The Impact Assessment of A Microfinance Innovation on the BPR's Clients Welfare at Business and Household Levels

A Case Study: Clients of PT BPR Nusantara Bona Pasongit, January 2011 – April 2013

Background

Background

- Bank Indonesia – BPR Nusantara Bona Pasongit identified: non performing loans,
- BPR designed a financial education training innovation.
- The purpose of the training: to help them to better manage their finance, reduce the risks of over indebtedness and reduce their vulnerability

The Study of the Impact Assessment of a Training

- A microfinance impact assessment
- Selected a sample of treatment households and a comparable sample of control households

- Carried out over of two-year period from January 2011 to December 2012

The Objective of the Assessment

- To assess a causal link between a change in household welfare and the innovation implemented by the BPR Nusantara

Methodology

Methodology

- **Logit Model**
  - These models suit the surveys datasets since the dataset includes several binary variables For example, a respondent may either documents income (Y = 1) or does not document income (Y = 0)

Methodology

- **Tobit Model**
  - We will also apply tobit model for application of censored regression. For example, some respondents do not possess any saving but they have observable characteristics that may affect their saving decision. Eliminating these respondents from the regression will impose biased and inconsistent coefficients.

Methodology

- **Impact Assessment: Difference-in-Difference**
  - Three impact parameters:
    - 1) better financial management;
    - 2) reduce the risks of over-indebtedness;
    - 3) reduce vulnerability.
  - measured by comparing the change of behaviour toward a particular problem in the treatment and control group.
  - Employ Difference-in-Difference methods

Financial Services

- The most acquired financial services from BPR NBP 2 by the respondents are *Kredit Bonanipinasa* and *Tabungan Martabe*.
- There are 92.4% respondents that enrol in *Kredit Bonanipinasa* and there are 74.4% respondents that enrol in *Tabungan Martabe*. Overall, the respondents are involved to BPR NBP 2 in credit services.
- Respondents applied for loan to BPR NBP for at least once. Respondents, in average, apply for loan to BPR NBP 2 three times.

Risk Management

- Groups of outcome variables:

1. **Financial management**
   a. Income and expenditure documentation
   b. Household and business separation
   c. Planned expenditure budget

2. **Risk of indebtedness**
   a. Strategy to overcome the delayed payment
   b. Savings and loan ratio.

3. **Vulnerablity**: the ratio of savings, income adequacy of expenditure and nominal income

Household Expenditure Planning

Control Group

- **Baseline Period:**
  - No: 46%
  - Yes: 54%

- **Second Follow-up Period**
  - No: 77%
  - Yes: 23%

Treatment Group

- **Baseline Period:**
  - No: 51%
  - Yes: 49%

- **Second Follow-up Period**
- No: 70%
- Yes: 30%

Household Income Documentation

Control Group

- **Baseline Period:**
  - No: 81.5%
  - Yes: 18.5%

- **Second Follow-up Period**
  - No: 68 %
  - Yes: 32 %

Treatment Group

- **Baseline Period:**
  - No: 76.5 %
  - Yes: 23.5 %

- **Second Follow-up Period**
- No: 59 %
- Yes: 41 %

Separation of Business and Household Finance

Control Group

- **Baseline Period:**
  - No: 49.6%
  - Yes: 50.4%

- **Second Follow-up Period**
  - No: 61 %
  - Yes: 39 %

Treatment Group

- **Baseline Period:**
  - No: 55 %
  - Yes: 45 %

- **Second Follow-up Period**
- No: 41 %
- Yes: 59 %

Risk Management

- Most clients do not manage their finance well
- Clients who do not document income and expenditure are more likely to not plan their expenditure
- Likewise, clients who do not document income and expenditure are more likely to not separate household and business finance
- To cope unplanned household expenditure: withdraw savings and borrow from family/friends

Risk Management

- Respondents with higher educational attainment
  - are likely to plan their expenditure
  - are likely to document their income and expenditure
  - are likely to separate household and business finance
-

Risk Management

- Late loan payment is quite high that is about 99% of total loan.
- Most clients repay the loan, only 0.1% of all clients who never repaid the loan.
- Positive correlation between late loan repayment days and educational attainment.

DiD Results: financial management

	IncExpDoc	Plan exp	Financial manag
agereal	none	(+)	(-)
educ	(+)	(+)	(+)
sex	(+)	(+)	none
income	(+)	(+)	(+)
occupation		(-)	(-)

DiD Results: financial management

	IncExpDoc	Plan exp	Financial manag
survey	(-)	none	none
group	none	(-)	none
Survey-group	(+)	(+)	(+)

DiD Results: risk of indebtedness

	strategy to overcome delayed payment	saving to loan ratio
agereal	none	(+)
educ	none	none
sex	none	none
income	(+)	none
occupation	none	none

DiD Results: risk of indebtedness

	strategy to overcome delayed payment	saving to loan ratio
survey	none	(-)
group	(+)	none
Survey-group	(+)	none

DiD Results: vulnerability

	vulnerability
agereal	(-)
educ	none
sex	none
income	(-)
occupation	none

DiD Results: vulnerability

	vulnerability
survey	none
group	none
Survey-group	none

The Impact of MFI

- At the first follow-up survey period, the innovation through trainings could lead respondents who participated in the trainings are less likely to overcome delayed payment through banking payment than respondents who did not.

- Meanwhile, at the second follow-up survey period, respondents who participated in the trainings are
  - more likely to document their income and expenditure than they who did not.
  - more likely to plan expenditure and to separate business and household finance than they who did not .
  - more likely to have better financial management than they who did not.

IV. 1. Respondents' General Information

i. Age

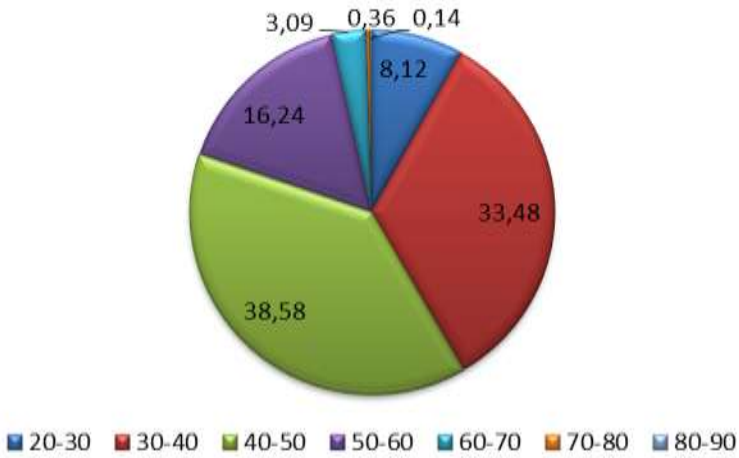


Figure X. Age Profile of Respondents

Source: Calculated from Baseline and Followup survey

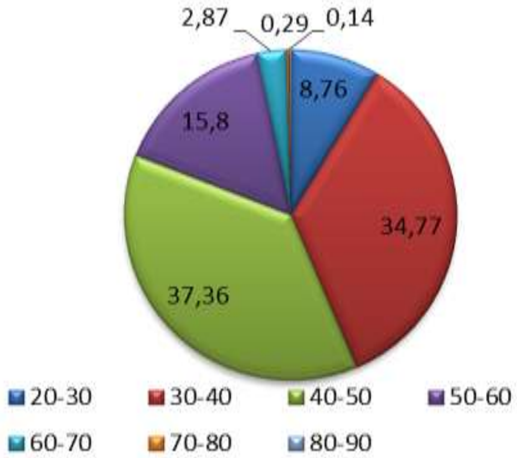


Figure X. Age Profile of Respondents

Source: Calculated from Baseline Survey

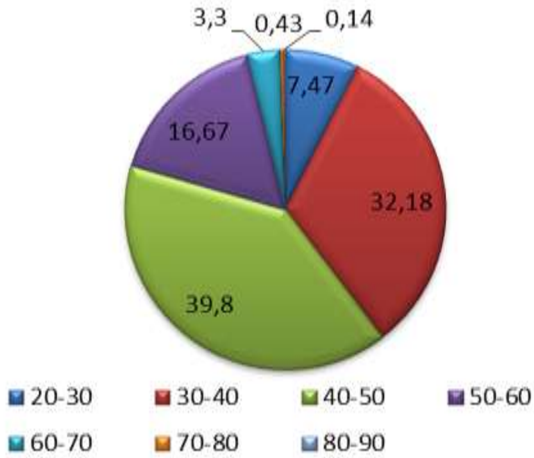


Figure X. Age Profile of Respondents

Source: Calculated from Follow up Survey

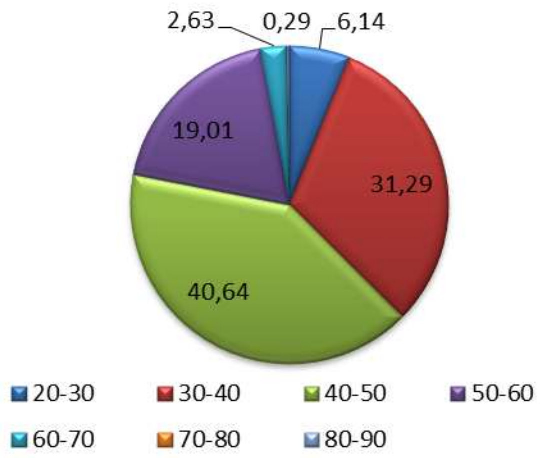


Figure . Age Profile of Respondents Treatment

Source: Calculated from Follow up survey

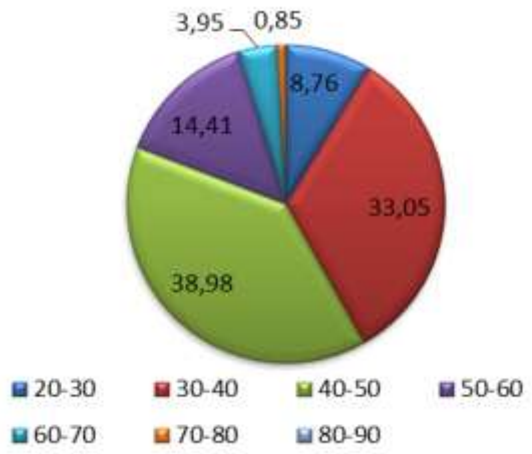


Figure . Age Profile of Respondents Control

Source: Calculated from Follow up survey

ii. Education

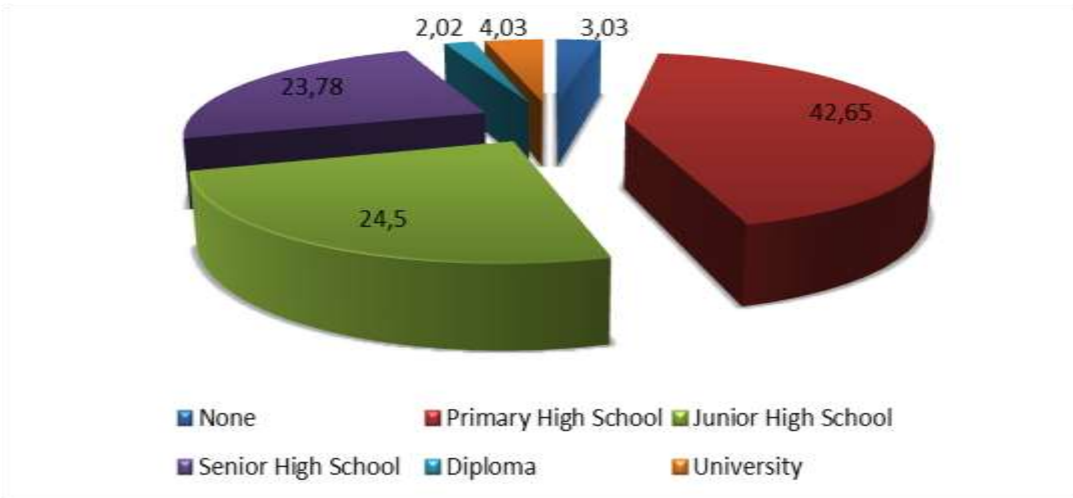


Figure . Respondents' Educational Attainment

Source: Calculated from Follow up Survey survey

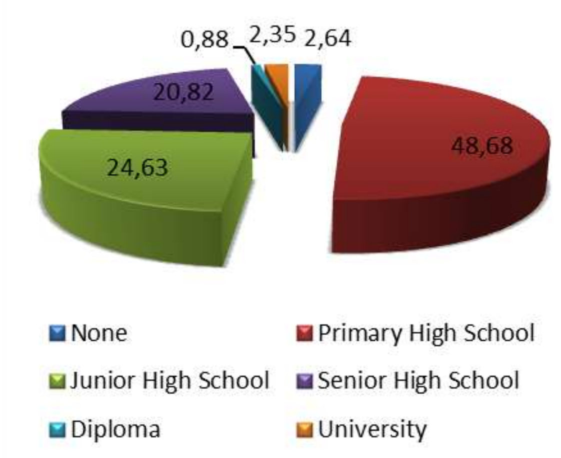


Figure X. Respondents' Educational Attainment: Treatment
Source: Calculated from Follow up survey

