Weka – Code(s)

=== Run information ===

Scheme: weka.clusterers.EM -I 100 -N -1 -X 10 -max -1 -ll-cv 1.0E-6 -ll-iter 1.0E-6 -M 1.0E-6 -K 10 -num-slots 1 -S 100

Relation: CoffeeChain\_CleansedData1

Instances: 4248

Attributes: 14

ï»¿Profit

Margin

Sales

COGS

Total Expenses

Marketing

Inventory

ProductId

State

Market

Market Size

Product Type

Product

Type

Test mode: evaluate on training data

=== Clustering model (full training set) ===

EM

==

Number of clusters selected by cross validation: 11

Number of iterations performed: 77

Cluster

Attribute 0 1 2 3 4 5 6 7 8 9 10

(0.07) (0.15) (0.08) (0.06) (0.11) (0.05) (0.15) (0.02) (0.07) (0.12) (0.13)

====================================================================================================================================

Profit

mean 37.4674 17.7418 231.2551 17.5491 44.7023 36.3935 87.1128 -36.1409 -4.955 36.0132 108.429

std. dev. 15.9317 16.0573 62.0165 14.9425 18.1376 336.8307 29.0549 29.5845 6.0569 16.6873 56.3644

Margin

mean 66.5998 39.8616 297.2879 39.6453 83.4273 139.8211 118.462 24.8121 71.8531 66.6693 166.2104

std. dev. 7.5538 9.2053 50.88 9.0163 9.5035 269.7516 15.3107 21.0081 11.1062 6.8049 23.0982

Sales

mean 116.8709 67.7756 554.4803 67.3473 149.6107 345.1135 209.2163 128.6101 125.9614 116.8995 296.489

std. dev. 12.1052 17.6707 66.7899 16.9709 13.9401 287.3939 23.421 20.274 20.1865 11.0982 42.0896

COGS

mean 47.886 26.4174 246.27 26.4629 62.5708 195.3722 85.4404 100.9359 51.4286 47.8104 124.4395

std. dev. 4.5165 10.3086 24.4407 9.662 5.9852 86.5536 8.3487 14.6947 8.2476 4.2111 22.5593

Total Expenses

mean 35.3299 25.2927 106.2658 24.6671 46.5778 113.0624 47.295 53.8557 75.1296 36.9347 77.106

std. dev. 9.9577 11.3827 16.3125 10.9612 8.6132 40.7536 10.4355 4.4068 7.767 9.9965 32.155

Marketing

mean 14.9054 7.8192 77.6504 7.7946 20.4521 79.4685 26.5611 31.1026 46.4571 15.0268 53.4987

std. dev. 2.23 3.5247 12.4027 3.3402 2.492 36.8358 3.0193 4.8123 7.3691 2.1664 27.1292

Inventory

mean 536.2617 597.5147 1491.0506 601.4508 536.1959 1791.0322 654.0731 1284.2777 376.9992 510.8037 870.2877

std. dev. 205.3595 297.6321 287.4313 295.0868 344.9474 2166.643 188.2557 586.1541 275.2071 197.0404 225.0794

ProductId

mean 7.0485 7.3553 7.4813 7.7785 6.1977 5.4266 7.2946 6.1228 6.707 6.5275 6.661

std. dev. 3.6127 3.7969 3.2771 3.5478 3.6848 3.909 3.759 3.7323 3.6126 3.5816 3.3041

State

Connecticut 7.1538 14.1377 7.9636 1.0157 9.5239 8.0795 8.5517 3 11 11.5809 12.9932

Washington 8.9619 17.8274 9.1524 1.0228 4.5125 4.85 14.5386 3 8 10.7165 4.4179

California 68.7858 155.8672 72.6461 1.0082 66.613 29.2553 119.2505 17.0004 54.0502 91.9035 99.6197

Texas 36.8574 122.8833 52.4122 1.0103 47.478 40.1062 80.5577 6.9995 22.003 69.0656 76.6267

New York 30.6521 100.4186 36.3902 1.0068 54.3429 18.1129 67.1592 10.0004 31.9007 57.1098 59.9065

Ohio 18.2974 1.0019 18.2816 58.2899 30.4132 8.7554 38.1551 4.9959 14.9998 35.8807 38.9292

Illinois 28.0438 1.0025 20.9752 58.0327 40.3378 23.1535 43.6192 8.0247 22 36.8807 31.9299

Louisiana 5.1536 16.9604 9.9881 1.0396 13.0558 6.0018 10.3835 3 4 9.6632 11.754

Florida 37.7247 86.6442 24.6755 1.0066 62.1682 20.379 61.5229 13.0007 41 46.9755 48.9027

Wisconsin 4.8686 1.0008 9.0937 43.9973 18.0885 3.9129 23.5235 4.9997 14.9991 18.7055 20.8104

Colorado 4.0793 1.0029 5.9803 33.378 11.4462 5.0274 20.3436 6.0001 4 14.4954 9.2468

Missouri 7.0356 1.0007 18.9157 56.1258 28.8796 14.45 34.6099 8.9995 12 21.3715 30.6117

Iowa 12.1675 1.0008 16.0721 26.4443 27.6325 8.5198 22.4895 2 7 24.1829 25.4904

Massachusetts 12.5322 57.0765 17.9353 1.0059 20.5113 17.5358 34.3684 6.9946 22.9998 30.8119 35.2281

Oklahoma 6.2978 23.0471 10.3626 1.0399 17.0317 3.6411 22.9774 3 9.9998 9.6631 9.9395

Utah 6.4088 13.0581 4.9954 1.0212 4.0618 3.5146 3.9967 1 2.0167 10.4501 7.4767

Oregon 3.1221 12.3549 4.0008 1.0193 5.5102 5.3093 11.7527 3 4 8.2549 10.6758

New Mexico 1.3343 4.6376 4.9445 1.0328 1.9993 1.0566 1 1 2 2.9961 4.9989

New Hampshire 1.8468 13.8545 4.2711 1.0204 7.0259 2.2656 14.5592 1 7 9.2027 12.9538

Nevada 3.0143 21.9583 6.9996 1.0288 4.0661 6.1022 11.8152 2 4 10.9318 9.0838

[total] 304.3378 666.7355 356.0561 290.5463 474.6984 230.029 645.1746 109.0155 298.9691 530.8422 561.5956

Market

East 85.9096 268.1316 87.2357 1.0554 149.5722 62.3728 182.1614 29.9957 109.9005 151.6808 165.9842

West 86.293 217.0659 93.7943 1.1003 80.7636 45.0315 157.3536 22.0004 68.0669 128.2567 127.2739

South 46.6432 164.5283 74.7074 1.1227 76.5648 47.8057 111.9186 10.9995 35.0028 88.3879 100.3191

Central 69.4921 1.0097 84.3187 271.2679 151.7978 58.819 177.741 30.0199 69.9989 146.5167 152.0183

[total] 288.3378 650.7355 340.0561 274.5463 458.6984 214.029 629.1746 93.0155 282.9691 514.8422 545.5956

Market Size

Small Market 56.3651 129.8383 95.7595 124.8079 130.3878 56.7035 169.1978 24.9992 75.0156 136.7192 150.206

Major Market 229.9727 518.8971 242.2965 147.7384 326.3106 155.3255 457.9768 66.0163 205.9535 376.123 393.3896

[total] 286.3378 648.7355 338.0561 272.5463 456.6984 212.029 627.1746 91.0155 280.9691 512.8422 543.5956

Product Type

Coffee 1.0754 136.263 83.5952 53.6449 112.2283 52.8396 169.3035 18.9965 51.8992 169.3223 112.832

Espresso 72.0611 207.383 100.1566 87.0772 160.469 63.3325 187.8869 24.1168 93.0422 169.1026 179.3722

Herbal Tea 207.951 144.5418 78.3877 71.9287 86.0714 56.7122 142.7874 25.997 66.0207 1.0346 125.5675

Tea 7.2503 162.5477 77.9165 61.8955 99.9296 41.1447 129.1966 23.9052 72.0071 175.3827 127.824

[total] 288.3378 650.7355 340.0561 274.5463 458.6984 214.029 629.1746 93.0155 282.9691 514.8422 545.5956

Product

Amaretto 1.0013 41.8511 27.4982 23.5169 37.3241 18.0402 59.8675 7 17.9077 53.6255 40.3674

Columbian 1.4399 46.7641 25.794 18.621 37.4992 18.3551 53.2831 7.0006 19.9917 66.8163 32.435

Decaf Irish Cream 1.0763 47.7977 30.3053 13.0265 39.3908 19.445 57.1606 7.996 16.9998 50.7926 44.0093

Caffe Latte 1.5612 48.3782 28.9193 25.5278 49.2054 23.0384 53.8485 8.1167 25 57.9687 42.4359

Caffe Mocha 2.1512 58.3707 23.8536 24.5629 48.0041 20.188 51.9732 6 24 60.8235 42.073

Decaf Espresso 76.2904 58.061 18.1154 25.615 34.1395 17.4152 45.0585 8 19.9998 1.2573 58.0477

Regular Espresso 11.8396 58.1138 34.3239 19.3588 36.8365 7.6522 45.6322 4.0001 28.0423 47.2255 47.9752

Chamomile 63.2192 42.4022 29.7542 28.0929 33.6351 17.8113 41.8865 13.9979 23.0162 1.0028 46.1817

Lemon 64.8629 58.6355 25.5397 19.0733 30.4007 20.5091 46.6935 5.999 24 1.2356 38.0506

Mint 70.7872 39.7318 23.0367 24.7808 23.919 16.6062 53.4259 8.0002 25.0041 6.5727 41.1353

Darjeeling 1.01 64.3894 24.8833 17.7968 32.1815 10.0626 42.4289 4.0001 25.9996 67.871 42.3765

Earl Grey 1.0522 43.6565 29.3468 14.9294 32.793 14.5246 45.2195 9.9049 26.0078 57.7425 39.8228

Green Tea 1.0463 51.5835 27.6855 28.6442 32.3695 19.3811 41.6967 12.0001 16 50.9079 39.685

[total] 297.3378 659.7355 349.0561 283.5463 467.6984 223.029 638.1746 102.0155 291.9691 523.8422 554.5956

Type

Regular 32.0671 406.3103 213.737 163.0274 291.9631 130.8807 380.0496 50.9978 178.9488 443.8896 333.1285

Decaf 254.2707 242.4251 124.3191 109.5189 164.7352 81.1483 247.125 40.0177 102.0203 68.9525 210.4671

[total] 286.3378 648.7355 338.0561 272.5463 456.6984 212.029 627.1746 91.0155 280.9691 512.8422 543.5956

Time taken to build model (full training data) : 265.15 seconds

=== Model and evaluation on training set ===

Clustered Instances

0 281 ( 7%)

1 650 ( 15%)

2 338 ( 8%)

3 271 ( 6%)

4 452 ( 11%)

5 203 ( 5%)

6 628 ( 15%)

7 89 ( 2%)

8 279 ( 7%)

9 513 ( 12%)

10 544 ( 13%)

Log likelihood: -44.76923

**Component Attributes**

**=== Run information ===**

Evaluator: weka.attributeSelection.PrincipalComponents -R 0.95 -A 5

Search: weka.attributeSelection.Ranker -T -1.7976931348623157E308 -N -1

Relation: CoffeeSalesByLocations

Instances: 4248

Attributes: 9

ProductId

Inventory

Location(Area Code)

Sales

Marketing

COGS

Total\_Expenses

Profits

Margins

Evaluation mode: evaluate on all training data

=== Attribute Selection on all input data ===

Search Method:

Attribute ranking.

Attribute Evaluator (unsupervised):

Principal Components Attribute Transformer

Correlation matrix

1 0.07 0.02 -0.05 -0.04 0 -0.07 -0.06

0.07 1 0.07 0.33 0.5 0.62 0.43 -0.09

0.02 0.07 1 0.06 0.05 0.08 0.04 0.01

-0.05 0.33 0.06 1 0.71 0.89 0.69 0.8

-0.04 0.5 0.05 0.71 1 0.82 0.97 0.23

0 0.62 0.08 0.89 0.82 1 0.78 0.46

-0.07 0.43 0.04 0.69 0.97 0.78 1 0.2

-0.06 -0.09 0.01 0.8 0.23 0.46 0.2 1

eigenvalue proportion cumulative

3.96104 0.49513 0.49513 -0.483COGS-0.459Sales-0.457Marketing-0.444Total\_Expenses-0.286Inventory...

1.32623 0.16578 0.66091 0.699Profits-0.523Inventory+0.328Sales-0.226ProductId-0.19Marketing...

1.02322 0.1279 0.78881 0.701ProductId+0.645Location(Area Code)+0.201Profits-0.161Total\_Expenses-0.125Marketing...

0.97003 0.12125 0.91006 -0.753Location(Area Code)+0.646ProductId+0.085Profits+0.054Sales-0.044Total\_Expenses...

0.59047 0.07381 0.98387 0.712Inventory-0.473Total\_Expenses-0.379Marketing+0.206Profits-0.199ProductId...

**Eigenvectors**

V1 V2 V3 V4 V5

0.0228 -0.2259 0.7006 0.6458 -0.1992 ProductId

-0.2863 -0.5227 -0.0029 0.0348 0.7124 Inventory

-0.0439 -0.1022 0.645 -0.7534 -0.0611 Location(Area Code)

-0.4592 0.3283 0.0949 0.054 0.084 Sales

-0.4572 -0.19 -0.1254 -0.0202 -0.3791 Marketing

-0.4826 -0.0326 0.0457 0.0416 0.1791 COGS

-0.4441 -0.1764 -0.1605 -0.0438 -0.4733 Total\_Expenses

-0.256 0.6995 0.2013 0.0845 0.2057 Profits

**Ranked attributes:**

0.5049 1 -0.483COGS-0.459Sales-0.457Marketing-0.444Total\_Expenses-0.286Inventory...

0.3391 2 0.699Profits-0.523Inventory+0.328Sales-0.226ProductId-0.19Marketing...

0.2112 3 0.701ProductId+0.645Location(Area Code)+0.201Profits-0.161Total\_Expenses-0.125Marketing...

0.0899 4 -0.753Location(Area Code)+0.646ProductId+0.085Profits+0.054Sales-0.044Total\_Expenses...

0.0161 5 0.712Inventory-0.473Total\_Expenses-0.379Marketing+0.206Profits-0.199ProductId...

Selected attributes: 1,2,3,4,5 : 5

ZeroR === Run information ===

Scheme: weka.classifiers.rules.ZeroR

Relation: CoffeeSalesByLocations

Instances: 4248

Attributes: 9

ProductId

Inventory

Location

Sales

Marketing

COGS

Total\_Expenses

Profit

Margin

Test mode: 10-fold cross-validation

=== Classifier model (full training set) ===

ZeroR predicts class value: 104.29331450094162

Time taken to build model: 0.01 seconds

=== Cross-validation ===

=== Summary ===

Correlation coefficient -0.0411

Mean absolute error 64.4793

Root mean squared error 94.3501

Relative absolute error 100 %

Root relative squared error 100 %

Total Number of Instances 4248

**Cluster**

**=== Run information ===**

**Scheme: weka.clusterers.EM -I 100 -N -1 -X 10 -max -1 -ll-cv 1.0E-6 -ll-iter 1.0E-6 -M 1.0E-6 -K 10 -num-slots 1 -S 100**

**Relation: CoffeeSalesByLocations**

**Instances: 4248**

**Attributes: 9**

**ProductId**

**Inventory**

**Location**

**Sales**

**Marketing**

**COGS**

**Total\_Expenses**

**Profit**

**Margin**

**Test mode: evaluate on training data**

**=== Clustering model (full training set) ===**

**EM**

**==**

**Number of clusters selected by cross validation: 16**

**Number of iterations performed: 66**

**Cluster**

**Attribute 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15**

**(0.01) (0.02) (0.01) (0.15) (0.08) (0.05) (0.03) (0.11) (0.08) (0.07) (0.14) (0.06) (0.08) (0.06) (0.02) (0.04)**

**=================================================================================================================================================================================**

**ProductId**

**mean 9.5 5.1276 13 7.0819 7.173 9.2821 5.444 6.6948 7.077 6.7084 6.6283 7.729 6.1987 7.2716 3.0575 6.4351**

**std. dev. 0.5 3.1939 3.6641 3.5803 3.8469 3.6999 2.7324 3.5643 3.3632 3.6133 3.6435 3.6962 3.6625 3.3291 0.9762 3.6955**

**Inventory**

**mean 1213.898 2277.4637 4793.0006 738.5927 581.6138 209.1677 681.4399 568.0905 949.8762 376.8278 477.835 764.7342 658.3575 1419.8212 -368.2051 1829.9446**

**std. dev. 458.1412 1169.4548 2205.6923 173.424 150.6688 34.3845 117.3033 208.5463 208.2209 275.5025 228.3562 161.9501 283.5822 273.7267 1334.4647 443.9636**

**Location**

**mean 560.6688 667.6284 741.5417 606.1004 603.1422 564.2834 557.9921 534.691 609.4623 552.3565 577.1097 588.9468 529.4444 614.2446 617.0796 607.1165**

**std. dev. 163.052 216.231 36.373 188.7798 238.1878 138.6094 240.2282 233.9952 235.166 222.874 241.8592 225.7434 226.2957 204.3795 198.104 191.1114**

**Sales**

**mean 130.2487 148.7026 25.9167 60.9806 200.0684 79.138 259.1645 105.7432 314.1503 125.9438 129.6003 240.4892 162.4968 518.3336 256.269 679.7185**

**std. dev. 20.8536 86.2136 6.3437 15.5882 11.1644 11.5197 42.2644 9.4566 31.1851 20.1701 8.5265 13.7842 11.8038 44.8138 187.8523 87.4647**

**Marketing**

**mean 29.8333 81.1238 100 6.0665 25.9974 11.8731 95.7597 13.3082 39.4974 46.4465 17.2636 28.3489 22.1278 71.2264 24.7842 95.4762**

**std. dev. 4.1799 35.8454 7.1995 2.6961 3.0638 1.5618 16.4068 1.7883 5.3614 7.3583 2.5995 2.4729 2.9554 7.8854 8.8658 13.7677**

**COGS**

**mean 97.5818 170.971 264.6667 22.576 81.8747 33.894 105.8163 43.5361 133.699 51.417 53.3206 96.2295 68.4279 235.6394 78.7576 277.7174**

**std. dev. 13.4902 49.5186 19.5377 9.7476 4.6811 4.6301 18.1743 3.9908 19.3982 8.2362 3.9806 5.8102 6.4926 21.6283 30.8653 31.96**

**Total\_Expenses**

**mean 52.6459 110.55 132.125 18.6223 47.4093 43.4214 125.3643 31.7698 61.6669 75.1163 42.1256 45.6326 47.4805 98.6777 52.0103 131.6319**

**std. dev. 3.6314 36.782 7.299 4.8111 11.1371 3.1882 16.5359 8.1915 12.4571 7.7511 10.4415 9.7219 8.2872 11.299 5.4968 20.0973**

**Profit**

**mean -28.5414 -167.4806 -457.5 22.3821 80.0434 -0.4593 25.6297 34.131 137.3143 -4.9351 37.9213 114.6165 51.9563 208.3365 146.5019 317.0927**

**std. dev. 21.9268 100.7105 91.4754 12.0024 22.507 9.7454 10.3542 12.9154 33.6549 5.9995 18.2877 25.6577 16.0862 48.2476 232.5885 87.3812**

**Margin**

**mean 30.0004 -24.522 -264.6667 37.0213 112.4575 43.4009 147.237 60.5388 174.6821 71.8541 73.2048 138.7306 90.4996 271.4841 172.3537 389.2549**

**std. dev. 16.5178 83.2643 19.5377 8.445 7.9033 6.707 24.9968 5.4706 18.0773 11.0942 5.5933 8.7881 8.4679 33.2914 187.2426 67.1467**

**Time taken to build model (full training data) : 305.71 seconds**

**=== Model and evaluation on training set ===**

**Clustered Instances**

**0 48 ( 1%)**

**1 99 ( 2%)**

**2 24 ( 1%)**

**3 622 ( 15%)**

**4 341 ( 8%)**

**5 206 ( 5%)**

**6 144 ( 3%)**

**7 485 ( 11%)**

**8 358 ( 8%)**

**9 279 ( 7%)**

**10 578 ( 14%)**

**11 246 ( 6%)**

**12 331 ( 8%)**

**13 240 ( 6%)**

**14 97 ( 2%)**

**15 150 ( 4%)**

**Log likelihood: -41.09143**

**For coffee Sales by Location, I will be looking at the following attributes.**

* Product\_Id
* Inventory
* Location (area code)
* Sales
* Marketing
* COGS
* Total Expense
* Profit
* Margins

**Principal Attributes === Run information ===**

Evaluator: weka.attributeSelection.PrincipalComponents -R 0.95 -A 5

Search: weka.attributeSelection.Ranker -T -1.7976931348623157E308 -N -1

Relation: CoffeeSalesByLocations

Instances: 4248

Attributes: 9

ProductId

Inventory

Location(Area Code)

Sales

Marketing

COGS

Total\_Expenses

Profits

Margins

Evaluation mode: evaluate on all training data

=== Attribute Selection on all input data ===

Search Method:

Attribute ranking.

Attribute Evaluator (unsupervised):

Principal Components Attribute Transformer

Correlation matrix

1 0.07 0.02 -0.05 -0.04 0 -0.07 -0.06

0.07 1 0.07 0.33 0.5 0.62 0.43 -0.09

0.02 0.07 1 0.06 0.05 0.08 0.04 0.01

-0.05 0.33 0.06 1 0.71 0.89 0.69 0.8

-0.04 0.5 0.05 0.71 1 0.82 0.97 0.23

0 0.62 0.08 0.89 0.82 1 0.78 0.46

-0.07 0.43 0.04 0.69 0.97 0.78 1 0.2

-0.06 -0.09 0.01 0.8 0.23 0.46 0.2 1

eigenvalue proportion cumulative

3.96104 0.49513 0.49513 -0.483COGS-0.459Sales-0.457Marketing-0.444Total\_Expenses-0.286Inventory...

1.32623 0.16578 0.66091 0.699Profits-0.523Inventory+0.328Sales-0.226ProductId-0.19Marketing...

1.02322 0.1279 0.78881 0.701ProductId+0.645Location(Area Code)+0.201Profits-0.161Total\_Expenses-0.125Marketing...

0.97003 0.12125 0.91006 -0.753Location(Area Code)+0.646ProductId+0.085Profits+0.054Sales-0.044Total\_Expenses...

0.59047 0.07381 0.98387 0.712Inventory-0.473Total\_Expenses-0.379Marketing+0.206Profits-0.199ProductId...

Eigenvectors

V1 V2 V3 V4 V5

0.0228 -0.2259 0.7006 0.6458 -0.1992 ProductId

-0.2863 -0.5227 -0.0029 0.0348 0.7124 Inventory

-0.0439 -0.1022 0.645 -0.7534 -0.0611 Location(Area Code)

-0.4592 0.3283 0.0949 0.054 0.084 Sales

-0.4572 -0.19 -0.1254 -0.0202 -0.3791 Marketing

-0.4826 -0.0326 0.0457 0.0416 0.1791 COGS

-0.4441 -0.1764 -0.1605 -0.0438 -0.4733 Total\_Expenses

-0.256 0.6995 0.2013 0.0845 0.2057 Profits

Ranked attributes:

0.5049 1 -0.483COGS-0.459Sales-0.457Marketing-0.444Total\_Expenses-0.286Inventory...

0.3391 2 0.699Profits-0.523Inventory+0.328Sales-0.226ProductId-0.19Marketing...

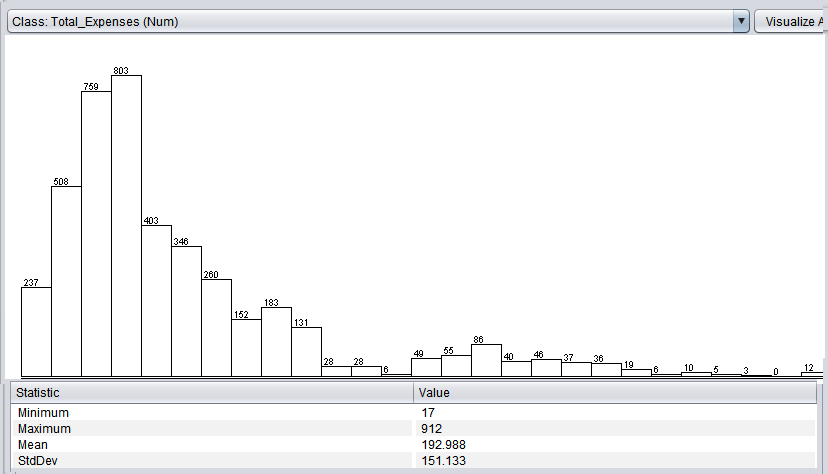
0.2112 3 0.701ProductId+0.645Location(Area Code)+0.201Profits-0.161Total\_Expenses-0.125Marketing...

0.0899 4 -0.753Location(Area Code)+0.646ProductId+0.085Profits+0.054Sales-0.044Total\_Expenses...

0.0161 5 0.712Inventory-0.473Total\_Expenses-0.379Marketing+0.206Profits-0.199ProductId...

Selected attributes: 1,2,3,4,5 : 5

**Coffee Expense**



**Data visualization per Attributes**

**=== Run information ===**

**Scheme: weka.clusterers.SimpleKMeans -init 0 -max-candidates 100 -periodic-pruning 10000 -min-density 2.0 -t1 -1.25 -t2 -1.0 -N 2 -A "weka.core.EuclideanDistance -R first-last" -I 500 -num-slots 1 -S 10**

**Relation: CoffeeChain\_CleansedData1**

**Instances: 4248**

**Attributes: 14**

**ï»¿Profit**

**Margin**

**Sales**

**COGS**

**Total Expenses**

**Marketing**

**Inventory**

**ProductId**

**State**

**Market**

**Market Size**

**Product Type**

**Product**

**Type**

**Test mode: evaluate on training data**

**=== Clustering model (full training set) ===**

**kMeans**

**======**

**Number of iterations: 3**

**Within cluster sum of squared errors: 14950.633431695493**

**Initial starting points (random):**

**Cluster 0: 91,126,213,87,35,24,756,8,Florida,East,'Major Market',Coffee,Amaretto,Regular**

**Cluster 1: 137,136,228,94,34,26,562,6,Colorado,Central,'Major Market',Espresso,'Caffe Latte',Regular**

**Missing values globally replaced with mean/mode**

**Final cluster centroids:**

**Cluster#**

**Attribute Full Data 0 1**

**(4248.0) (1804.0) (2444.0)**

**===========================================================**

**ï»¿Profit 61.0977 58.5493 62.9787**

**Margin 104.2933 101.5183 106.3417**

**Sales 192.9875 190.7943 194.6064**

**COGS 84.4331 84.9135 84.0786**

**Total Expenses 54.0636 53.6757 54.3498**

**Marketing 31.185 31.1303 31.2255**

**Inventory 749.3814 773.3525 731.6874**

**ProductId 6.887 7.7799 6.2279**

**State California Florida California**

**Market East East Central**

**Market Size Major Market Major Market Major Market**

**Product Type Espresso Coffee Espresso**

**Product Caffe Latte Amaretto Caffe Latte**

**Type Regular Regular Regular**

**Time taken to build model (full training data) : 0.07 seconds**

**=== Model and evaluation on training set ===**

**Clustered Instances**

**0 1804 ( 42%)**

**1 2444 ( 58%)**

**=== Run information ===**

**Scheme: weka.classifiers.rules.ZeroR**

**Relation: CoffeeChain\_CleansedData1**

**Instances: 4248**

**Attributes: 14**

**ï»¿Profit**

**Margin**

**Sales**

**COGS**

**Total Expenses**

**Marketing**

**Inventory**

**ProductId**

**State**

**Market**

**Market Size**

**Product Type**

**Product**

**Type**

**Test mode: 10-fold cross-validation**

**=== Classifier model (full training set) ===**

**ZeroR predicts class value: Regular**

**Time taken to build model: 0.02 seconds**

**=== Stratified cross-validation ===**

**=== Summary ===**

**Correctly Classified Instances 2614 61.5348 %**

**Incorrectly Classified Instances 1634 38.4652 %**

**Kappa statistic 0**

**Mean absolute error 0.4734**

**Root mean squared error 0.4865**

**Relative absolute error 100 %**

**Root relative squared error 100 %**

**Total Number of Instances 4248**

**=== Detailed Accuracy By Class ===**

**TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class**

**1.000 1.000 0.615 1.000 0.762 ? 0.499 0.615 Regular**

**0.000 0.000 ? 0.000 ? ? 0.499 0.384 Decaf**

**Weighted Avg. 0.615 0.615 ? 0.615 ? ? 0.499 0.526**

**=== Confusion Matrix ===**

**a b <-- classified as**

**2614 0 | a = Regular**

**1634 0 | b = Decaf**

**=== Run information ===**

**Scheme: weka.classifiers.rules.ZeroR**

**Relation: CoffeeChain\_CleansedData1**

**Instances: 4248**

**Attributes: 14**

**ï»¿Profit**

**Margin**

**Sales**

**COGS**

**Total Expenses**

**Marketing**

**Inventory**

**ProductId**

**State**

**Market**

**Market Size**

**Product Type**

**Product**

**Type**

**Test mode: 10-fold cross-validation**

**=== Classifier model (full training set) ===**

**ZeroR predicts class value: Caffe Latte**

**Time taken to build model: 0 seconds**

**=== Stratified cross-validation ===**

**=== Summary ===**

**Correctly Classified Instances 353 8.3098 %**

**Incorrectly Classified Instances 3895 91.6902 %**

**Kappa statistic 0**

**Mean absolute error 0.142**

**Root mean squared error 0.2664**

**Relative absolute error 100 %**

**Root relative squared error 100 %**

**Total Number of Instances 4248**

**=== Detailed Accuracy By Class ===**

**TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class**

**0.000 0.000 ? 0.000 ? ? 0.497 0.074 Amaretto**

**0.000 0.000 ? 0.000 ? ? 0.496 0.074 Columbian**

**0.000 0.000 ? 0.000 ? ? 0.497 0.074 Decaf Irish Cream**

**1.000 1.000 0.083 1.000 0.153 ? 0.497 0.083 Caffe Latte**

**0.000 0.000 ? 0.000 ? ? 0.498 0.082 Caffe Mocha**

**0.000 0.000 ? 0.000 ? ? 0.498 0.082 Decaf Espresso**

**0.000 0.000 ? 0.000 ? ? 0.500 0.078 Regular Espresso**

**0.000 0.000 ? 0.000 ? ? 0.500 0.078 Chamomile**

**0.000 0.000 ? 0.000 ? ? 0.496 0.076 Lemon**

**0.000 0.000 ? 0.000 ? ? 0.497 0.075 Mint**

**0.000 0.000 ? 0.000 ? ? 0.497 0.075 Darjeeling**

**0.000 0.000 ? 0.000 ? ? 0.496 0.071 Earl Grey**

**0.000 0.000 ? 0.000 ? ? 0.500 0.073 Green Tea**

**Weighted Avg. 0.083 0.083 ? 0.083 ? ? 0.498 0.077**

**=== Confusion Matrix ===**

**a b c d e f g h i j k l m <-- classified as**

**0 0 0 317 0 0 0 0 0 0 0 0 0 | a = Amaretto**

**0 0 0 317 0 0 0 0 0 0 0 0 0 | b = Columbian**

**0 0 0 317 0 0 0 0 0 0 0 0 0 | c = Decaf Irish Cream**

**0 0 0 353 0 0 0 0 0 0 0 0 0 | d = Caffe Latte**

**0 0 0 351 0 0 0 0 0 0 0 0 0 | e = Caffe Mocha**

**0 0 0 351 0 0 0 0 0 0 0 0 0 | f = Decaf Espresso**

**0 0 0 330 0 0 0 0 0 0 0 0 0 | g = Regular Espresso**

**0 0 0 330 0 0 0 0 0 0 0 0 0 | h = Chamomile**

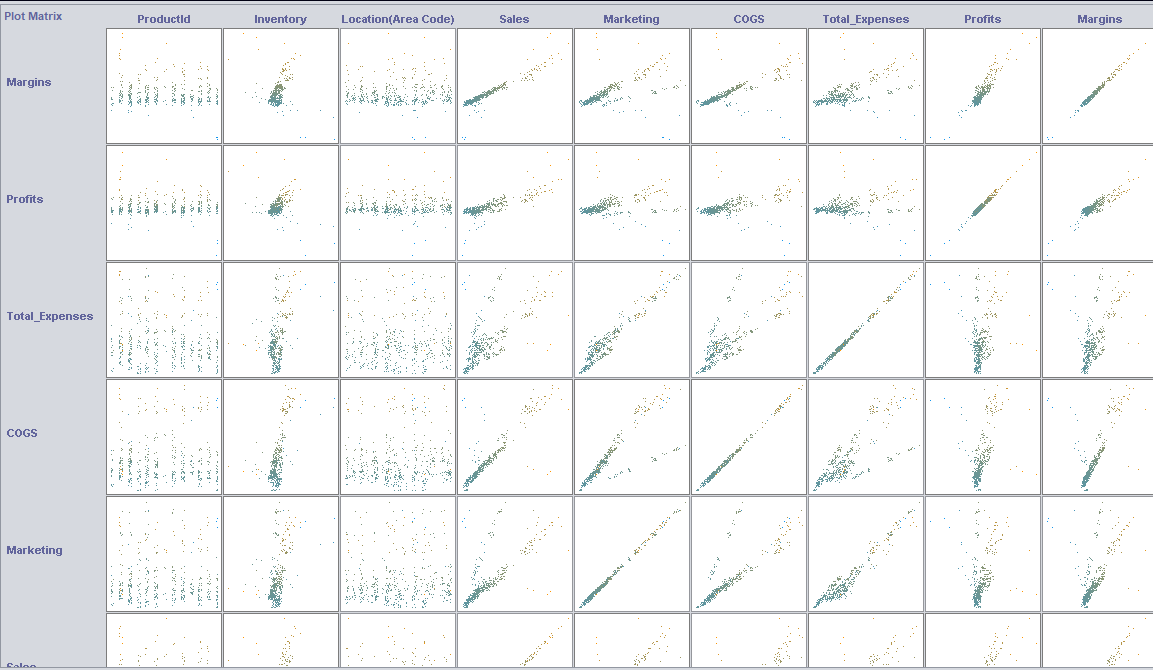
**0 0 0 324 0 0 0 0 0 0 0 0 0 | i = Lemon**

