SME FINANCE
FORUM

- ACCELERATING FINANCE FOR BUSINESSES -

COMMUNITY OF PRACTICE (COP): RISK MANAGEMENT

CREDIT SCORING'S CONTRIBUTION TO SUSTAINABLE AND PROFITABLE MSME LOAN GROWTH AND KEY SUCCESS FACTORS FOR USE OF CREDIT SCORING.

The meeting took place on October 10, 10AM–12:30PM, in Amsterdam, during the Global SME Finance Forum 2019. The list of participants is in Annex 1. Background information on COP is in Annex 2. The meeting was chaired and moderated by Mr. Rajeev Chalisgaonkar (Standard Chartered Bank) and included three presentations by Mr. David Snyder (Cass Business School and Wells Fargo), Mr. Syed Abdul Momen (BRAC Bank), Mr. Vikram Kotibhaskar (Standard Chartered Bank), each followed by Q&A, and discussion about future steps for the COP.

David Snyder presented motivation, methods, data and timeline for his study "Credit Scoring's Contribution to Sustainable and Profitable MSME Loan Growth and Key Success Factors for Use of Credit Scoring." The study was started in September 2019 and plans to be completed by February 2021. The study has two objectives: 1) to determine the association between use of credit scoring and sustainable growth in small business lending; and 2) to determine factors associated with successful use of credit scoring. By way of background, in developed markets, credit scoring has been used for risk assessment in small business lending for the past 25 years. Over the past several years financial institutions and development organizations across the world have acquired considerable interest in applying this technology to MSME lending operations. David's study aims to help inform this effort by answering some fundamental questions, including: to what extent does credit scoring contribute to success of MSME lending? What are the key factors for successful use of credit scoring? Given a particular context, which scoring data add the most predictive value, and which are extraneous to credit risk measurement?

More knowledge concerning these questions could benefit lenders and advisory groups and facilitate their ability to effectively target use of scoring solutions to programs that will benefit the most. Additionally, through the process of comparing successful versus unsuccessful scoring initiatives and determining the extent to which these are correlated with sustainable and profitable loan growth, the study will be able to provide new insights on best practices in MSME credit scoring models and strategies being deployed, the data being used, and model and credit portfolio risk management.

David is currently in the initial stages of his research, focusing on the development of the questionnaire on lending practices, credit risk management and credit scoring, and identifying and soliciting survey participation from FIs sampled from the IFC's REACH dataset and this COP. The questionnaire will be finalized by December. Data collection and follow-up will be completed by May 2020. Afterwards, David will link outcome data with questionnaire responses and identify associations. This analysis will be finalized by end of August 2020 and the results will be available by next fall.

Q&A: George Ogbonnaya from First City Monument Bank (Nigeria) asked David how would we bring into the scorecard (i) human physiological factor of intent to never repay and subsequently default; and (ii) external macroeconomic factors, which can precipitate the default? David responded that credit scoring should factor in three Cs – Character, Capacity, and Collateral. Repayment history and cashflow of the borrower correlate with willingness and ability of the borrower to repay. One way of factoring in external economic parameters is to apply industry differentiated thresholds. Thresholds should be increased if economy deteriorates. Rajeev added that personal credit history of the borrower is important in determining the intent to repay. In addition, visits to the offices of the SME can provide more information about the intentions of the owner/borrower.

Paula asked for David's opinion on what is the key success factor of the credit score usage post deployment in terms of model management? David responded that his hypothesis is that successful use of credit scoring is associated with the following factors: 1) use of high quality predictive data, ideally which contains variables that directly or indirectly measure cash-flow and repayment history; 2) a well-constructed and maintained model; 3) a business model that involves a high unit volume of small, standardized credits; 4) a risk appetite that permits controlled higher loss rates, with the objective of pricing accurately and profitably for the risk taken; 5) risk management teams that apply a scientific approach to model, strategy and policy development, implementation and evaluation, establish firm performance expectations, routinely monitor outcomes, investigate variances between performance and expectations, and make adjustments to the model, strategy and policy as necessary.

Syed Abdul Momen presented BRAC's practical experience with credit scoring in a data scarce environment. BRAC is focusing on collateral free SME lending. BRAC's NPL rate for collateral free loans is <3%. BRAC implemented scorecard for two reasons: 1) Due to high number of collateral free loans – BRAC processes around 9000+ loans per month with 70% of loans being collateral free. 2) To standardize credit decisions and decrease the cost of their model. Specifically, the model is costly, because it involves 2000+ sales staff on the ground, who source the loans, and 160 credit managers distributed across the country, who do physical verification by visiting every borrower.

The scorecard is developed with substantial input from credit managers and more than 500 customers. In the development process, one of the challenges is poor quality data, which is a country wide problem in Bangladesh. BRAC had to collect and rely on their own data. As a result, non-financial variables get 80% of the weight. Examples of non-financial variables include: does a grocery store have a refrigerator? How many similar stores are within 5-mile radius? Other challenge is lack of digitization and automation, specifically financials are re-created by ACM and kept in hard copies, and many variables not captured in the system.

