







# Business Strategy Through SWOT Analysis in Implementing Loan Origination System to Improve Bank's Business Performance (Case Study at Mortgage Credit)

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**Abstract.** The use of information systems and technology in the banking environment is increasing and expanding, especially in competing and gaining a competitive advantage. The loan management process, such as collecting information and verifying applicants regarding personal data, income data, and collateral data, is a measurement of the credibility of the prospective debtor. Loan Origination System (LOS) is a system specifically gradually developed to support the credit application process required by banks to make it easier and faster. Following this trend, the banking industry implemented a Loan Origination System (LOS) for mortgage lending as one of the implementations of digital transformation. This study aims to describe the External Environment, Internal Environment, Banking Credit Process Re-Engineering, Loan Origination System Implementation, and Business Performance in the Banking Industry. The research method used is a Systematic Literature Review of relevant research using the Research Questions (RQ) set out in this study. The research was conducted in a Loan Origination System Implementation Model to Improve Business Performance in the Banking Industry.

**Keywords:** Banking Credit Process Re-engineering · Business Performance · External Environment · Internal Environment · Loan Origination System Implementation

## 1 Introduction

The use of information systems and technology in the banking environment is increasing and expanding, especially in competing and gaining a competitive advantage. The role of technology is important in improving the quality of excellent service provided by businesses needs. One of the technological developments that brought about the transformation of information in society is internet technology, which became a third wave of

revolution after the agricultural revolution and the industrial revolution. The emergence of the Internet in various industries has removed the barriers of communication, time, and distance so that the world is at hand [1].

The traditional loan management process is carried out carefully but is time-consuming, requiring the collection and verification of information about the applicant regarding personal data, income data, and collateral data as a measurement of the credibility of the prospective debtor. With these problems, it is necessary to have a computerized system in solving them. A system is a group of elements that are interconnected and interact, as well as function together to achieve the target [2]. The system is a collection of components that form a single unit [3]. System development is the stage of a series of activities that describe the mechanism of the system to run. This stage aims to produce software that is suitable and meets user needs [4]. It is expected that the existence of an information system can handle the problems that exist in the company. The system is a collection of objects, elements, or components that are interconnected with each other in such a way that it becomes a particular processing unit [5].

Loan Origination System (LOS) is a system specifically developed to support the fast and easy processing of credit applications required by banks. In the field of financing, the LOS (Loan Origination System) application is very helpful in daily activities and facilitates work so that work is easier, faster, and more effective. The era of globalization has demanded that all information be accessed quickly and practically. The use of the LOS Application is very important to support the process of work business activities in dealing with situations and conditions that are developing rapidly. LOS applications are generally used by several banking institutions to support work processes. Credit analysts find it helpful to facilitate the implementation of their duties and work in processing data.

Following this trend, banks implemented a Loan Management System (LMS/LOS) for mortgage loans as one of the implementations of digital transformation. The utilization of the use of LOS Application is expected to change the way credit analysts work. The way of working and the use of tools or technology is the actualization of performance. With the use of new technology, it is hoped that the work culture will experience a change towards a better work culture. Currently, business actors are increasingly aware of the importance of implementing information systems in their business activities. Seeing the positive benefits, the implementation began to be carried out with the hope of supporting its business operations. The company's ability to use technology to process data into information is a defense in the business world. Information systems will make it easier for management accountants to get quality information in making decisions [6].

According to [7] researched that the relationship between Loan Origination System in a company has a positive relationship with business performance where the existence of LOS can facilitate a business process of providing credit to customers. As for the journal [3] examining the relationship between the Loan Origination System on business performance in several large European companies and the results show that there is a positive relationship between the LOS application and the process of providing credit to customers and simplifying the ongoing credit process so that the results obtained are effective, time efficient and the error rate is very small, that is the main output in running LOS in our banking today.

This study aims to describe the External Environment, Internal Environment, Banking Credit Process Re-Engineering, Loan Origination System Implementation, and Business Performance.

