

Credit Risk Management Among Entrepreneurs

Managing Credit Risk Among Entrepreneurs

Jesilin Manjula James
Kuala Lumpur Infrastructure University College (KLIUC)
Jalan Kajang Serdang 43000 Kajang, Selangor
Tel: 03-89266993 ext 818/ 03-56382443
e-mail: jesilin@kliuc.edu.my ; jesilinj@gmail.com

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ABSTRACT

Cashflow has become a common problem among entrepreneurs and corporates today. It becomes a matter of risk management when the risk factor here may either bring cashflow problems and bad debts for the business or great returns. This paper is about managing credit risk among entrepreneurs. When businesses give credit facilities to their customers, they are investing in account receivables. It is vital to take measures in controlling one's debts by exercising discretion in selecting the types of customers one wants to extend credit facilities to. This can be done through credit analysis and credit scoring systems.. The credit analysis is known as the five "C's of Credit". The five C's here refer to criteria such as *character, capacity, capital, collateral and condition plus the additional "C", the "common sense", referring to the use of discretion*. This paper also covers on credit scoring systems that uses computers softwares to process credit facility applications from customers. Entrepreneurs need to recognize and differentiate between good and "bad" customers. *Basically, this paper is on how to choose the right customers to give credit facilities to by filtering out potential defaulters among customers and adopt a not too stringent or too a credit liberal policy.*

INTRODUCTION

It is of no secret that cash flow problems can be controlled with proper management of one's debts. It is the norm in business to sell something on credit but it is another thing to get your customers to pay up after sales. But if you were to insist on C.O.D. (cash on delivery), chances are you will never realize your actual potential in sales. Though "cash n carry" sales are found all over, at the end of the day, many "big" customers who are good paymasters look for reliable suppliers who can give them reasonable credit terms and facilities to meet their overwhelming demands.

Account receivable refers to a set of outstanding accounts that have not been paid up as of a certain date which could be due to either friendly credit terms or due to poor management of credit customers accounts in the case of long overdue accounts.

In credit management, we highlight the importance of filtering out of potential hazards through careful credit analysis and credit scoring systems. If you want to manage your account receivables, this is the first step you have to take in controlling your debts. One has to exercise one's discretion in selecting the types of customers one wants to extend credit facilities to.

The dilemma here is whether to have an extremely strict credit policy which would end up in you realizing only 40% of your actual potential sales or introducing a lenient credit policy that would result in achieving almost 100% of your potential sales but in actual, you end up having more than 40% of your debts becoming bad debts expense. Having said that, a proper account receivable management would advocate the optimum level of achieving increase in sales (towards realizing one's actual potential in sales performance in the long run) and at the same time, minimising bad debts expense to some 0.5% level.

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Having bad debts may be inevitable if one wants the business to flourish but there should be a certain amount of control on it.

In the first part, the usage of credit analysis as a yardstick to approve credit facility applications from customers will be used. In the second part, the dependence on computerised credit scoring systems to make effective judgements and decisions shall be analysed.

CREDIT ANALYSIS

Credit analysis is commonly known as the 5 C's of Credit. The five C's here refer to *character, capacity, capital, collateral and conditions*. Mishler and Cole¹ had added one more "C" here which refers to *common sense*.

Character here refers to the character of debtor or borrowing company, on whether the borrower has the right moral standing to repay his obligations. Hence, we can discern certain things from the following areas such as who the main directors of the company are, what their qualifications are and the experiences of the key players or decision makers, integrity, business expertise, business style and commitment. Vision, management objective and company's business strategies, the manner in which debtor repays his financial obligations and commitments are indicators. A promise breaker even for initial appointments by salesmen may say something about whether a customer can pay when it is due. Credit interview and reference checks also provide insight into true character

Capacity refers to aspects such as customer's ability to generate funds enough for obligations, measured by payment records from credit references, cash flows from client's company projects, income statement, client's income or individual's salary slip, Borang J, current account and fixed deposit balances and etc. Salesmen's report on how efficiently a client runs business, the client's financial report or reports on cashflow management, financial plan indicate the liquidity level of the client and the company. Literally, a good-housekeeping reflects a concerned management and by looking at the quality and maintenance of manufacturing plants & equipments, upkeep of buildings & premises, general level of manufacturing activities, how well the front office is run give us an idea on how committed the business owner is in maintaining his business and probably his suppliers' as well.

