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Evaluation of Credibility and Credit Risk for a Company Operating in the Sector of Wind Energy

Abstract

   The goal of this article is to present an evaluation of credibility and credit risks for a company. Numerous changes in the conditions of the operation of an enterprise occurring in the recent years, provoked many intensified activities aimed at staying in the market and development. The most important problem in the functioning of a company seems to be its credibility and maintaining a proper financial fluency in order not to diminish the trust of business relations. Conscious entrepreneurs are aware that they will not survive without development of their enterprise, which is very often conditioned by the acquisition of a foreign capital for the realization of the planned development. This paper presents the influence of establishing credibility and credit risk of a company on obtaining a credit. The author presents methods of an analysis of credit risk on an example of a firm beginning its activity in the market of wind energy and competing for a credit to finance the a project in the form of construction of wind power plants. Thanks to the presented analysis we obtain information what chances a company has to obtaining the finance and how its financial situation influences the bank's decision.

Key words: credit policy, strategies of credit policy, analysis of a company's credibility , analysis of credit risk

1. Introduction

   Numerous socioeconomic changes occurring in Poland in recent years have caused a change in the conditions of functioning of most companies, which focused their activities not only on development but also on building own policies towards business partners, among others reputation. The goal of this paper is to present methods of analysis of credit risk serving the evaluation of credit reliability of a company. Credibility study was presented on an example of a company beginning its activity in the market of wind energy the goal of which is obtaining a credit for the realization of a project consisting of building three wind power plants. Development of an enterprise is extremely important and activities aimed at an increase of the market share require from the management a professional conduct of company's policy, they should be characterized
by a permanent will to change the areas and manner of company's operation, according to the change in the vision of this company and the condition of its environment.[1] Creating a development plan and undertaking proper actions is a basic condition of realization of any project. Companies which operate in changing environment should have a limited structure allowing a better adjustment to changes. [2] Although many

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1Gierszewska R., Romanowska M.*: Analiza strategiczna przedsiębiorstwa*, PWE Warszawa 2003, str. 18
2 Buhler P.: Zarządzanie, HELION, Warszawa 2002, str.224-225
   Buhler P.: Zarządzanie, HELION, Warszawa 2002, str.224-225

firms do not invest in expansion and thus are not interested in a long-term finance management, they are not released from the obligation to take care of their financial credibility.

2.Credit policy and its strategies

Under the notion of „credit policy" we understand management of amounts due because of deliveries and services and a corresponding to their share, composition of other current assets.[3] This is a decision within specified goals, taking into consideration requirements and expectations, defining the special characteristics of credit procedure. Credit policy is a policy extremely important for the finances as its goal is to establish the price for lending money. Credit is a financial strengthening of a unit by commercial banks, from means deposited in those banks on condition of return of the value of the funding in a specified period of time together with the remuneration.[4] The main area of interest for the policy becomes a choice between activities aiming at increase of the dues and activities serving the increase in means.[5]

It is presented in the form of specified parameters, through which:
  a) Entrepreneur influences the dues and other elements of gross working capital and in relation to this influences the clients
     Presents various customers through the mirror of their ability to pay their obligations

It is a specific form of financing with outside means of a given subject. The borrower signs a contract with a bank, in which he is obliged to pay the credit in a given amount, in a given period of time together with the interest. The uncertainty as to the time of paying the liability becomes a risk. The only way to eliminate such a risk is a refusal to grant a credit to a given client.[6] The goal of c credit policy (PK) is the realization of profit at a level established ahead at an accepted profit rate. The profit rate defined by an individual entrepreneur and his inclination for risk, shape the credit policy.
In PK structure the following guidelines should be placed:
  • Minimalisation of overdue and uncollectable receivables and maximalisation of sales
    Formulating clear and transparent rules and their strict observance ,
    Including long-term plans of an enterprises in the financial income
By a strategy of credit policy we should understand the goals, which the realization should serve and the ways of reaching them, meaning definite parameters and suitable instruments of this policy.[7] PK results from a strategy of working capital, because it influences the realization of goals specified in this strategy. Working capital is a surplus of current assets over the liabilities. Financing strategy of current assets means adopting a definite idea of using different sources of its covering.[8]

  • conservative
    aggressive
    flexible[9]

Conservative strategy - the company which uses this strategy requires from its clients an uncompromising observance of short –time periods of payment. In this strategy preferred are clients with a low credit risk. In case of a delayed payment the tools of legal security of a receivable are immediately started (eg. A block to

