

ภาคผนวก ก

การแสดงผลของแบบจำลองโลจิสต์ โดยโปรแกรม SPSS

ในภาคผนวก ก นี้ จะแสดงผลของการศึกษาข้อมูลด้วยวิธีการทางเศรษฐมิติ ซึ่งทดสอบข้อมูลนี้ตามแบบจำลองโลจิสต์ ด้วยโปรแกรม SPSS ทั้งนี้ ผลของการทดสอบต่างๆ มีดังนี้

ผลการศึกษา 1 Logistic Regression: Price < 1.0 MM THB

ผลการศึกษา 2 Logistic Regression: Price = 1.0 – 5.0 MM THB

ผลการศึกษา 3 Logistic Regression: Price > 5.0 MM THB

สำนักหอสมุด

ผลการศึกษา 1 Logistic Regression: Price < 1.0 MM THB

Case Processing Summary

Unweighted Cases ^a		N	Percent
Selected Cases	Included in Analysis	2850	100.0
	Missing Cases	0	.0
	Total	2850	100.0
Unselected Cases		0	.0
Total		2850	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
Normal	0
Default	1

Categorical Variables Codings

		Frequency	Parameter coding	
			(1)	(2)
Address	Grade C	255	1.000	.000
	Grade B	2589	.000	1.000
	Grade A	6	.000	.000
Marry Status	Grade C	607	1.000	
	Grade B	2243	.000	

Block 0: Beginning Block

Classification Table^{a,b,c}

Observed			Predicted		Percentage Correct
			NPL		
			Normal	Default	
Step 0	NPL	Normal	0	2650	.0
		Default	0	200	100.0
Overall Percentage					7.0

a. No terms in the model.

b. Initial Log-likelihood Function: $-2 \text{ Log Likelihood} = 3950.939$

c. The cut value is .500

Variables not in the Equation

Step	Variables	MS(1)	Score	df	Sig.
0		ADDR	413.511	1	.000
		ADDR(1)	2100.278	2	.000
		ADDR(2)	184.663	1	.000
		Overall Statistics	1915.616	1	.000
			2101.100	3	.000

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

Step 1	Step	Chi-square	df	Sig.
	Block	2498.222	3	.000
	Model	2498.222	3	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	1452.717	.584	.778

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	.136	1	.712

Contingency Table for Hosmer and Lemeshow Test

		NPL = Normal		NPL = Default		Total
		Observed	Expected	Observed	Expected	
Step 1	1	1900	1899.787	133	133.213	2033
1	2	191	190.600	14	14.400	205
	3	559	556.498	53	55.502	612

Classification Table^a

	Observed	NPL	Predicted		Percentage Correct
			NPL		
			Normal	Default	
Step 1	NPL	Normal	2644	6	99.8
		Default	200	0	.0
		Overall Percentage			92.8

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	MS(1)	.294	.167	3.099	1	.078	1.342
	ADDR			970.232	2	.000	
	ADDR(1)	-2.583	.242	114.038	1	.000	.076
	ADDR(2)	-2.658	.089	901.637	1	.000	.070

a. Variable(s) entered on step 1: MS, ADDR.



ผลการศึกษา 2 Logistic Regression: Price = 1.0 - 5.0 MM. THB

Case Processing Summary

Unweighted Cases ^a		N	Percent
Selected Cases	Included in Analysis	5952	100.0
	Missing Cases	0	.0
	Total	5952	100.0
Unselected Cases		0	.0
Total		5952	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
Normal	0
Default	1

Categorical Variables Codings

		Frequency	Parameter coding	
			(1)	(2)
Age	Grade C	940	1.000	.000
	Grade B	4444	.000	1.000
	Grade A	568	.000	.000
Address	Grade C	302	1.000	.000
	Grade B	5631	.000	1.000
	Grade A	19	.000	.000
Marry Status	Grade C	1109	1.000	.000
	Grade B	4843	.000	.000

Block 0: Beginning Block

Classification Table^{a,b,c}

Observed			Predicted		
			NPL		Percentage Correct
			Normal	Default	
Step 0	NPL	Normal	0	5643	.0
		Default	0	309	100.0
Overall Percentage					5.2

a. No terms in the model.

b. Initial Log-likelihood Function: $-2 \text{ Log Likelihood} = 8251.224$

c. The cut value is .500

Variables not in the Equation

Step	Variables	MS(1)	Score	df	Sig.
0		MS(1)	798.450	1	.000
		ADDR	4761.477	2	.000
		ADDR(1)	252.238	1	.000
		ADDR(2)	4509.238	1	.000
		AGE	4340.268	2	.000
		AGE(1)	772.238	1	.000
		AGE(2)	3568.030	1	.000
Overall Statistics			4766.156	5	.000

