# Use of Scoring Approach in Credit Decision

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**Abstract:**
*The traditional methods of credit risk analysis used by the credit analyst are no longer feasible as well as cost efficient. With the increase of competition amongst the companies and to expand their market share most of the companies lenient their credit policy. As a result Investment in receivables increases. Unless receivables are converted into cash in a minimum period of time, the business firm loses its liquidity, exhausts its credit and finds its growth potential limited. To make the decision process more streamlined and quantifiable access to more predictive information is imperative. In score based technology model a score is suggested which is treated as a 'cut off' rate for decision making purposes. Today scoring is an accepted, stable and accurate technology and its applications have led to a simpler, more consistent, unbiased, faster and more accurate decision making process.*

**Keywords:** *Credit Scoring, Risk, Credit Decision, Attrition, Retention, Portfolio Review*

Access to more predictive information is necessary to ascertain the probability of default and revenue potential. Credit bureau data has proven to be very powerful predictor because it is objective, current and based on actual payment performance. The information collected from credit bureau is extremely diverse in nature and deals with different types of business. Sound credit granting decision relies on credit bureau information because the shared credit information allows the creditors firm to assess credit applicant's total credit experience. Credit bureau information makes credit-granting decision more cost effective, more consistent and more objective. In credit scoring system points are assigned on the applicant's credit performance. Financial and nonfinancial information related to our credit applicant is collected and points assigned to each characteristic, add up to the score associated with a specific performance measure. The credit analysts should assign score in such a way that the model shows clear separation and rank ordering of 'good' s and 'bad' s. When we judge profitability of our credit applicant, score may be assigned in this fashion so as they can categories as 'excellent', 'good', 'fair', 'poor', 'very poor'. 'Excellent' and 'good' score may fall under low risk category. Fair score may be fall under moderate risk category and 'poor' and 'very poor' score may fall under high-risk grade.

Now, on the basis of the above-mentioned categorization, we can grade our credit applicants in the following manner –

1. If the data reveals that, customers have good reputation and maintain liquidity and financial strength consistently for the last four or five years then, they fall under low risk category.
2. Moderate risks are customers who are stable and generally prompt, or only slightly late in making their payment.
3. High credit risks are customers with very weak financial positions and capacity to service debt obligation is doubtful. Such customers/debtors require close attention and depth analysis or allow credit against security or collateral. It is better to reject such risks without further information or guarantees and other security.

For implementing such credit scoring system access to a complete credit history is the most powerful tool to a creditor firm. Credit managers must evaluate liquidity, profitability and capital adequacy of credit applicant and existing open accounts holder i.e. debtors. To develop a credit scoring model for risk measurement credit analysts mainly use some financial and nonfinancial characteristics -

1. Previous order performance, i.e. past payments record, here the creditors mainly consider whether the obligation is paid in due time.
2. Current debt burden of the credit applicant, i.e. credit already taken.
3. Need for new credit: - The amount of credit that our credit applicant asks for should be consistent with the size and nature of its business.
4. Managerial risks: - The quality of management in a business is an important contributor to its success and financial strength. Management ability can be assessed according to the experience, expertise and stability of the senior management team.
5. Competitive advantage: - A poor competitive position will indicate high business risk. Whereas strong competitive advantage implies low risk.
6. A closer consideration of some key financial aspects likes profitability, capital adequacy and liquidity.

After considering all these above-mentioned aspects and many others, credit-scoring models have been developed to predict variety of performance measure that can be linked to decision model throughout the accounting life cycle. Credit is allowed on the assumption that, there will be a possibility of establishing a long and permanent credit relationship between the buyer and seller. As the buyer and seller establish and sustain a relationship they have to pass through different phases. Three major phases are typically –

1. Targeting/acquisition
2. Application review/booking.
3. Account management/portfolio review.

In these phases credit analysts or creditor firm faces different decision situations that can be managed more efficiently and accurately with the help of scoring model. In the first phase of targeting and acquisition stage, it is essential to identify the appropriate targets and point out the poor credit risk applicants. It should be kept in mind that the creditor firm should not accept all the credit risk in order to expand their sales volume. As we know the poor credit risk will be most responsive to a product offer. The objective of the creditors firm is to allocate their resources optimally and try to maximize their activation rates and profitability. The adequate credit information available about credit applicant can expand the base of acceptable credit applicant, increase the response rates and assist in setting credit terms. After collecting the necessary information about credit applicant a creditor focuses on the three measures of performance into any acquisition program – ‘Response’, ‘Risk’ and ‘Revenue potential’.

In a ‘Response’ model creditor firm tries to predict the likelihood how their expected customers will respond to their credit policy. A ‘Risk’ model predicts the extent of probability that, the future promise will be fulfilled i.e. credit worthiness or our credit applicant. In a ‘Revenue’ model analysis of expected revenue and cost is conducted to predict how much revenue is likely to be generated from new accounts. So, here, the main function of the credit managers is to find out those credit applicants who have the highest response rates, lowest risk of default and highest revenue potential.
High Response + Low Risk + High Revenue Potential = Targeted
High Response + High Risk + Low Revenue Potential = Eliminated
Moderate Response + Low Risk + Low Revenue Potential = Avoided

It is better to avoid those credit applicants who although have a low risk for default but at the same time a low revenue potential. Thus, it is preferable for the creditors firm to allocate their resources to

those credit applicants who have moderate risk of default but high revenue potential. Credit scoring model used by the creditor firm, will improve profitability, by attracting credit applicants who respond, generate revenue and remain credit worthy during the credit period.

