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Credit Scoring Model and SMEs Capital Requirements

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ABSTRACT

In this paper, the researcher studies how bank's credit scoring models helps to carry forward the lending mechanism towards the SME sector with the intention of reducing the credit gap by measuring the efficiency of a scoring model in terms of timely and adequately meeting their capital requirements, with low cost pricing and high consistency parameters. By collecting secondary and tertiary data relating to the efficiency of credit scoring in meeting the capital requirements of SMEs in above said parameters which are already published elsewhere and to show the evidence of efficiency of credit scoring models in banks.

Key words: Credit Scoring Model, Small and Medium Enterprises (SMEs), Capital Requirements.

I.INTRODUCTION

SMEs play a pivotal role in generating employment, increasing cross border trade and fostering the spirit of entrepreneurship and they are the real driving force for any economy. The sector contributes to economic development in a variety of ways such as creating employment opportunities for rural and urban population, providing goods and services at affordable costs by employing innovative solutions and supporting the export initiatives of the country. The SMEs business expansion, development, sustenance and for survival, availability of adequate credit at affordable cost and in timely is very essential. Rather than other sources of funding like equity capital, venture capital etc., banks role in providing adequate credit is very crucial. Financing to SMEs is a very lucrative business for banks and financial institutions. Granting credit timely and adequately with affordable price is not just a necessary due to theirs greater contributions given to the economy in various forms but also SMEs long-term sustenance and survival as well as a commercial proposition for the banks.

Credit scoring is a statistical method used to predict the probability that a loan applicant or existing borrower will default or become delinquent[1]. Credit coring is the first formal approach to the problem of assessing the credit risk of a single debtor in a scientific and automated way, in direct response to need of processing large volumes of applications for relatively small loans[2]. Credit Scoring is a model applied by banks in their assessment and approval or decline of the loan requests by SMEs which include financial characteristic from both the business and the business owner[3]. The application of credit scoring gives a great insight on small business credit markets, including borrower and lender interactions, loan pricing, loan risk, and credit availability. The credit scoring is more valuable for those institutions dependent on small business lending as

their major earning or profit making portfolio because, it serves objectively to measure and rank the riskiness of borrowers by the lending institutions[4].

II.LITERATURE REVIEW

2.1 According to MSME sector's 4th census report, only 5.18% of the units (both registered and unregistered) had availed of finance through institutional sourced, 2.05% had finance from non-institutional sources and the majority of units i.e., 92.77 % had no finance or depended on self finance. And to the MSME sector in 2013-14 (2803628 crores), 2104-15 (3089863 crores), 2015-16 (3405845 crores), 2016-17 (3757755 crores) total demand were expected and 1237539 crores, 1477928 crores, 1769659 crores, and 2124644 crores respectively supplied to the sector. So the credit gap in absolute terms is 1566089 crores, 1611935 crores, 1636186 crores and 1633111 crores respectively were highlighted by the same report. Thus, it clearly exposing with exact figures of credit gap. This figures can be seen from the table as below:

Estimated Outstanding Credit Demand and Supply of MSMEs (Rs. Crore)					
Year	2012-13	2013-14	2014-15	2015-16	2016-17
No.of MSMEs in Lakhs	335.3	348.71	362.66	377.17	392.25
Total Demand	2541574	2803628	3089863	3405845	3757755
Total Supply	1038948	1237539	1477928	1769659	2121644
Credit Gap in Absolute Terms	1502626	1566089	1611935	1636186	1633111
Credit Gap as % of Total Demand	59	56	52	48	43

Source: Report of the Private sector investment for MSME sub group under working group for the 12th Five Year plan (2012-2017) p18[5].

For this K.C.Chakrabarthy states that constraints in access to finance by SMEs are inadequate penetration of banking facilities in the remote unbanked or under banked segments; the pricing of credit is also a constraining factor. The credit pricing for the SME sector is not very transparent and not very affordable[3]. Therefore, proactive measures are very needful to meet capital requirements adequately for SME borrowers. Addition to this, a study of IFC Advisory Services and Access to Finance, revealing the real situation, on the basis of their study report currently 10.3 Million enterprises were served by financial institutions and 7 million new enterprises were excluded i.e., 23% of the overall debt demand, 4 million sick enterprises i.e., 12-13% of the overall debt demand was there. The banks plays very important role in MSMEs life cycle and it needs to develop underwriting tools which can enhance the suitability to access MSMEs according to their categories and size of enterprises and credit requirement[6].