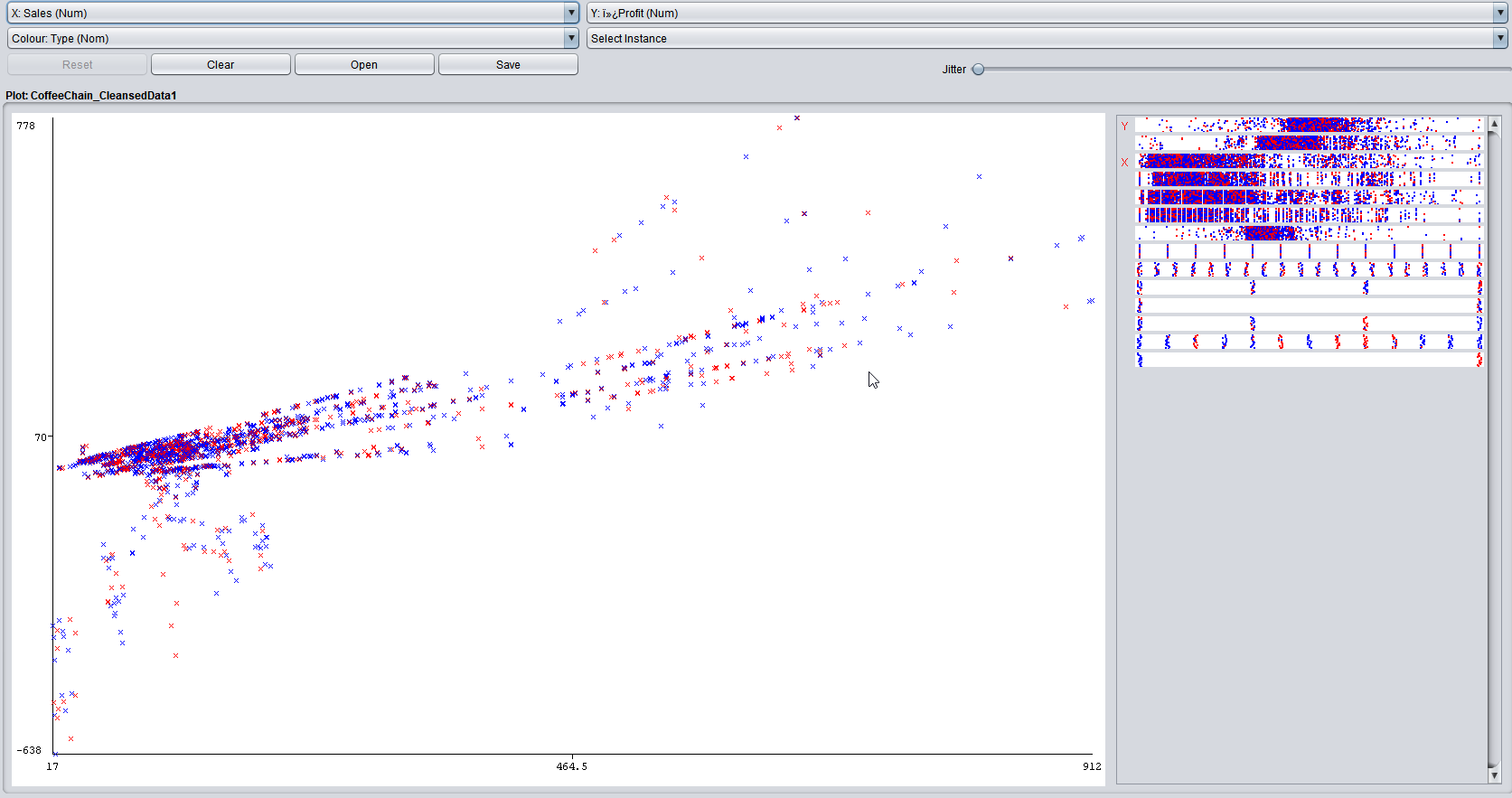
**0 0 0 322 0 0 0 0 0 0 0 0 0 | j = Mint**

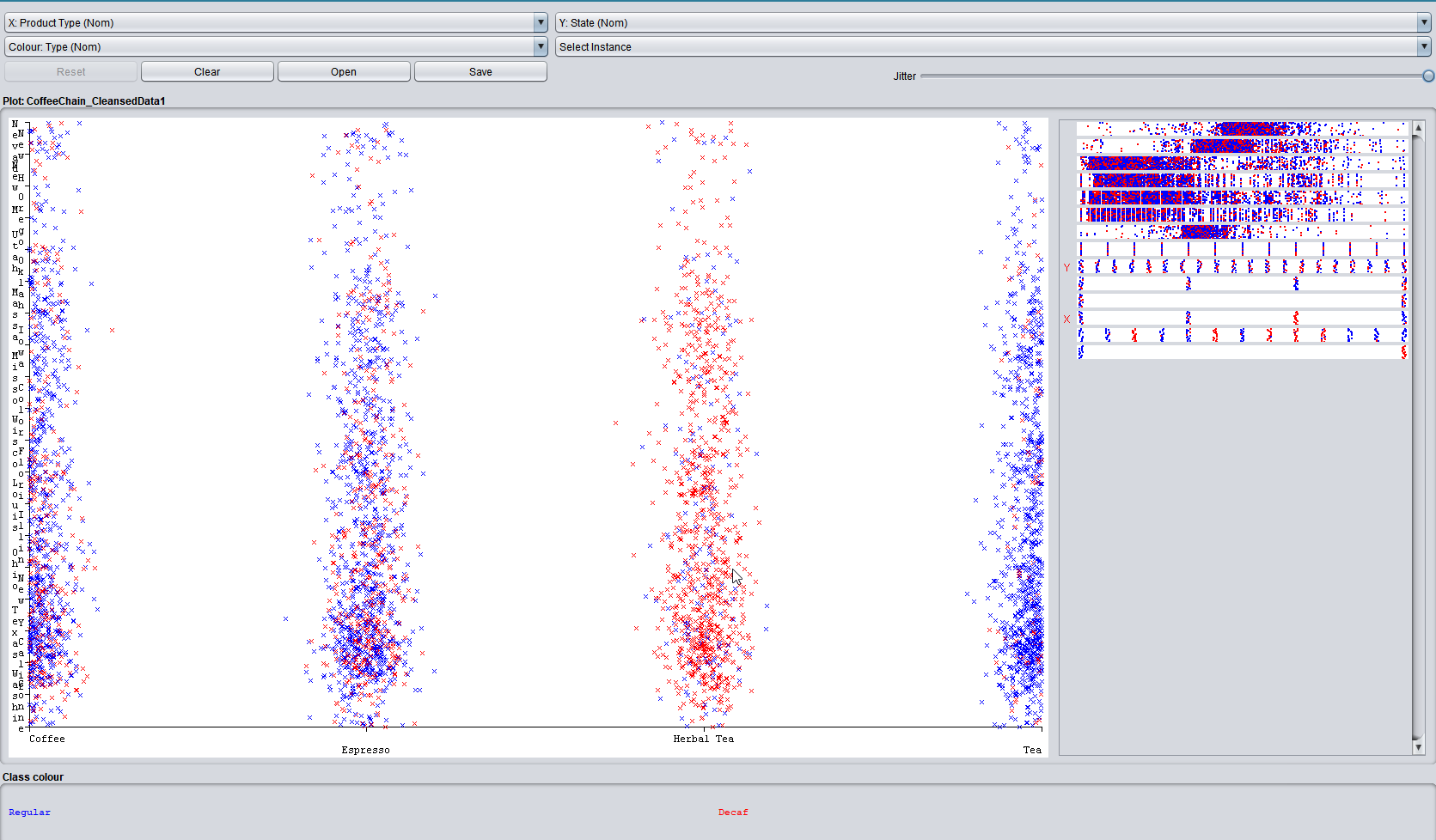
**0 0 0 322 0 0 0 0 0 0 0 0 0 | k = Darjeeling**

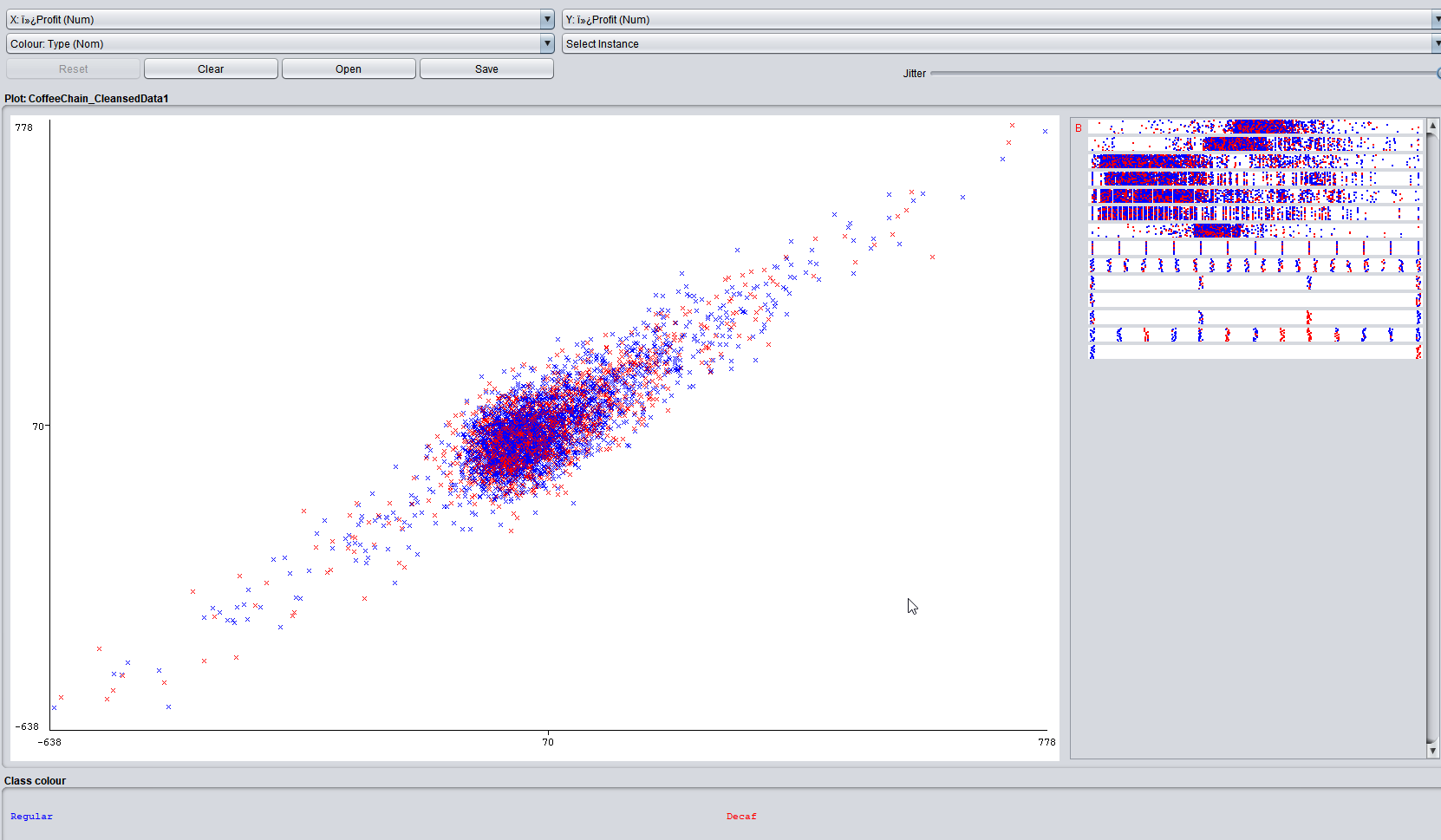
**0 0 0 304 0 0 0 0 0 0 0 0 0 | l = Earl Grey**

**0 0 0 310 0 0 0 0 0 0 0 0 0 | m = Green Tea**









=== Run information ===

Evaluator: weka.attributeSelection.PrincipalComponents -R 0.95 -A 5

Search: weka.attributeSelection.Ranker -T -1.7976931348623157E308 -N -1

Relation: CoffeeChain\_CleansedData1

Instances: 4248

Attributes: 14-Market

ï»¿Profit

Margin

Sales

COGS

Total Expenses

Marketing

Inventory

ProductId

State

Market

Market Size

Product Type

Product

Type

Evaluation mode: evaluate on all training data

=== Attribute Selection on all input data ===

Search Method:

Attribute ranking.

Attribute Evaluator (unsupervised):

Principal Components Attribute Transformer

Correlation matrix

1 0.92 0.8 0.46 0.2 0.23 -0.09 -0.06 -0.02 0.03 0.01 0.03 0 -0 -0.01 0.02 -0.04 0 -0.02 0.01 0.04 -0.05 -0.01 -0 -0.02 0.02 0 0.01 -0.05 0.01 0.03 0.01 -0.03 0.02 0 -0 -0.02 0.01 0 0.02 -0.01 0.01 0.01 0.02 -0 -0.01 -0.01 -0.02 -0 0

0.92 1 0.94 0.68 0.52 0.53 0.06 -0.08 -0.01 0.03 0.01 0.03 -0 -0 -0.01 0.02 -0.04 -0.01 -0.03 0.01 0.03 -0.03 -0.01 -0.01 -0.02 0.03 -0 0 -0.05 0.01 0.03 0 -0.03 0.03 0 -0.01 -0.02 0.01 0 0.02 -0.01 0.01 0 0.01 -0 -0.01 -0.01 -0.02 -0 0

0.8 0.94 1 0.89 0.69 0.71 0.33 -0.05 0 0.02 0.01 0.03 -0.01 -0.01 0 0.02 -0.03 -0.02 -0.02 0.01 0.03 -0.02 -0.01 -0.01 -0.01 0.03 -0 0.01 -0.04 0.01 0.03 0 -0.02 0.03 -0.01 -0.01 -0.02 0.02 0 0.03 -0 0 -0.01 0.01 0 -0.01 -0.01 -0.02 0 0

0.46 0.68 0.89 1 0.78 0.82 0.62 0 0.01 -0 -0 0.03 -0.01 -0.01 0.01 0.01 -0.02 -0.03 -0.02 0.02 0.02 0 -0.01 -0.02 0.01 0.03 -0.01 0.01 -0.02 -0 0.03 -0 -0.01 0.03 -0.02 0 -0.02 0.02 0 0.03 0 -0.01 -0.03 0 0.01 -0 -0.02 -0.02 0.01 0.01

0.2 0.52 0.69 0.78 1 0.97 0.43 -0.07 0.03 -0 0.02 0.02 -0.02 -0.01 -0 0.01 -0 -0.03 -0.03 0.01 0 0.01 -0.02 -0.02 0.02 0.03 -0.01 -0.01 -0.01 0.01 0.02 -0.02 0 0.02 -0.01 -0.02 0 0.02 -0 0.02 0 -0 -0.03 -0.01 0 -0 -0.01 -0.01 0.02 -0

0.23 0.53 0.71 0.82 0.97 1 0.5 -0.04 0.02 -0.01 0.02 0.02 -0.02 -0.01 -0 0.01 -0 -0.03 -0.03 0.01 0 0.01 -0.01 -0.02 0.02 0.03 -0.01 -0 -0 0.01 0.02 -0.02 0 0.02 -0.01 -0.01 0 0.02 -0 0.02 0 -0.01 -0.02 -0.01 0 -0 -0.01 -0.01 0.01 0

-0.09 0.06 0.33 0.62 0.43 0.5 1 0.07 0.01 -0.01 -0.02 -0.01 0.01 -0 0.02 -0.01 -0 -0.02 -0 0.02 -0.01 0.03 0 -0.02 0.01 0.01 -0.02 0.01 0.02 -0.02 -0.01 0.01 0.01 0.02 -0.02 0.02 -0.02 0.02 0.01 0.01 0.01 -0 -0.03 -0.02 0.02 0.01 -0.01 -0.02 -0.01 0.01

-0.06 -0.08 -0.05 0 -0.07 -0.04 0.07 1 0 -0 -0.01 -0.03 0.03 -0.01 -0.02 -0.01 -0.01 0 0.05 0 -0.02 0.03 -0.01 -0.02 0.03 0.01 0.01 0.02 0.03 0 -0.03 -0 0 -0.04 -0.01 0.04 0 -0.02 -0.01 -0.02 -0.02 -0.01 0 0.03 0.03 0.02 -0 0.02 0 -0.02

-0.02 -0.01 0 0.01 0.03 0.02 0.01 0 1 -0.02 -0.07 -0.05 -0.05 -0.04 -0.04 -0.02 -0.05 -0.03 -0.02 -0.03 -0.03 -0.04 -0.02 -0.02 -0.02 -0.01 -0.02 -0.02 0.22 -0.08 -0.07 -0.09 -0.23 0 0.02 -0.03 0.01 0.01 -0.01 -0 -0.01 0.01 0.02 0.01 -0.01 -0 -0.03 -0.01 0.01 0.01

0.03 0.03 0.02 -0 -0 -0.01 -0.01 -0 -0.02 1 -0.06 -0.05 -0.05 -0.03 -0.04 -0.02 -0.05 -0.03 -0.02 -0.03 -0.03 -0.03 -0.02 -0.01 -0.02 -0.01 -0.02 -0.02 -0.09 0.24 -0.06 -0.08 -0.22 -0.02 0.01 -0 0.01 -0.01 -0.02 0 0 0.02 -0.01 -0.01 -0.01 0.02 0.02 -0.01 -0 0

0.01 0.01 0.01 -0 0.02 0.02 -0.02 -0.01 -0.07 -0.06 1 -0.18 -0.16 -0.12 -0.13 -0.06 -0.16 -0.09 -0.07 -0.11 -0.09 -0.12 -0.07 -0.05 -0.06 -0.03 -0.06 -0.06 -0.31 0.84 -0.22 -0.29 0.28 -0.04 0.02 0.01 0.01 -0.03 -0.04 0.02 0.01 0.02 -0 -0 -0.01 0.01 0.03 -0 0.01 -0

0.03 0.03 0.03 0.03 0.02 0.02 -0.01 -0.03 -0.05 -0.05 -0.18 1 -0.13 -0.1 -0.11 -0.05 -0.13 -0.07 -0.06 -0.09 -0.08 -0.1 -0.06 -0.04 -0.05 -0.02 -0.05 -0.05 -0.25 -0.22 0.83 -0.24 0.23 -0.02 0.02 -0.03 0.03 -0.01 -0 -0.03 -0.01 0.01 0.02 0 0.01 -0.03 -0.01 0.03 0.02 0

0 -0 -0.01 -0.01 -0.02 -0.02 0.01 0.03 -0.05 -0.05 -0.16 -0.13 1 -0.09 -0.1 -0.05 -0.12 -0.07 -0.05 -0.08 -0.07 -0.09 -0.06 -0.04 -0.04 -0.02 -0.04 -0.04 0.53 -0.19 -0.16 -0.22 0.21 0.05 -0.03 0 -0.01 0.02 0.03 0.03 0.01 -0.03 -0.01 -0.02 -0.02 0 0.01 -0.01 0.01 -0.01

-0 -0 -0.01 -0.01 -0.01 -0.01 -0 -0.01 -0.04 -0.03 -0.12 -0.1 -0.09 1 -0.07 -0.04 -0.09 -0.05 -0.04 -0.06 -0.05 -0.06 -0.04 -0.03 -0.03 -0.02 -0.03 -0.03 -0.17 -0.14 -0.12 0.4 0.15 -0.01 0.01 0 -0.01 0.01 -0.03 0.01 0 -0.02 0.04 0.01 0 -0.02 0.02 -0.02 -0.01 -0

-0.01 -0.01 0 0.01 -0 -0 0.02 -0.02 -0.04 -0.04 -0.13 -0.11 -0.1 -0.07 1 -0.04 -0.09 -0.05 -0.04 -0.07 -0.06 -0.07 -0.04 -0.03 -0.03 -0.02 -0.03 -0.04 -0.18 -0.16 -0.13 0.44 0.17 -0.03 -0 0.03 -0 -0.01 -0.02 -0.01 -0.02 0 0.02 0 -0 -0 0.03 0 0.01 -0

0.02 0.02 0.02 0.01 0.01 0.01 -0.01 -0.01 -0.02 -0.02 -0.06 -0.05 -0.05 -0.04 -0.04 1 -0.05 -0.03 -0.02 -0.03 -0.03 -0.03 -0.02 -0.01 -0.02 -0.01 -0.02 -0.02 -0.09 -0.08 0.3 -0.09 -0.23 0.01 -0.01 0.01 -0.01 0.02 0 -0.01 -0.02 0.02 0.02 -0 -0 0.01 -0.02 -0.02 0 0.01

-0.04 -0.04 -0.03 -0.02 -0 -0 -0 -0.01 -0.05 -0.05 -0.16 -0.13 -0.12 -0.09 -0.09 -0.05 1 -0.07 -0.05 -0.08 -0.07 -0.08 -0.05 -0.04 -0.04 -0.02 -0.04 -0.04 0.51 -0.19 -0.16 -0.21 0.2 -0 -0 0.02 -0.01 -0.01 0 0 0 0.01 -0.01 -0 0 0.04 -0.01 -0.01 -0.01 -0

0 -0.01 -0.02 -0.03 -0.03 -0.03 -0.02 0 -0.03 -0.03 -0.09 -0.07 -0.07 -0.05 -0.05 -0.03 -0.07 1 -0.03 -0.05 -0.04 -0.05 -0.03 -0.02 -0.02 -0.01 -0.02 -0.03 -0.13 -0.11 -0.09 0.31 -0.32 0.01 0.02 -0.02 -0.01 -0 0.01 0.01 0.02 0 0.01 -0.01 -0.02 -0 -0.01 -0.01 -0.02 0.02

-0.02 -0.03 -0.02 -0.02 -0.03 -0.03 -0 0.05 -0.02 -0.02 -0.07 -0.06 -0.05 -0.04 -0.04 -0.02 -0.05 -0.03 1 -0.04 -0.03 -0.04 -0.03 -0.02 -0.02 -0.01 -0.02 -0.02 -0.1 -0.09 -0.07 0.25 0.1 0.01 0.01 -0 -0.01 0.02 -0.01 0 0.02 0 -0.01 0.02 0.02 -0.01 -0.03 -0.01 -0.01 0.01

0.01 0.01 0.01 0.02 0.01 0.01 0.02 0 -0.03 -0.03 -0.11 -0.09 -0.08 -0.06 -0.07 -0.03 -0.08 -0.05 -0.04 1 -0.05 -0.06 -0.04 -0.02 -0.03 -0.01 -0.03 -0.03 -0.15 -0.13 -0.11 0.37 -0.39 -0.01 -0.02 0 0.03 0.02 -0.01 -0.02 0.02 -0.02 -0.03 0.01 0.05 -0.04 -0.01 0.02 0.01 0.01

0.04 0.03 0.03 0.02 0 0 -0.01 -0.02 -0.03 -0.03 -0.09 -0.08 -0.07 -0.05 -0.06 -0.03 -0.07 -0.04 -0.03 -0.05 1 -0.05 -0.03 -0.02 -0.02 -0.01 -0.02 -0.03 -0.13 -0.11 -0.09 0.32 -0.33 0.01 -0.03 0.02 0.01 0 0.01 -0.02 -0.02 0.01 -0.02 -0.01 0 0.02 -0 0.02 -0.01 0.01

-0.05 -0.03 -0.02 0 0.01 0.01 0.03 0.03 -0.04 -0.03 -0.12 -0.1 -0.09 -0.06 -0.07 -0.03 -0.08 -0.05 -0.04 -0.06 -0.05 1 -0.04 -0.03 -0.03 -0.02 -0.03 -0.03 0.38 -0.14 -0.11 -0.16 0.15 -0.01 0.02 -0 -0.01 -0.01 0.03 -0.03 0.02 -0 0 0.01 0.01 -0.02 -0 0.02 -0.02 -0.01

-0.01 -0.01 -0.01 -0.01 -0.02 -0.01 0 -0.01 -0.02 -0.02 -0.07 -0.06 -0.06 -0.04 -0.04 -0.02 -0.05 -0.03 -0.03 -0.04 -0.03 -0.04 1 -0.02 -0.02 -0.01 -0.02 -0.02 -0.11 -0.09 0.35 -0.1 -0.26 0.03 -0.05 0.01 0 0.02 0.02 0.01 -0.03 0.01 -0.02 -0.02 -0.01 0.03 -0.01 -0 0 0.01

-0 -0.01 -0.01 -0.02 -0.02 -0.02 -0.02 -0.02 -0.02 -0.01 -0.05 -0.04 -0.04 -0.03 -0.03 -0.01 -0.04 -0.02 -0.02 -0.02 -0.02 -0.03 -0.02 1 -0.01 -0.01 -0.01 -0.01 -0.07 0.19 -0.05 -0.07 -0.17 0.02 -0.02 -0 -0 -0 0.03 0.02 -0.01 -0.02 0.02 -0.02 0 -0 0 -0.02 0.02 -0.01

-0.02 -0.02 -0.01 0.01 0.02 0.02 0.01 0.03 -0.02 -0.02 -0.06 -0.05 -0.04 -0.03 -0.03 -0.02 -0.04 -0.02 -0.02 -0.03 -0.02 -0.03 -0.02 -0.01 1 -0.01 -0.01 -0.02 -0.08 0.21 -0.05 -0.07 -0.19 0.01 0.01 -0.01 -0.01 -0.01 0.02 0.01 0 0.02 0 -0.02 -0 -0.01 -0.01 0.01 0.01 -0.03

0.02 0.03 0.03 0.03 0.03 0.03 0.01 0.01 -0.01 -0.01 -0.03 -0.02 -0.02 -0.02 -0.02 -0.01 -0.02 -0.01 -0.01 -0.01 -0.01 -0.02 -0.01 -0.01 -0.01 1 -0.01 -0.01 -0.04 -0.03 0.13 -0.04 -0.1 0.01 -0 0.01 -0.02 0.04 -0 -0.02 -0.02 0.01 -0 0.03 0.01 0.01 -0.02 -0.02 -0.02 -0

0 -0 -0 -0.01 -0.01 -0.01 -0.02 0.01 -0.02 -0.02 -0.06 -0.05 -0.04 -0.03 -0.03 -0.02 -0.04 -0.02 -0.02 -0.03 -0.02 -0.03 -0.02 -0.01 -0.01 -0.01 1 -0.02 0.19 -0.07 -0.06 -0.08 -0.2 0.03 -0 -0.02 -0 0.01 0.02 0.02 0.01 -0.01 -0.02 0.01 -0.02 -0.01 0 0.02 -0.03 0

0.01 0 0.01 0.01 -0.01 -0 0.01 0.02 -0.02 -0.02 -0.06 -0.05 -0.04 -0.03 -0.04 -0.02 -0.04 -0.03 -0.02 -0.03 -0.03 -0.03 -0.02 -0.01 -0.02 -0.01 -0.02 1 -0.09 0.23 -0.06 -0.08 -0.21 0.02 -0.01 0 -0.01 0.01 0.01 0.01 -0.01 -0.02 0 0.02 0 0.02 -0.02 -0.01 -0 -0.01

-0.05 -0.05 -0.04 -0.02 -0.01 -0 0.02 0.03 0.22 -0.09 -0.31 -0.25 0.53 -0.17 -0.18 -0.09 0.51 -0.13 -0.1 -0.15 -0.13 0.38 -0.11 -0.07 -0.08 -0.04 0.19 -0.09 1 -0.37 -0.3 -0.41 0.23 0.04 -0.01 -0.01 -0.02 0.01 0.04 0.01 0.02 -0.02 -0.01 -0.01 -0.01 0.01 -0.01 -0 -0.02 -0.01

0.01 0.01 0.01 -0 0.01 0.01 -0.02 0 -0.08 0.24 0.84 -0.22 -0.19 -0.14 -0.16 -0.08 -0.19 -0.11 -0.09 -0.13 -0.11 -0.14 -0.09 0.19 0.21 -0.03 -0.07 0.23 -0.37 1 -0.26 -0.35 0.03 -0.03 0.02 0 0 -0.04 -0.02 0.03 0.01 0.02 -0 -0.01 -0.01 0.02 0.02 -0.01 0.01 -0.02

0.03 0.03 0.03 0.03 0.02 0.02 -0.01 -0.03 -0.07 -0.06 -0.22 0.83 -0.16 -0.12 -0.13 0.3 -0.16 -0.09 -0.07 -0.11 -0.09 -0.11 0.35 -0.05 -0.05 0.13 -0.06 -0.06 -0.3 -0.26 1 -0.29 -0 0 -0 -0.02 0.02 0.01 0.01 -0.03 -0.03 0.02 0.01 -0 0.01 -0.01 -0.02 0.01 0.02 0.01

0.01 0 0 -0 -0.02 -0.02 0.01 -0 -0.09 -0.08 -0.29 -0.24 -0.22 0.4 0.44 -0.09 -0.21 0.31 0.25 0.37 0.32 -0.16 -0.1 -0.07 -0.07 -0.04 -0.08 -0.08 -0.41 -0.35 -0.29 1 -0.25 -0.02 -0 0.02 0 0.01 -0.02 -0.02 0.01 -0.02 0.01 0.01 0.02 -0.02 0.01 0 -0.01 0.01

-0.03 -0.03 -0.02 -0.01 0 0 0.01 0 -0.23 -0.22 0.28 0.23 0.21 0.15 0.17 -0.23 0.2 -0.32 0.1 -0.39 -0.33 0.15 -0.26 -0.17 -0.19 -0.1 -0.2 -0.21 0.23 0.03 -0 -0.25 1 -0.03 0.03 0.01 -0 -0.03 -0.03 0 0.01 -0 0.02 0 -0 -0.01 0.03 -0 0.01 -0.01

0.02 0.03 0.03 0.03 0.02 0.02 0.02 -0.04 0 -0.02 -0.04 -0.02 0.05 -0.01 -0.03 0.01 -0 0.01 0.01 -0.01 0.01 -0.01 0.03 0.02 0.01 0.01 0.03 0.02 0.04 -0.03 0 -0.02 -0.03 1 -0.36 -0.3 -0.29 0.53 0.49 0.49 -0.16 -0.16 -0.16 -0.16 -0.16 -0.15 -0.15 -0.15 -0.11 -0.12

0 0 -0.01 -0.02 -0.01 -0.01 -0.02 -0.01 0.02 0.01 0.02 0.02 -0.03 0.01 -0 -0.01 -0 0.02 0.01 -0.02 -0.03 0.02 -0.05 -0.02 0.01 -0 -0 -0.01 -0.01 0.02 -0 -0 0.03 -0.36 1 -0.37 -0.37 -0.19 -0.16 -0.16 0.45 0.44 0.35 0.37 -0.2 -0.19 -0.19 -0.19 -0.19 -0.19

-0 -0.01 -0.01 0 -0.02 -0.01 0.02 0.04 -0.03 -0 0.01 -0.03 0 0 0.03 0.01 0.02 -0.02 -0 0 0.02 -0 0.01 -0 -0.01 0.01 -0.02 0 -0.01 0 -0.02 0.02 0.01 -0.3 -0.37 1 -0.3 -0.16 -0.16 -0.16 -0.17 -0.17 -0.06 -0.09 0.52 0.45 0.45 -0.16 -0.15 -0.16

-0.02 -0.02 -0.02 -0.02 0 0 -0.02 0 0.01 0.01 0.01 0.03 -0.01 -0.01 -0 -0.01 -0.01 -0.01 -0.01 0.03 0.01 -0.01 0 -0 -0.01 -0.02 -0 -0.01 -0.02 0 0.02 0 -0 -0.29 -0.37 -0.3 1 -0.15 -0.15 -0.15 -0.16 -0.16 -0.16 -0.16 -0.16 -0.09 -0.09 0.53 0.48 0.48

0.01 0.01 0.02 0.02 0.02 0.02 0.02 -0.02 0.01 -0.01 -0.03 -0.01 0.02 0.01 -0.01 0.02 -0.01 -0 0.02 0.02 0 -0.01 0.02 -0 -0.01 0.04 0.01 0.01 0.01 -0.04 0.01 0.01 -0.03 0.53 -0.19 -0.16 -0.15 1 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08

0 0 0 0 -0 -0 0.01 -0.01 -0.01 -0.02 -0.04 -0 0.03 -0.03 -0.02 0 0 0.01 -0.01 -0.01 0.01 0.03 0.02 0.03 0.02 -0 0.02 0.01 0.04 -0.02 0.01 -0.02 -0.03 0.49 -0.16 -0.16 -0.15 -0.08 1 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08

0.02 0.02 0.03 0.03 0.02 0.02 0.01 -0.02 -0 0 0.02 -0.03 0.03 0.01 -0.01 -0.01 0 0.01 0 -0.02 -0.02 -0.03 0.01 0.02 0.01 -0.02 0.02 0.01 0.01 0.03 -0.03 -0.02 0 0.49 -0.16 -0.16 -0.15 -0.08 -0.08 1 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08

-0.01 -0.01 -0 0 0 0 0.01 -0.02 -0.01 0 0.01 -0.01 0.01 0 -0.02 -0.02 0 0.02 0.02 0.02 -0.02 0.02 -0.03 -0.01 0 -0.02 0.01 -0.01 0.02 0.01 -0.03 0.01 0.01 -0.16 0.45 -0.17 -0.16 -0.09 -0.09 -0.09 1 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.08 -0.08

0.01 0.01 0 -0.01 -0 -0.01 -0 -0.01 0.01 0.02 0.02 0.01 -0.03 -0.02 0 0.02 0.01 0 0 -0.02 0.01 -0 0.01 -0.02 0.02 0.01 -0.01 -0.02 -0.02 0.02 0.02 -0.02 -0 -0.16 0.44 -0.17 -0.16 -0.09 -0.09 -0.09 -0.09 1 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.08 -0.08

0.01 0 -0.01 -0.03 -0.03 -0.02 -0.03 0 0.02 -0.01 -0 0.02 -0.01 0.04 0.02 0.02 -0.01 0.01 -0.01 -0.03 -0.02 0 -0.02 0.02 0 -0 -0.02 0 -0.01 -0 0.01 0.01 0.02 -0.16 0.35 -0.06 -0.16 -0.09 -0.09 -0.09 -0.09 -0.09 1 -0.09 -0.09 -0.09 -0.09 -0.09 -0.08 -0.08

0.02 0.01 0.01 0 -0.01 -0.01 -0.02 0.03 0.01 -0.01 -0 0 -0.02 0.01 0 -0 -0 -0.01 0.02 0.01 -0.01 0.01 -0.02 -0.02 -0.02 0.03 0.01 0.02 -0.01 -0.01 -0 0.01 0 -0.16 0.37 -0.09 -0.16 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 1 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08

-0 -0 0 0.01 0 0 0.02 0.03 -0.01 -0.01 -0.01 0.01 -0.02 0 -0 -0 0 -0.02 0.02 0.05 0 0.01 -0.01 0 -0 0.01 -0.02 0 -0.01 -0.01 0.01 0.02 -0 -0.16 -0.2 0.52 -0.16 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 1 -0.08 -0.08 -0.08 -0.08 -0.08

-0.01 -0.01 -0.01 -0 -0 -0 0.01 0.02 -0 0.02 0.01 -0.03 0 -0.02 -0 0.01 0.04 -0 -0.01 -0.04 0.02 -0.02 0.03 -0 -0.01 0.01 -0.01 0.02 0.01 0.02 -0.01 -0.02 -0.01 -0.15 -0.19 0.45 -0.09 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 1 -0.08 -0.08 -0.08 -0.08

-0.01 -0.01 -0.01 -0.02 -0.01 -0.01 -0.01 -0 -0.03 0.02 0.03 -0.01 0.01 0.02 0.03 -0.02 -0.01 -0.01 -0.03 -0.01 -0 -0 -0.01 0 -0.01 -0.02 0 -0.02 -0.01 0.02 -0.02 0.01 0.03 -0.15 -0.19 0.45 -0.09 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 1 -0.08 -0.08 -0.08

-0.02 -0.02 -0.02 -0.02 -0.01 -0.01 -0.02 0.02 -0.01 -0.01 -0 0.03 -0.01 -0.02 0 -0.02 -0.01 -0.01 -0.01 0.02 0.02 0.02 -0 -0.02 0.01 -0.02 0.02 -0.01 -0 -0.01 0.01 0 -0 -0.15 -0.19 -0.16 0.53 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 -0.08 1 -0.08 -0.08

-0 -0 0 0.01 0.02 0.01 -0.01 0 0.01 -0 0.01 0.02 0.01 -0.01 0.01 0 -0.01 -0.02 -0.01 0.01 -0.01 -0.02 0 0.02 0.01 -0.02 -0.03 -0 -0.02 0.01 0.02 -0.01 0.01 -0.11 -0.19 -0.15 0.48 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 1 -0.08

0 0 0 0.01 -0 0 0.01 -0.02 0.01 0 -0 0 -0.01 -0 -0 0.01 -0 0.02 0.01 0.01 0.01 -0.01 0.01 -0.01 -0.03 -0 0 -0.01 -0.01 -0.02 0.01 0.01 -0.01 -0.12 -0.19 -0.16 0.48 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 1

eigenvalue proportion cumulative

4.62058 0.09241 0.09241 0.449Sales+0.435COGS+0.398Marketing+0.395Margin+0.387Total Expenses...