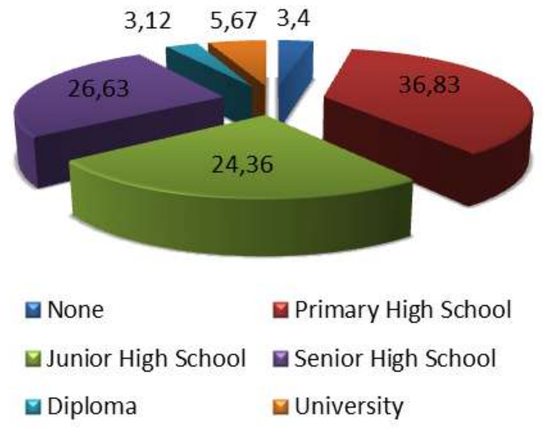


Figure X. Respondents' Educational Attainment: Control
Source: Calculated from Follow up survey

iii. Source Income

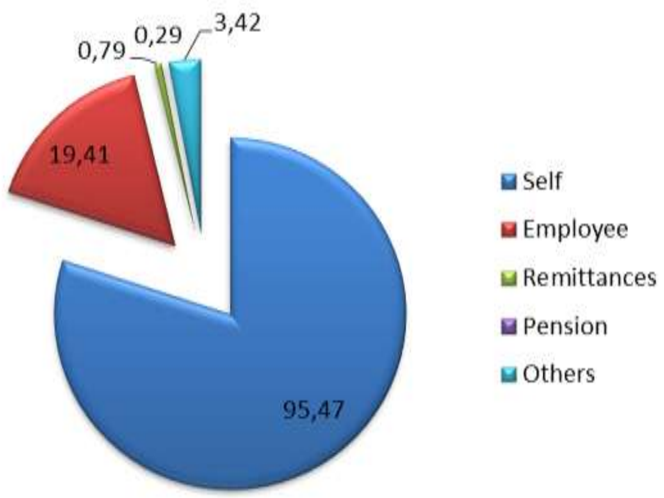


Figure . Source of Respondents' Income
Source: Calculated from Follow up and Baseline Survey

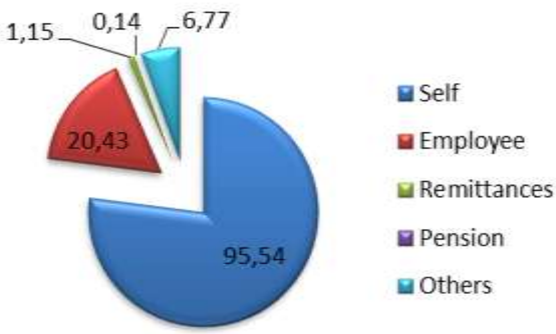


Figure X. Source of Respondents' Income
Source: Calculated from Baseline Survey

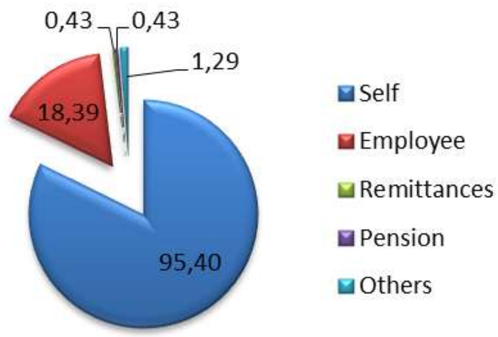


Figure X. Source of Respondents' Income
Source: Calculated from Follow up Survey

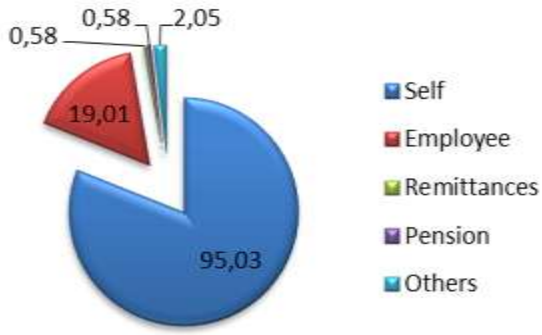


Figure X. Source of Respondents' Income: Treatment
Source: Calculated from Follow up Survey

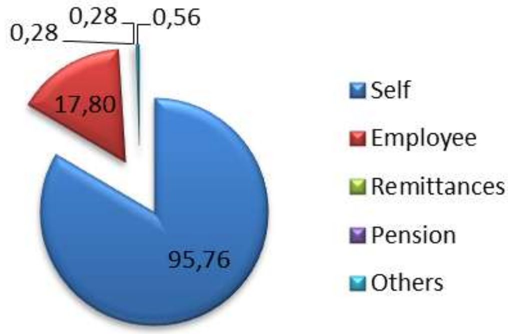


Figure X. Source of Respondents' Income: Control
Source: Calculated from Follow up Survey

iv. AVERAGE MONTHLY INCOME

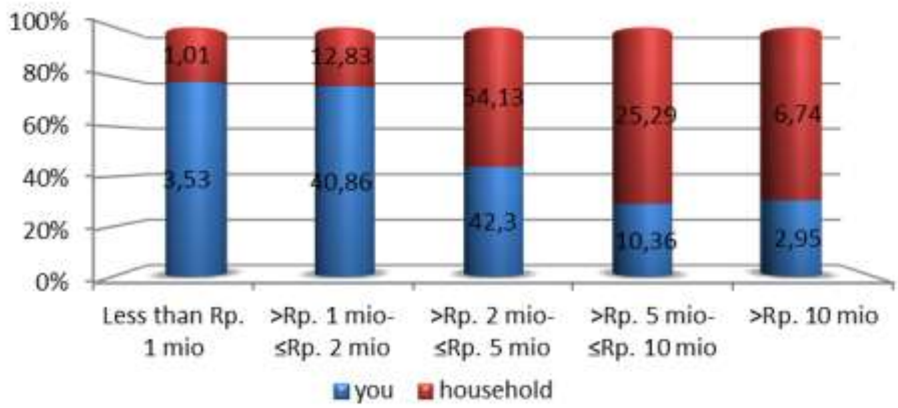


Figure . Average Montly Household Income
Source: Calculated from Baseline and Follow up Survey

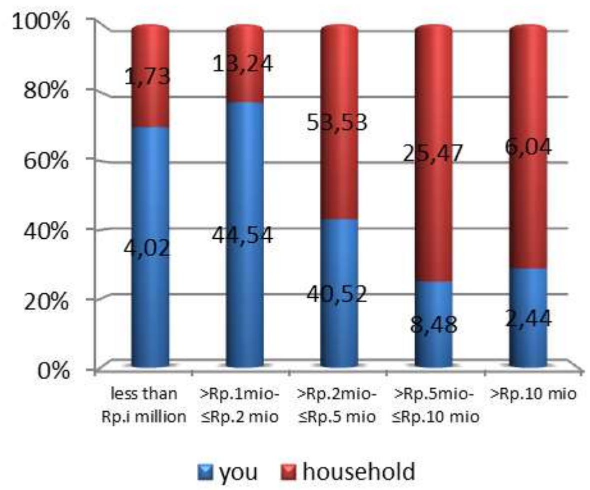


Figure X. Average Montly Household Income
Source: Calculated from Baseline Survey

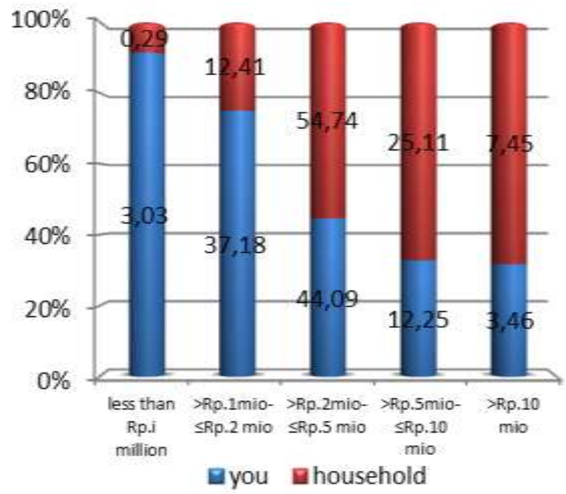


Figure X. Average Montly Household Income
Source: Calculated from Follow up Survey

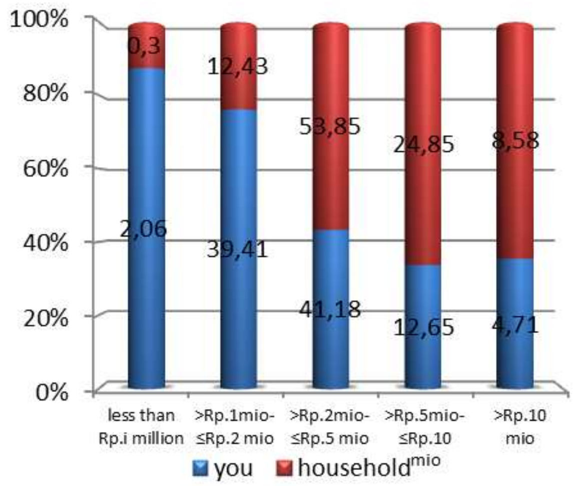


Figure X. Average Montly Household Income: Treatment
Source: Calculated from Follow up Survey

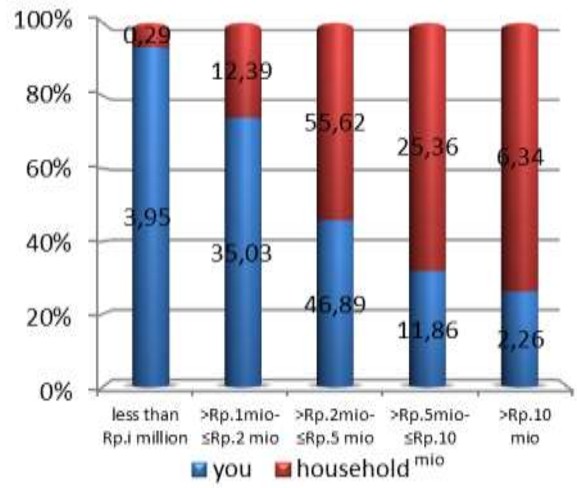


Figure X. Average Montly Household Income: Control
Source: Calculated from Follow up Survey

IV. 2. Respondents' Finance Background

i. Frequency of Loan Application

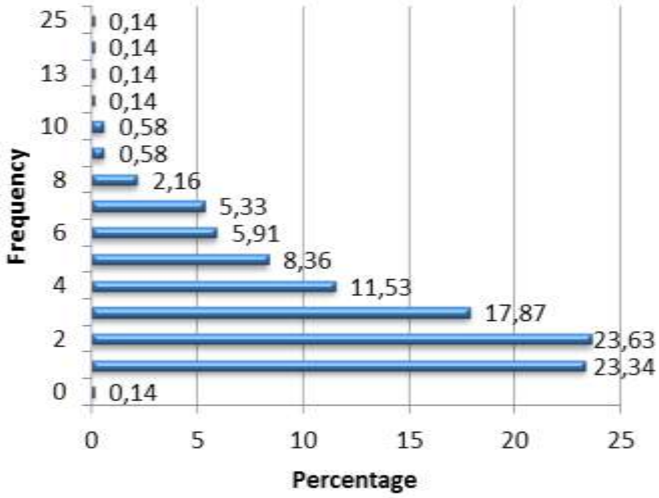


Figure X. Frequency of Loan Applications to BPR
Source : calculated from baseline and Follow up survey

