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Is Fishery Sector in Indonesia Financially Inclusive?





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Perspective of Factors Driving Credit Participation in Fishery Sector

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*“A bank is a place that will lend
you money if you can prove
that you don’t need it”*



Bob Hope
American Comedian

Background

- Indonesia's coastline = 95.181 km , 2/3 of Indonesia's territory = water
- Marine and fishery sector in Indonesia has an optimum potential of USD 1.2 trillion or 10x APBN

- Contribution to GDP is only 2.5% (2015)
- National Credit disbursement to fishery sector is only 0.3% from total portfolio (BU), 0.24% (BPR)
- Has a slower growth of credit disbursement compared to other sector

Research Objective

To investigate empirically factors driving low participation of credit in fishery sector

Variables Description

No	Variabel	Deskripsi
1	Credit participation	1 = Respondent has ever received credit from banks 0 = Respondent has never received credit from banks
2	Sex	1 = Male, 0 = Female
3	Age	Consist of 4 categories: 1 = < 30 y.o. , 2 = 30-39 y.o., 3 = 40-49 y.o., 4 = > 50 y.o.
4	Education	The last education level, consist of five categories: 1 = Never been to school, 2 = Elementary school (SD), 3 = Junior high school (SMP), 4 = High school (SMA), 5 = College
5	Ratio of Income over Expenses (RloE)	It is a ratio of total income divided by total expenses, the larger the RloE the higher the incomes over the expenses. The sample of interpretation is as follows: <ul style="list-style-type: none"> • RloE = 1 indicates that total income is the same as total expenses; • RloE = 2 indicates that total income generated is twice larger compared to the total expensess
6	Job type	Consists of : Fisherman (1. using own boat 2. boat owner (<i>Juragan</i>) and 3. crew (<i>ABK</i>)), aquaculture farmer (<i>Petani tambak</i>), Fish product processor (abon, shrimp chip, etc), fish retailer, and others
7	Years of doing business	Age of doing business (in year)
8	Number of family dependent	Number of family members deducted by number of children who have already worked or married

Result (1) *Marginal Effect*

Interpretation:

1 point increase of RIoE is likely to increase probability of getting credit by 2.4%

Independent Variables	Logit Coefficient	Marginal Effect
Sex	0.519 (0.528) -0.107	0.080 (0.087) -0.165
Age	(0.228) 0.851	(0.035) 0.131
Marital Status	(0.861) 0.309	(0.131) 0.048
Education Level	(0.214)	(0.032)
RIoE	0.155* (0.0853)	0.024 (0.013)
Job Type	0.416*** (0.122)	0.064 (0.165)
Years of Doing Business	0.0667*** (0.0237)	0.103 (0.025)
Number of Family Dependent	0.476*** (0.177)	0.073 (0.003)
Constant	-5.471** (2.171)	
Prob > chi ² = 0.000		
LR chi ² (8) = 42.38		
Pseudo R ² = 0.2087		
Standard errors are written in parentheses, *** p<0.01, ** p<0.05, * p<0.1		

Result (2)

Odds Ratio

Odds ratio interpretation:

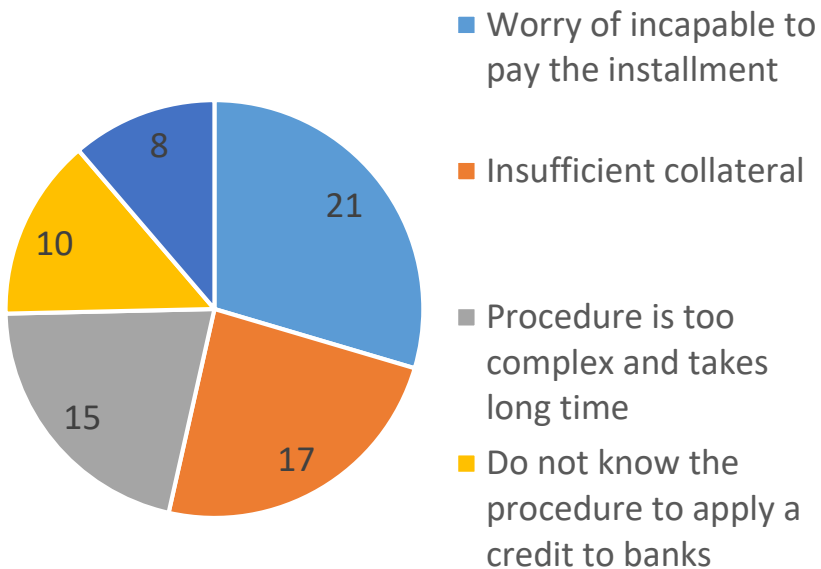
Probability of aquaculture farmer in obtaining credit is 72.66 times higher than probability of ABK to obtain credit

Job Type	Odds	Odds ratio
Fisherman (boat crew or <i>anak buah kapal</i> or ABK)	0.296	Base value
Fisherman (using own boat)	2.667	3.655 (3.256)
Boat owner or <i>Juragan</i> (not go fishing by himself)	2.031	11.79 (18.49)
Aquaculture farmer (<i>petani tambak</i>)	18.311	72.66 (71.45)
Fish product processor	5.798	19.99 (19.66)
Fish retailer	1.662	7.920 (7.483)
<u>Prob > chi² = 0.000</u>		
<u>LR chi²(8) = 67.01</u>		
<u>Pseudo R² = 0.3356</u>		
<u>Standard error written in parentheses</u>		