2.69351 0.05387 0.14628 -0.474Market=Central+0.473Market=East+0.367Market Size=Major Market+0.273State=New York+0.263State=Florida...

2.53909 0.05078 0.19706 0.534Market=West+0.484State=California-0.282Market=East-0.26Product Type=Coffee+0.23 Product Type=Espresso...

2.4313 0.04863 0.24569 -0.53Product Type=Espresso+0.382Product Type=Tea-0.259Product=Caffe Latte-0.232Product=Caffe Mocha-0.216Product=Regular Espresso...

2.38629 0.04773 0.29342 -0.542Market=South-0.478State=Texas+0.307Product Type=Herbal Tea-0.235Product Type=Espresso+0.197Market=West...

2.32513 0.0465 0.33992 -0.546Product Type=Coffee+0.351Product Type=Herbal Tea-0.298Product=Decaf Irish Cream-0.29Product=Amaretto-0.282Product=Columbian...

2.24583 0.04492 0.38483 0.475Product Type=Tea-0.433Product Type=Herbal Tea-0.287Market=South+0.271Product=Darjeeling-0.259Product=Chamomile...

1.84271 0.03685 0.42169 0.557Market Size=Major Market+0.31 State=Illinois+0.287State=Ohio+0.25 Market=Central-0.233State=Connecticut...

1.65724 0.03314 0.45483 0.555ï»¿Profit-0.512Inventory+0.389Margin-0.286Marketing-0.275Total Expenses...

1.18215 0.02364 0.47848 0.345Product=Chamomile-0.336Product=Lemon+0.326State=Missouri-0.299State=Florida+0.266State=Massachusetts...

1.15824 0.02316 0.50164 -0.314Product=Mint-0.295Product=Decaf Espresso+0.289Product=Regular Espresso-0.289State=New York+0.283State=Colorado...

1.14179 0.02284 0.52448 -0.369Product=Decaf Espresso+0.319Product=Caffe Latte-0.314Product=Earl Grey+0.281Product=Mint-0.252State=Nevada...

1.13718 0.02274 0.54722 -0.376Product=Caffe Latte+0.367Product=Columbian+0.319Product=Darjeeling-0.319Product=Green Tea+0.265State=Illinois...

1.12225 0.02244 0.56967 -0.513State=New York+0.34 State=Florida-0.296ProductId+0.281Product=Decaf Espresso-0.277Product=Lemon...

1.11895 0.02238 0.59204 0.359Product=Mint-0.347State=Florida-0.324Product=Chamomile+0.32 Product=Regular Espresso-0.301Product=Earl Grey...

1.1105 0.02221 0.61425 0.421Product=Caffe Mocha+0.373Product=Amaretto-0.286Product=Lemon-0.258State=Wisconsin-0.254Product=Decaf Irish Cream...

1.10339 0.02207 0.63632 0.395Product=Decaf Irish Cream-0.357Product=Columbian-0.338Product=Green Tea+0.274Product=Regular Espresso+0.266State=New Hampshire...

1.09067 0.02181 0.65814 -0.405Product=Decaf Irish Cream+0.319Product=Earl Grey-0.293Product=Chamomile-0.284Product=Caffe Mocha+0.274Product=Lemon...

1.09 0.0218 0.67994 -0.409Product=Darjeeling-0.377Product=Amaretto+0.37 Product=Regular Espresso-0.32Product=Decaf Espresso+0.295Product=Green Tea...

1.05778 0.02116 0.70109 -0.604State=Ohio+0.473State=Illinois+0.211Product=Decaf Espresso-0.208Product=Caffe Mocha-0.204State=Oregon...

1.05037 0.02101 0.7221 -0.486State=Washington+0.414State=Iowa-0.282State=Illinois-0.268State=Massachusetts-0.253State=Colorado...

1.044 0.02088 0.74298 0.586State=Oklahoma+0.33 State=Massachusetts-0.318State=Texas-0.23State=Washington+0.229State=Louisiana...

1.03314 0.02066 0.76364 -0.405State=Wisconsin+0.368State=Iowa+0.292State=Washington+0.29 State=Connecticut-0.248State=Oregon...

1.02639 0.02053 0.78417 0.518State=Wisconsin+0.407State=Connecticut-0.359State=Louisiana+0.276Product=Earl Grey+0.231State=Massachusetts...

1.02226 0.02045 0.80461 -0.468State=Colorado-0.46State=New Hampshire-0.313State=Utah+0.312State=Nevada+0.254State=Washington...

1.01556 0.02031 0.82493 0.613State=Louisiana-0.496State=Oklahoma+0.267State=Massachusetts+0.196State=Wisconsin+0.174Product=Decaf Irish Cream...

1.00529 0.02011 0.84503 -0.658State=New Mexico-0.389State=Utah+0.294State=Connecticut+0.249State=Nevada+0.218State=Colorado...

1.00391 0.02008 0.86511 0.499State=Nevada+0.377State=New Hampshire-0.307State=Washington-0.251State=Missouri+0.225State=Ohio...

0.9999 0.02 0.88511 -0.416State=Nevada+0.35 State=Connecticut+0.322State=Washington-0.273State=Iowa+0.269Product=Columbian...

0.98274 0.01965 0.90476 0.593State=Oregon-0.324State=Utah-0.313Product=Caffe Mocha+0.277State=Iowa-0.271State=New Hampshire...

0.96859 0.01937 0.92413 -0.464State=New Hampshire+0.346State=Utah+0.316State=Connecticut-0.296Product=Earl Grey-0.29Product=Decaf Espresso...

0.96101 0.01922 0.94335 -0.423State=Missouri+0.351Product=Chamomile-0.305Product=Lemon+0.302State=Washington+0.269State=Wisconsin...

0.95451 0.01909 0.96244 -0.547State=New Mexico+0.314State=Oregon+0.281Product=Amaretto+0.277State=Utah+0.222Product=Regular Espresso...

Eigenvectors

V1 V2 V3 V4 V5 V6 V7 V8 V9 V10 V11 V12 V13 V14 V15 V16 V17 V18 V19 V20 V21 V22 V23 V24 V25 V26 V27 V28 V29 V30 V31 V32 V33

0.2989 -0.0383 0.0248 -0.0182 -0.0237 -0.0122 -0.0147 -0.0209 0.5553 0.0537 0.0351 -0.0159 0.0282 -0.0176 -0.0349 -0.0069 -0.0231 -0.0153 0.0007 -0.0156 -0.0514 0.0363 -0.0232 0.029 -0.0027 -0.015 0.0326 0.0198 0.0026 0.0248 0.0153 -0.0499 0.0043 ï»¿Profit

0.3952 -0.0208 0.0182 -0.0184 -0.0123 -0.0019 -0.0003 -0.0151 0.3891 0.0297 0.0214 -0.0003 0.0173 0.0008 -0.0226 -0.0032 -0.0093 -0.0076 -0.0055 -0.0109 -0.032 0.0328 -0.0129 0.0261 -0.003 -0.0104 0.0183 0.0093 0.0089 0.0181 0.0178 -0.028 0.0016 Margin

0.4492 -0.0038 0.0045 -0.0156 0.0043 0.012 0.007 -0.0063 0.1774 0.0215 0.0133 -0.0067 0.0156 -0.0131 -0.0102 -0.0117 -0.0106 -0.0081 -0 -0.0089 -0.0242 0.0145 -0.0121 0.0113 -0.0083 -0.0112 0.0146 0.0038 -0.0047 0.0022 0.0037 -0.0145 0.0043 Sales

0.4353 0.0195 -0.0163 -0.0086 0.0251 0.0285 0.0155 0.0072 -0.1474 0.0059 -0.0006 -0.0132 0.0082 -0.0275 0.0097 -0.0209 -0.0102 -0.0064 0.0078 -0.004 -0.0071 -0.012 -0.0069 -0.0118 -0.012 -0.0088 0.0065 -0.0063 -0.0203 -0.0208 -0.0161 0.0069 0.0068 COGS

0.3874 0.0378 -0.0051 0.0025 0.0233 0.0283 0.0329 0.0076 -0.2747 -0.0479 -0.0308 0.0262 -0.0123 0.0431 0.0133 0.0141 0.0287 0.0183 -0.0151 0.0107 0.0389 -0.0104 0.0063 -0.0008 -0.0124 0.0119 -0.022 -0.0148 0.0108 -0.0066 0.0147 0.0438 0.001 Total Expenses

0.3982 0.0397 -0.0087 0.0003 0.0263 0.032 0.03 0.007 -0.286 -0.0412 -0.0281 0.0129 -0.0108 0.0301 0.018 0 0.0232 0.0125 -0.0098 0.0067 0.0327 -0.0107 0.0002 -0.0038 -0.0089 0.009 -0.0136 -0.0147 0.0025 -0.0146 0.0033 0.0371 -0.0006 Marketing

0.2152 0.0393 -0.0407 -0.0074 0.05 0.0392 0.0134 0.0199 -0.5116 -0.015 -0.0175 -0.0159 -0.0067 -0.0617 0.0347 -0.0356 -0.033 -0.0206 0.0144 -0.0027 -0.0011 -0.0457 -0.0037 -0.0498 0.0218 -0.0235 0.0026 -0.0176 -0.0493 -0.0571 -0.0461 0.0246 0.0063 Inventory

-0.0296 0.0178 -0.0043 -0.0046 0.0451 0.0424 0.0021 -0.029 -0.1073 0.2158 0.1388 -0.2408 0.1696 -0.2961 0.0143 -0.1172 -0.0667 -0.1388 -0.0063 -0.1179 -0.1143 -0.0525 -0.2241 0.0538 -0.0923 -0.0694 0.1079 -0.1146 -0.0211 -0.0258 -0.2041 -0.1512 -0.0832 ProductId

0.0036 0.0361 -0.0696 -0.0386 0.0114 -0.0117 0.0505 -0.2326 -0.0411 -0.1122 -0.0046 -0.1961 -0.0417 0.1166 0.1028 0.1329 0.037 -0.1791 0.0156 0.1303 0.1676 -0.0998 0.2904 0.4073 -0.1301 -0.1476 0.2939 0.1105 0.3501 0.0348 0.3157 -0.0148 -0.1952 State=Connecticut

0.0068 -0.0494 0.1074 0.0263 0.0432 -0.06 0.0091 -0.1805 0.0355 -0.0734 -0.0414 0.045 -0.0178 -0.095 0.0428 0.0128 0.1001 -0.0152 -0.0013 -0.1834 -0.4859 -0.2304 0.292 -0.1614 0.2539 -0.0153 -0.004 -0.3071 0.3215 -0.0661 -0.1929 0.3022 -0.0789 State=Washington

0.0069 0.0754 0.4845 0.1322 0.1644 -0.1497 0.0369 0.141 -0.0061 0.013 0.1199 0.0966 -0.1016 0.041 0.0596 0.0618 -0.0815 -0.0207 -0.0068 0.1046 0.2329 0.1321 -0.0977 0.1046 -0.0583 0.0099 0.0435 -0.0522 0.038 -0.025 -0.096 0.0163 -0.0651 State=California

0.0245 0.0236 0.0135 0.1536 -0.4783 0.0942 -0.2213 0.1496 -0.0216 0.1218 -0.081 0.0643 0.0313 0.0364 -0.0582 -0.0793 0.0896 0.0003 -0.0096 0.0533 0.0216 -0.3179 0.0843 0.1122 0.0395 0.0125 0.0362 0.0216 0.0599 -0.0383 -0.0645 -0.1142 0.1145 State=Texas

-0.0112 0.2732 -0.161 -0.04 0.072 0.0307 0.0522 -0.028 0.1087 0.1042 -0.2887 -0.1099 -0.171 -0.5134 0.0499 0.1333 -0.1562 -0.0432 -0.0492 0.0853 0.2153 -0.1076 -0.053 -0.211 0.1307 -0.0476 -0.0881 -0.042 -0.0311 -0.0494 0.081 0.1069 0.0774 State=New York

-0.0053 -0.1343 -0.0623 -0.0905 0.0528 0.0463 0.0331 0.2868 0.0197 -0.069 -0.0942 -0.1715 -0.1151 0.1264 0.1706 -0.122 0.1066 -0.0402 -0.2227 -0.6041 0.1251 0.1131 0.0416 -0.0862 0.0704 -0.0204 -0.0726 0.2248 0.1684 -0.1483 0.1027 0.0323 -0.0077 State=Ohio

-0.0006 -0.1491 -0.0684 -0.0787 0.0701 0.0791 0.0366 0.3104 -0.0092 -0.2119 -0.0738 -0.0302 0.2654 -0.0818 0.0268 0.1859 0.0656 0.0653 0.2371 0.4726 -0.282 0.1308 0.0764 -0.1104 -0.0107 -0.0525 -0.0789 0.1714 0.0861 0.1154 0.0371 0.0742 0.0017 State=Illinois

0.0129 -0.0599 -0.0202 0.0494 -0.1427 -0.0081 -0.0949 -0.1645 -0.0133 -0.1503 0.0379 -0.1276 -0.0875 0.0379 0.0756 0.0997 -0.157 -0.0392 0.0139 0.011 -0.0334 0.2292 -0.1781 -0.3587 -0.2403 0.6127 0.0928 -0.0804 0.07 -0.0449 0.1975 0.1012 -0.154 State=Louisiana

-0.0216 0.2632 -0.1327 -0.0609 0.0661 0.0791 0.0486 -0.0502 0.0293 -0.299 0.2605 0.0726 -0.0076 0.34 -0.3474 -0.1416 0.2452 0.1512 0.0097 -0.0691 -0.0711 -0.1056 -0.2354 -0.0894 -0.0163 -0.0707 0.0554 -0.0915 -0.1263 0.0763 -0.0011 0.0883 -0.0805 State=Florida

-0.0129 -0.1965 -0.0771 -0.0756 0.0372 -0.0329 0.0307 -0.0903 0.0121 -0.0958 -0.0893 0.1504 -0.0814 -0.0499 0.0193 -0.2579 -0.1524 -0.133 0.0843 0.071 -0.0588 -0.1179 -0.4053 0.5178 0.1824 0.1963 -0.0869 0.0074 -0.0911 -0.1315 0.0167 0.2689 0.1228 State=Wisconsin

-0.0181 -0.0809 -0.0424 -0.0586 0.0285 0.0133 0.0209 0.1683 -0.0157 0.1548 0.283 -0.106 -0.0601 -0.2223 -0.1383 -0.1194 -0.141 -0.1294 0.0104 -0.0929 -0.2528 -0.1012 0.0806 0.0505 -0.468 -0.107 0.2183 -0.1575 -0.1476 -0.026 0.116 0.0102 -0.1443 State=Colorado

0.011 -0.2451 -0.1027 -0.0518 0.0645 0.0034 0.0524 -0.1146 -0.0532 0.3256 0.0034 0.0222 -0.2131 0.1502 -0.1737 0.173 0.1335 0.0815 0.0484 0.1306 0.0925 0.0913 -0.1708 -0.1704 0.208 -0.1099 0.1609 -0.251 0.1515 -0.1132 -0.0576 -0.4229 0.0518 State=Missouri

0.0133 -0.2059 -0.0868 -0.041 0.0608 -0.0016 0.022 -0.0999 0.0392 -0.0716 0.0905 0.194 0.1869 -0.0275 0.0029 0.0267 -0.1401 0.1164 -0.1929 -0.0346 0.4145 -0.2291 0.3676 -0.0711 -0.1113 0.1288 -0.0735 -0.1163 -0.2726 0.2771 -0.2336 0.0545 -0.0618 State=Iowa

-0.0113 0.1904 -0.0908 -0.0637 0.0351 0.0536 0.0498 -0.0334 -0.057 0.2664 0.0221 0.0819 0.2445 0.2146 0.2178 0.0043 -0.2454 -0.0279 0.028 -0.1248 -0.2684 0.3296 0.2412 0.2308 0.1547 0.2667 -0.0607 -0.0755 -0.0826 0.0858 -0.0666 -0.2478 0.0717 State=Massachusetts

-0.0022 -0.0694 -0.0399 0.0914 -0.1503 -0.0217 -0.1181 -0.1832 -0.0426 -0.1424 0.0493 0.048 -0.0224 -0.1564 0.0373 -0.0005 -0.0219 0.0066 0.0357 -0.1279 0.008 0.5861 0.0147 0.0215 0.0746 -0.4956 0.0957 -0.0173 -0.218 0.1186 -0.0396 0.2152 0.0415 State=Oklahoma

-0.0088 -0.0365 0.0642 0.0404 0.0428 -0.0822 -0.0102 -0.1221 0.007 -0.0113 -0.2712 -0.1245 0.0314 0.1736 -0.1017 -0.0668 -0.0394 0.0928 0.0825 -0.0085 -0.101 -0.0409 0.1786 -0.0224 -0.3127 -0.1605 -0.3886 -0.1988 -0.2505 -0.3242 0.3462 -0.101 0.2773 State=Utah

0.0031 -0.0367 0.0825 0.0222 0.0364 -0.0796 0.0098 -0.1453 -0.0913 0.0486 -0.1341 -0.0521 0.2555 -0.0971 -0.1968 0.0458 0.0826 -0.1102 -0.1145 -0.2042 -0.0997 -0.0796 -0.2476 -0.0424 -0.1154 0.0128 -0.0816 0.1936 0.1901 0.5926 0.1549 -0.1182 0.3136 State=Oregon

0.021 -0.024 -0.0114 0.0098 -0.0563 -0.0101 -0.0629 -0.0712 -0.0132 0.0049 0.2139 -0.1392 -0.0379 -0.0196 0.1174 0.1343 -0.0513 0.0695 -0.0346 0.0025 -0.052 -0.0852 -0.171 0.0856 0.0756 -0.1461 -0.6576 0.0403 0.038 0.0872 0.0326 -0.1678 -0.5469 State=New Mexico

-0.0059 0.0303 -0.0709 -0.023 0.0162 -0.0337 0.0306 -0.1938 0.0388 0.0932 0.0303 0.1652 0.0199 -0.0087 0.2383 -0.0602 0.2663 -0.0701 0.0456 0.0644 -0.0208 0.0344 -0.0504 -0.0839 -0.46 -0.0311 -0.1241 0.3769 0.1345 -0.2714 -0.4637 -0.0048 0.1001 State=New Hampshire

0.0043 -0.0436 0.0856 0.033 0.052 -0.0869 -0.0133 -0.1604 -0.0159 0.0639 0.0246 -0.2523 0.0982 -0.0369 0.0389 -0.2001 0.0734 0.1388 0.0331 0.0616 -0.1113 -0.1517 0.088 -0.1621 0.3124 0.0681 0.2492 0.4993 -0.4165 -0.1154 0.1025 -0.1159 -0.1612 State=Nevada

-0.028 0.4735 -0.2821 -0.1173 0.1177 0.0876 0.116 -0.1909 0.0614 -0.0006 -0.0051 -0.0003 -0.0033 0.0201 0.0099 0.023 0.0133 -0.0166 0.0043 0.0051 0.0071 0.0044 0.0066 0.0175 -0.0054 0.004 0.0024 0.0065 -0.0044 -0.0008 -0.0073 -0.0016 0.003 Market=East

0.0083 0.0206 0.5335 0.1531 0.1974 -0.2213 0.0323 -0.0465 -0.0224 0.0184 -0.0005 -0.019 0.0095 0.0126 0.0001 -0.004 -0.0076 0.0109 -0.0075 -0.002 -0.0263 -0.0296 0.0054 -0.0214 0.0116 -0.0114 -0.0051 0.0105 0.0002 0.0042 0.0112 0.0171 0.0221 Market=West

0.0286 -0.033 -0.0135 0.1916 -0.5417 0.0693 -0.2868 -0.0138 -0.0433 -0.0042 -0.003 0.0082 -0.019 -0.0217 0.01 -0.0126 0.0055 0.0001 0.0056 -0.0013 0.002 0.0291 -0.011 -0.0069 -0.0084 0.0032 -0.0017 -0.0104 -0.0056 0.013 0.0028 -0.003 -0.0254 Market=South

-0.0036 -0.4742 -0.2062 -0.1874 0.1509 0.0616 0.0936 0.2503 -0.0048 -0.0133 0.0083 0.0113 0.0104 -0.014 -0.0186 -0.009 -0.011 0.0065 -0.002 -0.0022 0.0161 -0.0011 -0.0025 0.0082 0.0016 0.004 0.0039 -0.0078 0.0091 -0.0141 -0.0056 -0.012 -0.0025 Market=Central

-0.0135 0.3671 0.0913 0.0126 -0.0254 0.1205 0.0073 0.5571 0.0441 0.0061 0.0358 0.0015 0.011 -0.0074 -0.0207 -0.0069 -0.0278 0.0119 -0.0045 -0.0053 -0.006 0.0027 0.0033 -0.0043 0.0094 -0.0017 0.0006 0.005 0.0158 -0.0096 0.0061 -0.0037 0.0134 Market Size=Major Market

0.0293 0.0521 -0.2599 0.112 0.0395 -0.5459 -0.1333 0.1264 -0.0085 0.0027 0.019 0.0066 0.0108 0.0165 -0.0039 0.0033 0.0033 0.0004 -0.0001 0.0026 -0.0069 -0.0055 0.0073 0.0061 0.0105 0.0112 0.0179 -0.0144 0.0219 0.0083 -0.0163 -0.0074 -0.0087 Product Type=Coffee

-0.0082 0.0277 0.2303 -0.5303 -0.2354 0.0017 0.0852 -0.0501 -0.0325 -0.0039 -0.0109 -0.0014 -0.0024 -0.0165 -0.0037 0.0039 0.0016 0.0101 0.0022 0.0083 0.0131 0.0049 0.0021 -0.0218 0.0034 -0.0173 -0.0057 -0.0068 -0.0205 -0.0043 -0.0029 0.0051 0.0077 Product Type=Espresso

-0.0075 -0.0219 0.0267 0.0929 0.3069 0.3512 -0.4326 -0.0514 0.0225 0.009 -0.0116 0.0079 -0.0079 0.0025 0.0048 0.0002 0.0008 -0.0119 -0.0003 0.0031 0.0045 -0.0012 -0.0014 0.0185 -0.0141 0.006 0.0046 0.0115 0.0109 0.0001 0.0088 -0.0034 0.0111 Product Type=Herbal Tea

-0.0125 -0.0603 -0.0235 0.3816 -0.0888 0.1858 0.4751 -0.0183 0.0216 -0.0074 0.0049 -0.013 -0.0001 -0.0006 0.0031 -0.0078 -0.0058 0.0005 -0.002 -0.0149 -0.0122 0.0013 -0.0081 -0.0007 -0 0.0019 -0.0162 0.0102 -0.0101 -0.0036 0.0105 0.005 -0.0111 Product Type=Tea

0.0184 0.0088 -0.1605 0.0564 0.0099 -0.2901 -0.0842 0.0768 -0.0235 0.0079 0.232 -0.1075 -0.2333 0.061 0.1522 0.3727 -0.0158 0.1545 -0.3775 0.0705 -0.2155 -0.0982 -0.0418 0.1106 -0.0105 0.0015 0.0392 0.0689 -0.1263 0.012 -0.0204 0.0767 0.2811 Product=Amaretto

0.0053 0.0387 -0.1415 0.0472 0.01 -0.2824 -0.0746 0.0287 -0.0075 0.1194 -0.1038 0.1522 0.3671 0.0965 -0.0635 -0.1393 -0.3574 0.2354 0.2198 -0.1018 0.1303 -0.0493 -0.1259 -0.1227 -0.0236 -0.1605 0.0975 0.0435 0.2693 -0.1274 0.0558 0.1012 -0.1749 Product=Columbian

0.0206 0.0379 -0.0941 0.0508 0.0476 -0.2981 -0.0577 0.0959 0.0069 -0.113 -0.1068 -0.0188 -0.0869 -0.1343 -0.099 -0.254 0.3949 -0.4054 0.1572 0.0447 0.0817 0.1445 0.1677 0.0194 0.0539 0.1745 -0.1154 -0.1462 -0.0955 0.1125 -0.0372 -0.1887 -0.1347 Product=Decaf Irish Cream

-0.0024 0.0229 0.0972 -0.2593 -0.0833 -0.0013 0.0689 -0.0276 -0.0615 0.203 -0.1754 0.3193 -0.3763 -0.0936 -0.1627 -0.202 -0.038 0.2471 -0.1581 0.07 -0.1723 0.1155 0.1138 0.0213 -0.1102 0.0281 -0.0212 0.18 0.0511 0.1708 0.1013 0.0076 -0.1902 Product=Caffe Latte

-0.001 0.0088 0.124 -0.2323 -0.1275 -0.0085 0.0349 -0.0498 -0.0258 -0.2386 0.1759 0.2045 0.1912 -0.1397 -0.2172 0.4209 -0.0698 -0.2841 0.0882 -0.2076 0.0295 -0.0495 0.0108 -0.0065 0.1054 0.0177 -0.0054 0.1148 -0.0793 -0.3135 0.036 -0.1646 0.0581 Product=Caffe Mocha

-0.0129 0.0037 0.0911 -0.1997 -0.0854 0.0318 -0.008 0.0011 0.0437 -0.1632 -0.2945 -0.3692 0.1303 0.2809 0.1153 -0.1367 -0.1597 -0.183 -0.3196 0.2113 -0.0134 -0.006 -0.1362 -0.0837 -0.0234 -0.1546 0.0827 -0.1706 -0.0498 0.0427 -0.29 -0.0173 -0.0541 Product=Decaf Espresso

0.0004 -0.0012 0.0809 -0.2156 -0.0848 0.0245 0.016 -0.0187 0.0128 0.1905 0.2892 -0.2517 0.063 -0.0395 0.3203 -0.0803 0.2741 0.2499 0.37 -0.037 0.1974 -0.0389 -0.0173 0.0126 0.0253 0.0607 -0.0559 -0.1824 0.0221 0.1252 0.1177 0.2042 0.2221 Product=Regular Espresso

0.0021 -0.0267 -0.0032 0.052 0.1601 0.2021 -0.2587 -0.0269 -0.0182 0.3449 0.092 -0.1261 -0.0739 0.2118 -0.3237 0.0779 -0.0817 -0.2934 0.0712 0.0499 0.055 0.0346 0.1219 -0.0567 0.0629 0.0163 -0.1468 0.1813 0.0029 0.0074 -0.0563 0.3507 0.0196 Product=Chamomile

-0.0063 0.0076 0.0175 0.0767 0.1555 0.1746 -0.1997 -0.0817 0.0022 -0.3364 0.2004 -0.0327 0.0334 -0.2775 -0.0399 -0.2865 -0.0814 0.2745 -0.1851 0.0853 0.0227 0.0911 0.0884 0.0722 0.0384 0.0618 -0.029 -0.0243 0.2643 -0.1315 0.0139 -0.305 0.1832 Product=Lemon

-0.0099 -0.0088 0.0291 0.0701 0.165 0.1771 -0.189 0.0279 0.0366 -0.0324 -0.3144 0.2805 0.002 0.0175 0.3592 0.225 0.1865 0.0413 0.116 -0.1762 -0.0984 -0.1569 -0.1815 0.042 -0.1164 -0.0496 0.1957 -0.1089 -0.2286 0.0868 0.1006 -0.1039 -0.1979 Product=Mint

-0.0162 -0.0324 -0.021 0.2049 -0.0575 0.1055 0.2714 -0.0149 0.0055 0.207 0.1078 0.1861 0.319 -0.0393 0.0662 -0.0725 0.235 -0.1286 -0.4086 0.1627 0.0246 0.0828 -0.0594 -0.0592 0.0578 -0.0139 -0.0347 -0.0914 -0.0018 -0.1512 0.2876 0.1585 -0.0724 Product=Darjeeling

0.0021 -0.025 -0.0033 0.2012 -0.0509 0.074 0.2402 0.0043 0.0086 -0.0422 -0.2431 -0.3142 -0.0194 -0.0772 -0.3013 0.2192 0.0559 0.3187 0.1524 -0.1669 0.0141 0.0922 0.0274 0.2763 -0.093 0.1614 0.0206 0.0291 -0.0351 -0.0243 -0.2963 0.0418 -0.0974 Product=Earl Grey

0.0009 -0.0361 -0.0333 0.1874 -0.0495 0.084 0.249 -0.0099 0.0224 -0.1482 0.1447 0.068 -0.3186 0.1309 0.2008 -0.143 -0.338 -0.2144 0.2947 -0.0132 -0.0525 -0.1653 0.0321 -0.2191 0.032 -0.1384 -0.0269 0.103 0.0083 0.1958 -0.0157 -0.1613 0.1623 Product=Green Tea

Ranked attributes:

0.9076 1 0.449Sales+0.435COGS+0.398Marketing+0.395Margin+0.387Total Expenses...

0.8537 2 -0.474Market=Central+0.473Market=East+0.367Market Size=Major Market+0.273State=New York+0.263State=Florida...

0.8029 3 0.534Market=West+0.484State=California-0.282Market=East-0.26Product Type=Coffee+0.23 Product Type=Espresso...

0.7543 4 -0.53Product Type=Espresso+0.382Product Type=Tea-0.259Product=Caffe Latte-0.232Product=Caffe Mocha-0.216Product=Regular Espresso...

0.7066 5 -0.542Market=South-0.478State=Texas+0.307Product Type=Herbal Tea-0.235Product Type=Espresso+0.197Market=West...

0.6601 6 -0.546Product Type=Coffee+0.351Product Type=Herbal Tea-0.298Product=Decaf Irish Cream-0.29Product=Amaretto-0.282Product=Columbian...

0.6152 7 0.475Product Type=Tea-0.433Product Type=Herbal Tea-0.287Market=South+0.271Product=Darjeeling-0.259Product=Chamomile...

0.5783 8 0.557Market Size=Major Market+0.31 State=Illinois+0.287State=Ohio+0.25 Market=Central-0.233State=Connecticut...

0.5452 9 0.555ï»¿Profit-0.512Inventory+0.389Margin-0.286Marketing-0.275Total Expenses...

0.5215 10 0.345Product=Chamomile-0.336Product=Lemon+0.326State=Missouri-0.299State=Florida+0.266State=Massachusetts...

0.4984 11 -0.314Product=Mint-0.295Product=Decaf Espresso+0.289Product=Regular Espresso-0.289State=New York+0.283State=Colorado...

0.4755 12 -0.369Product=Decaf Espresso+0.319Product=Caffe Latte-0.314Product=Earl Grey+0.281Product=Mint-0.252State=Nevada...

0.4528 13 -0.376Product=Caffe Latte+0.367Product=Columbian+0.319Product=Darjeeling-0.319Product=Green Tea+0.265State=Illinois...

0.4303 14 -0.513State=New York+0.34 State=Florida-0.296ProductId+0.281Product=Decaf Espresso-0.277Product=Lemon...

0.408 15 0.359Product=Mint-0.347State=Florida-0.324Product=Chamomile+0.32 Product=Regular Espresso-0.301Product=Earl Grey...

0.3857 16 0.421Product=Caffe Mocha+0.373Product=Amaretto-0.286Product=Lemon-0.258State=Wisconsin-0.254Product=Decaf Irish Cream...

0.3637 17 0.395Product=Decaf Irish Cream-0.357Product=Columbian-0.338Product=Green Tea+0.274Product=Regular Espresso+0.266State=New Hampshire...

0.3419 18 -0.405Product=Decaf Irish Cream+0.319Product=Earl Grey-0.293Product=Chamomile-0.284Product=Caffe Mocha+0.274Product=Lemon...

0.3201 19 -0.409Product=Darjeeling-0.377Product=Amaretto+0.37 Product=Regular Espresso-0.32Product=Decaf Espresso+0.295Product=Green Tea...

0.2989 20 -0.604State=Ohio+0.473State=Illinois+0.211Product=Decaf Espresso-0.208Product=Caffe Mocha-0.204State=Oregon...

0.2779 21 -0.486State=Washington+0.414State=Iowa-0.282State=Illinois-0.268State=Massachusetts-0.253State=Colorado...

0.257 22 0.586State=Oklahoma+0.33 State=Massachusetts-0.318State=Texas-0.23State=Washington+0.229State=Louisiana...

0.2364 23 -0.405State=Wisconsin+0.368State=Iowa+0.292State=Washington+0.29 State=Connecticut-0.248State=Oregon...

0.2158 24 0.518State=Wisconsin+0.407State=Connecticut-0.359State=Louisiana+0.276Product=Earl Grey+0.231State=Massachusetts...

0.1954 25 -0.468State=Colorado-0.46State=New Hampshire-0.313State=Utah+0.312State=Nevada+0.254State=Washington...

0.1751 26 0.613State=Louisiana-0.496State=Oklahoma+0.267State=Massachusetts+0.196State=Wisconsin+0.174Product=Decaf Irish Cream...

0.155 27 -0.658State=New Mexico-0.389State=Utah+0.294State=Connecticut+0.249State=Nevada+0.218State=Colorado...

0.1349 28 0.499State=Nevada+0.377State=New Hampshire-0.307State=Washington-0.251State=Missouri+0.225State=Ohio...

0.1149 29 -0.416State=Nevada+0.35 State=Connecticut+0.322State=Washington-0.273State=Iowa+0.269Product=Columbian...

0.0952 30 0.593State=Oregon-0.324State=Utah-0.313Product=Caffe Mocha+0.277State=Iowa-0.271State=New Hampshire...

