



IJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 10 **Issue:** V **Month of publication:** May 2022

DOI: <https://doi.org/10.22214/ijraset.2022.42436>

www.ijraset.com

Call:  08813907089

E-mail ID: ijraset@gmail.com

Exploring Credit Management Automation

Sattaru Shanmukha Srinivas¹, Kayalvizhi R²

^{1, 2}Department of Networking and Communications, SRM Institute of Science and Technology

Abstract: *The cash flow management is one of the important factors in any of the company success. It has become the primary focus of the companies after post financial crisis. Almost every company extend credit to their customers. This is an important tool for attracting the customers. If the credit is poorly managed it will result in risk in converting sales to cash. As the technology is much advanced now, it is very important to reconsider and create better methods for cash flow management. It is much needed time for the automation of processes like calculating credit score, credit trustworthiness of customers, payment terms for the proper operation of the business of the company.*

Keywords: *Automation, Credit Management, Invoice, Credit Score, Credit*

I. INTRODUCTION

An automated software that would show customers data with their credit report and financial situation, bad debt monitoring, credit scoring, automated credit approval for such cases that doesn't need intervention of credit analyst. It would make credit management easy and accurate so as to make proper decisions on extending the credit a customer based on credit policies. An automated credit process goes through the same procedure as the manual credit system but the payments and remittances will be happened in a faster pace. Thereby reducing the cost, time, employees work load. The customers will use this automated credit system for requesting credit limit and companies use them for reviewing the customer's creditworthiness. There will be customized scoring models as per customer business model. It will allow for faster customer onboarding, thus by increasing pace of credit approvals. It will capture complete and valid information of the customers. By automation, companies can maintain a good balance between the credit risks and relation with their customers.

II. LITERATURE SURVEY

"What's the Point of Credit Scoring?" by Loretta J Mester [1] mentioned why credit scoring have a potential to be one of the factors that change small-business banking. How credit scoring will help in quantifying the relative risks of different groups of borrowers. "A literature review on the application of evolutionary computing to credit scoring" by A I Marqués, V García and J S Sánchez [2] They has presented the study of the different techniques of credit scoring. They mentioned the need of the computerised credit scoring models. Traditionally the decision to grant credit to an applicant was based upon subjective judgments of human experts, using past experiences. They have explored the evolutionary computation of credit scoring principles. "The Effects of Automation on Receivables Management" by Ines Diniz Morais [3] has presented the effect of automation on credit management process in the companies. And differentiated the results using different levels of automation. "Exploring and Improving SME B2B Credit Management" by T.P.A. Keijzers [4] has compared the cases of credit management and entrepreneur role in Small Medium economy and large economy companies. The financial supply chain analysis in both the cases has also been discussed. "Study of Dynamic Credit Factors of SMEs B2B Trading Model" by Juan Yao, Qin Yang [8] has described the need of dynamic credit system in B2B space. How it will improve the business and enterprise credit of companies in B2B world. They had also discussed that operating conditions need to be improved for better enterprise credit. "Trade Credit Management Strategies in SMEs and the COVID-19 Pandemic—A Case of Poland" by Grzegorz Zimon, Dr. Robert Dankiewicz [16] presented the change in process of credit management in SMEs due to covid pandemic. They described that the companies are restricting the use of credit by their customers and limiting sales of products with long credit limit and also regulating receivables resulting in receivables turnover in days drop.

III. WORKING PRINCIPLES

Earlier it would take much time and effort for the credit management, customer on boarding, customer data management.

With the automation it will be taken care with accurate and less time taken.

The company can get profited by only on boarding intended customers who are feasible to do the business.

The bad debts can be forecasted before it occurs and the customer financial information, credit report data can be seen and compared with daily basis.

Credit Risk Class and Credit Score will be calculated with customization based on customer and credit approvals can be done in an automated manner. If needed can be sent to analyst.

Automating these tasks instead of the manually performing them will save the resources for high value workloads.

The customers can be prioritized based on the credit and financial report data.