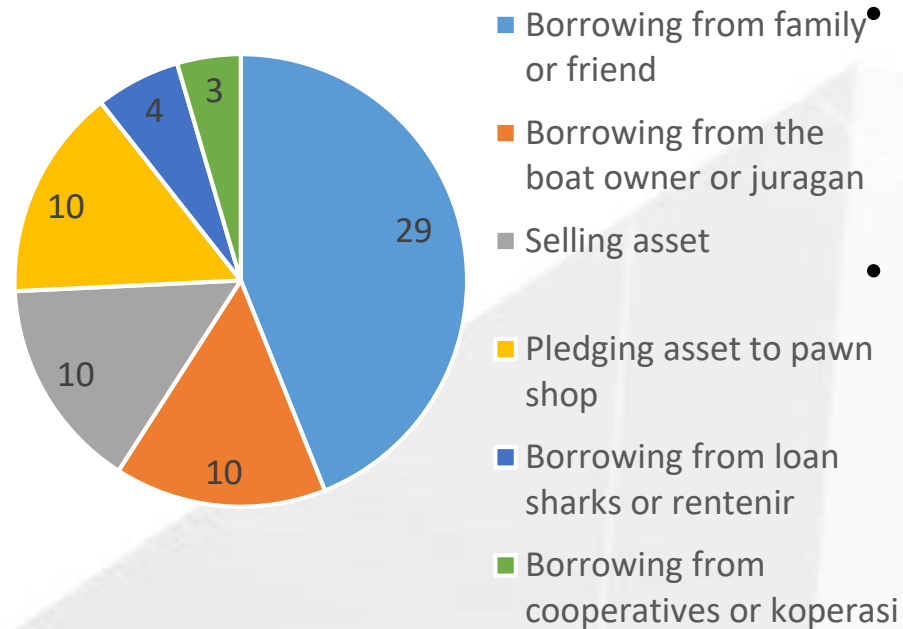
Descriptive Statistics

- From all of fisherman who has never received credit from banks, only 8% of them have ever applied a credit to bank

Reason for not applying credit proposal to banks

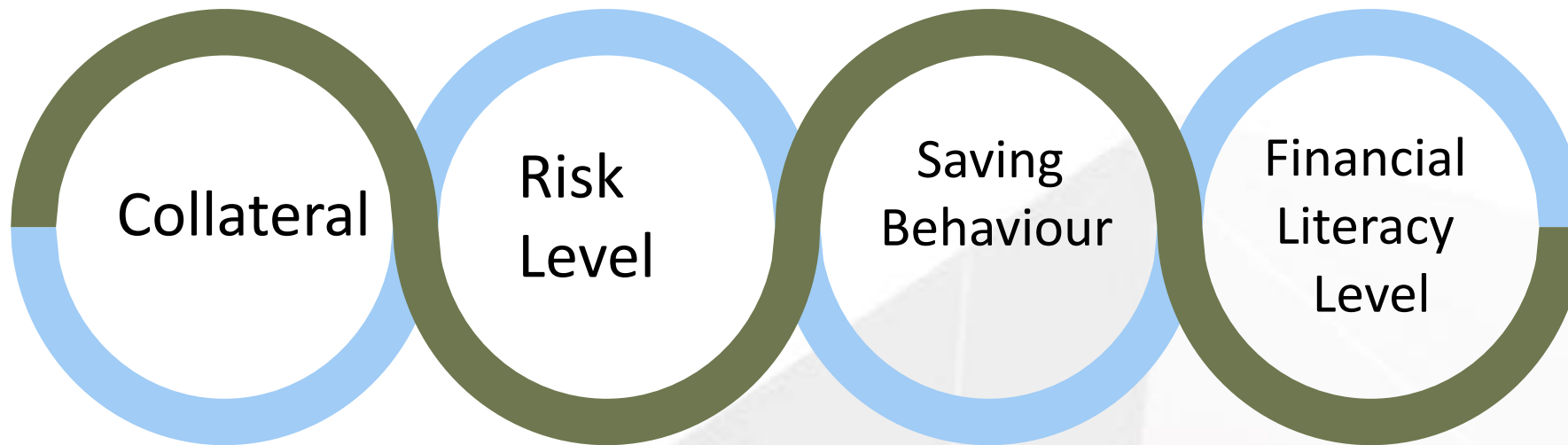


Respondents' source of alternative fund



- RloE of Participant = 4.87, non participant = 2.08
- Average asset value of participant = IDR 429 million, non-participant= IDR 227 juta million
- Only 56% of non-participant has bank account

Factors driving low credit participation of fisherman



Conclusion

01

Determining variables: Ratio of Income over Expenses (RIoE), Years of doing business, Job Type, and Number of Family Dependent, and Collateral

02

ABK and fisherman has the lowest probability to obtain credit compared to other jobs fishery sector for several reasons

03

Fishery sector is not financially inclusive!!

Policy Recommendations

- 1** More intensive and well-planned of socialization and education regarding financial literacy
- 2** Accelerate recording process of Boat Ownership Proof and Set up an Information System and Procedure adopting BPKB of motorized vehicle
- 3** Involve third party to Guarantee (insurance) and Mitigate Risk of Boat
- 4** Improve enforcement of regulation that supports financial inclusion
- 5** Give more loose requirement for ABK and small scale fisherman
- 6** Set up a customized scheme for fisherman
- 7** Give more role to BPR

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