0.0759 31 -0.464State=New Hampshire+0.346State=Utah+0.316State=Connecticut-0.296Product=Earl Grey-0.29Product=Decaf Espresso...

0.0566 32 -0.423State=Missouri+0.351Product=Chamomile-0.305Product=Lemon+0.302State=Washington+0.269State=Wisconsin...

0.0376 33 -0.547State=New Mexico+0.314State=Oregon+0.281Product=Amaretto+0.277State=Utah+0.222Product=Regular Espresso...

Selected attributes: 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33 : 33

=== Run information ===

Evaluator: weka.attributeSelection.PrincipalComponents -R 0.95 -A 5

Search: weka.attributeSelection.Ranker -T -1.7976931348623157E308 -N -1

Relation: CoffeeChain\_CleansedData1

Instances: 4248

Attributes: 14-Product Type

ï»¿Profit

Margin

Sales

COGS

Total Expenses

Marketing

Inventory

ProductId

State

Market

Market Size

Product Type

Product

Type

Evaluation mode: evaluate on all training data

=== Attribute Selection on all input data ===

Search Method:

Attribute ranking.

Attribute Evaluator (unsupervised):

Principal Components Attribute Transformer

Correlation matrix

1 0.92 0.8 0.46 0.2 0.23 -0.09 -0.06 -0.02 0.03 0.01 0.03 0 -0 -0.01 0.02 -0.04 0 -0.02 0.01 0.04 -0.05 -0.01 -0 -0.02 0.02 0 0.01 -0.05 0.01 0.03 0.01 -0.03 0.02 0 -0 -0.02 -0.01

0.92 1 0.94 0.68 0.52 0.53 0.06 -0.08 -0.01 0.03 0.01 0.03 -0 -0 -0.01 0.02 -0.04 -0.01 -0.03 0.01 0.03 -0.03 -0.01 -0.01 -0.02 0.03 -0 0 -0.05 0.01 0.03 0 -0.03 0.03 0 -0.01 -0.02 -0.02

0.8 0.94 1 0.89 0.69 0.71 0.33 -0.05 0 0.02 0.01 0.03 -0.01 -0.01 0 0.02 -0.03 -0.02 -0.02 0.01 0.03 -0.02 -0.01 -0.01 -0.01 0.03 -0 0.01 -0.04 0.01 0.03 0 -0.02 0.03 -0.01 -0.01 -0.02 -0.02

0.46 0.68 0.89 1 0.78 0.82 0.62 0 0.01 -0 -0 0.03 -0.01 -0.01 0.01 0.01 -0.02 -0.03 -0.02 0.02 0.02 0 -0.01 -0.02 0.01 0.03 -0.01 0.01 -0.02 -0 0.03 -0 -0.01 0.03 -0.02 0 -0.02 -0.01

0.2 0.52 0.69 0.78 1 0.97 0.43 -0.07 0.03 -0 0.02 0.02 -0.02 -0.01 -0 0.01 -0 -0.03 -0.03 0.01 0 0.01 -0.02 -0.02 0.02 0.03 -0.01 -0.01 -0.01 0.01 0.02 -0.02 0 0.02 -0.01 -0.02 0 -0.02

0.23 0.53 0.71 0.82 0.97 1 0.5 -0.04 0.02 -0.01 0.02 0.02 -0.02 -0.01 -0 0.01 -0 -0.03 -0.03 0.01 0 0.01 -0.01 -0.02 0.02 0.03 -0.01 -0 -0 0.01 0.02 -0.02 0 0.02 -0.01 -0.01 0 -0.02

-0.09 0.06 0.33 0.62 0.43 0.5 1 0.07 0.01 -0.01 -0.02 -0.01 0.01 -0 0.02 -0.01 -0 -0.02 -0 0.02 -0.01 0.03 0 -0.02 0.01 0.01 -0.02 0.01 0.02 -0.02 -0.01 0.01 0.01 0.02 -0.02 0.02 -0.02 0

-0.06 -0.08 -0.05 0 -0.07 -0.04 0.07 1 0 -0 -0.01 -0.03 0.03 -0.01 -0.02 -0.01 -0.01 0 0.05 0 -0.02 0.03 -0.01 -0.02 0.03 0.01 0.01 0.02 0.03 0 -0.03 -0 0 -0.04 -0.01 0.04 0 0.04

-0.02 -0.01 0 0.01 0.03 0.02 0.01 0 1 -0.02 -0.07 -0.05 -0.05 -0.04 -0.04 -0.02 -0.05 -0.03 -0.02 -0.03 -0.03 -0.04 -0.02 -0.02 -0.02 -0.01 -0.02 -0.02 0.22 -0.08 -0.07 -0.09 -0.23 0 0.02 -0.03 0.01 -0

0.03 0.03 0.02 -0 -0 -0.01 -0.01 -0 -0.02 1 -0.06 -0.05 -0.05 -0.03 -0.04 -0.02 -0.05 -0.03 -0.02 -0.03 -0.03 -0.03 -0.02 -0.01 -0.02 -0.01 -0.02 -0.02 -0.09 0.24 -0.06 -0.08 -0.22 -0.02 0.01 -0 0.01 -0.02

0.01 0.01 0.01 -0 0.02 0.02 -0.02 -0.01 -0.07 -0.06 1 -0.18 -0.16 -0.12 -0.13 -0.06 -0.16 -0.09 -0.07 -0.11 -0.09 -0.12 -0.07 -0.05 -0.06 -0.03 -0.06 -0.06 -0.31 0.84 -0.22 -0.29 0.28 -0.04 0.02 0.01 0.01 0.03

0.03 0.03 0.03 0.03 0.02 0.02 -0.01 -0.03 -0.05 -0.05 -0.18 1 -0.13 -0.1 -0.11 -0.05 -0.13 -0.07 -0.06 -0.09 -0.08 -0.1 -0.06 -0.04 -0.05 -0.02 -0.05 -0.05 -0.25 -0.22 0.83 -0.24 0.23 -0.02 0.02 -0.03 0.03 -0.02

0 -0 -0.01 -0.01 -0.02 -0.02 0.01 0.03 -0.05 -0.05 -0.16 -0.13 1 -0.09 -0.1 -0.05 -0.12 -0.07 -0.05 -0.08 -0.07 -0.09 -0.06 -0.04 -0.04 -0.02 -0.04 -0.04 0.53 -0.19 -0.16 -0.22 0.21 0.05 -0.03 0 -0.01 -0

-0 -0 -0.01 -0.01 -0.01 -0.01 -0 -0.01 -0.04 -0.03 -0.12 -0.1 -0.09 1 -0.07 -0.04 -0.09 -0.05 -0.04 -0.06 -0.05 -0.06 -0.04 -0.03 -0.03 -0.02 -0.03 -0.03 -0.17 -0.14 -0.12 0.4 0.15 -0.01 0.01 0 -0.01 0.03

-0.01 -0.01 0 0.01 -0 -0 0.02 -0.02 -0.04 -0.04 -0.13 -0.11 -0.1 -0.07 1 -0.04 -0.09 -0.05 -0.04 -0.07 -0.06 -0.07 -0.04 -0.03 -0.03 -0.02 -0.03 -0.04 -0.18 -0.16 -0.13 0.44 0.17 -0.03 -0 0.03 -0 0.01

0.02 0.02 0.02 0.01 0.01 0.01 -0.01 -0.01 -0.02 -0.02 -0.06 -0.05 -0.05 -0.04 -0.04 1 -0.05 -0.03 -0.02 -0.03 -0.03 -0.03 -0.02 -0.01 -0.02 -0.01 -0.02 -0.02 -0.09 -0.08 0.3 -0.09 -0.23 0.01 -0.01 0.01 -0.01 0.01

-0.04 -0.04 -0.03 -0.02 -0 -0 -0 -0.01 -0.05 -0.05 -0.16 -0.13 -0.12 -0.09 -0.09 -0.05 1 -0.07 -0.05 -0.08 -0.07 -0.08 -0.05 -0.04 -0.04 -0.02 -0.04 -0.04 0.51 -0.19 -0.16 -0.21 0.2 -0 -0 0.02 -0.01 0.02

0 -0.01 -0.02 -0.03 -0.03 -0.03 -0.02 0 -0.03 -0.03 -0.09 -0.07 -0.07 -0.05 -0.05 -0.03 -0.07 1 -0.03 -0.05 -0.04 -0.05 -0.03 -0.02 -0.02 -0.01 -0.02 -0.03 -0.13 -0.11 -0.09 0.31 -0.32 0.01 0.02 -0.02 -0.01 -0.01

-0.02 -0.03 -0.02 -0.02 -0.03 -0.03 -0 0.05 -0.02 -0.02 -0.07 -0.06 -0.05 -0.04 -0.04 -0.02 -0.05 -0.03 1 -0.04 -0.03 -0.04 -0.03 -0.02 -0.02 -0.01 -0.02 -0.02 -0.1 -0.09 -0.07 0.25 0.1 0.01 0.01 -0 -0.01 -0.02

0.01 0.01 0.01 0.02 0.01 0.01 0.02 0 -0.03 -0.03 -0.11 -0.09 -0.08 -0.06 -0.07 -0.03 -0.08 -0.05 -0.04 1 -0.05 -0.06 -0.04 -0.02 -0.03 -0.01 -0.03 -0.03 -0.15 -0.13 -0.11 0.37 -0.39 -0.01 -0.02 0 0.03 -0.02

0.04 0.03 0.03 0.02 0 0 -0.01 -0.02 -0.03 -0.03 -0.09 -0.08 -0.07 -0.05 -0.06 -0.03 -0.07 -0.04 -0.03 -0.05 1 -0.05 -0.03 -0.02 -0.02 -0.01 -0.02 -0.03 -0.13 -0.11 -0.09 0.32 -0.33 0.01 -0.03 0.02 0.01 -0.02

-0.05 -0.03 -0.02 0 0.01 0.01 0.03 0.03 -0.04 -0.03 -0.12 -0.1 -0.09 -0.06 -0.07 -0.03 -0.08 -0.05 -0.04 -0.06 -0.05 1 -0.04 -0.03 -0.03 -0.02 -0.03 -0.03 0.38 -0.14 -0.11 -0.16 0.15 -0.01 0.02 -0 -0.01 -0.01

-0.01 -0.01 -0.01 -0.01 -0.02 -0.01 0 -0.01 -0.02 -0.02 -0.07 -0.06 -0.06 -0.04 -0.04 -0.02 -0.05 -0.03 -0.03 -0.04 -0.03 -0.04 1 -0.02 -0.02 -0.01 -0.02 -0.02 -0.11 -0.09 0.35 -0.1 -0.26 0.03 -0.05 0.01 0 -0.01

-0 -0.01 -0.01 -0.02 -0.02 -0.02 -0.02 -0.02 -0.02 -0.01 -0.05 -0.04 -0.04 -0.03 -0.03 -0.01 -0.04 -0.02 -0.02 -0.02 -0.02 -0.03 -0.02 1 -0.01 -0.01 -0.01 -0.01 -0.07 0.19 -0.05 -0.07 -0.17 0.02 -0.02 -0 -0 0.03

-0.02 -0.02 -0.01 0.01 0.02 0.02 0.01 0.03 -0.02 -0.02 -0.06 -0.05 -0.04 -0.03 -0.03 -0.02 -0.04 -0.02 -0.02 -0.03 -0.02 -0.03 -0.02 -0.01 1 -0.01 -0.01 -0.02 -0.08 0.21 -0.05 -0.07 -0.19 0.01 0.01 -0.01 -0.01 -0

0.02 0.03 0.03 0.03 0.03 0.03 0.01 0.01 -0.01 -0.01 -0.03 -0.02 -0.02 -0.02 -0.02 -0.01 -0.02 -0.01 -0.01 -0.01 -0.01 -0.02 -0.01 -0.01 -0.01 1 -0.01 -0.01 -0.04 -0.03 0.13 -0.04 -0.1 0.01 -0 0.01 -0.02 -0.01

0 -0 -0 -0.01 -0.01 -0.01 -0.02 0.01 -0.02 -0.02 -0.06 -0.05 -0.04 -0.03 -0.03 -0.02 -0.04 -0.02 -0.02 -0.03 -0.02 -0.03 -0.02 -0.01 -0.01 -0.01 1 -0.02 0.19 -0.07 -0.06 -0.08 -0.2 0.03 -0 -0.02 -0 -0.03

0.01 0 0.01 0.01 -0.01 -0 0.01 0.02 -0.02 -0.02 -0.06 -0.05 -0.04 -0.03 -0.04 -0.02 -0.04 -0.03 -0.02 -0.03 -0.03 -0.03 -0.02 -0.01 -0.02 -0.01 -0.02 1 -0.09 0.23 -0.06 -0.08 -0.21 0.02 -0.01 0 -0.01 -0

-0.05 -0.05 -0.04 -0.02 -0.01 -0 0.02 0.03 0.22 -0.09 -0.31 -0.25 0.53 -0.17 -0.18 -0.09 0.51 -0.13 -0.1 -0.15 -0.13 0.38 -0.11 -0.07 -0.08 -0.04 0.19 -0.09 1 -0.37 -0.3 -0.41 0.23 0.04 -0.01 -0.01 -0.02 -0

0.01 0.01 0.01 -0 0.01 0.01 -0.02 0 -0.08 0.24 0.84 -0.22 -0.19 -0.14 -0.16 -0.08 -0.19 -0.11 -0.09 -0.13 -0.11 -0.14 -0.09 0.19 0.21 -0.03 -0.07 0.23 -0.37 1 -0.26 -0.35 0.03 -0.03 0.02 0 0 0.03

0.03 0.03 0.03 0.03 0.02 0.02 -0.01 -0.03 -0.07 -0.06 -0.22 0.83 -0.16 -0.12 -0.13 0.3 -0.16 -0.09 -0.07 -0.11 -0.09 -0.11 0.35 -0.05 -0.05 0.13 -0.06 -0.06 -0.3 -0.26 1 -0.29 -0 0 -0 -0.02 0.02 -0.02

0.01 0 0 -0 -0.02 -0.02 0.01 -0 -0.09 -0.08 -0.29 -0.24 -0.22 0.4 0.44 -0.09 -0.21 0.31 0.25 0.37 0.32 -0.16 -0.1 -0.07 -0.07 -0.04 -0.08 -0.08 -0.41 -0.35 -0.29 1 -0.25 -0.02 -0 0.02 0 -0.01

-0.03 -0.03 -0.02 -0.01 0 0 0.01 0 -0.23 -0.22 0.28 0.23 0.21 0.15 0.17 -0.23 0.2 -0.32 0.1 -0.39 -0.33 0.15 -0.26 -0.17 -0.19 -0.1 -0.2 -0.21 0.23 0.03 -0 -0.25 1 -0.03 0.03 0.01 -0 0.03

0.02 0.03 0.03 0.03 0.02 0.02 0.02 -0.04 0 -0.02 -0.04 -0.02 0.05 -0.01 -0.03 0.01 -0 0.01 0.01 -0.01 0.01 -0.01 0.03 0.02 0.01 0.01 0.03 0.02 0.04 -0.03 0 -0.02 -0.03 1 -0.36 -0.3 -0.29 -0.09

0 0 -0.01 -0.02 -0.01 -0.01 -0.02 -0.01 0.02 0.01 0.02 0.02 -0.03 0.01 -0 -0.01 -0 0.02 0.01 -0.02 -0.03 0.02 -0.05 -0.02 0.01 -0 -0 -0.01 -0.01 0.02 -0 -0 0.03 -0.36 1 -0.37 -0.37 -0.08

-0 -0.01 -0.01 0 -0.02 -0.01 0.02 0.04 -0.03 -0 0.01 -0.03 0 0 0.03 0.01 0.02 -0.02 -0 0 0.02 -0 0.01 -0 -0.01 0.01 -0.02 0 -0.01 0 -0.02 0.02 0.01 -0.3 -0.37 1 -0.3 0.51

-0.02 -0.02 -0.02 -0.02 0 0 -0.02 0 0.01 0.01 0.01 0.03 -0.01 -0.01 -0 -0.01 -0.01 -0.01 -0.01 0.03 0.01 -0.01 0 -0 -0.01 -0.02 -0 -0.01 -0.02 0 0.02 0 -0 -0.29 -0.37 -0.3 1 -0.33

-0.01 -0.02 -0.02 -0.01 -0.02 -0.02 0 0.04 -0 -0.02 0.03 -0.02 -0 0.03 0.01 0.01 0.02 -0.01 -0.02 -0.02 -0.02 -0.01 -0.01 0.03 -0 -0.01 -0.03 -0 -0 0.03 -0.02 -0.01 0.03 -0.09 -0.08 0.51 -0.33 1

eigenvalue proportion cumulative

4.6165 0.12149 0.12149 -0.45Sales-0.436COGS-0.399Marketing-0.396Margin-0.388Total Expenses...

2.6876 0.07073 0.19221 -0.481Market=Central+0.468Market=East+0.376Market Size=Major Market+0.27 State=New York+0.262State=Florida...

2.50071 0.06581 0.25802 -0.605Market=West-0.534State=California+0.325Market=East+0.243Market=Central+0.172State=New York...

2.36205 0.06216 0.32018 -0.645Market=South-0.555State=Texas+0.208Market=Central-0.203State=Oklahoma-0.174State=Louisiana...

1.88316 0.04956 0.36974 -0.517Market Size=Major Market-0.301State=Illinois-0.267State=Ohio-0.257Product Type=Herbal Tea-0.248Type=Decaf...

1.78398 0.04695 0.41668 0.596Product Type=Herbal Tea+0.553Type=Decaf-0.364Product Type=Tea-0.227Market Size=Major Market-0.182Product Type=Espresso...

1.65771 0.04362 0.46031 0.555ï»¿Profit-0.51Inventory+0.389Margin-0.288Marketing-0.277Total Expenses...

1.41461 0.03723 0.49753 -0.793Product Type=Espresso+0.43 Product Type=Tea+0.302Product Type=Coffee+0.146Product Type=Herbal Tea+0.11 State=New York...

1.30211 0.03427 0.5318 -0.759Product Type=Coffee+0.53 Product Type=Tea+0.215Product Type=Herbal Tea+0.109State=Missouri+0.107State=Florida...

1.12818 0.02969 0.56149 0.634State=Florida-0.536State=New York-0.418ProductId-0.225State=Colorado-0.124State=Massachusetts...

1.07767 0.02836 0.58985 0.512State=Colorado-0.422State=Illinois+0.41 ProductId-0.334State=New York+0.32 State=Florida...

1.07008 0.02816 0.61801 -0.632State=Illinois+0.559State=Ohio+0.219State=Missouri-0.198State=Nevada-0.195State=Colorado...

1.06648 0.02807 0.64607 -0.787State=Massachusetts+0.337State=New York+0.296State=Florida+0.172State=Oregon-0.152State=Oklahoma...

1.05823 0.02785 0.67392 -0.52State=Ohio-0.39State=Washington+0.34 State=California+0.305State=Missouri-0.303State=Nevada...

1.04825 0.02759 0.70151 -0.49State=Oklahoma-0.395State=Louisiana+0.391State=Missouri+0.377State=Texas-0.249State=Ohio...

1.04335 0.02746 0.72897 0.703State=Iowa-0.581State=Missouri+0.221State=Wisconsin-0.147State=Illinois-0.115State=Oklahoma...

1.03334 0.02719 0.75616 -0.827State=Wisconsin+0.382State=Iowa+0.217State=Colorado+0.173State=Missouri+0.165State=Connecticut...

1.02701 0.02703 0.78319 -0.592State=Connecticut-0.501State=New Hampshire+0.299State=Louisiana+0.251State=Washington+0.234State=Iowa...

1.02021 0.02685 0.81003 0.72 State=Louisiana-0.591State=Oklahoma-0.216State=Washington+0.175State=Utah+0.092State=New Hampshire...

1.01784 0.02679 0.83682 0.514State=New Hampshire-0.428State=Connecticut-0.415State=Utah-0.372State=Colorado+0.347State=Oregon...

1.01654 0.02675 0.86357 -0.786State=Nevada+0.4 State=Oregon+0.249State=Utah+0.246State=New Hampshire+0.245State=Washington...

1.00868 0.02654 0.89011 -0.575State=Oregon+0.571State=Washington+0.429State=New Hampshire-0.199State=Connecticut-0.179State=Utah...

1.00383 0.02642 0.91653 -0.928State=New Mexico+0.253State=Oklahoma+0.135State=Colorado+0.133State=New Hampshire-0.108State=Connecticut...

1.00203 0.02637 0.9429 -0.669State=Utah+0.37 State=Connecticut+0.326State=Washington+0.27 State=Oregon-0.23State=New Hampshire...

0.92636 0.02438 0.96728 0.732ProductId-0.448State=Colorado-0.227State=Oregon-0.165State=Nevada+0.142State=Utah...

Eigenvectors

V1 V2 V3 V4 V5 V6 V7 V8 V9 V10 V11 V12 V13 V14 V15 V16 V17 V18 V19 V20 V21 V22 V23 V24 V25

-0.2992 -0.0386 -0.0186 -0.0175 0.0252 -0.0047 0.5552 0.0366 0.0473 -0.0441 0.0713 -0.044 -0.0265 0.0034 -0.0106 -0.0353 -0.0095 -0.0185 -0.0022 0.0016 -0.0082 -0.0708 0.0068 0.0194 0.067 ï»¿Profit

-0.3957 -0.0205 -0.0095 -0.0035 0.0174 -0.0077 0.3887 0.0219 0.0381 -0.0132 0.0406 -0.0211 -0.0247 0.0035 -0.0089 -0.0262 -0.0081 -0.0133 -0.0045 -0.0036 0.0032 -0.0483 0.0039 0.0161 0.021 Margin

-0.4496 -0.0028 0.0048 0.0113 0.0026 -0 0.1769 0.0095 0.0204 -0.023 0.0353 -0.0201 -0.0092 0.001 -0.0091 -0.0108 -0.0081 -0.0101 -0.0023 -0.0018 -0 -0.0223 0.0106 -0.0021 0.0314 Sales

-0.4356 0.0212 0.0246 0.0282 -0.0182 0.0105 -0.1478 -0.0093 -0.0079 -0.0302 0.0187 -0.012 0.0122 -0.0022 -0.0066 0.0109 -0.006 -0.0026 0.0013 -0.0002 -0.0048 0.0192 0.0174 -0.0254 0.0397 COGS

-0.3878 0.0401 0.0128 0.0289 -0.0121 -0.0096 -0.2774 -0.0213 -0.0035 0.0663 -0.0578 0.0406 0.0119 0.0011 0.003 0.02 0.0012 0.005 0.0082 -0.0071 0.0261 0.0249 -0.0003 -0.0053 -0.101 Total Expenses

-0.3986 0.0421 0.0172 0.0309 -0.0151 -0.0025 -0.2885 -0.0234 -0.0043 0.0471 -0.0417 0.0354 0.0136 -0.0009 -0.0015 0.0174 -0.005 0.0026 0.0074 -0.0043 0.0139 0.0294 0.0041 -0.0117 -0.0664 Marketing

-0.2151 0.0404 0.0465 0.0468 -0.0414 0.0309 -0.5098 -0.0368 -0.05 -0.0608 0.0038 -0.0049 0.0424 -0.0096 -0.006 0.0308 -0.0214 0.026 -0.0194 -0.0013 -0.0292 0.0767 0.0217 -0.0517 0.0734 Inventory

0.0293 0.0207 0.012 0.0406 -0.0132 0.0651 -0.1102 -0.0153 0.0702 -0.4176 0.4098 -0.1377 0.054 0.0541 -0.109 0.0109 -0.014 -0.0868 0.0196 0.0691 0.0075 -0.0571 -0.0439 -0.0049 0.7324 ProductId

-0.0035 0.0337 0.0778 0.0403 0.2157 0.0572 -0.0442 -0.1063 0.0797 0.0332 -0.1912 0.088 -0.0238 -0.0384 -0.1162 0.0765 0.1649 -0.5916 -0.0137 -0.4277 -0.13 -0.1986 -0.1076 0.3698 0.0705 State=Connecticut

-0.007 -0.0493 -0.1224 0.0383 0.1696 0.0478 0.0332 -0.052 0.0846 -0.0415 0.0391 -0.1544 0.09 -0.3898 0.0024 -0.0615 -0.0363 0.2506 -0.2163 -0.2425 0.2449 0.5714 -0.0655 0.3263 0.0395 State=Washington

-0.0073 0.0842 -0.534 0.1425 -0.1041 -0.078 -0.0065 0.0439 -0.0093 0.0418 -0.0818 0.1504 -0.0983 0.3397 -0.0795 0.0224 0.0198 -0.065 -0.0081 0.0361 -0.0118 0.0229 -0.0163 0.0256 0.0692 State=California

-0.0251 0.0319 -0.0109 -0.5551 -0.1563 -0.0445 -0.0154 -0.027 0.0163 -0.027 0.0385 0.0079 0.1005 -0.063 0.3774 0.0993 -0.03 -0.1591 -0.007 0.0128 0.0235 0.0457 0.0177 0.0825 0.0284 State=Texas

0.0118 0.2697 0.1717 0.0901 0.0478 0.007 0.1019 0.1098 -0.0974 -0.5358 -0.3342 0.1693 0.3371 -0.0028 -0.0391 0.0674 -0.0104 0.1828 -0.0292 0.007 -0.0183 0.0216 0.0189 -0.1127 -0.0909 State=New York

0.0052 -0.136 0.0877 0.0805 -0.2666 -0.103 0.0239 0.0012 -0.0883 0.0552 0.1511 0.5594 -0.1056 -0.5198 -0.2492 -0.0744 -0.0145 -0.0753 0.0082 0.0857 -0.0144 -0.0034 -0.0455 -0.0219 0.0561 State=Ohio

0.0003 -0.149 0.0977 0.0904 -0.3005 -0.1078 -0.0127 0.0481 -0.0081 0.0668 -0.4224 -0.6317 0.0213 -0.089 -0.122 -0.1467 0.0453 -0.0684 -0.0029 0.0729 -0.0055 -0.0582 -0.0359 0.025 0.1206 State=Illinois

-0.0127 -0.0596 0.008 -0.1737 0.1307 0.1133 -0.0118 -0.0301 0.0089 0.0328 -0.1013 0.0283 -0.0763 0.0684 -0.3954 -0.1139 0.1003 0.2993 0.7203 -0.0371 -0.0657 0.0731 0.0699 0.0925 0.0607 State=Louisiana

0.0218 0.2624 0.1634 0.0885 0.022 0.0321 0.026 -0.0115 0.1073 0.6345 0.3197 -0.0872 0.2958 0.0628 -0.0573 0.0083 -0.031 0.13 -0.0166 0.0179 -0.0206 -0.0311 -0.0078 -0.0227 0.1223 State=Florida

0.013 -0.2033 0.0817 0.0644 0.0894 0.0168 0.0191 -0.0884 -0.0359 -0.0038 -0.0034 0.0237 0.0418 0.2146 0.0004 0.221 -0.8275 -0.0939 0.0878 -0.0208 0.0328 0.0538 -0.0063 0.0147 -0.039 State=Wisconsin

0.0184 -0.0833 0.0545 0.0475 -0.1457 -0.0862 -0.0052 -0.0038 -0.0906 -0.2251 0.5118 -0.1954 0.0744 0.2073 -0.1573 0.0806 0.2166 -0.1155 0.0871 -0.3718 0.0839 0.101 0.1346 -0.0762 -0.4481 State=Colorado

-0.011 -0.2472 0.1037 0.0846 0.1038 0.034 -0.0566 0.0172 0.1093 -0.034 0.0364 0.2193 0.1326 0.3052 0.391 -0.5807 0.173 0.1186 -0.0745 0.0175 -0.023 -0.0623 0.0046 0.0861 0.032 State=Missouri

-0.0136 -0.2093 0.0859 0.0692 0.0875 0.0385 0.0336 0.0397 0.043 0.0721 -0.0608 0.0517 -0.1445 0.0735 0.1622 0.703 0.3821 0.2338 -0.0758 0.0902 -0.0455 0.0275 0.0003 -0.051 0.135 State=Iowa

0.0111 0.1894 0.1184 0.0644 0.022 -0.0092 -0.0537 -0.0868 0.0409 -0.1238 0.115 -0.1282 -0.7865 -0.0536 0.2182 -0.1058 -0.1163 0.166 0.0209 -0.0412 0.0018 -0.0967 -0.0167 0.081 -0.0743 State=Massachusetts

0.0025 -0.0697 0.0107 -0.203 0.159 0.1335 -0.0463 0.0719 -0.0395 0.0234 -0.0196 -0.0191 -0.1523 0.0868 -0.4899 -0.115 -0.0315 0.1006 -0.5905 -0.0163 -0.0183 -0.1582 0.253 -0.1983 -0.0183 State=Oklahoma

0.0092 -0.038 -0.0951 0.0301 0.125 0.0754 0.0042 0.0267 -0.0609 0.0807 -0.0756 -0.0469 0.0095 -0.2697 0.2279 -0.0571 -0.015 -0.0466 0.175 -0.415 0.2489 -0.1793 0.0487 -0.6689 0.1425 State=Utah

-0.003 -0.0385 -0.1032 0.0373 0.1439 0.0523 -0.0875 -0.0524 -0.0327 -0.0949 0.1432 -0.1275 0.1717 -0.2459 0.0022 0.0753 0.016 0.0508 0.0792 0.3468 0.3999 -0.575 0.057 0.2704 -0.2274 State=Oregon

-0.0208 -0.0248 0.0051 -0.0733 0.055 0.0577 -0.0068 -0.0323 -0.0447 -0.0327 0.0675 -0.0436 -0.0129 0.0758 -0.1349 -0.0343 0.0444 0.0246 -0.0563 0.0751 0.0472 -0.0158 -0.928 -0.1892 -0.1378 State=New Mexico

0.0061 0.0261 0.067 0.0314 0.1986 0.0434 0.0374 -0.0325 -0.0023 0.0109 0.0019 -0.0443 -0.1164 0.0198 -0.0308 -0.0798 0.1443 -0.5008 0.0919 0.5136 0.2459 0.4289 0.1334 -0.23 -0.0654 State=New Hampshire

-0.0041 -0.0453 -0.1147 0.0395 0.1582 0.0737 -0.0162 -0.0104 -0.0527 -0.0728 0.1679 -0.1985 0.0952 -0.3027 0.1063 -0.0295 -0.0353 -0.0437 0.0334 0.1585 -0.7864 0.0068 0.0292 -0.113 -0.1654 State=Nevada

0.0286 0.4682 0.325 0.1724 0.176 0.05 0.055 -0.0186 0.0494 0.0068 -0.0136 0.0064 -0.016 0.0058 0.0034 -0.0009 0.0017 -0.0189 0.0002 0.0021 0.0008 -0.0016 0.0019 0.0014 -0.0144 Market=East

-0.0085 0.0273 -0.6047 0.1696 0.0759 -0.0007 -0.0231 0.0125 -0.0216 -0.003 0.009 -0.0179 0.0169 -0.0386 0.0173 -0.0013 -0.0033 0.0087 -0.0001 -0.003 0.0007 -0.0001 0.0011 0.0003 -0.0017 Market=West

-0.0289 -0.0259 -0.0015 -0.6447 -0.0167 0.0654 -0.0378 -0.0102 -0.0059 -0.0077 0.0005 0.0022 -0.0035 0.0169 -0.0321 -0.006 0.0037 0.0122 0 0.0034 -0.0027 -0.0011 -0.0052 -0.0061 0.017 Market=South

0.0034 -0.4812 0.2426 0.2085 -0.2372 -0.1056 -0.0022 0.0157 -0.0249 0.0024 0.005 0.0085 0.0033 0.0163 0.0072 0.0072 -0.0017 0.0007 -0.0002 -0.0022 0.0009 0.0027 0.0014 0.0035 0.002 Market=Central

0.0131 0.3758 -0.0544 -0.0257 -0.5172 -0.2275 0.047 0.068 -0.0528 -0.0005 0.0181 -0.0064 -0.0051 0.0006 0.0047 -0.0058 -0.0013 0.007 0.0002 -0.0049 -0.0001 -0.0032 -0.0001 0.0091 0.0063 Market Size=Major Market

-0.0207 0.0123 0.0473 -0.0081 0.1443 -0.0377 0.0123 0.3019 -0.759 0.0999 0.0479 -0.0299 -0.0404 0.035 0.0771 -0.0371 0.0147 -0.0189 0.009 -0.0236 0.0165 0.0247 -0.0205 0.1562 0.1226 Product Type=Coffee

0.0053 0.0079 -0.0244 -0.0039 -0.0158 -0.1821 0.0616 -0.7933 0.0065 -0.0309 -0.0591 0.0149 0.0614 0.0266 -0.0351 -0.0105 0.0626 0.0755 -0.0567 0.0192 -0.0223 -0.0207 0.0464 -0.103 0.0266 Product Type=Espresso

0.0063 -0.0001 -0.0136 0.0586 -0.2569 0.5964 0.0115 0.146 0.2149 -0.0272 -0.0025 -0.0037 -0.0195 0.0005 0.0198 0.0293 -0.0154 -0.0278 -0.0012 0.0086 0.0084 0.0312 -0.0086 0.0104 -0.1043 Product Type=Herbal Tea

0.0083 -0.0209 -0.0063 -0.0467 0.1336 -0.3635 -0.0919 0.4301 0.53 -0.0376 0.0203 0.017 -0.008 -0.0647 -0.0577 0.0189 -0.0682 -0.0367 0.0549 -0.0065 -0.0001 -0.0332 -0.0223 -0.0517 -0.046 Product Type=Tea

0.0112 0.0212 -0.0311 0.0546 -0.2482 0.5525 0.0339 -0.0548 0.0026 0.0107 -0.0235 0.0444 0.0081 -0.017 0.033 -0.0078 -0.0147 -0.0558 0.0179 -0.019 0.02 -0.0086 0.0293 0.0227 -0.0069 Type=Decaf

Ranked attributes:

0.8785 1 -0.45Sales-0.436COGS-0.399Marketing-0.396Margin-0.388Total Expenses...

0.8078 2 -0.481Market=Central+0.468Market=East+0.376Market Size=Major Market+0.27 State=New York+0.262State=Florida...

0.742 3 -0.605Market=West-0.534State=California+0.325Market=East+0.243Market=Central+0.172State=New York...

0.6798 4 -0.645Market=South-0.555State=Texas+0.208Market=Central-0.203State=Oklahoma-0.174State=Louisiana...

0.6303 5 -0.517Market Size=Major Market-0.301State=Illinois-0.267State=Ohio-0.257Product Type=Herbal Tea-0.248Type=Decaf...

0.5833 6 0.596Product Type=Herbal Tea+0.553Type=Decaf-0.364Product Type=Tea-0.227Market Size=Major Market-0.182Product Type=Espresso...

0.5397 7 0.555ï»¿Profit-0.51Inventory+0.389Margin-0.288Marketing-0.277Total Expenses...

