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<b>Member Type</b>	DATA	<b>Variables</b>	12
<b>Engine</b>	V9	<b>Indexes</b>	0
<b>Created</b>	19.01.2021 20:41:50	<b>Observation Length</b>	96
<b>Last Modified</b>	19.01.2021 20:41:50	<b>Deleted Observations</b>	0
<b>Protection</b>		<b>Compressed</b>	NO
<b>Data Set Type</b>		<b>Sorted</b>	NO
<b>Label</b>			
<b>Data Representation</b>	SOLARIS_X86_64, LINUX_X86_64, ALPHA_TRU64, LINUX_IA64		
<b>Encoding</b>	utf-8 Unicode (UTF-8)		

Engine/Host Dependent Information	
<b>Data Set Page Size</b>	131072
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<b>First Data Page</b>	1
<b>Max Obs per Page</b>	1363
<b>Obs in First Data Page</b>	400
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Alphabetic List of Variables and Attributes					
#	Variable	Type	Len	Format	Label
5	Age	Num	8	F12.	Yaş
11	Balance	Num	8	F12.	Bakiye
4	Cards	Num	8	F12.	Kart Sayısı
6	Education	Num	8	F12.	Eğitim
10	Ethnicity	Num	8	ETHNICIA.	Etnik Köken
7	Gender	Num	8	GENDERA.	Cinsiyet
1	Income	Num	8	F12.3	Gelir
12	Kredi_ID	Num	8	F12.	Kredi_ID
2	Limit	Num	8	F12.	Limit
9	Married	Num	8	MARRIEDA.	Evlilik

Alphabetic List of Variables and Attributes					
#	Variable	Type	Len	Format	Label
3	Rating	Num	8	F12.	Kredi Notu
8	Student	Num	8	STUDENTA.	Öğrencilik Durumu

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
Income	Gelir	400	45.2188850	35.2442732	10.3540000	186.6340000
Limit	Limit	400	4735.60	2308.20	855.0000000	13913.00
Rating	Kredi Notu	400	354.9400000	154.7241426	93.0000000	982.0000000
Cards	Kart Sayısı	400	2.9575000	1.3712749	1.0000000	9.0000000
Age	Yaş	400	55.6675000	17.2498068	23.0000000	98.0000000
Balance	Bakiye	400	520.0150000	459.7588774	0	1999.00

Etnik Köken				
Ethnicity	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Asian	102	25.50	102	25.50
Caucasian	199	49.75	301	75.25
African American	99	24.75	400	100.00

**Etnik Köken=Asian**

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
Income	Gelir	102	44.1878333	35.6007350	10.3630000	180.3790000
Limit	Limit	102	4607.82	2345.05	886.0000000	12066.00
Rating	Kredi Notu	102	345.4313725	157.3467829	115.0000000	828.0000000
Cards	Kart Sayısı	102	2.9705882	1.3962884	1.0000000	7.0000000
Age	Yaş	102	53.9117647	16.5583893	24.0000000	87.0000000
Balance	Bakiye	102	512.3137255	481.4024681	0	1779.00

**Etnik Köken=Caucasian**

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
Income	Gelir	199	44.5219447	33.2786623	10.3540000	182.7280000
Limit	Limit	199	4728.46	2190.73	905.0000000	13913.00
Rating	Kredi Notu	199	354.7738693	147.3527141	93.0000000	982.0000000
Cards	Kart Sayısı	199	2.9497487	1.4416207	1.0000000	9.0000000
Age	Yaş	199	55.6532663	17.1707226	23.0000000	98.0000000
Balance	Bakiye	199	518.4974874	436.9466934	0	1999.00

**Etnik Köken=African American**

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
Income	Gelir	99	47.6821010	38.7993280	10.5030000	186.6340000
Limit	Limit	99	4881.60	2507.77	855.0000000	13414.00
Rating	Kredi Notu	99	365.0707071	166.9901166	103.0000000	949.0000000
Cards	Kart Sayısı	99	2.9595960	1.2030505	1.0000000	7.0000000
Age	Yaş	99	57.5050505	18.0720631	25.0000000	91.0000000
Balance	Bakiye	99	531.0000000	485.6327453	0	1809.00

Class Level Information		
Class	Levels	Values
Ethnicity	3	African American Asian Caucasian

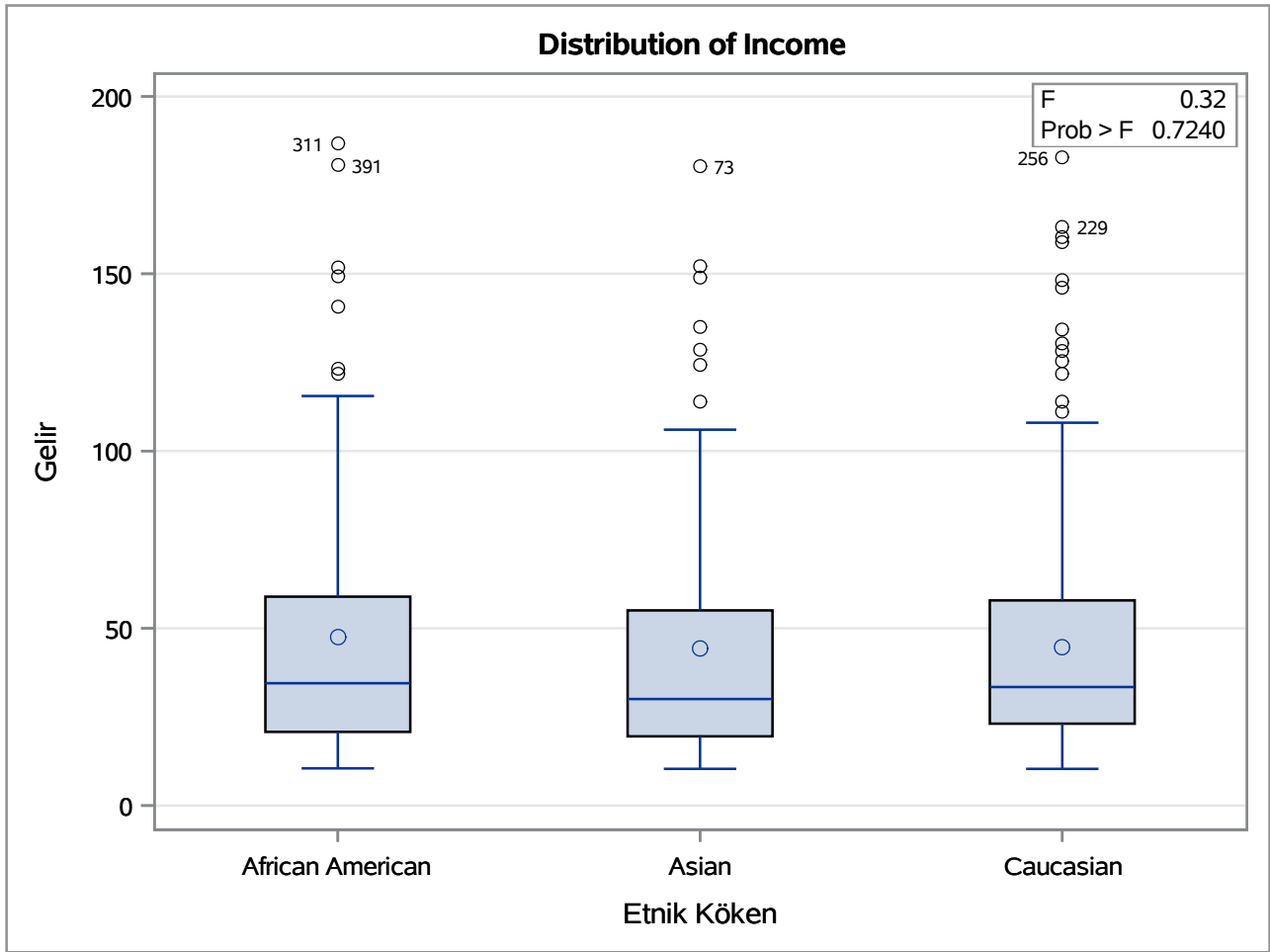
Number of Observations Read	400
Number of Observations Used	400

Dependent Variable: Income Gelir

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	805.7682	402.8841	0.32	0.7240
Error	397	494815.5894	1246.3869		
Corrected Total	399	495621.3576			

R-Square	Coeff Var	Root MSE	Income Mean
0.001626	78.07403	35.30420	45.21888

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Ethnicity	2	805.7681912	402.8840956	0.32	0.7240

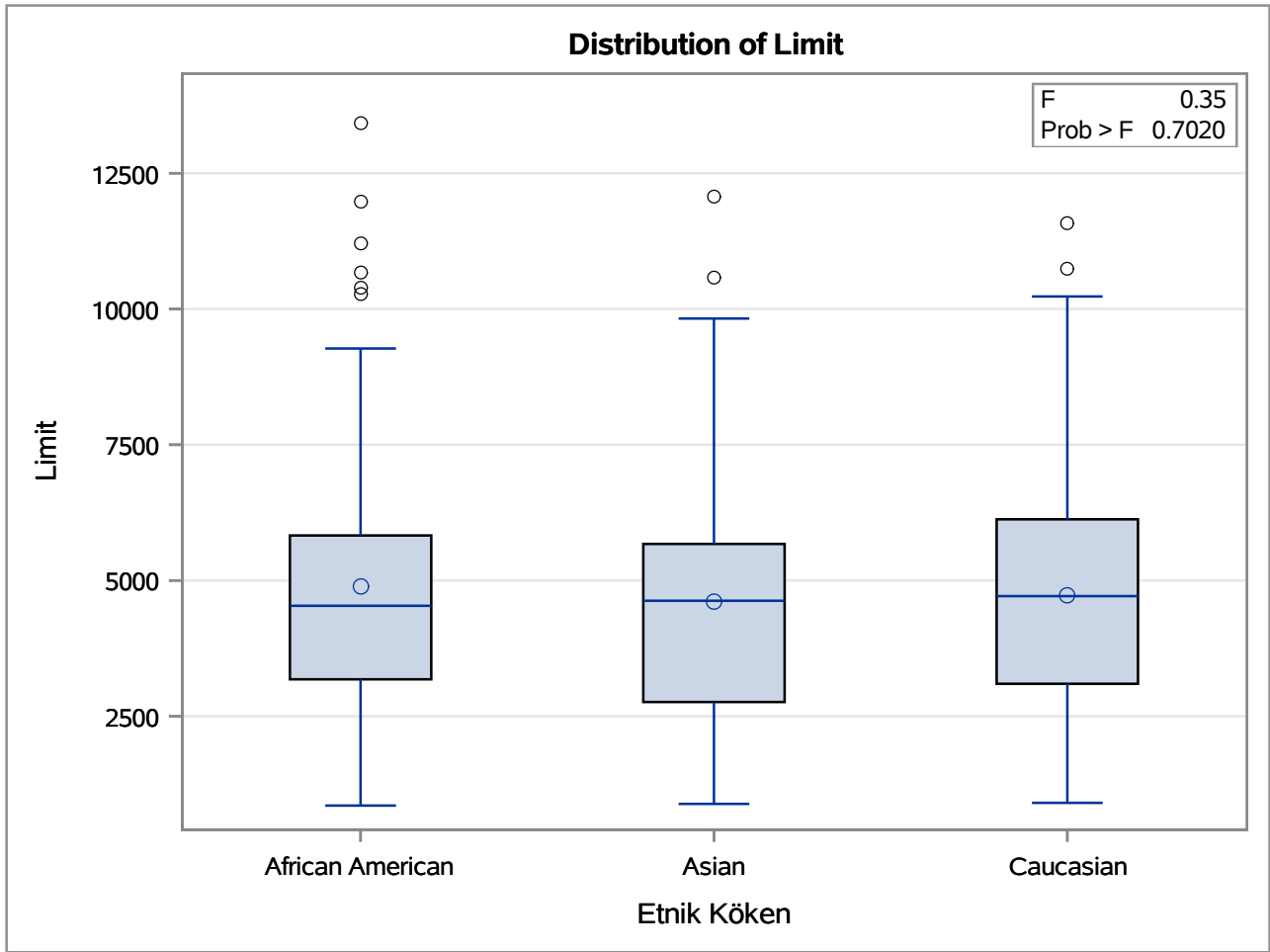


Dependent Variable: Limit Limit

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	3785642	1892821	0.35	0.7020
Error	397	2121999344	5345087		
Corrected Total	399	2125784986			

R-Square	Coeff Var	Root MSE	Limit Mean
0.001781	48.82052	2311.944	4735.600

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Ethnicity	2	3785641.871	1892820.935	0.35	0.7020



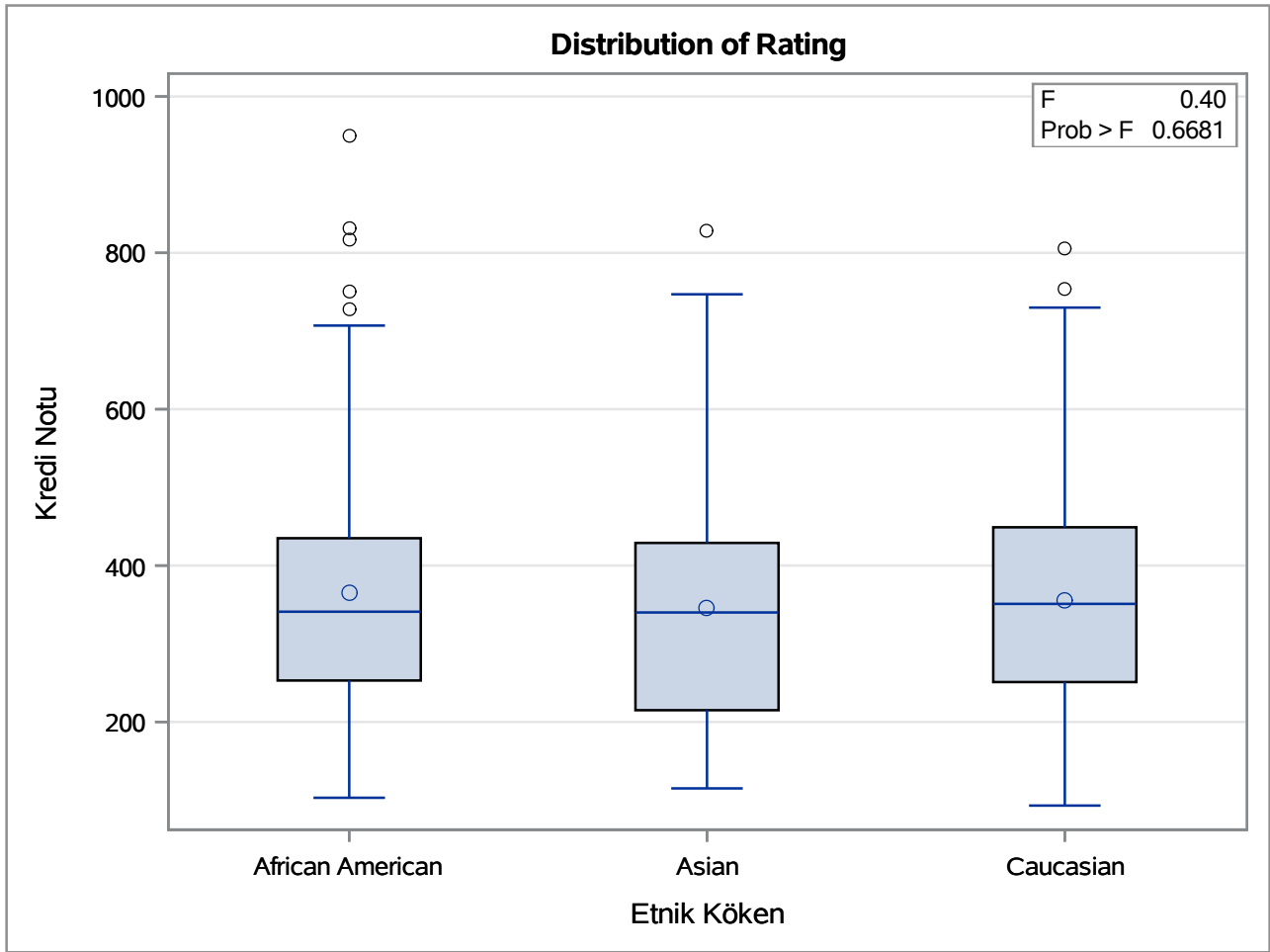


Dependent Variable: Rating Kredi Notu

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	19388.211	9694.106	0.40	0.6681
Error	397	9532496.349	24011.326		
Corrected Total	399	9551884.560			

R-Square	Coeff Var	Root MSE	Rating Mean
0.002030	43.65692	154.9559	354.9400

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Ethnicity	2	19388.21122	9694.10561	0.40	0.6681

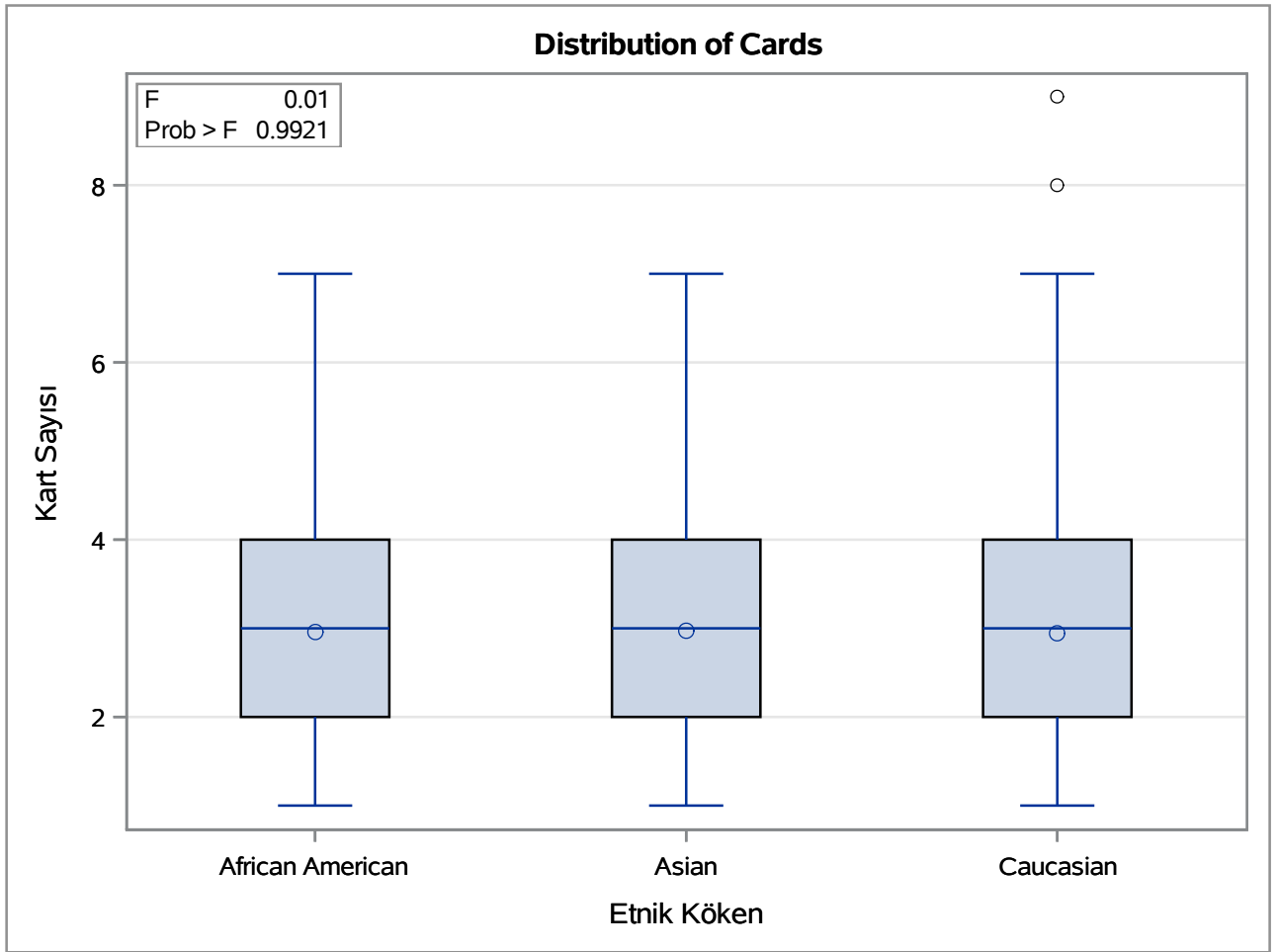


## Dependent Variable: Cards Kart Sayısı

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	0.0298640	0.0149320	0.01	0.9921
Error	397	750.2476360	1.8897925		
Corrected Total	399	750.2775000			

R-Square	Coeff Var	Root MSE	Cards Mean
0.000040	46.48173	1.374697	2.957500

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Ethnicity	2	0.02986402	0.01493201	0.01	0.9921