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

Step		Chi-square	df	Sig.
1	Step	5818.629	5	.000
	Block	5818.629	5	.000
	Model	5818.629	5	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	2432.595	.624	.832

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	2.024	3	.567

Contingency Table for Hosmer and Lemeshow Test

		NPL = Normal		NPL = Default		Total
		Observed	Expected	Observed	Expected	
Step 1	1	233	233.715	10	9.285	243
	2	697	696.416	29	29.584	726
	3	3186	3192.247	158	151.753	3344
	4	663	656.881	42	48.119	705
	5	864	856.212	70	77.788	934

Classification Table^a

Observed			Predicted		
			NPL		Percentage Correct
			Normal	Default	
Step 1	NPL	Normal	5642	1	100.0
		Default	309	0	.0
Overall Percentage					94.8

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	MS(1)	.528	.133	15.653	1	.000	1.695
	ADDR			285.857	2	.000	
	ADDR(1)	-2.756	.320	74.402	1	.000	.064
	ADDR(2)	-2.597	.154	283.002	1	.000	.075
	AGE			8.653	2	.013	
	AGE(1)	-.562	.216	6.784	1	.009	.570
	AGE(2)	-.449	.166	7.314	1	.007	.638

a. Variable(s) entered on step 1: MS, ADDR, AGE.

ผลการศึกษา 3 Logistic Regression: Price > 5.0 MM. THB

Case Processing Summary

Unweighted Cases ^a		N	Percent
Selected Cases	Included in Analysis	1317	100.0
	Missing Cases	0	.0
	Total	1317	100.0
Unselected Cases		0	.0
Total		1317	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
Normal	0
Default	1

Categorical Variables Codings

		Frequency	Parameter coding		
			(1)	(2)	(3)
Occupation	Grade D	5	1.000	.000	.000
	Grade C	567	.000	1.000	.000
	Grade B	673	.000	.000	1.000
	Grade A	72	.000	.000	.000
Address	Grade C	45	1.000	.000	
	Grade B	1262	.000	1.000	
	Grade A	10	.000	.000	
Marry Status	Grade C	295	1.000		
	Grade B	1022	.000		

Block 0: Beginning Block

Classification Table^{a,b,c}

Observed			Predicted		
			NPL		Percentage Correct
			Normal	Default	
Step 0	NPL	Normal	0	1258	.0
		Default	0	59	100.0
Overall Percentage					4.5

a. No terms in the model.

b. Initial Log-likelihood Function: $-2 \text{ Log Likelihood} = 1825.750$

c. The cut value is .500

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	OCC	1032.263	3	.000
		OCC(1)	5.000	1	.025
		OCC(2)	435.642	1	.000
		OCC(3)	591.621	1	.000
		ADDR	1081.751	2	.000
		ADDR(1)	41.089	1	.000
		ADDR(2)	1040.662	1	.000
		MS(1)	213.563	1	.000
Overall Statistics			1084.826	6	.000

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	1346.752	6	.000
	Block	1346.752	6	.000
	Model	1346.752	6	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	478.998	.640	.854

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	1.675	4	.795

Contingency Table for Hosmer and Lemeshow Test

		NPL = Normal		NPL = Default		Total
		Observed	Expected	Observed	Expected	
Step 1	1	41	41.345	1	.655	42
	2	501	501.443	14	13.557	515
	3	8	7.644	0	.356	8
	4	384	384.827	20	19.173	404
	5	119	118.834	6	6.166	125
	6	205	200.352	18	22.648	223

Classification Table^a

Observed			Predicted		
			NPL		Percentage Correct
			Normal	Default	
Step 1	NPL	Normal	1256	2	99.8
		Default	59	0	.0
Overall Percentage					95.4

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	OCC			10.099	3	.018	
	OCC(1)	-4.135	9.888	.175	1	.676	.016
	OCC(2)	-.635	.386	2.711	1	.100	.530
	OCC(3)	-1.247	.412	9.158	1	.002	.287
	ADDR			45.488	2	.000	
	ADDR(1)	-3.071	1.052	8.526	1	.004	.046
	ADDR(2)	-2.364	.358	43.622	1	.000	.094
	MS(1)	.652	.279	5.455	1	.020	1.919

a. Variable(s) entered on step 1: OCC, ADDR, MS.