Chapter 3

Preliminary Data Analysis

This chapter presents the results of the preliminary analysis of the study of vulnerable women who received funding for the MF activities activity in the three southern border provinces and neighboring districts of Songkhla Province. The subjects of the study consisted of 83 vulnerable women who received financial support for livelihood-earning activity from the MF activities during 2008-2010. The results are divided into two parts. In the first part, the distributions of the variables are shown, while the association between the outcome and the determinants are presented in the last section.

3.1 Distributions of the variables

Definition of the outcome

The outcome is the success of the MF activity, as defined by the continuity of the business and loan repayment rate.

Continuity of the business

The MF activities were a fund which supported vulnerable women to earn livelihood, whether by their former business/occupation or a new one. Once the fund was given, a local advisor would act as a liaison between the Mother's Fund staff and the clients and looked after, provided advice, and monitored the spending in livelihood-earning activity to ensure accordance with the objective of the fund. The local advisor would provide advice on earning livelihood and regularly pay visit to the clients for incentive support. Table 3.1 show the continuity of the business refers to the fact that

the clients was able to earn her livelihood continuously from the date the fund was granted, and "drop out" refers to the termination of the business / occupation. It was found that out of the 83 funds granted, 67 clients had continuity their business (80.7 percent) while 16 clients dropped out (19.2 percent). Among drop out, most they

Small scale business	Drop out				Total n = 83 (100%)	
	No n = 67 (80.7%)		Yes n = 16 (19.3%)			
commerce	19	(28.4)	4	(25.0)	23	(27.7)
foodstuff	28	(41.8)	8	(50.0)	36	(43.4)
other	20	(29.8)	4	(25.0)	24	(28.9)
Total	67	(100.0)	16	(100.0)	83	(100.0)

Table 3.1: Drop out of the MF activity, categorized by type of business

Worked in foodstuff business (8 clients, 50 percent), followed by commerce and other occupations (4 clients and 25 percent). For the operated continuously group, most they worked in foodstuff business (28 clients, 41.8 percent).

Terms of loan repayment

During 2008-2010, the MF activities were organized in 7 phases. Drop-outs during each phase are shown in Table 3.2.

Years	Phase	Drop out				Total n = 83 (100%)	
		No n = 67 (80.7%)		Yes n = 16 (19.3%)			
2008	1	3	(33.3)	6	(66.7)	9	(100.0)
	2	6	(75.0)	2	(25.0)	8	(100.0)
2009	3	3	(100.0)	-	(0.0)	3	(100.0)
	4	18	(81.8)	4	(18.2)	22	(100.0)
	5	9	(100.0)	-	(0.0)	9	(100.0)
	6	3	(100.0)	-	(0.0)	3	(100.0)
2010	7	25	(86.2)	4	(13.8)	29	(100.0)
Total		67		16		83	

Table 3.2: Drop out of the MF activity, classified by phase of implementation

Dropping out from the MF activity was most common among clients from the first

Phase (66.7 percent).

Loan repayment rate

Clients must repay the loan at the forth months after receiving the loan. Repayments

were made on a monthly basis at 150 Thai Bahts each month for a total of 33

installments without any interest. Loan repayment rates are shown in the Appendix.

Repayment was not due on any fixed date of the month. The loan repayment rate is

defined by the following formula:

