**Uncollectible Credit Risk Mitigation Model for Women's Cooperatives in East Java**

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**ABSTRACT**

Women's cooperatives play an important role in the economic empowerment of families in East Java. But the results of Kopwan's assessment show that the most common financial problem faced by women's cooperatives is the occurrence of bad credit. This study aims to develop a risk mitigation model for bad credit for women's cooperatives. This study uses a research and development approach with three main stages, namely (1). Preliminary study. (2). The second stage begins with planning and compiling a bad credit mitigation model. (3). The activity required at this stage is the first trial by experts. The sample of this study are 30 women's cooperatives spread across the districts of Pacitan, Tulungagung and Blitar. The results of this study are expected to be able to provide standards for cooperative management in minimizing (mitigating) the occurrence of bad loans and increasing financial performance for women's cooperatives in East Java.

**Keywords**: Mitigation, Uncollectible Credit, Women's Cooperative

**1. INTRODUCTION**

Community economic development through the empowerment of cooperatives and SMEs is one of the long-term national economic development priorities [9]. One type of cooperative that is currently growing wider in East Java is the women's cooperative (Kopwan). It is recorded that in East Java 8,750 women's cooperatives have been formed, with a capitalization of Rp. 45 billion [19]. Despite having a contribution in economic empowerment driven by women, Kopwan has faced a lending cooperative face the main problem of bad loans (www.diskopukm.jatimprov.go.id). [18] noted that 40% of bad loans occurred in a number of cooperatives.

[8] and [20] state that credit risk is the risk of loss associated with the opportunity to fail to meet its obligations at maturity. [13] states that the importance of risk management in financial institutions and focuses on credit risk. Therefore, special efforts are needed from savings and loan institutions to formulate strategies for handling the risk of bad credit (mitigating bad loans). [7] state that credit mitigation is beneficial for cooperatives to minimize bad loans. Better risk mitigation will help determine the savings and loan goals (Rahayu & Hendriyanto, 2018). Mitigation is an effort to reduce the occurrence of risk (Manusiwa, 2011)

The majority of bad loans occur because financial institutions do not have credit policies and strategies [7]. [6] states that institutional, political, and credit standard factors affect the non-performing loans of a bank. [2] the magnitude of credit risk consists of the quantity of credit exposure and quality of credit exposure. And the problem of non-performing loans with the health level of cooperatives [19].

The results of the women's cooperative assessment illustrate that the common problems faced by cooperatives are member participation and non-performing loans [19]. The majority of women's cooperatives in East Java do not yet have a standard for handling the occurrence of bad loans. Apart from the fact that the age of women's cooperatives in East Java is relatively new, this situation is also due to the ability of women's cooperative management human resources in understanding risk management and mitigating the risk of savings and loan businesses.

Based on the description above, it can be seen that the main problem faced by women's savings and loan cooperatives is that there is no standard on how to deal with bad loans. So the problem raised in this study is how to analyze credit management systems and procedures and develop the most efficient problem mitigation model if applied to women's cooperatives in East Java.

**2. LITERATURE REVIEW**

**2.1 Cooperative**

Cooperatives are associations consisting of individuals or legal entities with a family principle, aiming to improve the welfare of members in particular and the welfare of society in general [21]. The standard
2.3 Credit Mitigation

[4] defines risk management as a field of science that discusses how an organization applies the law in mapping various existing problems by placing various management approaches in a comprehensive and systematic manner. Cooperative risk management itself more broadly is an effort to manage the risk factors inherent in the cooperative business, especially savings and loan cooperatives [14].

Mitigation is a series of efforts to reduce the occurrence of risk. Are a number of techniques and policies in managing credit risk to minimize the possibility of occurrence or impact of credit losses. The techniques used are:

a. Rating model for individual credit  
b. Credit portfolio management  
c. Collateral  
d. Cash flow monitoring  
e. Recovery management  
f. Insurance (www.ojk.go.id)

3. RESEARCH METHOD

As research objective that mention earlier, this research using research and development approach contain systematic steps which done by researcher so product that designed fulfill proficiency standard. In this research, product which developed is a risk mitigation model for bad credit.

Based on the figure above, the procedure development carried out are as follows:

3.1 Preliminary Study and Data Collecting Stage

In this stage, researcher collecting information and do preliminary research from previous research or related disciplines. Then researcher do requirement
analysis to determine which data need to input into model that will be made.

3.2 Planning and Building Stage

In this stage, researcher start to planning program framework for a model, then build a risk mitigation model for bad credit as preliminary product.

3.3 Expert and Preliminary Testing and Revision Stage

In this stage, researcher do expert field testing done by expert for validating study material, media, and model. Then, researcher revise application based on suggestion that gave by expert. After that, continue by preliminary testing which will be consideration for further revision.

