

Some Aspects in Trade Receivables Assessment

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Abstract. *One of the most important aspects of operational financial management is related to the management of the working capital of enterprises. A significant portion of this capital is invested in trade receivables, which are obtained from deferred sales. On the one hand, nowadays trade credit has a stimulating effect on customer purchases, but on the other hand, incorrect assessment of the creditworthiness of customers and the risk of non-payment (default risk) can negatively affect the financial condition of the enterprise and lead to chain bankruptcies. In the specialized literature on company finance management, the problems of working capital management and risk management of trade receivables are considered in detail. However, the question of the complex assessment of the creditworthiness of customers and the decision on the optimal credit limit remains to some extent insufficiently developed. Summarizing the following key components considered in the literature – 1) overall economic situation, ownership, management and strategy of the company; 2) its revenue and profitability; 3) liquidity and financial leverage; 4) cash flow and turnover, this article focuses on developing and demonstrating the application of an approach to assess the financial condition of customers, to make an adequate decision on credit limit and to avoid the risk of non-payment of commercial loans. The article also presents the results of a descriptive statistical analysis regarding some key financial indicators of Bulgarian enterprises, the credit limits requested by them and the results of applying the presented model.*

Keywords: trade receivables; trade receivables assessment; buyer's non-payment risk; trade credit; trade credit management; credit limit.

Introduction

Trade receivables are one of the most important components of the company's working capital. Usually, they represent between 20 and 40 %, and sometimes even more, of the company's current assets. Properly managed, they can not only improve the operational efficiency of the enterprise, but they also contribute to its growth and development, debts payments, costs reducing and increasing of profitability and competitiveness.

But when the risk of overdue or bad receivables is not correctly assessed, this could have a strong negative impact on the operational results and could trigger a non-payment domino effect for the business. Inevitably, every supplier faces the risk that his buyer will not be able to pay his bill. Companies should apply the principle to take only calculated risks. Trade receivables control helps the enterprise to monitor its financial position and to keep track of its income.

In this context the aim of the paper is to develop and demonstrate an innovative and insufficiently known and used approach in the assessment, mitigation and avoidance of buyers' default risk.

The methodology is based on the calculation of key financial ratios and other indicators, the analysis of which gives a comprehensive assessment of the client's creditworthiness and a final decision on the limit of the trade credit amount can be taken.

In addition, the paper shows the results of an empirical study, carried out through a random sample of Bulgarian enterprises regarding the requested credit limits and the justified final decisions of the suppliers in the case of applying the presented methodology. In this way, the current financial situation of the average Bulgarian enterprise, providing commercial credits and deferred payments, is substantiated, as well as the possibilities of the presented approach.

Literature review

Trade receivable is a financial instrument defined by International Accounting Standards as a "contractual right to deliver cash or another financial asset from another entity" (IAS 32, 2017). According to Corporate Finance Institute Accounts Receivable represents the credit sales of a business, which have not yet been collected from its customers. Companies allow their clients to pay for goods and services over a reasonable extended period of time, provided that the terms have been agreed upon (CFI, 2022).

In the words of Dimitar Nenkov, the total amount of funds involved in receivables depends extremely on the company's commercial policy and, above all, on the requirements it sets for sales on deferred payment. If these requirements are more stringent, there will be fewer customers receiving supplies on credit. This means a reduction in deferred sales, and hence a reduction in receivables. Conversely, if the company is more lenient with customers, buying on credit, then sales will increase together with the amount of accounts receivables. Accordingly, more sales on credit mean freezing of the working capital and increasing of the bad debts (Nenkov, 2008).

In order to manage receivables from recipients effectively, some appropriate rules of granting trade credit should be introduced in advance. It is necessary to discuss lending limits and the length of the trade credits. The created policy of managing receivables simplifies the process of debt collection and minimizes the risk of bad debts. Decisions on providing trade credit are of a great importance for sales volumes and for the maintaining of financial liquidity (Zimon, 2018, pp. 811-828).

Granting credit means taking on a trade credit risk. Credit management therefore is synonymous with trade debt management. It is a combination of preventive and remedial action (for example, legal proceeding) that attempt to reduce the risks of, and otherwise deal with, customer default. The objective is to increase the profitability of the company, without harming or ignoring important commercial opportunities (Becue, 2014).

