

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

Number of Observations Read	1539
Number of Observations Used	1539

Response Profile		
Ordered Value	High_profitability_Products	Total Frequency
1	0	1238
2	1	301

Probability modeled is High\_profitability\_Products='1'.

#### Stepwise Selection Procedure

Class Level Information			
Class	Value	Design Variables	
tag_Summer	0	1	0
	1	0	1
tag_Shots	0	1	0
	1	0	1
tag_Tops	0	1	0
	1	0	1
Size_S	0	1	0
	1	0	1
Size_M	0	1	0
	1	0	1
Size_L	0	1	0
	1	0	1
CLUSTER	1	1	0
	2	0	1

#### Step 0. Intercept entered:

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

-2 Log L	=	1521.196
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Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
192.6911	9	<.0001

#### Step 1. Effect tag\_Summer entered:

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	1523.196	1462.774
SC	1528.535	1473.452
-2 Log L	1521.196	1458.774

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	62.4223	1	<.0001
Score	71.5727	1	<.0001
Wald	66.3650	1	<.0001

Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
127.5221	8	<.0001

**Note:** No effects for the model in Step 1 are removed.

**Step 2. Effect CLUSTER entered:**

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	1523.196	1399.058
SC	1528.535	1415.074
-2 Log L	1521.196	1393.058

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	128.1386	2	<.0001
Score	129.3545	2	<.0001
Wald	112.9247	2	<.0001

Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
74.0528	7	<.0001

**Note:** No effects for the model in Step 2 are removed.

**Step 3. Effect Size\_M entered:**

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	1523.196	1373.676
SC	1528.535	1395.032
-2 Log L	1521.196	1365.676

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	155.5201	3	<.0001
Score	156.7794	3	<.0001
Wald	133.8475	3	<.0001

Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
45.2170	6	<.0001

**Note:** No effects for the model in Step 3 are removed.

**Step 4. Effect price entered:**

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	1523.196	1358.201
SC	1528.535	1384.896
-2 Log L	1521.196	1348.201

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	172.9948	4	<.0001
Score	171.5114	4	<.0001
Wald	145.2349	4	<.0001

Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
27.0505	5	<.0001

**Note:** No effects for the model in Step 4 are removed.

**Step 5. Effect merchant\_rating entered:**

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	1523.196	1348.476
SC	1528.535	1380.510
-2 Log L	1521.196	1336.476

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	184.7198	5	<.0001
Score	180.0572	5	<.0001
Wald	151.2443	5	<.0001

Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
16.1958	4	0.0028

**Note:** No effects for the model in Step 5 are removed.

**Step 6. Effect tag\_Shorts entered:**

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	1523.196	1341.550
SC	1528.535	1378.923
-2 Log L	1521.196	1327.550

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	193.6459	6	<.0001
Score	187.4183	6	<.0001
Wald	155.5715	6	<.0001

Residual Chi-Square Test		
Chi-Square	DF	Pr > ChiSq
7.4585	3	0.0586

**Note:** No effects for the model in Step 6 are removed.

**Note:** No (additional) effects met the 0.05 significance level for entry into the model.

Summary of Stepwise Selection								
Step	Effect		DF	Number In	Score Chi-Square	Wald Chi-Square	Pr > ChiSq	Variable Label
	Entered	Removed						
1	tag_Summer		1	1	71.5727		<.0001	tag_Summer
2	CLUSTER		1	2	60.1674		<.0001	CLUSTER
3	Size_M		1	3	30.4982		<.0001	Size_M
4	price		1	4	18.4957		<.0001	price
5	merchant_rating		1	5	11.2204		0.0008	merchant_rating
6	tag_Shorts		1	6	8.7003		0.0032	tag_Shorts

Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
price	1	18.1856	<.0001
merchant_rating	1	10.4685	0.0012
tag_Summer	1	57.4128	<.0001
tag_Shorts	1	8.6224	0.0033
Size_M	1	23.7122	<.0001
CLUSTER	1	63.5121	<.0001

#### Analysis of Maximum Likelihood Estimates

Analysis of Maximum Likelihood Estimates						
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept		1	-7.8278	1.5688	24.8958	<.0001
price		1	0.0748	0.0175	18.1856	<.0001
merchant_rating		1	1.2204	0.3772	10.4685	0.0012
tag_Summer	0	1	1.2518	0.1652	57.4128	<.0001
tag_Summer	1	0	0	.	.	.
tag_Shorts	0	1	0.4517	0.1538	8.6224	0.0033
tag_Shorts	1	0	0	.	.	.
Size_M	0	1	-0.8803	0.1808	23.7122	<.0001
Size_M	1	0	0	.	.	.
CLUSTER	1	1	1.3666	0.1715	63.5121	<.0001
CLUSTER	2	0	0	.	.	.

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
price	1.078	1.041	1.115
merchant_rating	3.389	1.618	7.097
tag_Summer 0 vs 1	3.496	2.529	4.833
tag_Shorts 0 vs 1	1.571	1.162	2.124
Size_M 0 vs 1	0.415	0.291	0.591
CLUSTER 1 vs 2	3.922	2.802	5.489

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	74.5	Somers' D	0.491
Percent Discordant	25.5	Gamma	0.491
Percent Tied	0.0	Tau-a	0.154
Pairs	372638	c	0.745