4. RESEARCH RESULT AND DISCUSSION

4.1 Preliminary Study and Data Collecting Stage

The first stage of this research activity was to conduct a field study of 3o women's cooperatives in Tulungagung, Blitar and Pacitan districts to obtain an overview of credit management and bad credit mitigation carried out by women's cooperatives. Based on the results of field data, information was obtained that women's cooperatives do not have official documents in lending to members. In the credit approval procedure, the majority is carried out by the core management of the cooperative. There is another pattern that is carried out by women's cooperatives, namely by forming group responsibility in each work area. This field data will be the basis for developing a bad credit mitigation model, in addition to theoretical studies and previous research that has been carried out.

4.2 Building Model “Bad Credit risk mitigation”

Through the application of risk management in the savings and loan business for women's cooperatives, at least they can provide information for cooperative management related to potential risks and strategies to minimize the negative impact of these risks. One strategy to avoid bad credit in the savings and loan business is the application of 5C. One of the functions of the 5C analysis is to find out whether the prospective debtor is eligible or not to get a loan recommendation. Debtors who are not eligible to receive loans, of course, do not receive a recommendation from the management and vice versa. The implementation of the 5C concept in women's cooperatives is as follows.

a. Character (Personality)
   The cooperative in this case assesses the personality of the prospective debtor. Exposure in women's cooperatives, the personality of members is seen from how the relationship of prospective debtors with the community.

b. Capacity (Ability)
   Cooperatives in this case analyze the business and economic management capabilities of prospective debtors. The exposure in women's cooperatives in this capability analysis is seen from the income earned by prospective debtors every month. This information can also affect the limit on the number of loans that can be given by the cooperative to the prospective debtor. This element of capacity will greatly affect the members' ability to repay.

c. Capital (Startup Capital)
   Cooperatives in this case look at the amount of capital or funds owned by prospective debtors. The exposure in women's cooperatives to analyze business capital is seen from the size of the business (assets) and the age of the business that has been run by the prospective debtor.

d. Condition of Economic,
   Cooperatives in this case see macroeconomic conditions as a unit of analysis. The exposure in women's cooperatives is to look at the economic conditions in their area. At this point of economic condition, on average, women's cooperatives do not have strong data and limited human resources, so the results of the analysis cannot be used as the main reference for providing credit recommendations.

e. Collateral (Savings)
   Cooperatives in this case look at the guarantees owned by prospective debtors. In women's cooperatives the meaning of collateral is not the same as in banking. Women's cooperatives emphasize the element of trust (social capital) as collateral in savings and loan contracts. In addition to the element of trust, cooperatives interpret savings (voluntary savings) as collateral for debtors who will make loans to cooperatives.

One of the weaknesses in women's cooperatives is that there is no special section that handles credit policies given to members. All activities depend on the cooperative management (Chairman, Treasurer,
Secretary). This situation is actually the beginning of the potential for bad loans. The limitations of human resources and the ability of the management ultimately do not provide an optimal analysis of the eligibility of members to obtain loans. In some women's cooperatives, they have been able to implement a structured system related to credit management for members. The following is a chart of the implementation of credit management carried out by women's cooperatives.

Based on the picture above, it can be explained that in order to minimize the limitations of the management's human resources, the cooperative forms groups/clusters of members. In each group, the management will appoint a representative as credit manager. The task of the group leader (credit manager) is to provide recommendations to the management regarding the eligibility of members to get credit based on an analysis of personality, ability, business capital. The head of the group (credit manager) will also receive an honorarium which is given once a year after the cooperative conducts the Annual Membership Meeting (RAT). Although it looks unbalanced compared to the workload carried out by the group leader (credit manager), their grades/degrees will be seen more in the social strata in the village.

In addition to the above model, for the effectiveness of the implementation of lending to cooperative members in forming a loan committee. The loan committee is a panelist to make decisions on requests for loan facilities from members and prospective members. The task of the Loan Committee is to discuss and assess loan applications and then make decision to “Approve” or “Reject” the loan application:

a. The Loan Committee may consist of Panel A, Panel B and Panel C
   1) Panel A consist of:
      a) Group Leader (Credit Manager)
      b) Head of Cooperative
   2) Panel B consist of:
      a) All panel A members
      b) Secretary of Cooperative
   3) Panel C consist of:
      a) Panel B
      b) Treasurer

b. Authorization of the limits of loan decision authored by each panel of the loan committee as follows:
   1) Panel A: Loans up to Rp. ………………….-
   2) Panel B: Loans up to Rp. ………………….- until Rp. ………………….-
   3) Panel C: Loans up to Rp. ………………….-

If the prospective borrower has a special relationship with a panel member (eg blood relationship or kinship), then the panel member cannot vote and/or be replaced by another official appointed by another panel member.