0.5025 8 -0.793Product Type=Espresso+0.43 Product Type=Tea+0.302Product Type=Coffee+0.146Product Type=Herbal Tea+0.11 State=New York...

0.4682 9 -0.759Product Type=Coffee+0.53 Product Type=Tea+0.215Product Type=Herbal Tea+0.109State=Missouri+0.107State=Florida...

0.4385 10 0.634State=Florida-0.536State=New York-0.418ProductId-0.225State=Colorado-0.124State=Massachusetts...

0.4102 11 0.512State=Colorado-0.422State=Illinois+0.41 ProductId-0.334State=New York+0.32 State=Florida...

0.382 12 -0.632State=Illinois+0.559State=Ohio+0.219State=Missouri-0.198State=Nevada-0.195State=Colorado...

0.3539 13 -0.787State=Massachusetts+0.337State=New York+0.296State=Florida+0.172State=Oregon-0.152State=Oklahoma...

0.3261 14 -0.52State=Ohio-0.39State=Washington+0.34 State=California+0.305State=Missouri-0.303State=Nevada...

0.2985 15 -0.49State=Oklahoma-0.395State=Louisiana+0.391State=Missouri+0.377State=Texas-0.249State=Ohio...

0.271 16 0.703State=Iowa-0.581State=Missouri+0.221State=Wisconsin-0.147State=Illinois-0.115State=Oklahoma...

0.2438 17 -0.827State=Wisconsin+0.382State=Iowa+0.217State=Colorado+0.173State=Missouri+0.165State=Connecticut...

0.2168 18 -0.592State=Connecticut-0.501State=New Hampshire+0.299State=Louisiana+0.251State=Washington+0.234State=Iowa...

0.19 19 0.72 State=Louisiana-0.591State=Oklahoma-0.216State=Washington+0.175State=Utah+0.092State=New Hampshire...

0.1632 20 0.514State=New Hampshire-0.428State=Connecticut-0.415State=Utah-0.372State=Colorado+0.347State=Oregon...

0.1364 21 -0.786State=Nevada+0.4 State=Oregon+0.249State=Utah+0.246State=New Hampshire+0.245State=Washington...

0.1099 22 -0.575State=Oregon+0.571State=Washington+0.429State=New Hampshire-0.199State=Connecticut-0.179State=Utah...

0.0835 23 -0.928State=New Mexico+0.253State=Oklahoma+0.135State=Colorado+0.133State=New Hampshire-0.108State=Connecticut...

0.0571 24 -0.669State=Utah+0.37 State=Connecticut+0.326State=Washington+0.27 State=Oregon-0.23State=New Hampshire...

0.0327 25 0.732ProductId-0.448State=Colorado-0.227State=Oregon-0.165State=Nevada+0.142State=Utah...

Selected attributes: 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25 : 25

=== Run information ===

Evaluator: weka.attributeSelection.PrincipalComponents -R 0.95 -A 5

Search: weka.attributeSelection.Ranker -T -1.7976931348623157E308 -N -1

Relation: CoffeeChain\_CleansedData1

Instances: 4248

Attributes: 14-ProductId

ï»¿Profit

Margin

Sales

COGS

Total Expenses

Marketing

Inventory

ProductId

State

Market

Market Size

Product Type

Product

Type

Evaluation mode: evaluate on all training data

=== Attribute Selection on all input data ===

Search Method:

Attribute ranking.

Attribute Evaluator (unsupervised):

Principal Components Attribute Transformer

Correlation matrix

1 0.92 0.8 0.46 0.2 0.23 -0.09 -0.02 0.03 0.01 0.03 0 -0 -0.01 0.02 -0.04 0 -0.02 0.01 0.04 -0.05 -0.01 -0 -0.02 0.02 0 0.01 -0.05 0.01 0.03 0.01 -0.03 0.02 0 -0 -0.02 0.01 0 0.02 -0.01 0.01 0.01 0.02 -0 -0.01 -0.01 -0.02 -0 0 -0.01

0.92 1 0.94 0.68 0.52 0.53 0.06 -0.01 0.03 0.01 0.03 -0 -0 -0.01 0.02 -0.04 -0.01 -0.03 0.01 0.03 -0.03 -0.01 -0.01 -0.02 0.03 -0 0 -0.05 0.01 0.03 0 -0.03 0.03 0 -0.01 -0.02 0.01 0 0.02 -0.01 0.01 0 0.01 -0 -0.01 -0.01 -0.02 -0 0 -0.02

0.8 0.94 1 0.89 0.69 0.71 0.33 0 0.02 0.01 0.03 -0.01 -0.01 0 0.02 -0.03 -0.02 -0.02 0.01 0.03 -0.02 -0.01 -0.01 -0.01 0.03 -0 0.01 -0.04 0.01 0.03 0 -0.02 0.03 -0.01 -0.01 -0.02 0.02 0 0.03 -0 0 -0.01 0.01 0 -0.01 -0.01 -0.02 0 0 -0.02

0.46 0.68 0.89 1 0.78 0.82 0.62 0.01 -0 -0 0.03 -0.01 -0.01 0.01 0.01 -0.02 -0.03 -0.02 0.02 0.02 0 -0.01 -0.02 0.01 0.03 -0.01 0.01 -0.02 -0 0.03 -0 -0.01 0.03 -0.02 0 -0.02 0.02 0 0.03 0 -0.01 -0.03 0 0.01 -0 -0.02 -0.02 0.01 0.01 -0.01

0.2 0.52 0.69 0.78 1 0.97 0.43 0.03 -0 0.02 0.02 -0.02 -0.01 -0 0.01 -0 -0.03 -0.03 0.01 0 0.01 -0.02 -0.02 0.02 0.03 -0.01 -0.01 -0.01 0.01 0.02 -0.02 0 0.02 -0.01 -0.02 0 0.02 -0 0.02 0 -0 -0.03 -0.01 0 -0 -0.01 -0.01 0.02 -0 -0.02

0.23 0.53 0.71 0.82 0.97 1 0.5 0.02 -0.01 0.02 0.02 -0.02 -0.01 -0 0.01 -0 -0.03 -0.03 0.01 0 0.01 -0.01 -0.02 0.02 0.03 -0.01 -0 -0 0.01 0.02 -0.02 0 0.02 -0.01 -0.01 0 0.02 -0 0.02 0 -0.01 -0.02 -0.01 0 -0 -0.01 -0.01 0.01 0 -0.02

-0.09 0.06 0.33 0.62 0.43 0.5 1 0.01 -0.01 -0.02 -0.01 0.01 -0 0.02 -0.01 -0 -0.02 -0 0.02 -0.01 0.03 0 -0.02 0.01 0.01 -0.02 0.01 0.02 -0.02 -0.01 0.01 0.01 0.02 -0.02 0.02 -0.02 0.02 0.01 0.01 0.01 -0 -0.03 -0.02 0.02 0.01 -0.01 -0.02 -0.01 0.01 0

-0.02 -0.01 0 0.01 0.03 0.02 0.01 1 -0.02 -0.07 -0.05 -0.05 -0.04 -0.04 -0.02 -0.05 -0.03 -0.02 -0.03 -0.03 -0.04 -0.02 -0.02 -0.02 -0.01 -0.02 -0.02 0.22 -0.08 -0.07 -0.09 -0.23 0 0.02 -0.03 0.01 0.01 -0.01 -0 -0.01 0.01 0.02 0.01 -0.01 -0 -0.03 -0.01 0.01 0.01 -0

0.03 0.03 0.02 -0 -0 -0.01 -0.01 -0.02 1 -0.06 -0.05 -0.05 -0.03 -0.04 -0.02 -0.05 -0.03 -0.02 -0.03 -0.03 -0.03 -0.02 -0.01 -0.02 -0.01 -0.02 -0.02 -0.09 0.24 -0.06 -0.08 -0.22 -0.02 0.01 -0 0.01 -0.01 -0.02 0 0 0.02 -0.01 -0.01 -0.01 0.02 0.02 -0.01 -0 0 -0.02

0.01 0.01 0.01 -0 0.02 0.02 -0.02 -0.07 -0.06 1 -0.18 -0.16 -0.12 -0.13 -0.06 -0.16 -0.09 -0.07 -0.11 -0.09 -0.12 -0.07 -0.05 -0.06 -0.03 -0.06 -0.06 -0.31 0.84 -0.22 -0.29 0.28 -0.04 0.02 0.01 0.01 -0.03 -0.04 0.02 0.01 0.02 -0 -0 -0.01 0.01 0.03 -0 0.01 -0 0.03

0.03 0.03 0.03 0.03 0.02 0.02 -0.01 -0.05 -0.05 -0.18 1 -0.13 -0.1 -0.11 -0.05 -0.13 -0.07 -0.06 -0.09 -0.08 -0.1 -0.06 -0.04 -0.05 -0.02 -0.05 -0.05 -0.25 -0.22 0.83 -0.24 0.23 -0.02 0.02 -0.03 0.03 -0.01 -0 -0.03 -0.01 0.01 0.02 0 0.01 -0.03 -0.01 0.03 0.02 0 -0.02

0 -0 -0.01 -0.01 -0.02 -0.02 0.01 -0.05 -0.05 -0.16 -0.13 1 -0.09 -0.1 -0.05 -0.12 -0.07 -0.05 -0.08 -0.07 -0.09 -0.06 -0.04 -0.04 -0.02 -0.04 -0.04 0.53 -0.19 -0.16 -0.22 0.21 0.05 -0.03 0 -0.01 0.02 0.03 0.03 0.01 -0.03 -0.01 -0.02 -0.02 0 0.01 -0.01 0.01 -0.01 -0

-0 -0 -0.01 -0.01 -0.01 -0.01 -0 -0.04 -0.03 -0.12 -0.1 -0.09 1 -0.07 -0.04 -0.09 -0.05 -0.04 -0.06 -0.05 -0.06 -0.04 -0.03 -0.03 -0.02 -0.03 -0.03 -0.17 -0.14 -0.12 0.4 0.15 -0.01 0.01 0 -0.01 0.01 -0.03 0.01 0 -0.02 0.04 0.01 0 -0.02 0.02 -0.02 -0.01 -0 0.03

-0.01 -0.01 0 0.01 -0 -0 0.02 -0.04 -0.04 -0.13 -0.11 -0.1 -0.07 1 -0.04 -0.09 -0.05 -0.04 -0.07 -0.06 -0.07 -0.04 -0.03 -0.03 -0.02 -0.03 -0.04 -0.18 -0.16 -0.13 0.44 0.17 -0.03 -0 0.03 -0 -0.01 -0.02 -0.01 -0.02 0 0.02 0 -0 -0 0.03 0 0.01 -0 0.01

0.02 0.02 0.02 0.01 0.01 0.01 -0.01 -0.02 -0.02 -0.06 -0.05 -0.05 -0.04 -0.04 1 -0.05 -0.03 -0.02 -0.03 -0.03 -0.03 -0.02 -0.01 -0.02 -0.01 -0.02 -0.02 -0.09 -0.08 0.3 -0.09 -0.23 0.01 -0.01 0.01 -0.01 0.02 0 -0.01 -0.02 0.02 0.02 -0 -0 0.01 -0.02 -0.02 0 0.01 0.01

-0.04 -0.04 -0.03 -0.02 -0 -0 -0 -0.05 -0.05 -0.16 -0.13 -0.12 -0.09 -0.09 -0.05 1 -0.07 -0.05 -0.08 -0.07 -0.08 -0.05 -0.04 -0.04 -0.02 -0.04 -0.04 0.51 -0.19 -0.16 -0.21 0.2 -0 -0 0.02 -0.01 -0.01 0 0 0 0.01 -0.01 -0 0 0.04 -0.01 -0.01 -0.01 -0 0.02

0 -0.01 -0.02 -0.03 -0.03 -0.03 -0.02 -0.03 -0.03 -0.09 -0.07 -0.07 -0.05 -0.05 -0.03 -0.07 1 -0.03 -0.05 -0.04 -0.05 -0.03 -0.02 -0.02 -0.01 -0.02 -0.03 -0.13 -0.11 -0.09 0.31 -0.32 0.01 0.02 -0.02 -0.01 -0 0.01 0.01 0.02 0 0.01 -0.01 -0.02 -0 -0.01 -0.01 -0.02 0.02 -0.01

-0.02 -0.03 -0.02 -0.02 -0.03 -0.03 -0 -0.02 -0.02 -0.07 -0.06 -0.05 -0.04 -0.04 -0.02 -0.05 -0.03 1 -0.04 -0.03 -0.04 -0.03 -0.02 -0.02 -0.01 -0.02 -0.02 -0.1 -0.09 -0.07 0.25 0.1 0.01 0.01 -0 -0.01 0.02 -0.01 0 0.02 0 -0.01 0.02 0.02 -0.01 -0.03 -0.01 -0.01 0.01 -0.02

0.01 0.01 0.01 0.02 0.01 0.01 0.02 -0.03 -0.03 -0.11 -0.09 -0.08 -0.06 -0.07 -0.03 -0.08 -0.05 -0.04 1 -0.05 -0.06 -0.04 -0.02 -0.03 -0.01 -0.03 -0.03 -0.15 -0.13 -0.11 0.37 -0.39 -0.01 -0.02 0 0.03 0.02 -0.01 -0.02 0.02 -0.02 -0.03 0.01 0.05 -0.04 -0.01 0.02 0.01 0.01 -0.02

0.04 0.03 0.03 0.02 0 0 -0.01 -0.03 -0.03 -0.09 -0.08 -0.07 -0.05 -0.06 -0.03 -0.07 -0.04 -0.03 -0.05 1 -0.05 -0.03 -0.02 -0.02 -0.01 -0.02 -0.03 -0.13 -0.11 -0.09 0.32 -0.33 0.01 -0.03 0.02 0.01 0 0.01 -0.02 -0.02 0.01 -0.02 -0.01 0 0.02 -0 0.02 -0.01 0.01 -0.02

-0.05 -0.03 -0.02 0 0.01 0.01 0.03 -0.04 -0.03 -0.12 -0.1 -0.09 -0.06 -0.07 -0.03 -0.08 -0.05 -0.04 -0.06 -0.05 1 -0.04 -0.03 -0.03 -0.02 -0.03 -0.03 0.38 -0.14 -0.11 -0.16 0.15 -0.01 0.02 -0 -0.01 -0.01 0.03 -0.03 0.02 -0 0 0.01 0.01 -0.02 -0 0.02 -0.02 -0.01 -0.01

-0.01 -0.01 -0.01 -0.01 -0.02 -0.01 0 -0.02 -0.02 -0.07 -0.06 -0.06 -0.04 -0.04 -0.02 -0.05 -0.03 -0.03 -0.04 -0.03 -0.04 1 -0.02 -0.02 -0.01 -0.02 -0.02 -0.11 -0.09 0.35 -0.1 -0.26 0.03 -0.05 0.01 0 0.02 0.02 0.01 -0.03 0.01 -0.02 -0.02 -0.01 0.03 -0.01 -0 0 0.01 -0.01

-0 -0.01 -0.01 -0.02 -0.02 -0.02 -0.02 -0.02 -0.01 -0.05 -0.04 -0.04 -0.03 -0.03 -0.01 -0.04 -0.02 -0.02 -0.02 -0.02 -0.03 -0.02 1 -0.01 -0.01 -0.01 -0.01 -0.07 0.19 -0.05 -0.07 -0.17 0.02 -0.02 -0 -0 -0 0.03 0.02 -0.01 -0.02 0.02 -0.02 0 -0 0 -0.02 0.02 -0.01 0.03

-0.02 -0.02 -0.01 0.01 0.02 0.02 0.01 -0.02 -0.02 -0.06 -0.05 -0.04 -0.03 -0.03 -0.02 -0.04 -0.02 -0.02 -0.03 -0.02 -0.03 -0.02 -0.01 1 -0.01 -0.01 -0.02 -0.08 0.21 -0.05 -0.07 -0.19 0.01 0.01 -0.01 -0.01 -0.01 0.02 0.01 0 0.02 0 -0.02 -0 -0.01 -0.01 0.01 0.01 -0.03 -0

0.02 0.03 0.03 0.03 0.03 0.03 0.01 -0.01 -0.01 -0.03 -0.02 -0.02 -0.02 -0.02 -0.01 -0.02 -0.01 -0.01 -0.01 -0.01 -0.02 -0.01 -0.01 -0.01 1 -0.01 -0.01 -0.04 -0.03 0.13 -0.04 -0.1 0.01 -0 0.01 -0.02 0.04 -0 -0.02 -0.02 0.01 -0 0.03 0.01 0.01 -0.02 -0.02 -0.02 -0 -0.01

0 -0 -0 -0.01 -0.01 -0.01 -0.02 -0.02 -0.02 -0.06 -0.05 -0.04 -0.03 -0.03 -0.02 -0.04 -0.02 -0.02 -0.03 -0.02 -0.03 -0.02 -0.01 -0.01 -0.01 1 -0.02 0.19 -0.07 -0.06 -0.08 -0.2 0.03 -0 -0.02 -0 0.01 0.02 0.02 0.01 -0.01 -0.02 0.01 -0.02 -0.01 0 0.02 -0.03 0 -0.03

0.01 0 0.01 0.01 -0.01 -0 0.01 -0.02 -0.02 -0.06 -0.05 -0.04 -0.03 -0.04 -0.02 -0.04 -0.03 -0.02 -0.03 -0.03 -0.03 -0.02 -0.01 -0.02 -0.01 -0.02 1 -0.09 0.23 -0.06 -0.08 -0.21 0.02 -0.01 0 -0.01 0.01 0.01 0.01 -0.01 -0.02 0 0.02 0 0.02 -0.02 -0.01 -0 -0.01 -0

-0.05 -0.05 -0.04 -0.02 -0.01 -0 0.02 0.22 -0.09 -0.31 -0.25 0.53 -0.17 -0.18 -0.09 0.51 -0.13 -0.1 -0.15 -0.13 0.38 -0.11 -0.07 -0.08 -0.04 0.19 -0.09 1 -0.37 -0.3 -0.41 0.23 0.04 -0.01 -0.01 -0.02 0.01 0.04 0.01 0.02 -0.02 -0.01 -0.01 -0.01 0.01 -0.01 -0 -0.02 -0.01 -0

0.01 0.01 0.01 -0 0.01 0.01 -0.02 -0.08 0.24 0.84 -0.22 -0.19 -0.14 -0.16 -0.08 -0.19 -0.11 -0.09 -0.13 -0.11 -0.14 -0.09 0.19 0.21 -0.03 -0.07 0.23 -0.37 1 -0.26 -0.35 0.03 -0.03 0.02 0 0 -0.04 -0.02 0.03 0.01 0.02 -0 -0.01 -0.01 0.02 0.02 -0.01 0.01 -0.02 0.03

0.03 0.03 0.03 0.03 0.02 0.02 -0.01 -0.07 -0.06 -0.22 0.83 -0.16 -0.12 -0.13 0.3 -0.16 -0.09 -0.07 -0.11 -0.09 -0.11 0.35 -0.05 -0.05 0.13 -0.06 -0.06 -0.3 -0.26 1 -0.29 -0 0 -0 -0.02 0.02 0.01 0.01 -0.03 -0.03 0.02 0.01 -0 0.01 -0.01 -0.02 0.01 0.02 0.01 -0.02

0.01 0 0 -0 -0.02 -0.02 0.01 -0.09 -0.08 -0.29 -0.24 -0.22 0.4 0.44 -0.09 -0.21 0.31 0.25 0.37 0.32 -0.16 -0.1 -0.07 -0.07 -0.04 -0.08 -0.08 -0.41 -0.35 -0.29 1 -0.25 -0.02 -0 0.02 0 0.01 -0.02 -0.02 0.01 -0.02 0.01 0.01 0.02 -0.02 0.01 0 -0.01 0.01 -0.01

-0.03 -0.03 -0.02 -0.01 0 0 0.01 -0.23 -0.22 0.28 0.23 0.21 0.15 0.17 -0.23 0.2 -0.32 0.1 -0.39 -0.33 0.15 -0.26 -0.17 -0.19 -0.1 -0.2 -0.21 0.23 0.03 -0 -0.25 1 -0.03 0.03 0.01 -0 -0.03 -0.03 0 0.01 -0 0.02 0 -0 -0.01 0.03 -0 0.01 -0.01 0.03

0.02 0.03 0.03 0.03 0.02 0.02 0.02 0 -0.02 -0.04 -0.02 0.05 -0.01 -0.03 0.01 -0 0.01 0.01 -0.01 0.01 -0.01 0.03 0.02 0.01 0.01 0.03 0.02 0.04 -0.03 0 -0.02 -0.03 1 -0.36 -0.3 -0.29 0.53 0.49 0.49 -0.16 -0.16 -0.16 -0.16 -0.16 -0.15 -0.15 -0.15 -0.11 -0.12 -0.09

0 0 -0.01 -0.02 -0.01 -0.01 -0.02 0.02 0.01 0.02 0.02 -0.03 0.01 -0 -0.01 -0 0.02 0.01 -0.02 -0.03 0.02 -0.05 -0.02 0.01 -0 -0 -0.01 -0.01 0.02 -0 -0 0.03 -0.36 1 -0.37 -0.37 -0.19 -0.16 -0.16 0.45 0.44 0.35 0.37 -0.2 -0.19 -0.19 -0.19 -0.19 -0.19 -0.08

-0 -0.01 -0.01 0 -0.02 -0.01 0.02 -0.03 -0 0.01 -0.03 0 0 0.03 0.01 0.02 -0.02 -0 0 0.02 -0 0.01 -0 -0.01 0.01 -0.02 0 -0.01 0 -0.02 0.02 0.01 -0.3 -0.37 1 -0.3 -0.16 -0.16 -0.16 -0.17 -0.17 -0.06 -0.09 0.52 0.45 0.45 -0.16 -0.15 -0.16 0.51

-0.02 -0.02 -0.02 -0.02 0 0 -0.02 0.01 0.01 0.01 0.03 -0.01 -0.01 -0 -0.01 -0.01 -0.01 -0.01 0.03 0.01 -0.01 0 -0 -0.01 -0.02 -0 -0.01 -0.02 0 0.02 0 -0 -0.29 -0.37 -0.3 1 -0.15 -0.15 -0.15 -0.16 -0.16 -0.16 -0.16 -0.16 -0.09 -0.09 0.53 0.48 0.48 -0.33

0.01 0.01 0.02 0.02 0.02 0.02 0.02 0.01 -0.01 -0.03 -0.01 0.02 0.01 -0.01 0.02 -0.01 -0 0.02 0.02 0 -0.01 0.02 -0 -0.01 0.04 0.01 0.01 0.01 -0.04 0.01 0.01 -0.03 0.53 -0.19 -0.16 -0.15 1 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.22

0 0 0 0 -0 -0 0.01 -0.01 -0.02 -0.04 -0 0.03 -0.03 -0.02 0 0 0.01 -0.01 -0.01 0.01 0.03 0.02 0.03 0.02 -0 0.02 0.01 0.04 -0.02 0.01 -0.02 -0.03 0.49 -0.16 -0.16 -0.15 -0.08 1 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.2

0.02 0.02 0.03 0.03 0.02 0.02 0.01 -0 0 0.02 -0.03 0.03 0.01 -0.01 -0.01 0 0.01 0 -0.02 -0.02 -0.03 0.01 0.02 0.01 -0.02 0.02 0.01 0.01 0.03 -0.03 -0.02 0 0.49 -0.16 -0.16 -0.15 -0.08 -0.08 1 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 0.3

-0.01 -0.01 -0 0 0 0 0.01 -0.01 0 0.01 -0.01 0.01 0 -0.02 -0.02 0 0.02 0.02 0.02 -0.02 0.02 -0.03 -0.01 0 -0.02 0.01 -0.01 0.02 0.01 -0.03 0.01 0.01 -0.16 0.45 -0.17 -0.16 -0.09 -0.09 -0.09 1 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.08 -0.08 -0.21

0.01 0.01 0 -0.01 -0 -0.01 -0 0.01 0.02 0.02 0.01 -0.03 -0.02 0 0.02 0.01 0 0 -0.02 0.01 -0 0.01 -0.02 0.02 0.01 -0.01 -0.02 -0.02 0.02 0.02 -0.02 -0 -0.16 0.44 -0.17 -0.16 -0.09 -0.09 -0.09 -0.09 1 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.08 -0.08 -0.11

0.01 0 -0.01 -0.03 -0.03 -0.02 -0.03 0.02 -0.01 -0 0.02 -0.01 0.04 0.02 0.02 -0.01 0.01 -0.01 -0.03 -0.02 0 -0.02 0.02 0 -0 -0.02 0 -0.01 -0 0.01 0.01 0.02 -0.16 0.35 -0.06 -0.16 -0.09 -0.09 -0.09 -0.09 -0.09 1 -0.09 -0.09 -0.09 -0.09 -0.09 -0.08 -0.08 0.3

0.02 0.01 0.01 0 -0.01 -0.01 -0.02 0.01 -0.01 -0 0 -0.02 0.01 0 -0 -0 -0.01 0.02 0.01 -0.01 0.01 -0.02 -0.02 -0.02 0.03 0.01 0.02 -0.01 -0.01 -0 0.01 0 -0.16 0.37 -0.09 -0.16 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 1 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.11

-0 -0 0 0.01 0 0 0.02 -0.01 -0.01 -0.01 0.01 -0.02 0 -0 -0 0 -0.02 0.02 0.05 0 0.01 -0.01 0 -0 0.01 -0.02 0 -0.01 -0.01 0.01 0.02 -0 -0.16 -0.2 0.52 -0.16 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 1 -0.08 -0.08 -0.08 -0.08 -0.08 0.28

-0.01 -0.01 -0.01 -0 -0 -0 0.01 -0 0.02 0.01 -0.03 0 -0.02 -0 0.01 0.04 -0 -0.01 -0.04 0.02 -0.02 0.03 -0 -0.01 0.01 -0.01 0.02 0.01 0.02 -0.01 -0.02 -0.01 -0.15 -0.19 0.45 -0.09 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 1 -0.08 -0.08 -0.08 -0.08 0.3

-0.01 -0.01 -0.01 -0.02 -0.01 -0.01 -0.01 -0.03 0.02 0.03 -0.01 0.01 0.02 0.03 -0.02 -0.01 -0.01 -0.03 -0.01 -0 -0 -0.01 0 -0.01 -0.02 0 -0.02 -0.01 0.02 -0.02 0.01 0.03 -0.15 -0.19 0.45 -0.09 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 1 -0.08 -0.08 -0.08 0.23

-0.02 -0.02 -0.02 -0.02 -0.01 -0.01 -0.02 -0.01 -0.01 -0 0.03 -0.01 -0.02 0 -0.02 -0.01 -0.01 -0.01 0.02 0.02 0.02 -0 -0.02 0.01 -0.02 0.02 -0.01 -0 -0.01 0.01 0 -0 -0.15 -0.19 -0.16 0.53 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 -0.08 1 -0.08 -0.08 -0.21

-0 -0 0 0.01 0.02 0.01 -0.01 0.01 -0 0.01 0.02 0.01 -0.01 0.01 0 -0.01 -0.02 -0.01 0.01 -0.01 -0.02 0 0.02 0.01 -0.02 -0.03 -0 -0.02 0.01 0.02 -0.01 0.01 -0.11 -0.19 -0.15 0.48 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 1 -0.08 -0.18

0 0 0 0.01 -0 0 0.01 0.01 0 -0 0 -0.01 -0 -0 0.01 -0 0.02 0.01 0.01 0.01 -0.01 0.01 -0.01 -0.03 -0 0 -0.01 -0.01 -0.02 0.01 0.01 -0.01 -0.12 -0.19 -0.16 0.48 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 1 -0.18

-0.01 -0.02 -0.02 -0.01 -0.02 -0.02 0 -0 -0.02 0.03 -0.02 -0 0.03 0.01 0.01 0.02 -0.01 -0.02 -0.02 -0.02 -0.01 -0.01 0.03 -0 -0.01 -0.03 -0 -0 0.03 -0.02 -0.01 0.03 -0.09 -0.08 0.51 -0.33 -0.22 -0.2 0.3 -0.21 -0.11 0.3 -0.11 0.28 0.3 0.23 -0.21 -0.18 -0.18 1

eigenvalue proportion cumulative

4.61796 0.09236 0.09236 -0.449Sales-0.436COGS-0.398Marketing-0.395Margin-0.387Total Expenses...

2.77924 0.05558 0.14794 0.503Product Type=Herbal Tea+0.461Type=Decaf-0.316Product Type=Tea+0.275Product=Chamomile+0.257Product=Lemon...

2.69014 0.0538 0.20175 -0.472Market=East+0.466Market=Central-0.352Market Size=Major Market-0.272State=New York-0.257State=Florida...

2.53318 0.05066 0.25241 -0.518Market=West-0.47State=California+0.283Market=East-0.254Product Type=Espresso+0.232Product Type=Coffee...

2.43072 0.04861 0.30102 -0.554Product Type=Espresso+0.359Product Type=Tea-0.27Product=Caffe Latte-0.246Product=Caffe Mocha-0.224Product=Regular Espresso...

2.35681 0.04714 0.34816 -0.562Market=South-0.501State=Texas+0.291Market=West+0.263Product Type=Coffee+0.23 State=California...

2.3031 0.04606 0.39422 -0.493Product Type=Coffee+0.382Product Type=Tea-0.266Product=Amaretto-0.266Product=Decaf Irish Cream-0.265Market=South...

1.84203 0.03684 0.43106 -0.556Market Size=Major Market-0.31State=Illinois-0.286State=Ohio-0.25Market=Central+0.232State=Connecticut...

1.65045 0.03301 0.46407 -0.56ï»¿Profit+0.508Inventory-0.392Margin+0.288Marketing+0.279Total Expenses...

1.3628 0.02726 0.49133 -0.494Product=Decaf Irish Cream-0.468Product=Decaf Espresso-0.386Type=Decaf+0.245Product=Amaretto+0.226Product Type=Herbal Tea...

1.17092 0.02342 0.51475 0.418Product=Lemon+0.347State=Florida+0.337Product=Caffe Mocha-0.298State=Missouri-0.269Product=Chamomile...

1.14364 0.02287 0.53762 0.369Product=Mint-0.341Product=Chamomile-0.304Product=Regular Espresso+0.296Product=Columbian+0.249State=Illinois...

1.13504 0.0227 0.56032 -0.451State=New York+0.416Product=Darjeeling+0.325State=Massachusetts-0.289Product=Caffe Latte+0.276Product=Columbian...

1.12895 0.02258 0.5829 -0.406Product=Earl Grey+0.362Product=Caffe Latte+0.341Product=Decaf Irish Cream-0.303Product=Decaf Espresso+0.239State=Wisconsin...

1.11894 0.02238 0.60528 -0.354Product=Mint+0.331Product=Earl Grey+0.313State=Florida-0.311Product=Regular Espresso+0.309Product=Chamomile...

1.10805 0.02216 0.62744 -0.395Product=Columbian-0.355Product=Green Tea-0.267Product=Decaf Espresso+0.266Product=Caffe Mocha+0.253Product=Decaf Irish Cream...

1.10192 0.02204 0.64948 -0.429Product=Caffe Mocha+0.413Product=Regular Espresso+0.369Product=Lemon+0.325State=Nevada-0.263Product=Green Tea...

1.09005 0.0218 0.67128 -0.405Product=Darjeeling-0.371Product=Amaretto+0.338Product=Regular Espresso+0.301Product=Green Tea-0.301Product=Decaf Espresso...

1.08695 0.02174 0.69302 -0.485State=Florida+0.398State=New York-0.396Product=Mint-0.264State=Ohio+0.256State=Colorado...

1.05577 0.02112 0.71413 -0.621State=Ohio+0.499State=Illinois-0.215Product=Caffe Mocha+0.202Product=Decaf Espresso+0.196Product=Amaretto...

1.04829 0.02097 0.7351 -0.541State=Washington-0.353State=Massachusetts+0.323State=Iowa-0.302State=Colorado+0.286State=California...

1.04477 0.0209 0.75599 -0.568State=Oklahoma-0.324State=Massachusetts+0.319State=Texas+0.245State=Washington-0.243State=Louisiana...

1.02728 0.02055 0.77654 -0.517State=Connecticut+0.351State=Louisiana-0.268Product=Earl Grey-0.252State=Massachusetts+0.249State=New York...

1.02475 0.02049 0.79703 -0.657State=Wisconsin+0.347State=Iowa+0.302State=Utah+0.263State=New Hampshire+0.247State=Colorado...

1.01965 0.02039 0.81743 -0.457State=New Hampshire+0.389State=Washington-0.359State=Oregon+0.346State=Missouri-0.31State=Colorado...

1.0163 0.02033 0.83775 0.546State=Louisiana-0.477State=Oklahoma+0.312State=Massachusetts-0.247State=Connecticut+0.232State=Iowa...

1.0081 0.02016 0.85792 0.591State=New Mexico-0.456State=Nevada+0.425State=Utah-0.332State=Connecticut-0.187State=Louisiana...

1.00011 0.02 0.87792 0.507State=Nevada-0.376State=Washington-0.339State=Connecticut+0.268State=Iowa-0.262Product=Columbian...

0.99777 0.01996 0.89787 0.576State=Colorado-0.326State=New Mexico-0.305State=New Hampshire+0.286Product=Mint-0.223State=Illinois...

0.98325 0.01966 0.91754 -0.59State=Oregon+0.398State=Utah+0.278Product=Caffe Mocha-0.278State=Iowa+0.221Product=Darjeeling...

0.97038 0.01941 0.93695 0.474State=New Hampshire-0.3State=Utah+0.274State=Missouri-0.263Product=Darjeeling+0.257Product=Earl Grey...

0.96444 0.01929 0.95623 -0.351State=Washington-0.318Product=Chamomile+0.3 State=Missouri+0.244State=Utah-0.242State=New Hampshire...