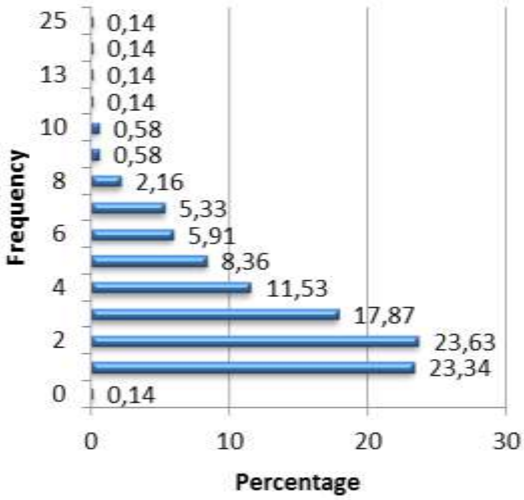


Figure X. Frequency of Loan Applications to BPR
Source : calculated from baseline survey

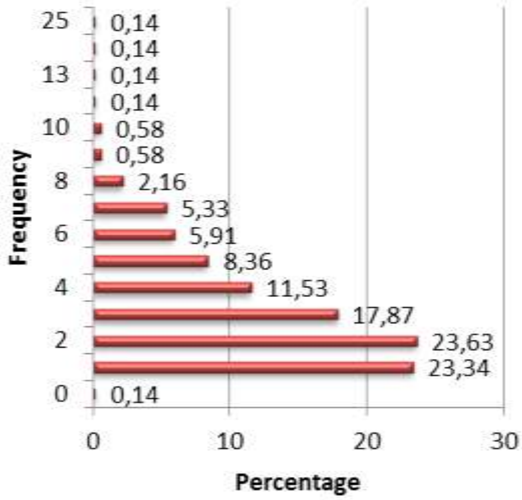
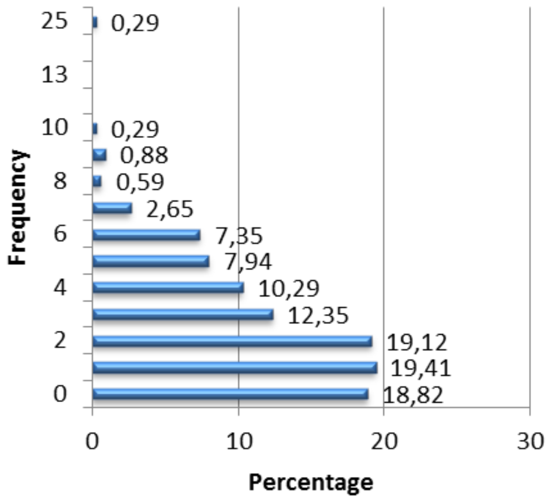


Figure X. Frequency of Loan Applications to BPR
Source : calculated from follow up survey



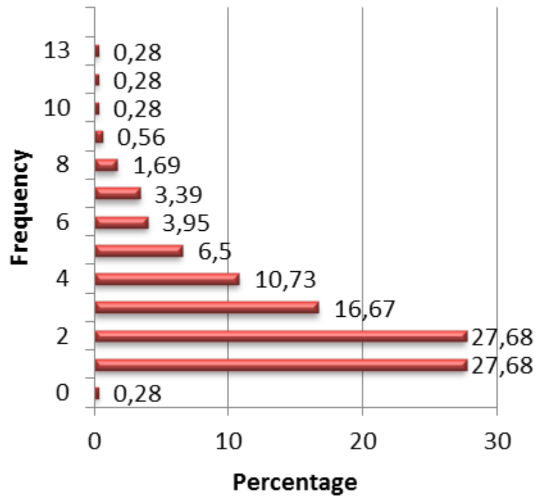


Figure X. Frequency of Loan Applications to BPR:treatment
Source : calculated from follow up survey

Figure X. Frequency of Loan Applications to BPR: control
Source : calculated from follow up survey

ii. Loan Information

Table X. Respondents' Loan Information

	Credit Limit (Rp)	Outstanding (Rp)	Interest/month (%)	Term (Month)
Loan from BPR	15,400,000	8,309,512	11.1461	15.39
Loan from other Source (I)	20,400,000	3,879,659	0.0147	17.59
Loan from other Source (II)	7,266,662	842,068	16.6596	5.34
Loan from other Source (III)	1,796,655	193,907	8.7347	2.21

Source: calculated from baseline and follow up survey; other source of loan include commercial bank, cooperative, financing company, families, and friends.

Table X. Respondents' Loan Information

	Credit Limit (Rp)	Outstanding (Rp)	Interest/month (%)	Term (Month)
BPR	14,600,000	8,762,863	10.9440	15.28
Loan from BPR	17,100,000	4,888,851	0.0110	13.45
Loan from other Source (I)	5,659,580	1,142,935	16.9460	3.91
Loan from other Source (II)	1,592,474	351,020	8.8083	1.72

Source: calculated from baseline survey; other source of loan include commercial bank, cooperative, financing company, families, and friends.

Table X. Respondents' Loan Information

	Credit Limit (Rp)	Outstanding (Rp)	Interest/month (%)	Term (Month)
Loan from BPR	16,300,000	7,868,101	11.3551	15.51
Loan from other Source (I)	31,600,000	2,876,041	0.0270	31.73
Loan from other Source (II)	30,700,000	542,410	11.7692	28.77
Loan from other Source (III)	15,000,000	37,072	4.0000	32.33

Source: calculated from follow up survey; other source of loan include commercial bank, cooperative, financing company, families, and friends.

Table X. Respondents' Loan Information

	Credit Limit (Rp)	Outstanding (Rp)	Interest/month (%)	Term (Month)
Loan from BPR	17,700,000	8,399,289	11.2584	15.65
Loan from other Source (I)	33,300,000	2,507,907	0.0305	25.44
Loan from other Source (II)	25,100,000	577,205	12.2500	27.00
Loan from other Source (III)	14,200,000	33,953	4.5000	31.00

Source: Treatment group calculated from follow up survey; other source of loan include commercial bank, cooperative, financing company, families, and friends.

Table X. Respondents' Loan Information

	Credit Limit (Rp)	Outstanding (Rp)	Interest/month (%)	Term (Month)
Loan from BPR	14,900,000	7,354,919	11.4477	15.38
Loan from other Source (I)	30,300,000	3,231,696	0.0243	36.65
Loan from other Source (II)	39,200,000	508,795	11.0000	31.60
Loan from other Source (III)	16,600,000	40,085	3.0000	35.00

Source: Control group calculated from follow up survey; other source of loan include commercial bank, cooperative, financing company, families, and friends.

iii. Late Days of Loan Repayment

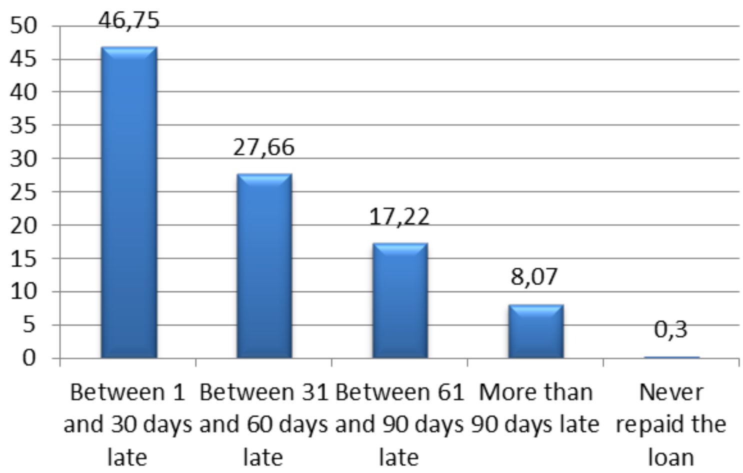


Figure X. Number of Late Days of Loan Repayment
Source: calculated from baseline and follow up survey

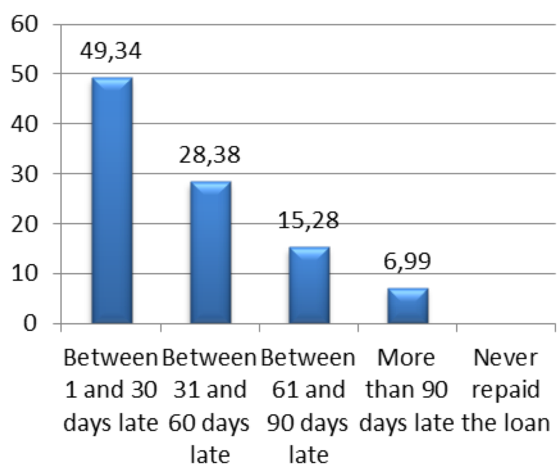


Figure X. Number of Late Days of Loan Repayment
Source: calculated from baseline survey

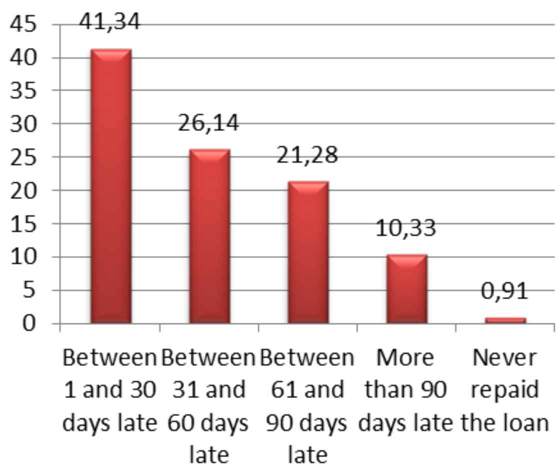


Figure X. Number of Late Days of Loan Repayment
Source: calculated from follow up survey

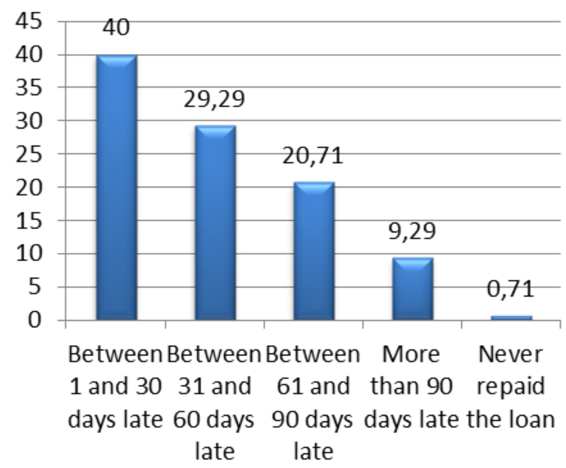


Figure X. Treatment: Number of Late Days of Loan Repayment
Source: calculated from follow up survey

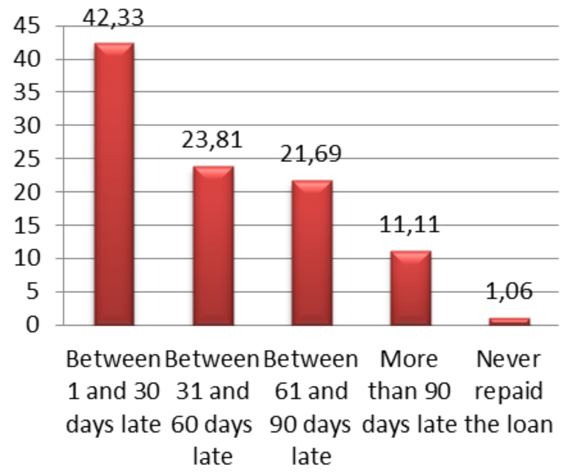


Figure X. Control: Number of Late Days of Loan Repayment
Source: calculated from follow up survey

iv.Types of Savings and Saving Purposes

Table X. Types of Savings and Saving Purposes

Saving Portfolio	Percentage	Saving Purposes	Percentage
Vehicle	86	**Business Development**	78
Land	63	**Education**	71
Cash	64	**Health Cost**	41
Gold	43	**Religious Days**	28
Unpaid Revenue	27	**Ceremonies**	18
Cattle	22	**Others**	12
Other Saving	3	**Recreational**	4

Source: calculated from baseline and follow up survey

Table X. Types of Savings and Saving Purposes

Saving Portfolio	Percentage	Saving Purposes	Percentage
Vehicle	82	**Business Development**	72
Land	56	**Education**	68
Cash	53	**Health Cost**	30
Gold	34	**Religious Days**	24
Unpaid Revenue	29	**Ceremonies**	14
Cattle	22	**Others**	13
Other Saving	2	**Recreational**	3

Source: calculated from baseline survey

Table X. Types of Savings and Saving Purposes

Saving Portfolio	Percentage	Saving Purposes	Percentage
Vehicle	89	**Business Development**	85
Land	70	**Education**	73
Cash	76	**Health Cost**	52
Gold	51	**Religious Days**	1
Unpaid Revenue	26	**Ceremonies**	22
Cattle	23	**Others**	11
Other Saving	23	**Recreational**	4