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3 Sierpińska M., Wędzki D.: Zarządzanie płynnością finansową w przedsiębiorstwie, Wydawnictwo PWN, Warszawa 1997, s.146
4 http://www.m3d.pl/polityka-kredytowa
5 Gup B.: Principles of Financjal Management, John Wiley and Sons, New York 1985, s.434
6 Brealey R., Myers C.: Principles of Corporate Financ, McGraw-Hill Book Company, New York 1988, s.725
7 Ibidem, s.725
8 Bień W.: Ocena efektywności finansowania spółek kapitałowych, Finanse – Serwis, Warszawa 2002, s.106
9 Neveu R.: Fundamentals of Managerial Finance, South-West Publishing Co, Cincinnati 1985, s.184

bank accounts). A fault in this strategy is the fact that the customers who do not pay on time, leave.

Aggressive strategy relies on maximalisation of sales, especially the volume of sales. A relatively long time of payment is agreed. In case of a delayed payment no such drastic means, as in conservative strategy, are used. Here a gentle policy of vindication is applied, which in consequence may cause an increase in the risk of insolvency. Leaving of clients is not observed, rather a slight increase in sales.
Aggressive credit policy is recommended in three cases[10] :
- when a company introduces a new product
  when it has excess production capabilities
  when competition situation in the market requires the introduction of such policy

Flexible strategy relies on the domination of conservative strategy over the aggressive one and vice versa, depending on the circumstances. It has an intermediate form between the strategies mentioned above .

The company sets its own credit policy by taking a position of a company fueling its contractors with capital. It can provide means via a trade credit. The company can also use this mean of financing from another business partner.
[11]
That is why there are two forms of credit policy:
- Position of credit provider - it means the readiness of the company to finance its recipients by offering a prolonged payment period, as well as the ability to pay own liabilities quickly.

Position of the credit recipient - it means that the company is not ready to finance its recipients, there is no postponed payment period, as well as no possibility to use prolonged payment period with own supplier.

By establishing the dynamics of sales of the company, we can set its ability to self-finance and development. Prognosis of level of future sales of products or services, which set the possibilities of a company and its situation, should also be taken into consideration.

3. Methods of analysis of company's reliability and credit risk

Business activity is connected with constant decision making. These decisions are made in given conditions and at present, on the basis of information about future conditions. This causes a situation, where it is impossible to precisely predict future reality and therefore, today's decisions are burdened with risk. Risk means the probability of occurrence of unfavorable situations or the danger of loss, failure.[12] It is described as the danger of non-completion of goal set while making a given decision.[13] Division of types of risk is made on the basis of criteria, where the most important is: subject range of risk.
[14]

Taking into consideration this criteria, two types can be distinguished:
- Systematic risk
  Non-systematic risk

Systematic risk   is a risk, whose source is the external environment of the company, constants beyond control. The risk is connected with political, economic, social and legal conditions.

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10 Berstein L.: Financial Statement Analysis, Irwin, Homewood 1988, s. 457-458
11*Block S.: Hirt G.:* Foundations of Financial Management, *Irwin Homewood 1987, s. 218-219*
12Por. Rachunkowość w zarządzaniu ryzykiem w przedsiębiorstwie, red. naukowa Nowak E., PWE, Warszawa 2010, s.13
13Por. Manikowski A., Tarapata Z.: Ocena projektów gospodarczych. Modele i metody, Difin, warszawa 2001, s.48

14Rogowski W., Michalczewski A.: Zarządzanie ryzykiem w przedsięwzięciach inwestycyjnych, Oficyna Ekonomiczna, Kraków 2004, s. 24

<u>Non-systematic</u> risk is the internal risk of the company, changeable, connected with individual activity of the company, being subject to the company's control. Above others, it is connected with management, financial fluency, sources of activity financing.

Used methods of credit risk analysis are the most complicated management systems used in the[15] company. They can be based on methods:

- quality

quantity

mixed

<u>Quality methods</u> are based on observation of factors and occurrences, that cannot be classified. They are characterized by significant subjectivity of obtained results.

Quantity methods are based on measurable data. They are used for credits granted to small receivers, usually presented in a form of numeric model. They are characterized by formalized procedure and objectivity, possibility of establishing non-collectable liabilities.

Mixed methods are based on measurable and unmeasurable data, they allow more precise evaluation of credit risk. They are the most often used methods for evaluation of a company's credit risk.