Loan Repayment Rate
= (number of months with repayment / total number of months which repayment
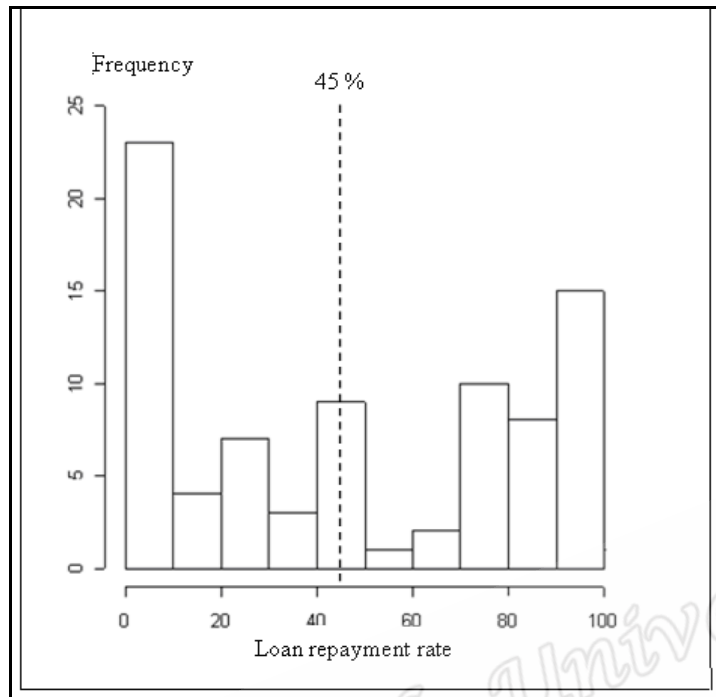would be due) x 100

Figure 3.1: Distribution of loan repayment rate

Figure 3.1 shows the distribution of loan repayment rate with the average loan repayment rate of 45.3 percent. The median repayment rate was 38 percent (min 0 percent; max 100 percent). The cut-off point for satisfactory loan repayment rate was fixed at 45 percent.

In the study, 36 clients (43.4 percent) repaid the loan at less than 45 percent the amount, while 47 clients (56.6 percent) made repayment at 45 percents the original amount or more. However, it should be noted that the success of the MF activity was defined by both the continuity of business (i.e. no drop-out) and loan repayment rate (45 percent of the original amount or higher).

Repayment rate	Drop out		Total
	No	Yes	
Less than 45 %	20	16	36
45% or more	47	-	47
Total	67	16	83

Table 3.3: Success of the MF activity

Therefore, 47 fund clients (56.6 percent) did not drop out and repaid the loan at 45 percent of the amount or higher, which were considered to be the success group and the outcome event of the study (Table 3.3).

Definition of the determinants

The determinants are categorical variables consisting of socio-demographic factors and the MF activity-related factors. The socio-demographic factors consisted of province, religion, age groups, education (secondary and high school or more), marital status, and family sizes. The MF activity-related factors consisted of phase (Phase of activity), years, small scale business (commerce, foodstuff, and other (handmade, salon, sewing or farming)), business skills or business background, source of income (their main income from the MF activity and multiple sources (income derived from many occupations)), marketing problems, local advisors, and peer. Their roles and data types are shown in Table 3.4.

Variable	Role	Data type
Socio-demographic factors		
Province	determinant	nominal
Religion	determinant	nominal
Age groups	determinant	ordinal
Education	determinant	ordinal
Marital status	determinant	nominal
Family size	determinant	ordinal
The MF activity		
Phase	determinant	ordinal
Years	determinant	ordinal
Small scale business	determinant	nominal
Business skills	determinant	nominal
Source of income	determinant	nominal
Marketing problem	determinant	nominal
Local advisor	determinant	nominal
Peer	determinant	nominal

Table 3.4: Variables of their roles and data types

The frequency distributions of the socio-demographic factors and the MF activity are

shown in Table 3.5 and Table 3.6.

3.2 Distributions of the determinants

Socio-demographic factors	Count (n = 83)	Percent
Province		
Pattani	49	59.0
Yala	8	9.6
Narathiwat	14	16.9
Songkhla	12	14.5
Religion		
Islam	77	92.8
Buddhism	6	7.2
Age group		
≤40 years	35	42.2
40+ years	48	57.8
Education		
Secondary	55	66.3
High school or more	28	33.7
Marital status		
Married	42	50.6
Other	41	49.4
Family size		
1-3 person	20	24.1
4+ person	63	75.9

Table 3.5: The distribution of social demographic factor of vulnerable women.