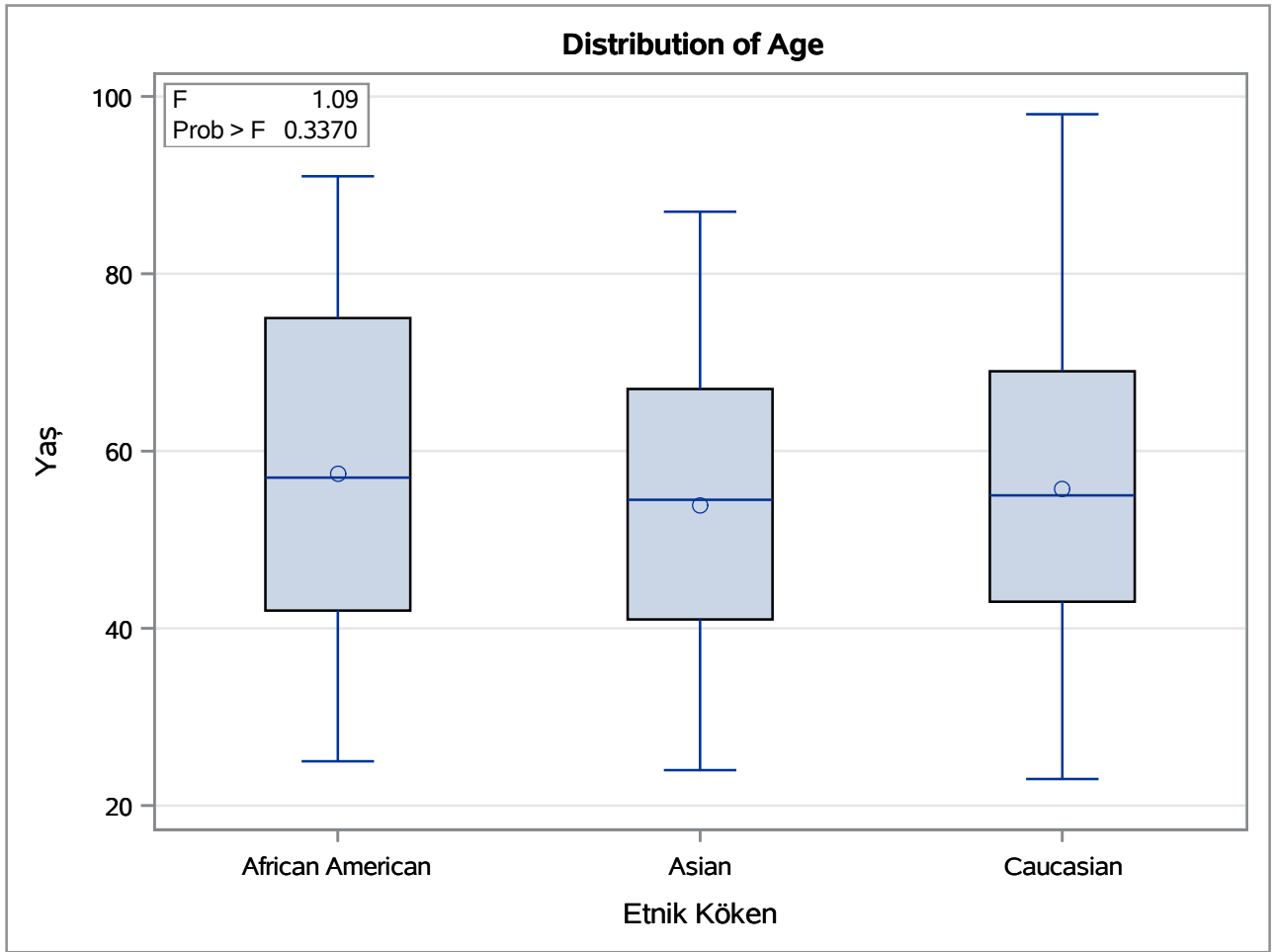


## Dependent Variable: Age Yaş

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	648.7488	324.3744	1.09	0.3370
Error	397	118076.0287	297.4207		
Corrected Total	399	118724.7775			

R-Square	Coeff Var	Root MSE	Age Mean
0.005464	30.98018	17.24589	55.66750

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Ethnicity	2	648.7487660	324.3743830	1.09	0.3370

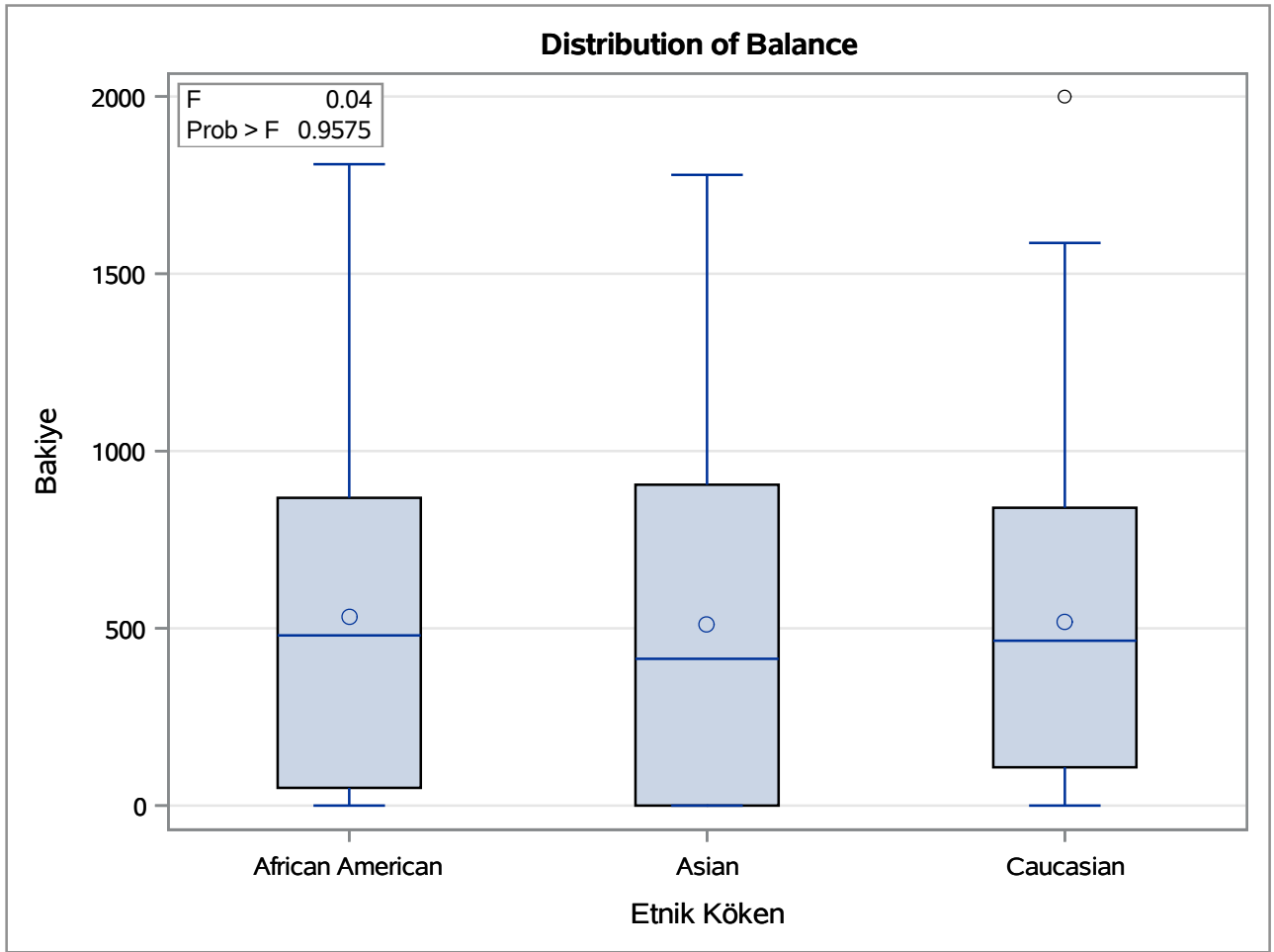


## Dependent Variable: Balance Bakiye

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	18454.20	9227.10	0.04	0.9575
Error	397	84321457.71	212396.62		
Corrected Total	399	84339911.91			

R-Square	Coeff Var	Root MSE	Balance Mean
0.000219	88.62534	460.8651	520.0150

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Ethnicity	2	18454.20047	9227.10024	0.04	0.9575



## Multivariate Analysis of Variance

Characteristic Roots and Vectors of: E Inverse * H, where H = Type III SSCP Matrix for Ethnicity E = Error SSCP Matrix							
Characteristic Root	Percent	Characteristic Vector V'EV=1					
		Income	Limit	Rating	Cards	Age	Balance
0.01416301	87.99	-0.00177646	-0.00012789	0.00277990	-0.01247122	0.00155420	-0.00017687
0.00193353	12.01	0.00201493	0.00010950	-0.00211151	0.01211561	0.00142039	0.00008498
0.00000000	0.00	-0.00095312	0.00010157	-0.00130683	0.00659470	-0.00001028	0.00006948
0.00000000	0.00	-0.00095837	0.00009786	-0.00107630	0.03963090	0.00002581	-0.00010498
0.00000000	0.00	0.00146896	-0.00024607	0.00306930	-0.00156251	-0.00027905	0.00015733
0.00000000	0.00	-0.00008001	-0.00001586	-0.00027749	-0.00277108	0.00208544	0.00013632

MANOVA Test Criteria and F Approximations for the Hypothesis of No Overall Ethnicity Effect H = Type III SSCP Matrix for Ethnicity E = Error SSCP Matrix  S=2 M=1.5 N=195					
Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.98413192	0.52	12	784	0.8997
Pillai's Trace	0.01589503	0.52	12	786	0.8996
Hotelling-Lawley Trace	0.01609655	0.52	12	606.7	0.8992
Roy's Greatest Root	0.01416301	0.93	6	393	0.4748
NOTE: F Statistic for Roy's Greatest Root is an upper bound.					
NOTE: F Statistic for Wilks' Lambda is exact.					

Class Level Information		
Class	Levels	Values
Ethnicity	3	African American Asian Caucasian
Student	2	No Yes

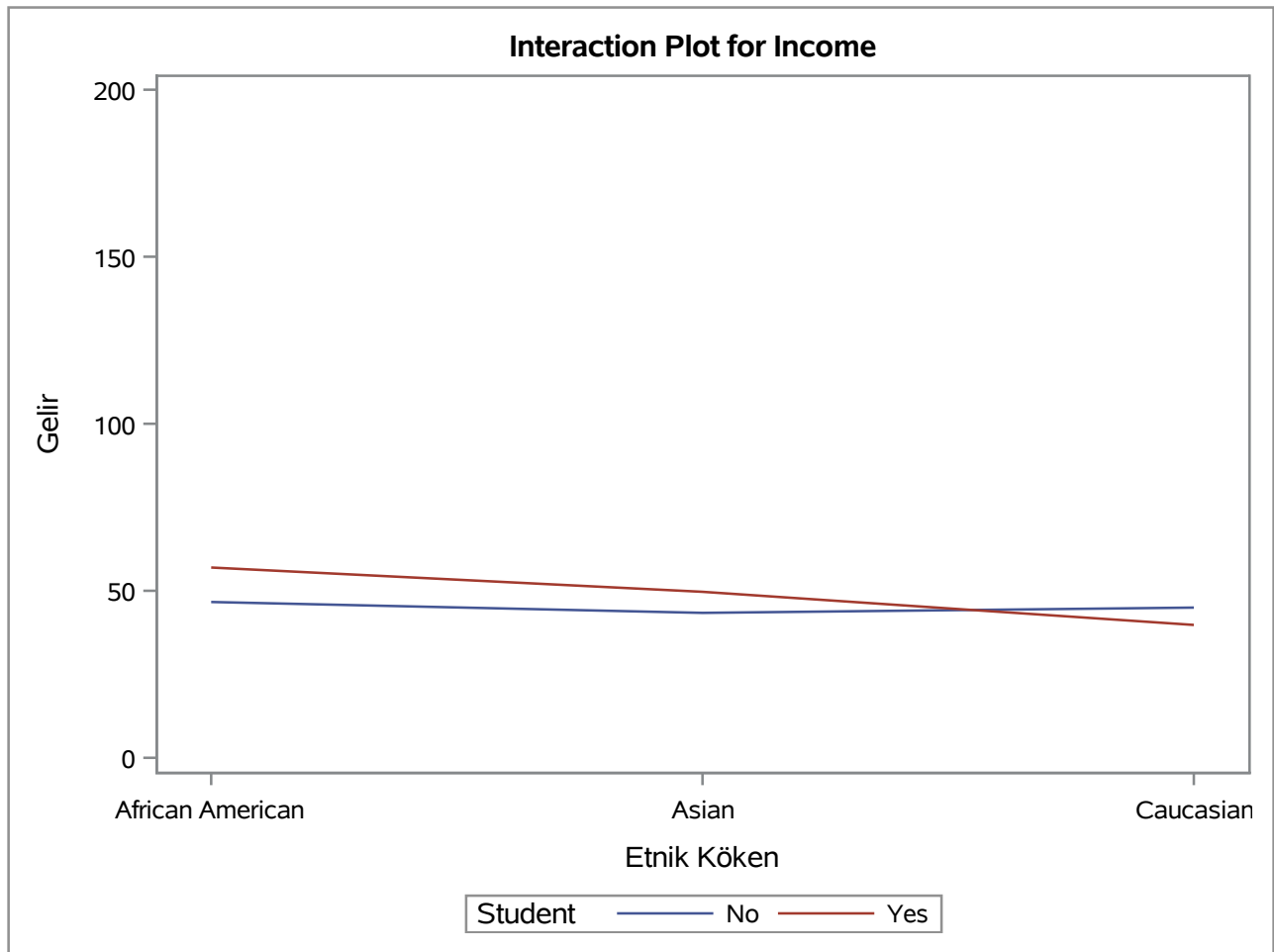
Number of Observations Read	400
Number of Observations Used	400

## Dependent Variable: Income Gelir

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	2633.3395	526.6679	0.42	0.8342
Error	394	492988.0181	1251.2386		
Corrected Total	399	495621.3576			

R-Square	Coeff Var	Root MSE	Income Mean
0.005313	78.22584	35.37285	45.21888

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Ethnicity*Student	5	2633.339483	526.667897	0.42	0.8342

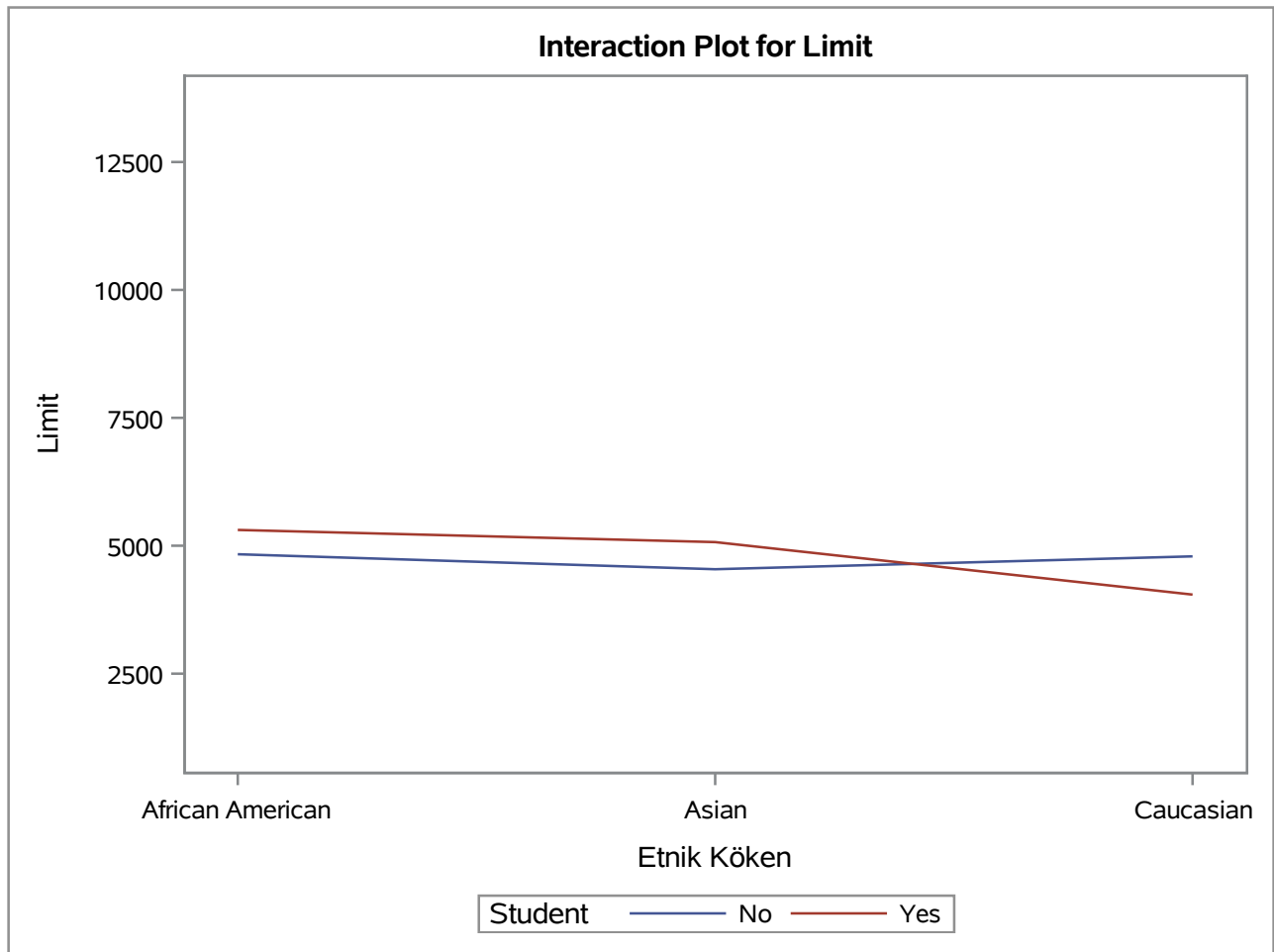


Dependent Variable: Limit Limit

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	17708636	3541727	0.66	0.6525
Error	394	2108076350	5350448		
Corrected Total	399	2125784986			

R-Square	Coeff Var	Root MSE	Limit Mean
0.008330	48.84499	2313.103	4735.600

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Ethnicity*Student	5	17708636.13	3541727.23	0.66	0.6525



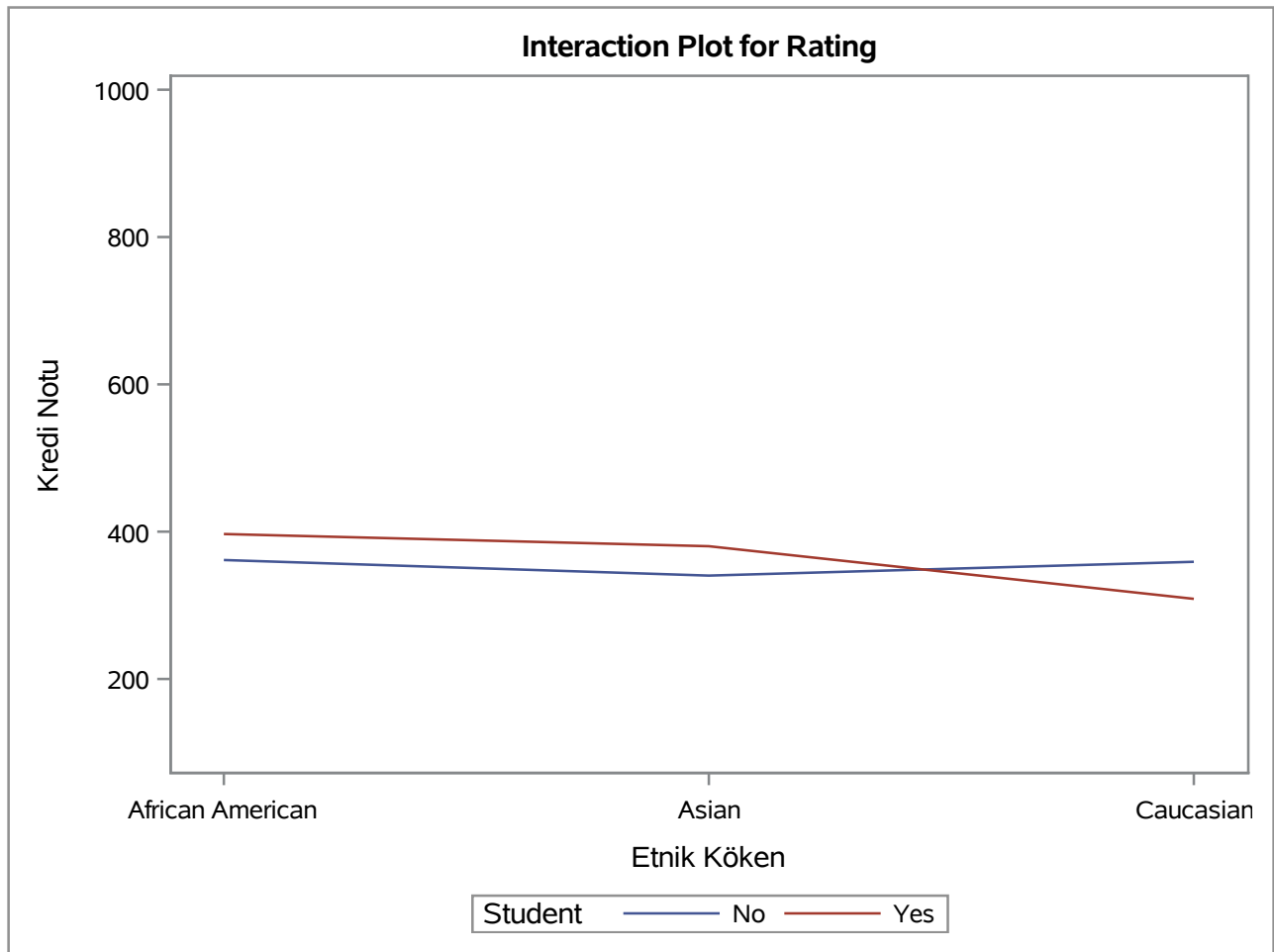


## Dependent Variable: Rating Kredi Notu

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	87977.073	17595.415	0.73	0.5994
Error	394	9463907.487	24020.070		
Corrected Total	399	9551884.560			

R-Square	Coeff Var	Root MSE	Rating Mean
0.009210	43.66487	154.9841	354.9400

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Ethnicity*Student	5	87977.07262	17595.41452	0.73	0.5994