According to the experts of Allianz Trade the management of trade credits refers to the process of managing the credit extended to customers and the risk associated with that credit. This includes tasks such as credit application and analysis, credit limits and collection. Effective trade credit management helps a company to minimize the risk of bad debt and maximize its working capital. This includes monitoring customer payment patterns, setting credit limits and implementing credit control procedures such as sending invoices and reminders. It also involves working closely with customers to resolve payment disputes or issues, and negotiating payment terms and conditions that are favourable to both the supplier and the customer (Allianz Trade, 2023).

In the opinion of Becue (Becue, 2014) avoiding the risk of bad debts requires decisions to be taken on the following three issues: 1) the credit norm or the minimum level of creditworthiness

with which the customer/ debtor must comply (i.e., how much the company is prepared to let the customer have on credit; this sets a credit limit); 2) the credit conditions: immediate cash payment or payment after a period of time; 3) the debt collection procedures: how the company will react when a customer fails to settle his invoice on time.

Pic and Érault (Pic, 2009) specify that there are two important moments in setting up a credit line for a new customer: negotiation of deadlines and means of payment and customer risk analysis criteria. They recommend the deadlines and means of payment to be determined by the creditor in the contract previously to evade the pressure from the customer. Regarding the risk criteria commercial and financial information must be compiled on: the sustainability (the evolution) of the company, its equity, its score, its quotes and payment habits, managers reputation, the opinion of the credit insurer, general terms and conditions of payment, the commercial objective (monthly turnover) and the type of guarantee (guarantees, letters of credit, bills, etc.). All this information, once summarized, makes it possible to deduce a level of acceptable risk.

AIG Insurance (AIG Assurance, 2023) frames five keys for managing customer risk. The first is to build an effective scoring. Scoring brings together all indicators applicable to constitute an internal rating (which could, for example, range from scale of 1 to 5: very low, low, moderate, high and very high risk). The higher the risk is, the review of this risk must be more frequent and the payment terms must be shorter.

The second is to negotiate the payment terms to be granted. In the context of commercial negotiation, the payment terms are one of the key criteria which directly influence the management of the customer risk.

Next, the risk in international business must be integrated. Developing business internationally has become a strategic topic for most companies but the risks are very real and should not be underestimated nevertheless the intended destinations.

The fourth key is to evaluate the risk cost and the consequences of a financial loss. It is important to keep in mind the real cost of the outstanding payment. It will help to take the best decision and to adjust all the negotiation criteria of the transaction accordingly.

And the fifth clue is to optimize the recoveries. The organization of recovery is the pillar of credit management. Prevention and anticipation are often the key factors to optimize payments both in terms of maturity and in terms of customer relationship.

Atradius (Atradius, 2023) points a range of tasks to do to complete a risk assessment of the accounts receivable and secure the cash flow: sort the customers into groups in order to identify patterns and establish a risk profile; limit the exposure to bad debts; assess the history of unpaid invoices; calculate days sales outstanding; complete an aging report; identify future risks to the cash flow; assess the impact of the payment terms on the receivables; enhance the skills of the credit management team.

The above sources give us some reference points and rules for developing an elaborated model for the account receivable assessment.

Methodology

Before assessing the buyer's risk, it is necessary to set a credit limit amount. With a one-off contract the limit of the trade credit will be the anticipated maximum amount that will become owned in respect of the delivery made. With a regular and constant monthly turnover figure, the formula is:

$$(1) \text{ Requested limit} = \frac{\text{Annual turnover}}{12} \times (\text{Actual period of payment in months} + 1)$$

Another way is to multiply the highest monthly turnover amount by the actual payment periods in months. If the turnover is subject to seasonal or other fluctuations, the highest level of outstandings should be considered. (Becue, 2014)

The next step is to assess the buyer's risk, i.e., the buyer's ability to repay the owed sum (the credit limit amount) on time, which is based on the following pattern.

First thing that is a must to be checked is the *ownership and the strategy of the entity* – the sector, the geographical location, the management. What is the company activity? Does the economic, political, and geographical environment have an impact on it? Are there frozen bank accounts, commercial enterprise pledges, insolvency petition, related companies? How young is the company? Is there any information about its payment behaviour? Is the management competent? Have the managers been involved in a previous corporate or insolvency and, if so, how did they react? All kinds of information are valuable.

Age of the company is fundamental, because the older companies usually are more stable, more experienced and with better market positions. Research of the trade credit insurer Allianz Trade shows that companies less than 4 years old have the highest risk of default and that this default probability decreases with the age of the company.