Eigenvectors

V1 V2 V3 V4 V5 V6 V7 V8 V9 V10 V11 V12 V13 V14 V15 V16 V17 V18 V19 V20 V21 V22 V23 V24 V25 V26 V27 V28 V29 V30 V31 V32

-0.2986 -0.0007 0.0386 -0.0246 -0.0201 -0.0163 -0.023 0.0258 -0.5603 0.0512 -0.0092 -0.0115 0.0221 0.001 0.0356 -0.0123 -0.0141 0.0013 -0.0012 0.0082 -0.0388 -0.0407 -0.0142 -0.0215 -0.0094 -0.018 -0.027 0.0007 0.0054 -0.0299 -0.0074 0.0495 ï»¿Profit

-0.395 0.0021 0.0214 -0.0178 -0.0194 -0.0082 -0.0041 0.0188 -0.3917 0.0308 -0.0048 -0.0073 0.0206 0.0046 0.0221 -0.0082 -0.0106 -0.004 -0.0103 0.0046 -0.0244 -0.0356 -0.0164 -0.0165 -0.0081 -0.0123 -0.0134 -0.0076 0.0066 -0.02 -0.0068 0.0334 Margin

-0.4493 0.0082 0.0058 -0.0028 -0.0149 -0.0007 0.0138 0.0074 -0.1808 0.0148 -0.0033 -0.0007 0.0102 0.0043 0.0104 -0.0083 -0.0011 0 0.0016 0.0021 -0.0187 -0.0163 -0.0057 -0.0051 -0.0082 -0.0108 -0.0069 0.0042 0.0097 -0.0035 -0.0021 0.0136 Sales

-0.4358 0.0144 -0.0161 0.0194 -0.0059 0.0088 0.0351 -0.0097 0.1436 -0.0107 -0.001 0.0073 -0.0065 0.0038 -0.0086 -0.0074 0.0118 0.0059 0.0172 -0.0021 -0.0061 0.0119 0.0098 0.0121 -0.004 -0.005 0.003 0.0174 0.0107 0.0207 0.004 -0.0162 COGS

-0.3874 0.0089 -0.0363 0.0058 0.0042 0.0137 0.0464 -0.0096 0.2794 -0.0363 0.0079 0.0125 0.0031 -0.0051 -0.0156 0.0083 0.0051 -0.0126 -0.0266 -0.0025 0.0348 0.0118 -0.003 0.0065 -0.0151 0.0112 0.0227 -0.0152 0.0125 0.0136 -0.0017 -0.027 Total Expenses

-0.3984 0.0131 -0.0372 0.0103 0.0025 0.0128 0.0476 -0.0096 0.2883 -0.0391 0.0064 0.01 -0.0022 -0.0035 -0.02 0.0019 0.0108 -0.0076 -0.0207 -0.0038 0.03 0.0118 0.0021 0.0053 -0.0104 0.0088 0.0157 -0.0071 0.0117 0.0202 0.0006 -0.0287 Marketing

-0.216 0.0232 -0.034 0.0465 -0.002 0.0215 0.0476 -0.0263 0.5084 -0.0348 0.0064 0.0252 -0.0389 0.0146 -0.0319 -0.0171 0.0116 0.0092 0.0506 -0.0096 -0.0083 0.0493 0.0469 0.0144 0.0324 -0.0144 0.0107 0.0435 0.0115 0.0573 0.0144 -0.0491 Inventory

-0.0038 -0.0221 -0.0421 0.0643 -0.0387 0.0299 0.0211 0.2325 0.0424 -0.1185 0.0554 -0.1207 -0.0408 -0.1713 -0.1023 0.085 -0.1504 0.0304 0.019 0.0225 0.0953 0.1737 -0.5175 0.0005 -0.0852 -0.2466 -0.3321 -0.3392 0.0313 -0.0129 -0.2514 0.2158 State=Connecticut

-0.0068 0.0032 0.0526 -0.105 0.0271 0.0706 -0.0277 0.1809 -0.033 0.0078 0.0528 0.0988 -0.0724 0.0426 -0.0372 0.0819 0.038 0.0151 -0.1258 -0.0486 -0.5415 0.2453 0.0531 0.0664 0.3893 0.0994 0.1064 -0.3758 0.0185 0.0826 0.0015 -0.3514 State=Washington

-0.0066 0.1108 -0.048 -0.4699 0.1361 0.2295 -0.0408 -0.1408 0.0073 0.0613 0.0512 -0.0871 -0.0134 0.0949 -0.0635 -0.018 -0.1281 -0.0112 0.0441 0.0567 0.2862 -0.1602 -0.0889 -0.0153 -0.0246 0.0224 -0.0188 -0.0479 0.001 0.0169 0.0423 -0.0644 State=California

-0.0243 -0.0726 -0.0435 -0.0522 0.1198 -0.5013 -0.1887 -0.1511 0.0164 0.0032 -0.1513 0.0244 0.0719 0.0707 0.0496 0.0026 0.0684 -0.0005 -0.0617 0.0501 0.0384 0.3193 -0.1268 -0.0415 0.0568 0.0229 -0.0459 -0.0477 -0.0464 0.0124 0.1004 0.0493 State=Texas

0.0109 0.0372 -0.272 0.1615 -0.0331 0.0557 0.073 0.0291 -0.1107 -0.0016 -0.1955 0.2196 -0.4509 -0.0206 -0.0053 0.1617 -0.0232 -0.0978 0.3983 -0.0519 0.1454 0.1339 0.2489 -0.0177 0.0636 -0.0547 0.092 0.0155 0.0447 0.0805 -0.0694 -0.051 State=New York

0.0055 -0.004 0.1359 0.0732 -0.0841 0.0275 0.0686 -0.2862 -0.0234 -0.0814 -0.0234 -0.0903 -0.109 -0.0804 -0.1825 -0.0738 0.0737 -0.1868 -0.2639 -0.6211 -0.0717 -0.0654 0.1108 -0.0441 -0.0731 -0.1366 -0.108 -0.1047 -0.2116 0.1406 -0.084 0.0477 State=Ohio

0.0008 -0.0017 0.1518 0.0823 -0.0701 0.0254 0.1017 -0.3096 0.0094 -0.0251 0.16 0.2489 0.0889 -0.2174 -0.0054 0.173 0.0325 0.2204 0.1151 0.4985 -0.2001 -0.1013 0.0493 0.0938 -0.0229 -0.1283 -0.0777 -0.0293 -0.223 -0.1131 -0.1662 -0.0324 State=Illinois

-0.0127 -0.0304 0.053 0.0101 0.0398 -0.142 -0.1028 0.164 0.0145 -0.0428 0.1395 -0.0581 -0.1257 -0.1276 -0.0701 -0.0724 -0.1496 0.0107 0.0359 0.0288 -0.0077 -0.2425 0.351 0.2143 -0.2875 0.5457 -0.1866 -0.0983 0.0313 0.0968 -0.2419 0.0358 State=Louisiana

0.0217 0.0584 -0.2575 0.1383 -0.0531 0.0263 0.1087 0.0523 -0.0212 -0.0242 0.3473 -0.1782 0.1941 0.0634 0.3135 -0.1109 0.1511 0.0605 -0.4849 0.0791 0.0849 0.037 0.1456 0.0122 0.0332 -0.0146 0.046 0.0952 0.1107 -0.0565 -0.0981 -0.0707 State=Florida

0.0128 -0.0542 0.1889 0.0793 -0.0727 0.0552 0.0002 0.0901 -0.0134 -0.0647 0.0302 0.1229 -0.0766 0.2395 -0.0347 -0.2508 -0.0298 0.0936 -0.003 0.1271 0.054 0.0947 -0.1164 -0.6571 -0.2283 0.1308 0.0666 0.0733 0.0952 0.1735 -0.0874 -0.2249 State=Wisconsin

0.0176 -0.0228 0.0786 0.0451 -0.0558 0.0234 0.0294 -0.1703 0.0054 0.0746 0.052 -0.2176 -0.037 0.1194 0.1459 -0.0261 0.0024 -0.0141 0.2563 -0.0609 -0.3018 0.1169 -0.1441 0.2472 -0.3098 -0.0216 0.1152 0.0527 0.5761 0.0393 0.2135 0.0675 State=Colorado

-0.0112 -0.0652 0.2365 0.107 -0.0462 0.0631 0.0473 0.114 0.0548 0.0574 -0.2981 -0.2432 -0.0371 0.0392 0.1669 0.1323 -0.068 0.06 -0.1305 0.1684 0.2264 -0.1671 0.1872 0.0096 0.3463 0.0155 0.0197 -0.2037 0.1148 0.0699 0.2745 0.3001 State=Missouri

-0.0133 -0.0449 0.2007 0.0934 -0.0351 0.0541 0.027 0.101 -0.0342 0.0575 0.1319 0.1472 0.1768 0.0416 0.0008 -0.0487 -0.0156 -0.223 0.1497 -0.1822 0.3232 0.223 -0.208 0.347 0.1997 0.2324 0.0606 0.2685 -0.1223 -0.2777 -0.0418 -0.1844 State=Iowa

0.0109 0.0222 -0.1897 0.0903 -0.0601 0.0175 0.0809 0.033 0.0579 0.0731 -0.2037 -0.0061 0.3246 -0.0712 -0.2292 -0.1801 -0.1599 0.0118 0.1255 -0.0837 -0.3529 -0.3237 -0.2523 -0.1371 0.1475 0.3117 0.0292 0.0812 -0.0659 -0.1086 0.1382 0.1501 State=Massachusetts

0.0022 -0.0391 0.0607 0.0282 0.0813 -0.1501 -0.1297 0.1822 0.0442 -0.0067 0.1612 0.0784 -0.0825 0.0692 -0.0279 0.0378 0.0179 0.0251 0.0738 -0.1448 -0.0604 -0.5676 -0.0475 0.0085 0.1511 -0.4766 0.0389 0.187 0.1983 -0.088 -0.0801 -0.2094 State=Oklahoma

0.0091 0.0129 0.0403 -0.0607 0.0419 0.0721 -0.0583 0.1226 -0.0047 -0.0831 -0.1592 0.0811 -0.0246 -0.1924 0.0935 -0.1837 0.065 0.0911 -0.1246 0.0312 -0.1008 0.0482 -0.1547 0.302 -0.0998 -0.0771 0.4246 0.2148 -0.0631 0.3978 -0.3001 0.2435 State=Utah

-0.0034 -0.003 0.0382 -0.0827 0.0222 0.0741 -0.0469 0.1432 0.087 -0.0481 -0.093 0.1787 0.1315 -0.0982 0.2071 0.1245 -0.0002 -0.102 -0.0339 -0.1681 -0.1294 0.0925 0.2178 -0.1358 -0.3588 -0.0694 0.0673 -0.1558 0.0841 -0.5899 -0.033 0.152 State=Oregon

-0.0211 -0.0083 0.0224 0.009 0.0066 -0.0592 -0.0596 0.0704 0.0132 0.0754 0.1268 -0.1703 -0.04 -0.1305 -0.1048 0.0642 -0.0334 -0.0497 0.0615 0.0374 -0.0021 0.0457 0.0712 -0.2191 -0.069 -0.0867 0.5909 0.0247 -0.3255 -0.1259 0.1017 0.2144 State=New Mexico

0.0057 -0.0274 -0.0371 0.0654 -0.0228 0.0395 -0.0049 0.1941 -0.0379 0.0083 -0.0684 -0.0006 0.1121 0.2001 -0.248 0.1818 0.0815 0.0675 -0.1028 0.076 0.0078 -0.0194 0.0108 0.2625 -0.4567 -0.1384 -0.049 -0.0224 -0.3055 0.1575 0.4741 -0.2416 State=New Hampshire

-0.0044 0.0093 0.0478 -0.0818 0.0348 0.083 -0.0604 0.1595 0.0146 -0.003 -0.0386 -0.098 0.0393 -0.1655 -0.0353 -0.0379 0.325 0.0086 0.124 0.0208 -0.1933 0.2105 0.2144 -0.1426 0.0963 -0.0905 -0.4565 0.5073 -0.0462 0.0666 0.1048 0.1945 State=Nevada

0.0275 0.0609 -0.4722 0.2828 -0.1057 0.0833 0.1671 0.1929 -0.0563 -0.0135 -0.0079 -0.0092 0.0064 -0.0071 -0.0105 0.0184 -0.0214 0.0071 -0.0086 0.0016 0.0054 -0.0025 -0.0186 -0.0039 -0.0073 0.0006 -0.0065 0.0057 -0.002 -0.0003 0.0084 -0.0033 Market=East

-0.0081 0.106 0.0077 -0.5177 0.1577 0.2913 -0.0905 0.046 0.0232 0.0233 -0.0133 -0.0085 0.0069 -0.0246 -0.0001 -0.0133 0.0093 -0.0083 -0.0022 0.0041 -0.0281 0.0318 0.0217 0.0014 0.0055 -0.0137 0.0023 0.0018 0.0002 -0.0022 -0.0127 -0.0081 Market=West

-0.0284 -0.092 0.0092 -0.0293 0.1538 -0.562 -0.2652 0.0119 0.0398 -0.003 0.0034 0.0055 -0.022 0.0239 -0.0098 0.0022 0.0087 0.0057 -0.0012 0.001 0.0059 -0.0313 0.0059 0.0083 -0.002 0.0057 0.0041 0.0036 -0.0007 -0.0109 -0.0146 0.0047 Market=South

0.0036 -0.0847 0.4663 0.2267 -0.1716 0.1142 0.1395 -0.2502 0.0019 -0.0057 0.0178 0.0128 0.0055 0.0104 0.019 -0.008 0.0057 -0.0042 0.0119 -0.0063 0.0161 -0.0011 -0.0066 -0.0044 0.0039 0.0076 0.001 -0.0105 0.0025 0.0116 0.0158 0.0071 Market=Central

0.0136 0.1078 -0.3516 -0.0891 0.0119 -0.0755 0.0963 -0.5561 -0.0479 0.0442 0.0219 -0.0085 0.0114 -0.0008 0.0214 -0.0196 0.0026 -0.0084 0.0193 -0.0052 -0.0093 -0.0029 0.0055 -0.0039 0.0057 -0.0027 -0.0029 -0.014 -0.0046 0.008 0.0026 0.0069 Market Size=Major Market

-0.0295 -0.1173 -0.0821 0.2321 0.1071 0.2631 -0.4933 -0.1283 0.0003 -0.0241 0.0075 -0.0106 0.0228 0.0044 0.0025 -0.0007 -0.0084 0.0016 -0.0142 0.01 0.0012 0.0008 -0.0121 0.0019 0.0249 0.019 -0.0132 -0.0233 -0.0055 -0.0116 0.0048 -0.002 Product Type=Coffee

0.0078 -0.068 -0.0403 -0.2541 -0.5543 -0.126 0.0033 0.0488 0.0274 -0.0513 -0.0043 0.0086 -0.0104 0.0015 0.0051 0.0091 0.0072 -0 0.0116 0.0039 0.0144 -0.0071 0.0131 0.0169 0.0183 -0.0098 0.0122 0.0192 0.0016 0.0044 -0.0002 -0.0054 Product Type=Espresso

0.0099 0.5027 0.1275 0.0981 0.1458 -0.0932 0.1038 0.0554 0.0044 0.2257 -0.0028 0.016 -0.0152 -0.0092 -0.0045 -0.0055 -0 0.0016 -0.0059 -0.0046 -0.005 0.0121 -0.0104 -0.0128 -0.0382 -0.0142 -0.0188 -0.0112 0.0042 0.0068 -0.0157 -0.0004 Product Type=Herbal Tea

0.0106 -0.316 -0.0027 -0.0487 0.3594 -0.028 0.3817 0.0175 -0.0351 -0.1473 0.0002 -0.0151 0.0042 0.0032 -0.0036 -0.0038 0.0004 -0.0032 0.0073 -0.0096 -0.012 -0.0052 0.008 -0.0076 -0.0064 0.0063 0.0186 0.0132 -0.0005 -0.0002 0.0113 0.0083 Product Type=Tea

-0.0191 -0.116 -0.0344 0.139 0.0523 0.1336 -0.2663 -0.0775 0.0279 0.2446 0.1461 -0.2266 -0.2038 -0.1887 -0.1342 0.146 -0.1639 -0.3714 -0.1781 0.1956 -0.0949 0.0447 -0.0778 -0.0611 -0.0062 0.0304 -0.0091 0.1375 0.0377 -0.0238 0.0117 -0.0777 Product=Amaretto

-0.0061 -0.1011 -0.0616 0.1208 0.043 0.1325 -0.2556 -0.0297 0.0088 0.1965 -0.0933 0.2965 0.2764 -0.1248 0.0602 -0.3952 0.0709 0.1832 0.1071 -0.0946 0.1594 0.0063 0.1445 0.0434 -0.0077 -0.1496 -0.0284 -0.2619 0.0602 0.1004 0.0747 -0.0038 Product=Columbian

-0.0194 0.0453 -0.0341 0.095 0.0521 0.1565 -0.2657 -0.0974 -0.0264 -0.4941 -0.0558 -0.0723 -0.0028 0.3409 0.0804 0.2526 0.093 0.1911 0.056 -0.0827 -0.058 -0.0517 -0.0753 0.0122 0.0462 0.1434 0.0242 0.0713 -0.1017 -0.0739 -0.0957 0.0915 Product=Decaf Irish Cream

0.0017 -0.0791 -0.0374 -0.114 -0.2702 -0.0203 0.031 0.0277 0.0703 0.1954 -0.249 0.074 -0.2892 0.3621 0.1519 -0.1899 0.1733 -0.1645 -0.1225 0.1486 -0.119 -0.1339 -0.1118 0.1183 -0.0517 -0.0017 -0.0916 0.0088 -0.19 -0.1891 -0.1433 0.0921 Product=Caffe Latte

0.0006 -0.055 -0.0189 -0.1399 -0.2458 -0.0669 -0.0109 0.0493 0.0268 0.0477 0.3366 0.2037 0.1174 0.0209 0.239 0.2655 -0.4289 0.1025 0.0513 -0.2149 -0.0351 0.0568 0.042 -0.0797 0.0392 -0.0051 -0.052 0.1089 -0.0723 0.2781 0.1432 0.1671 Product=Caffe Mocha

0.0141 0.0912 0.0132 -0.0805 -0.2038 -0.0873 -0.0087 -0.0015 -0.0586 -0.4676 -0.1019 -0.0128 0.0606 -0.3034 -0.1335 -0.2668 -0.1249 -0.301 -0.0383 0.202 0.0502 0.0228 0.1024 0.0417 0.0317 -0.1226 0.0461 -0.0042 0.1597 -0.0402 0.1776 -0.187 Product=Decaf Espresso

-0.001 -0.0362 -0.0044 -0.0888 -0.2236 -0.0582 0.0143 0.0177 -0.0154 0.1387 0.0109 -0.3037 0.0984 -0.1565 -0.3106 0.1993 0.4133 0.3384 0.1326 -0.1124 0.1558 0.028 0.015 -0.0438 0.0128 0.1048 0.1417 -0.0752 0.1559 -0.065 -0.1768 -0.1261 Product=Regular Espresso

-0.0008 0.275 0.0848 0.0727 0.0814 -0.0695 0.0496 0.0285 0.0327 0.1886 -0.2689 -0.341 0.1126 -0.0383 0.3095 -0.015 -0.2557 0.0798 0.1377 -0.0583 -0.0691 0.0494 0.0441 -0.0215 -0.0681 -0.1059 -0.0601 0.0479 -0.2116 0.0215 -0.1872 -0.3183 Product=Chamomile

0.0076 0.2574 0.0458 0.0436 0.1028 -0.042 0.0586 0.0834 0.0091 0.0369 0.418 0.0704 -0.087 0.064 0.0514 -0.138 0.3692 -0.2348 0.2064 0.0367 -0.0085 -0.084 -0.0884 -0.0321 0.0311 0.0606 -0.002 -0.2526 -0.0945 0.0973 0.1713 0.2403 Product=Lemon

0.0112 0.238 0.059 0.0307 0.0962 -0.0287 0.0736 -0.0248 -0.0187 0.1484 -0.1138 0.3688 -0.0812 0.0367 -0.354 0.1689 -0.1001 0.1618 -0.3958 -0.008 0.0464 0.0728 -0.0101 0.0292 -0.0068 0.0466 0.009 0.1762 0.2856 -0.0828 0.0059 0.1571 Product=Mint

0.0149 -0.1897 -0.0053 -0.022 0.1915 -0.02 0.2159 0.0137 -0.0158 -0.0406 -0.115 0.0291 0.4159 0.1876 -0.0743 0.2425 0.0689 -0.4052 0.0751 0.0905 -0.0046 -0.0414 0.1118 -0.0597 -0.0295 -0.0504 0.0401 -0.0364 0.0994 0.2211 -0.2631 0.0359 Product=Darjeeling

-0.0031 -0.1664 -0.0083 -0.0356 0.1887 -0.0084 0.1758 -0.005 -0.0166 -0.103 -0.0816 0.0925 -0.2468 -0.4064 0.3312 0.0882 0.159 0.1388 -0.1003 -0.1085 0.0399 -0.1453 -0.2677 -0.0705 -0.0693 0.1966 -0.013 0.0514 -0.0387 -0.0294 0.2573 -0.1829 Product=Earl Grey

-0.0017 -0.1732 0.0011 -0.0057 0.1754 -0.01 0.1892 0.0102 -0.0269 -0.0915 0.1716 -0.1831 -0.1764 0.1967 -0.2231 -0.3553 -0.2625 0.3011 0.0684 -0.0008 -0.0588 0.1764 0.1656 0.121 0.078 -0.1392 -0.0021 0.0261 -0.0868 -0.2202 0.0286 0.1104 Product=Green Tea

0.013 0.4609 0.0765 0.0538 0.0099 -0.0532 -0.0478 -0.0015 -0.025 -0.3857 -0.0287 -0.0337 0.0273 0.0369 -0.0018 0.0176 -0.0149 -0.0035 0.0261 0.006 0.0124 -0.0174 -0.0058 0.0091 0.0271 0.0292 0.0283 0.0032 0.0107 -0.0172 0.0588 0.0181 Type=Decaf

Ranked attributes:

0.9076 1 -0.449Sales-0.436COGS-0.398Marketing-0.395Margin-0.387Total Expenses...

0.8521 2 0.503Product Type=Herbal Tea+0.461Type=Decaf-0.316Product Type=Tea+0.275Product=Chamomile+0.257Product=Lemon...

0.7983 3 -0.472Market=East+0.466Market=Central-0.352Market Size=Major Market-0.272State=New York-0.257State=Florida...

0.7476 4 -0.518Market=West-0.47State=California+0.283Market=East-0.254Product Type=Espresso+0.232Product Type=Coffee...

0.699 5 -0.554Product Type=Espresso+0.359Product Type=Tea-0.27Product=Caffe Latte-0.246Product=Caffe Mocha-0.224Product=Regular Espresso...

0.6518 6 -0.562Market=South-0.501State=Texas+0.291Market=West+0.263Product Type=Coffee+0.23 State=California...

0.6058 7 -0.493Product Type=Coffee+0.382Product Type=Tea-0.266Product=Amaretto-0.266Product=Decaf Irish Cream-0.265Market=South...

0.5689 8 -0.556Market Size=Major Market-0.31State=Illinois-0.286State=Ohio-0.25Market=Central+0.232State=Connecticut...

0.5359 9 -0.56ï»¿Profit+0.508Inventory-0.392Margin+0.288Marketing+0.279Total Expenses...

0.5087 10 -0.494Product=Decaf Irish Cream-0.468Product=Decaf Espresso-0.386Type=Decaf+0.245Product=Amaretto+0.226Product Type=Herbal Tea...

0.4853 11 0.418Product=Lemon+0.347State=Florida+0.337Product=Caffe Mocha-0.298State=Missouri-0.269Product=Chamomile...

0.4624 12 0.369Product=Mint-0.341Product=Chamomile-0.304Product=Regular Espresso+0.296Product=Columbian+0.249State=Illinois...

0.4397 13 -0.451State=New York+0.416Product=Darjeeling+0.325State=Massachusetts-0.289Product=Caffe Latte+0.276Product=Columbian...

0.4171 14 -0.406Product=Earl Grey+0.362Product=Caffe Latte+0.341Product=Decaf Irish Cream-0.303Product=Decaf Espresso+0.239State=Wisconsin...

0.3947 15 -0.354Product=Mint+0.331Product=Earl Grey+0.313State=Florida-0.311Product=Regular Espresso+0.309Product=Chamomile...

0.3726 16 -0.395Product=Columbian-0.355Product=Green Tea-0.267Product=Decaf Espresso+0.266Product=Caffe Mocha+0.253Product=Decaf Irish Cream...

0.3505 17 -0.429Product=Caffe Mocha+0.413Product=Regular Espresso+0.369Product=Lemon+0.325State=Nevada-0.263Product=Green Tea...

0.3287 18 -0.405Product=Darjeeling-0.371Product=Amaretto+0.338Product=Regular Espresso+0.301Product=Green Tea-0.301Product=Decaf Espresso...

0.307 19 -0.485State=Florida+0.398State=New York-0.396Product=Mint-0.264State=Ohio+0.256State=Colorado...

0.2859 20 -0.621State=Ohio+0.499State=Illinois-0.215Product=Caffe Mocha+0.202Product=Decaf Espresso+0.196Product=Amaretto...

0.2649 21 -0.541State=Washington-0.353State=Massachusetts+0.323State=Iowa-0.302State=Colorado+0.286State=California...

0.244 22 -0.568State=Oklahoma-0.324State=Massachusetts+0.319State=Texas+0.245State=Washington-0.243State=Louisiana...

0.2235 23 -0.517State=Connecticut+0.351State=Louisiana-0.268Product=Earl Grey-0.252State=Massachusetts+0.249State=New York...

0.203 24 -0.657State=Wisconsin+0.347State=Iowa+0.302State=Utah+0.263State=New Hampshire+0.247State=Colorado...

0.1826 25 -0.457State=New Hampshire+0.389State=Washington-0.359State=Oregon+0.346State=Missouri-0.31State=Colorado...

0.1622 26 0.546State=Louisiana-0.477State=Oklahoma+0.312State=Massachusetts-0.247State=Connecticut+0.232State=Iowa...

0.1421 27 0.591State=New Mexico-0.456State=Nevada+0.425State=Utah-0.332State=Connecticut-0.187State=Louisiana...

0.1221 28 0.507State=Nevada-0.376State=Washington-0.339State=Connecticut+0.268State=Iowa-0.262Product=Columbian...

0.1021 29 0.576State=Colorado-0.326State=New Mexico-0.305State=New Hampshire+0.286Product=Mint-0.223State=Illinois...

0.0825 30 -0.59State=Oregon+0.398State=Utah+0.278Product=Caffe Mocha-0.278State=Iowa+0.221Product=Darjeeling...

0.0631 31 0.474State=New Hampshire-0.3State=Utah+0.274State=Missouri-0.263Product=Darjeeling+0.257Product=Earl Grey...

0.0438 32 -0.351State=Washington-0.318Product=Chamomile+0.3 State=Missouri+0.244State=Utah-0.242State=New Hampshire...

Selected attributes: 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32 : 32

=== Run information ===

Evaluator: weka.attributeSelection.PrincipalComponents -R 0.95 -A 5

Search: weka.attributeSelection.Ranker -T -1.7976931348623157E308 -N -1

Relation: CoffeeChain\_CleansedData1

Instances: 4248

Attributes: 14-State

ï»¿Profit

Margin

Sales

COGS

Total Expenses

Marketing

Inventory

ProductId

State

Market

Market Size

Product Type

Product

Type

Evaluation mode: evaluate on all training data

=== Attribute Selection on all input data ===

Search Method:

Attribute ranking.

Attribute Evaluator (unsupervised):

Principal Components Attribute Transformer

Correlation matrix

1 0.92 0.8 0.46 0.2 0.23 -0.09 -0.06 -0.05 0.01 0.03 0.01 -0.03 0.02 0 -0 -0.02 0.01 0 0.02 -0.01 0.01 0.01 0.02 -0 -0.01 -0.01 -0.02 -0 0 -0.01

0.92 1 0.94 0.68 0.52 0.53 0.06 -0.08 -0.05 0.01 0.03 0 -0.03 0.03 0 -0.01 -0.02 0.01 0 0.02 -0.01 0.01 0 0.01 -0 -0.01 -0.01 -0.02 -0 0 -0.02

0.8 0.94 1 0.89 0.69 0.71 0.33 -0.05 -0.04 0.01 0.03 0 -0.02 0.03 -0.01 -0.01 -0.02 0.02 0 0.03 -0 0 -0.01 0.01 0 -0.01 -0.01 -0.02 0 0 -0.02

0.46 0.68 0.89 1 0.78 0.82 0.62 0 -0.02 -0 0.03 -0 -0.01 0.03 -0.02 0 -0.02 0.02 0 0.03 0 -0.01 -0.03 0 0.01 -0 -0.02 -0.02 0.01 0.01 -0.01

0.2 0.52 0.69 0.78 1 0.97 0.43 -0.07 -0.01 0.01 0.02 -0.02 0 0.02 -0.01 -0.02 0 0.02 -0 0.02 0 -0 -0.03 -0.01 0 -0 -0.01 -0.01 0.02 -0 -0.02

0.23 0.53 0.71 0.82 0.97 1 0.5 -0.04 -0 0.01 0.02 -0.02 0 0.02 -0.01 -0.01 0 0.02 -0 0.02 0 -0.01 -0.02 -0.01 0 -0 -0.01 -0.01 0.01 0 -0.02

-0.09 0.06 0.33 0.62 0.43 0.5 1 0.07 0.02 -0.02 -0.01 0.01 0.01 0.02 -0.02 0.02 -0.02 0.02 0.01 0.01 0.01 -0 -0.03 -0.02 0.02 0.01 -0.01 -0.02 -0.01 0.01 0

-0.06 -0.08 -0.05 0 -0.07 -0.04 0.07 1 0.03 0 -0.03 -0 0 -0.04 -0.01 0.04 0 -0.02 -0.01 -0.02 -0.02 -0.01 0 0.03 0.03 0.02 -0 0.02 0 -0.02 0.04

-0.05 -0.05 -0.04 -0.02 -0.01 -0 0.02 0.03 1 -0.37 -0.3 -0.41 0.23 0.04 -0.01 -0.01 -0.02 0.01 0.04 0.01 0.02 -0.02 -0.01 -0.01 -0.01 0.01 -0.01 -0 -0.02 -0.01 -0

0.01 0.01 0.01 -0 0.01 0.01 -0.02 0 -0.37 1 -0.26 -0.35 0.03 -0.03 0.02 0 0 -0.04 -0.02 0.03 0.01 0.02 -0 -0.01 -0.01 0.02 0.02 -0.01 0.01 -0.02 0.03

0.03 0.03 0.03 0.03 0.02 0.02 -0.01 -0.03 -0.3 -0.26 1 -0.29 -0 0 -0 -0.02 0.02 0.01 0.01 -0.03 -0.03 0.02 0.01 -0 0.01 -0.01 -0.02 0.01 0.02 0.01 -0.02

0.01 0 0 -0 -0.02 -0.02 0.01 -0 -0.41 -0.35 -0.29 1 -0.25 -0.02 -0 0.02 0 0.01 -0.02 -0.02 0.01 -0.02 0.01 0.01 0.02 -0.02 0.01 0 -0.01 0.01 -0.01

-0.03 -0.03 -0.02 -0.01 0 0 0.01 0 0.23 0.03 -0 -0.25 1 -0.03 0.03 0.01 -0 -0.03 -0.03 0 0.01 -0 0.02 0 -0 -0.01 0.03 -0 0.01 -0.01 0.03

0.02 0.03 0.03 0.03 0.02 0.02 0.02 -0.04 0.04 -0.03 0 -0.02 -0.03 1 -0.36 -0.3 -0.29 0.53 0.49 0.49 -0.16 -0.16 -0.16 -0.16 -0.16 -0.15 -0.15 -0.15 -0.11 -0.12 -0.09

0 0 -0.01 -0.02 -0.01 -0.01 -0.02 -0.01 -0.01 0.02 -0 -0 0.03 -0.36 1 -0.37 -0.37 -0.19 -0.16 -0.16 0.45 0.44 0.35 0.37 -0.2 -0.19 -0.19 -0.19 -0.19 -0.19 -0.08

-0 -0.01 -0.01 0 -0.02 -0.01 0.02 0.04 -0.01 0 -0.02 0.02 0.01 -0.3 -0.37 1 -0.3 -0.16 -0.16 -0.16 -0.17 -0.17 -0.06 -0.09 0.52 0.45 0.45 -0.16 -0.15 -0.16 0.51

-0.02 -0.02 -0.02 -0.02 0 0 -0.02 0 -0.02 0 0.02 0 -0 -0.29 -0.37 -0.3 1 -0.15 -0.15 -0.15 -0.16 -0.16 -0.16 -0.16 -0.16 -0.09 -0.09 0.53 0.48 0.48 -0.33

0.01 0.01 0.02 0.02 0.02 0.02 0.02 -0.02 0.01 -0.04 0.01 0.01 -0.03 0.53 -0.19 -0.16 -0.15 1 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.22

0 0 0 0 -0 -0 0.01 -0.01 0.04 -0.02 0.01 -0.02 -0.03 0.49 -0.16 -0.16 -0.15 -0.08 1 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.2

0.02 0.02 0.03 0.03 0.02 0.02 0.01 -0.02 0.01 0.03 -0.03 -0.02 0 0.49 -0.16 -0.16 -0.15 -0.08 -0.08 1 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 0.3

-0.01 -0.01 -0 0 0 0 0.01 -0.02 0.02 0.01 -0.03 0.01 0.01 -0.16 0.45 -0.17 -0.16 -0.09 -0.09 -0.09 1 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.08 -0.08 -0.21

0.01 0.01 0 -0.01 -0 -0.01 -0 -0.01 -0.02 0.02 0.02 -0.02 -0 -0.16 0.44 -0.17 -0.16 -0.09 -0.09 -0.09 -0.09 1 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.08 -0.08 -0.11

0.01 0 -0.01 -0.03 -0.03 -0.02 -0.03 0 -0.01 -0 0.01 0.01 0.02 -0.16 0.35 -0.06 -0.16 -0.09 -0.09 -0.09 -0.09 -0.09 1 -0.09 -0.09 -0.09 -0.09 -0.09 -0.08 -0.08 0.3

0.02 0.01 0.01 0 -0.01 -0.01 -0.02 0.03 -0.01 -0.01 -0 0.01 0 -0.16 0.37 -0.09 -0.16 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 1 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.11

-0 -0 0 0.01 0 0 0.02 0.03 -0.01 -0.01 0.01 0.02 -0 -0.16 -0.2 0.52 -0.16 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 1 -0.08 -0.08 -0.08 -0.08 -0.08 0.28

-0.01 -0.01 -0.01 -0 -0 -0 0.01 0.02 0.01 0.02 -0.01 -0.02 -0.01 -0.15 -0.19 0.45 -0.09 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 1 -0.08 -0.08 -0.08 -0.08 0.3

-0.01 -0.01 -0.01 -0.02 -0.01 -0.01 -0.01 -0 -0.01 0.02 -0.02 0.01 0.03 -0.15 -0.19 0.45 -0.09 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 1 -0.08 -0.08 -0.08 0.23

-0.02 -0.02 -0.02 -0.02 -0.01 -0.01 -0.02 0.02 -0 -0.01 0.01 0 -0 -0.15 -0.19 -0.16 0.53 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 -0.08 1 -0.08 -0.08 -0.21

-0 -0 0 0.01 0.02 0.01 -0.01 0 -0.02 0.01 0.02 -0.01 0.01 -0.11 -0.19 -0.15 0.48 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 1 -0.08 -0.18

0 0 0 0.01 -0 0 0.01 -0.02 -0.01 -0.02 0.01 0.01 -0.01 -0.12 -0.19 -0.16 0.48 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 1 -0.18

-0.01 -0.02 -0.02 -0.01 -0.02 -0.02 0 0.04 -0 0.03 -0.02 -0.01 0.03 -0.09 -0.08 0.51 -0.33 -0.22 -0.2 0.3 -0.21 -0.11 0.3 -0.11 0.28 0.3 0.23 -0.21 -0.18 -0.18 1

eigenvalue proportion cumulative

4.61114 0.14875 0.14875 0.45 Sales+0.436COGS+0.399Marketing+0.396Margin+0.388Total Expenses...