If a customer is having good credit score and credit limit requested is in par with the financial situation of the customer. We can onboard the customer without any other check directly.

If the customer is having a bad credit history and credit score. We can assign it to analyst for further check and approval.

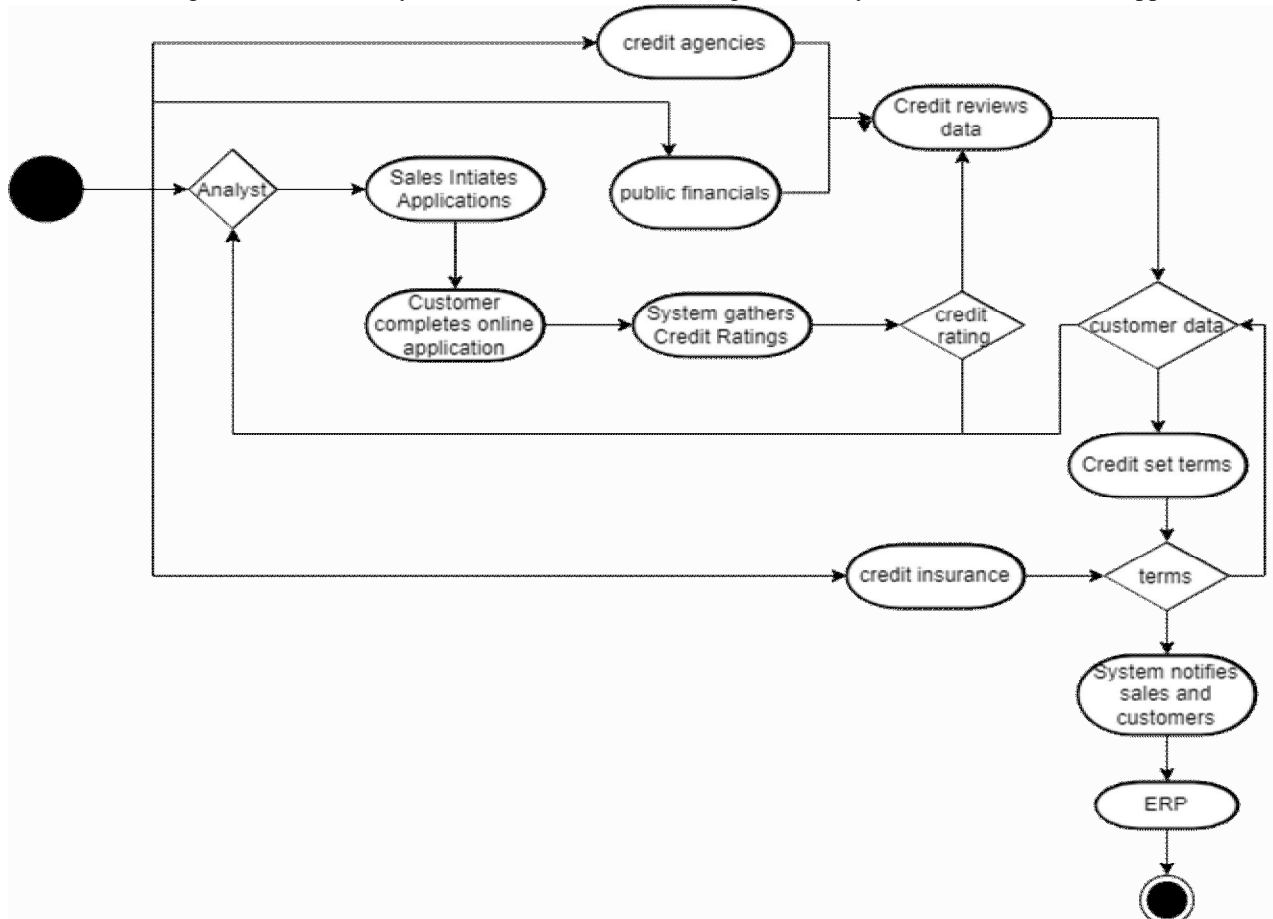


Fig 1: Automated Credit Management System Activity Diagram

The company ERP will be integrated with this automated credit management application. The customers of companies can fill application form which will already be present with prefilled fields. Based on the customers data the system will trigger automated workflows and system will gather credit ratings and will collect necessary information of that customer from agencies.