Capital input by business owners or shareholders is important whereby ascertaining a customer's sound financial background is necessary before extending credit facilities to them. This is in the event the debtor has the misfortune of encountering business failures or is has cashflow problems, there are assets made available to be liquidated to service the debts.

Some of the important measures would be to review or ascertain the financial strength of a customer based on past, present and future data (what was the initial outlay or paid up capital), what is the capital structure, whether it consist of debt issues or equity stocks, what is their present net working capital, the liquidity level, what about the capital contributed in the form of fixed assets, the tangible net worth of a debtor's debts, run ratio analysis of client's most recent financial statements, review salesmen's report on where the capital is spent on inventory stock level, what is the condition or marketability of customer's raw materials and finished goods inventory before extending credit facilities.

The following areas of extending credit facilities require some form **collateral** and one has to secure lending by holding assets as collaterals in case of doubt over a client's capacity to repay and if so, set some criterion for loans and collaterals that are acceptable and would provide incremental protection. Collateral should not be treated as a substitute as payment, instead, it should be used as the last resort in debt collection procedures. By having the debtor's assets as collateral, it places the lender in a stronger negotiating position. However, there are a couple of issues one has to bear in mind when considering

¹ Mishler and Cole in "Consumer and Business Credit Management"

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assets as a collateral. Issues like how much of control does one have over another's asset, the marketability of assets in the event of liquidation and solvency, the market value vis-a-vis value of debt and the stability of the assigned collateral. Margin credit amount should not exceed the value of collateral, if there are changes in future value i.e. an increase. Another aspect to consider is does the lender have the power to immediately takeover of the asset? Merely securing the right to it is not good enough. If the secured asset is critical to client's business operation, chances are the client will pay up if he needs them²

Conditions refers to the events and changes in the environment, both macro and micro environmental forces effecting the following aspects such as the particular industry that the business is operating in, the current economy's effect on the business and its customers, the supply & demand of their products and services, the economic cycle affecting the specific industry, seasonal demands, layoffs of employment, age of the employees, obsolete work skills of employees and employees' lack of education and its impact on the business and the competitive environment it operates in.

The above are conditions that affect the ability of client in maintaining income in good times and bad times. In the event of economic slowdown and even losses, the business has to look into the welfare of their employees before downsizing (if that seems to be the best option) and the compensation package that they are willing to pay to their employees while they are servicing their debts.

The 5 C's are crucial areas to look into whenever one evaluates application for credit facilities from an organisation. At the end of the day, it still pays to go by hindsight. If one feels something is not right, then maybe, further information is needed. Until then, such applications for credit facilities should maybe be kept aside.

Common sense means exercising good judgement and cultivating simple observation skills which require human skills. Calculation of credit scoring systems help in shortlisting a selection of customers to extend credit facilities to. Usage of computers to generate statistical results has been proven useful in shortlisting mass credit applications i.e. car and housing loan applications.

CONSUMER CREDIT –SCORING MODEL

Credit scoring is frequently used on consumer credit application and loans. Credit risk is the uncertainty in obtaining the returns from investing in account receivables. One invests in account receivables when one allows consumer credit sales to his customers.

Consumer Credit

Consumer credit includes loan, credit card, mail order, overdraft, hire purchase mortgage whereby it is a form of commerce in which individual obtain money, goods or services in exchange for a promise to repay money or goods, services or a fee payable to the lender.

Business Credit

Business credit refers to credit facilities extended to businesses to help them manage their working capital and invest in major projects. As business credit is the extension of credit facilities to businesses to smoothen and spur commercial activities, it is also a very profitable venture for financial intermediaries and suppliers. It is very beneficial for corporate and businessmen who need to “roll” their money and maintain their cash flow between seasonal businesses. It is very crucial for lenders and creditors to assess their credibility first before approving credit facilities as this helps to minimise the probability of delinquent debtors and non-performing loans. Managing credit risk is however, easier than monitoring and collecting of doubtful debts.

