49.38450	8.39536	49.38450
2	2.763843	16.25790	11.15921	65.64240
3	2.239298	13.17234	13.39851	78.81474



Zone 4

Factor Loadings (SSTG and BA zone 4) Extraction: Principal components (Marked loadings are >.700000)			
	Factor - 1	Factor - 2	Factor - 3
BA_October	-0.443830	0.623310	-0.605991
BA_November	-0.250335	0.634799	0.011241
BA_December	-0.646361	-0.236871	0.660178
BA_January	0.468859	0.054154	0.650310
BA_February	0.166091	0.144330	0.694713
BA_March	0.166802	0.403941	-0.186510
SSTG April	-0.762100	-0.296219	-0.503335
SSTG May	-0.887980	-0.279482	0.018224
SSTG June	-0.894922	-0.320158	0.152105
SSTG July	-0.894983	-0.251078	0.201644
SSTG August	-0.934469	-0.277878	-0.029364
SSTG September	-0.942324	-0.108258	0.220078
SSTG October	-0.874313	0.040226	-0.318193
SSTG November	-0.741292	0.243178	-0.370958
SSTG Decembre	-0.789610	0.195793	0.279831
SSTG January	-0.662943	0.474270	0.443253
SSTG February	-0.428352	0.792897	0.288627
SSTG March	-0.218153	0.719829	0.065224
Expl.Var	8.293055	2.925719	2.711465
Prp.Totl	0.460725	0.162540	0.150637

Eigenvalues (SSTG and BA zone 4) Extraction: Principal components				
	Eigenvalue	% Total - variance	Cumulative - Eigenvalue	Cumulative - %
1	8.293055	46.07253	8.29306	46.07253
2	2.925719	16.25399	11.21877	62.32652
3	2.711465	15.06370	13.93024	77.39022