Table 3.5 showed that most clients were in Pattani Province with 45 clients (59.1 percent), followed by Narathiwat with 14 clients (16.8 percent), Songkhla with 12 clients (14.5 percent), and Yala with 8 clients (9.6 percent), respectively. Most clients were Muslims with 77 clients (92.8 percent), and most were 40 years of age or older with 48 clients (57.8 percent). Most clients finished secondary-level education with 55 clients (66.3 percent), and were married with 42 clients (50.6 percent). Most clients came from a large family with 4 members or more (63 clients, 75.9 percent).

The MF activity	Count (n = 83)	Percent
Phase		
Phase 1	9	10.9
Phase 2	8	9.6
Phase 3	3	3.6
Phase 4	22	26.6
Phase 5	9	10.8
Phase 6	3	3.6
Phase 7	29	34.9
Years		
2008	17	20.7
2009	37	44.6
2010	29	34.9
Small scale business		
Commerce	23	27.7
Foodstuff	36	43.4
Other	24	28.9
Business skills		
No	4	4.8
Yes	79	95.2
Source of income		
Mother's Fund activity	61	73.5
Multiple sources	22	26.5
Marketing problem		
No	3	3.6
Yes	80	96.4
Local advisor		
No	23	27.7
Yes	60	72.3
Peer		
No	39	46.9
Yes	44	53.1

Table 3.6: The distribution of the MF activity of vulnerable women.

Referring to table 3.6, most the MF activity clients were in Phase 7 with 29 clients (34.9 percent), followed by Phase 4 at 22 clients (26.6 percent). Most clients received the fund in 2009 at 36 clients (43.4 percent), followed by 2010 at 29 clients (34.9 percent) and 2008 at 18 clients (21.7 percent). Most clients created small-scale

businesses based on foodstuff at 36 clients (43.4 percent), followed by other types of business (handicraft, tailoring, beauty parlor) at 24 clients (28.9 percent), and commerce/vendor at 23 clients (27.7 percent). Most respondents (79 clients, or 95.2 percent) had previous business experience.

As most clients already had previous business, a large proportion of clients also earned income from the occupation for which funding was requested at 61 clients (73.5 percent). Most clients did not have a supporting market at 80 clients (96.4 percent), while 60 clients (72.3 percent) had local advisor, and most have their own peers who looked after the business of one another at 44 clients (53.1 percent).

3.3 Association between outcome variable and determinants

As all of the factors were categorical variables, Pearson's Chi-square test was used for testing statistical significance of the association with the outcome of the study. The results of the analysis are shown in Table 3.7.

Socio-demographic factors	Non success: n = 36 (43.4%)		success n = 47 (56.6%)		Total: n = 83 (100%)		p-value
Province							0.168
Pattani	24	(66.7)	25	(53.2)	49	(59.0)	
Yala	5	(13.9)	3	(6.4)	8	(9.6)	
Narathiwat	3	(8.3)	11	(23.4)	14	(16.9)	
Songkhla	4	(11.1)	8	(17.0)	12	(14.5)	
Religion							0.396
Islam	32	(88.9)	45	(95.7)	77	(92.8)	
Buddhism	4	(11.1)	2	(4.3)	6	(7.2)	
Age group							0.053
<40 yrs	20	(55.6)	15	(31.9)	35	(42.2)	
40+ yrs	16	(44.4)	32	(68.1)	48	(57.8)	
Education							0.116
Secondary	20	(55.6)	35	(74.5)	55	(66.3)	
High school or more	16	(44.4)	12	(25.6)	28	(33.7)	
Marital Status							0.900
Married	18	(50.0)	24	(51.1)	42	(50.6)	
Other	18	(50.0)	23	(48.9)	41	(49.4)	
Family size							0.669
1-3 person	10	(27.8)	10	(21.3)	20	(24.1)	
4+ person	26	(72.2)	37	(78.7)	63	(75.9)	