Source: calculated from follow up survey

Table X. Types of Savings and Saving Purposes

Saving Portfolio	Percentage	Saving Purposes	Percentage
Vehicle	89	**Business Development**	85
Land	68	**Education**	70
Cash	76	**Health Cost**	61
Gold	57	**Religious Days**	100
Unpaid Revenue	24	**Ceremonies**	25
Cattle	25	**Others**	8
Other Saving	6	**Recreational**	4

Source: calculated from follow up survey: Treatment

Table X. Types of Savings and Saving Purposes

Saving Portfolio	Percentage	Saving Purposes	Percentage
Vehicle	89	Business Development	84
Land	71	Education	76
Cash	75	Health Cost	44
Gold	45	Religious Days	100
Unpaid Revenue	28	Ceremonies	19
Cattle	21	Others	15
Other Saving	4	Recreational	5

Source: calculated from follow up survey: Control

v. Saving Progress

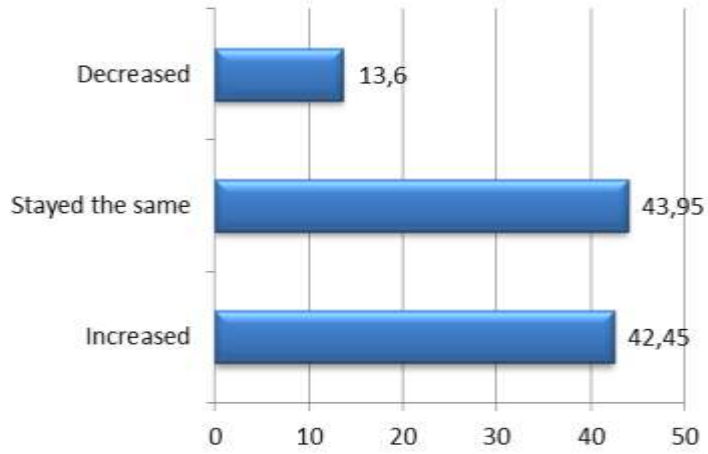


Figure X. Saving Progress
Source: calculated from baseline and follow up survey

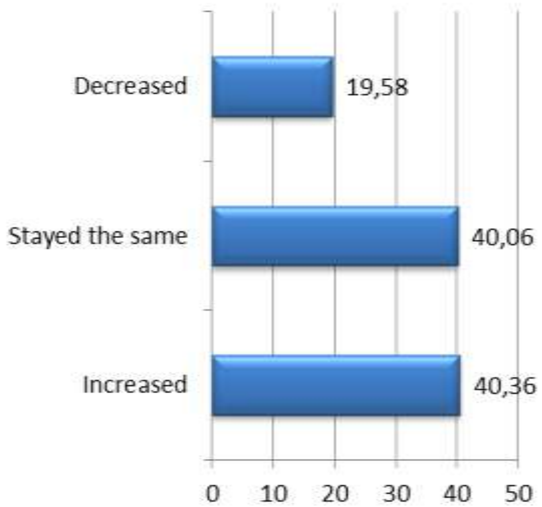


Figure X. Saving Progress
Source: calculated from baseline survey

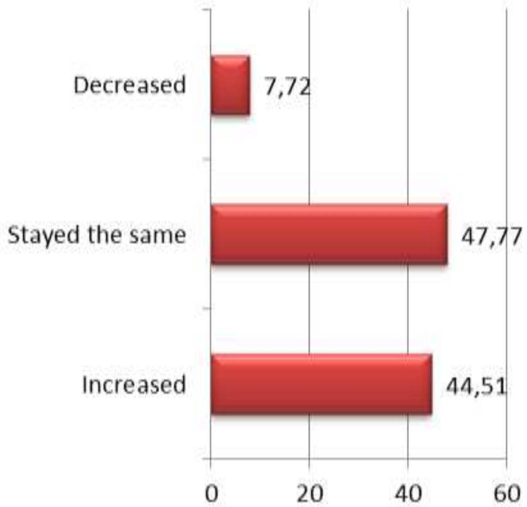


Figure X. Saving Progress
Source: calculated from follow up survey

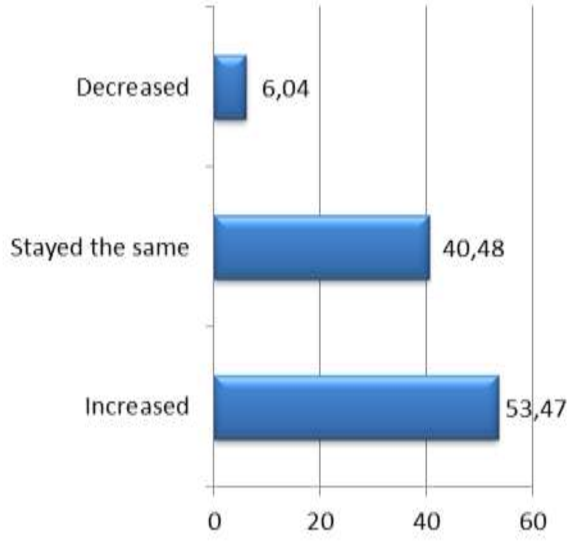


Figure X. Saving Progress: Treatment
Source: calculated from follow up survey

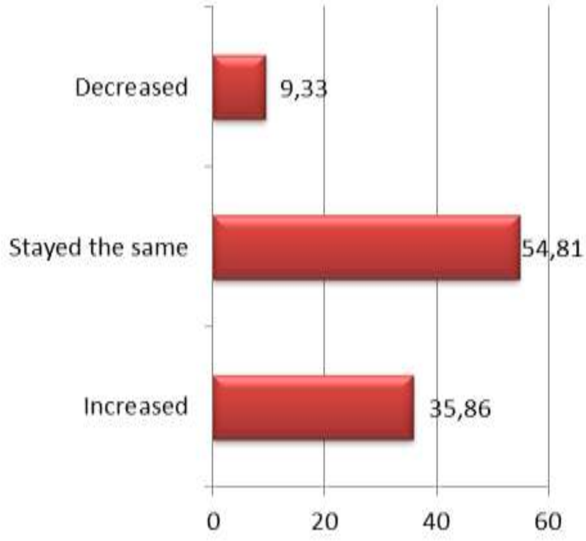


Figure X. Saving Progress: Control
Source: calculated from follow up survey

IV. 3. Respondents' Business Background

i. Seasonality of Main Occupation

Figure X. Seasonality of Main Occupation
Source: calculated from baseline+follow up survey

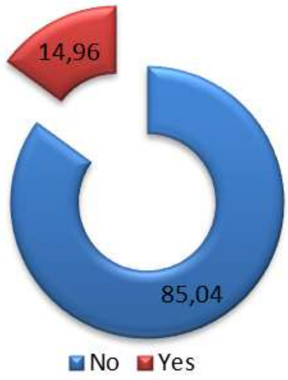


Figure X. Seasonality of Main Occupation
Source: calculated from baseline survey

Figure X. Seasonality of Main Occupation
Source: calculated from follow up survey

Figure X. Seasonality of Main Occupation
Source: calculated from follow up survey: treatment

Figure X. Seasonality of Main Occupation
Source: calculated from follow up survey: control

ii. Profit or Loss During the Last Peak Season

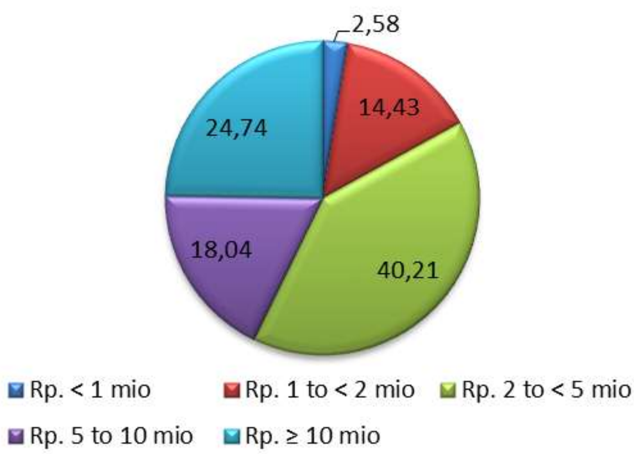


Figure X. Profit or Loss during the Last Peak Season
Source : calculated from baseline+follow up survey

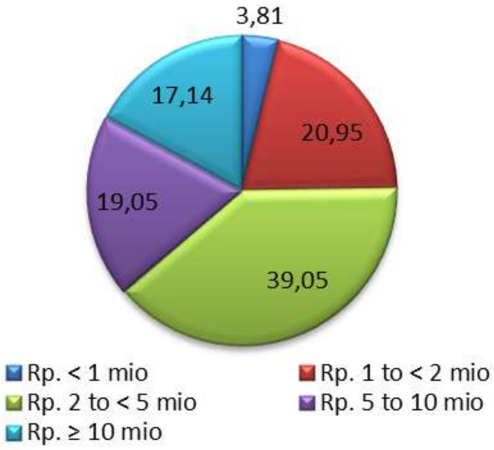


Figure X. Profit or Loss during the Last Peak Season
Source : calculated from baseline survey

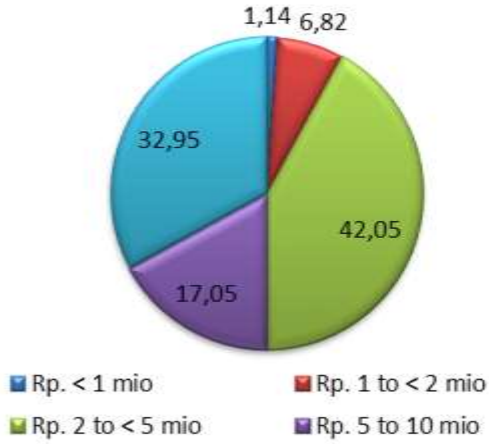


Figure X. Profit or Loss during the Last Peak Season
Source : calculated from follow up survey

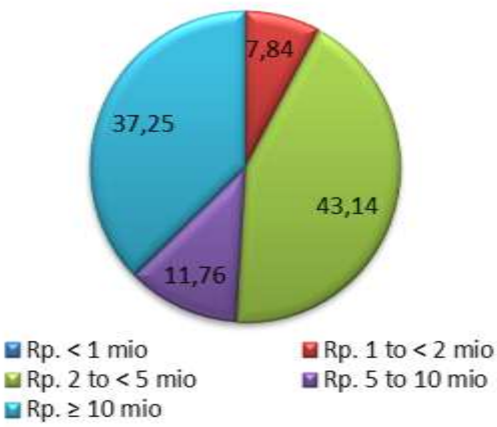


Figure X. Profit or Loss during the Last Peak Season
Source : calculated from follow up survey:treatment

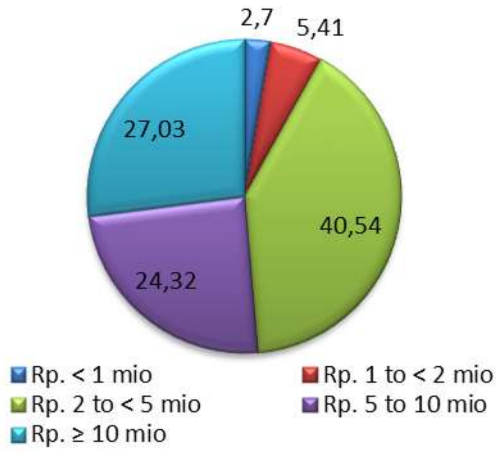
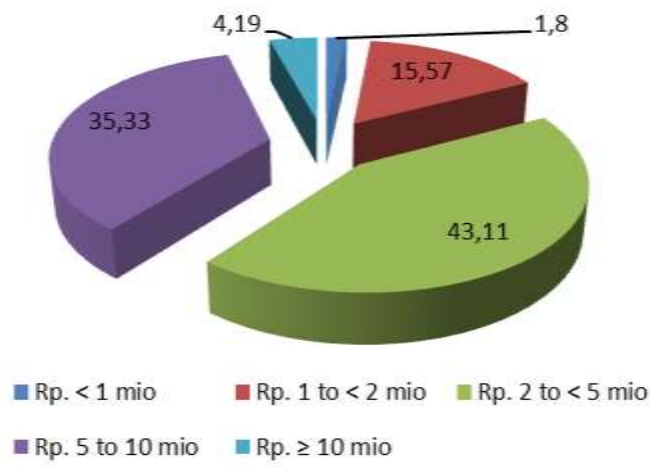