Methods used for the evaluation of credit risk are:

- point method

standard credit method

By means of <u>Point method</u>, the company's balance is analyzed, profit and loss account and financial flows of potential debtor. In order to establish his ability to fulfill the debtor's duty, marker analysis is used.

The size of the markers is compared with boundary values (values set for a given trade, desired values), satisfactory, maximum or minimum ability to pay of the client. Values of the markers are given points, the number of given points is subject to subjective evaluation of their influence on the risk. The sum of points marks the synthetic scale of the credit risk.

Standard credit method is a developed version of point method. It covers five credit standards with a general characteristic of the contractor, his financial abilities, coverage with capital, quality of assets,[16]

general environment conditions, where the business activity is performed. Given points are subject to subjective evaluation of the analyst. Marker analysis is also used, in order to establish the credit ability and coverage with capital. The basis to establish credit risk is preparation of "analytic tree" of a given company, which sets the mark for all characteristics of standard credit.

The ability to obtain credit for the company does not only depend on evaluating its credit risk, but most of all on the company's ability to return the credit in a given period of time. Credit reliability analysis is used to evaluate these abilities.

Credit reliability analysis (certainty and compliance) is based on the evaluation of:

- debt level and risk being a result of such debt

credit reliability, that is the ability to pay off the debt - covering capital installments and interest from own income.

<u>Credit certainty marker</u> indicates the company's ability to cover liabilities effective from excess financial means. It presents the company's ability to go into dent, and when the pattern is turned around, it allows to tell how many years it would take to pay off the debt if the excess financial means were in the same amount during the whole period. The debt marker in years is an informatively capacious marker and is not subject

15Olszewski D.: Zdolność płatnicza przedsiębiorstwa – koncepcje i metody oceny, „Bank Kredyt”, 1992, nr 6;

16Gup B.: Principles of Financjal Management …, op.cit., s.434-435

to deformation, its results are clear.

Credit certainty (ability) means the ability to make complete payments, effective liabilities from excess [18] financial means in a given period.

<u>Credit reliability marker</u> presents the company's abilities in the range of covering current financial costs, how many times the profit from business activity of the company, along with depreciation write-offs, covers yearly loan payments with interest. The marker is set as a relation of profit to capital installments plus interest. It is assumed, that the marker should not be lower than 1,3 because with this value a company should not have any trouble with paying off the credits. An optimal value of the marker is 2,3.[19] High value of the marker means favorable reliability of the company. If it presents a value much higher than 1, it means that the company, after paying off the installments plus interest, has financial means to cover other needs. In evaluation of level of debt and ability to pay it off, one can base on income (cash flow) and so called effective debt. Cash flow does not only include nett profit, but also part of the financial excess destined to recreate used tangible assets. The following markers are used to evaluate the debt level:

- general debt marker
- own capital debt marker
- general long term debt marker
- debt coverage with cash flow marker

Markers for evaluation of credit reliability and ability:[20]
- credit ability marker
- debt service coverage marker
- interest rate coverage marker

All mentioned markers have different cognitive value, that is why using it in financial management allows precise monitoring of debt and risk level, that can arise in case of difficulties in refinancing already taken loans.

4. Evaluation of credit reliability of a company working in the sector of wind energetics on the basis of point method

Analysis of credit reliability presented below concerns a company working in the sector of wind energetics as a civil company since year 2010.

The representatives of the company are trying to obtain external means to finance an investment - setting three wind power plants.

The goal of the investment is to produce profit from performed activity - sale of electricity produced by three wind turbines, which are purchased by partners and which are a renewable source of energy. The investment includes: purchase of tangible assets: three wind turbines along with infrastructure to transfer the electricity produced by a turbine, transformer station, medium voltage line, the cost of building the road leading to the turbines, place to manoeuvre and foundations for the turbine, assembly and starting the turbines along with technical infrastructure.

Total cost of the investment is around 7.500.000,00 PLN. Investors cover 1.500.000,00 PLN nett

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17http://maczekbr.webpark.pl/9_zadluzenie_wyplacalnosc/0_zadluzenie_wyplacalnosc.htm#Analiza wiarygodności i pewności kredytowej

18 Skowronek-Mielczarek A., Leszczyński Z.: Analiza działalności i rozwoju przedsiębiorstwa, PWE, Warszawa2008, s. 130-131

19 www.biznesplany24.pl

20 Skowronek-Mielczarek A., Leszczyński Z.: Analiza działalności…, op.cit., s. 130

of the cost with their own funds, that is 20 per cent of the whole nett value of the investment. The remaining investment, that is 6.000.000,00 PLN is to be financed from an investment credit, which is to be taken from a bank.