In the second phase where offer of our credit applicants are reviewed, final acceptance or rejection decision is taken. In this stage, credit score calculated from credit applicants financial statement or credit bureau score can be used to take three basic decisions -

1. Whether to accept or reject.
2. The terms of the account.
3. The appropriate price.

In credit scoring system credit analysts are set a cut off score that denotes an acceptable level of risk or bad rates. Then the entire applicant's whose score is above the cut off score as set by our firm are approved or accepted and the score below the cut off score are rejected. Here we explain accept or reject decision with the help of credit scoring model very simply, but the actual process can be lengthy and rigorously detail oriented.

Now, in the second stage creditors firm may need scoring model developed by internal credit managers or credit bureau score. There are so many reasons of using such credit bureau score with judgmental criteria to take accept or reject decisions. As the credit bureau information is extremely diverse and most current, they calculate risk score, which is empirically derived and consistent across credit files. This allows for the study of almost every type of credit experience possible. When the creditors firm is attempting to enter a new market, or want to launch a new product, or grant instant credit, there is no performance information available for validation. When there is no history of performance within on industry credit bureau risk models, which are based on large diverse sample of credit files, can be used successfully to assess risk. Another advantage of using credit bureau scores in the second stage is that, data on the application of the credit applicant can be compared to the credit bureau data base. If any discrepancy or changing patterns or relationships shows in the comparison, creditors firm are alerted to investigate further and verify before approving an account. So, it is better for the creditors firm to used credit bureau risk score model along with judgmental criteria for taking accept/reject decision of their credit applicant offer.

Once we take accept/reject decision about any particular credit offer, the credit score can also be used in the new account stage to determine the terms of an account, such as credit limit and repayment period. As we stated earlier high score indicates low risk and vice versa.
Naturally, a lenient credit policy followed in case of credit applicant whose credit score is high and stringent credit policy is followed in case of low credit scored applicant. Finally credit scores are used to assign the better the credit risk, the lower the price and vice versa. Risk based pricing helps in identify more accounts to approve, thus increasing the size of the portfolio, while controlling risk and profitability by charging higher rates for higher risks.

**Account Management/Portfolio Review**

In the first stage we targeted our potential customer and in the second phase we accept their offer and set terms and conditions of sales. In the third phase account management involves evaluating and reviewing existing accounts to determine whether credit limit should be modified or not according to the situation. In many incidences a customer had a good credit reputation or rating at the time of allowing credit to him but later he was in trouble to pay his debt within the specific time allowed to him, due to sudden changes of some situational variables. So, periodical review of existing accounts is very much essential for the creditors firm. Since risk scores are calculated from a credit report, the scores can highlight the credit problem that may not yet have affected the inquiring creditors. In account management portfolio review stage credit managers study the behavior of their Debtors.

Maintaining a good and long relationship is very much essential. In this respect account 'Retention' is an important consideration for all types of credit accounts. The issue is now becoming crucial, simply because of the increase in competition. Our competitor always tries to attract our financially sound and good reputable debtors by offering better credit terms. A creditor firm may take aggressive steps to retain his existing customers after analyzing three factors – attrition, risk and revenue. Attrition occurs when a customer voluntarily closes his open account or pays all his balance of debtors account and remains inactive. The first case is easily identified, since the customer is taking the effort to close the account. But the second case is known as 'silent attrition' and is more difficult to qualify because the customer does not response and does not take any initiative to close the account, and simply stops using the account. In the account review stage creditor firm continuously examines whether business with our customers increases or decreases gradually, dealing with our competitors firm etc. credit bureau scoring is particularly beneficial to judge all these matters. The creditor firm takes aggressive action to retain accounts when they observed that customers have high likelihood for attrition, a low probability of default and high potential to generate revenue. Aggressive actions to retain account may be in terms of offering discount facility, higher credit exposures and convenience checks etc.

The following chart outlines an account retention strategy based on credit bureau risk, revenue and attrition score.
**Low Risk + High Revenue + Low Attrition Likelihood**: Action= Build the relationship, Increase Credit Line and Offer Convenience Checks.
**Low Risk + High Revenue + High Attrition Likelihood**: Action = Aggressive Defense, Increase Credit Limit, Offer inventive/ Discount facility, Offer Convenience Checks and Re-Pricing.
**High Risk + High Revenue + High Attrition Rate:** Action= Choose to Loose/no Retention action is necessary.

**Conclusion**
This is modest attempt to grow a conceptual framework on setting an effective credit policy as a whole for any business firm because management of credit is an art and it's a review function. Once credit is granted to a customer and if the faces problem in collecting that debt from its customer, it creates lot of problem for the company. The growth of the economy and changing conditions transform credit into an intricate and sensitive system. Economic function of credit is to make capital available for business purpose. Without credit facility the present large volume of business would drop to a great extent. Whatever role credit plays in our modern economy, its success or failure depends largely upon the skill with which it is managed in individual transactions. Credit is granted in expectation of earning profit but an unwarranted credit extension and incompetent administration tends to harm both debtors and creditors and shakes confidence in business in general.

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