Figure X. Profit or Loss during the Last Peak Season
Source : calculated from follow up survey:control



iii.Profit or Loss During the Last Off-Peak Season

Figure X. Profit or Loss during the Last Off-Peak Season
Source : calculated from baseline+follow up survey

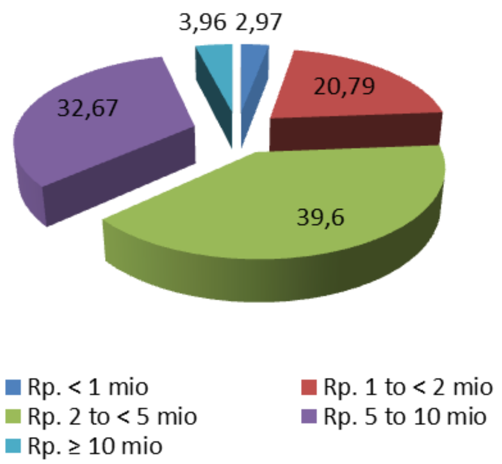


Figure X. Profit or Loss during the Last Off-Peak Season
Source : calculated from baseline survey

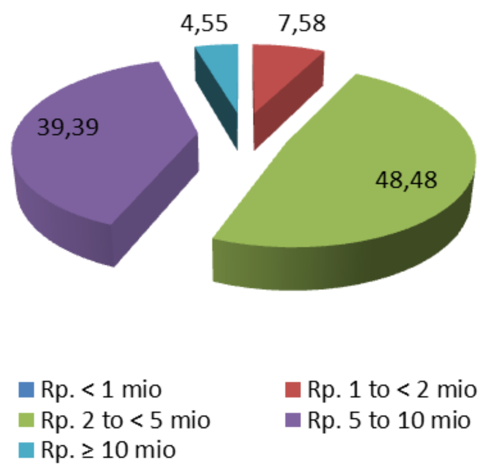


Figure X. Profit or Loss during the Last Off-Peak Season
Source : calculated from follow up survey

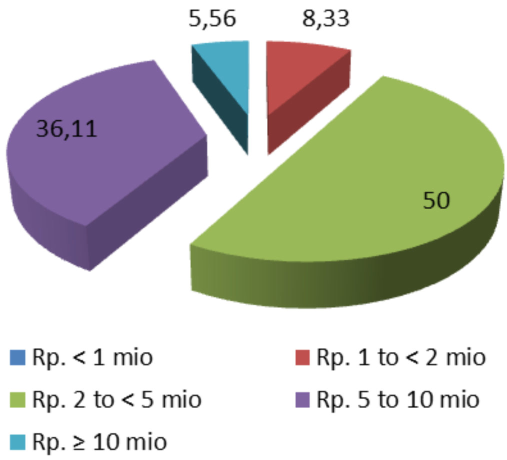


Figure X. Profit or Loss during the Last Off-Peak Season
Source : calculated from follow up survey: treatment

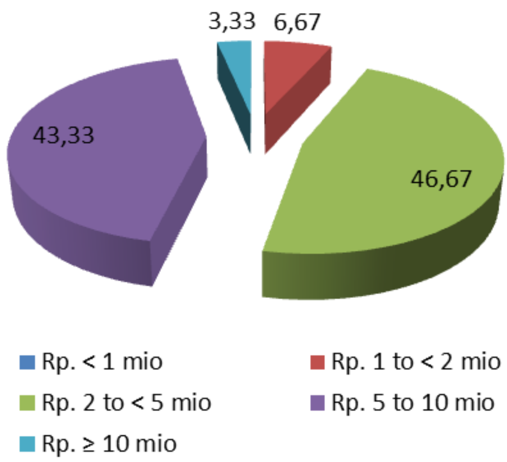


Figure X. Profit or Loss during the Last Off-Peak Season
Source : calculated from follow up survey: control

iv. Number of Working Days During Peak Season

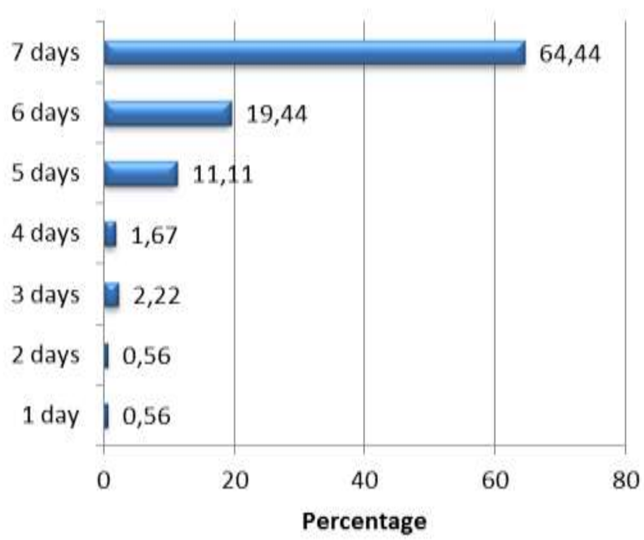


Figure X. Number of Working Days during Peak Season
Source : calculated from baseline+follow up survey

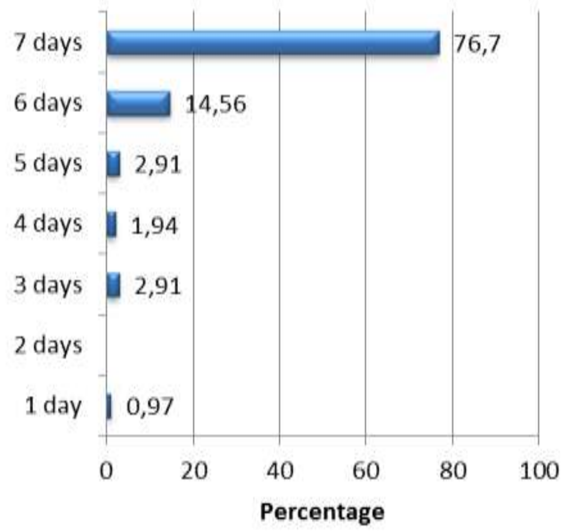


Figure X. Number of Working Days during Peak Season
Source : calculated from baseline survey

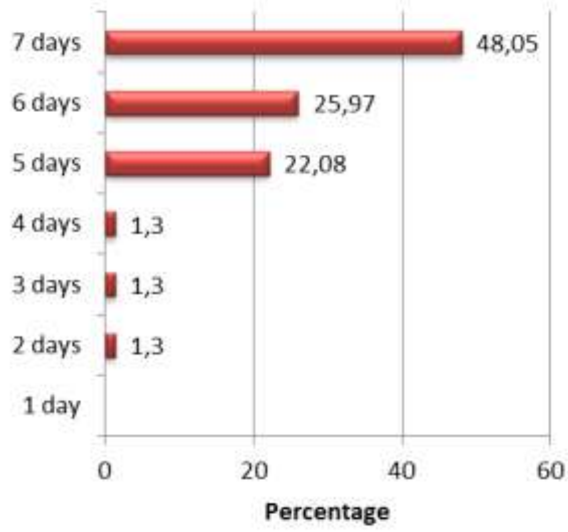


Figure X. Number of Working Days during Peak Season
Source : calculated from follow up survey

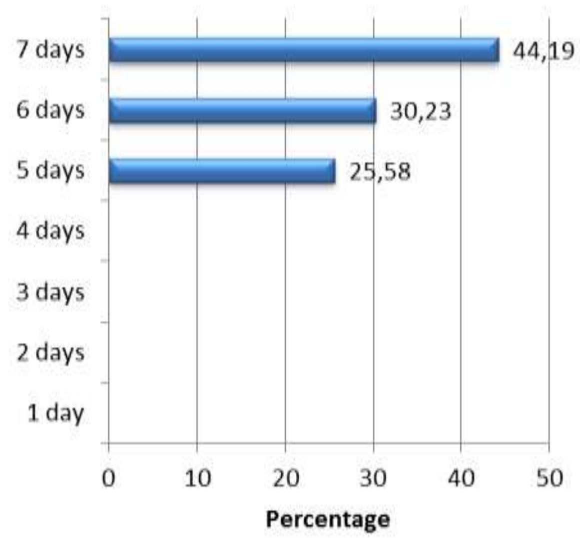


Figure X. Number of Working Days during Peak Season
Source : calculated from follow up survey: Treatment

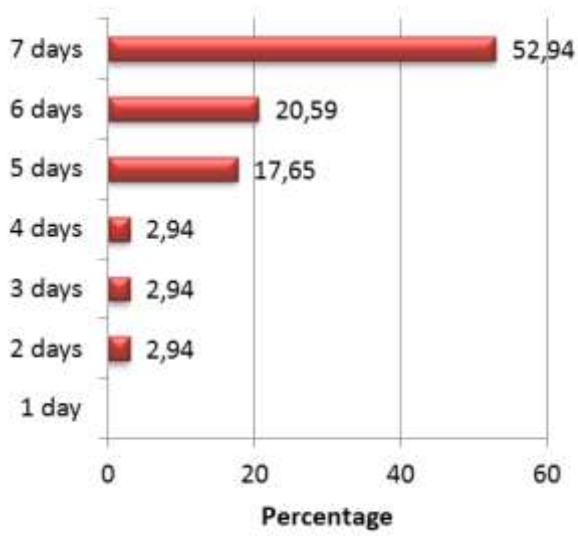


Figure X. Number of Working Days during Peak Season
Source : calculated from follow up survey: Control

v. Number of Working Days During Off-Peak Season

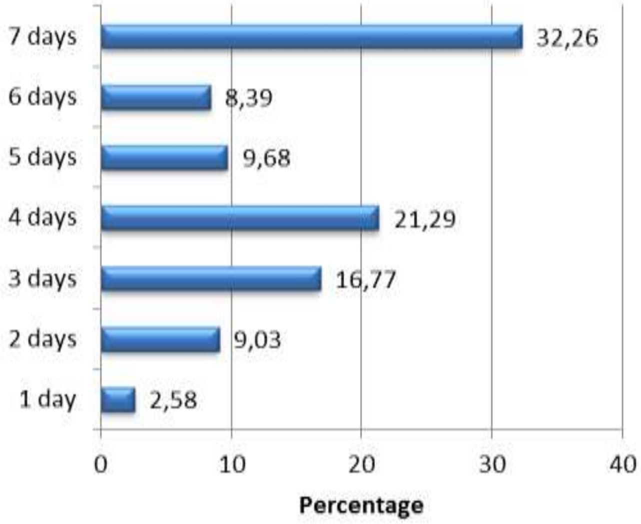


Figure X. Number of Working Days during Off-Peak Season
Source : calculated from baseline survey

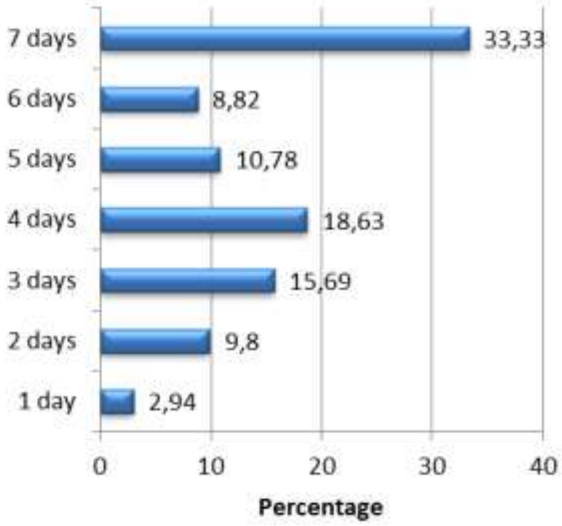


Figure X. Number of Working Days during Off-Peak Season
Source : calculated from baseline survey