On the basis of balance data and profit and loss account, an analysis of the company's credit reliability (certainty and compliance) has been made, on the basis of the following markers.

<u>The following markers have been used to evaluate the companies debt level:</u>

1.   general debt marker
total liabilities ÷ total assets = 7.391.875,00 ÷ 9.140.816,00 = 0,81
The marker presents the share of foreign capital in financing of wealth. The marker should be within the range of 0,57 - 0,67, high level of the marker indicates, that the financial risk is high - losing the ability to pay off the debt.

2.   own capital debt marker
        liabilities total ÷ own capital = 7.391.875,00 ÷ 2.747.593,00 = 2.69

This marker informs about the debt level of own capital of the company and the relation of foreign capitals to won capitals as sources of financing the company. It is assumed, that the value of the marker should not be higher that 1,0 for large and medium companies and 3,0 for small companies. The level of examined marker for this company is within the range of set limits.

3.   general long term debt marker
        long term liabilities ÷ own capital = 7.391.785,00 ÷ 2.747.593,00 = 2,69

RISK, DEBT MARKER - IS RELATED TO DEBTS PAID IN A PERIOD LONGER THAN A YEAR FROM THE DATE OF BALANCE, A SATISFACTORY LEVEL OF THIS MARKER IS 0,5, A DESIRABLE LEVEL OF THIS MARKER IS IN THE RANGE BETWEEN 0,5 - 1,0. GENERAL DEBT MARKER OF THE EXAMINED COMPANY IS NOT WITHIN THE DESIRABLE RANGE. IF THE VALUE OF THE MARKER IS HIGHER THAT 1,0 THE COMPANY IS IN HIGH DEBT.[21]

<u>The following markers have been used to evaluate the company's credit ability and reliability:</u>

1.   credit ability marker
        (nett profit + depreciation) ÷ (foreign capital - short term investment) =
        (3.163.860,00 + 529.500,00) ÷ (1.478.375,00 − 190.348,00) = 2,86

Credit ability marker presents the company's ability to cover liabilities from excess financial means. It shows the company's ability to go into debt. The marker informs how many times the profit from business activity covers yearly long term credit payments plus interest. It is the most often used marker in evaluation of credit reliability. Its minimum level should be higher than 1, values of 1,2 - 1,3 are accepted. Value of the marker for the examined company is 2,86, which means, that the profit from business activity can cover yearly credit payments + interest 2,86 times.

2.   debt service coverage with cash flow marker
        (profit before tax + interest) ÷ (capital installments + interest) =
        (3.906.000,00 + 120.000,00) ÷ (1.20.000,00) = 3,05

21http://pl.wikipedia.org/wiki/Analiza_wska%C5%BAnikowa#Wska.C5.BAnik_zad.C5.82u.C5.BCenia_d.C5.82ugoterminowego

This markers indicates the coverage of debt service from nett financial excess - cash flow. Optimum for this marker is 1,5, that is the total of profit before tax along with depreciation, should be by 50 per cent higher than the yearly credit installment along with interest. From the examination, it results, that the total amount of profit before tax is much higher than 50 per cent of the yearly credit installment along with interest.

3.   interest coverage marker
        (gross financial result + interest) ÷ interest = 4.026.000,00 ÷ 120.000,00 = 33,55
This marker indicates the company's ability to pay the interest in time. If both interest, as well as capital installments have to be paid at the same time, there is no need to use this marker in the performed analysis.

With means of the above analysis, we obtained data, that present the chances for financing and how the company's financial situation can influence the bank's decision. In the author's opinion, debt level markers presented above, show the debt level with high risk, however, credit ability and reliability markers show, that installments and interest coverage in relation to the investment should not cause any problems. In case of realization of investment in wind power plants, it is easy to forecast financial flow for given years, for instance due to the fact, that every turbine producer specifies the working parameters and producing power for a given wind speed, it is also easy to assume the strength of winds in Poland.

        To summarize, it can be stated, that changes happening in the company's financial resources and properly formed relations between given capitals result in a certain level of company's functioning. The debt level and evaluation of credit reliability gives the possibility to learn about further development and crediting. Businesspeople often do their own research about the risk connected with their business activity and financial fluency, before they make a decision about taking a loan, however their evaluations are often one sided and too optimistic. Only bank analysts, after evaluating provided financial data, give marker values for a given trade on a real level and inform about the reliability of a company and the debt risk.