2.75949 0.08902 0.23776 0.531Product Type=Herbal Tea+0.476Type=Decaf-0.321Product Type=Tea+0.298Product=Chamomile+0.267Product=Lemon...

2.43137 0.07843 0.31619 -0.624Product Type=Espresso+0.324Product Type=Tea-0.291Product=Caffe Latte-0.291Product=Caffe Mocha-0.245Product=Regular Espresso...

2.31963 0.07483 0.39102 -0.592Product Type=Coffee+0.414Product Type=Tea-0.322Product=Amaretto-0.315Product=Decaf Irish Cream-0.308Product=Columbian...

1.70436 0.05498 0.446 0.459ï»¿Profit-0.427Inventory-0.388Market=East+0.318Margin+0.309Market=Central...

1.56728 0.05056 0.49656 0.57 Market=Central-0.416Market=East-0.402Market Size=Major Market-0.306ï»¿Profit+0.301Inventory...

1.3851 0.04468 0.54124 -0.582Market=West-0.397Product=Decaf Irish Cream+0.397Market=East-0.256Type=Decaf-0.241Product=Decaf Espresso...

1.31407 0.04239 0.58363 0.478Market=West-0.404Product=Decaf Espresso-0.356Product=Decaf Irish Cream-0.301Market=Central-0.293Type=Decaf...

1.25705 0.04055 0.62418 0.827Market=South-0.342Market=West-0.204Product=Caffe Latte-0.198Market=Central+0.183Product=Decaf Espresso...

1.10775 0.03573 0.65991 -0.5Product=Regular Espresso-0.428ProductId+0.396Product=Mint+0.366Product=Caffe Latte+0.264Product=Green Tea...

1.08788 0.03509 0.695 -0.519Product=Lemon+0.438Product=Mint+0.415Product=Regular Espresso-0.373Product=Caffe Mocha-0.287Product=Green Tea...

1.08501 0.035 0.73 0.592Product=Caffe Mocha-0.372Product=Lemon-0.361Product=Caffe Latte-0.338Product=Decaf Espresso+0.25 Product=Mint...

1.08287 0.03493 0.76494 -0.601Product=Chamomile+0.409Product=Lemon+0.325Product=Regular Espresso-0.298Product=Caffe Latte+0.272Product=Amaretto...

1.08095 0.03487 0.7998 0.637Product=Darjeeling-0.455Product=Green Tea-0.32Product=Regular Espresso+0.285Product=Amaretto-0.252Product=Earl Grey...

1.07941 0.03482 0.83462 -0.659Product=Columbian+0.353Product=Amaretto-0.323Product=Mint-0.311Product=Decaf Espresso+0.283Product=Decaf Irish Cream...

1.07408 0.03465 0.86927 -0.669Product=Earl Grey-0.386Product=Caffe Mocha+0.316Product=Darjeeling+0.314Product=Green Tea+0.255Product=Caffe Latte...

1.06387 0.03432 0.90359 0.411Product=Decaf Espresso+0.406Product=Amaretto-0.348Product=Decaf Irish Cream+0.342Product=Green Tea+0.313Product=Chamomile...

0.97239 0.03137 0.93496 0.85 ProductId+0.227Product=Caffe Latte-0.213Product=Regular Espresso+0.195Product=Mint+0.148Market=South...

0.79465 0.02563 0.96059 -0.855Market Size=Major Market-0.366Market=Central+0.319Market=East-0.097Product=Lemon+0.09 Product=Mint...

Eigenvectors

V1 V2 V3 V4 V5 V6 V7 V8 V9 V10 V11 V12 V13 V14 V15 V16 V17 V18 V19

0.2988 0.0038 -0.0326 0.0063 0.4592 -0.3061 0.1162 -0.0204 -0.064 -0.0329 -0.0264 -0.0007 -0.0193 0.0098 0.014 -0.008 0.0109 0.1042 -0.0187 ï»¿Profit

0.3955 0.0032 -0.0269 0.0124 0.3179 -0.2184 0.0785 -0.0174 -0.0483 -0.0121 -0.0167 -0.0025 -0.0122 0.0139 0.0078 -0.0032 0.0011 0.0406 -0.0058 Margin

0.4499 0.0079 -0.0145 0.0163 0.1411 -0.0985 0.0432 -0.0146 -0.0284 -0.0194 -0.0084 -0.0009 -0.0065 0.007 -0 -0.0017 0.0059 0.0482 -0.0098 Sales

0.4363 0.0124 0.0055 0.0178 -0.128 0.0856 -0.0132 -0.0089 0.0061 -0.0247 0.0041 0.0012 0.0026 -0.0047 -0.0101 0.002 0.0102 0.0468 -0.013 COGS

0.3883 0.0005 0.0101 0.0252 -0.2384 0.1366 -0.068 0.012 0.0277 0.0418 0.0255 -0.0063 0.0119 0.013 -0.018 -0 -0.0163 -0.1329 0.0296 Total Expenses

0.3992 0.0054 0.0102 0.0251 -0.2494 0.1435 -0.0658 0.0053 0.0274 0.0261 0.0241 -0.0075 0.0127 0.0068 -0.0188 0.0011 -0.0101 -0.0931 0.0249 Marketing

0.2163 0.0208 0.0231 0.0076 -0.4268 0.3009 -0.0697 -0.0067 0.0403 -0.0258 -0.0055 0.0149 0.0131 -0.015 -0.0293 0.0093 0.0304 0.0796 -0.0284 Inventory

-0.0291 0.0357 0.0085 0.0309 -0.1072 0.047 0.014 -0.0472 -0.0652 -0.4277 0.0401 -0.0095 -0.0238 0.0248 -0.0352 -0.0499 0.1351 0.8502 -0.0382 ProductId

-0.0181 0.0009 0.0068 -0.0578 -0.3884 -0.4159 0.3966 -0.2895 -0.1738 -0.0077 -0.0522 0.0447 0.0102 0.0158 0.0066 -0.083 0.014 -0.0507 0.3185 Market=East

0.0052 0.0209 -0.0209 0.0289 0.0313 -0.1152 -0.5819 0.4783 -0.3417 -0.062 0.0107 -0.0496 -0.0199 -0.0086 -0.0145 0.0438 0.2033 -0.0349 0.0406 Market=West

0.0194 -0.0252 0.0098 0.0134 0.0678 -0.0439 -0.0246 0.1689 0.8265 0.0487 0.0388 -0.0355 -0.0095 -0.0297 0.0463 0.1342 -0.19 0.1476 0.0032 Market=South

-0.0029 0.0006 0.0045 0.0203 0.3089 0.5701 0.1676 -0.3005 -0.1978 0.0254 0.0103 0.0315 0.0164 0.0171 -0.0321 -0.0703 -0.0462 -0.04 -0.3659 Market=Central

-0.0094 0.0213 -0.0252 0.014 -0.2765 -0.402 0.0197 0.0142 0.0037 0.0749 0.1312 0.0444 -0.0085 -0.0051 0.0346 0.0074 0.0328 -0.0284 -0.8552 Market Size=Major Market

0.0307 -0.1171 0.2243 -0.5923 0.0175 0.0029 -0.0446 -0.0083 0.0028 -0.008 0.0054 -0.0004 -0.0016 -0.0001 0.0006 0.0014 0.0036 0.019 -0.027 Product Type=Coffee

-0.0077 -0.0892 -0.6239 0.0331 -0.0279 0.0158 -0.0297 -0.0405 0.0148 -0.003 -0.0009 0.0006 0.0015 -0.0005 -0.0011 0.0004 -0.0036 0.0023 0.012 Product Type=Espresso

-0.0103 0.5306 0.1423 0.1366 0.011 0.0299 0.1668 0.1646 -0.0169 0.0104 -0.0001 -0.0026 -0.0004 0.0012 0.0006 0.0026 0.0012 -0.0188 0.0061 Product Type=Herbal Tea

-0.0116 -0.3209 0.3235 0.414 0.0023 -0.0506 -0.0914 -0.1131 -0.002 0.0007 -0.0043 0.0024 0.0004 -0.0006 -0 -0.0044 -0.0009 -0.0025 0.0073 Product Type=Tea

0.0194 -0.1115 0.1238 -0.3222 0.0173 0.0793 0.1667 0.1733 0.056 0.1589 0.1505 -0.1138 0.2722 0.2853 0.353 -0.1651 0.4058 0.0401 0.0036 Product=Amaretto

0.0067 -0.1022 0.1037 -0.3083 -0.0075 0 0.1398 0.1637 -0.0015 -0.181 -0.1341 -0.1085 -0.2181 -0.1897 -0.6594 0.0584 -0.0728 -0.0797 -0.0693 Product=Columbian

0.0205 0.0399 0.1033 -0.3146 0.0094 -0.072 -0.3969 -0.3556 -0.064 -0.0155 -0.0106 0.2301 -0.0771 -0.0729 0.2834 0.1362 -0.3484 0.0617 0.0173 Product=Decaf Irish Cream

-0.0009 -0.0945 -0.2914 0.0195 -0.0744 0.0555 0.1271 0.1284 -0.2042 0.3658 -0.1047 -0.3612 -0.2979 0.002 0.217 0.2551 -0.2672 0.2274 0.0035 Product=Caffe Latte

-0.0009 -0.0657 -0.291 0.0193 -0.0069 0.0114 -0.0327 0.1297 0.0863 -0.0121 -0.3734 0.5924 0.0364 0.1912 -0.0643 -0.3864 -0.0193 0.0075 -0.0279 Product=Caffe Mocha

-0.0142 0.09 -0.2345 0.0181 0.0433 -0.064 -0.2406 -0.4041 0.183 0.1018 0.1373 -0.3383 -0.0086 0.1178 -0.3111 -0.0827 0.4114 -0.0438 0.0338 Product=Decaf Espresso

0.0006 -0.0404 -0.2453 0.0246 0.0169 0.0254 0.1203 0.054 -0.0197 -0.5002 0.4154 0.06 0.3254 -0.3198 0.1456 0.2169 -0.0559 -0.2126 0.028 Product=Regular Espresso

0.0002 0.2978 0.0851 0.0705 0.011 0.0693 0.1568 0.0933 0.0779 -0.1115 0.0137 0.1513 -0.6005 -0.1621 0.2542 -0.0072 0.3127 -0.1251 0.008 Product=Chamomile

-0.0077 0.2673 0.0932 0.0821 -0.0279 -0.0243 0.0228 0.0658 -0.0064 -0.2085 -0.5186 -0.3722 0.4094 0.0964 0.0767 -0.0299 -0.1929 -0.0708 -0.0971 Product=Lemon

-0.0112 0.2461 0.091 0.0842 0.0122 -0.0066 0.0673 0.1491 -0.1238 0.3957 0.4382 0.2498 0.2292 0.1003 -0.3225 0.037 -0.222 0.1947 0.0905 Product=Mint

-0.0156 -0.1906 0.1745 0.2308 -0.0042 -0.0242 -0.0169 -0.0725 -0.0026 -0.2526 0.0789 0.0554 -0.1732 0.6368 -0.0409 0.316 -0.0582 -0.1232 -0.0029 Product=Darjeeling

0.0025 -0.1718 0.1648 0.1968 0.0005 -0.0422 -0.0997 -0.0059 0.0053 -0.0126 0.2052 -0.2291 -0.1088 -0.2522 0.083 -0.6687 -0.2423 0.0017 0.0189 Product=Earl Grey

0.0016 -0.1737 0.1676 0.1975 0.0123 -0.0101 -0.0151 -0.1178 0.0114 0.2642 -0.2868 0.1854 0.2261 -0.4549 -0.0118 0.314 0.342 0.1201 -0.007 Product=Green Tea

-0.013 0.4756 0.0051 -0.026 0.0129 -0.0615 -0.2562 -0.2935 0.0613 0.0043 -0.0072 0.0053 0.0023 -0.0014 0.0018 -0.0013 -0.0219 0.0019 0.0179 Type=Decaf

Ranked attributes:

0.8513 1 0.45 Sales+0.436COGS+0.399Marketing+0.396Margin+0.388Total Expenses...

0.7622 2 0.531Product Type=Herbal Tea+0.476Type=Decaf-0.321Product Type=Tea+0.298Product=Chamomile+0.267Product=Lemon...

0.6838 3 -0.624Product Type=Espresso+0.324Product Type=Tea-0.291Product=Caffe Latte-0.291Product=Caffe Mocha-0.245Product=Regular Espresso...

0.609 4 -0.592Product Type=Coffee+0.414Product Type=Tea-0.322Product=Amaretto-0.315Product=Decaf Irish Cream-0.308Product=Columbian...

0.554 5 0.459ï»¿Profit-0.427Inventory-0.388Market=East+0.318Margin+0.309Market=Central...

0.5034 6 0.57 Market=Central-0.416Market=East-0.402Market Size=Major Market-0.306ï»¿Profit+0.301Inventory...

0.4588 7 -0.582Market=West-0.397Product=Decaf Irish Cream+0.397Market=East-0.256Type=Decaf-0.241Product=Decaf Espresso...

0.4164 8 0.478Market=West-0.404Product=Decaf Espresso-0.356Product=Decaf Irish Cream-0.301Market=Central-0.293Type=Decaf...

0.3758 9 0.827Market=South-0.342Market=West-0.204Product=Caffe Latte-0.198Market=Central+0.183Product=Decaf Espresso...

0.3401 10 -0.5Product=Regular Espresso-0.428ProductId+0.396Product=Mint+0.366Product=Caffe Latte+0.264Product=Green Tea...

0.305 11 -0.519Product=Lemon+0.438Product=Mint+0.415Product=Regular Espresso-0.373Product=Caffe Mocha-0.287Product=Green Tea...

0.27 12 0.592Product=Caffe Mocha-0.372Product=Lemon-0.361Product=Caffe Latte-0.338Product=Decaf Espresso+0.25 Product=Mint...

0.2351 13 -0.601Product=Chamomile+0.409Product=Lemon+0.325Product=Regular Espresso-0.298Product=Caffe Latte+0.272Product=Amaretto...

0.2002 14 0.637Product=Darjeeling-0.455Product=Green Tea-0.32Product=Regular Espresso+0.285Product=Amaretto-0.252Product=Earl Grey...

0.1654 15 -0.659Product=Columbian+0.353Product=Amaretto-0.323Product=Mint-0.311Product=Decaf Espresso+0.283Product=Decaf Irish Cream...

0.1307 16 -0.669Product=Earl Grey-0.386Product=Caffe Mocha+0.316Product=Darjeeling+0.314Product=Green Tea+0.255Product=Caffe Latte...

0.0964 17 0.411Product=Decaf Espresso+0.406Product=Amaretto-0.348Product=Decaf Irish Cream+0.342Product=Green Tea+0.313Product=Chamomile...

0.065 18 0.85 ProductId+0.227Product=Caffe Latte-0.213Product=Regular Espresso+0.195Product=Mint+0.148Market=South...

0.0394 19 -0.855Market Size=Major Market-0.366Market=Central+0.319Market=East-0.097Product=Lemon+0.09 Product=Mint...

Selected attributes: 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19 : 19

=== Run information ===

Evaluator: weka.attributeSelection.PrincipalComponents -R 0.95 -A 5

Search: weka.attributeSelection.Ranker -T -1.7976931348623157E308 -N -1

Relation: CoffeeChain\_CleansedData1

Instances: 4248

Attributes: 14-Market

ï»¿Profit

Margin

Sales

COGS

Total Expenses

Marketing

Inventory

ProductId

State

Market

Market Size

Product Type

Product

Type

Evaluation mode: evaluate on all training data

=== Attribute Selection on all input data ===

Search Method:

Attribute ranking.

Attribute Evaluator (unsupervised):

Principal Components Attribute Transformer

Correlation matrix

1 0.92 0.8 0.46 0.2 0.23 -0.09 -0.06 -0.02 0.03 0.01 0.03 0 -0 -0.01 0.02 -0.04 0 -0.02 0.01 0.04 -0.05 -0.01 -0 -0.02 0.02 0 0.01 -0.03 0.02 0 -0 -0.02 0.01 0 0.02 -0.01 0.01 0.01 0.02 -0 -0.01 -0.01 -0.02 -0 0 -0.01

0.92 1 0.94 0.68 0.52 0.53 0.06 -0.08 -0.01 0.03 0.01 0.03 -0 -0 -0.01 0.02 -0.04 -0.01 -0.03 0.01 0.03 -0.03 -0.01 -0.01 -0.02 0.03 -0 0 -0.03 0.03 0 -0.01 -0.02 0.01 0 0.02 -0.01 0.01 0 0.01 -0 -0.01 -0.01 -0.02 -0 0 -0.02

0.8 0.94 1 0.89 0.69 0.71 0.33 -0.05 0 0.02 0.01 0.03 -0.01 -0.01 0 0.02 -0.03 -0.02 -0.02 0.01 0.03 -0.02 -0.01 -0.01 -0.01 0.03 -0 0.01 -0.02 0.03 -0.01 -0.01 -0.02 0.02 0 0.03 -0 0 -0.01 0.01 0 -0.01 -0.01 -0.02 0 0 -0.02

0.46 0.68 0.89 1 0.78 0.82 0.62 0 0.01 -0 -0 0.03 -0.01 -0.01 0.01 0.01 -0.02 -0.03 -0.02 0.02 0.02 0 -0.01 -0.02 0.01 0.03 -0.01 0.01 -0.01 0.03 -0.02 0 -0.02 0.02 0 0.03 0 -0.01 -0.03 0 0.01 -0 -0.02 -0.02 0.01 0.01 -0.01

0.2 0.52 0.69 0.78 1 0.97 0.43 -0.07 0.03 -0 0.02 0.02 -0.02 -0.01 -0 0.01 -0 -0.03 -0.03 0.01 0 0.01 -0.02 -0.02 0.02 0.03 -0.01 -0.01 0 0.02 -0.01 -0.02 0 0.02 -0 0.02 0 -0 -0.03 -0.01 0 -0 -0.01 -0.01 0.02 -0 -0.02

0.23 0.53 0.71 0.82 0.97 1 0.5 -0.04 0.02 -0.01 0.02 0.02 -0.02 -0.01 -0 0.01 -0 -0.03 -0.03 0.01 0 0.01 -0.01 -0.02 0.02 0.03 -0.01 -0 0 0.02 -0.01 -0.01 0 0.02 -0 0.02 0 -0.01 -0.02 -0.01 0 -0 -0.01 -0.01 0.01 0 -0.02

-0.09 0.06 0.33 0.62 0.43 0.5 1 0.07 0.01 -0.01 -0.02 -0.01 0.01 -0 0.02 -0.01 -0 -0.02 -0 0.02 -0.01 0.03 0 -0.02 0.01 0.01 -0.02 0.01 0.01 0.02 -0.02 0.02 -0.02 0.02 0.01 0.01 0.01 -0 -0.03 -0.02 0.02 0.01 -0.01 -0.02 -0.01 0.01 0

-0.06 -0.08 -0.05 0 -0.07 -0.04 0.07 1 0 -0 -0.01 -0.03 0.03 -0.01 -0.02 -0.01 -0.01 0 0.05 0 -0.02 0.03 -0.01 -0.02 0.03 0.01 0.01 0.02 0 -0.04 -0.01 0.04 0 -0.02 -0.01 -0.02 -0.02 -0.01 0 0.03 0.03 0.02 -0 0.02 0 -0.02 0.04

-0.02 -0.01 0 0.01 0.03 0.02 0.01 0 1 -0.02 -0.07 -0.05 -0.05 -0.04 -0.04 -0.02 -0.05 -0.03 -0.02 -0.03 -0.03 -0.04 -0.02 -0.02 -0.02 -0.01 -0.02 -0.02 -0.23 0 0.02 -0.03 0.01 0.01 -0.01 -0 -0.01 0.01 0.02 0.01 -0.01 -0 -0.03 -0.01 0.01 0.01 -0

0.03 0.03 0.02 -0 -0 -0.01 -0.01 -0 -0.02 1 -0.06 -0.05 -0.05 -0.03 -0.04 -0.02 -0.05 -0.03 -0.02 -0.03 -0.03 -0.03 -0.02 -0.01 -0.02 -0.01 -0.02 -0.02 -0.22 -0.02 0.01 -0 0.01 -0.01 -0.02 0 0 0.02 -0.01 -0.01 -0.01 0.02 0.02 -0.01 -0 0 -0.02

0.01 0.01 0.01 -0 0.02 0.02 -0.02 -0.01 -0.07 -0.06 1 -0.18 -0.16 -0.12 -0.13 -0.06 -0.16 -0.09 -0.07 -0.11 -0.09 -0.12 -0.07 -0.05 -0.06 -0.03 -0.06 -0.06 0.28 -0.04 0.02 0.01 0.01 -0.03 -0.04 0.02 0.01 0.02 -0 -0 -0.01 0.01 0.03 -0 0.01 -0 0.03

0.03 0.03 0.03 0.03 0.02 0.02 -0.01 -0.03 -0.05 -0.05 -0.18 1 -0.13 -0.1 -0.11 -0.05 -0.13 -0.07 -0.06 -0.09 -0.08 -0.1 -0.06 -0.04 -0.05 -0.02 -0.05 -0.05 0.23 -0.02 0.02 -0.03 0.03 -0.01 -0 -0.03 -0.01 0.01 0.02 0 0.01 -0.03 -0.01 0.03 0.02 0 -0.02

0 -0 -0.01 -0.01 -0.02 -0.02 0.01 0.03 -0.05 -0.05 -0.16 -0.13 1 -0.09 -0.1 -0.05 -0.12 -0.07 -0.05 -0.08 -0.07 -0.09 -0.06 -0.04 -0.04 -0.02 -0.04 -0.04 0.21 0.05 -0.03 0 -0.01 0.02 0.03 0.03 0.01 -0.03 -0.01 -0.02 -0.02 0 0.01 -0.01 0.01 -0.01 -0

-0 -0 -0.01 -0.01 -0.01 -0.01 -0 -0.01 -0.04 -0.03 -0.12 -0.1 -0.09 1 -0.07 -0.04 -0.09 -0.05 -0.04 -0.06 -0.05 -0.06 -0.04 -0.03 -0.03 -0.02 -0.03 -0.03 0.15 -0.01 0.01 0 -0.01 0.01 -0.03 0.01 0 -0.02 0.04 0.01 0 -0.02 0.02 -0.02 -0.01 -0 0.03

-0.01 -0.01 0 0.01 -0 -0 0.02 -0.02 -0.04 -0.04 -0.13 -0.11 -0.1 -0.07 1 -0.04 -0.09 -0.05 -0.04 -0.07 -0.06 -0.07 -0.04 -0.03 -0.03 -0.02 -0.03 -0.04 0.17 -0.03 -0 0.03 -0 -0.01 -0.02 -0.01 -0.02 0 0.02 0 -0 -0 0.03 0 0.01 -0 0.01

0.02 0.02 0.02 0.01 0.01 0.01 -0.01 -0.01 -0.02 -0.02 -0.06 -0.05 -0.05 -0.04 -0.04 1 -0.05 -0.03 -0.02 -0.03 -0.03 -0.03 -0.02 -0.01 -0.02 -0.01 -0.02 -0.02 -0.23 0.01 -0.01 0.01 -0.01 0.02 0 -0.01 -0.02 0.02 0.02 -0 -0 0.01 -0.02 -0.02 0 0.01 0.01

-0.04 -0.04 -0.03 -0.02 -0 -0 -0 -0.01 -0.05 -0.05 -0.16 -0.13 -0.12 -0.09 -0.09 -0.05 1 -0.07 -0.05 -0.08 -0.07 -0.08 -0.05 -0.04 -0.04 -0.02 -0.04 -0.04 0.2 -0 -0 0.02 -0.01 -0.01 0 0 0 0.01 -0.01 -0 0 0.04 -0.01 -0.01 -0.01 -0 0.02

0 -0.01 -0.02 -0.03 -0.03 -0.03 -0.02 0 -0.03 -0.03 -0.09 -0.07 -0.07 -0.05 -0.05 -0.03 -0.07 1 -0.03 -0.05 -0.04 -0.05 -0.03 -0.02 -0.02 -0.01 -0.02 -0.03 -0.32 0.01 0.02 -0.02 -0.01 -0 0.01 0.01 0.02 0 0.01 -0.01 -0.02 -0 -0.01 -0.01 -0.02 0.02 -0.01

-0.02 -0.03 -0.02 -0.02 -0.03 -0.03 -0 0.05 -0.02 -0.02 -0.07 -0.06 -0.05 -0.04 -0.04 -0.02 -0.05 -0.03 1 -0.04 -0.03 -0.04 -0.03 -0.02 -0.02 -0.01 -0.02 -0.02 0.1 0.01 0.01 -0 -0.01 0.02 -0.01 0 0.02 0 -0.01 0.02 0.02 -0.01 -0.03 -0.01 -0.01 0.01 -0.02

0.01 0.01 0.01 0.02 0.01 0.01 0.02 0 -0.03 -0.03 -0.11 -0.09 -0.08 -0.06 -0.07 -0.03 -0.08 -0.05 -0.04 1 -0.05 -0.06 -0.04 -0.02 -0.03 -0.01 -0.03 -0.03 -0.39 -0.01 -0.02 0 0.03 0.02 -0.01 -0.02 0.02 -0.02 -0.03 0.01 0.05 -0.04 -0.01 0.02 0.01 0.01 -0.02

0.04 0.03 0.03 0.02 0 0 -0.01 -0.02 -0.03 -0.03 -0.09 -0.08 -0.07 -0.05 -0.06 -0.03 -0.07 -0.04 -0.03 -0.05 1 -0.05 -0.03 -0.02 -0.02 -0.01 -0.02 -0.03 -0.33 0.01 -0.03 0.02 0.01 0 0.01 -0.02 -0.02 0.01 -0.02 -0.01 0 0.02 -0 0.02 -0.01 0.01 -0.02

-0.05 -0.03 -0.02 0 0.01 0.01 0.03 0.03 -0.04 -0.03 -0.12 -0.1 -0.09 -0.06 -0.07 -0.03 -0.08 -0.05 -0.04 -0.06 -0.05 1 -0.04 -0.03 -0.03 -0.02 -0.03 -0.03 0.15 -0.01 0.02 -0 -0.01 -0.01 0.03 -0.03 0.02 -0 0 0.01 0.01 -0.02 -0 0.02 -0.02 -0.01 -0.01

-0.01 -0.01 -0.01 -0.01 -0.02 -0.01 0 -0.01 -0.02 -0.02 -0.07 -0.06 -0.06 -0.04 -0.04 -0.02 -0.05 -0.03 -0.03 -0.04 -0.03 -0.04 1 -0.02 -0.02 -0.01 -0.02 -0.02 -0.26 0.03 -0.05 0.01 0 0.02 0.02 0.01 -0.03 0.01 -0.02 -0.02 -0.01 0.03 -0.01 -0 0 0.01 -0.01

-0 -0.01 -0.01 -0.02 -0.02 -0.02 -0.02 -0.02 -0.02 -0.01 -0.05 -0.04 -0.04 -0.03 -0.03 -0.01 -0.04 -0.02 -0.02 -0.02 -0.02 -0.03 -0.02 1 -0.01 -0.01 -0.01 -0.01 -0.17 0.02 -0.02 -0 -0 -0 0.03 0.02 -0.01 -0.02 0.02 -0.02 0 -0 0 -0.02 0.02 -0.01 0.03

-0.02 -0.02 -0.01 0.01 0.02 0.02 0.01 0.03 -0.02 -0.02 -0.06 -0.05 -0.04 -0.03 -0.03 -0.02 -0.04 -0.02 -0.02 -0.03 -0.02 -0.03 -0.02 -0.01 1 -0.01 -0.01 -0.02 -0.19 0.01 0.01 -0.01 -0.01 -0.01 0.02 0.01 0 0.02 0 -0.02 -0 -0.01 -0.01 0.01 0.01 -0.03 -0

0.02 0.03 0.03 0.03 0.03 0.03 0.01 0.01 -0.01 -0.01 -0.03 -0.02 -0.02 -0.02 -0.02 -0.01 -0.02 -0.01 -0.01 -0.01 -0.01 -0.02 -0.01 -0.01 -0.01 1 -0.01 -0.01 -0.1 0.01 -0 0.01 -0.02 0.04 -0 -0.02 -0.02 0.01 -0 0.03 0.01 0.01 -0.02 -0.02 -0.02 -0 -0.01

0 -0 -0 -0.01 -0.01 -0.01 -0.02 0.01 -0.02 -0.02 -0.06 -0.05 -0.04 -0.03 -0.03 -0.02 -0.04 -0.02 -0.02 -0.03 -0.02 -0.03 -0.02 -0.01 -0.01 -0.01 1 -0.02 -0.2 0.03 -0 -0.02 -0 0.01 0.02 0.02 0.01 -0.01 -0.02 0.01 -0.02 -0.01 0 0.02 -0.03 0 -0.03

0.01 0 0.01 0.01 -0.01 -0 0.01 0.02 -0.02 -0.02 -0.06 -0.05 -0.04 -0.03 -0.04 -0.02 -0.04 -0.03 -0.02 -0.03 -0.03 -0.03 -0.02 -0.01 -0.02 -0.01 -0.02 1 -0.21 0.02 -0.01 0 -0.01 0.01 0.01 0.01 -0.01 -0.02 0 0.02 0 0.02 -0.02 -0.01 -0 -0.01 -0

-0.03 -0.03 -0.02 -0.01 0 0 0.01 0 -0.23 -0.22 0.28 0.23 0.21 0.15 0.17 -0.23 0.2 -0.32 0.1 -0.39 -0.33 0.15 -0.26 -0.17 -0.19 -0.1 -0.2 -0.21 1 -0.03 0.03 0.01 -0 -0.03 -0.03 0 0.01 -0 0.02 0 -0 -0.01 0.03 -0 0.01 -0.01 0.03

0.02 0.03 0.03 0.03 0.02 0.02 0.02 -0.04 0 -0.02 -0.04 -0.02 0.05 -0.01 -0.03 0.01 -0 0.01 0.01 -0.01 0.01 -0.01 0.03 0.02 0.01 0.01 0.03 0.02 -0.03 1 -0.36 -0.3 -0.29 0.53 0.49 0.49 -0.16 -0.16 -0.16 -0.16 -0.16 -0.15 -0.15 -0.15 -0.11 -0.12 -0.09

0 0 -0.01 -0.02 -0.01 -0.01 -0.02 -0.01 0.02 0.01 0.02 0.02 -0.03 0.01 -0 -0.01 -0 0.02 0.01 -0.02 -0.03 0.02 -0.05 -0.02 0.01 -0 -0 -0.01 0.03 -0.36 1 -0.37 -0.37 -0.19 -0.16 -0.16 0.45 0.44 0.35 0.37 -0.2 -0.19 -0.19 -0.19 -0.19 -0.19 -0.08

-0 -0.01 -0.01 0 -0.02 -0.01 0.02 0.04 -0.03 -0 0.01 -0.03 0 0 0.03 0.01 0.02 -0.02 -0 0 0.02 -0 0.01 -0 -0.01 0.01 -0.02 0 0.01 -0.3 -0.37 1 -0.3 -0.16 -0.16 -0.16 -0.17 -0.17 -0.06 -0.09 0.52 0.45 0.45 -0.16 -0.15 -0.16 0.51

-0.02 -0.02 -0.02 -0.02 0 0 -0.02 0 0.01 0.01 0.01 0.03 -0.01 -0.01 -0 -0.01 -0.01 -0.01 -0.01 0.03 0.01 -0.01 0 -0 -0.01 -0.02 -0 -0.01 -0 -0.29 -0.37 -0.3 1 -0.15 -0.15 -0.15 -0.16 -0.16 -0.16 -0.16 -0.16 -0.09 -0.09 0.53 0.48 0.48 -0.33

0.01 0.01 0.02 0.02 0.02 0.02 0.02 -0.02 0.01 -0.01 -0.03 -0.01 0.02 0.01 -0.01 0.02 -0.01 -0 0.02 0.02 0 -0.01 0.02 -0 -0.01 0.04 0.01 0.01 -0.03 0.53 -0.19 -0.16 -0.15 1 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.22

0 0 0 0 -0 -0 0.01 -0.01 -0.01 -0.02 -0.04 -0 0.03 -0.03 -0.02 0 0 0.01 -0.01 -0.01 0.01 0.03 0.02 0.03 0.02 -0 0.02 0.01 -0.03 0.49 -0.16 -0.16 -0.15 -0.08 1 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.2

0.02 0.02 0.03 0.03 0.02 0.02 0.01 -0.02 -0 0 0.02 -0.03 0.03 0.01 -0.01 -0.01 0 0.01 0 -0.02 -0.02 -0.03 0.01 0.02 0.01 -0.02 0.02 0.01 0 0.49 -0.16 -0.16 -0.15 -0.08 -0.08 1 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 0.3

-0.01 -0.01 -0 0 0 0 0.01 -0.02 -0.01 0 0.01 -0.01 0.01 0 -0.02 -0.02 0 0.02 0.02 0.02 -0.02 0.02 -0.03 -0.01 0 -0.02 0.01 -0.01 0.01 -0.16 0.45 -0.17 -0.16 -0.09 -0.09 -0.09 1 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.08 -0.08 -0.21

0.01 0.01 0 -0.01 -0 -0.01 -0 -0.01 0.01 0.02 0.02 0.01 -0.03 -0.02 0 0.02 0.01 0 0 -0.02 0.01 -0 0.01 -0.02 0.02 0.01 -0.01 -0.02 -0 -0.16 0.44 -0.17 -0.16 -0.09 -0.09 -0.09 -0.09 1 -0.09 -0.09 -0.09 -0.09 -0.09 -0.09 -0.08 -0.08 -0.11

0.01 0 -0.01 -0.03 -0.03 -0.02 -0.03 0 0.02 -0.01 -0 0.02 -0.01 0.04 0.02 0.02 -0.01 0.01 -0.01 -0.03 -0.02 0 -0.02 0.02 0 -0 -0.02 0 0.02 -0.16 0.35 -0.06 -0.16 -0.09 -0.09 -0.09 -0.09 -0.09 1 -0.09 -0.09 -0.09 -0.09 -0.09 -0.08 -0.08 0.3

0.02 0.01 0.01 0 -0.01 -0.01 -0.02 0.03 0.01 -0.01 -0 0 -0.02 0.01 0 -0 -0 -0.01 0.02 0.01 -0.01 0.01 -0.02 -0.02 -0.02 0.03 0.01 0.02 0 -0.16 0.37 -0.09 -0.16 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 1 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.11

-0 -0 0 0.01 0 0 0.02 0.03 -0.01 -0.01 -0.01 0.01 -0.02 0 -0 -0 0 -0.02 0.02 0.05 0 0.01 -0.01 0 -0 0.01 -0.02 0 -0 -0.16 -0.2 0.52 -0.16 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 1 -0.08 -0.08 -0.08 -0.08 -0.08 0.28

-0.01 -0.01 -0.01 -0 -0 -0 0.01 0.02 -0 0.02 0.01 -0.03 0 -0.02 -0 0.01 0.04 -0 -0.01 -0.04 0.02 -0.02 0.03 -0 -0.01 0.01 -0.01 0.02 -0.01 -0.15 -0.19 0.45 -0.09 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 1 -0.08 -0.08 -0.08 -0.08 0.3

-0.01 -0.01 -0.01 -0.02 -0.01 -0.01 -0.01 -0 -0.03 0.02 0.03 -0.01 0.01 0.02 0.03 -0.02 -0.01 -0.01 -0.03 -0.01 -0 -0 -0.01 0 -0.01 -0.02 0 -0.02 0.03 -0.15 -0.19 0.45 -0.09 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 1 -0.08 -0.08 -0.08 0.23

-0.02 -0.02 -0.02 -0.02 -0.01 -0.01 -0.02 0.02 -0.01 -0.01 -0 0.03 -0.01 -0.02 0 -0.02 -0.01 -0.01 -0.01 0.02 0.02 0.02 -0 -0.02 0.01 -0.02 0.02 -0.01 -0 -0.15 -0.19 -0.16 0.53 -0.08 -0.08 -0.08 -0.09 -0.09 -0.09 -0.08 -0.08 -0.08 -0.08 1 -0.08 -0.08 -0.21

-0 -0 0 0.01 0.02 0.01 -0.01 0 0.01 -0 0.01 0.02 0.01 -0.01 0.01 0 -0.01 -0.02 -0.01 0.01 -0.01 -0.02 0 0.02 0.01 -0.02 -0.03 -0 0.01 -0.11 -0.19 -0.15 0.48 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 1 -0.08 -0.18

0 0 0 0.01 -0 0 0.01 -0.02 0.01 0 -0 0 -0.01 -0 -0 0.01 -0 0.02 0.01 0.01 0.01 -0.01 0.01 -0.01 -0.03 -0 0 -0.01 -0.01 -0.12 -0.19 -0.16 0.48 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 1 -0.18

-0.01 -0.02 -0.02 -0.01 -0.02 -0.02 0 0.04 -0 -0.02 0.03 -0.02 -0 0.03 0.01 0.01 0.02 -0.01 -0.02 -0.02 -0.02 -0.01 -0.01 0.03 -0 -0.01 -0.03 -0 0.03 -0.09 -0.08 0.51 -0.33 -0.22 -0.2 0.3 -0.21 -0.11 0.3 -0.11 0.28 0.3 0.23 -0.21 -0.18 -0.18 1

eigenvalue proportion cumulative

4.61629 0.09822 0.09822 0.45 Sales+0.436COGS+0.399Marketing+0.395Margin+0.388Total Expenses...