In addition to the model that has been compiled above, one form of mitigating bad credit is to set standards in lending. The following are standards that are generally applied by women's cooperatives in providing loans to members.

a. Fund Disbursement Management Standard

1) Cooperative fund distribution must be prioritized in the form of loans to its members for non-consumptive productive activities.
2) Fund distribution to prospective members, other Cooperatives and their members is carried out if the Cooperative has more capacity on the basis of considerations of economies of scale and efficiency after prioritizing services to its members and obtaining the approval of the Members' Meeting.
3) To encourage member participation in borrowing and stimulate prospective members to become members of a Cooperative, it is necessary to consider differentiating the application of interest rates between members and prospective members, other cooperatives and their members.
4) Loan disbursement must be based on prudent principles and always consider that:
   a) The granting of a loan will provide benefits to the recipient, and
   b) It is believed that the loan can be repaid by the borrower in accordance with the agreement.
5) Policy regarding the amount of loan that can be given by Cooperatives to members must fulfill the following matters.
   a) Utilization of loans by prospective borrowers.
   b) The ability of prospective borrowers to pay their obligations.
   c) Liquidity of cooperatives by considering primary and secondary cash reserves.
   d) Distribution of credit risk through credit insurance or guarantee institutions.

6) Cooperatives must have standard distribution of funds consisting of:
   a) Written policy regarding remuneration for participation in the use of loans by members of SHU.
   b) Standard type of loan.
   c) Standard requirements for prospective borrowers.
   d) Standard of loan service to other units (especially for USP/Cooperative).
   e) Standard loan ceiling.
   f) Standard loan interest and other borrowing costs
   g) Standard loan repayments.
   h) Standard loan term.
   i) Collateral standards.
   j) Standard loan application.
   k) Standards for preparation of loan realization (loan analysis).
   l) Loan realization standards.
   m) Standard installment payments.
   n) Standard loan repayment.
   o) Standards for post-disbursement of loans.
   p) Standards for handling non-performing loans.

7) In the event that the Cooperative still has excess funds after the members have received full service, the manager of the Cooperative may serve the prospective members of the cooperative concerned, other cooperatives and or their members with the aim of utilizing the excess funds that are unemployed.

b. Standard Requirements for Prospective Borrowers
   In an effort to reduce the risks that may arise, prospective borrowers are required to at least meet the following requirements:
   1. Members and prospective members of the Cooperative reside in the service area of the Cooperative.
   2. Have a business/fixed income.

3) Have active savings, both in the form of savings and time deposits and have been running for at least one month.
4) Do not have arrears (non-performing loans) with Cooperatives or other parties.
5) Has participated in the pre-disbursement coaching program.

1. Test Model
   The test model includes the validity and reliability test of the questionnaire and the expert team's validity test.
   a. Questionnaire Validity and Reliability Test
      The validity of the extent of the measuring instrument to measure what indicates the validity or not of the instrument item can be seen by comparing the Pearson Product Moment correlation index with a significance level of 5% with a critical value. Based on the results of the expert validity test, it is known that all questions have a probability value (sig) of less than 0.05 so that it can be said that all question items in the expert questionnaire are valid.
      The reliability test used is Cronbach's Alpha. The results of the reliability test showed that the variables in the questionnaire had a Cronbach's Alpha coefficient value greater than 0.6 so it can be said that the question instrument used was reliable.
   b. Validation of the expert team (expert judgment)
      Valid means that the instrument can be used to measure what it is supposed to measure. Media assessment is carried out by experts through instruments based on theories which are then used as indicators in the assessment of experts. Based on the results of the expert validity test, it is known that the acceptance value is above 60% so it is stated that the element of assessment by expert validity is stated as a good mitigation model.

5. CONCLUSION
   Based on the discussion above, the conclusion in this study is to minimize the occurrence of bad loans, women's cooperatives carry out a feasibility analysis of prospective debtors using 5C analysis. The application of 5C analysis in women's operations has undergone adjustments in the application and depth of analysis due to limited quantity and quality of human resources. The model for forming groups/clusters of members by appointing one member to be the group leader/credit manager is one of the steps to optimizing the feasibility analysis of members.
   The application of the bad credit mitigation model for women's cooperatives will be more optimal with the
existence of credit standards and standards for prospective debtors. The suggestion in this study for women's cooperatives is to form a loan committee. This committee will later provide recommendations in loan applications by members.

REFERENCES

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