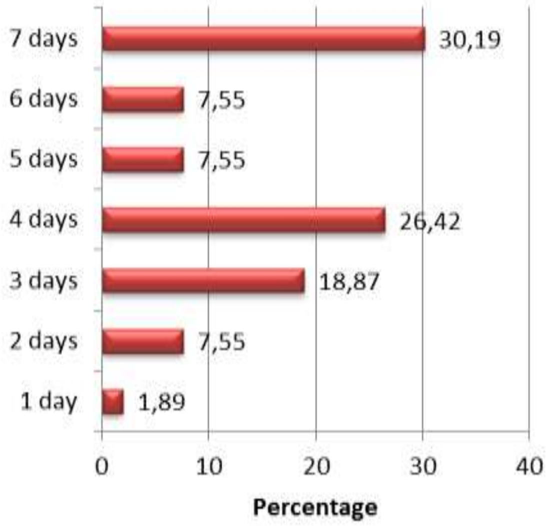
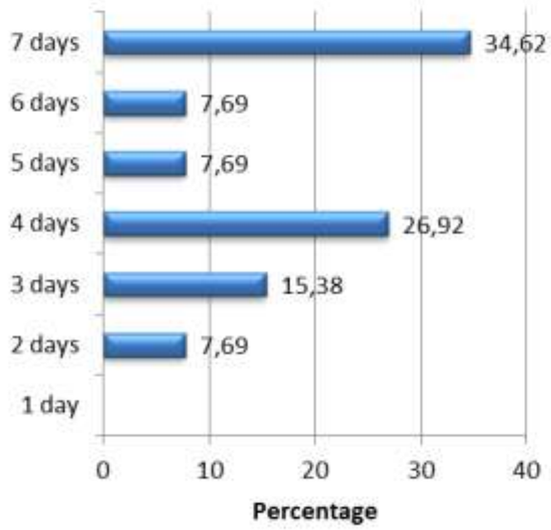


Figure X. Number of Working Days during Off-Peak Season
Source : calculated from follow up survey



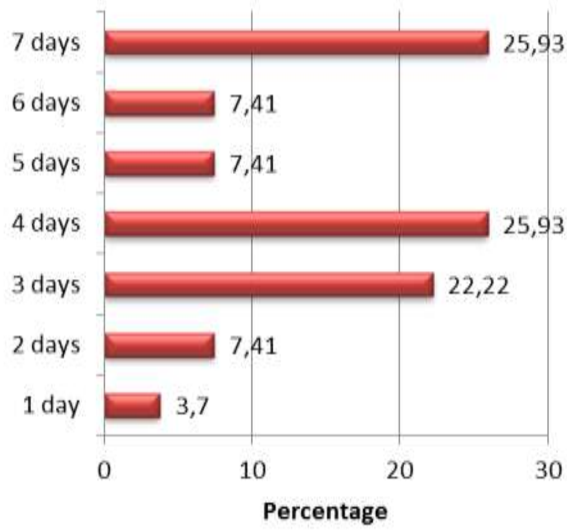


Figure X. Number of Working Days during Off-Peak Season
Source : calculated from follow up survey:treatment

Figure X. Number of Working Days during Off-Peak Season
Source : calculated from follow up survey: control

IV.4. Respondents' Financial Management

i. Expenditure Planning

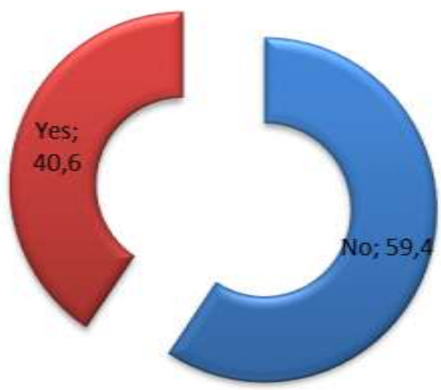
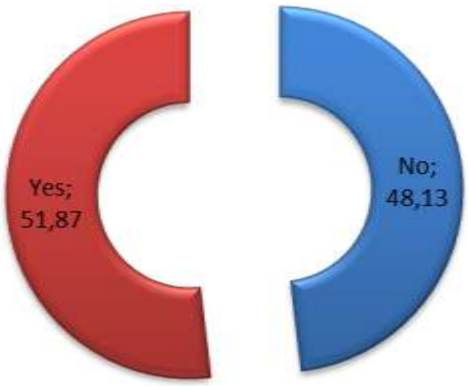


Figure X. Household Expenditure Planning
Source : calculated from baseline survey



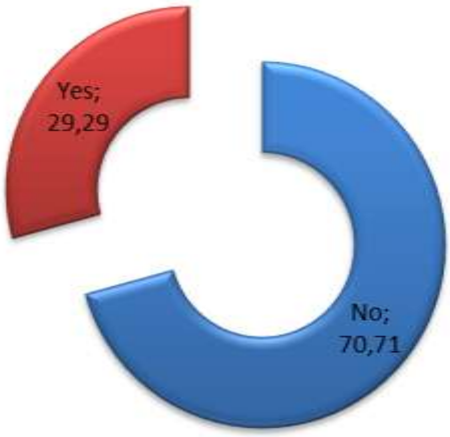
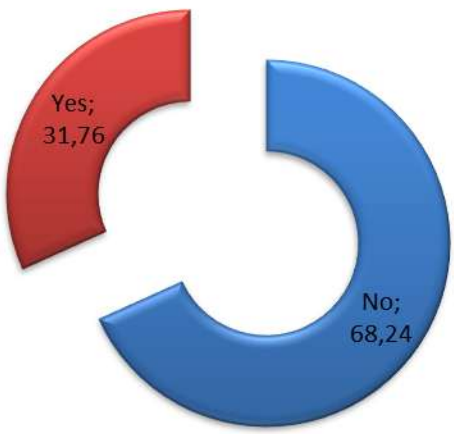


Figure X. Household Expenditure Planning
Source : calculated from baseline survey

Figure X. Household Expenditure Planning
Source : calculated from follow up survey



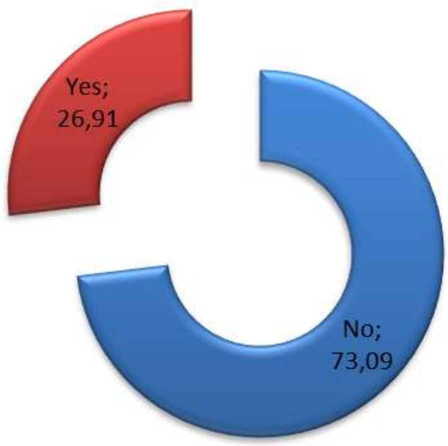


Figure X. Household Expenditure Planning
Source : calculated from follow up survey:treatment

Figure X. Household Expenditure Planning
Source : calculated from follow up survey:control

ii. Separation of Business and Household Finance

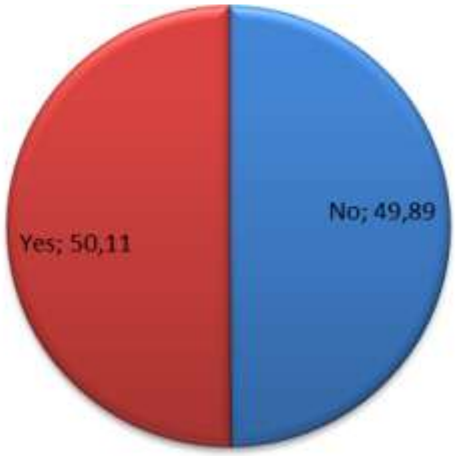


Figure X. Separation of Business and Household Finance
Source : calculated from baseline+follow up survey

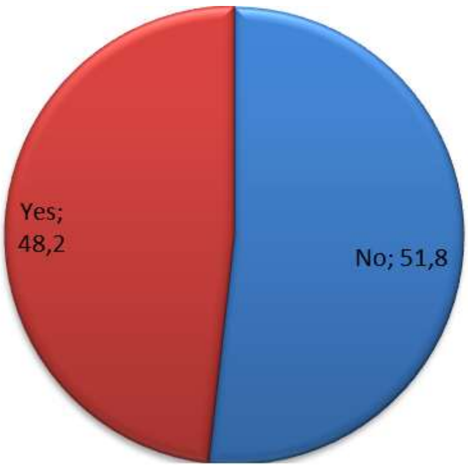


Figure X. Separation of Business and Household Finance
Source : calculated from baseline survey

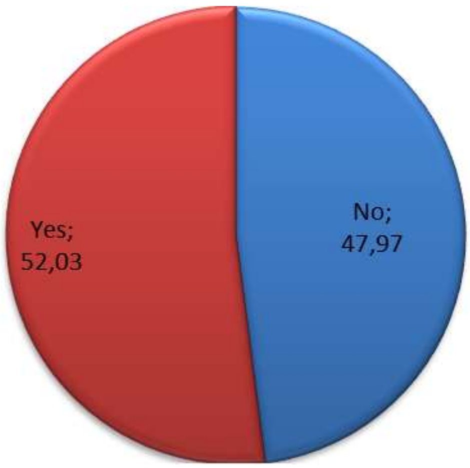


Figure X. Separation of Business and Household Finance
Source : calculated from follow up survey

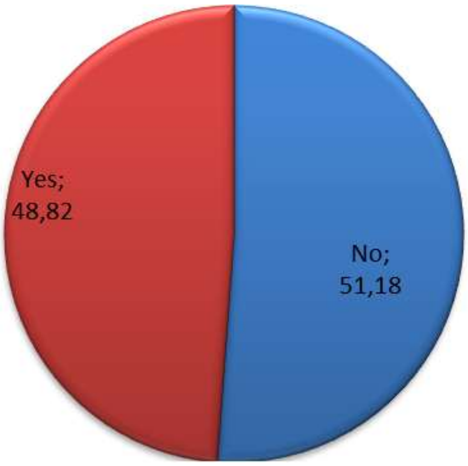


Figure X. Separation of Business and Household Finance
Source : calculated from follow up survey:treatmen

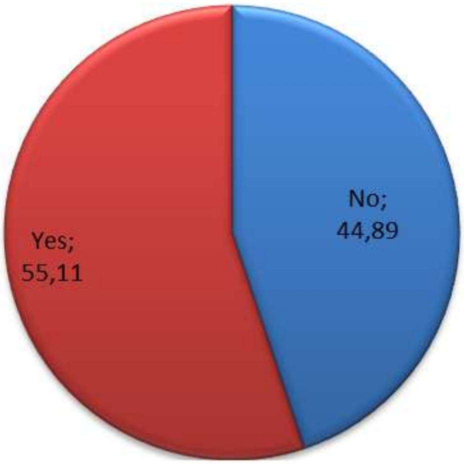


Figure X. Separation of Business and Household Finance
Source : calculated from follow up survey:control

iii. Household Income Documentation

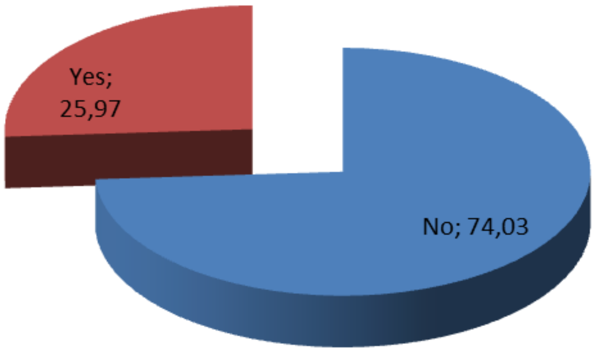


Figure X. Household Income Documentation
Source: calculated from baseline+follow up survey

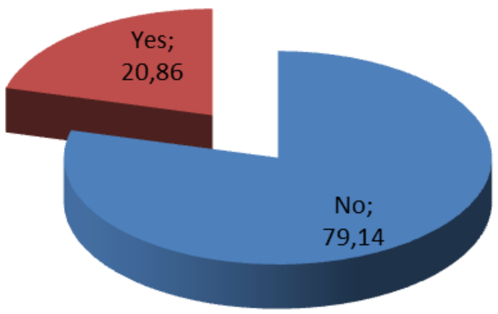


Figure X. Household Income Documentation
Source: calculated from baseline survey

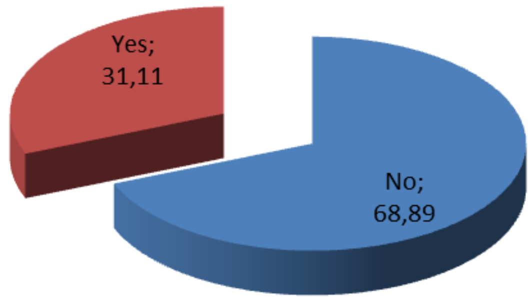


Figure X. Household Income Documentation
Source: calculated fromfollow up survey

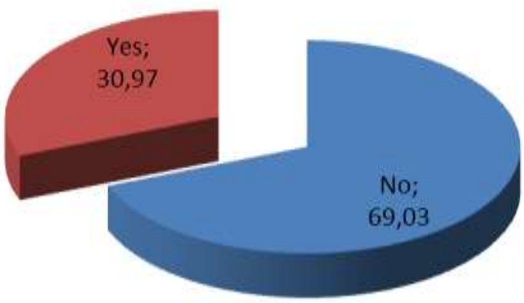


Figure X. Household Income Documentation
Source: calculated fromfollow up survey:treatment