2.2 A study by College of Agricultural Banking (Pune) found that, a challenge faced by banks in financing SMEs is the lack of proper financial statements that would provide information about their financial position, performance and cash flows to facilitate economic decision-making by the bank. The delay in sanctioning of loans and also delay in disbursement, despite standardize SME loan documentation procedures adopted by

banks. The absence of exit policy for MSMEs to wind up their business deters both banks and borrowers. The current delivery structure of banking system does not meeting the MSMEs financial inclusion in terms of access, availability, affordability, and awareness[7]. And the size of SMEs loan is small, so the banks not finding it as more worth to conduct very detailed evaluation of their credit proposal both in terms of value and profit. Therefore, the banks can quickly conduct appraisal of SME proposal without extending too much resources, it would be imperative to ensure the efficiency of the appraisal process. An important dimension to efficiency in the context of lending decisions is the speed with which any individual lending decision is taken. Efficiency is improved by better evaluation of future payment performance so that the lender is able to choose whom to accept [3].

2.3 Credit scores have been widely used for many years in consumer credit markets e.g., mortgages, credit cards, and auto loans etc.,. The model has facilitated lending procedures leading to availability of flow of low cost credits and faster decision making yielding significant growth in consumer credit availability. In the mid-1990s, Fair Isaac and Company introduced one of the first credit scoring models developed exclusively for SMEs, the Small Business Scoring Services (SBSS). Since then, many SME banks in the U.S., as well as in Canada, the U.K., and Japan, have implemented some type of credit scoring for SME borrowers for its cost saving, quick decision making advantageous features[3].

2.4 Fair, Isaac and Company, introduced its first Small Business Credit Scoring (SBCS) model in 1995, they are the largest external credit score provider in the world. In their' experience they stating that- credit scoring makes the process of securitization of small business loans more feasible. By which also increases the availability of funds to small business with better terms and this securitization as tool to diversify the risk at greater extent[8].

2.5 According to the study of Allen et.al[9], the small business credit scoring technology increases small business credit availability, those firms are riskier that tend to pay relatively high prices for credit and by this technology adoption reduces this burden by fare pricing. Due to the scoring model's advantage of consistency across underwriters, the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Federal National Mortgage Corporation (Fannie Mae) have encouraged mortgage lenders to use credit scoring. Fannie Mae also reported it was depending more on credit scoring for assessing risk in October 1995 in one letter.

2.6 L J. Mester[1] states that, this credit scoring will change the relationship between the small-business borrower and their lender from relationship lending to transactional lending. Loretta et al., also states that, the models most important performance indicators of small business loan are the characteristics of the business owner rather than the business itself.

III.THE EVIDENCE OF USEFULNESS OF CREDIT SCORING MODELS IN BANKS

3.1*It greatly reduces the time needed in the loan approval process:* Mester[1] - evidences that with the example of a study by the Business Banking Board, that they found the traditional loan approval process averages about 12-1/2 hours per small- business loan, and in the past, lenders taken up to two weeks to process a loan (which was quoted by a study of Allen). In this credit scoring system the applicants need to provide only the

information used in the scoring system, so the application is also simple and easy and shorter[1]. In India, in this context Indian Bankers Association (IBA) prescribed simplified application format of six pages for loans up to Rs.100 Lakhs[7].

3.2 The scoring systems are very cheaper, if we compare the fee for rating agencies to rate a particular loan proposal is very high than the fee charges at banks by adopting this credit scoring system. Because it is a one part of an automated loan system, which permits banks to offer loans over the phone or via direct mail, so that a costly branch network can be avoided in most cases[1].

IV.IT BENEFITS MULTIPLE STAKEHOLDERS, INCLUDING LENDERS, BORROWERS, AND THE OVERALL ECONOMY

4.1 For the lender, scoring leads to process automation which facilitates process improvements leading to many byproducts such as improved management information, control and consistency. It also increases the profitability of SME lending by reducing the time and cost required to approve loans and increasing revenues by expanding lending opportunities as *lenders can safely approve marginal applicants that an individual underwriter might reject*. International evidence has shown that credit scoring can assist in overcoming the inherent benefit or cost trade-off that banks face when deciding whether or not to invest in obtaining information regarding a potential borrower. A study that was meant to test the credit scoring situation in US estimated that the cost of evaluating micro loan applications in the US using credit scoring was reduced to around USD 100 compared to a range of USD 500- 1800 prior to the introduction of credit scoring. The time saving involved meant that banks could focus more time on marginal applications, existing loans that are showing has also meant that the marginal benefits of taking and maintaining collateral are not justified for small loans. The bank of England has also acknowledged that there is some evidence of banks being more willing to lend on an unsecured basis when using credit scoring, which potentially improves the access tot bank finance for very small and start-up Small and medium enterprises[3].