## 1.1 Literature Review

### Strategic Management

According to [8] strategic management is the process of determining long-term organizational goals and directions along with methods to achieve them through the development of strategic formulations and formulations as well as systematically planned implementation. The term strategic management comes from two words, namely “management” and “strategy”. While the word strategic is an adjective from the word strategy. In the sense of the company (corporation), management is an individual or group of people who are responsible for analyzing and achieving organizational goals. As a group of functions, management includes the functions of planning, organizing, implementing, and controlling. The word strategy is defined as decisions and actions to achieve company goals at every level of the organization. The adjective “strategic” has associations with the terms “high-level”, “major impact”, and “long-term”, coupled with a zeal for not wanting to be dictated by circumstances. There are several reasons why strategic management has an important role:

- a. Strategic management helps organizations resolve uncertainty through a systematic approach;
- b. Strategic management aligns goals and targets between units within the organization across work units;
- c. Strategic management enhances the role of every employee in the organization including their duties and responsibilities;
- d. Strategic management internalizes the application of great culture and leadership; and
- e. Strategic management is a means of long-term communication as a reference for management.

Strategic management consists of strategy formulation and strategy implementation. In strategy formulation, the organization determines the vision and mission, strategic direction, strategy, and goals. Meanwhile, in the implementation of the strategy, the structure, human resources, and organizational systems are determined, and must be supported by the appropriate great leadership and sustainable culture. It can be concluded that strategic management involves the process of planning, directing, organizing, and controlling the company related to decisions and actions related to strategy.

### Information System

A system is a collection of interrelated components and has one goal to be achieved. According to Jogiyanto [9] “The system is a network and procedures that are interconnected, gathered together to perform an activity or to complete a certain goal [10].

The system has certain characteristics or properties such as elements. The system elements are the core of the material system that interacts or cooperates to achieve certain goals, according to [9], a system has characteristics such as system components or subsystems, System boundaries (boundary), System Outside Environment (Environment), System Liaison (Interface), System Input, System Output, System Processing, and System Target.

The information system is a system within an organization that brings together daily transaction processing needs, supports managerial operations and strategic activities of an organization, and provides certain outside parties with the necessary reports [9].

Information System is a system within an organization that brings together the needs of daily transaction processing, which supports the operational functions of a managerial organization with the strategic activities of an organization to be able to provide certain outside parties with the required reports [11].

### **Relationship Between External Environment and Internal Environment with Banking Credit Process Re-engineering**

The biggest influence contribution comes from the internal environment. This is because changes in the external environment are not responded well to even threats so that in determining competitive advantage. Given the limited knowledge and business insight of IKM entrepreneurs. This can be seen from the products made by IKM that have not touched consumer tastes both in terms of design/model, product color, and product diversity. Besides, small and medium enterprises entrepreneurs rarely take advantage of advances in information technology (internet) in marketing their products [12].

### **Relationship Between Banking Credit Process Re-engineering and Origination System Implementation**

In the explanation of the journal [13], the core business of the banking industry is credit. Poor credit management will result in losses to the bank. To make credit management better and in addition to increasing competitiveness, the use of computers that are integrated into the credit discussion/analysis process (loan origination) is a necessary and urgent necessity to replace slow manual processes with high error factors. The use of computer applications that are integrated into the loan origination process will not only accelerate the lending process, but will also minimize human errors, including improving the flow process to be better, more efficient, and effective. In addition to using an integrated application system for the credit discussion process, the use of credit scoring (scorecard) as a tool for credit decision-making processes is currently commonly applied by banking circles. The main purpose of using the Loan Origination System application is to improve and improve the quality and quantity of credit decision results so that they become more objective and consistent.

### **Relationship Between Loan Origination System Implementation and Business Performance**

According Revi [14] explains that the results of Loan Origination System Implementation have a positive effect on Business Performance. This means that the application can affect user satisfaction in using LOS (Loan Origination System).