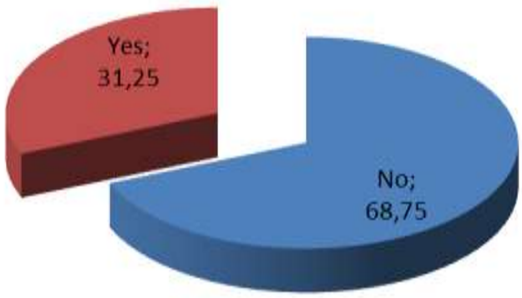


Figure X. Household Income Documentation
Source: calculated fromfollow up survey:control

iv. Household Expenditure Planning Habit

Table X. Household Expenditure Planning Habit by Educational Attainment (Baseline+Follow up)

		Households' Expenditure Planning	
		No	Yes
Educational Attainment			
	None	30	12
	Primary High School	458	134
	Junior High School	248	90

	Senior High School	223	103
	Diploma	19	9
	University	44	12
	Total	1022	360

Table X. Household Expenditure Planning Habit by Educational Attainment

	Households' Expenditure Planning			Households' Expenditure Planning	
Education (Baseline)	No	Yes	**Education (Follow Up)**	No	Yes
None	20	1	**None**	10	11
Primary High School	255	44	**Primary High School**	203	90
Junior High School	128	41	**Junior High School**	120	49
Senior High School	116	46	**Senior High School**	107	57
Diploma	10	4	**Diploma**	9	5
University	19	9	**University**	25	3
Total	548	145	**Total**	474	215

Table X. Household Expenditure Planning Habit by Educational Attainment (Follow up)

	Households' Expenditure Planning			Households' Expenditure Planning	
Education (Treatment)	No	Yes	**Education (Control)**	No	Yes
None	6	3	**None**	4	8
Primary High School	111	54	**Primary High School**	92	36
Junior High School	60	23	**Junior High School**	60	26
Senior High School	47	23	**Senior High School**	60	34
Diploma	2	1	**Diploma**	7	4
University	7	1	**University**	18	2
Total	233	105	**Total**	241	110

Table X. Households' Financial Management Attributes by Survey Group (Baseline+Follow up)

	Income and Expenditure Documentation		Plan Expenditure	
	No	Yes	No	Yes
Control	550	180	431	301
Treatment	476	180	394	263

Chi-Square (Pr)	1.3903	Pr = 0.238	0.1705	Pr = 0.680
Total	1,026	360	825	564

IV.5. Financial Management Attributes

i. by survey group

Table X. Households' Financial Management Attributes by Survey Group (Baseline)

	Income and Expenditure Documentation		Plan Expenditure	
	No	Yes	No	Yes
Control	308	70	173	206
Treatment	242	75	162	155
Chi-Square (Pr)	**2.7597**	**Pr = 0.097**	**2.0595**	**Pr = 0.151**

Table X. Households' Financial Management Attributes by Survey Group (Follow up)

	Income and Expenditure Documentation		Plan Expenditure	
	No	Yes	No	Yes
Control	242	110	258	95
Treatment	234	105	232	108
Chi-Square (Pr)	**0.0062**	**Pr = 0.937**	**1.9689**	**Pr = 0.161**

ii. Contingency Analysis

Table X. Contingency Analysis between Households Financial Management Attributes

	Plan Expenditure		Separate Household and Business Finance	
incdoc	No	Yes	No	Yes

Do not document income and expenditure	670	356	607	416
Document income and expenditure	152	208	82	277
Chi-Square (Pr)	**58.8208**	**Pr = 0.000**	**141.5696**	**Pr = 0.000**

Table X. Contingency Analysis between Households Financial Management Attributes

	Plan Expenditure		Separate Household and Business Finance	
incdoc	No	Yes	No	Yes
Do not document income and expenditure	286	264	322	227
Document income and expenditure	48	97	38	107
Chi-Square (Pr)	**16.4145**	**Pr = 0.000**	**48.3673**	**Pr = 0.000**

Table X. Contingency Analysis between Households Financial Management Attributes

	Plan Expenditure		Separate Household and Business Finance	
incdoc	No	Yes	No	Yes
Do not document income and expenditure	384	92	285	189
Document income and expenditure	104	111	44	170
Chi-Square (Pr)	**74.4762**	**Pr = 0.000**	**92.4977**	**Pr = 0.000**

iii. Household Annual Expenditure

Table X. Respondent's Household Annual Expenditure and Proportion by Items and Percentiles, in rupiah (Baseline+Follow up)

Nominal	Mean	Average Montly Expenditure	Percentile	Average Montly Expenditure
Foods	0.230	1,166,667	1	558,617
Housing	0.027	134,627	5	968,300
Loan Repayment	0.084	425,254	10	1,120,333
Schooling	0.034	171,189	20	1,416,667

Festival	0.061	308,130	30	1,648,667
Healthcare	0.023	114,938	50	2,224,167
Transportation	0.023	114,022	70	2,981,667
Festival	0.067	341,742	80	3,639,800
Recreational	0.092	466,153	90	4,829,666
Clothing	0.043	217,299	95	6,621,667
Water And Electricity	0.070	353,421	99	12,700,000
Communication	0.247	1,250,000	100	34,500,000

Table X. Respondent's Household Annual Expenditure and Proportion by Items and Percentiles, in rupiah (Baseline)

Nominal	Mean	Average Montly Expenditure	Percentile	Average Montly Expenditure
Foods	0.229	1,158,333	1	549,500
Housing	0.025	127,003	5	991,417
Loan Repayment	0.089	451,567	10	1,133,167
Schooling	0.025	126,787	20	1,406,000
Festival	0.070	352,059	30	1,663,500
Healthcare	0.024	119,116	50	2,228,750
Transportation	0.023	117,304	70	2,907,500
Festival	0.068	344,288	80	3,641,733
Recreational	0.094	476,938	90	5,036,000
Clothing	0.039	196,625	95	6,879,850
Water And Electricity	0.111	560,258	99	14,200,000
Communication	0.306	1,550,000	100	34,500,000

Table X. Respondent's Household Annual Expenditure and Proportion by Items and Percentiles, in rupiah (follow up)

Nominal	Mean	Average Montly Expenditure	Percentile	Average Montly Expenditure
Foods	0.234	1,183,333	1	665,117
Housing	0.028	141,867	5	953,792
Loan Repayment	0.079	399,336	10	1,116,167
Schooling	0.042	214,304	20	1,438,500

Festivel	0.052	264,202	30	1,631,833
Healthcare	0.022	110,736	50	2,220,833
Transportation	0.022	110,691	70	3,035,000
Festival	0.067	339,464	80	3,635,000
Recreational	0.092	464,638	90	4,766,667
Clothing	0.100	506,127	95	6,065,283
Water And Electricity	0.048	241,259	99	12,700,000
Communication	0.165	833,333	100	29,500,000

Table X. Respondent's Household Annual Expenditure and Proportion by Items and Percentiles, in rupiah (Follow up Treatment)

Nominal	Mean	Average Montly Expenditure	Percentile	Average Montly Expenditure
Foods	0.232	1,175,000	1	549,450
Housing	0.027	135,079	5	899,083
Loan Repayment	0.091	459,066	10	1,100,500
Schooling	0.024	120,520	20	1,400,000
Festival	0.052	263,705	30	1,597,667
Healthcare	0.022	109,243	50	2,143,750
Transportation	0.025	125,752	70	3,016,667
Festivel	0.069	350,802	80	3,513,667
Recreational	0.059	301,088	90	4,490,000
Clothing	0.066	334,444	95	6,017,500
Water And Electricity	0.047	240,346	99	12,100,000
Communication	0.155	782,727	100	14,300,000

Table X. Respondent's Household Annual Expenditure and Proportion by Items and Percentiles, in rupiah (Follow up Control)

Nominal	Mean	Average Montly Expenditure	Percentile	Average Montly Expenditure
Foods	0.234	1,183,333	1	746,917
Housing	0.029	148,264	5	987,917
Loan Repayment	0.069	347,360	10	1,194,167
Schooling	0.066	336,222	20	1,495,000

Festivel	0.052	264,678	30	1,670,833
Healthcare	0.022	112,199	50	2,315,000
Transportation	0.019	95,930	70	3,062,500
Festival	0.065	329,285	80	3,733,333
Recreational	0.117	592,054	90	4,847,500
Clothing	0.127	641,667	95	6,419,854
Water And Electricity	0.048	242,043	99	15,300,000
Communication	0.173	875,000	100	29,500,000

iv. Causes of Unplanned Expenditure

Table X. Causes of Unplanned Expenditure (Baseline+Follow up)

Cause of Unplanned Expenditure	Rank 1st	Rank 2nd	Rank 3rd
Ceremonies	243	216	46
Sick HH member	198	63	64
Death	43	15	14
Force Majeure	12	4	4
Loss of HH member	8	10	9
Loss of Jobs by HH member	3	0	1
Other	300	179	70

Table X. Causes of Unplanned Expenditure

Cause of Unplanned Expenditure(Baseline)	Rank 1st	Rank 2nd	Rank 3rd	Cause of Unplanned Expenditure(Follow up)	Rank 1st	Rank 2nd	Rank 3rd
Ceremonies	131	100	23	**Ceremonies**	112	116	23
Sick HH member	120	31	32	**Sick HH member**	78	32	32
Death	32	8	1	**Death**	11	7	13
Force Majeure	4	3	1	**Force Majeure**	8	1	3
Loss of HH member	2	0	0	**Loss of HH member**	6	10	9
Loss of Jobs by HH member	2	0	0	**Loss of Jobs by HH member**	1	0	1
Other	171	89	41	Other	129	90	29

Table X. Causes of Unplanned Expenditure (Follow up)

Cause of Unplanned Expenditure (Treatment)	Rank 1st	Rank 2nd	Rank 3rd	Cause of Unplanned Expenditure (Control)	Rank 1st	Rank 2nd	Rank 3rd
Ceremonies	46	51	13	**Ceremonies**	66	65	10

Sick HH member	38	11	12	**Sick HH member**	40	21	20
Death	7	2	5	**Death**	4	5	8
Force Majeure	3	0	0	**Force Majeure**	5	1	3
Loss of HH member	1	3	1	**Loss of HH member**	5	7	8
Loss of Jobs by HH member	0	0	0	**Loss of Jobs by HH member**	1	0	1
Other	62	42	7	**Other**	67	48	22

v. Strategies to Cope with Unplanned Household Expenditure

Table X. Respondents' Strategies to Cope with Unplanned Household Expenditure

Strategies	Rank 1st	Rank 2nd	Rank 3rd
Borrow from families or friend	254	164	24
Withdraw savings	343	86	26
Work harder	61	213	81
Apply credit from other FI	44	31	27
other	22	13	1
Sacrifice business expenditure	14	21	18
Sell assets	21	19	34
Longer working hours for employee	11	38	24
Longer business hour	14	81	183

Table X. Respondents' Strategies to Cope with Unplanned Household Expenditure

Strategies	Baseline			Follow up		
	Rank 1st	Rank 2nd	Rank 3rd	Rank 1st	Rank 2nd	Rank 3rd
Borrow from families or friend	168	65	18	86	99	6
Withdraw savings	156	40	12	187	46	14
Work harder	30	126	36	31	87	45
Apply credit from other FI	28	22	8	16	9	19
other	15	9	1	7	4	0
Sacrifice business expenditure	12	19	11	2	2	7
Sell assets	11	14	25	10	5	9
Longer working hours for employee	9	28	19	2	10	5
Longer business hour	9	39	99	5	42	84

Table X. Respondents' Strategies to Cope with Unplanned Household Expenditure (Follow up)

Strategies	Treatment	Control

	Rank 1st	Rank 2nd	Rank 3rd	Rank 1st	Rank 2nd	Rank 3rd
Borrow from families or friend	36	23	3	50	76	3
Withdraw savings	79	15	7	108	31	7
Work harder	23	53	17	8	34	28
Apply credit from other FI	7	5	3	9	4	16
other	4	2	0	3	2	0
Sacrifice business expenditure	1	2	5	1	0	2
Sell assets	8	3	4	2	2	5
Longer working hours for employee	1	6	3	1	4	2
Longer business hour	4	25	48	1	17	36

vi. Expenditure Structure of Business

Table X. Expenditure Structure of Respondents' Business

item	Mean	Mean
Capital	33.74	56,600,000
Wage	19.26	32,300,000
Contracts	14.07	23,600,000
Riots	8.88	14,900,000
Interest and credit payment	8.58	14,400,000
Rent	3.50	5,870,000
Transportation	3.18	5,328,678
Insurance	2.44	4,098,864
Force Majeure	2.09	3,500,000
accidents	1.79	2,994,444
Overhead	1.32	2,222,418
Tax and retribution	1.15	1,927,453