One of the main findings is that scorecards have to be tailored to industry segments, such as grocery or furniture etc. Another key finding is that scorecard has to be trained and back tested over at least one cycle of the loan, because weights are recalibrated between variables based on outcomes. In addition, back testing must be done on both good and bad loans. The first scorecard was dedicated to grocery segment and could only indicate whether to give the loan. Then, BRAC added on Limit Allocation Tool, which recommends the range for loan amount. BRAC also developed a scorecard for furniture segments.
In conclusion, the most important recommendation for scorecard development is to have good quality data. Industry data are relevant, but they have to come from various sources such as Ministry or Commerce and Central Bank. Scorecard has to include checks for internal consistency of data. Periodically, scorecard has to be reviewed, in BRAC's case the scorecard is reviewed every three months.

Q&A:

Bernd Leidner from the Afghan Credit Guarantee Foundation asked how much of the non-financial data are common across different types of businesses? Syed Abdul Momen replied that about 60% of data are common.

Matthew Gamser asked if BRAC is using data from bKash, subsidiary of BRAC. Syed Abdul Momen replied that as of now bKash does not have comprehensive data, which could be used to identify patterns. However, in a year from now, after ecosystem around merchants is more developed, data from bKash could be useful.

Rajeev added three observations from his experience: 1) machine learning and AI help analyze large datasets and determine which variables have higher explanatory power. 2) Every datum has a cost and sometimes the cost makes it unviable to include those data in the scorecard (e.g. personal net worth is inexpensive to obtain in developed markets, but costly (up to $100) to obtain in some developing markets). 3) Gaming is a serious risk. Variables must be triangulated. Syed Abdul Momen added that BRAC bank got help from IFC data scientist, who did analysis and design of the scorecard for BRAC.

Michael Makau from NCBA (Kenya) asked how did FIs manage to persuade credit managers to switch from subjective decision making to relying on the scorecard results. In response Rajeev gave an example of the National Australia Bank, which introduced scorecards to relatively smaller size loans ($50,000) first. Then, once the scorecard proved effective, they used that as an argument to persuade the rest of the credit managers to use it on larger size loans. National Australia Bank also created a separate brand for the loans, which are evaluated with the help of a scorecard. Syed Abdul Momen said that in order to persuade their CRO to use the scorecard, they first piloted it with only five risk managers. Rajeev shared his observation that people are persuaded faster, if the recommendation comes from an outsider, such as a consultant, who has credible track record. The

SME Finance Forum provides such consultancy services through its knowledge sharing function. Rajeev suggested that at the next Global SME Finance Forum, there should be a dedicated session for credit risk officers.

Vikram Kotibhaskar presented Standard Chartered's market framework for loan automation – country's digital index. This framework allows Standard Chartered to understand what the quality and availability of digitized data is in a market and assess market readiness for loan automation. The indicators include: company and individual KYC, personal and corporate bureaus, internal data, alternate data, income documents, and GST/VAT statements. Among the questions addressed by the index are: what external data sources are needed to score customer and to underwrite a loan? Are these data available in PDFs or are there APIs that can be used to get these data? Do the digitally available data have the granularity needed for the scoring? Is customer authentication/bank credentials needed to pull the data? If data are given in PDFs, then how effectively can you seamlessly assimilate those data? Vikram contrasted and compared several indicators for a handful of markets including India, Singapore, and China.

Q&A: Matthew Gamser said that it would be good to have a webinar on this digital index with policymakers, who would like to improve their SME finance ecosystems.

Discussion about the Future of the COP and Follow-up Actions:

- All interested participants to provide feedback on the design of David Snyder's study and questionnaire (the latter will be circulated in November).
- FIs to reach out to David Snyder if you would like to be included in his study and complete the questionnaire.
- COP members to organize a half a day session for risk officers at the next Global SME Finance Forum.
- Rajeev asked for COP members to drop him an e-mail of what would add value to their business.
- COP to work further on the development of the digital index, which would rank countries and in turn to catalyze reforms. Similar exercise was successfully tried in APEC. The first step is to do a webinar on this topic with interested policy makers.
- COP members to organize a joint webinar between COP and IFI-DFI on how to cooperate more efficiently. For this webinar, we will need to identify a few volunteers from both sides – COP and IFI-DFI community – to come up with three-four challenges for cooperation and how each addressed those.

Annex 1: List of Participants.

#	Full Name	Company	Email Address	Work Country
1	Chalisgaonkar, Rajeev	Standard Chartered Bank	rajeev.chalisgaonkar@sc.com	Singapore
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Annex 2: Background information on COP.

The SME Finance Forum established the Risk Management Community of Practice (CoP) with the primary goal to foster the exchange of ideas, practical experiences, and new approaches to credit risk identification, monitoring and management, which can further improve the FIs' operational effectiveness and efficiency, and benefit their SME clients. The CoP also aims to enable better collaboration among the key players in the SME space: banks, non-bank FIs, fintechs, regulators, and consultants, to progress SME finance through improved risk assessment and decision-making, robust risk-adjusted business performance measurement and better appreciation for the link between credit risk and other risks that may impact on an FIs' SME business.

The CoP was launched during the Global SME Finance Forum in Madrid in November 2018. The initial meeting focused on the impact of evolving data sources and fintech developments in credit risk assessment. While this session included a discussion on Credit Scoring's Contribution to Sustainable and Profitable MSME Loan Growth and Key Success Factors for Use of Credit Scoring.