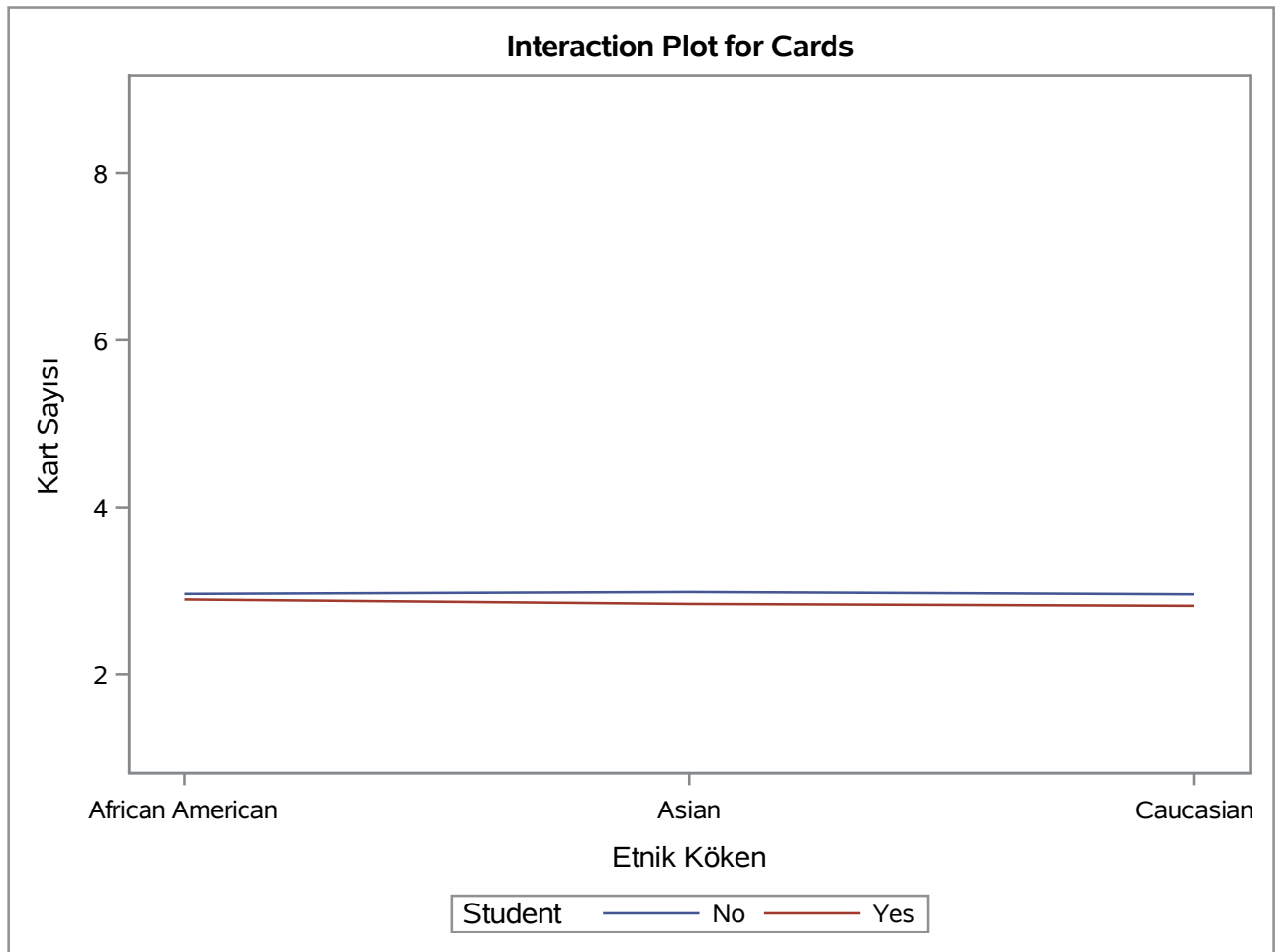


## Dependent Variable: Cards Kart Sayısı

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	0.5961944	0.1192389	0.06	0.9974
Error	394	749.6813056	1.9027444		
Corrected Total	399	750.2775000			

R-Square	Coeff Var	Root MSE	Cards Mean
0.000795	46.64074	1.379400	2.957500

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Ethnicity*Student	5	0.59619439	0.11923888	0.06	0.9974

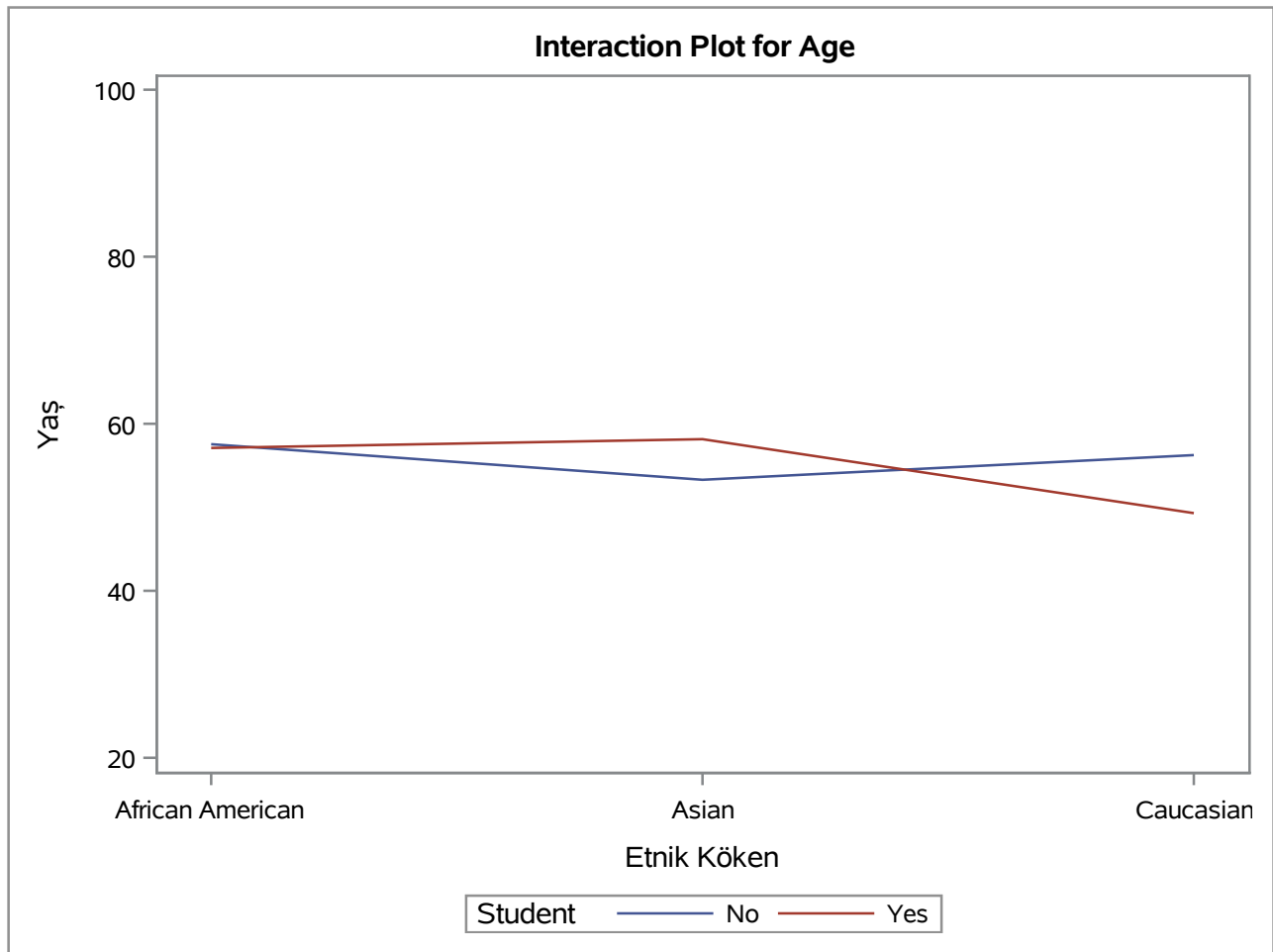


## Dependent Variable: Age Yaş

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	1670.3552	334.0710	1.12	0.3467
Error	394	117054.4223	297.0924		
Corrected Total	399	118724.7775			

R-Square	Coeff Var	Root MSE	Age Mean
0.014069	30.96307	17.23637	55.66750

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Ethnicity*Student	5	1670.355188	334.071038	1.12	0.3467

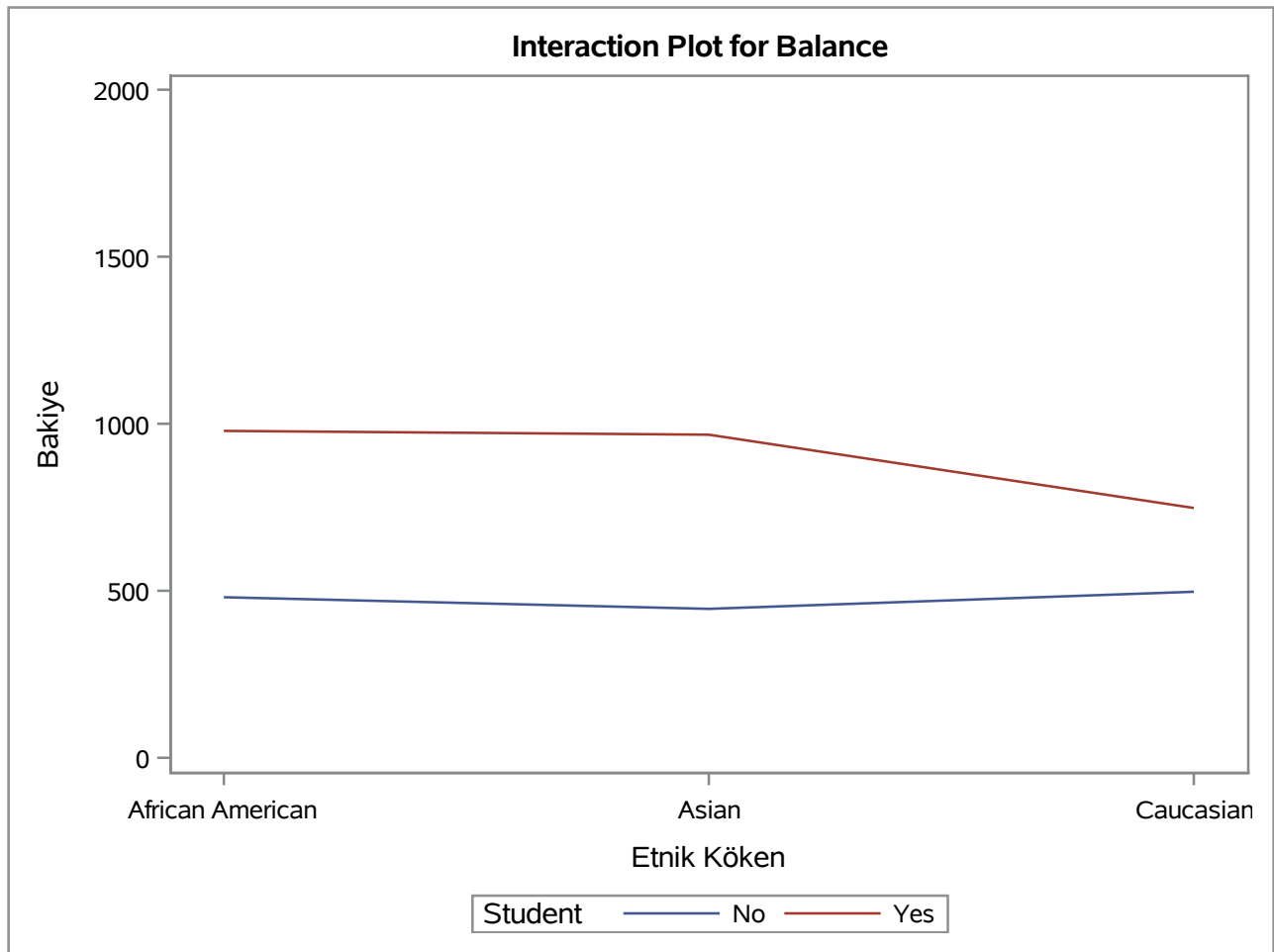


## Dependent Variable: Balance Bakiye

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	6307881.02	1261576.20	6.37	<.0001
Error	394	78032030.89	198050.84		
Corrected Total	399	84339911.91			

R-Square	Coeff Var	Root MSE	Balance Mean
0.074791	85.58004	445.0290	520.0150

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Ethnicity*Student	5	6307881.022	1261576.204	6.37	<.0001



## Multivariate Analysis of Variance

Characteristic Roots and Vectors of: E Inverse * H, where H = Type III SSCP Matrix for Ethnicity*Student E = Error SSCP Matrix							
Characteristic Root	Percent	Characteristic Vector V'EV=1					
		Income	Limit	Rating	Cards	Age	Balance
1.73053751	98.22	0.00405634	-0.00011872	-0.00027656	-0.01130265	0.00023553	0.00051161
0.02795274	1.59	-0.00061810	-0.00015744	0.00262951	-0.01479786	0.00197362	-0.00000386
0.00215835	0.12	0.00167981	0.00014905	-0.00239310	0.01948447	0.00027510	0.00000828
0.00071819	0.04	0.00000713	-0.00012688	0.00213392	-0.00242134	-0.00219091	-0.00001987
0.00050715	0.03	-0.00139372	0.00019712	-0.00264927	0.01749787	0.00004329	0.00002918
0.00000000	0.00	-0.00001619	-0.00004925	0.00063186	0.03120206	0.00037353	0.00000703

MANOVA Test Criteria and F Approximations for the Hypothesis of No Overall Ethnicity*Student Effect H = Type III SSCP Matrix for Ethnicity*Student E = Error SSCP Matrix  S=5 M=0 N=193.5					
Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.35506704	15.34	30	1558	<.0001
Pillai's Trace	0.66434264	10.04	30	1965	<.0001
Hotelling-Lawley Trace	1.76187395	22.77	30	1026.3	<.0001
Roy's Greatest Root	1.73053751	113.35	6	393	<.0001
NOTE: F Statistic for Roy's Greatest Root is an upper bound.					

Input Data Type	Raw Data
Number of Records Read	400
Number of Records Used	400
NOBS= Set in PROC Statement	400
N for Significance Tests	400

Correlations							
		Income	Limit	Rating	Cards	Age	Balance
Income	Gelir	1.00000	0.79209	0.79138	-0.01827	0.17534	0.46366
Limit	Limit	0.79209	1.00000	0.99688	0.01023	0.10089	0.86170
Rating	Kredi Notu	0.79138	0.99688	1.00000	0.05324	0.10316	0.86363
Cards	Kart Sayısı	-0.01827	0.01023	0.05324	1.00000	0.04295	0.08646
Age	Yaş	0.17534	0.10089	0.10316	0.04295	1.00000	0.00184
Balance	Bakiye	0.46366	0.86170	0.86363	0.08646	0.00184	1.00000

## Initial Factor Method: Principal Components

Partial Correlations Controlling all other Variables							
		Income	Limit	Rating	Cards	Age	Balance
<b>Income</b>	Gelir	1.00000	0.09673	0.13979	0.00089	0.04613	-0.70603
<b>Limit</b>	Limit	0.09673	1.00000	0.96312	-0.54419	0.00377	0.12154
<b>Rating</b>	Kredi Notu	0.13979	0.96312	1.00000	0.53046	0.01244	0.12758
<b>Cards</b>	Kart Sayısı	0.00089	-0.54419	0.53046	1.00000	0.04854	0.08213
<b>Age</b>	Yaş	0.04613	0.00377	0.01244	0.04854	1.00000	-0.09325
<b>Balance</b>	Bakiye	-0.70603	0.12154	0.12758	0.08213	-0.09325	1.00000

Kaiser's Measure of Sampling Adequacy: Overall MSA = 0.65833928					
Income	Limit	Rating	Cards	Age	Balance
0.73906291	0.65545706	0.65649867	0.02101387	0.80004068	0.75841442

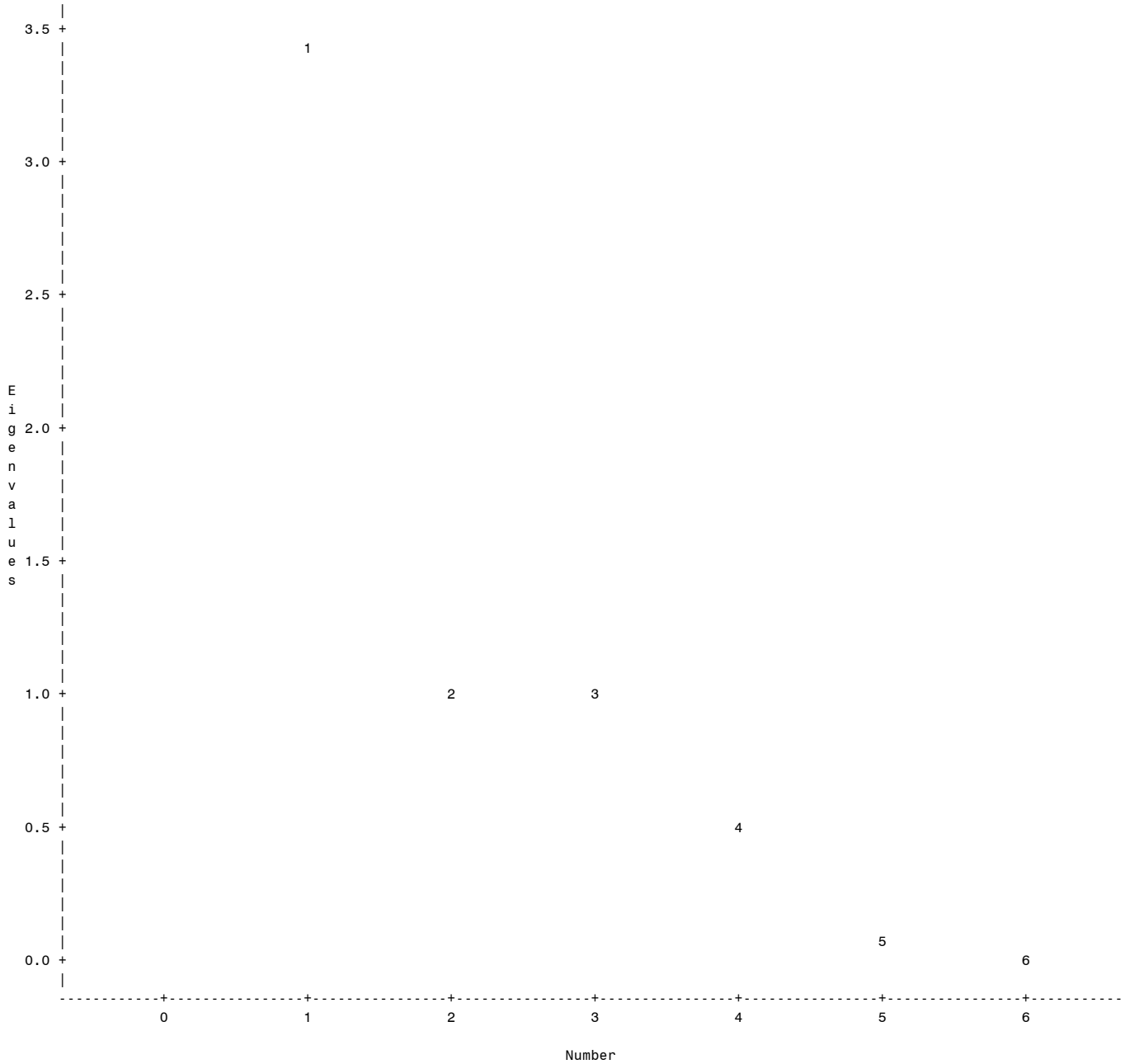
## Initial Factor Method: Principal Components

## Prior Communality Estimates: ONE

Eigenvalues of the Correlation Matrix: Total = 6 Average = 1				
	Eigenvalue	Difference	Proportion	Cumulative
1	3.42377262	2.39074376	0.5706	0.5706
2	1.03302886	0.03619695	0.1722	0.7428
3	0.99683192	0.50247125	0.1661	0.9089
4	0.49436066	0.44454528	0.0824	0.9913
5	0.04981539	0.04762484	0.0083	0.9996
6	0.00219055		0.0004	1.0000

2 factors will be retained by the NFACTOR criterion.

