

OPTIMIZATION OF FINANCIAL PERFORMANCE THROUGH THE APPLICATION OF REPAYMENT CAPACITY-BASED BAD DEBT MITIGATION AS AN EARLY WARNING SYSTEM (EWS) MODEL IN SAVINGS AND LOAN COOPERATIVES

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ABSTRACT

One of the backbones of the Indonesia economy is cooperations. The importance of the existence of this cooperative does not escape the role of cooperatives in the economic empowerment of small communities. One type of cooperative that is the locomotor of the economy is the savings and loans cooperative. Although it has a strategic role, it is not uncommon for cooperatives to encounter obstacles in business operations, one of which is the constraints of the risk of bad debts. This study aims to compile a repayment capacity-based bad debt mitigation application as an Early Warning System (EWS) model for savings and loan cooperatives (KSP). This research involved KSP in blitar district as an object of limited scale test of the application. The research stage begins with a preliminary study by conducting an analysis of the needs of the application preparation. The second step is to start by planning the application framework and then developing a repayment capacity-based bad debt mitigation application as an initial form of product. The third stage begins with the first trial by experts and the trial of scale is limited to savings and loan cooperatives. It is hoped that this bad debt mitigation application can be one of the references for management in savings and loans cooperatives as a model for mitigating bad debts and an early warning system (Early Warning System) in providing credit for members and prospective members. Thus, the results of this study will be able to contribute to improving the financial performance of savings and loan cooperatives in Indonesia.

Keywords: Early warning system application, Mitigation of bad debts, Savings and loan cooperatives

INTRODUCTION

One of the top priorities for long-term national economic development is carried out through the empowerment of Cooperatives and SMEs (www.bappenas.go.id). One of the meccas of the development of cooperatives in Indonesia is the province of East Java. It is recorded that in East Java, 34,043 cooperatives have been formed until 2019 (<http://kominformojatimprov.go.id/>). However, cooperatives with many business activities are savings and loan cooperatives facing the main problem, namely bad debts (www.diskopukm.jatimprov.go.id). Miswanto (2012) stated that there are approximately 40% of savings and loan cooperatives that experience problems with bad debts.

Iskandar (2008:63) defines credit as the trust given by the creditor to the debtor. Credit contains the understanding that a person will pay off his debts in the future based on the trust that has been established between the two parties (Firdaus and Riyanti, 2009: 1). Iskandar (2008:93) states that if a debtor repays his debts, he reduces the possibility of default risk. So that the risk of bad debts will largely depend on the debtor's ability to pay his debts.

Mamai (2020) stated that the importance of risk management in financial institutions and focusing on credit risk. Therefore, special efforts are needed from savings and loans institutions to formulate a model for mitigating bad debts. Septiarini (2020) and Gweyi (2013) in their research stated that the mitigation of bad debts for cooperatives serves to minimize the presence of bad debts. The number of bad debts occurs because financial institutions do not have policies and strategies that regulate lending (Gweyi, 2013). When cooperatives have a policy of assessing the risk of bad debts, it will help realize the goals of savings and loans institutions (Rahayu & Herdiyanto, 2018). Fuller (2015) states that institutional, political, and standard factors of crediting have an effect on the bad debts of a bank.

Djohanputro (2006) stated that factor quantity of credit exposure and quality of credit exposure are two factors that will affect the magnitude of credit risk. Harun (2013), Sandi et al., (2015) and Arnadi (2017) based on the results of their research stated that the system and procedure for providing credit affect the probability of bad debts. The existence of bad debts is closely related to the level of health of the cooperative. Risk mitigation is one of the procedures carried out in the organization in order to implement an early warning system (EWS). One way to minimize the occurrence of problems in the future is to apply an Early Warning System (EWS). Firdaus (2009), Djohanputro (2006), Kasmir (2014) and Munawir (2010) stated that EWS is the best tool in preparing credit planning and providing related to conditions that may occur in the future. Although the concept of EWS is more commonly used in natural disaster problems, the procedure for implementing EWS allows it to be adopted outside of disasters.

Bad debts can have a significant impact on the performance of a KSP and the ability of members to pay loans will greatly affect the value of bad debts that occur. One of the abilities to repay credit is influenced by business turnover and business expenses. The greater the member's business income or personal opinion with a minimal expenditure value, it will increase the ability to repay their debts. Sudarsono and Edilius (2010) found that having a high ability to pay will facilitate loan repayment. This study is interesting and important because savings and loan cooperatives in Indonesia do not yet have a model or application that functions as a tool to mitigate potential bad debts.