From some of the relationships between the variables above resulting from previous research, there are still inconsistencies between the External Environment, Internal Environment, Banking Credit Re-Engineering process, and Loan Origination system implementation on the company's business performance. Moreover, the relationship between these variables is still dominant, which is direct or indirect, so the novelty presented in this study is in the form of interaction between company size variables and risk factor variables, both of which are proxied as moderating variables, and efficiency variables are proxied as mediating variables. Expected to be able to know more about the impact of the Loan Origination system on the company's business performance.

## 2 Method

This study uses a strategic management approach, especially regarding the effect on business performance. Variables are everything that has a difference or variation in value [15]. In this study, there are two variables that are used as research objects, namely the dependent variable and the independent variable. This research includes variable X which consists of External Environment, Internal Environment, Variable Y Banking Credit Process Re-engineering and Loan Origination System Implementation, as well as variable Z, namely Business Performance.

The research is characterized as a Systematic Literature Review (SLR). SLRs are research articles that identify relevant studies, assess their quality, and summarize the results of previous research using the scientific method. A Digital search of articles/literature was carried out in several online databases such as Google Scholar, Academia, and Research Gate [16].

## 3 Result and Discussion

### 3.1 Analysis of the Internal Environment & External Environment as a Basis Banking Credit Process Re-engineering

The external environment of the company can be grouped into three interrelated categories, namely the operational environment, industrial environment, and remote environment [17]. A company's external environment (external business environment) are various factors outside the organization that must be taken into account by the company's organization when making decisions [18, 19]. The organization's external environment is all entities and events outside the organization that has the potential to affect the company's business activities [20]. The external environment is a factor beyond the organization's control that affects the choice of direction and actions and decisions of the company [17].

There are three areas in the external environment, namely: 1) competitor environment, 2) industrial environment, and 3) general environment. 6 factors in the company's external environment compose factors that have a broad scope, namely [21]: 1) political and legal factors, 2) economic factors, 3) technology factors, 4) social factors, 5) government factors and 6) demographic factors [21]. The factors that exist in the general

environment will affect the company in the long term to get opportunities and anticipate business competition.

From the various explanations above, it is generally implied that the Internal and External Environmental Analysis is in the process as the basis for determining the formulation of the Banking Credit Process Re-engineering strategy.

### **3.2 Banking Credit Process Re-engineering Strategy Formulation Through the Implementation of Loan Origination System**

The core business of the banking industry is credit [13]. The use of computer applications that are integrated into the loan origination process will not only accelerate the lending process but will also minimize human errors, including improving the flow process to be better, more efficient, and effective. In addition to the use of an integrated application system for the credit discussion process, the use of credit scoring (score card) as a tool for the credit decision-making process is currently commonly applied by the Banking Industry.

Business Process Reengineering (BPR) is a process of radically and dramatically changing business processes so that the business processes become more effective and efficient without any changes to the organizational structure and functions of the business process itself. This BPR was first written and published [22]. Reengineering is the rethinking and redesigning of a business process to improve performance, such as service, cost, quality, and speed. Business Process Reengineering is an entirely new approach regarding the ideas and models used in improving business [23].

The purpose of Business Process Reengineering is how to improve all processes in an organization or company. Some of the goals of the Banking Industry include [24]:

1. Increase satisfaction with goods or services so that customers will choose the company's goods or services over competing companies.
2. Increase the organization's ability to produce special goods or services and maintain mass production.
3. Breaking organizational boundaries, bringing customers to the information channel through communication, network, and computer technology.
4. Make it easier and more enjoyable for customers to do business with the company.
5. Processing more customer demand, increasing customer volume, and setting "value-driven" prices for customers without compromising profitability.
6. Speed up response time to customers, eliminate errors and dissatisfaction, and reduce product or service development in the factory cycle time.
7. Improve the sharing and use of organizational knowledge so that the organization does not depend on the expertise of a few people.
8. Improving the quality of work and individual ability to contribute to the company.