Table 3.7: The association between outcome and socio-demographic factors

The MF activity	Non success: n = 36 (43.4%)		success n = 47 (56.6%)		Total: n = 83 (100%)		p-value
Phase							0.541
Phase 1	6	(16.7)	3	(6.4)	9	(10.9)	
Phase 2	4	(11.1)	4	(8.5)	8	(9.6)	
Phase 3	0	(0)	3	(6.4)	3	(3.6)	
Phase 4	9	(25.0)	13	(27.7)	22	(26.5)	
Phase 5	5	(13.9)	4	(8.5)	9	(10.9)	
Phase 6	1	(2.8)	2	(4.3)	3	(3.6)	
Phase 7	11	(30.6)	18	(38.3)	29	(34.9)	
Years							0.477
2008	10	(27.8)	7	(14.9)	17	(20.5)	
2009	15	(41.7)	22	(46.8)	37	(44.6)	
2010	11	(30.6)	18	(38.3)	29	(34.9)	
Small-scale business							0.885
Commerce	9	(25.0)	14	(29.8)	23	(27.7)	
Foodstuff	16	(44.4)	20	(42.6)	36	(43.4)	
Other	11	(30.6)	13	(27.7)	24	(28.9)	
Business skills							0.312
No	3	(8.3)	1	(2.1)	4	(4.8)	
Yes	33	(91.7)	46	(97.9)	79	(95.2)	
Source of income							<0.001
Mother's Fund activity	19	(52.8)	42	(89.4)	61	(73.5)	
Multiple sources	17	(47.2)	5	(10.6)	22	(26.5)	
Marketing problem							0.078
No	3	(8.3)	0	-	3	(3.6)	
Yes	33	(91.7)	47	(100.0)	80	(96.4)	
Local advisor							<0.001
No	21	(58.3)	2	(4.3)	23	(27.7)	
Yes	15	(41.7)	45	(95.7)	60	(72.3)	
Peer							0.003
No	22	(61.1)	17	(36.2)	39	(47.0)	
Yes	14	(38.9)	30	(63.8)	44	(53.0)	

Table 3.8: The association between outcome and the MF activity

Results of univariate analysis are presented in Table 3.7 – 3.8. Factors associated with the success of the MF activity included source of income, local advisor, and peers.

Figure 3.2 showed graph of the odd ratios and 95% confidence intervals of the association between success and local advisor.
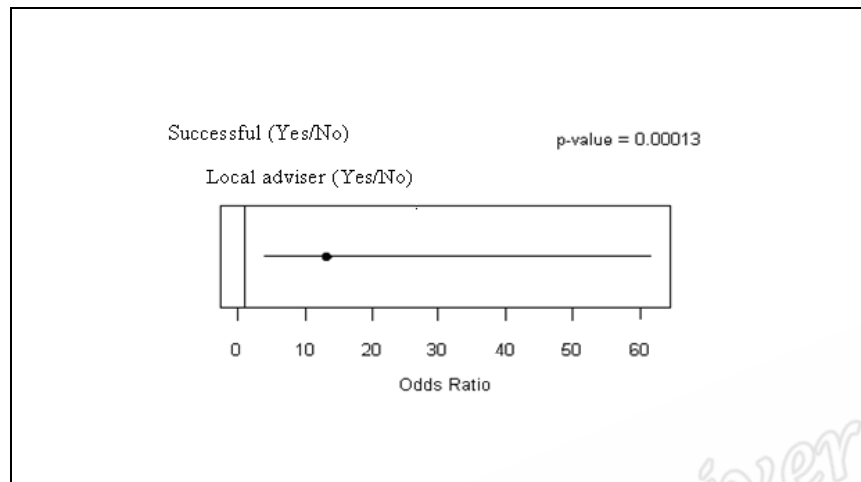