Companies can view this detailed description of customer and can accept or reject credit to them. The system will set next date of review based on the customer credit risk information. The system will then notify the customers about the acceptance of credit limit.

REFERENCES

- [1] Loretta J Mester, September/October 1997. "What's the Point of Credit Scoring?" Business Review (Federal Reserve Bank of Philadelphia).
- [2] A I Marqués, V García and J S Sánchez, 1384–1399, 2013 "A literature review on the application of evolutionary computing to credit scoring", Journal of the Operational Research Society.S. Zhang, C. Zhu, J. K. O. Sin, and P. K. T. Mok, "A novel ultrathin elevated channel low-temperature poly-Si TFT," *IEEE Electron Device Lett.*, vol. 20, pp. 569–571, Nov. 1999.
- [3] Ines Diniz Morais, Oct-2021. "The Effects of Automation on Receivables Management" University of Lisbon, Higher Institute of Economics and Management.
- [4] T.P.A. Keijzers, June, 2012. "Exploring and Improving SME B2B Credit Management". Eindhoven University of Technology.
- [5] A.V. Osipov, E.V. Faleeva, K.T. Pavlova, 2020. "Automation of the Accuracy of Short-Term Financial Planning and Forecasting the Activities of Credit", International Multi-Conference on Industrial Engineering and Modern Technologies.



- [6] David Martens, Johan Huysmans, Rudy Setiono, Jan Vanthienen and Bart Baesens. "Rule Extraction from Support Vector Machines: An Overview of Issues and Application in Credit Scoring" pp 33–63.
- [7] Jun Yuan, Cheng Yang, 2-14 Oct, 2012. "Credit Risk Measurement on Customers of B2B Market" IEEE.
- [8] Juan Yao, Qin Yang, 27 May 2010. "Study of Dynamic Credit Factors of SMEs B2B Trading Model" IEEE.
- [9] Ming Zeng, He Wang, Junguo Jia, Tao Wang, Jian Tang, 26 February 2007. "Study on Credit Evaluation Models for Electric Power Clients and the Realization of the Software System" IEEE.
- [10] Diana Guzmán Aguilar, Luis Fernando Montes Gómez, David Alberto Bedoya Londoño, Camilo Adrian Zuluaga, 15 July 2019. "Information System for the Measurement of Credit Risk in Financial Institutions" IEEE.
- [11] S Kanungo, S Sharma, P. K Jain, March 2001. "Evaluation of a decision support system for credit management decisions", Sciencedirect.
- [12] Fennee Chong. "Evaluating the Credit Management of Micro-Enterprises", WSEAS Transactions on Business and Economics 1109-9526.
- [13] Mei Hong, 2008. "Establish Credit System in Enterprises to Strengthen the Management of Accounts Receivable". Canadian Research & Development Centre of Sciences and Cultures.
- [14] Richard Pike, Nam Sang Cheng, March 2003. "Credit Management: An Examination of Policy Choices, Practices and Late Payment in UK Companies". JBFA.
- [15] Chunhui Piao, Changyou Zhang, Xufang Han, Jing An, 2018. "Research on Credit Evaluation Model and Algorithm for B2B e-Commerce" IEEE.
- [16] Grzegorz Zimon, Dr. Robert Dankiewicz, July 2020. "Trade Credit Management Strategies in SMEs and the COVID-19 Pandemic—A Case of Poland". MDPI.
- [17] Yun E. Zeng, H. Joseph Wen, David C. Yen, 2003. "Customer relationship management (CRM) in business-to-business (B2B) e-commerce", Emerald Insight, 0968-5227.



10.22214/IJRASET



45.98



IMPACT FACTOR:
7.129



IMPACT FACTOR:
7.429



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24*7 Support on Whatsapp)