Scree Plot of Eigenvalues





## Initial Factor Method: Principal Components

Factor Pattern			
		Factor1	Factor2
Income	Gelir	0.82422	0.04551
Limit	Limit	0.99201	-0.06128
Rating	Kredi Notu	0.99309	-0.03305
Cards	Kart Sayısı	0.05325	0.64027
Age	Yaş	0.14479	0.77795
Balance	Bakiye	0.86621	-0.10464

Variance Explained by Each Factor	
Factor1	Factor2
3.4237726	1.0330289

Final Communality Estimates: Total = 4.456801					
Income	Limit	Rating	Cards	Age	Balance
0.68140207	0.98784120	0.98732812	0.41278408	0.62617665	0.76126936

Residual Correlations With Uniqueness on the Diagonal							
		Income	Limit	Rating	Cards	Age	Balance
Income	Gelir	0.31860	-0.02275	-0.02564	-0.09130	0.02060	-0.24553
Limit	Limit	-0.02275	0.01216	0.00969	-0.00336	0.00493	-0.00400
Rating	Kredi Notu	-0.02564	0.00969	0.01267	0.02151	-0.01491	-0.00006
Cards	Kart Sayısı	-0.09130	-0.00336	0.02151	0.58722	-0.46286	0.10733
Age	Yaş	0.02060	0.00493	-0.01491	-0.46286	0.37382	-0.04218
Balance	Bakiye	-0.24553	-0.00400	-0.00006	0.10733	-0.04218	0.23873

Root Mean Square Off-Diagonal Residuals: Overall = 0.14108873					
Income	Limit	Rating	Cards	Age	Balance
0.11850592	0.01151825	0.01695136	0.21659754	0.20817947	0.12132321

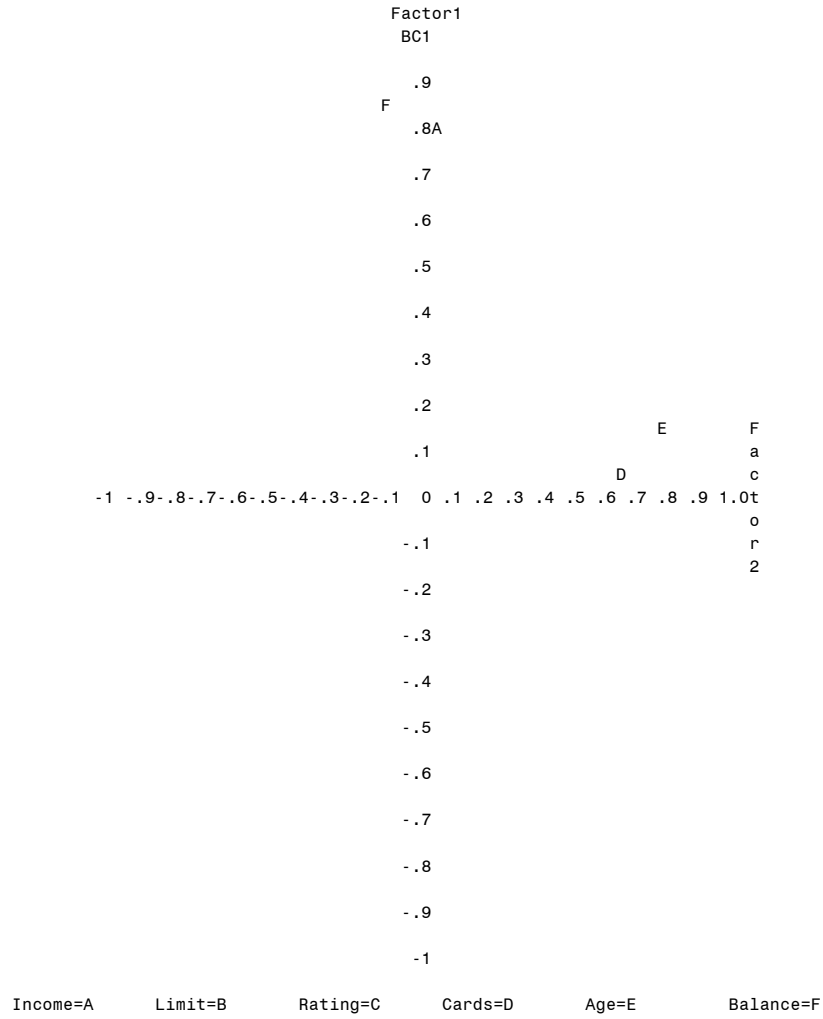
Partial Correlations Controlling Factors							
		Income	Limit	Rating	Cards	Age	Balance
Income	Gelir	1.00000	-0.36559	-0.40356	-0.21108	0.05969	-0.89027
Limit	Limit	-0.36559	1.00000	0.78098	-0.03978	0.07310	-0.07434
Rating	Kredi Notu	-0.40356	0.78098	1.00000	0.24940	-0.21667	-0.00111
Cards	Kart Sayısı	-0.21108	-0.03978	0.24940	1.00000	-0.98792	0.28665
Age	Yaş	0.05969	0.07310	-0.21667	-0.98792	1.00000	-0.14118
Balance	Bakiye	-0.89027	-0.07434	-0.00111	0.28665	-0.14118	1.00000

## Initial Factor Method: Principal Components

Root Mean Square Off-Diagonal Partial: Overall = 0.44323377					
Income	Limit	Rating	Cards	Age	Balance
0.47690984	0.38885575	0.41998831	0.48301044	0.45864435	0.42431278

# Initial Factor Method: Principal Components

Plot of Factor Pattern for Factor1 and Factor2



## Rotation Method: Varimax

Orthogonal Transformation Matrix		
	1	2
1	0.99619	0.08725
2	-0.08725	0.99619

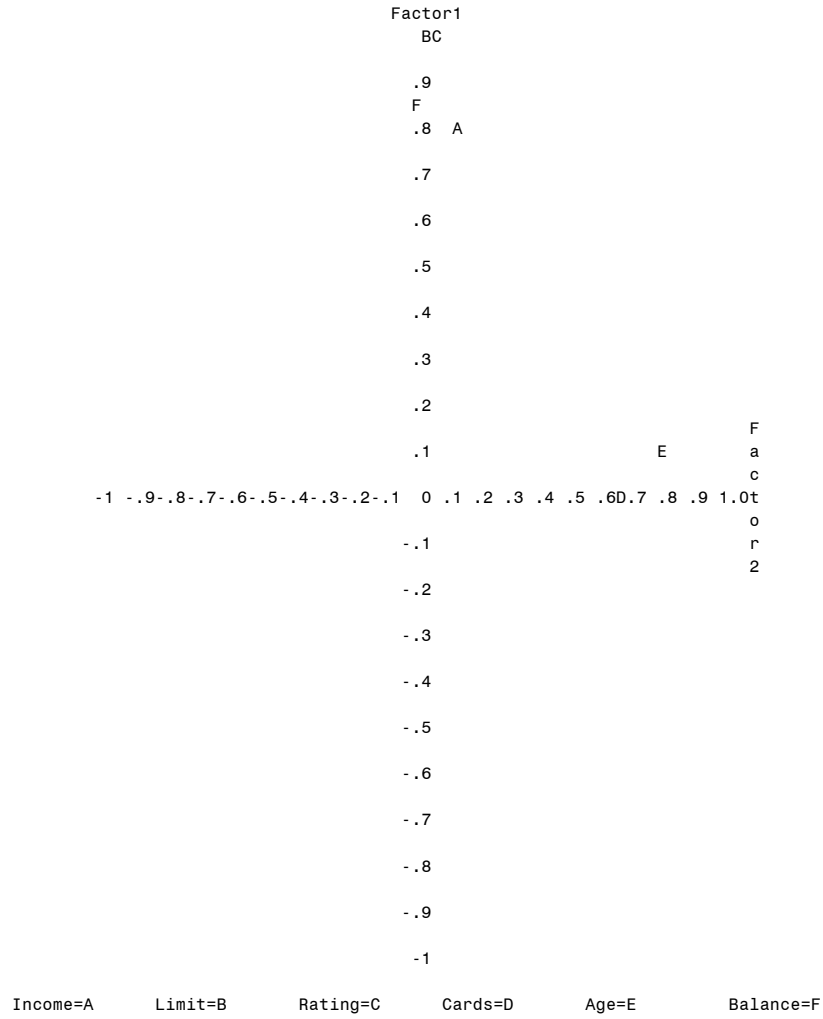
Rotated Factor Pattern			
		Factor1	Factor2
Income	Gelir	0.81710	0.11725
Limit	Limit	0.99357	0.02551
Rating	Kredi Notu	0.99219	0.05373
Cards	Kart Sayısı	-0.00281	0.64248
Age	Yaş	0.07636	0.78762
Balance	Bakiye	0.87204	-0.02866

Variance Explained by Each Factor	
Factor1	Factor2
3.4055737	1.0512277

Final Communality Estimates: Total = 4.456801					
Income	Limit	Rating	Cards	Age	Balance
0.68140207	0.98784120	0.98732812	0.41278408	0.62617665	0.76126936

Rotation Method: Varimax

Plot of Factor Pattern for Factor1 and Factor2



Evlilik				
Married	Frequency	Percent	Cumulative Frequency	Cumulative Percent
No	155	38.75	155	38.75
Yes	245	61.25	400	100.00

<b>4 Variables:</b>	Income	Rating	Cards	Age
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Simple Statistics							
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
Income	400	45.21888	35.24427	18088	10.35400	186.63400	Gelir
Rating	400	354.94000	154.72414	141976	93.00000	982.00000	Kredi Notu
Cards	400	2.95750	1.37127	1183	1.00000	9.00000	Kart Sayısı
Age	400	55.66750	17.24981	22267	23.00000	98.00000	Yaş

Pearson Correlation Coefficients, N = 400 Prob >  r  under H0: Rho=0				
	Income	Rating	Cards	Age
Income Gelir	1.00000	0.79138 <.0001	-0.01827 0.7156	0.17534 0.0004
Rating Kredi Notu	0.79138 <.0001	1.00000	0.05324 0.2881	0.10316 0.0392
Cards Kart Sayısı	-0.01827 0.7156	0.05324 0.2881	1.00000	0.04295 0.3916
Age Yaş	0.17534 0.0004	0.10316 0.0392	0.04295 0.3916	1.00000

Total Sample Size	400	DF Total	399
Variables	4	DF Within Classes	398
Classes	2	DF Between Classes	1

Number of Observations Read	400
Number of Observations Used	400

Class Level Information					
Married	Variable Name	Frequency	Weight	Proportion	Prior Probability
No	No	155	155.0000	0.387500	0.387500
Yes	Yes	245	245.0000	0.612500	0.612500



## Simple Statistics

Total-Sample						
Variable	Label	N	Sum	Mean	Variance	Standard Deviation
Income	Gelir	400	18088	45.21888	1242	35.2443
Rating	Kredi Notu	400	141976	354.94000	23940	154.7241
Cards	Kart Sayısı	400	1183	2.95750	1.88039	1.3713
Age	Yaş	400	22267	55.66750	297.55583	17.2498

Married = No						
Variable	Label	N	Sum	Mean	Variance	Standard Deviation
Income	Gelir	155	6764	43.64109	1049	32.3830
Rating	Kredi Notu	155	53909	347.80000	22443	149.8102
Cards	Kart Sayısı	155	461.00000	2.97419	1.66167	1.2891
Age	Yaş	155	8874	57.25161	297.00771	17.2339

Married = Yes						
Variable	Label	N	Sum	Mean	Variance	Standard Deviation
Income	Gelir	245	11323	46.21708	1367	36.9702
Rating	Kredi Notu	245	88067	359.45714	24929	157.8901
Cards	Kart Sayısı	245	722.00000	2.94694	2.02586	1.4233
Age	Yaş	245	13393	54.66531	296.51867	17.2197

Pooled Covariance Matrix Information	
Covariance Matrix Rank	Natural Log of the Determinant of the Covariance Matrix
4	22.50253

Generalized Squared Distance to Married		
From Married	No	Yes
No	1.89608	1.01379
Yes	1.92945	0.98041

## Canonical Discriminant Analysis

	Canonical Correlation	Adjusted Canonical Correlation	Approximate Standard Error	Squared Canonical Correlation	Eigenvalues of $\text{Inv}(E)*H = \text{CanRsqr}/(1-\text{CanRsqr})$			
					Eigenvalue	Difference	Proportion	Cumulative
1	0.088874	0.047018	0.049667	0.007899	0.0080		1.0000	1.0000

Test of H0: The canonical correlations in the current row and all that follow are zero					
	Likelihood Ratio	Approximate F Value	Num DF	Den DF	Pr > F
1	0.99210146	0.79	4	395	0.5346

**Note:** The F statistic is exact.

## Canonical Discriminant Analysis

Total Canonical Structure		
Variable	Label	Can1
Income	Gelir	-0.401158
Rating	Kredi Notu	-0.413517
Cards	Kart Sayısı	0.109088
Age	Yaş	0.822915

Between Canonical Structure		
Variable	Label	Can1
Income	Gelir	-1.000000
Rating	Kredi Notu	-1.000000
Cards	Kart Sayısı	1.000000
Age	Yaş	1.000000

Pooled Within Canonical Structure		
Variable	Label	Can1
Income	Gelir	-0.399824
Rating	Kredi Notu	-0.412159
Cards	Kart Sayısı	0.108661
Age	Yaş	0.821860

## Canonical Discriminant Analysis

Total-Sample Standardized Canonical Coefficients		
Variable	Label	Can1
Income	Gelir	-.4157372383
Rating	Kredi Notu	-.1837662145
Cards	Kart Sayısı	0.0723208114
Age	Yaş	0.9138951775

Pooled Within-Class Standardized Canonical Coefficients		
Variable	Label	Can1
Income	Gelir	-.4159945579
Rating	Kredi Notu	-.1838726349
Cards	Kart Sayısı	0.0724082065
Age	Yaş	0.9125920949

Raw Canonical Coefficients		
Variable	Label	Can1
Income	Gelir	-.0117958806
Rating	Kredi Notu	-.0011877023
Cards	Kart Sayısı	0.0527398362
Age	Yaş	0.0529800241

Class Means on Canonical Variables	
Married	Can1
No	0.1118984266
Yes	-.0707928821

Linear Discriminant Function for Married			
Variable	Label	No	Yes
Constant		-10.85772	-10.00329
Income	Gelir	-0.05583	-0.05367
Rating	Kredi Notu	0.02172	0.02194
Cards	Kart Sayısı	1.32079	1.31115
Age	Yaş	0.18817	0.17849

**Classification Summary for Calibration Data: WORK.IMPORT**  
**Resubstitution Summary using Linear Discriminant Function**

Number of Observations and Percent Classified into Married			
From Married	No	Yes	Total
No	0 0.00	155 100.00	155 100.00
Yes	0 0.00	245 100.00	245 100.00
Total	0 0.00	400 100.00	400 100.00
Priors	0.3875	0.6125	

Error Count Estimates for Married			
	No	Yes	Total
Rate	1.0000	0.0000	0.3875
Priors	0.3875	0.6125	

The Method for Selecting Variables is STEPWISE			
Total Sample Size	400	Variable(s) in the Analysis	4
Class Levels	2	Variable(s) Will Be Included	0
		Significance Level to Enter	0.15
		Significance Level to Stay	0.15

Number of Observations Read	400
Number of Observations Used	400

Class Level Information				
Married	Variable Name	Frequency	Weight	Proportion
No	No	155	155.0000	0.387500
Yes	Yes	245	245.0000	0.612500



## Stepwise Selection: Step 1

Statistics for Entry, DF = 1, 398					
Variable	Label	R-Square	F Value	Pr > F	Tolerance
Income	Gelir	0.0013	0.51	0.4771	1.0000
Rating	Kredi Notu	0.0014	0.54	0.4636	1.0000
Cards	Kart Sayısı	0.0001	0.04	0.8467	1.0000
Age	Yaş	0.0053	2.14	0.1443	1.0000

Variable Age will be entered.

Variable(s) That Have Been Entered
Age

Multivariate Statistics					
Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.994651	2.14	1	398	0.1443
Pillai's Trace	0.005349	2.14	1	398	0.1443
Average Squared Canonical Correlation	0.005349				

## Stepwise Selection: Step 2

Statistics for Removal, DF = 1, 398				
Variable	Label	R-Square	F Value	Pr > F
Age	Yaş	0.0053	2.14	0.1443

No variables can be removed.

Statistics for Entry, DF = 1, 397					
Variable	Label	Partial R-Square	F Value	Pr > F	Tolerance
Income	Gelir	0.0024	0.97	0.3253	0.9693
Rating	Kredi Notu	0.0020	0.79	0.3737	0.9894
Cards	Kart Sayısı	0.0000	0.02	0.8958	0.9982

No variables can be entered.

No further steps are possible.

Stepwise Selection Summary											
Step	Number In	Entered	Removed	Label	Partial R-Square	F Value	Pr > F	Wilks' Lambda	Pr < Lambda	Average Squared Canonical Correlation	Pr > ASCC
1	1	Age		Yaş	0.0053	2.14	0.1443	0.99465120	0.1443	0.00534880	0.1443

Model Information		
Data Set	WORK.IMPORT	
Response Variable	Gender	Cinsiyet
Number of Response Levels	2	
Model	binary logit	
Optimization Technique	Fisher's scoring	

Number of Observations Read	400
Number of Observations Used	400

Response Profile		
Ordered Value	Gender	Total Frequency
1	Female	207
2	Male	193

Probability modeled is Gender='Male'.

Model Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	556.028	567.281
SC	560.019	595.221
-2 Log L	554.028	553.281

R-Square	0.0019	Max-rescaled R-Square	0.0025
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Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	0.7471	6	0.9934
Score	0.7465	6	0.9934
Wald	0.7452	6	0.9935

Analysis of Maximum Likelihood Estimates						
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Exp(Est)
Intercept	1	-0.0625	0.5762	0.0118	0.9136	0.939
Income	1	0.00198	0.00669	0.0874	0.7675	1.002
Limit	1	0.000102	0.000661	0.0237	0.8776	1.000
Rating	1	-0.00162	0.00990	0.0268	0.8700	0.998

Analysis of Maximum Likelihood Estimates						
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Exp(Est)
Cards	1	0.0469	0.0879	0.2850	0.5935	1.048
Age	1	-0.00120	0.00595	0.0409	0.8398	0.999
Balance	1	-0.00015	0.000625	0.0540	0.8162	1.000

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
Income	1.002	0.989	1.015
Limit	1.000	0.999	1.001
Rating	0.998	0.979	1.018
Cards	1.048	0.882	1.245
Age	0.999	0.987	1.011
Balance	1.000	0.999	1.001

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	51.7	Somers' D	0.035
Percent Discordant	48.3	Gamma	0.035
Percent Tied	0.0	Tau-a	0.017
Pairs	39951	c	0.517

Partition for the Hosmer and Lemeshow Test					
Group	Total	Gender = Male		Gender = Female	
		Observed	Expected	Observed	Expected
1	40	18	17.82	22	22.18
2	40	18	18.38	22	21.62
3	40	19	18.71	21	21.29
4	40	26	18.97	14	21.03
5	40	19	19.18	21	20.82
6	41	14	19.87	27	21.13
7	40	18	19.61	22	20.39
8	40	19	19.87	21	20.13
9	40	18	20.25	22	19.75
10	39	24	20.34	15	18.66

Hosmer and Lemeshow Goodness-of-Fit Test		
Chi-Square	DF	Pr > ChiSq
10.5660	8	0.2275

Frequency  
Percent  
Row Pct  
Col Pct

Table of Gender by pred			
Gender(Cinsiyet)	pred		
	Fema	Male	Total
Female	167 41.75 80.68 53.18	40 10.00 19.32 46.51	207 51.75
Male	147 36.75 76.17 46.82	46 11.50 23.83 53.49	193 48.25
Total	314 78.50	86 21.50	400 100.00

Model Information		
Data Set	WORK.IMPORT	
Response Variable	Ethnicity	Etnik Köken
Number of Response Levels	3	
Model	cumulative logit	
Optimization Technique	Fisher's scoring	

Number of Observations Read	400
Number of Observations Used	400

Response Profile		
Ordered Value	Ethnicity	Total Frequency
1	African American	99
2	Asian	102
3	Caucasian	199

Probabilities modeled are cumulated over the lower Ordered Values.

Model Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

Score Test for the Proportional Odds Assumption		
Chi-Square	DF	Pr > ChiSq
6.2665	6	0.3940

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	837.108	848.339
SC	845.091	880.271
-2 Log L	833.108	832.339

R-Square	0.0019	Max-rescaled R-Square	0.0022
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Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	0.7691	6	0.9929
Score	0.7720	6	0.9928
Wald	0.7664	6	0.9929

Analysis of Maximum Likelihood Estimates							
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Exp(Est)
Intercept	African American	1	-1.1406	0.5461	4.3619	0.0368	0.320
Intercept	Asian	1	-0.0169	0.5428	0.0010	0.9752	0.983
Income		1	0.00328	0.00628	0.2731	0.6012	1.003
Limit		1	0.000188	0.000622	0.0915	0.7623	1.000
Rating		1	-0.00358	0.00932	0.1471	0.7013	0.996
Cards		1	0.0193	0.0827	0.0545	0.8154	1.019
Age		1	0.00231	0.00560	0.1705	0.6797	1.002
Balance		1	0.000136	0.000587	0.0541	0.8160	1.000

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
Income	1.003	0.991	1.016
Limit	1.000	0.999	1.001
Rating	0.996	0.978	1.015
Cards	1.019	0.867	1.199
Age	1.002	0.991	1.013
Balance	1.000	0.999	1.001

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	49.9	Somers' D	0.030
Percent Discordant	46.9	Gamma	0.031
Percent Tied	3.2	Tau-a	0.019
Pairs	50097	c	0.515

Partition for the Hosmer and Lemeshow Test							
Group	Total	Observed Ethnicity = African American	Observed Ethnicity = Asian	Observed Ethnicity = Caucasian	Expected Ethnicity = African American	Expected Ethnicity = Asian	Expected Ethnicity = Caucasian
1	40	10	9	21	11.1	10.6	18.3
2	40	9	11	20	10.5	10.4	19.1
3	40	11	14	15	10.3	10.3	19.4
4	40	10	7	23	10.1	10.3	19.6
5	40	13	12	15	9.92	10.2	19.9
6	40	8	10	22	9.75	10.2	20.1
7	40	7	7	26	9.61	10.1	20.3
8	41	13	11	17	9.68	10.3	21.0
9	40	10	12	18	9.26	9.98	20.8
10	39	8	9	22	8.74	9.61	20.6



Hosmer and Lemeshow Goodness-of-Fit Test		
Chi-Square	DF	Pr > ChiSq
14.2101	17	0.6522

Eigenvalues of the Covariance Matrix				
	Eigenvalue	Difference	Proportion	Cumulative
1	5510101.95	5457239.24	0.9904	0.9904
2	52862.71	52575.73	0.0095	0.9999
3	286.98	140.77	0.0001	1.0000
4	146.21	144.91	0.0000	1.0000
5	1.30		0.0000	1.0000

Root-Mean-Square Total-Sample Standard Deviation	1054.836
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Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
399	125	126	2	5.3852	
398	56	245	2	9.4868	
397	249	242	2	10.296	
396	CL399	399	3	13.086	
395	358	CL396	4	12.441	
394	96	338	2	14.177	
393	295	CL395	5	14.511	
392	88	234	2	14.799	
391	55	148	2	15.166	
390	287	378	2	15.33	
389	20	113	2	16.643	
388	117	195	2	18	
387	121	120	2	18.493	
386	CL393	16	6	20.803	
385	CL398	257	3	21.483	
384	171	199	2	21.954	
383	132	CL390	3	22.153	
382	80	CL388	3	22.204	
381	269	394	2	22.472	
380	CL383	351	4	22.623	
379	CL391	346	3	22.638	
378	388	CL381	3	23.521	
377	107	CL378	4	23.092	
376	297	352	2	24.104	
375	251	149	2	24.187	
374	CL387	296	3	24.829	
373	290	316	2	25.573	
372	323	130	2	25.923	
371	12	124	2	27.037	
370	170	260	2	28	
369	139	285	2	28.089	
368	CL385	25	4	28.823	
367	336	7	2	28.965	
366	393	168	2	29.24	
365	188	372	2	29.682	
364	65	112	2	30.15	
363	349	321	2	31	
362	150	CL397	3	31.153	

Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
361	34	282	2	31.305	
360	49	CL392	3	31.333	
359	177	320	2	31.464	T
358	98	334	2	31.464	
357	247	106	2	31.67	
356	224	301	2	32.109	
355	326	300	2	32.404	
354	265	231	2	32.696	
353	152	116	2	32.711	
352	61	51	2	33.091	
351	43	57	2	33.347	
350	386	30	2	33.466	
349	173	318	2	33.912	
348	CL352	345	3	33.952	
347	84	203	2	33.985	
346	CL375	207	3	34.018	
345	63	162	2	34.249	
344	278	266	2	34.438	
343	75	218	2	34.67	
342	CL384	246	3	34.778	
341	CL365	119	3	35.302	
340	200	66	2	35.889	
339	40	59	2	36.111	
338	CL386	259	7	36.935	
337	9	115	2	37.014	
336	CL341	176	4	37.084	
335	191	281	2	37.256	
334	366	183	2	37.39	
333	217	145	2	37.483	
332	169	93	2	37.603	
331	CL377	CL371	6	39.098	
330	350	182	2	39.281	
329	94	133	2	39.787	
328	76	155	2	39.95	
327	233	232	2	40.012	
326	CL359	23	3	40.749	
325	105	174	2	40.89	
324	240	264	2	40.988	

Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
323	CL324	302	3	39.179	
322	85	CL364	3	42.347	
321	37	CL334	3	42.503	
320	288	95	2	42.837	
319	CL379	319	4	43.056	
318	291	252	2	44.306	
317	CL355	363	3	44.39	
316	220	214	2	44.52	
315	CL348	CL316	5	44.969	
314	74	166	2	45.2	
313	337	275	2	45.574	
312	238	24	2	46.087	
311	236	343	2	46.098	
310	62	322	2	46.119	
309	CL362	CL394	5	46.144	
308	CL374	CL347	5	46.845	
307	193	71	2	46.947	
306	213	359	2	47.202	
305	347	CL343	3	47.418	
304	258	CL338	8	47.533	
303	138	368	2	47.948	
302	241	CL358	3	48.606	
301	CL331	156	7	49.627	
300	212	201	2	49.78	
299	35	CL326	4	50.08	
298	CL360	248	4	50.223	
297	373	131	2	50.527	
296	CL310	271	3	50.801	
295	179	186	2	51.108	
294	CL382	CL336	7	52.479	
293	380	167	2	52.934	
292	CL332	CL293	4	51.585	
291	230	163	2	53.263	
290	54	CL329	3	53.28	
289	CL342	CL369	5	53.433	
288	CL366	164	3	53.617	
287	CL361	385	3	53.917	
286	18	CL306	3	54.009	

Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
285	362	304	2	54.249	
284	178	CL307	3	54.544	
283	146	309	2	54.909	
282	400	158	2	55.489	
281	237	CL344	3	56.138	
280	111	41	2	56.241	
279	277	CL372	3	56.427	
278	70	389	2	56.982	
277	78	CL318	3	57.015	
276	60	CL335	3	57.948	
275	CL302	CL367	5	58.075	
274	82	256	2	58.198	
273	39	CL373	3	58.852	
272	CL322	239	4	58.935	
271	379	144	2	58.992	
270	73	CL271	3	55.1	
269	CL349	229	3	59.013	
268	357	371	2	59.313	
267	CL277	211	4	59.423	
266	261	333	2	59.983	
265	108	CL328	3	60.017	
264	110	CL337	3	60.037	
263	CL290	CL305	6	60.489	
262	355	342	2	60.902	
261	19	284	2	61.049	
260	14	227	2	61.474	
259	CL299	299	5	61.95	
258	CL350	31	3	63.34	
257	268	CL313	3	63.366	
256	312	196	2	63.64	
255	CL319	CL380	8	64.099	
254	292	387	2	64.568	
253	2	244	2	64.823	
252	CL351	354	3	64.946	
251	32	CL333	3	65.033	
250	289	313	2	65.269	
249	CL340	396	3	65.719	
248	CL353	375	3	67.25	

Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
247	114	CL321	4	67.596	
246	180	90	2	67.823	
245	CL298	CL288	7	68.354	
244	172	216	2	68.949	
243	CL275	81	6	69.18	
242	83	CL295	3	69.52	
241	298	190	2	69.936	
240	6	370	2	70.079	
239	10	204	2	70.817	
238	127	383	2	70.915	
237	CL267	15	5	71.22	
236	123	310	2	71.764	
235	CL327	CL325	4	72.005	
234	3	353	2	72.021	
233	1	CL254	3	72.106	
232	CL314	360	3	72.662	
231	286	CL345	3	72.83	
230	CL276	339	4	72.928	
229	91	134	2	73	
228	306	CL287	4	74.445	
227	160	CL272	5	74.537	
226	CL273	397	4	74.969	
225	CL262	CL226	6	73.664	
224	263	332	2	75.895	
223	226	376	2	76.72	
222	CL274	398	3	77.658	
221	CL389	328	3	77.803	
220	390	377	2	78.473	
219	CL354	CL317	5	79.257	
218	5	303	2	79.586	
217	CL258	69	4	79.731	
216	CL237	CL357	7	80.166	
215	CL301	CL308	12	80.757	
214	22	255	2	81.505	
213	CL250	CL300	4	83.412	
212	CL312	CL266	4	83.639	
211	307	17	2	85.17	
210	CL330	293	3	85.386	

Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
209	147	68	2	86.342	
208	101	341	2	87.149	
207	CL291	46	3	87.597	
206	CL303	CL323	5	87.899	
205	CL244	209	3	88.468	
204	CL285	CL218	4	89.147	
203	143	197	2	89.672	
202	128	136	2	89.833	
201	72	202	2	89.883	
200	225	381	2	90.388	
199	CL269	58	4	90.856	
198	21	CL292	5	91.358	
197	314	189	2	91.417	
196	CL265	CL320	5	91.455	
195	243	CL363	3	91.587	
194	184	137	2	91.782	
193	8	CL236	3	91.932	
192	CL201	317	3	92.896	
191	CL198	CL227	10	93.078	
190	CL248	335	4	93.224	
189	305	330	2	94.138	
188	CL261	87	3	94.264	
187	CL283	CL356	4	94.403	
186	CL376	254	3	94.917	
185	CL315	215	6	95.1	
184	CL339	CL279	5	95.754	
183	CL263	374	7	96.946	
182	CL368	CL228	8	97.298	
181	4	104	2	97.99	
180	64	CL311	3	97.991	
179	262	315	2	98.133	
178	CL346	CL304	11	98.89	
177	CL230	205	5	99.041	
176	CL257	CL229	5	99.286	
175	273	27	2	100.89	
174	CL255	250	9	101.27	
173	26	89	2	102.08	
172	CL264	384	4	103.92	



Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
171	CL188	CL247	7	104.05	
170	CL208	344	3	104.35	
169	CL260	CL278	4	106.99	
168	325	99	2	109.22	
167	CL211	329	3	110.62	
166	181	CL233	4	110.85	
165	CL242	28	4	112.32	
164	11	283	2	112.42	
163	CL286	157	4	113.23	
162	CL294	CL289	12	114.07	
161	CL212	CL210	7	114.42	
160	CL196	CL296	8	114.7	
159	CL204	272	5	116.26	
158	38	45	2	118.11	
157	CL214	CL158	4	112.4	
156	100	253	2	119.61	
155	CL213	CL256	6	120.82	
154	CL225	CL224	8	121.97	
153	CL284	CL154	11	112.2	
152	CL183	CL282	9	124.95	
151	159	270	2	125.02	
150	CL251	CL259	8	125.92	
149	CL193	CL220	5	127.38	
148	CL163	CL205	7	127.65	
147	CL216	CL280	9	129.99	
146	CL166	CL170	7	130.59	
145	CL243	CL184	11	130.7	
144	36	102	2	130.81	
143	308	198	2	131.36	
142	CL187	CL232	7	135.01	
141	361	135	2	136.44	
140	CL141	395	3	123.43	
139	CL174	CL231	12	136.54	
138	CL185	CL219	11	137.41	
137	CL164	235	3	137.66	
136	CL189	CL197	4	138.3	
135	44	CL370	3	140.28	
134	CL135	CL268	5	125.83	

Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
133	CL180	280	4	140.4	
132	CL194	CL222	5	142.27	
131	97	CL238	3	143.72	
130	CL206	CL145	16	146.19	
129	53	CL177	6	146.51	
128	CL253	CL221	5	149.46	
127	CL147	CL160	17	150.87	
126	CL270	CL235	7	151.22	
125	CL126	161	8	141.4	
124	228	151	2	152.26	
123	CL207	42	4	152.65	
122	CL123	CL246	6	150.14	
121	CL167	187	4	155.4	
120	165	364	2	157.23	
119	331	50	2	157.92	
118	194	327	2	162.28	
117	CL162	153	13	163.34	
116	33	CL200	3	163.63	
115	CL125	CL190	12	164.63	
114	CL223	CL217	6	167.57	
113	CL152	CL155	15	167.97	
112	CL281	CL159	8	168.1	
111	13	CL186	4	168.41	
110	CL199	154	5	169.78	
109	CL150	CL178	19	171.87	
108	CL171	392	8	178.64	
107	CL148	CL241	9	180.7	
106	CL249	CL173	5	183.68	
105	CL143	52	3	185.22	
104	CL111	CL161	11	187.51	
103	CL245	CL117	20	187.91	
102	CL240	367	3	188.11	
101	CL138	CL209	13	188.27	
100	67	365	2	190.65	
99	CL156	129	3	190.72	
98	CL142	CL165	11	194.1	
97	CL215	CL195	15	194.21	
96	CL114	CL176	11	196.24	

Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
95	CL105	CL121	7	201.84	
94	CL139	219	13	204.02	
93	223	141	2	204.52	
92	391	175	2	205.34	
91	CL191	CL133	14	206.24	
90	CL124	369	3	206.36	
89	CL130	CL202	18	206.44	
88	CL153	206	12	209.52	
87	CL192	CL122	9	209.66	
86	CL96	CL140	14	213.13	
85	CL252	CL112	11	217.43	
84	CL175	CL297	4	218.24	
83	CL172	CL89	22	219.65	
82	CL102	CL137	6	220.91	
81	CL119	48	3	221.32	
80	79	142	2	233.73	
79	CL101	CL129	19	235.53	
78	CL134	CL157	9	237.36	
77	CL94	CL97	28	243.51	
76	CL181	CL179	4	248.67	
75	CL107	CL132	14	250.69	
74	CL120	92	3	250.99	
73	CL85	CL115	23	253.27	
72	CL113	CL151	17	254	
71	47	311	2	255.58	
70	CL88	CL146	19	257.21	
69	CL128	CL169	9	258.77	
68	CL87	CL136	13	261.06	
67	CL91	CL127	31	265.03	
66	CL234	CL149	7	266.11	
65	CL92	140	3	268.55	
64	CL110	267	6	276.5	
63	CL108	CL78	17	278.03	
62	CL104	CL79	30	278.91	
61	CL99	222	4	281.14	
60	CL71	274	3	286.69	
59	CL118	340	3	311.42	
58	CL116	382	4	314.63	

Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
57	CL66	CL203	9	320.34	
56	CL70	CL95	26	322.94	
55	CL81	208	4	324.29	
54	CL131	221	4	325.29	
53	CL98	CL106	16	327.6	
52	CL62	CL73	53	337.83	
51	CL103	CL182	28	340.66	
50	CL72	CL86	31	344.28	
49	CL67	CL168	33	350.74	
48	CL83	77	23	357.12	
47	CL69	CL239	11	368.16	
46	CL80	279	3	374.04	
45	CL58	122	5	376.75	
44	185	356	2	380.43	
43	CL65	348	4	386.82	
42	CL74	CL90	6	390.5	
41	CL42	109	7	367.41	
40	CL75	CL53	30	393.23	
39	CL49	CL48	56	396.53	
38	CL76	210	5	407.86	
37	CL43	CL59	7	422.1	
36	CL100	192	3	423.98	
35	CL109	CL144	21	426.27	
34	CL38	118	6	431.64	
33	CL47	CL63	28	436.9	
32	CL60	CL55	7	438.34	
31	CL50	CL54	35	451.76	
30	CL56	CL84	30	455.13	
29	86	CL44	3	456.01	
28	CL57	CL68	22	458.55	
27	CL40	CL64	36	490	
26	CL82	CL61	10	492.33	
25	CL35	CL51	49	504.54	
24	324	29	2	538	
23	CL34	CL36	9	548.1	
22	CL31	CL41	42	549.33	
21	CL77	CL309	33	562.8	
20	CL27	CL30	66	603.35	

Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
19	CL28	CL45	27	616.4	
18	CL33	CL93	30	625.66	
17	CL52	CL22	95	654.82	
16	CL18	CL46	33	686.61	
15	CL29	294	4	686.74	
14	CL19	103	28	723.15	
13	CL17	CL32	102	753.61	
12	CL14	CL26	38	874.3	
11	CL25	CL21	82	924.01	
10	CL23	276	10	962.46	
9	CL20	CL39	122	964.21	
8	CL10	CL37	17	1089.3	
7	CL16	CL12	71	1181.7	
6	CL13	CL9	224	1607.6	
5	CL8	CL15	21	1936.8	
4	CL6	CL11	306	2556.8	
3	CL7	CL5	92	3050.4	
2	CL3	CL4	398	4152.6	
1	CL2	CL24	400	9100.7	

Eigenvalues of the Covariance Matrix				
	Eigenvalue	Difference	Proportion	Cumulative
1	5510866.83	5457757.33	0.9903	0.9903
2	53109.50	52817.82	0.0095	0.9999
3	291.68	56.39	0.0001	0.9999
4	235.29	98.58	0.0000	1.0000
5	136.71	135.41	0.0000	1.0000
6	1.30		0.0000	1.0000

Root-Mean-Square Total-Sample Standard Deviation	963.037
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Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
399	125	126	2	5.7397	
398	249	242	2	10.296	
397	56	245	2	14.044	
396	96	338	2	14.275	
395	88	234	2	14.799	
394	358	399	2	15.216	
393	CL394	CL399	4	14.772	
392	20	113	2	17.101	
391	295	CL393	5	17.233	
390	55	148	2	17.397	
389	287	378	2	18.362	
388	117	195	2	18.622	
387	121	120	2	18.971	
386	CL397	257	3	21.558	
385	171	199	2	23.175	
384	269	394	2	24.087	
383	388	CL384	3	24.073	
382	107	CL383	4	23.302	
381	297	352	2	24.48	
380	251	149	2	24.663	
379	CL390	346	3	24.92	T
378	CL387	296	3	24.922	
377	CL389	351	3	25.328	
376	132	CL377	4	25.207	
375	290	316	2	25.829	
374	CL391	16	6	25.877	
373	12	124	2	27.23	
372	323	130	2	27.469	
371	80	CL388	3	28.232	
370	170	260	2	28.706	
369	139	285	2	28.869	
368	336	7	2	29.155	
367	393	168	2	29.441	
366	65	112	2	30.362	
365	349	321	2	31.13	
364	150	CL398	3	31.232	
363	177	320	2	31.663	
362	34	282	2	31.667	

Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
361	98	334	2	31.868	
360	247	106	2	32.559	
359	224	301	2	32.616	
358	152	116	2	33.03	
357	61	51	2	33.102	
356	265	231	2	33.109	
355	CL386	25	4	33.16	
354	326	300	2	33.184	
353	386	30	2	33.469	
352	188	372	2	33.602	
351	84	203	2	34.034	
350	63	162	2	34.256	
349	278	266	2	34.444	
348	173	318	2	34.817	
347	75	218	2	34.861	
346	CL385	246	3	34.948	
345	CL352	119	3	35.551	
344	CL380	207	3	35.654	
343	43	57	2	35.77	
342	200	66	2	35.924	
341	CL357	345	3	36.105	
340	40	59	2	36.261	
339	9	115	2	37.038	
338	CL345	176	4	37.085	
337	191	281	2	37.299	
336	217	145	2	37.532	
335	169	93	2	37.744	
334	CL374	259	7	37.897	
333	350	182	2	39.359	
332	CL382	CL373	6	39.517	
331	94	133	2	40.365	
330	105	174	2	40.901	
329	240	264	2	41.026	
328	CL329	302	3	39.259	
327	233	232	2	41.098	
326	CL363	23	3	41.148	
325	CL379	319	4	43.252	
324	49	248	2	43.273	



Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
323	85	CL366	3	44.348	
322	291	252	2	44.356	
321	220	214	2	44.522	
320	CL354	363	3	44.651	
319	CL341	CL321	5	44.976	
318	74	166	2	45.221	
317	76	155	2	45.626	
316	337	275	2	45.632	
315	CL364	CL396	5	46.174	
314	238	24	2	46.216	
313	236	343	2	46.279	T
312	62	322	2	46.279	
311	37	183	2	46.38	
310	193	71	2	47.086	
309	CL378	CL351	5	47.191	
308	347	CL347	3	47.973	
307	213	359	2	48.058	
306	288	95	2	48.359	
305	241	CL361	3	48.995	
304	138	368	2	49.566	
303	CL332	156	7	49.68	
302	CL324	CL395	4	49.709	
301	212	201	2	50.096	
300	35	CL326	4	50.221	
299	373	131	2	50.686	
298	258	CL334	8	51.005	
297	179	186	2	51.151	
296	CL312	271	3	51.322	
295	CL371	CL338	7	52.561	
294	54	CL331	3	53.4	
293	230	163	2	53.616	
292	18	CL307	3	54.042	
291	178	CL310	3	54.714	
290	362	304	2	55.017	
289	146	309	2	55.099	
288	CL346	CL369	5	55.28	
287	CL367	164	3	55.418	
286	CL362	385	3	55.622	

Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
285	380	167	2	55.789	
284	CL335	CL285	4	53.834	
283	237	CL349	3	56.154	
282	111	41	2	56.242	
281	277	CL372	3	56.428	
280	78	CL322	3	57.383	
279	60	CL337	3	57.999	
278	CL305	CL368	5	58.15	
277	70	389	2	58.156	
276	82	256	2	58.378	
275	39	CL375	3	58.858	
274	379	144	2	58.992	
273	73	CL274	3	55.208	
272	CL348	229	3	59.102	
271	357	371	2	59.323	
270	CL280	211	4	59.427	
269	CL323	239	4	59.507	
268	110	CL339	3	60.079	
267	108	CL317	3	60.219	
266	261	333	2	60.245	
265	CL294	CL308	6	60.521	
264	355	342	2	60.913	
263	19	284	2	61.05	
262	CL300	299	5	61.988	
261	268	CL316	3	63.4	
260	14	227	2	63.572	
259	312	196	2	63.642	
258	CL353	31	3	63.787	
257	CL311	366	3	63.8	
256	CL325	CL376	8	64.099	
255	292	387	2	64.749	
254	CL343	354	3	65.534	
253	CL342	396	3	65.725	
252	289	313	2	66.208	
251	32	CL336	3	66.224	
250	400	158	2	67.003	
249	CL358	375	3	67.817	
248	180	90	2	67.84	

Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
247	114	CL257	4	68.209	
246	CL302	CL287	7	68.422	
245	172	216	2	69.071	
244	CL278	81	6	69.243	
243	83	CL297	3	69.753	
242	298	190	2	70.013	
241	6	370	2	70.592	
240	10	204	2	70.874	
239	127	383	2	70.934	
238	CL270	15	5	71.467	
237	3	353	2	72.021	
236	CL327	CL330	4	72.183	
235	1	CL255	3	72.424	
234	123	310	2	72.871	
233	91	134	2	73.011	
232	CL318	360	3	73.704	
231	286	CL350	3	73.82	
230	CL279	339	4	73.928	
229	306	CL286	4	74.595	
228	CL275	397	4	74.975	
227	CL264	CL228	6	73.664	
226	263	332	2	75.921	
225	226	376	2	76.946	
224	160	CL269	5	77.336	
223	CL276	398	3	77.686	
222	CL392	328	3	77.971	
221	390	377	2	78.559	
220	CL356	CL320	5	79.626	
219	5	303	2	79.686	
218	CL258	69	4	79.742	
217	CL238	CL360	7	80.573	
216	2	244	2	80.577	
215	CL303	CL309	12	80.978	
214	22	255	2	81.509	
213	CL252	CL301	4	83.532	
212	CL314	CL266	4	83.687	
211	CL333	293	3	85.489	
210	307	17	2	85.591	

Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
209	147	68	2	86.542	
208	101	341	2	87.402	
207	CL304	CL328	5	87.9	
206	CL293	46	3	88.225	
205	CL245	209	3	89.328	
204	CL290	CL219	4	89.624	
203	143	197	2	90.326	
202	225	381	2	90.628	
201	128	136	2	90.731	
200	CL272	58	4	90.99	
199	72	202	2	91.148	
198	CL267	CL306	5	91.71	
197	243	CL365	3	91.788	
196	314	189	2	91.813	
195	8	CL234	3	91.965	
194	21	CL284	5	93.333	
193	CL194	CL224	10	93.157	
192	CL249	335	4	93.871	
191	CL199	317	3	93.971	
190	CL263	87	3	94.432	
189	CL289	CL359	4	94.693	
188	305	330	2	94.836	
187	CL319	215	6	95.221	
186	184	137	2	95.448	
185	CL340	CL281	5	96.364	
184	CL381	254	3	97.359	
183	CL355	CL229	8	97.425	
182	64	CL313	3	98.004	
181	4	104	2	98.028	
180	CL230	205	5	99.28	
179	CL261	CL233	5	99.808	
178	CL344	CL298	11	100.09	
177	CL256	250	9	101.27	
176	273	27	2	101.6	
175	26	89	2	102.09	
174	CL268	384	4	103.92	
173	CL265	374	7	104.02	
172	CL208	344	3	105.25	

Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
171	CL190	CL247	7	106.89	
170	CL260	CL277	4	107.3	
169	325	99	2	109.34	
168	CL210	329	3	110.92	
167	181	CL235	4	111.2	
166	11	283	2	112.42	
165	CL243	28	4	112.45	
164	CL292	157	4	113.29	
163	CL295	CL288	12	114.09	
162	CL212	CL211	7	115.4	
161	CL204	272	5	116.55	
160	CL198	CL296	8	117.26	
159	262	315	2	117.63	
158	38	45	2	118.13	
157	CL214	CL158	4	112.56	
156	100	253	2	120.1	
155	CL213	CL259	6	120.82	
154	CL227	CL226	8	121.97	
153	CL291	CL154	11	112.93	
152	159	270	2	125.07	
151	CL173	CL250	9	125.77	
150	CL251	CL262	8	125.94	
149	CL164	CL205	7	127.95	
148	CL195	CL221	5	128.38	
147	CL167	CL172	7	130.62	
146	CL217	CL282	9	130.66	
145	CL244	CL185	11	130.86	
144	36	102	2	130.92	
143	308	198	2	133.67	
142	CL189	CL232	7	135.01	
141	CL177	CL231	12	136.63	
140	361	135	2	137.74	
139	CL140	395	3	123.56	
138	CL166	235	3	137.8	
137	CL187	CL220	11	138.01	
136	CL188	CL196	4	138.3	
135	44	CL370	3	140.43	
134	CL135	CL271	5	125.85	

Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
133	CL186	CL223	5	142.72	
132	97	CL239	3	144.16	
131	CL182	280	4	146.34	
130	CL207	CL145	16	146.4	
129	53	CL180	6	146.7	
128	CL273	CL236	7	151.24	
127	CL128	161	8	141.56	
126	CL146	CL160	17	151.3	
125	228	151	2	152.29	
124	CL216	CL222	5	153.81	
123	CL168	187	4	155.73	
122	165	364	2	157.73	
121	CL206	42	4	158.66	
120	CL121	CL248	6	151.8	
119	331	50	2	159.59	
118	194	327	2	162.35	
117	CL163	153	13	163.91	
116	33	CL202	3	164.39	
115	CL127	CL192	12	165.25	
114	CL225	CL218	6	167.92	
113	CL151	CL155	15	167.98	
112	CL283	CL161	8	168.39	
111	13	CL184	4	168.68	
110	CL200	154	5	170.9	
109	CL150	CL178	19	171.97	
108	CL171	392	8	178.81	
107	CL149	CL242	9	181.65	
106	CL253	CL175	5	183.71	
105	CL143	52	3	186.68	
104	CL246	CL117	20	187.96	
103	CL111	CL162	11	188.2	
102	CL241	367	3	188.69	
101	CL137	CL209	13	189.21	
100	67	365	2	191.23	
99	CL215	CL197	15	194.24	
98	CL142	CL165	11	194.27	
97	CL156	129	3	195.94	
96	CL114	CL179	11	196.25	

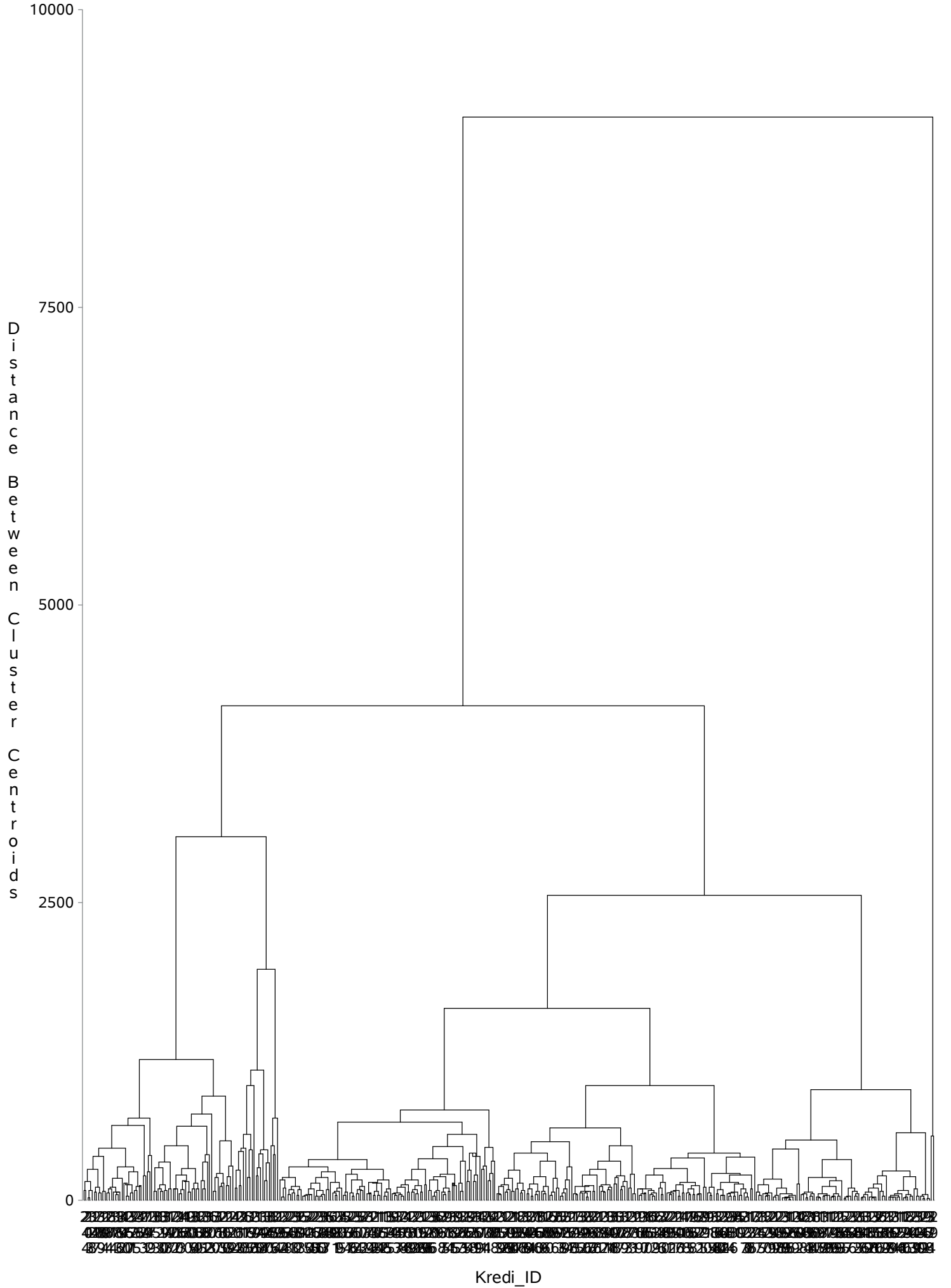
Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
95	CL105	CL123	7	202.15	
94	CL141	219	13	204.4	
93	223	141	2	204.62	
92	391	175	2	205.77	
91	CL193	CL131	14	206.56	
90	CL125	369	3	207.69	
89	CL130	CL201	18	208.12	
88	CL153	206	12	209.58	
87	CL191	CL120	9	210.01	
86	CL96	CL139	14	214.07	
85	CL254	CL112	11	217.43	
84	CL176	CL299	4	218.73	
83	CL174	CL89	22	220	
82	CL102	CL138	6	220.98	
81	CL119	48	3	221.68	
80	79	142	2	234.51	
79	CL101	CL129	19	236.41	
78	CL134	CL157	9	237.36	
77	CL94	CL99	28	243.52	
76	CL181	CL159	4	248.67	
75	CL107	CL133	14	251.39	
74	CL122	92	3	251.95	
73	CL113	CL152	17	254.45	
72	CL85	CL115	23	254.48	
71	47	311	2	255.98	
70	CL88	CL147	19	257.22	
69	CL124	CL170	9	259.08	
68	CL87	CL136	13	261.73	
67	CL91	CL126	31	265.03	
66	CL237	CL148	7	267.61	
65	CL92	140	3	269.34	
64	CL110	267	6	276.78	
63	CL108	CL78	17	279.96	
62	CL103	CL79	30	280.17	
61	CL97	222	4	281.19	
60	CL71	274	3	286.86	
59	CL118	340	3	312.16	
58	CL116	382	4	315.39	

Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
57	CL66	CL203	9	320.65	
56	CL70	CL95	26	324.56	
55	CL81	208	4	325.28	
54	CL132	221	4	326.1	
53	CL98	CL106	16	327.78	
52	CL62	CL72	53	338.03	
51	CL104	CL183	28	340.66	
50	CL73	CL86	31	344.29	
49	CL67	CL169	33	350.75	
48	CL83	77	23	357.17	
47	CL69	CL240	11	368.46	
46	CL80	279	3	374.99	
45	CL58	122	5	377.93	
44	185	356	2	381.05	
43	CL65	348	4	388.74	
42	CL74	CL90	6	390.63	
41	CL42	109	7	369.56	
40	CL75	CL53	30	394.27	
39	CL49	CL48	56	396.57	
38	CL76	210	5	407.88	
37	CL43	CL59	7	422.11	
36	CL100	192	3	423.99	
35	CL109	CL144	21	426.3	
34	CL38	118	6	435.42	
33	CL47	CL63	28	436.98	
32	CL60	CL55	7	438.39	
31	CL50	CL54	35	451.76	
30	CL56	CL84	30	455.14	
29	86	CL44	3	456.35	
28	CL57	CL68	22	458.71	
27	CL40	CL64	36	492.05	
26	CL82	CL61	10	493.04	
25	CL35	CL51	49	504.54	
24	324	29	2	538.01	
23	CL34	CL36	9	548.36	
22	CL31	CL41	42	551.2	
21	CL77	CL315	33	562.84	
20	CL27	CL30	66	603.54	



Cluster History					
Number of Clusters	Clusters Joined		Freq	Centroid Distance	Tie
19	CL28	CL45	27	617.96	
18	CL33	CL93	30	625.86	
17	CL52	CL22	95	654.85	
16	CL29	294	4	687.14	
15	CL18	CL46	33	689.13	
14	CL19	103	28	723.42	
13	CL17	CL32	102	753.71	
12	CL14	CL26	38	874.35	
11	CL25	CL21	82	924.03	
10	CL23	276	10	962.93	
9	CL20	CL39	122	964.22	
8	CL10	CL37	17	1089.3	
7	CL15	CL12	71	1182	
6	CL13	CL9	224	1607.7	
5	CL8	CL16	21	1936.9	
4	CL6	CL11	306	2556.8	
3	CL7	CL5	92	3051.2	
2	CL3	CL4	398	4153	
1	CL2	CL24	400	9101.7	

## Hiyerarşik Kümeleme Analizi



CLUSTER=1

Obs	Income	Limit	Rating	Cards	Age	Balance
1	29.564	2529	192	1	30	0
2	27.578	2531	195	1	34	0
3	15.717	905	93	1	38	0
4	15.602	906	103	2	36	0
5	32.916	1786	154	2	60	0
6	22.561	1787	147	4	66	0
7	14.084	855	120	5	46	0
8	12.414	855	119	3	32	0
9	11.741	2271	182	4	59	0
10	11.603	2278	187	3	71	0
11	39.609	2539	188	1	40	0
12	37.728	2525	192	1	44	0
13	42.915	2532	205	4	42	0
14	15.333	1499	138	2	47	0
15	23.857	1501	150	3	56	0
16	18.036	1552	142	2	48	0
17	28.144	1567	142	3	51	0
18	35.177	2117	186	3	62	0
19	30.406	2120	181	2	79	0
20	27.241	1402	128	2	67	0
21	23.012	1410	137	3	81	0
22	25.936	1774	135	2	71	0
23	34.772	2021	167	3	57	0
24	27.349	2000	169	4	51	0
25	25.988	1349	142	4	82	0
26	17.316	1335	138	2	65	0
27	16.529	1357	126	3	62	0
28	16.819	1337	115	2	74	0
29	65.896	5140	370	1	49	293
30	61.620	5140	374	1	71	302
31	10.363	2430	191	2	47	0
32	15.184	2420	192	2	69	0
33	30.012	1511	137	2	33	0
34	27.272	1389	149	5	67	0
35	30.002	1561	155	4	70	0
36	10.726	1568	162	5	46	0
37	10.852	3907	296	2	30	485
38	14.479	3907	296	3	43	463
39	20.089	2525	200	3	57	0

CLUSTER=1

Obs	Income	Limit	Rating	Cards	Age	Balance
40	15.045	1311	138	3	64	0
41	11.808	1300	117	3	77	0
42	27.229	3484	282	6	51	265
43	18.145	3461	279	3	56	255
44	15.354	2101	171	2	65	0
45	21.374	2073	175	2	74	0
46	14.711	2047	167	2	67	0
47	24.314	3409	270	2	23	194
48	20.996	3388	259	2	37	203
49	25.974	2308	196	2	24	0
50	29.403	2327	178	1	37	0
51	32.164	2937	223	2	79	0
52	28.575	2959	231	2	60	0
53	13.433	1134	112	3	70	0
54	16.279	1160	126	3	78	5
55	13.444	886	121	5	44	0
56	24.050	2607	221	4	32	0
57	27.590	2586	229	5	54	0
58	31.367	1829	162	4	30	0
59	36.142	1852	183	3	33	0
60	26.067	3388	266	4	74	155
61	21.011	3402	261	2	68	182
62	19.588	3211	265	4	59	199
63	12.031	3182	259	2	58	210
64	27.512	4613	344	5	72	573
65	21.786	4632	355	1	50	580
66	35.864	4831	353	3	66	534
67	40.442	4828	369	5	81	510
68	35.510	5198	364	2	35	631
69	36.362	5183	376	3	49	654
70	27.999	5107	380	1	55	651
71	33.214	5137	387	3	59	661
72	10.742	1757	156	3	57	0
73	17.765	5072	364	1	66	732
74	24.919	5051	372	3	76	711
75	26.400	5640	398	3	58	905
76	26.813	5611	411	4	55	915
77	23.365	2179	167	2	75	0
78	39.116	2150	173	4	75	0

CLUSTER=1

Obs	Income	Limit	Rating	Cards	Age	Balance
79	19.225	1433	122	3	38	0
80	21.038	1448	145	2	58	0
81	30.682	1671	160	2	77	0
82	31.353	1705	160	3	81	0
83	41.532	5000	353	2	50	531
84	40.885	5013	379	3	46	549
85	76.348	4697	344	4	60	108
86	68.462	4712	340	2	71	136
87	16.103	5390	418	4	45	945
88	12.456	5395	392	3	65	955
89	34.509	2001	189	5	80	0
90	27.039	2161	173	3	40	0
91	23.450	2450	180	2	78	0
92	44.158	4763	351	2	66	385
93	57.100	4742	372	7	79	379
94	10.403	4159	310	3	43	571
95	12.000	4160	320	4	28	602
96	48.218	5199	401	7	39	633
97	13.647	3461	264	4	47	344
98	10.354	3480	281	2	70	333
99	15.125	3300	266	5	66	279
100	16.482	3326	268	4	41	271
101	30.132	2168	206	3	52	0
102	55.187	5352	385	4	50	538
103	53.401	5319	377	3	35	541
104	15.476	2762	215	3	60	52
105	17.392	2748	228	3	32	68
106	27.470	2820	219	1	32	0
107	30.733	2832	249	4	51	0
108	41.400	2561	215	2	36	0
109	48.577	5145	389	3	71	503
110	46.102	5180	382	3	81	516
111	16.479	5435	388	2	26	937
112	23.283	5443	407	4	49	912
113	15.846	4768	365	4	53	745
114	14.887	4745	339	3	58	724
115	27.952	3557	263	1	35	163
116	29.725	3536	270	2	52	133
117	31.335	3526	289	3	38	172

CLUSTER=1

Obs	Income	Limit	Rating	Cards	Age	Balance
118	15.741	4788	360	1	39	689
119	25.124	4776	378	4	29	657
120	20.103	2631	213	3	61	0
121	18.951	1485	129	3	82	0
122	44.522	2252	205	6	72	0
123	36.364	2220	188	3	50	0
124	43.540	2906	232	4	69	0
125	26.370	3235	268	5	78	159
126	28.474	3202	267	5	66	132
127	38.954	5222	370	4	76	653
128	39.422	5245	383	2	44	637
129	26.162	5101	382	3	62	710
130	23.989	4523	338	4	31	601
131	25.383	4527	367	4	46	570
132	33.017	3180	224	2	28	29
133	55.056	3155	235	2	31	0
134	32.856	5884	438	4	68	926
135	30.550	5869	439	5	81	967
136	60.579	5149	388	5	38	443
137	64.027	5179	398	5	48	411
138	10.503	2923	232	3	25	191
139	14.595	2955	260	5	37	204
140	21.238	3089	254	3	59	108
141	25.078	3096	236	2	27	81
142	28.508	3933	287	4	56	336
143	24.889	3954	318	4	75	357
144	21.551	5380	420	5	51	907
145	39.145	4351	323	2	66	308
146	30.111	4336	339	1	81	347
147	60.449	3098	272	4	69	0
148	38.009	3075	245	3	45	0
149	29.705	3351	262	5	71	148
150	36.355	3613	278	4	35	187
151	23.793	3615	263	2	70	216
152	19.537	1362	143	4	34	0
153	29.567	5309	397	3	25	799
154	23.949	5343	383	2	40	829
155	20.150	2646	199	2	25	0
156	19.782	3782	293	2	46	840

CLUSTER=1

Obs	Income	Limit	Rating	Cards	Age	Balance
157	23.793	3821	281	4	56	868
158	15.629	2493	186	1	60	0
159	28.316	4391	316	2	29	453
160	30.420	4442	316	1	30	450
161	15.866	3085	217	1	39	136
162	16.304	5466	413	4	66	957
163	36.496	4378	339	3	69	368
164	22.379	3965	292	2	34	384
165	53.217	4943	362	2	46	382
166	44.061	4970	352	1	79	414
167	19.529	4673	341	2	51	642
168	14.956	4640	332	2	33	681
169	13.676	2330	203	5	80	0
170	20.088	1870	180	3	76	0
171	53.308	2860	214	1	84	0
172	35.691	2880	214	2	35	0
173	42.529	4986	369	2	37	489
174	34.537	3271	250	3	57	47
175	34.950	3327	253	3	54	50
176	23.106	3476	257	2	50	209
177	20.936	3254	253	1	30	145
178	51.872	5294	390	4	81	531
179	53.480	4263	317	1	83	99
180	58.063	4221	304	3	50	118
181	11.795	3899	300	4	25	531
182	19.349	4941	366	1	33	717
183	19.636	4896	387	3	64	710
184	22.939	4923	355	1	47	663
185	69.165	4668	341	2	34	156
186	24.543	3206	243	2	62	95
187	26.532	2910	236	6	58	52
188	13.561	3261	279	5	37	297
189	39.110	3189	263	3	72	0
190	67.937	5184	383	4	63	345
191	62.328	5228	377	3	83	380
192	12.068	3873	292	1	44	413
193	13.234	3922	299	2	77	426
194	20.791	2672	204	1	70	0
195	29.638	5833	433	3	29	942

CLUSTER=1

Obs	Income	Limit	Rating	Cards	Age	Balance
196	23.375	5429	396	3	57	844
197	23.883	5384	398	2	73	802
198	34.142	5666	413	4	47	863
199	24.088	3665	287	4	56	309
200	19.253	3683	287	4	57	371
201	41.868	4716	342	2	47	425
202	12.096	4100	307	3	32	560
203	16.711	5274	387	3	42	863
204	27.825	5227	386	6	63	823
205	28.941	2733	210	5	43	0
206	18.701	5524	415	5	64	966
207	56.256	5521	406	2	72	1020
208	29.400	4840	368	3	76	588
209	36.934	4270	299	1	63	283
210	41.025	4229	337	3	79	246
211	27.369	3449	288	3	40	162
212	23.672	4433	344	3	63	503
213	55.054	4381	321	3	74	188
214	58.351	4411	326	2	85	126
215	26.427	5533	433	5	50	1404
216	24.824	5495	409	1	33	1352
217	19.144	3291	269	2	75	148
218	14.891	3606	283	2	34	333
219	20.191	5767	431	4	42	1023
220	21.455	5829	427	4	80	1018
221	12.335	4471	344	3	79	611
222	18.967	1626	156	2	41	0
223	41.365	5303	377	1	45	606
224	24.460	1924	165	2	50	0
225	13.364	3838	296	5	65	480
226	10.588	4049	296	1	66	465
227	12.581	3976	291	2	48	474
228	15.079	5673	411	4	28	1075
229	20.974	5673	413	5	44	1000
230	53.319	3000	235	3	53	0
231	57.872	4171	321	5	67	138
232	55.882	4897	357	2	68	331
233	59.855	4964	365	1	46	295
234	27.847	5619	418	2	78	822



CLUSTER=1

Obs	Income	Limit	Rating	Cards	Age	Balance
235	51.532	5096	380	2	31	481
236	45.120	3762	287	3	80	70
237	53.598	3714	286	3	73	0
238	17.055	5110	371	3	55	805
239	11.187	5099	380	4	69	889
240	21.153	3736	256	1	41	298
241	27.794	3807	301	4	35	320
242	51.345	4327	320	3	46	230
243	57.202	3411	259	3	72	0
244	44.473	3500	257	3	81	8
245	76.273	4779	367	4	65	133
246	20.918	1233	128	3	47	16
247	17.700	2860	235	4	63	89
248	24.230	4756	351	2	64	594
249	34.909	5289	410	2	62	681
250	80.861	4090	335	3	29	0
251	54.663	4116	314	2	70	75
252	85.425	5182	402	6	60	218
253	14.132	2998	251	4	75	133
254	57.337	5310	392	2	45	456
255	22.574	1551	134	3	43	98
256	30.413	3690	299	2	25	728
257	42.471	3625	289	6	44	654
258	14.090	4323	326	5	25	671
259	15.560	4307	352	4	57	579
260	14.292	3274	282	9	64	382
261	55.412	5354	383	2	37	1003
262	10.735	3746	280	2	44	410
263	31.029	2863	223	2	66	415
264	36.295	2963	241	2	68	375
265	41.192	3673	297	3	54	121
266	10.635	3584	294	5	69	423
267	32.793	4534	333	2	44	467
268	31.811	4284	338	5	75	429
269	44.978	4866	347	1	30	436
270	42.357	5550	406	2	83	653
271	39.055	5565	410	4	48	772
272	23.350	2558	220	3	49	419
273	17.976	2433	190	3	70	431