Figure 3.2: Odds ratio and 95% confidence interval success and local advisor

Figure 3.2 shows the local advisor were more likely to make the MF activity become success than those without local advisor (OR 13.33; 95% CI 3.99-61.51).
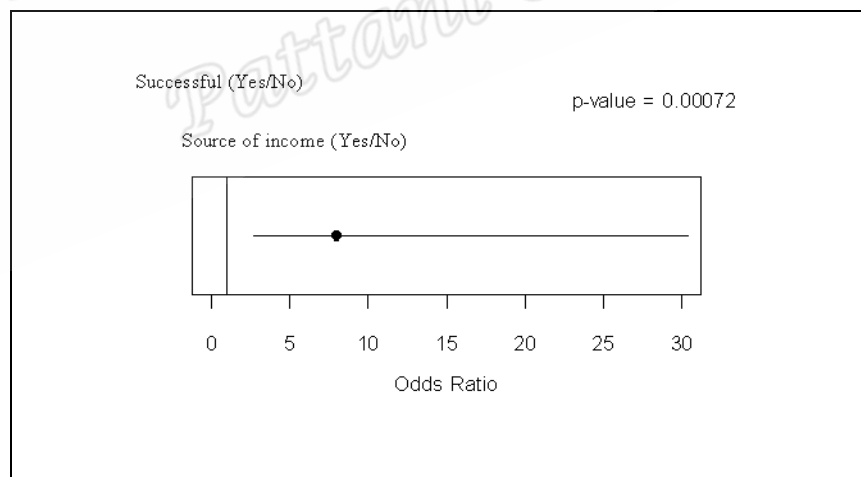

Figure 3.3: Odds ratio 95% confidence interval success and source of income

Figure 3.3 shows the association between success of the MF activity and source of income. Those with multiple sources of income or those who hold more than 1

profession were more likely to be success than business owners whose sole source of funding was the MF activity (OR 7.97; 95% CI 2.59-30.35).
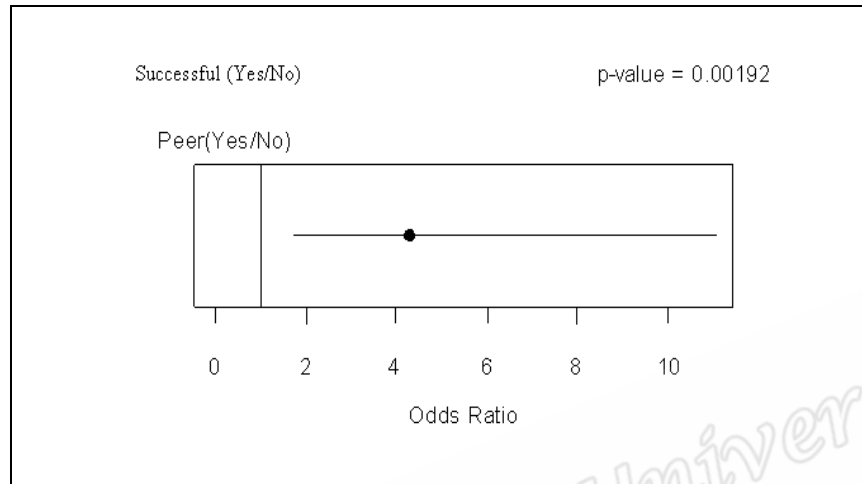

Figure 3.4: Odds ratio and 95% confidence interval for the relationship between the MF activity success and peer

Referring to Figure 3.4 shows the relation between the MF activity success and peer. Those working with peers were significantly more likely to be success than those who worked alone (OR 4.28; 95% CI 1.74-11.06).

In conclusion, after used the Pearson's Chi-square test to assess the association between the outcome and each risk factor as well as using graphs of the odds ratios and 95% confidence intervals to present the association in each case, it was shown that source of income, local advisors, and peer were significantly associated with success of the MF activity.

In the next chapter, the association between the outcome and all determinants are investigated using statistical modeling. Since the outcome variables are dichotomous, logistic regression model was used for the analysis.