Based on the foregoing it can be seen that the cooperative's need for instruments that serve as a tool capable of providing information related to the ability to repay debts from loans submitted by members is very needed by cooperatives. Through the results of this study, the cooperative management will have an early detection system (EWS) as a way to minimize the

occurrence of bad debts. Therefore, the purpose of this study is to design and build a *repayment capacity-based* bad debt application as an *Early Warning System* (EWS) model for savings and loan cooperatives.

METODE

In order to answer the purpose of elitian research, researchers use the research approach of development (*Research and Development*). Cavendish et al. (2019) in order to ensure that the products they design have feasibility standards, it is necessary to have systematic guidance carried out by researchers. The following are the stages of research that will be applied to this research.

1. Initial stage
The activities carried out at the initial stage are conducting theoretical and empirical studies on credit management that have been carried out by savings and loan cooperatives in Blitar district. This preliminary study was carried out to obtain information about the credit management process carried out by the cooperative.
2. Planning and drafting a bad debt mitigation model
At this stage, what is done is to design the application to build a *repayment capacity-based* bad debt application based on the results of evaluation and analysis carried out at the time of the preliminary study.
3. Expert validation stage and limited-scale tests
The activity carried out at this stage is expert validation of the credit hour application that has been compiled. Furthermore, an expert test was carried out by the Blitar Regency Cooperatives and MSMEs Office and a limited-scale test was carried out to 20 KSP located in the Blitar Kpaten area.

This study used qualitative descriptive data based on material responses and user responses. Descriptive data analysis is used to analyze data obtained from the results of expert validation of materials and questionnaires from users. The data show that the material is valid and useful. Descriptive data analysis is the process of describing the results of research based on the data that has been collected. This allows us to determine whether the proposed application is feasible. This data analysis technique is used to validate the data of material experts. The results of the study are then transformed into a table to make it easier to read. The percentage range and qualitative criteria can be determined on the basis of the following table.

Table 1. Development revision decision making

Achievement of learning objectives	Qualification	Information
81-100%	Excellent	No need for revision
61-80%	Good	No need for revision
41-60%	Enough	Revision
21-40%	Not Good Enough	Revision
0-20%	Very Bad	Revision

Source: Ridwan, 2010.

RESULTS AND DISCUSSION

1. Preliminary Study: Credit management of savings and loan cooperatives.

Based on the results of preliminary activities, it is determined that most cooperative administrators experience the risk of bad debts and do not yet have an early detection system for bad debts. Ade A & Edia H. (2016) stated that the occurrence of bad credit would have a bad impact on the financial performance of the cooperative. Bad debts can reduce the income of cooperatives, especially those whose businesses are savings and loan cooperatives. If there are more bad loans, the cooperative will miss the opportunity to profit from each loan. Therefore, manager cooperative must take into account the ability of the member to repay his credit. Based on information from the cooperative management, the cooperative will conduct analysis and supervision of prospective debtors before obtaining loans from the cooperative.

In addition, the cooperative management observes prospective debtors in terms of the debtor's ability to pay, it can be seen from the assets owned and also the track record of prospective debtors in the community whether when they have a loan, they can pay installments on time or not. The management does this to prevent bad debts, because this cooperative includes cooperatives that have few members and there is not too much capital. When there is a problem loan, it can affect the performance of the cooperative. The cash turnover within the cooperative will not go smoothly. The cooperative management will hold discussions with local village officials to observe prospective debtors before providing loans.

Based on data from interviews with cooperative administrators, each prospective debtor has different incomes and assets. The financial condition of prospective debtors is a very significant consideration for savings and loan cooperatives. Therefore, theoperation will consider the member's ability to repay his debt (*repayment capacity*). Assessing the capacity or ability of a potential debtor is very important in determining his ability to control the company. This assessment is usually related to education, the ability to understand government regulations, the ability to lead, the ability to master a business field, and future prospects. The receivables provided thereby correspond to the debtor's need for the receivables received. If the assessment does not contain detailed information about the financial condition of the debtor, the bankruptcy of the company belonging to the debtor will affect the smooth repayment of the loan and as a result the cooperative will have bad debts / bad debts. will be in debt.