CLUSTER=1

Obs	Income	Limit	Rating	Cards	Age	Balance
274	75.406	3874	298	3	41	0
275	50.699	3977	304	2	84	69
276	53.566	5891	434	4	82	712
277	34.664	5835	452	3	77	835
278	49.794	5758	410	4	40	734
279	14.312	5382	367	1	59	1380
280	54.319	3063	248	3	59	269
281	44.205	5441	394	1	32	607
282	12.238	4865	381	5	67	836
283	66.989	5614	430	3	47	482
284	63.931	5728	435	3	28	581
285	36.472	3806	309	2	52	188
286	76.782	5977	429	4	44	548
287	64.173	6127	433	1	80	578
288	20.405	4543	329	2	72	1054
289	43.479	4569	354	4	49	902
290	41.419	2120	184	4	24	156
291	80.616	5308	394	1	57	204
292	92.112	4612	344	3	32	0
293	39.705	3969	301	2	27	211
294	10.627	1647	149	2	71	195
295	89.000	5759	440	3	37	345
296	10.793	3878	321	8	29	638
297	44.646	4431	320	2	49	797
298	48.498	6040	456	3	47	812
299	19.531	5043	376	2	64	1241
300	33.694	4891	369	1	52	1036
301	88.830	4952	360	4	86	15
302	16.751	4706	353	6	48	1255
303	10.842	4391	358	5	37	1216
304	44.847	5765	437	3	53	1246
305	30.622	3293	251	1	68	532
306	107.986	6033	449	4	64	227

CLUSTER=2

Obs	Income	Limit	Rating	Cards	Age	Balance
307	42.079	6626	479	2	44	1048
308	46.007	6637	491	4	42	1046
309	27.330	6179	459	4	36	1099
310	33.657	6196	450	6	55	1092

CLUSTER=2

Obs	Income	Limit	Rating	Cards	Age	Balance
311	62.413	6457	455	2	71	762
312	58.929	6420	459	2	66	789
313	69.943	7555	547	3	76	1058
314	63.809	7530	515	1	56	1086
315	49.502	6819	505	4	55	1084
316	37.878	6827	482	2	80	1129
317	34.480	6090	442	3	36	962
318	35.610	6135	466	4	40	992
319	49.570	6384	448	1	28	891
320	49.927	6396	485	3	75	890
321	43.682	6922	511	1	49	1081
322	59.879	6906	527	6	78	1032
323	113.772	6442	489	4	69	790
324	58.026	7499	560	5	67	1237
325	59.530	7518	543	3	52	1176
326	69.251	6386	474	4	30	768
327	80.180	8047	569	4	77	1151
328	71.682	8028	599	3	57	1208
329	71.061	6819	491	3	41	1350
330	68.206	6784	499	5	40	1411
331	104.593	7075	514	4	71	580
332	104.483	7140	507	2	41	583
333	62.602	7056	481	1	84	904
334	75.257	7010	494	3	34	885
335	49.166	6662	508	3	68	984
336	83.948	7100	503	2	44	806
337	87.625	7167	515	2	46	767
338	106.025	6645	483	3	82	903
339	58.165	6617	460	1	56	856
340	37.348	6378	458	1	72	968
341	36.508	6386	469	4	79	1048
342	77.380	7569	564	3	50	997
343	103.893	7416	549	3	84	669
344	93.039	7398	517	1	67	749
345	121.709	7818	584	4	50	701
346	115.123	7760	538	3	83	661
347	58.781	7402	538	2	81	1103
348	73.914	7333	529	6	67	1048
349	92.386	7685	534	2	75	843

CLUSTER=2

Obs	Income	Limit	Rating	Cards	Age	Balance
350	83.869	7667	554	2	83	930
351	71.408	7114	512	2	87	872
352	52.179	7306	522	2	57	1142
353	55.367	6340	448	1	33	815
354	82.706	7506	536	2	64	905
355	94.193	7576	527	2	44	846
356	148.924	9504	681	3	36	964
357	146.183	9540	682	6	66	1050
358	63.095	8117	589	4	30	1407
359	63.534	8100	581	2	50	1298
360	180.379	9310	665	3	67	1050
361	115.520	9272	656	2	69	1140
362	30.007	6481	462	2	69	1093
363	31.861	6375	469	3	25	1120
364	83.851	8494	607	5	47	1311
365	72.945	8603	621	3	64	1355
366	69.656	8244	579	3	41	1329
367	36.929	6257	445	1	24	976
368	113.659	7659	538	2	66	1155
369	130.209	10088	730	7	39	1426
370	125.480	10230	721	3	82	1361
371	134.181	7838	563	2	48	526
372	73.327	6555	472	2	43	721
373	61.069	7871	564	3	56	1264
374	113.829	9704	694	4	38	1388
375	128.669	9824	685	3	67	1243
376	123.299	8376	610	2	89	1259
377	33.437	6207	451	4	44	1549
378	39.831	6045	459	3	32	1425
379	135.118	10578	747	3	81	1393
380	121.834	10673	750	3	54	1573
381	110.968	6662	468	3	45	391
382	91.876	6754	483	2	33	605
383	107.841	10384	728	3	87	1597
384	98.515	8760	633	5	78	1230
385	149.316	10278	707	1	80	1107
386	101.788	8029	574	2	84	849
387	128.040	6982	518	2	78	250
388	148.080	8157	599	2	83	454

CLUSTER=2

Obs	Income	Limit	Rating	Cards	Age	Balance
389	158.889	11589	805	1	62	1448
390	180.682	11966	832	2	58	1405
391	160.231	10748	754	2	69	1192
392	151.947	9156	642	2	91	732
393	124.290	9560	701	3	52	1687
394	91.362	9113	626	1	47	1341
395	152.298	12066	828	4	41	1779
396	140.672	11200	817	7	46	1677
397	68.713	7582	531	2	56	1587
398	163.329	8732	636	3	50	529

CLUSTER=3

Obs	Income	Limit	Rating	Cards	Age	Balance
399	182.728	13913	982	4	98	1999
400	186.634	13414	949	2	41	1809

Replace=FULL Radius=0 Maxclusters=3 Maxiter=10 Converge=0.02

Initial Seeds						
Cluster	Income	Limit	Rating	Cards	Age	Balance
1	12.41400	855.00000	119.00000	3.00000	32.00000	0.00000
2	93.03900	7398.00000	517.00000	1.00000	67.00000	749.00000
3	182.72800	13913.00000	982.00000	4.00000	98.00000	1999.00000

Minimum Distance Between Initial Seeds = 6598.332

Iteration History				
Iteration	Criterion	Relative Change in Cluster Seeds		
		1	2	3
1	841.7	0.2822	0.2059	0.3047
2	468.9	0.0207	0.0190	0.2149
3	437.6	0	0.0130	0.0660
4	431.6	0.00383	0.0151	0.0551
5	427.1	0.00781	0.0123	0.0243
6	424.9	0.00129	0.00975	0.0352
7	421.6	0.00514	0.0166	0.0401
8	417.2	0.00387	0.0118	0.0247
9	415.9	0.00125	0.00118	0

Convergence criterion is satisfied.

Replace=FULL Radius=0 Maxclusters=3 Maxiter=10 Converge=0.02

Cluster Listing			
Obs	Kredi_ID	Cluster	Distance from Seed
1	2	2	1266.5
2	3	2	1684.3
3	4	3	596.4
4	8	2	1727.1
5	13	2	503.7
6	18	2	1075.6
7	19	2	1004.4
8	20	2	1277.6
9	21	1	171.7
10	32	1	131.7
11	35	1	138.1
12	43	2	711.3
13	44	2	902.8
14	47	2	650.9
15	49	1	459.5
16	54	2	269.5
17	55	1	1203.5
18	56	1	918.1
19	57	2	732.2
20	61	2	216.6
21	67	3	786.3
22	72	3	1553.5
23	73	2	480.7
24	78	1	562.7
25	80	1	607.3
26	86	3	3180.4
27	88	1	442.1
28	97	2	683.8
29	107	1	1366.1
30	108	1	513.5
31	110	1	596.7
32	111	1	583.8
33	114	2	992.0
34	118	3	234.8
35	121	1	1300.5
36	127	2	719.7
37	132	1	1133.7

Replace=FULL Radius=0 Maxclusters=3 Maxiter=10 Converge=0.02

Cluster Listing			
Obs	Kredi_ID	Cluster	Distance from Seed
38	138	1	924.0
39	143	3	1617.5
40	146	2	731.8
41	150	1	1814.3
42	156	1	1339.4
43	159	2	159.3
44	160	1	332.6
45	165	2	597.9
46	169	1	179.2
47	171	1	685.7
48	173	2	919.8
49	178	1	1300.1
50	181	1	942.6
51	184	1	1408.4
52	188	1	532.1
53	192	3	799.6
54	193	1	1259.5
55	200	2	1251.1
56	217	1	100.9
57	219	1	1051.2
58	221	2	659.7
59	224	2	799.0
60	226	2	467.4
61	230	3	1403.2
62	233	2	614.1
63	237	2	464.9
64	238	2	358.6
65	240	1	865.9
66	241	1	659.8
67	243	1	1467.1
68	247	1	525.1
69	251	1	293.1
70	257	1	931.6
71	258	1	238.5
72	261	2	414.7
73	262	3	388.6
74	268	2	499.2



Replace=FULL Radius=0 Maxclusters=3 Maxiter=10 Converge=0.02

Cluster Listing			
Obs	Kredi_ID	Cluster	Distance from Seed
75	273	1	1168.2
76	274	2	891.6
77	286	1	1076.5
78	289	2	210.2
79	291	1	545.6
80	295	1	205.4
81	298	2	1142.2
82	305	3	1472.4
83	306	1	781.2
84	308	1	1191.0
85	309	2	763.9
86	314	3	1311.7
87	317	3	1649.1
88	325	1	336.6
89	328	2	1298.8
90	331	2	931.1
91	345	2	211.8
92	347	2	212.4
93	350	2	321.5
94	355	1	1216.8
95	358	1	201.7
96	362	2	556.8
97	365	3	878.4
98	386	2	317.6
99	388	1	1345.3
100	391	3	1646.8
101	393	1	406.7
102	400	2	297.1
103	1	1	938.7
104	5	2	624.2
105	6	3	906.2
106	9	1	628.0
107	11	3	867.8
108	12	1	1390.3
109	14	2	1573.6
110	22	2	1016.6
111	25	1	946.7

Replace=FULL Radius=0 Maxclusters=3 Maxiter=10 Converge=0.02

Cluster Listing			
Obs	Kredi_ID	Cluster	Distance from Seed
112	27	1	1074.1
113	30	2	303.6
114	31	2	313.7
115	33	3	1289.5
116	34	1	875.4
117	36	1	324.0
118	37	2	1060.8
119	38	2	1152.9
120	39	1	1275.4
121	40	1	799.9
122	45	2	1065.3
123	46	3	1394.5
124	48	2	977.2
125	53	2	102.3
126	58	2	840.7
127	59	1	816.5
128	60	2	199.7
129	62	1	397.7
130	63	1	1031.8
131	64	1	307.5
132	66	2	1246.8
133	69	2	254.1
134	70	2	1474.5
135	71	1	1286.0
136	74	2	884.9
137	75	2	249.9
138	77	1	725.8
139	79	2	1302.4
140	81	1	759.9
141	82	2	1288.0
142	83	2	988.1
143	84	1	1270.2
144	85	1	248.0
145	87	2	948.9
146	92	2	652.7
147	93	1	189.0
148	100	3	477.7

Replace=FULL Radius=0 Maxclusters=3 Maxiter=10 Converge=0.02

Cluster Listing			
Obs	Kredi_ID	Cluster	Distance from Seed
149	101	1	1057.8
150	102	1	403.4
151	103	3	1433.2
152	104	3	606.0
153	105	2	635.2
154	106	1	498.0
155	109	2	793.2
156	113	2	1288.5
157	115	1	651.5
158	117	1	590.6
159	119	1	548.8
160	120	1	1292.2
161	122	3	1072.8
162	123	2	1671.2
163	125	1	209.4
164	126	1	207.0
165	128	1	730.5
166	139	1	634.5
167	142	2	1360.9
168	145	1	82.8829
169	147	2	311.5
170	148	1	1200.7
171	149	1	302.1
172	152	2	594.0
173	153	1	576.2
174	154	2	1055.3
175	157	2	1149.7
176	158	2	344.9
177	161	2	553.8
178	162	1	998.2
179	163	3	1428.5
180	166	2	883.1
181	168	1	389.5
182	170	2	878.7
183	172	2	1207.9
184	176	1	540.0
185	177	1	153.3

Replace=FULL Radius=0 Maxclusters=3 Maxiter=10 Converge=0.02

Cluster Listing			
Obs	Kredi_ID	Cluster	Distance from Seed
186	179	2	1042.0
187	180	3	1455.1
188	185	3	2659.1
189	190	2	1145.2
190	191	2	167.9
191	194	3	1169.8
192	202	3	1625.7
193	203	1	1253.7
194	205	2	258.6
195	206	1	1295.5
196	207	1	277.1
197	208	2	1135.6
198	211	1	514.2
199	212	2	140.0
200	213	2	1121.7
201	215	2	113.4
202	216	2	1256.9
203	218	2	259.4
204	220	2	187.0
205	223	2	1174.2
206	225	3	1228.1
207	227	2	1548.3
208	228	2	306.5
209	232	2	626.4
210	234	1	435.3
211	239	1	229.3
212	244	2	1228.9
213	245	1	917.7
214	248	1	490.5
215	249	1	1797.1
216	250	1	1145.8
217	252	1	511.2
218	253	3	393.0
219	255	2	1049.0
220	259	1	183.4
221	260	2	889.8
222	263	2	1375.2

Replace=FULL Radius=0 Maxclusters=3 Maxiter=10 Converge=0.02

Cluster Listing			
Obs	Kredi_ID	Cluster	Distance from Seed
223	265	2	297.7
224	267	2	819.4
225	269	1	1352.5
226	270	2	181.5
227	271	1	392.4
228	272	2	597.4
229	276	3	683.4
230	277	1	788.2
231	278	2	435.8
232	279	2	1650.8
233	280	1	399.0
234	283	3	861.9
235	284	2	1018.3
236	285	1	660.4
237	287	1	1150.7
238	288	1	428.5
239	290	1	1268.8
240	292	1	991.4
241	293	2	374.7
242	296	1	1312.1
243	297	2	482.5
244	301	2	778.5
245	302	1	837.2
246	303	2	594.8
247	307	1	1072.8
248	310	2	1624.1
249	312	2	150.5
250	313	2	214.7
251	316	1	1262.5
252	318	2	890.6
253	319	1	1218.3
254	322	1	406.4
255	323	1	805.6
256	324	3	5043.7
257	326	2	332.8
258	327	3	1296.7
259	329	1	983.0

Replace=FULL Radius=0 Maxclusters=3 Maxiter=10 Converge=0.02

Cluster Listing			
Obs	Kredi_ID	Cluster	Distance from Seed
260	330	3	1417.0
261	332	1	1331.5
262	333	2	363.6
263	335	2	654.4
264	336	1	721.6
265	337	2	536.9
266	339	2	135.6
267	342	1	1268.0
268	344	1	1092.6
269	346	1	1191.8
270	348	3	1802.8
271	349	1	1568.0
272	351	1	1141.0
273	352	2	474.8
274	354	2	738.6
275	357	2	740.4
276	359	2	1122.3
277	361	2	493.4
278	364	2	738.4
279	366	2	1052.4
280	367	3	1086.1
281	369	2	507.4
282	370	3	924.0
283	371	2	794.8
284	372	1	559.8
285	373	1	1304.9
286	374	2	309.8
287	375	2	572.0
288	376	2	408.3
289	378	1	1135.7
290	379	2	461.7
291	380	1	212.1
292	382	3	978.9
293	383	2	661.8
294	384	1	638.5
295	389	2	1493.3
296	390	2	1707.2

Replace=FULL Radius=0 Maxclusters=3 Maxiter=10 Converge=0.02

Cluster Listing			
Obs	Kredi_ID	Cluster	Distance from Seed
297	392	2	1158.0
298	395	2	360.4
299	396	2	1311.0
300	398	2	1352.8
301	399	1	211.7
302	7	1	700.5
303	10	2	1564.8
304	15	1	600.7
305	16	1	210.4
306	17	1	1031.1
307	23	1	139.8
308	24	2	362.7
309	26	2	1080.6
310	28	2	898.7
311	29	3	4520.6
312	41	1	639.1
313	42	3	1294.7
314	50	2	856.9
315	51	2	222.7
316	52	1	1281.7
317	65	1	275.0
318	68	2	358.8
319	76	1	496.8
320	89	2	1100.8
321	90	3	1435.8
322	91	2	492.2
323	94	2	245.2
324	95	1	402.7
325	96	1	1845.2
326	98	1	697.3
327	99	1	369.0
328	112	1	293.9
329	116	2	603.3
330	124	1	1402.8
331	129	3	581.3
332	130	1	781.1
333	131	1	1352.1

Replace=FULL Radius=0 Maxclusters=3 Maxiter=10 Converge=0.02

Cluster Listing			
Obs	Kredi_ID	Cluster	Distance from Seed
334	133	2	219.7
335	134	2	537.2
336	135	2	459.9
337	136	1	816.7
338	137	1	1427.2
339	140	3	1498.1
340	141	2	974.2
341	144	2	504.9
342	151	2	351.7
343	155	1	480.0
344	164	1	385.4
345	167	1	225.6
346	174	2	658.8
347	175	3	1772.4
348	182	2	287.1
349	183	2	1026.1
350	186	2	993.3
351	187	1	1118.2
352	189	3	1308.9
353	195	1	588.4
354	196	2	108.8
355	197	3	1613.6
356	198	1	1288.3
357	199	1	706.2
358	201	2	146.0
359	204	2	1560.5
360	209	2	1173.2
361	210	3	490.8
362	214	2	167.6
363	222	3	198.6
364	229	2	913.1
365	231	2	266.0
366	235	3	726.3
367	236	1	241.8
368	242	1	1795.5
369	246	1	704.5
370	254	2	528.7



Replace=FULL Radius=0 Maxclusters=3 Maxiter=10 Converge=0.02

Cluster Listing			
Obs	Kredi_ID	Cluster	Distance from Seed
371	256	2	1317.3
372	264	1	844.3
373	266	2	415.2
374	275	2	543.1
375	281	2	179.1
376	282	1	851.5
377	294	3	2312.9
378	299	1	128.5
379	300	2	351.4
380	304	2	517.9
381	311	2	611.9
382	315	3	324.7
383	320	1	164.8
384	321	1	1540.9
385	334	1	712.5
386	338	1	1845.4
387	340	3	1332.5
388	341	1	1133.9
389	343	1	277.4
390	353	2	1748.3
391	356	3	3032.1
392	360	2	935.5
393	363	2	300.3
394	368	1	927.4
395	377	2	1772.8
396	381	3	1299.8
397	385	1	833.9
398	387	1	1022.2
399	394	1	1366.4
400	397	1	1201.2

Criterion Based on Final Seeds =	415.9
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Replace=FULL Radius=0 Maxclusters=3 Maxiter=10 Converge=0.02

Cluster Summary						
Cluster	Frequency	RMS Std Deviation	Maximum Distance from Seed to Observation	Radius Exceeded	Nearest Cluster	Distance Between Cluster Centroids
1	169	370.4	1845.4		2	2772.6
2	177	353.8	1772.8		1	2772.6
3	54	674.4	5043.7		2	3590.2

Statistics for Variables				
Variable	Total STD	Within STD	R-Square	RSQ/(1-RSQ)
Income	35.24427	22.76562	0.584855	1.408798
Limit	2308	983.16858	0.819479	4.539529
Rating	154.72414	66.90444	0.813958	4.375127
Cards	1.37127	1.37461	0.000173	0.000173
Age	17.24981	17.04517	0.028479	0.029314
Balance	459.75888	271.20980	0.653767	1.888231
OVER-ALL	963.03698	417.42507	0.813066	4.349476

Pseudo F Statistic = 863.37

Approximate Expected Over-All R-Squared = 0.85266

Cubic Clustering Criterion = -4.070

**WARNING: The two values above are invalid for correlated variables.**

Cluster Means						
Cluster	Income	Limit	Rating	Cards	Age	Balance
1	26.167799	2693.248521	218.988166	2.976331	54.366864	124.686391
2	43.582514	5399.977401	398.502825	2.937853	54.666667	697.796610
3	110.205389	8949.722222	637.629630	2.962963	63.018519	1174.518519

Cluster Standard Deviations						
Cluster	Income	Limit	Rating	Cards	Age	Balance
1	12.618025	886.125164	59.345035	1.353798	16.910699	183.943353
2	24.096360	804.877341	55.657855	1.382349	17.296107	314.759817
3	38.070165	1612.533954	109.903267	1.413719	16.625158	338.697658

Replace=FULL Radius=0 Maxclusters=3 Maxiter=10 Converge=0.02

Distance Between Cluster Centroids			
Nearest Cluster	1	2	3
1	.	2772.609859	6358.302330
2	2772.609859	.	3590.214766
3	6358.302330	3590.214766	.

