Smart Credit Assessment & Analytics for Micro, Small & Medium Enterprises Financing

Keywords:
- Fintech, credit assessment, machine learning, alternative data, big data analytics, smart engine portal, AI-based OCR, and API infrastructure

Problems addressed

- The challenge of traditional credit scoring which relies on the financial information provided by the loan applicants of micro, small & medium-sized enterprises (MSME), such as financial statements
- The challenge of MSME who may not have sufficient credit history and readily available financial records. Without such data and visibility of their business operations, it may be difficult for banks to assess their creditworthiness which impedes their business expansion
- The cost concern of Banks who find the assessment of creditworthiness for MSME not cost-effective

To address the above problems, ASTRI conducted a study and explored the use of financial technologies to develop an alternative credit scoring framework for MSME financing businesses. A panel of industry experts was invited to participate in the study to contribute their insights and discuss the benefits and challenges of the proposed framework.

Innovations

An alternative credit scoring platform with smart engines that produce credit scores for MSME based on both alternative and conventional data.

The innovation outlines:
- An online document processing engine using AI-based optical character recognition technology
- A data analytics engine for credit assessment using conventional data
- An alternative credit assessment engine for implementing the newly proposed framework of alternative credit scoring
- A communication infrastructure for connecting strategic data partners to collect information for the analysis of alternative credit assessment

Key impact

- A cost-effective way for financial institutions to analyze and identify the creditworthiness of MSME
- An automatic credit underwriting platform that supports continuous assessments of MSME
- An innovative approach in using alternative data from different data partners of banks to perform alternative credit scoring

Innovation snapshot
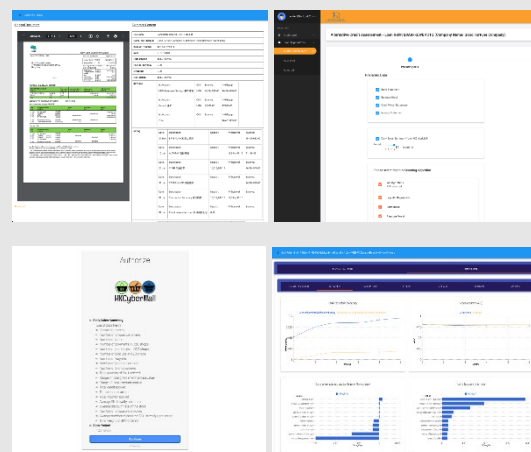
Project completed
- 2020

Applications
- Credit scoring for MSME financing

Patent(s)
- US App. No. 17/344,893;
  CN App. No. 202180001789.0 and
  HK App. No. 62022045702.7

[ASTRI Patent Search](#)

Commercialisation opportunities
- IP licensing
- Technology co-development

Contact details
Director, Commercialisation
Priscilla Yeung
Email: priscillayeung@astri.org
Telephone: (852) 3406 0280