ภาคผนวก

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ผลการวิเคราะห์สถิติปัจจัยที่มีผลต่อการตัดสินใจเลือกซื้อปุ๋ยเคมีของสมาชิกสหกรณ์การเกษตรเพื่อการตลาดลูกค้า ธ.ก.ส.

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--> PROBIT;Lhs=Y;Rhs=ONE,AGE,REV,EXE,LAND,EDU,DSSALE,DSDEV,DLOC,DBLIV,DCOST
    ,DEXP,DRICE,DCORN,DBEAN,DLOGAN,DSCANE;Margin$
Normal exit from iterations. Exit status=0.

+--------------------------------------------+
| Binomial Probit Model                      |
| Maximum Likelihood Estimates               |
| Dependent variable                    Y    |
| Weighting variable                 None    |
| Number of observations             400     |
| Iterations completed                 6     |
| Log likelihood function       -195.8746    |
| Number of parameters                17     |
| Info. Criterion: AIC =           1.06437   |
|   Finite Sample: AIC =           1.06838   |
| Info. Criterion: BIC =           1.23401   |
| Info. Criterion:HQIC =           1.13155   |
| Restricted log likelihood     -258.9787    |
| McFadden Pseudo R-squared      .2436650    |
| Chi squared                   126.2081     |
| Degrees of freedom                 16      |
| Prob[ChiSqd > value] =         .0000000    |
| Model estimated: Aug 05, 2010, 03:06:57PM  |
| Hosmer-Lemeshow chi-squared =  11.16963    |
| P-value=  .19227 with deg.fr. =        8   |
+--------------------------------------------+
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Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
Index function for probability					
Constant	-4.05797***	.98275285	-4.129	.0000	
AGE	.01460*	.00848526	1.720	.0854	51.345000
REV	-.12325D-06	.607422D-06	-.203	.8392	81059.033
EXE	.81292D-05**	.383316D-05	2.121	.0339	45496.200
LAND	.07519***	.01845800	4.074	.0000	9.2875000
EDU	.05084	.15926287	.319	.7495	2.1450000
DSSALE	.21584	.16425924	1.314	.1888	.4950000
DSDEV	.23246	.16045739	1.449	.1474	.5200000
DLOC	-.79855***	.26264621	-3.040	.0024	.1425000
DBLIV	-.31567	.41698146	-.757	.4490	.9700000
DCOST	.87192***	.26435471	3.298	.0010	.8475000
DEXP	.21654	.17323414	1.250	.2113	.2800000
DRICE	1.17139**	.59512586	1.968	.0490	.5900000
DCORN	.87895	.60950753	1.442	.1493	.2950000
DBEAN	2.44267***	.70240013	3.478	.0005	.0350000
DLOGAN	.99722	.72975710	1.367	.1718	.0300000
DSCANE	-.72302	.87525971	-.826	.4088	.0250000

Note: nnnnn.D-xx or D+xx => multiply by 10 to -xx or +xx.
Note: ***, **, * = Significance at 1%, 5%, 10% level.

Partial derivatives of E[y] = F[*] with respect to the vector of characteristics.
They are computed at the means of the Xs.
Observations used for means are All Obs.

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Elasticity
Constant	-.68644***	.02685111	-25.565	.0000	
AGE	.00517*	.00300473	1.722	.0851	.8476160
REV	-.43688D-07	.215276D-06	-.203	.8392	-.0113001
EXE	.28814D-05**	.135663D-05	2.124	.0337	.4183157
LAND	.02665***	.00660916	4.032	.0001	.7898315
EDU	.01802	.05645507	.319	.7496	.1233512
	Marginal effect for dummy variable is P|1 - P|0.				
DSSALE	.07643	.05789907	1.320	.1868	.1207276
	Marginal effect for dummy variable is P|1 - P|0.				
DSDEV	.08207	.05627466	1.458	.1447	.1361784
	Marginal effect for dummy variable is P|1 - P|0.				
DLOC	-.23398***	.05920138	-3.952	.0001	-.1063909
	Marginal effect for dummy variable is P|1 - P|0.				
DBLIV	-.11851	.16283214	-.728	.4667	-.3668090
	Marginal effect for dummy variable is P|1 - P|0.				
DCOST	.25168***	.05627475	4.472	.0000	.6806372
	Marginal effect for dummy variable is P|1 - P|0.				
DEXP	.07834	.06370341	1.230	.2188	.0699944
	Marginal effect for dummy variable is P|1 - P|0.				
DRICE	.37808**	.16683866	2.266	.0234	.7118050
	Marginal effect for dummy variable is P|1 - P|0.				
DCORN	.32509	.22379945	1.453	.1463	.3060159
	Marginal effect for dummy variable is P|1 - P|0.				
DBEAN	.68558***	.06050209	11.332	.0000	.0765679
	Marginal effect for dummy variable is P|1 - P|0.				
DLOGAN	.38189	.25916293	1.474	.1406	.0365577
	Marginal effect for dummy variable is P|1 - P|0.				
DSCANE	-.20304	.17561187	-1.156	.2476	-.0161970

Note: nnnnn.D-xx or D+xx => multiply by 10 to -xx or +xx.
Note: ***, **, * = Significance at 1%, 5%, 10% level.

Fit Measures for Binomial Choice Model
Probit model for variable Y
Proportions P0= .650000 P1= .350000
N = 400 N0= 260 N1= 140
LogL= -195.875 LogL0= -258.979
Estrella = 1-(L/L0)^(-2L0/n) = .30346

Efron	McFadden	Ben./Lerman
.30698	.24367	.67788
Cramer	**Veall/Zim.**	**Rsqrd_ML**
.28869	.42507	.27059

Information Criteria	Akaike I.C.	Schwarz I.C.
	1.06437	1.23401

Predictions for Binary Choice Model. Predicted value is 1 when probability is greater than .500000, 0 otherwise. Note, column or row total percentages may not sum to 100% because of rounding. Percentages are of full sample.			
Actual Value	Predicted Value 0	1	Total Actual
0	233 (58.3%)	27 (6.8%)	260 (65.0%)
1	66 (16.5%)	74 (18.5%)	140 (35.0%)
Total	299 (74.8%)	101 (25.3%)	400 (100.0%)

Analysis of Binary Choice Model Predictions Based on Threshold = .5000

Prediction Success	
Sensitivity = actual 1s correctly predicted	52.857%
Specificity = actual 0s correctly predicted	89.615%
Positive predictive value = predicted 1s that were actual 1s	73.267%
Negative predictive value = predicted 0s that were actual 0s	77.926%
Correct prediction = actual 1s and 0s correctly predicted	76.750%

Prediction Failure	
False pos. for true neg. = actual 0s predicted as 1s	10.385%
False neg. for true pos. = actual 1s predicted as 0s	47.143%
False pos. for predicted pos. = predicted 1s actual 0s	26.733%
False neg. for predicted neg. = predicted 0s actual 1s	22.074%
False predictions = actual 1s and 0s incorrectly predicted	23.250%

ประวัติผู้เขียน

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