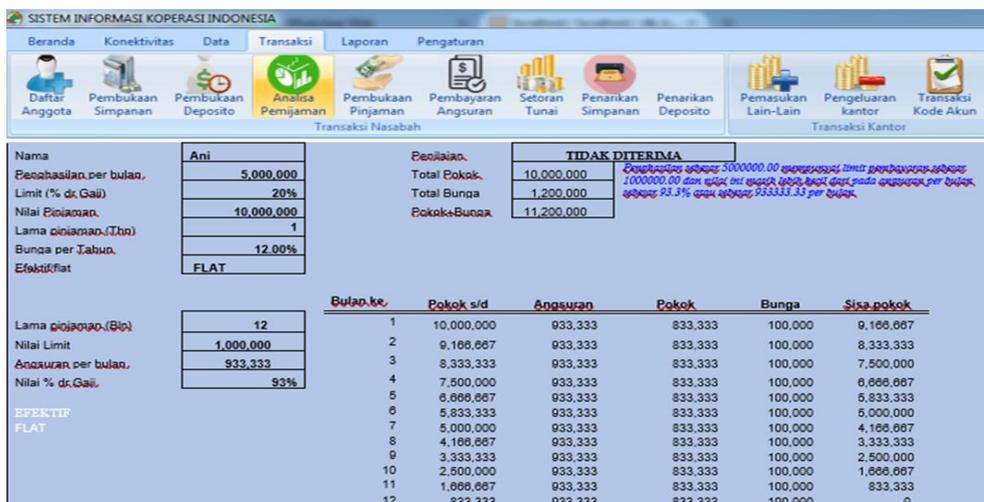
Savings and loan cooperatives need to develop a member-based bad debt mitigation model. Based on data and information from various references, this repayment capacity can be the first step to prevent bad debts in savings and loan cooperatives. In general, this repayment capacity analysis is carried out by a person or team of prospective debtor analysts specifically and in depth. Based on the data obtained, the average savings and loan cooperative does not have a special team to assess the eligibility of prospective debtors to obtain loans. This needs to be done from the cooperative management to create or form a special team to assess prospective debtors so that the analysis carried out can be in depth and there are no errors in the assessment.

Obtaining detailed information is very necessary to assess the feasibility of prospective debtors, because any little information will be able to affect the smooth distribution of cooperative loans. The formation of a special team of analysts for prospective debtors is expected to prevent bad debts or non-performing loans in this cooperative. This dedicated Team of Analysts will focus on all information about prospective debtors or members who want to make a loan, including about the ability of members to pay loan installments.

2. Design and build abad debt mitigation application as an Early Warning System (EWS) model

The credit given to savings and loan cooperatives is the core of the business so that cooperative management must be very careful to avoid bad debts. However, an overly cautious attitude will also have an impact on low asset turnover which will have implications for the profitability of the cooperative. So cooperatives must be careful of exposures that arise as a result of members' failure to pay their credit. The improvement of financial performance for savings and loan cooperatives will largely depend on the performance of the credit given to members. Therefore, a mitigation strategy is needed in order to reduce the risk of bad debts for cooperatives. Repayment capacity is one of the models for mitigating bad debts as an EWS model for savings and loan cooperatives. The implementation of the bad debt mitigation model is implemented through a credit EWS application for savings and loan cooperatives as follows.

Figure 1. Application Early Warning System (EWS)



Based on the figure above, the application of EWS to cooperatives through this bad credit mitigation application is operationally based on the ability to repay members for loans made on cooperatives. There are several working steps of this bad debt mitigation application.

- The credit analysis team enters the profile data of members (prospective customers),
- The credit analysis team enters financial data that meliputi penbisaan per month, limit penbisaan from the salary planned to pay bills in each month and length loans.
- The credit analysis team conducts a verification of data and the results of a data analysis by the application
- The credit analysis team provides "accept/reject" recommendations to the cooperative's daily management

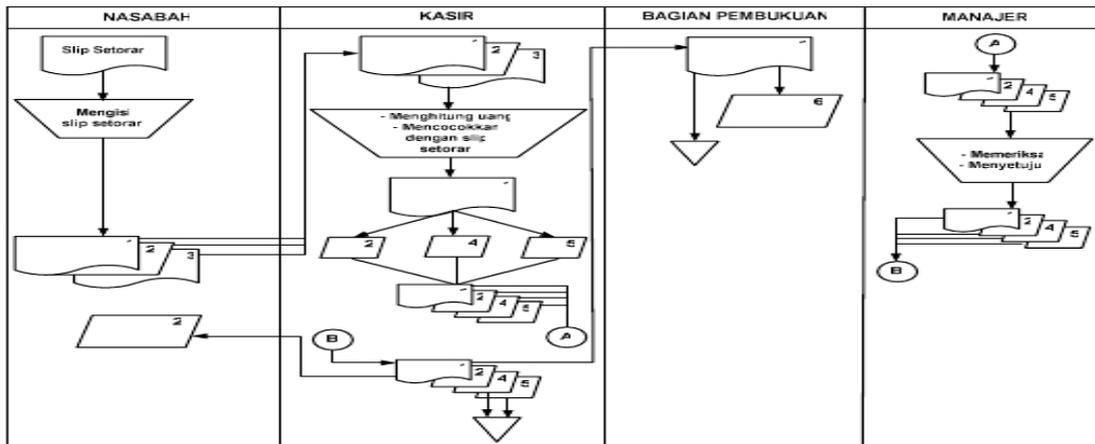
At the entry and financial analysis stage is an important and strategic stage in implementing this application. Prospective customers who make loans must submit information about the value of income every month to the management. Because many of the cooperative customers in Blitar regency are individual customers engaged in the world of small and medium enterprises, the proof of supporting this income is the financial statements or the value of spending on a monthly basis. For cooperatives that serve lending to customers for consumptive activities, the team must be more observant in analyzing this income and income limit.

