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Credit Decision Support System in Cooperative Fair

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ABSTRACT

The credit distribution system in Cooperative Adil which is still manual, the many criteria used to consider and the number of members who make loans makes the cooperatives (especially managers) overwhelmed to serve their members and the granting process becomes less efficient. To overcome this problem, a Decision Support System for the provision of credit was built, namely a system that helps the cooperative (manager) in the process of granting credit. The system is built using the Delphi 7.0 programming language and the database uses mysql. The system built is used by two parties, namely administrators and managers. From the experimental results of the system that has been built, it can be concluded as follows: the system can provide convenience in obtaining information, the system becomes more selective in providing credit.

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1. INTRODUCTION

In real life, people are familiar with cooperatives, especially people in rural areas. There are various types of cooperatives, including consumption cooperatives, credit cooperatives (savings and loans), production cooperatives, service cooperatives, and multi-business cooperatives [1] [2] [3]. Savings and loan cooperatives are one of the most common types of cooperatives found in social life. This cooperative functions as a credit institution, where its task is to collect funds from its members and distribute the collected funds to members and the community [4]. To carry out this task, a cooperative does many things, one of which is by providing credit to members.

In reality, the credit distribution system in fair cooperatives still manually considers who is entitled to obtain credit. Whereas in deciding to give credit, many considerations are taken, for example: considering the ability of the loan applicant, assessing the feasibility of the borrower such as: for what purposes, the amount of credit, the borrower's history, family conditions, collateral used and so on [5] [6].

With the development of increasingly advanced information technology, the above problems can be solved with a computerized system. With a computerized system, cooperatives can work faster in terms of considering granting credit to members [7] [8]. One of them is a decision support

system, where the system can help make decisions by considering the available variables DSS (Decision Making Support System).

2. RESEARCH METHODS

2.1 Decision Support System

DSS provides support for decision making, especially on semi-structured and unstructured problems, by including human assessment and computerized information and support for all managerial levels, from top executive managers to bottom managers as well as support for individuals and groups [9] [10] [11]. Less structured problems often require the involvement of individuals from different departments and organizational levels or even from other organizations.

2.2 Design Stage

In this stage, the writer formulates the needs that will be prepared to build the DSS for granting this credit.

2.3 Analysis Stage

In this stage the author directly relates to system users. The collection of these needs is done by means of interviews, observations, and collection of related documents.

3. RESULTS AND DISCUSSION

3.1 Model Design

The main characteristic in the DSS is modeling, where the modeling in the DSS is based on the reality of the real system or existing systems. A model is a simple representation or abstraction of reality [12]. Models are usually simplified from overly complex realities and models can help determine decisions in DSS [13] [14] [15].

In the DSS, the granting of credit uses a mathematical calculation model, which is a technique that uses calculations (formulas) to solve a problem. In the credit granting system, the score from each sub-sector (fact) is calculated so as to produce an average score.

3.2 Experiment Results

The support system for making credit decisions has been tested with related parties at the fair cooperative which is located at Jl. Patuk – Dlingo Km.5 Terong, Dlingo, Bantul, Yogyakarta Postal Code 55783. These parties are: Manager by Mr. Mursidik and Administrator by Mr. Sugeng Iman Diryo.

From the experimental results of the system that has been built, it can be concluded as follows: the system can provide convenience in obtaining information, the system becomes more selective in giving credit, and in terms of the appearance of the system is not too complicated, the system can reduce risks such as making mistakes, members are not responsible , untimely returns, etc. The Cooperative still doubts the weight of each sector and the minimum score so they suggest that the minimum score and score are real so that the decisions obtained are more optimal.

4. CONCLUSION

The credit decision support system at the fair cooperative is located at Jl. Patuk – Dlingo Km.5 Terong, Dlingo, Bantul, Yogyakarta Postal code 55783, has been built using the Delphi 7.0 programming language and database using mysql.

The system that has been built is used by 2 parties, namely: Manager and Administrator. The Manager carries out an assessment process for members who apply for loans based on the results of credit analysis. In addition, the manager also gets information about the members and the manager can also print the results of the assessment carried out on a member. For the administrator, it is responsible for managing the system. The task carried out by the admin is to update member data, criteria, plans (loan types), loan limits and users (related to passwords).

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