Table X. Expenditure Structure of Respondents' Business

item	Baseline		Follow up	
	Mean	Mean	Mean	Mean
Capital	34.02695	65700000	34.95711	46000000
Wage	17.97162	34700000	21.8102	28700000
Contracts	14.86413	28700000	12.61496	16600000
Riots	11.29053	21800000	3.096744	4075000
Interest and credit payment	6.836465	13200000	11.85502	15600000
Rent	3.045265	5879867	4.453021	5859722

Transportation	3.235419	6247019	3.341366	4396898
Insurance	2.503305	4833438	1.626266	2140000
Force Majeure	2.006917	3875000	1.519874	2000000
accidents	1.167298	2253846	2.454041	3229268
Overhead	1.312366	2533946	1.466845	1930219
Tax and retribution	1.739744	3359136	0.804556	1058714

Table X. Expenditure Structure of Respondents' Business

item	**Treatment**		**Control**	
	Mean	Mean	Mean	Mean
Capital	44.25111	53600000	26.721463	39600000
Wage	19.15347	23200000	23.549976	34900000
Contracts	1.825712	2211429	24.764588	36700000
Riots	3.207969	3885714	2.8490897	4222222
Interest and credit payment	12.7965	15500000	10.661594	15800000
Rent	5.854545	7091429	3.1678396	4694595
Transportation	3.585809	4343379	2.998352	4443422
Insurance	1.774998	2150000	1.430543	2120000
Force Majeure	1.651161	2000000	0	0
accidents	3.402571	4121429	1.8669038	2766667
Overhead	1.672909	2026343	1.2403982	1838214
Tax and retribution	0.823253	997180.9	0.7492516	1110357

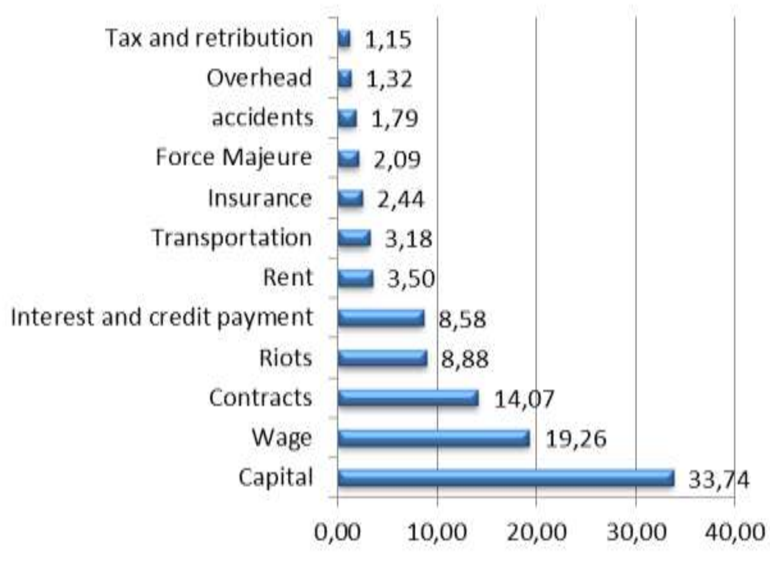


Figure X. Percentage of Planned Business Expenditure by Items
Source: calculated from baseline+follow up survey

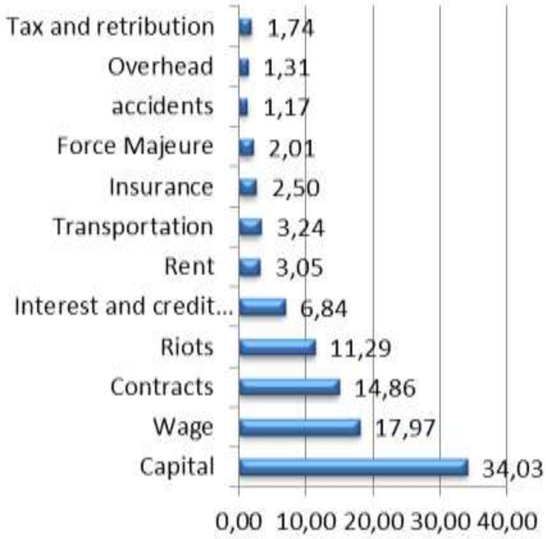


Figure X. Percentage of Planned Business Expenditure by Items
Source: calculated fromfollow up survey

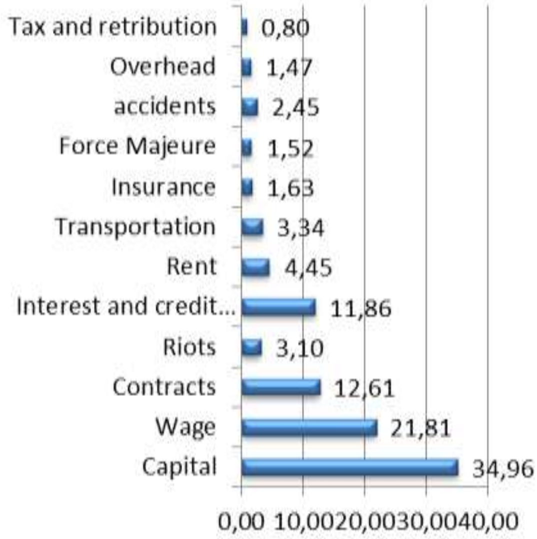


Figure X. Percentage of Planned Business Expenditure by Items
Source: calculated from follow up survey

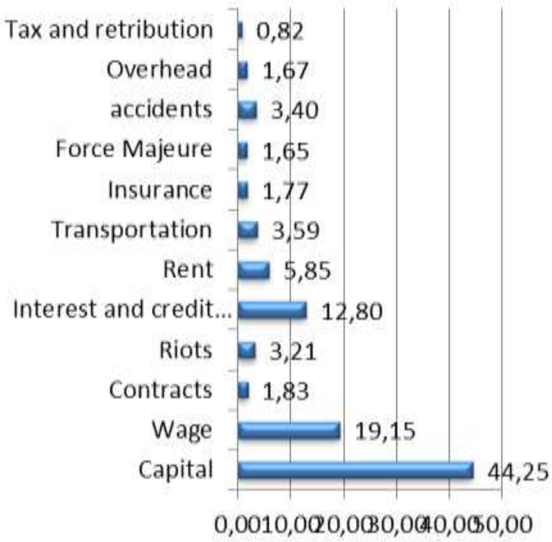


Figure X. Percentage of Planned Business Expenditure by Items
Source: calculated fromfollow up survey: treatment

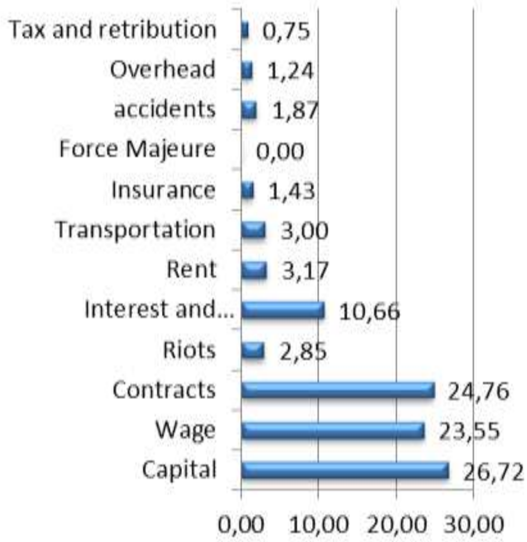


Figure X. Percentage of Planned Business Expenditure by Items
Source: calculated fromfollow up survey: control

VII. Unexpected Business Expenditure

Table X. Unexpected Business Expenditure

Cause of unplanned	Rank 1	Rank 2	Rank 3	Average Expenditure
Other	305	19	2	20,300,000
Sick HH member	39	17	19	7,630,667
Bancruptcy	35	8	6	24,200,000
Loss of business assets	34	11	9	12,700,000
Loss of HH member	12	9	6	8,814,815
Failed harvest	9	6	0	9,006,667
Copensation payment	6	23	15	3,686,364
Land owndership	4	8	3	21,900,000
Other damage due to force majeure	3	2	7	7,454,167

Table X. Unexpected Business Expenditure

Cause of unplanned	Baseline				Follow up			
	Rank 1	Rank 2	Rank 3	Average Expenditure	Rank 1	Rank 2	Rank 3	Average Expenditure
Other	191	14	1	19,600,000	114	5	1	21,400,000
Sick HH member	23	6	0	6,365,517	16	11	19	8,428,261
Bancruptcy	21	8	3	29,400,000	14	0	3	15,500,000
Loss of business assets	29	3	2	17,200,000	5	8	7	5,160,000
Loss of HH member	7	1	0	9,875,000	5	8	6	8,368,421
Failed harvest	7	5	0	7,091,667	2	1	0	16,700,000
Copensation payment	2	1	0	2,500,000	4	22	15	3,773,171
Land owndership	1	1	0	85,000,000	3	7	3	12,200,000
Other damage due to force majeure	3	1	0	9,612,500	0	1	7	6,375,000

Table X. Unexpected Business Expenditure (Follow up)

Cause of unplanned	Treatment				Control			
	Rank 1	Rank 2	Rank 3	Average Expenditure	Rank 1	Rank 2	Rank 3	Average Expenditure
Other	54	1	1	16,400,000	60	4	0	25,700,000
Sick HH member	6	2	4	8,083,333	10	9	15	8,550,000
Bancruptcy	6	0	2	13,200,000	8	0	1	17,600,000
Loss of business assets	1	2	3	3,200,000	4	6	4	6,000,000
Loss of HH member	2	1	1	7,750,000	3	7	5	8,533,333
Failed harvest	1	1	0	10,000,000	1	0	0	30,000,000
Copensation payment	2	9	4	3,093,333	2	13	11	4,165,385
Land owndership	1	2	1	3,300,000	2	5	2	16,200,000
Other damage due to	0	0	0	0	0	1	7	6,375,000

force majeure

viii. Strategies to Overcome Unexpected Business Expenditure

Table X. Strategies to Overcome Unexpected Business Expenditure

Strategies to Overcome Unexpected Expenditure	Rank 1	Rank 2	Rank 3
Withdraw savings	154	30	12
Borrow from families or friend	151	65	24
Work harder	45	156	32
Apply credit from other FI	36	21	20
Sell assets	16	12	21
No strategy	16	0	0
Longer business hour	14	55	149
Other	11	8	0
Sacrifice business expenditure	7	6	9
Sacrifice household expenditure	2	22	19
Social security scheme	2	0	1
Sell unharvested product	1	2	3

Table X. Strategies to Overcome Unexpected Business Expenditure

Strategies to Overcome Unexpected Expenditure	Baseline			Follow up		
	Rank 1	Rank 2	Rank 3	Rank 1	Rank 2	Rank 3
Withdraw savings	90	14	9	64	16	3
Borrow from families or friend	108	36	13	43	29	11
Work harder	26	107	16	19	49	16
Apply credit from other FI	26	12	4	10	9	16
Sell assets	9	9	18	7	3	3
No strategy	7	0	0	9	0	0
Longer business hour	7	39	98	7	16	51
Other	8	5	0	3	3	0
Sacrifice business expenditure	7	3	4	0	3	5
Sacrifice household expenditure	2	9	10	0	13	9
Social security scheme	0	0	0	2	0	1
Sell unharvested product	1	1	3	0	1	0

Table X. Strategies to Overcome Unexpected Business Expenditure

Strategies to Overcome Unexpected Expenditure	Treatment			Control		
	Rank 1	Rank 2	Rank 3	Rank 1	Rank 2	Rank 3
Withdraw savings	26	8	1	38	8	2
Borrow from families or friend	19	7	8	24	22	3
Work harder	9	25	6	10	24	10
Apply credit from other FI	6	4	2	4	5	14
Sell assets	3	2	0	4	1	3
No strategy	6	0	0	3	0	0
Longer business hour	3	9	28	4	7	23
Other	2	2	0	1	1	0
Sacrifice business expenditure	0	0	4	0	3	1
Sacrifice household expenditure	0	4	2	0	9	7
Social security scheme	0	0	1	2	0	0
Sell unharvested product	0	1	0	0	0	0