Early Warning System (EWS) for MSMEs Lending: Catching stress early for positive intervention

Proactive monitoring using multiple data sources to facilitates swift decision-making to help mitigate risks and safeguard the organization's portfolio.

Introduction

Micro, Small, and Medium Enterprises (MSMEs) are vital to the Indian economy, contributing approximately 30% to the GDP and employing around 110 million people across over 63 million enterprises. Despite their significance, MSMEs face considerable challenges in accessing working capital, with an estimated financing gap of about ₹20 lakh crore. Many MSMEs struggle to secure timely credit from traditional channels, often relying on informal sources that impose high interest rates, which hampers their growth and sustainability.

As Banks and Non-Banking Financial Companies (NBFCs) increasingly target the MSME sector to expand their exposure, effective portfolio management becomes essential to mitigate risks, particularly non-performing assets (NPA). The small ticket sizes and high volume of transactions make manual monitoring impractical, necessitating the adoption of digital solutions for real-time oversight. By leveraging technology, financial institutions can enhance their ability to monitor customer health, streamline the lending process, and ultimately support the growth of MSMEs, contributing to the broader economic development of India.

Thankfully, the Indian ecosystem offers a wealth on company performance and individual data, which is crucial for effective monitoring. Bank statements also serve as a valuable data source, complemented by alternative data that can be accessed based on lender's past relationships and borrower's consent. This rich pool of information enables the creation of robust monitoring models, allowing financial institutions to gain deeper insights into the health of MSMEs. By leveraging this data, lenders can make informed decisions and tailor their offerings to better meet the needs of their customers as well as track the portfolio for hidden risks before they escalate into major problems.

With a longer history of data, industries where seasonality can impact cash flow (E.g manufacturing) further optimizations can be done since one-size-fits-all industries approach to risk assessment would not be valid.

StrideOne approach to addressing the MSME lending gap is to provide supply chain financing solutions which follow the end use, and provide a revolving credit facility that the MSME can utilize basis their needs – thereby reducing the cost in lean periods. This credit facility is actively managed through the comprehensive Early Warning System developed in house by StrideOne.

Solution Overview

An Early Warning System (EWS) serves as an effective solution for monitoring portfolios with MSME Sector by utilizing the above diverse data sources available. By integrating performance metrics, bank statements, and alternate data, the EWS can identify signals that indicate potential risks. This proactive approach enables StrideOne to stay ahead of emerging financial issues, ensuring that we can take timely actions to protect our investments and maintain a healthy portfolio.

Aim of EWS is to:

Spotting potential financial stress early—before they become full-blown defaults

Enhance decision-making through real-time, comprehensive data analysis

StrideOne EWS is a Rule based Engine that analyzes over 100 parameters from multiple data sources to derive early signals of distress. Each alert is configured into RED, AMBER and GREEN to highlight immediate action, deferred action or an opportunity to be analyzed at customer end. Any RED trigger automatically blocks the credit facility to reduce potential risk.

The continuous tracking happens on financial metrics, drawing data from CIBIL scores, GST returns, and bank statements along with other alternate data available based on customers consent and/or part history of interaction. Some parameters that are analyzed to identify potential risk factors are:

- Significant revenue drops
- Decreased purchases
- High supplier/customer concentration
- Recent credit delinquencies
- Increased cyclical transactions and suspicious banking activity
- Higher related-party transactions
- Many others

Over 250 signals are generated from the 100+ parameters being analyzed to trigger alerts regularly. These signals help identify potential risks and anomalies within the portfolio. Approved deviations are systematically recorded in the system to ensure accurate tracking, while any false positives are flagged to refine the alert mechanisms. This process not only strengthens the system's reliability but also enhances its effectiveness for future analyses, making informed decisions.

In addition to monitoring risks and warnings, our EWS highlights growth opportunities within the portfolio, enabling lenders to identify MSMEs where relationship focus may need to be enhanced due to positive performance. By recognizing positive trends, financial institutions can engage in renegotiating current lines of credit and rates, fostering stronger relationships with their customers. This holistic approach not only mitigates risks but also supports business growth, creating win-win scenarios for both lenders and borrowers.

Successful identification of Risks in StrideOne Porfiolio

Few cases of successful identification of risks in the MSME portfolio are listed below. Often multiple alerts are combined to finalize the final RED Alert.
A borrower trading within the recycling industry experienced a significant shift in its revenue as flagged by EWS. A RED alert was triggered due to a >90% drop in revenue, with the current revenue standing lower than the average over the past 12 months.

Additional indicators were decline in the CIBIL score since onboarding. There were no NPAs in the system, however numbers of facilities with over 30 days past due increased, indicating growing risk and need for immediate blocking of current lending lines.

Another borrower had a drop in GST revenue that breached the expected limit. There was also a trend in decrease in purchases. These indicators, alongside the rise in POS and the increase in credit enquiries, triggered RED alert signaling potential financial instability. The drop in GST revenue pointed to a slowdown in business activity, while the reduced purchases suggested a potential decrease in production demand or liquidity issues.

These cumulative signs of distress prompted blocking the account.

Many other cases, like a manufacturing firm in the Packaging Industry had a decrease in CIBIL and delayed repayments for non-stride Loans with significant outstanding amount. In another case concentration of the top five suppliers of a Textile firm increased beyond the policy limit resulting in AMBER alert.

A construction firm's data showed an increase in POS and their banking alerts showed a change in pattern indicating liquidity challenges.
All above indicators are helping the risk team to focus on portfolio review strategically and gain confidence to expand their portfolio.

"EWS has been a game-changer for us. It not only highlights potential risks but also gives us a clear picture of our portfolio's health, helps us focus on key problem areas, and even uncovers potential opportunities."
 - Chandan Negi

Summary

The Early Warning System is an essential tool for mitigating credit risks within the supply chain finance ecosystem. By integrating diverse data sources, the EWS provides Banks and NBFCs with a comprehensive, real-time solution for detecting early signs of financial distress among customers. This proactive risk management approach not only reduces potential credit exposure but also enhances portfolio quality, ensuring long-term stability and fostering stronger partnerships with clients.