4.2 For the borrower, the benefits from credit scoring include increased access to credit and, in some cases, lower borrowing costs. In its study of SME credit scoring's impact on access to credit, the Federal Reserve Bank (FRB) of Atlanta found that, in general, the use of credit scoring increased the amount of credit banks extended to the Small and Medium Enterprises. It found that banks using scoring were more likely to lend to the SMEs that lacked sufficient financial information for approval through traditional underwriting methods. Presumably, this is due to the inclusion of the business owner's personal information in the scoring process. The study also found that banks using scoring were more likely to lend in low-income areas, a fact it attributed to greater objectivity in the underwriting process[3].

V.LIMITATION OF CREDIT SCORING

Even if the lender can lower its costs of evaluating loan applications by using credit scoring , if the models are not accurate, these cost savings would be eaten away by poorly performing loans. So the accuracy of a model is very important[1].

VI.STATEMENT OF THE PROBLEM

The credit function is the heart of banking, under the ever changing market conditions- the lack of financial information, the cumbersome documentation process, the lack of precise credit risk measuring methods making the lending to SMEs delay in granting loans and adding costs with higher prices for their loans and expanding financial gap emphasizes the efficiency of the lenders appraisal needs to reviewed. This problem is addressed with the help of credit scoring models as an emerging tool to lend to this segment which was addressed by many years back by many experts in the field of banking and finance. In India, in May 2009, RBI advised banks to use credit scoring model for making lending decisions loans up to 2 crore. But in real sense they not took off.

VII.OBJECTIVES

1. To analyze the existing literature on credit scoring models efficiency in meeting capital requirements of SMEs.
2. To verify literature on the effectiveness of scoring models towards SME loans in terms of consistency, adequacy, timely and pricing.
3. To cross check the literature on credit scoring models of banks to SMEs: whether it is better to carry forward or not?

VIII.RESEARCH METHODOLOGY

The study is basically descriptive in nature and it is a conceptual paper. For the study secondary and tertiary data were used from research journals, study reports, white papers, working papers related to the topic.

IX.DISCUSSION

The SMEs are the driving force for the country's sustainable and inclusive growth. But they are constrained to access bank finance by various challenges on both the demand and supply sides. Such as, inadequate access to debt finance, limited information on financial sources and products, inadequate collateral, limited alternative source of finance, poor credit history with higher NPAs in the sector, the changing legal and regulatory environment, macro-economic environments which impacts at large. The SMEs in India has performed and contributed to the economy remarkably well. It absorbed high manpower with less capital. But still it never satisfied with adequate capital timely at affordable prices. Hence, this MSME sector witnessed a slow growth with its share of exports falling from 40 per cent to 36 per cent in the recent past. So the above literature clearly emphasized the importance of Credit scoring models in banks in lending to SMEs and its role in meeting the capital requirements adequately, timely and affordably.

X.CONCLUSIONS

The credit scoring models adoption in banking it really enhances the lending mechanism with high efficiency in terms of cheap pricing of credit through automation of loan applications, and this also reduces the twin costs i.e., the default cost and operating cost (physical non-existence of branches). It also saves huge time and also helps

to save SMEs time also through online application process and speed process of reviewing the loan application through this credit scoring system in banks. The credit scoring it also helpful in bringing consistency between the banks and the SMEs by easy application (documentation) process set by the scoring system, which also gives comprehensive information about the borrower and the borrower's entity. It also helpful in mitigating cost involved in reviewing, pricing, supervising, monitoring and collection of loans by identifying the future conditions of a borrower efficiently and effectively than the traditional credit appraisal method. Finally we can conclude from the above reviews that the credit scoring models adoption really efficient tool to meet the SMEs capital requirements in time and adequately, with low cost and high accuracy and consistency.

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