After all data is considered valid, the application will provide the result of "accepting/rejecting" the loan value submitted by the member. In addition to providing this information, this application can also provide a simulation the most likely loan value of the income and income limit owned by members. Of course, this will be very helpful for cooperatives in carrying out the feasibility analysis process of prospective customers and also providing early warning (EWS) to cooperatives against possible the occurrence of bad debts in the future.

EWS is a benchmark used by NAIC (National of Insurance Commissioner) or U.S. insurance agencies to calculate the financial performance and health ratings of insurance companies (Sufitri, 2009). Sulastria (2006:12) states that EWS is a tool that can be used to analyze financial statements and process them into useful information that can be used as a system. EWS is a benchmark for measuring financial performance and health ratings for insurers. The EWS ratio is one of the metrics that regulators use to get an initial picture of a company's health. Duasa et al (2016), the EWS methodology can be used as a monitoring technique or tool to maintain the resilience of Indonesian financial institutions. EWS is important for financial institutions because it can mitigate systemic risks that can arise as a result of unstable economic conditions.

In addition to the above applications, then to strengthen the EWS process, cooperatives must have standard operating procedures in providing loans to members. Therefore, in order to develop the work pattern of the EWS application, a standard is formulated in the work procedure described below.

Figure 2. Standards in the procedure for granting credit to members



Based on the picture above, it is known that there are 4 elements in the credit application process, including customers, cashiers, bookkeeping departments and managers (management). The credit analysis team is an integral part of the manager who will provide recommendations on the proposed credit. In addition, in order to support the implementation of the above SOPs, cooperatives must be equipped with three standards in the work procedure for implementing credit EWS for cooperatives between savings and loans other.

- a. Fund Disbursement Management Standards
- b. Standard Requirements for Prospective Borrowers
- c. Loan Ceiling Standards

Savings and loan cooperatives have the risk of collecting community funds (cooperative members) and returning them to the community in the form of loans. When providing credit, the cooperative bears the risk of future uncertainty, especially the risk of credit decline. Therefore, cooperatives need standards to control the distribution of funds given to members to minimize the occurrence of bad debts in the future.

3. Expert validation results and application trials

The next step in preparing the msct credit application as an EWS model is to conduct a limited review and testing by a team of experts. This test should check not only the reliability of the application process, but also the reliability of the application created. In this study, effectiveness and reliability tests, effectiveness tests were carried out by a team of experts, and application acceptance rate tests were carried out by users. The following will be described from each trial.

a. Reliability Test

The results of the reliability test show that the questionnaire variable has a cronbach alpha coefficient value greater than 0.6, so the question instruments used in the user and expert questionnaires can be said to be reliable.

b. Expert team validation

Model evaluation is carried out by experts or practitioners using theory-based evaluation tools that are used as indicators of expert evaluation. Expert validation of the designed application has resulted in an acceptance rate of more than 60%. This means that the programming, content and display aspects are rated well. As a result of this peer review process, experts agree that the application will serve as a means of detecting bad debts.

c. Test the acceptance rate of the application

An evaluation of the level of acceptance of the application by the user is carried out to see if the user is satisfied with the bad debt mitigation application. The results of the evaluation of the application model show that the acceptance value of the EWS application is more than 80%. This means that the application created has been rated as an excellent early detection tool (EWS) for analysis based on appearance, material aspects and advantages.

CONCLUSION

Based on the results and discussions that have been described above, the conclusions are described as follows.

1. The application of *repayment* capacity-based bad debt mitigation as an *Early Warning System (EWS)* model is a bad debt mitigation application that is useful for savings and loan cooperative management in analyzing creditworthiness filed by members.
2. The process of designing an application for mitigating bad debts as an *Early Warning System (EWS)* model starts from the stage of preliminary study, designing and compiling applications and testing applications by experts and users.
3. Based on the results of expert validation testing and limited application testing by users, both aspects of appearance, material, and benefits of the application are rated as excellent.

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