From the reference review above, it can be concluded that the formulation of the Banking Credit Process Re-engineering strategy can be applied by applying the Loan Origination System.

### 3.3 Application of Loan Origination System as Strategy Implementation in Improving Business Performance

Loan Origination System Implementation has a positive effect on Business Performance [14]. This means that the application can affect user satisfaction in using LOS (Loan Origination System). The Loan Origination System (LOS) application is a web-based application and uses a workflow approach that was developed specifically to support the processing of credit applications needed by the Bank, where this system can perform computerized financing administration processing, from the Loan Origination stage to the approval stage. This application is equipped with Retaksasi modules, Collectibility Monitoring and Document Management [25].

With the Booming Era of Consumer Banking, banks are demanding that banks continue to improve the quality of services and products to provide the best for customers and prospective customers. The existence of Information Technology support in terms of credit application processing systems is one of the factors that can improve the quality of consumer banking services and products.

The implementation of the Loan Origination System application will provide benefits for the Bank, including:

1. Facilitate banks in the stages of the process of providing credit to customers or prospective customers so that it is faster, more efficient, and more effective.
2. The Loan Origination System application can perform credit analysis quickly and accurately on loan applications submitted by customers based on each credit scheme.
3. The Loan Origination System application is equipped with a Document Management module that functions as a means of controlling the existence of collateral documents and other requirements and facilitating the credit analysis process related to loan applications.
4. Achieving the Bank's SLA (Service Level Agreement) with customers.
5. Improve the Bank's reputation with effective service support.

The LOS application architecture can be seen in Fig. 1.

From the reference review above, it can be concluded that the implementation of the Loan Origination System can improve business performance.

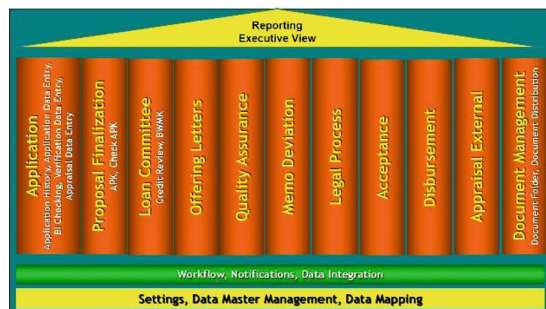


Fig. 1. Application Architecture

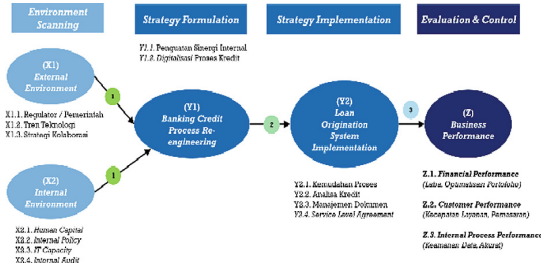


Fig. 2. Loan Origination System Implementation Model to Improve Business Performance.

### 3.4 Loan Origination System Implementation Model to Improve Business Performance (Case Study in the Mortgage Loan Segment)

Based on the points mentioned above, a Loan Origination System Implementation Model to Improve Business Performance (Case Study in the Mortgage Loan Segment) was produced can be seen in Fig. 2.

## 4 Conclusion

Based on the results and discussion above, conclusions that can be drawn from this research include:

- a. Analysis of the Internal and External Environments becomes the basis for determining the formulation of the Banking Credit Process Re-engineering strategy.
- b. The formulation of the Banking Credit Process Re-Engineering Strategy can be implemented through the Implementation of the Loan Origination System
- c. Application of Loan Origination System as Strategy Implementation in Improving Business Performance
- d. Through the analysis of the Internal and External Environments, the formulation of the Banking Credit Process Re-Engineering strategy and the implementation of the Loan Origination System resulted in the Loan Origination System Implementation Model to Improve Business Performance (Case Study in the Mortgage Loan Segment).

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