Class Level Information		
Class	Levels	Values
CLUSTER	3	1 2 3

Number of Observations Read	400
Number of Observations Used	400

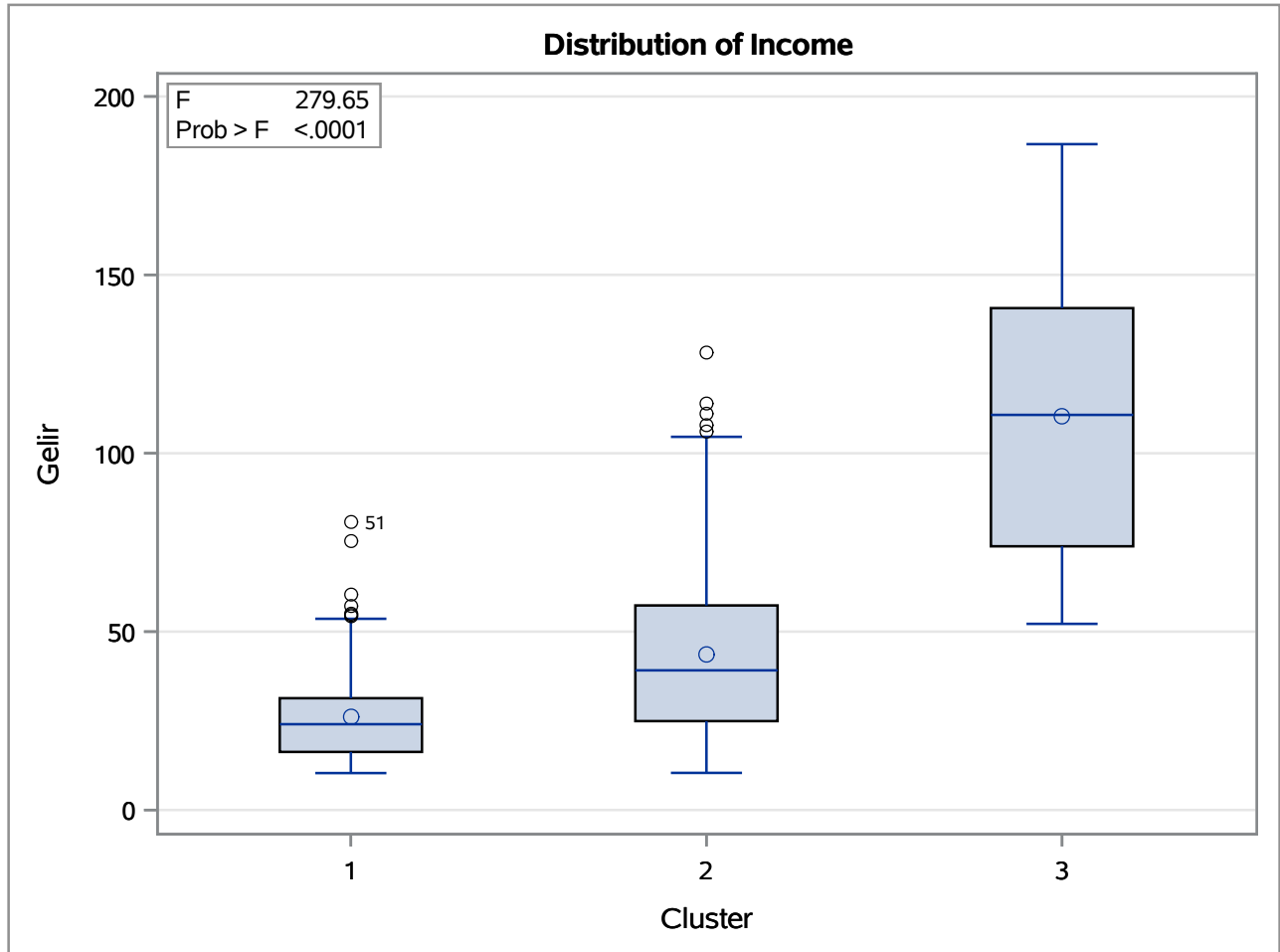
Dependent Variable: Income Gelir

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	289866.7383	144933.3691	279.65	<.0001
Error	397	205754.6193	518.2736		
Corrected Total	399	495621.3576			

R-Square	Coeff Var	Root MSE	Income Mean
0.584855	50.34539	22.76562	45.21888

Source	DF	Type I SS	Mean Square	F Value	Pr > F
CLUSTER	2	289866.7383	144933.3691	279.65	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
CLUSTER	2	289866.7383	144933.3691	279.65	<.0001



Class Level Information		
Class	Levels	Values
CLUSTER	3	1 2 3

Number of Observations Read	400
Number of Observations Used	400

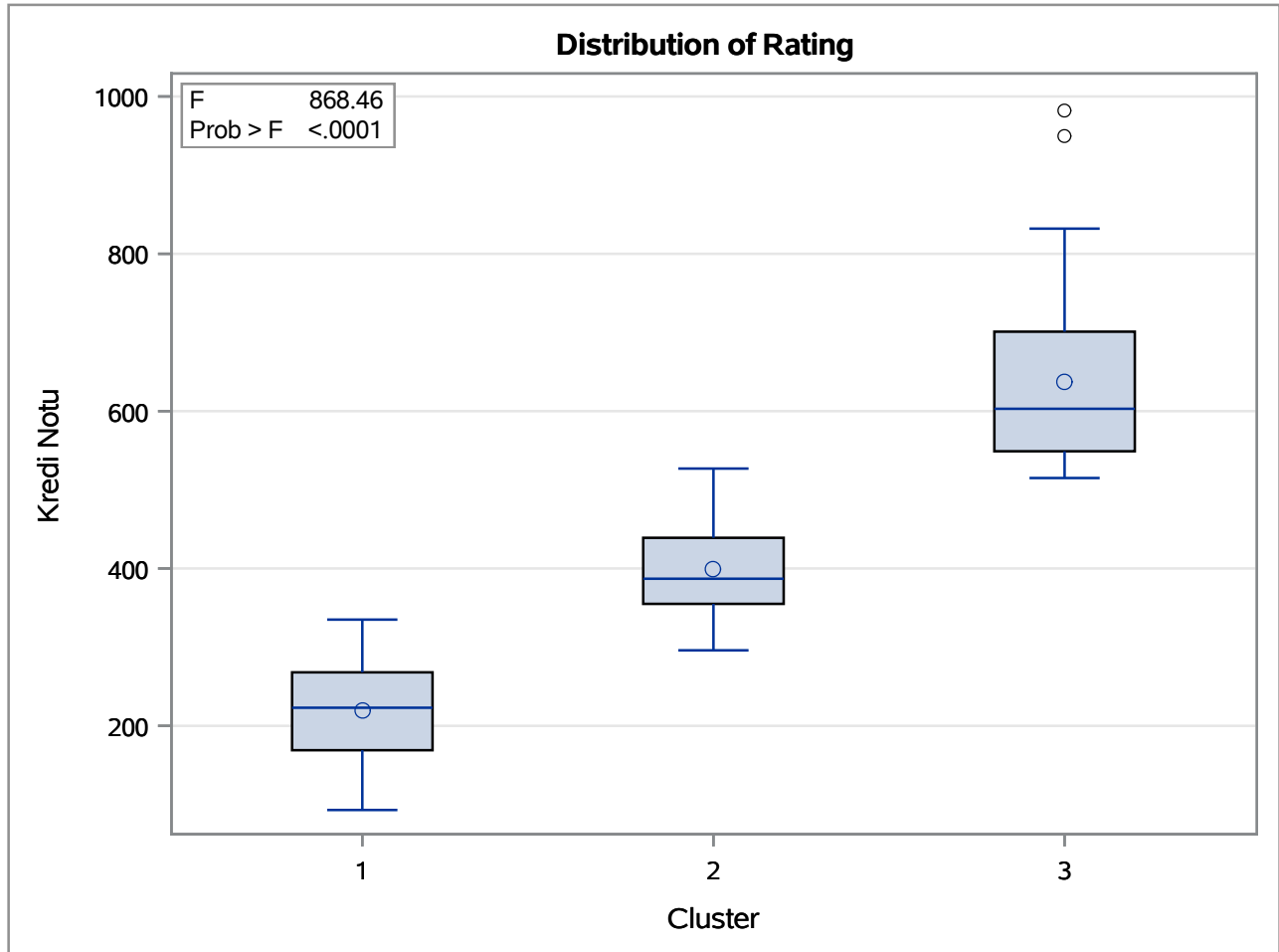
Dependent Variable: Rating Kredi Notu

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	7774831.742	3887415.871	868.46	<.0001
Error	397	1777052.818	4476.204		
Corrected Total	399	9551884.560			

R-Square	Coeff Var	Root MSE	Rating Mean
0.813958	18.84951	66.90444	354.9400

Source	DF	Type I SS	Mean Square	F Value	Pr > F
CLUSTER	2	7774831.742	3887415.871	868.46	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
CLUSTER	2	7774831.742	3887415.871	868.46	<.0001



Class Level Information		
Class	Levels	Values
CLUSTER	3	1 2 3

Number of Observations Read	400
Number of Observations Used	400



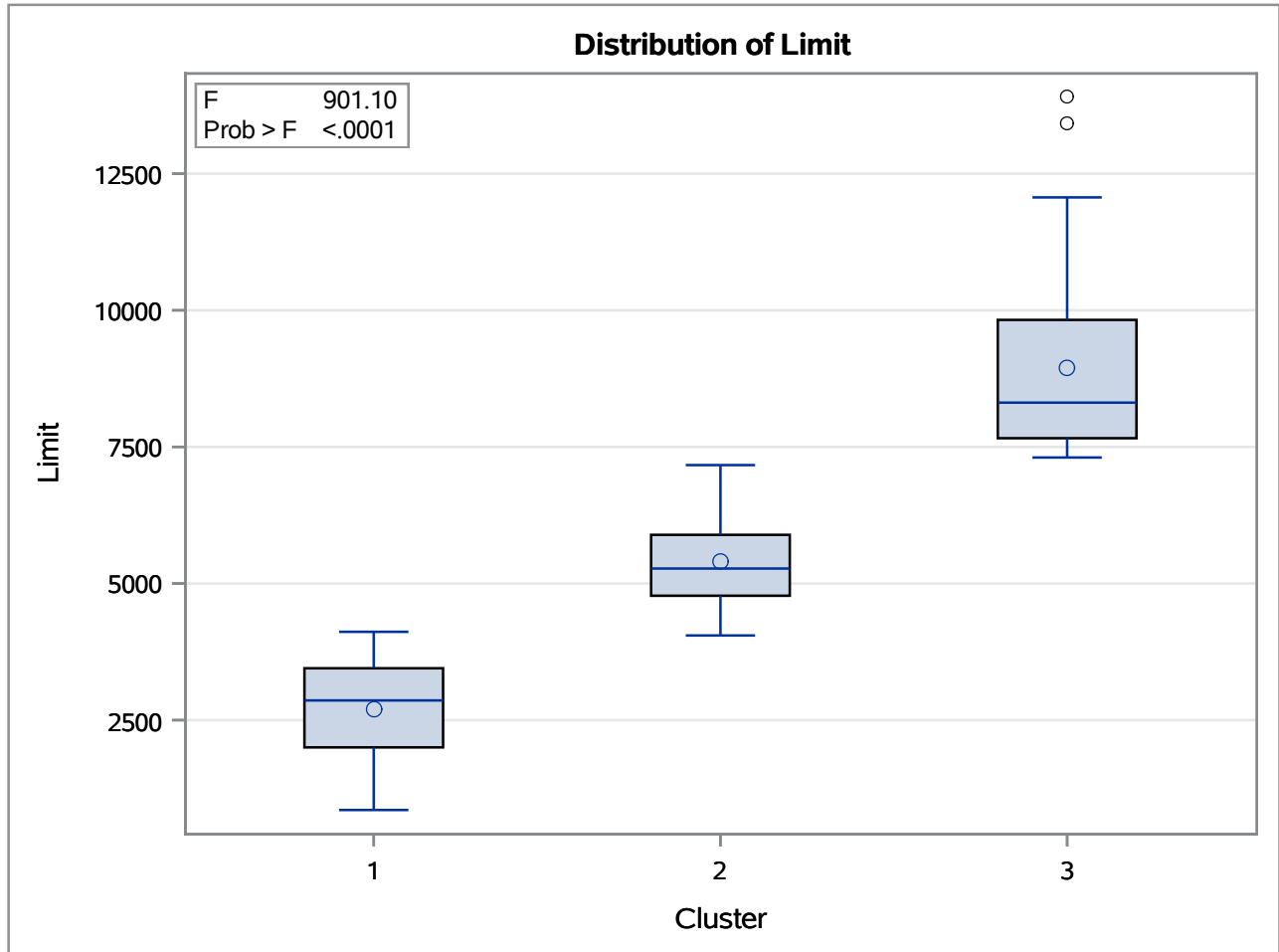
Dependent Variable: Limit Limit

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	1742036664	871018332	901.10	<.0001
Error	397	383748322	966620		
Corrected Total	399	2125784986			

R-Square	Coeff Var	Root MSE	Limit Mean
0.819479	20.76123	983.1686	4735.600

Source	DF	Type I SS	Mean Square	F Value	Pr > F
CLUSTER	2	1742036664	871018332	901.10	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
CLUSTER	2	1742036664	871018332	901.10	<.0001



Class Level Information		
Class	Levels	Values
CLUSTER	3	1 2 3

Number of Observations Read	400
Number of Observations Used	400

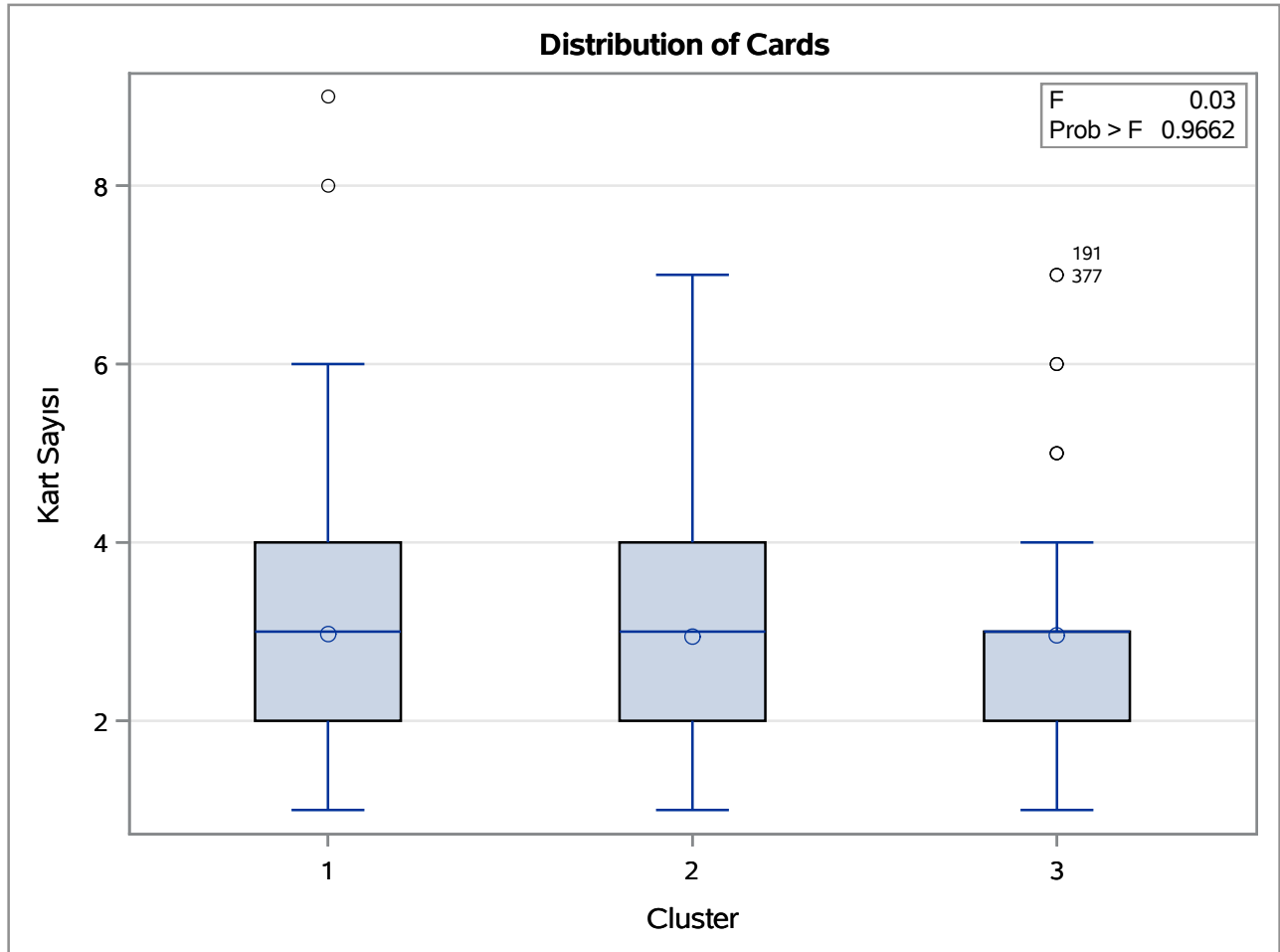
Dependent Variable: Cards Kart Sayısı

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	0.1298644	0.0649322	0.03	0.9662
Error	397	750.1476356	1.8895406		
Corrected Total	399	750.2775000			

R-Square	Coeff Var	Root MSE	Cards Mean
0.000173	46.47864	1.374606	2.957500

Source	DF	Type I SS	Mean Square	F Value	Pr > F
CLUSTER	2	0.12986445	0.06493222	0.03	0.9662

Source	DF	Type III SS	Mean Square	F Value	Pr > F
CLUSTER	2	0.12986445	0.06493222	0.03	0.9662



Class Level Information		
Class	Levels	Values
CLUSTER	3	1 2 3

Number of Observations Read	400
Number of Observations Used	400

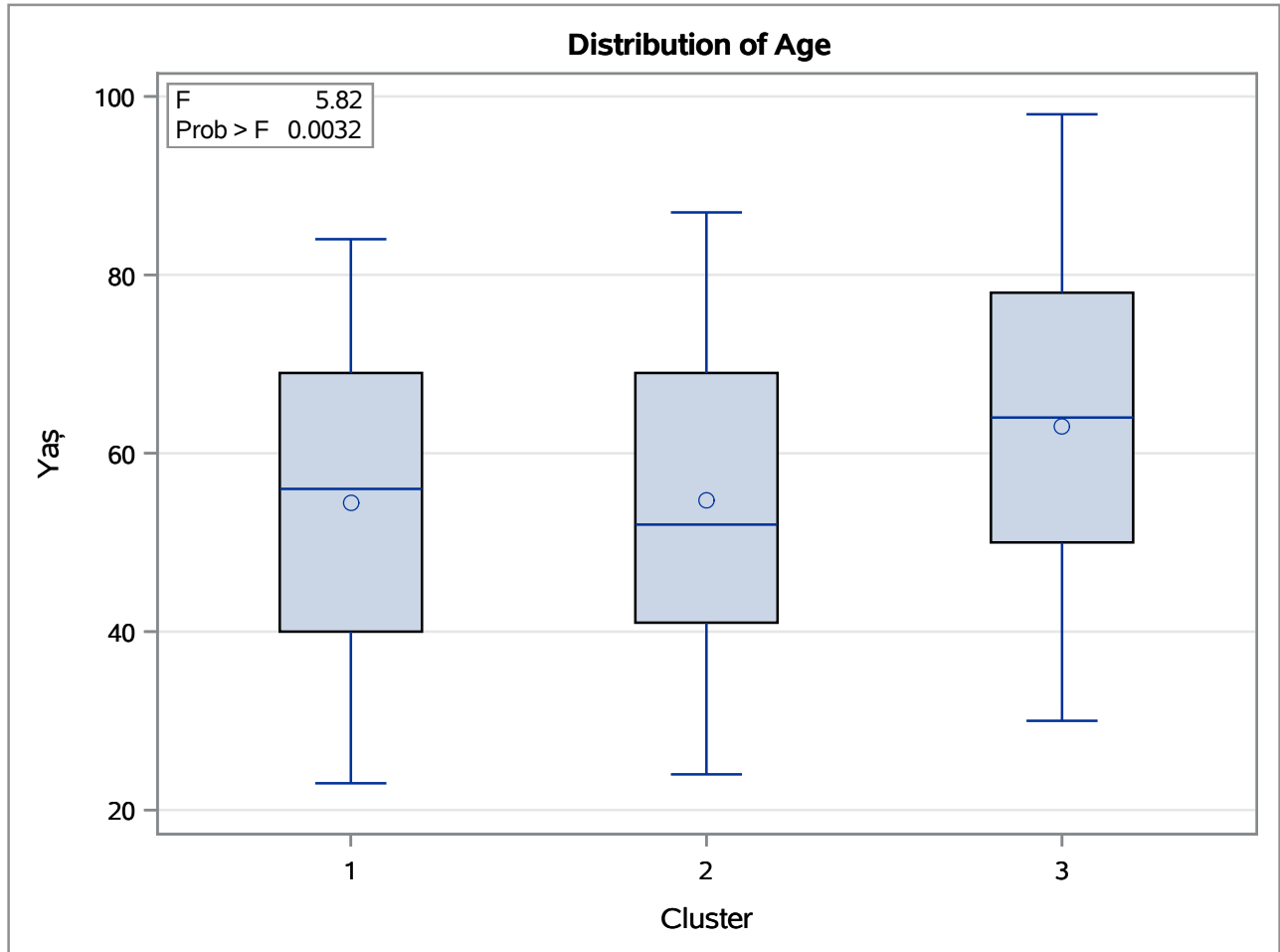
Dependent Variable: Age Yaş

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	3381.2082	1690.6041	5.82	0.0032
Error	397	115343.5693	290.5380		
Corrected Total	399	118724.7775			

R-Square	Coeff Var	Root MSE	Age Mean
0.028479	30.61961	17.04517	55.66750

Source	DF	Type I SS	Mean Square	F Value	Pr > F
CLUSTER	2	3381.208247	1690.604124	5.82	0.0032

Source	DF	Type III SS	Mean Square	F Value	Pr > F
CLUSTER	2	3381.208247	1690.604124	5.82	0.0032



Class Level Information		
Class	Levels	Values
CLUSTER	3	1 2 3

Number of Observations Read	400
Number of Observations Used	400

Dependent Variable: Balance Bakiye

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	55138673.37	27569336.69	374.81	<.0001
Error	397	29201238.54	73554.76		
Corrected Total	399	84339911.91			

R-Square	Coeff Var	Root MSE	Balance Mean
0.653767	52.15423	271.2098	520.0150

Source	DF	Type I SS	Mean Square	F Value	Pr > F
CLUSTER	2	55138673.37	27569336.69	374.81	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
CLUSTER	2	55138673.37	27569336.69	374.81	<.0001