² Richard Y.K. Wong in “Cash- The lifeblood of Business”

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Credit Scoring Model

It is a system or programme that can be constructed by using sophisticated statistical methods to analyze the payment records of many past customers.³

It can be a manual system or a computer programme that helps the credit personnel to assess the credibility of an applicant to a certain extent. Such models offer several advantages.

They enable the creditor to accept large numbers of clearly, good customers and reject the clearly, bad customers very quickly. The creditor then can devote costly evaluation talent to analyzing the “close calls.”

This procedure should be complied in order to ward off any attempt by the personnel concerned who give “favours” to a third party in wanting credit. Therefore, they are “objective” and can help the company avoid bias or discrimination.

The usage of such models in decision-making allow different loan processors to apply consistent standards across all credit applicants. They also make changing standards easy. The company could change the cut-off from 25 to say, 28. This change would then apply equally to all loan applicants.

For a credit card application, a scoring sheet with a weighted application is often used. A simple credit scoring sheet would be as below:

e.g

Handphone/Telephone	Yes =4 points, No=0 point
Salary/Income	Above RM 40,000 = 3 points RM20,000 – RM 40,000 =2 points below RM20,000 = 0 point
Tenure	more than 3 years with current employer =3 points 1-3 years with current employer =2 points less than 1 year with current employer =1 point self employed =1 point unemployed = 0 point
Home	Own =3 points Rent =1point more than 3 yrs at current address = 2 points 1-3 years at current add. = 1point 0-1 year at current add = 0 points
Past track record payment	Good = 10 point Fair = 4 points Bad = 5points None = 0 point

Suppose Maria Abdullah is applying for a credit card. After graduating with a degree on information communication technology, Maria has a new job earning RM 45,000 per year. She has just moved to her new job, has rented an apartment. Her telephone is connected, and she has a good record of payment history. What is her credit score?

Telephone	4 points
Income	3

³ Douglas Emery, John Finnerty & John Stowe in “Principles in Financial Management”

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Employment	1
Residence	1
Credit report	10
Total score	<u>19 points</u>

If the cutoff is 15, Maria qualifies for the credit card.

BUSINESS CREDIT- SCORING MODEL

Z-Score Model

This is a model that is used to assess a company's overall "health" and the probability of insolvency of firms based on their financial reports and accounting information. It usually involves a number of ratios that are combined together to give a single index. The result of such a 'run' after plugging in the necessary variables would denote a firm's financial condition based on a scale running from a healthy organization through indifferent status to potential failures.

There are a number Z-Score models.

1. Altman's Z-Score Model:

$$Z = 0.012R_1 + 0.014R_2 + 0.033R_3 + 0.006R_4 + 0.010R_5$$

Where

- R1 = working capital/total assets
- R2 = retained earnings/total assets
- R3 = earnings before interest and tax/total assets
- R4 = market value of equity/book value of debt
- R5 = sales/total assets

Cut-off point = Z – score of 2.675

If the result is more 2.675 points, it means probability of failure of the firm in business is higher.

Another Z-Score Model:

2. Taffler and Tishaw Z-Score Model, United Kingdom

$$Z = k_0 + C_1R_1 + C_2R_2 + C_3R_3 + C_4R_4$$

where

- k_0 = a constant
- C_1-C_4 = ration weights
- R1 = Profit before tax/current liabilities
- R2 = Current Assets / total liabilities
- R3 = Current Liabilities / total assets
- R4 = 'no credit' interval

How To Count Credit Scores

We can calculate credit scores using the following model that calculates the total credit score, S.

$$S = 2.0X_1 - 0.3 X_2 + 0.1 X_3 + 0.6 X_4$$

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eg:

The following client intends to obtain credit facilities. Client A's details are as below:-

$S = 2.0X_1 - 0.3X_2 + 0.1X_3 + 0.6X_4$	Client A
X_1 = net working capital / sales (%)	15%
X_2 = debt / assets (%)	40%
X_3 = assets / sales (%)	105%
X_4 = net profit margin (%)	12%

For client A

$$S = 2.0 (15) - 0.3 (40) + 0.1 (105) + 0.6 (12) \\ = 35.7$$

Assumption:

The cut-off point is 26 points.