2.76722 0.05888 0.1571 0.528Product Type=Herbal Tea+0.474Type=Decaf-0.318Product Type=Tea+0.295Product=Chamomile+0.266Product=Lemon...

2.44596 0.05204 0.20914 0.619Product Type=Espresso+0.289Product=Caffe Latte+0.287Product=Caffe Mocha-0.281Product Type=Tea-0.266Product Type=Coffee...

2.3359 0.0497 0.25884 0.553Product Type=Coffee-0.445Product Type=Tea+0.302Product=Amaretto+0.294Product=Decaf Irish Cream+0.29 Product=Columbian...

2.0494 0.0436 0.30244 0.67 Market Size=Major Market-0.269State=Missouri-0.229State=Iowa-0.218State=Wisconsin+0.198State=California...

1.67255 0.03559 0.33803 -0.546ï»¿Profit+0.512Inventory-0.382Margin+0.284Marketing+0.272Total Expenses...

1.36904 0.02913 0.36716 -0.507Product=Decaf Irish Cream-0.439Product=Decaf Espresso-0.38Type=Decaf+0.244Product=Amaretto+0.226Product Type=Herbal Tea...

1.21954 0.02595 0.3931 -0.696State=California+0.427State=Texas+0.299Product=Decaf Espresso+0.188Product=Chamomile-0.169Product=Caffe Mocha...

1.17537 0.02501 0.41811 0.442State=Florida+0.413Product=Lemon-0.342State=Missouri+0.333Product=Caffe Mocha-0.268Product=Caffe Latte...

1.16666 0.02482 0.44293 0.537State=New York-0.418State=Texas+0.274Product=Lemon-0.267State=California+0.252State=Florida...

1.15033 0.02448 0.46741 0.39 Product=Regular Espresso-0.343Product=Mint+0.319State=Colorado-0.313Product=Columbian+0.23 Product=Amaretto...

1.14635 0.02439 0.4918 -0.358Product=Darjeeling+0.355State=Ohio+0.324Product=Amaretto+0.287Product=Green Tea-0.27ProductId...

1.12721 0.02398 0.51578 -0.377Product=Caffe Latte+0.375State=Illinois-0.352State=Florida+0.321Product=Regular Espresso-0.313Product=Chamomile...

1.12619 0.02396 0.53975 0.55 Product=Earl Grey+0.342State=New York-0.282Product=Darjeeling-0.258State=New Hampshire-0.247State=Massachusetts...

1.10523 0.02352 0.56326 0.385Product=Columbian+0.321State=Massachusetts+0.309Product=Decaf Espresso-0.301Product=Decaf Irish Cream+0.287Product=Green Tea...

1.10225 0.02345 0.58671 0.448State=Florida-0.351State=New York+0.348Product=Earl Grey+0.287Product=Regular Espresso-0.278Product=Green Tea...

1.09104 0.02321 0.60993 -0.406State=Illinois-0.365Product=Caffe Mocha+0.328Product=Lemon+0.324State=Texas-0.281Product=Chamomile...

1.08771 0.02314 0.63307 -0.419Product=Regular Espresso-0.381State=Texas+0.327Product=Darjeeling+0.319Product=Decaf Espresso+0.305Product=Amaretto...

1.05942 0.02254 0.65561 -0.583State=Ohio+0.553State=Illinois-0.227Product=Caffe Mocha-0.213State=Oregon-0.201Product=Mint...

1.05302 0.0224 0.67801 -0.425State=Colorado+0.402State=New York+0.281State=Missouri-0.262Product=Caffe Latte-0.244State=Wisconsin...

1.0374 0.02207 0.70009 0.638State=Iowa+0.301State=Ohio-0.285State=Washington-0.241State=Massachusetts-0.218State=Wisconsin...

1.03486 0.02202 0.72211 -0.49State=Massachusetts+0.414State=Wisconsin-0.412State=Oklahoma-0.296State=Washington+0.28 State=Oregon...

1.02632 0.02184 0.74394 -0.499State=Oklahoma+0.364State=Washington+0.314State=Iowa+0.31 State=Colorado-0.306State=Wisconsin...

1.01967 0.0217 0.76564 0.517State=New Hampshire+0.48 State=Louisiana-0.371State=Wisconsin-0.237State=Massachusetts+0.223State=Colorado...

1.01692 0.02164 0.78727 0.554State=Louisiana-0.461State=Connecticut-0.409State=Oklahoma+0.32 State=Nevada-0.239State=Utah...

1.00817 0.02145 0.80872 0.325State=Nevada+0.315State=Washington+0.297State=Missouri-0.291State=New Hampshire-0.28State=Wisconsin...

1.00662 0.02142 0.83014 0.597State=Connecticut-0.415State=New Mexico+0.388State=Nevada-0.371State=Utah-0.221State=Iowa...

1.00159 0.02131 0.85145 0.523State=New Mexico+0.304State=Washington-0.271State=Colorado-0.228Product=Mint-0.221State=Louisiana...

0.99626 0.0212 0.87265 -0.59State=Nevada+0.326State=Washington-0.283State=Utah+0.243State=Missouri+0.228Product=Columbian...

0.98048 0.02086 0.89351 -0.506State=Oregon+0.394State=Utah+0.316Product=Darjeeling+0.245State=Wisconsin-0.24Product=Green Tea...

0.96879 0.02061 0.91412 -0.518State=New Hampshire+0.398State=Oregon-0.324Product=Earl Grey+0.29 State=Utah+0.206Product=Darjeeling...

0.9613 0.02045 0.93458 0.467State=Missouri-0.368State=Washington+0.365Product=Lemon-0.355Product=Chamomile-0.272State=Oklahoma...

0.94615 0.02013 0.95471 0.543State=New Mexico-0.337State=Utah-0.308State=Oregon-0.283Product=Amaretto+0.256State=Colorado...

Eigenvectors

V1 V2 V3 V4 V5 V6 V7 V8 V9 V10 V11 V12 V13 V14 V15 V16 V17 V18 V19 V20 V21 V22 V23 V24 V25 V26 V27 V28 V29 V30 V31 V32 V33

0.2986 0.003 0.0267 0.0069 -0.0702 -0.5461 0.0665 0.0182 -0.0149 0.0729 0.0287 -0.0482 0.0028 0.0081 0.0048 0.0115 -0.0516 0.0405 -0.0092 -0.0354 -0.041 -0.0033 -0.0135 -0.0083 -0.0271 -0.0042 0.0369 -0.0199 -0.0072 -0.0334 0.0093 0.0491 -0.0153 ï»¿Profit

0.3953 0.0029 0.0239 -0.0032 -0.0472 -0.3818 0.0409 0.0056 -0.0074 0.0461 0.0137 -0.0289 -0.0038 -0.0049 0.002 0.0151 -0.0302 0.0355 -0.0076 -0.0194 -0.0303 -0.01 -0.0089 -0.0071 -0.0252 -0.0125 0.0245 -0.015 0.0006 -0.0206 0.0132 0.0288 -0.0048 Margin

0.4495 0.0081 0.0143 -0.0116 -0.0204 -0.1716 0.0212 0.0089 -0.0077 0.0378 0.0115 -0.021 0.007 -0.002 0.0022 0.0029 -0.0219 0.0154 -0.0053 -0.021 -0.016 0.0036 -0.0046 0.0017 -0.0159 0.0023 0.0104 -0.0126 -0.006 -0.005 -0.0017 0.017 -0.0092 Sales

0.436 0.0132 -0.002 -0.0203 0.0199 0.1498 -0.0104 0.0125 -0.0069 0.0179 0.0062 -0.0043 0.0189 0.001 0.0026 -0.0142 -0.0053 -0.0157 -0.0008 -0.0172 0.0078 0.0183 0.0016 0.0127 0.0011 0.0214 -0.0114 -0.0075 -0.0115 0.0185 -0.0222 -0.002 -0.0123 COGS

0.3881 0.0018 -0.0034 -0.0322 0.0418 0.2716 -0.0463 -0.0253 0.0196 -0.0559 -0.0358 0.03 -0.0146 -0.0158 -0.0035 0.0179 0.0423 -0.0019 0.0026 0.0351 0.0118 0.0018 0.0102 0.0095 0.0016 -0.0215 -0.017 0.0034 0.0116 0.0199 0.02 -0.0415 0.0154 Total Expenses

0.399 0.0068 -0.0035 -0.0321 0.0426 0.2839 -0.0476 -0.0173 0.0147 -0.0396 -0.0262 0.0255 -0.007 -0.0136 0.0018 0.0123 0.0389 -0.0096 -0.001 0.0275 0.0079 0.0055 0.0055 0.0104 0.0038 -0.0102 -0.0145 0.0005 0.0041 0.023 0.0067 -0.0363 0.0109 Marketing

0.2161 0.0219 -0.0175 -0.0168 0.0589 0.5117 -0.0402 0.018 -0.0053 0.0134 -0.0031 0.0227 0.0334 0.0023 0.0056 -0.0619 -0.0042 -0.0474 0.0023 -0.0209 0.0347 0.0298 -0.0114 0.0039 0.0253 0.0746 -0.035 0.0102 -0.0251 0.0545 -0.0565 -0.0156 -0.0196 Inventory

-0.0291 0.0344 -0.0059 -0.029 -0.0027 0.122 0.0126 0.0646 -0.1042 0.2459 0.223 -0.2701 0.2126 0.1331 0.0325 -0.0999 -0.0632 0.016 -0.1206 -0.1124 -0.1807 0.2053 0.0213 0.023 -0.0693 0.1414 -0.0169 -0.062 0.0192 -0.0309 -0.2053 0.0919 -0.0581 ProductId

0.0059 -0.026 -0.0014 0.0231 -0.1527 0.0771 -0.1062 0.031 0.0808 -0.0396 0.0933 0.0805 0.045 0.0939 0.0785 -0.0478 0.0288 -0.0179 0.0148 0.1706 0.0135 -0.0267 0.2629 -0.1753 -0.4605 -0.2519 0.5968 -0.0836 0.1359 0.0651 0.1838 0.0749 0.157 State=Connecticut

0.0059 -0.0084 -0.0035 0.0049 -0.1591 -0.0322 -0.0155 -0.0856 0.058 0.0566 -0.0789 0.0423 0.0315 -0.0129 -0.1701 -0.073 0.003 -0.0838 -0.1624 -0.1548 -0.2854 -0.2962 0.3641 -0.1638 0.1078 0.315 0.0074 0.3043 0.3261 0.1538 -0.1178 -0.3682 -0.0541 State=Washington

0.0039 0.0287 0.0462 -0.0655 0.1977 -0.0681 -0.0917 -0.6961 -0.1552 -0.2672 0.1489 -0.1241 -0.0152 0.0756 0.2565 0.0172 0.1139 0.0525 0.0799 0.0595 -0.012 0.0802 -0.0272 0.0166 -0.0174 0.0614 0.0157 0.043 0.0433 0.0211 -0.0324 -0.091 -0.0493 State=California

0.0162 -0.0234 0.0304 -0.0519 0.1518 -0.0763 0.0398 0.4274 0.107 -0.4179 -0.1437 -0.193 -0.2079 0.0237 -0.0919 -0.2187 0.3239 -0.3814 0.0306 -0.0425 -0.0357 0.0325 0.0328 0.004 0.0234 0.0292 -0.0257 -0.0142 0.0445 -0.0715 -0.01 0.0852 -0.0031 State=Texas

-0.0053 0.0051 -0.0232 0.0285 0.1583 -0.0354 0.0497 0.0778 -0.1501 0.5371 -0.2117 0.0681 0.102 0.3419 -0.059 -0.351 0.0177 -0.0251 0.0252 0.4017 0.0664 -0.0175 -0.0686 -0.0094 0.0104 -0.0113 -0.0364 0.0392 -0.0672 0.0829 0.0605 -0.09 -0.067 State=New York

-0.0049 0.0205 0.028 -0.0102 0.0932 -0.0342 -0.0575 0.1462 -0.1385 -0.0104 0.098 0.3548 0.0928 -0.1265 -0.0183 0.0811 0.1263 0.1803 -0.5825 -0.2152 0.3013 0.0096 -0.2109 0.0366 0.0612 -0.0766 0.1107 0.1854 0.1127 0.2038 -0.0524 0.124 0.0177 State=Ohio

-0.0002 0.0256 0.0125 -0.0404 0.1009 -0.0043 -0.004 0.095 0.0554 -0.0932 -0.0924 0.2258 0.3753 -0.0105 -0.2244 0.1705 -0.4065 -0.0046 0.5531 -0.2228 0.1099 -0.0165 -0.0654 0.0447 0.0145 -0.0348 0.0663 0.1491 0.1041 -0.0165 0.0017 -0.0031 -0.021 State=Illinois

0.0098 -0.0035 -0.0195 0.0291 -0.1543 -0.001 -0.0381 0.0221 0.1574 -0.0596 0.059 0.1148 0.0125 0.111 0.1727 -0.0744 -0.0483 0.0633 -0.0039 0.1005 -0.1487 -0.0786 0.0445 0.48 0.5538 -0.2115 0.0061 -0.2209 0.0936 0.1325 0.195 -0.0886 0.23 State=Louisiana

-0.016 0.0273 0.0113 -0.013 0.1363 0.0407 0.022 0.0381 0.4418 0.2519 0.0756 0.0119 -0.3523 -0.2097 -0.1774 0.4481 -0.0976 0.1377 -0.0986 0.1999 -0.1776 0.1568 0.0296 -0.0191 -0.0607 0.0758 -0.0061 -0.0935 -0.1059 -0.0447 0.0123 -0.1284 0.0282 State=Florida

-0.0127 -0.0231 -0.0071 0.0512 -0.2179 -0.0002 -0.0579 -0.0407 -0.022 0.0834 -0.1034 0.0762 -0.0873 -0.1674 0.0997 -0.1489 -0.0699 -0.1579 0.0739 -0.2438 -0.2182 0.4144 -0.306 -0.3713 0.0669 -0.2796 -0.0677 -0.1835 0.0016 0.2451 -0.1125 -0.1174 -0.0805 State=Wisconsin

-0.0178 -0.0073 0.0182 0.007 0.0572 0.0107 0.0854 0.0561 -0.0659 0.1225 0.3191 -0.0778 -0.0425 0.0656 -0.0423 -0.1696 -0.1686 -0.0107 -0.0096 -0.4246 0.0637 0.1943 0.3104 0.2228 -0.1592 0.1946 -0.0864 -0.2709 0.0123 0.0769 0.0678 0.0627 0.2562 State=Colorado

0.0113 -0.0256 -0.0482 0.0127 -0.2693 0.0716 0.0644 0.0675 -0.3423 -0.0792 0.1195 0.0482 -0.2299 0.0496 -0.1249 0.1574 -0.0863 0.0867 0.1289 0.2811 -0.0777 -0.0947 -0.1668 -0.0203 0.0284 0.2966 -0.0817 -0.0651 0.2426 0.0174 -0.1287 0.4669 0.0015 State=Missouri

0.0135 -0.0117 -0.0455 0.0218 -0.2294 -0.0206 0.0632 -0.0362 0.1208 -0.019 -0.0839 -0.0639 0.0907 -0.1282 0.0154 -0.0658 0.0661 0.1736 0.0182 0.1004 0.6379 0.1076 0.3139 -0.2043 0.1274 0.0259 -0.2207 -0.1557 -0.0334 -0.2183 -0.1629 -0.1027 0.0256 State=Iowa

-0.0071 -0.0006 0.0308 -0.0094 0.0979 0.1052 0.1019 0.1313 -0.1171 0.0571 -0.0326 -0.1908 0.156 -0.2474 0.3213 0.0083 -0.1502 0.168 -0.0843 -0.1043 -0.2415 -0.4896 0.1196 -0.2374 0.0902 -0.244 -0.0505 -0.1473 -0.1268 -0.2117 -0.0306 0.1733 -0.0487 State=Massachusetts

-0.0057 -0.0072 -0.0639 0.043 -0.1678 0.0253 -0.0081 -0.0563 0.1627 -0.0222 -0.0186 -0.0146 0.0393 0.0514 -0.0065 -0.0771 0.0145 -0.0437 -0.0772 -0.1548 0.0819 -0.4116 -0.4992 0.1746 -0.4092 0.1758 -0.123 -0.2143 -0.1233 -0.1109 0.0786 -0.2724 0.0581 State=Oklahoma

-0.0097 0.0043 -0.0342 0.0419 -0.1073 -0.0119 -0.0986 0.0354 -0.0647 -0.0264 -0.1843 0.0284 -0.0711 0.0992 0.162 0.2186 -0.0143 -0.0305 -0.0016 -0.0869 0.0206 -0.0219 0.305 0.1469 -0.2392 -0.0695 -0.3706 0.1388 -0.2827 0.3944 0.2902 0.1568 -0.3373 State=Utah

0.0023 -0.0133 -0.0087 0.0308 -0.1205 0.0866 -0.0708 -0.0069 -0.0255 -0.0187 -0.1416 -0.2396 0.0745 0.1548 -0.1374 0.0474 -0.0555 0.1564 -0.213 -0.1289 -0.0837 0.2795 -0.0678 0.1187 0.0418 -0.0913 0.0573 0.1489 0.2125 -0.506 0.3984 -0.001 -0.3079 State=Oregon

0.0197 0.004 -0.0023 0.0302 -0.0673 0.0103 0.0769 0.0229 0.0973 -0.0382 0.2154 0.0494 0.0968 0.0824 0.0477 -0.0543 0.0508 0.0315 0.0068 0.0799 -0.1583 0.0937 -0.0539 -0.1512 -0.1255 -0.1809 -0.4148 0.5233 -0.0674 -0.1485 0.0915 0.0564 0.5426 State=New Mexico

-0.0039 -0.0306 -0.0188 0.044 -0.1291 -0.0031 0.0156 -0.0471 -0.0883 0.0504 0.0135 -0.0667 0.1023 -0.2576 -0.1565 -0.0093 0.0949 -0.1238 0.004 0.0951 -0.0937 0.0425 0.0945 0.5174 -0.1516 -0.2907 0.1064 0.1928 -0.1985 -0.0964 -0.5178 -0.0183 -0.0931 State=New Hampshire

0.0034 -0.0009 -0.0234 0.0418 -0.1387 0.0159 -0.0222 0.0316 -0.0075 0.0832 0.1107 -0.0901 0.1108 0.0736 0.0659 0.1607 0.1599 -0.1498 0.0693 -0.1299 0.0319 0.021 -0.0646 -0.1156 0.3202 0.3245 0.3878 0.1889 -0.5896 -0.0212 0.1185 0.0558 0.0708 State=Nevada

-0.0117 0.0526 0.0995 -0.1164 0.67 -0.0753 0.0505 0.0218 0.0159 0.0132 0.0176 -0.0032 -0.0041 -0.0026 0.005 -0.0015 -0.0171 0.0133 0.0027 -0.0116 0.0085 -0.0058 -0.0068 -0.0039 0.0017 -0.003 0.0058 0.0043 0.0105 0.007 -0.0047 0.0129 -0.0116 Market Size=Major Market

0.0305 -0.1211 -0.2657 0.5533 0.1456 -0.0134 -0.0297 -0.0055 -0.002 -0.033 0.0169 -0.0091 -0.0009 -0.0122 -0.0015 0.0069 -0.0045 0.0048 0.0066 -0.0097 -0.0026 -0.0026 0.0113 -0.0162 0.0128 0.0138 0.007 -0.0046 0.0314 -0.0078 -0.0171 0.0075 0.0039 Product Type=Coffee

-0.0078 -0.0865 0.6186 0.03 -0.0695 0.0328 -0.0489 0.0093 0.0002 0.0163 -0.0091 -0.0014 0.0008 0.0097 -0.0084 -0.0029 0.0018 -0.0037 0.0098 0.0194 0.0147 -0.0107 -0.0085 0.0082 -0.0049 0.0168 -0.0205 -0.003 -0.0144 0.0006 -0.0024 -0.0038 -0.0055 Product Type=Espresso

-0.0103 0.5284 -0.1377 -0.1367 -0.0627 0.0078 0.2264 -0.0185 0.0033 -0.0142 -0.0229 0.0142 -0.0016 0.0092 0.0059 -0.0038 0.0103 -0.011 -0.0064 -0.0113 -0.0038 0.0157 -0.0031 0.0106 -0.0109 -0.0264 0.0302 -0.0002 0.0004 0.0114 0.0188 -0.0078 -0.013 Product Type=Herbal Tea

-0.0113 -0.3177 -0.2812 -0.445 -0.0044 -0.0308 -0.145 0.0139 -0.0016 0.0291 0.0164 -0.0037 0.0016 -0.008 0.0049 0.0002 -0.0079 0.0104 -0.0109 -0.0004 -0.0098 -0.0013 0.0014 -0.0037 0.0037 -0.0057 -0.0148 0.0081 -0.0156 -0.0043 0.0007 0.0046 0.0153 Product Type=Tea

0.0196 -0.1135 -0.1463 0.3017 0.0662 0.0196 0.2443 0.0304 0.0725 -0.1608 0.2302 0.324 0.0334 0.1177 -0.0936 -0.1468 0.2226 0.305 0.1023 -0.0401 -0.1881 0.0282 0.0614 -0.0584 -0.0166 0.0041 -0.0106 -0.0816 -0.133 -0.0636 -0.0268 -0.0357 -0.2826 Product=Amaretto

0.0066 -0.1047 -0.1267 0.2902 0.0616 0.012 0.1981 0.0522 0.0597 0.0334 -0.3127 -0.2682 0.073 -0.0725 0.3849 0.1798 -0.1353 -0.0944 -0.0568 0.0443 0.0925 0.1203 -0.088 0.1125 -0.0589 0.1503 0.0954 0.1261 0.2284 0.1383 -0.0658 0.0091 0.1891 Product=Columbian

0.02 0.0381 -0.1239 0.2938 0.1042 -0.0431 -0.5071 -0.1015 -0.1496 0.0792 0.0992 -0.1065 -0.1003 -0.0866 -0.301 -0.0126 -0.0963 -0.2018 -0.0302 -0.0186 0.0895 -0.1432 0.0363 -0.0787 0.0938 -0.1334 -0.0726 -0.0402 -0.0338 -0.0568 0.0821 0.0432 0.1112 Product=Decaf Irish Cream

-0.001 -0.0937 0.289 0.0088 -0.0262 0.0819 0.1869 -0.1402 -0.2683 0.2412 -0.217 0.1095 -0.377 -0.0742 -0.0585 0.002 0.1745 0.0432 0.1643 -0.2624 0.0537 -0.0796 0.0427 0.0715 0.0043 -0.0943 0.0713 0.0597 0.0076 -0.156 0.1058 -0.0086 0.1808 Product=Caffe Latte

-0.0009 -0.0644 0.2873 0.0113 -0.0482 0.0206 0.03 -0.1687 0.3329 -0.212 -0.0749 -0.1503 0.0337 0.1575 -0.2199 -0.2404 -0.3647 0.0763 -0.227 0.0773 0.0173 -0.035 -0.0491 -0.0555 0.0452 -0.0106 0.0368 0.0389 -0.1877 0.1823 -0.1159 0.2623 -0.0369 Product=Caffe Mocha

-0.0143 0.0916 0.2329 0.0075 -0.0241 -0.0642 -0.4386 0.299 0.0093 -0.0391 -0.0548 0.0892 0.0811 -0.0105 0.3093 -0.0241 0.1181 0.3191 0.1435 0.0499 -0.1167 0.1234 -0.0019 0.0666 -0.095 0.2347 -0.0214 0.0072 0.0156 -0.0652 -0.1478 -0.1395 -0.0015 Product=Decaf Espresso

0.0008 -0.0394 0.2437 0.0017 -0.0409 -0.0027 0.1465 0.074 -0.0728 0.0368 0.3896 -0.0158 0.3208 -0.0522 -0.0023 0.2866 0.1083 -0.4194 -0.0503 0.1999 0.0616 -0.0127 -0.0193 -0.0523 0.025 -0.0729 -0.1487 -0.1412 0.1507 0.0229 0.1549 -0.164 -0.1757 Product=Regular Espresso

0.0003 0.2953 -0.0831 -0.0702 -0.0476 0.0339 0.2004 0.1882 -0.2027 -0.1469 0.2001 -0.163 -0.3128 0.1258 0.046 -0.022 -0.2806 0.0888 0.0036 0.0285 0.1401 -0.0366 -0.0369 -0.0256 0.0187 -0.1494 0.1066 0.1786 -0.0796 0.0744 -0.0346 -0.3554 -0.0815 Product=Chamomile

-0.0078 0.2665 -0.0914 -0.0816 -0.0448 0.0169 0.0328 -0.1521 0.4131 0.2742 0.0412 -0.0547 0.0264 0.0495 0.0475 -0.012 0.3281 -0.0403 0.1561 -0.1863 0.0596 -0.1155 -0.0536 0.0188 0.0405 -0.0739 -0.0137 0.0582 0.2278 0.0476 -0.0528 0.3646 -0.1219 Product=Lemon

-0.0112 0.2462 -0.0831 -0.0919 0.0079 -0.0269 0.1334 -0.1405 -0.1722 -0.1468 -0.3435 0.2458 0.2583 -0.1761 -0.1453 0.0034 -0.0059 -0.1026 -0.2013 0.1113 -0.2166 0.156 0.1133 0.0042 -0.0645 0.1717 -0.0235 -0.2283 -0.1534 -0.0927 0.1259 0.0578 0.2047 Product=Mint

-0.0153 -0.1897 -0.1507 -0.2483 -0.0053 -0.0071 -0.035 0.0579 -0.0855 -0.0075 0.0237 -0.3576 0.1462 -0.2822 -0.253 -0.0713 0.1901 0.3271 0.1271 0.0572 -0.0178 -0.0008 -0.0839 0.0077 -0.0074 -0.0138 0.0065 0.009 0.0061 0.3159 0.2062 -0.0728 0.0769 Product=Darjeeling

0.0026 -0.1694 -0.1445 -0.2137 0.0139 -0.0205 -0.1083 0.0218 -0.0322 -0.0233 -0.1249 0.0665 -0.0101 0.55 0.0023 0.3479 0.0202 -0.0647 -0.105 -0.1318 -0.0291 -0.028 0.0572 -0.0832 0.0199 -0.1642 -0.044 -0.1531 -0.0348 -0.1133 -0.3237 -0.0502 0.1178 Product=Earl Grey

0.0017 -0.1723 -0.147 -0.2124 -0.0097 -0.0236 -0.0837 -0.0223 0.0962 0.0721 0.151 0.2874 -0.1645 -0.2399 0.2868 -0.2783 -0.2801 -0.2561 -0.0331 0.0725 0.0532 0.0239 0.0248 0.0686 -0.003 0.148 0.0139 0.1605 -0.0094 -0.2401 0.0904 0.0896 -0.1834 Product=Green Tea

-0.0133 0.4744 -0.0106 0.0306 -0.0036 -0.0347 -0.3802 0.0571 -0.0208 0.0129 0.027 -0.0358 -0.017 -0.0251 -0.0105 -0.0248 -0.0054 0.0028 0.0111 0.0293 -0.0072 -0.0278 0.0076 -0.0053 0.0036 0.0057 -0.0398 -0.0223 0.0035 -0.0367 -0.0302 0.0355 0.0295 Type=Decaf

Ranked attributes:

0.9018 1 0.45 Sales+0.436COGS+0.399Marketing+0.395Margin+0.388Total Expenses...

0.8429 2 0.528Product Type=Herbal Tea+0.474Type=Decaf-0.318Product Type=Tea+0.295Product=Chamomile+0.266Product=Lemon...

0.7909 3 0.619Product Type=Espresso+0.289Product=Caffe Latte+0.287Product=Caffe Mocha-0.281Product Type=Tea-0.266Product Type=Coffee...

0.7412 4 0.553Product Type=Coffee-0.445Product Type=Tea+0.302Product=Amaretto+0.294Product=Decaf Irish Cream+0.29 Product=Columbian...

0.6976 5 0.67 Market Size=Major Market-0.269State=Missouri-0.229State=Iowa-0.218State=Wisconsin+0.198State=California...

0.662 6 -0.546ï»¿Profit+0.512Inventory-0.382Margin+0.284Marketing+0.272Total Expenses...

0.6328 7 -0.507Product=Decaf Irish Cream-0.439Product=Decaf Espresso-0.38Type=Decaf+0.244Product=Amaretto+0.226Product Type=Herbal Tea...

0.6069 8 -0.696State=California+0.427State=Texas+0.299Product=Decaf Espresso+0.188Product=Chamomile-0.169Product=Caffe Mocha...

0.5819 9 0.442State=Florida+0.413Product=Lemon-0.342State=Missouri+0.333Product=Caffe Mocha-0.268Product=Caffe Latte...

0.5571 10 0.537State=New York-0.418State=Texas+0.274Product=Lemon-0.267State=California+0.252State=Florida...

0.5326 11 0.39 Product=Regular Espresso-0.343Product=Mint+0.319State=Colorado-0.313Product=Columbian+0.23 Product=Amaretto...

0.5082 12 -0.358Product=Darjeeling+0.355State=Ohio+0.324Product=Amaretto+0.287Product=Green Tea-0.27ProductId...

0.4842 13 -0.377Product=Caffe Latte+0.375State=Illinois-0.352State=Florida+0.321Product=Regular Espresso-0.313Product=Chamomile...

0.4603 14 0.55 Product=Earl Grey+0.342State=New York-0.282Product=Darjeeling-0.258State=New Hampshire-0.247State=Massachusetts...

0.4367 15 0.385Product=Columbian+0.321State=Massachusetts+0.309Product=Decaf Espresso-0.301Product=Decaf Irish Cream+0.287Product=Green Tea...

0.4133 16 0.448State=Florida-0.351State=New York+0.348Product=Earl Grey+0.287Product=Regular Espresso-0.278Product=Green Tea...

0.3901 17 -0.406State=Illinois-0.365Product=Caffe Mocha+0.328Product=Lemon+0.324State=Texas-0.281Product=Chamomile...

0.3669 18 -0.419Product=Regular Espresso-0.381State=Texas+0.327Product=Darjeeling+0.319Product=Decaf Espresso+0.305Product=Amaretto...

0.3444 19 -0.583State=Ohio+0.553State=Illinois-0.227Product=Caffe Mocha-0.213State=Oregon-0.201Product=Mint...

0.322 20 -0.425State=Colorado+0.402State=New York+0.281State=Missouri-0.262Product=Caffe Latte-0.244State=Wisconsin...

0.2999 21 0.638State=Iowa+0.301State=Ohio-0.285State=Washington-0.241State=Massachusetts-0.218State=Wisconsin...

0.2779 22 -0.49State=Massachusetts+0.414State=Wisconsin-0.412State=Oklahoma-0.296State=Washington+0.28 State=Oregon...

0.2561 23 -0.499State=Oklahoma+0.364State=Washington+0.314State=Iowa+0.31 State=Colorado-0.306State=Wisconsin...

0.2344 24 0.517State=New Hampshire+0.48 State=Louisiana-0.371State=Wisconsin-0.237State=Massachusetts+0.223State=Colorado...

0.2127 25 0.554State=Louisiana-0.461State=Connecticut-0.409State=Oklahoma+0.32 State=Nevada-0.239State=Utah...

0.1913 26 0.325State=Nevada+0.315State=Washington+0.297State=Missouri-0.291State=New Hampshire-0.28State=Wisconsin...

0.1699 27 0.597State=Connecticut-0.415State=New Mexico+0.388State=Nevada-0.371State=Utah-0.221State=Iowa...

0.1485 28 0.523State=New Mexico+0.304State=Washington-0.271State=Colorado-0.228Product=Mint-0.221State=Louisiana...

0.1274 29 -0.59State=Nevada+0.326State=Washington-0.283State=Utah+0.243State=Missouri+0.228Product=Columbian...

0.1065 30 -0.506State=Oregon+0.394State=Utah+0.316Product=Darjeeling+0.245State=Wisconsin-0.24Product=Green Tea...

0.0859 31 -0.518State=New Hampshire+0.398State=Oregon-0.324Product=Earl Grey+0.29 State=Utah+0.206Product=Darjeeling...

0.0654 32 0.467State=Missouri-0.368State=Washington+0.365Product=Lemon-0.355Product=Chamomile-0.272State=Oklahoma...

0.0453 33 0.543State=New Mexico-0.337State=Utah-0.308State=Oregon-0.283Product=Amaretto+0.256State=Colorado...

Selected attributes: 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33 : 33