K - Means Clustering

Initial Cluster Centers

	Cluster	
	1	2
Zscore(id)	1.47683	.66655
Zscore(hostid)	-.29938	.33671
Zscore(lat)	-.77823	1.58086
Zscore(long)	-.37043	.01321
Zscore(Constructionyear)	-.08515	-.60587
Zscore(minimumnights)	21.07561	-.28557
Zscore(numberofreviews)	-.53518	4.16887
Zscore (calculatedhostlistingscount)	-.18461	-.21546
Zscore(availability365)	-1.03878	26.11824
Zscore(price)	-.20608	1.69068
Zscore(servicefee)	-.21212	1.68756

Initial Cluster Centers
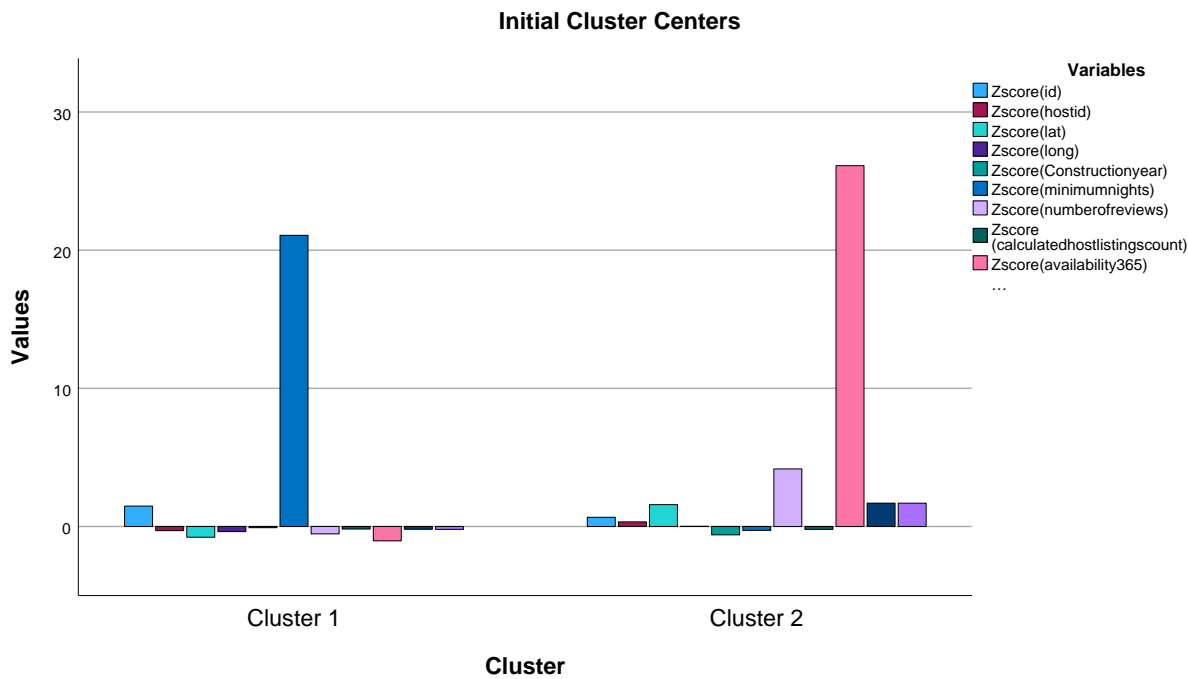
Iteration History[a]

	Change in Cluster Centers	
Iteration	1	2
1	21.182	21.734
2	.005	7.390
3	.020	4.189
4	.043	2.326
5	.057	1.304
6	.053	.764
7	.040	.441
8	.026	.255
9	.018	.165
10	.013	.108

a. Iterations stopped because the maximum number of iterations was performed. Iterations failed to converge. The maximum absolute coordinate change for any center is .105. The current iteration is 10. The minimum distance between initial centers ...

Final Cluster Centers

	Cluster	
	1	2
Zscore(id)	.02172	-.18926
Zscore(hostid)	.00227	-.01937
Zscore(lat)	.01005	-.08591
Zscore(long)	-.02815	.24065
Zscore(Constructionyear)	-.00162	.01388
Zscore(minimumnights)	.02433	-.20801
Zscore(numberofreviews)	-.27401	2.34277
Zscore (calculatedhostlistingscount)	.02067	-.17670
Zscore(availability365)	-.04195	.35869
Zscore(price)	-.00646	.05521
Zscore(servicefee)	-.00645	.05516

ANOVA

	Cluster		Error		
	Mean Square	df	Mean Square	df	F
Zscore(id)	413.034	1	.997	98973	414.459
Zscore(hostid)	4.342	1	1.000	98973	4.342
Zscore(lat)	85.432	1	.999	98973	85.505
Zscore(long)	670.383	1	.993	98973	674.948
Zscore(Constructionyear)	2.230	1	1.000	98973	2.230
Zscore(minimumnights)	500.881	1	.995	98973	503.424
Zscore(numberofreviews)	63536.475	1	.358	98973	177450.190
Zscore (calculatedhostlistingscount)	361.430	1	.996	98973	362.751
Zscore(availability365)	1489.356	1	.985	98973	1512.095
Zscore(price)	35.286	1	1.000	98973	35.298
Zscore(servicefee)	35.219	1	1.000	98973	35.231

ANOVA

	Sig.
Zscore(id)	<.001
Zscore(hostid)	.037
Zscore(lat)	<.001
Zscore(long)	<.001
Zscore(Constructionyear)	.135
Zscore(minimumnights)	<.001
Zscore(numberofreviews)	<.001
Zscore (calculatedhostlistingscount)	<.001
Zscore(availability365)	<.001
Zscore(price)	<.001
Zscore(servicefee)	<.001

The F tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

Number of Cases in each Cluster

Cluster	1	88611.000
	2	10364.000
Valid		98975.000
Missing		731.000