If the customer earns more than 26 points, the credit application will be approved and credit facilities will be extended.

There are some disadvantages of credit-scoring models as the models are only as good as the payment records used to construct the models. Many samples do not have a rich enough set of bad loans to build an effective scoring model. In addition, the models have to be updated occasionally. When the model is updated with a new sample, there is some "inbreeding" whereby the new model is built on data that eliminated many bad customers.

Credit-scoring models work best when applied to large populations of loan applicants. Consumer loan databases often include many thousands of loans, and credit – scoring models can be built readily. Unfortunately, the number of business loans in a database is often too small to be statistically reliable. Consequently, credit-scoring models are often used for evaluating consumer credit than for evaluating business credit, which more often relies on judgemental methods.

CONCLUSION

Managing is all about planning, organising, leading and controlling activities to achieve organisational goals effectively and efficiently. And that means, keeping your expenses low and maximising revenue for one's business. If you have extended credit sales to your customers, it means you have invested in account receivables instead. Manage them well and enjoy the returns. Being an entrepreneur in this K-economy has great advantages, one of which is the access to relevant information at our fingertips and using those information to turn around a business or to attain an edge over our competitors.

In short, using credit scores models help a credit personnel to assess a credit worthiness of an applicant by being objective, efficient, exercising management control over credit granting process and in the process, achieving better understanding of one's customers.

Managing credit risk is a process that requires not only careful selection of customer portfolio, it also calls for monitoring and collecting procedures. Business is all about taking calculated risks. Certain risks due to uncertainties can be minimized.

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REFERENCES

Cleaver, Joanne and Francis Martin. "Pass or Fail for Credit Education." *Credit Card Management*, September 1996, p. 110

Callahan, Terry. "The Changing Role of the Credit Professional ?" *Business Credit*, September 1996, p. 14

Davies, Glyn. "Credit : 6000 Years Old and Still Evolving Vigorously." *Business Credit*, June 1996, p. 16

Delapa, Gina. "Financial Literacy is Everyone's Job." *Credit World*. July/August 1996, p. 32.

Glade, Carole. "Credit Education – A Challenge In Creativity." *Credit World*, November / December 1995, p.9

Gitman, Lawrence J. "The Principles of Managerial Finance" 2005. p. 570-1, 575, 578.

Kaufman, Richard. "Credit Management: The Value-Added Function." *Business Credit* , November/December 1996, p. 40

L.Mishler and R.H. Cole, "*Consumer and Business Credit Management*", (5th Edition), Irwin/McGraw Hill,Boston, U.S.A., 1998.

Schauseil, Robin. "The NACM National Education Department : Serving Your Needs." *Business Credit*, May1 1996, p. 51

Schuchardt, Jane.: Cynthia Needles Fletcher; and Linda Kirk Fox. "Improving Consumer Credit Literacy – A Public-Private Responsibility." *Credit World*, November/December 1996, p. 21

Susswein, Ruth. "College Students and Credit Cards: A Privilege Earned?" *Credit World*, May/June 1995, p. 21

Y.K. Wong, Richard "*Cash-The Lifeblood of Business: Debt Collection and Prevention Strategies*" (1st Edition), Leeds Publications, April 1998.

"The Federal Reserve System." *Business Credit*, July/August 1995, p. 21

Thorpe, Paula. "The Credit Manager: Adapting to Change." *Business Credit*, September 1996, p. 12

Whelan, Kevin J. "Credit and Collections: A Paradigm Shift?" *Credit World*, July/August 1996, p. 20

Wolner, Dan A. "Death of the Bean Counter." *Business Credit*, May 1995, p. 17

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