Also, the *general economic climate* inevitably affects the company operating cycle. As far as the commercial environment is concerned, two factors are relevant: the *sector* and the *geographical location*. Some sectors are more predisposed to insolvency than others. For example, transport, metals and construction for Bulgaria. And there is a great number of insolvencies in some countries – Algeria, Ghana, Ukraine, Russia, Belarus, Azerbaijan, Turkey and others.

When it comes to *the financial performance and stability of the company*, the traditional method to assess them is to review the latest annual accounts. The indicators below, calculated based on the entity's financial data and evaluating the risk of trade receivables, are directly related to the assessment of the buyer's financial health. In the specialized literature on corporate finance, various indicators for financial analysis are recommended. *With a certain degree of convention and regardless of the specifics, individual authors emphasize the following basic aspects of the financial health of the enterprises* (Oresharski, 2009, pp. 291-294; Nenkov, 2008, pp.185-189; CBI Team, 2024): *liquidity; efficiency; indebtedness (leverage); profitability*. The presented methodology is based on *the analysis of the indicated aspects and the understanding of the integrated interpretation of the individual indicators to assess trade receivables*.

The most important data in the annual account is the profit/ revenue. Is it increased or decreased in comparison with the previous year? Not all revenue is produced through sales of goods or services. There might be also other incomes like interests on cash in the bank, that may not be available next year.

To run the profitability of the company it is necessary to analyze how the economic result is obtained based on: ROA (Return on Assets), ROE (Return on Equity), ROS (Return on Sales), Gross Profit Margin, Operating Result Margin /EBIT Margin (Earnings before interest and tax) EBITDA Margin (Earnings before interest, taxes, depreciation and amortization).

The *return of total assets* gives the global return on operational investments and financial investments, including extraordinary profit. It is determined by the following formula:

$$(2) ROA = (Net\ profit \div Total\ Assets) \times 100$$

A high ROA means that the company assets are used effectively. The faster the rotation, the more frequently the profit margin per rotation can be realized.

Return on Equity is an indicator of profitability – how efficient the business is in generating profits. The higher the ROE, the more efficient the management is at generating profit and growth from its equity financing.

$$(3) ROE = (Net\ profit \div Shareholders' Equity) \times 100$$

Return on Sales is used to evaluate the operational efficiency of the company. It measures how fast the company turns sales into profits. The increase of ROS means an improving efficiency, while the decrease could be a signal for impending financial troubles.

$$(4) ROS = (Net\ Profit \div Sales\ Revenue) \times 100$$

The *Gross Profit Margin* indicates how well a company turns its sales into a profit. A higher profit margin means that the company operates successfully. It can keep itself at this level as long as its operating expenses remain unchanged. A lower gross profit margin can impact on the company's bottom line and means issues in some areas.

$$(5) Gross\ Profit\ Margin = [(Total\ Sales\ Revenue - Material\ Costs - Balance\ Value\ of\ Assets\ Sold) \div Total\ Sales\ Revenue] \times 100$$

Earnings before interest and taxes (EBIT) and *Earnings before interest, taxes, depreciation, and amortization* (EBITDA) are an alternative measure of profitability of the overall financial performance. They are essential when the business is looking to share its performance with creditors and investors, helping to analyse company performance, to measure the operating efficiency and the company value. EBIT margin allows investors to calculate the true business costs of running a company, because parts of the company's plants, machineries and equipment eventually will need to be replaced due to the amortization. EBITDA margin is a measure of the company's operating profit as a percentage of its revenue. A higher ratio indicates lower operating expenses relative to total revenue. A lower margin insinuates problems with cash flow and profitability.

$$(6) EBIT = Operating\ Profit/Loss - Total\ Financial\ Income - Income\ from\ Financing + Total\ Financial\ Expenses$$

$$(7) EBIT\ Margin = (EBIT \div Total\ Sales\ Revenue) \times 100$$

$$(8) EBITDA = Operating\ Profit/Loss - Total\ Financial\ Income - Income\ from\ Financing + Total\ Financial\ Expenses + Impairment\ of\ Assets + Depreciation\ Costs$$

$$(9) EBITDA\ Margin = (EBITDA \div Total\ Sales\ Revenue) \times 100$$

Next comes the analysis of the *Equity* and the *Liquidity*. The traditional method to review them is to investigate the company's net assets, solvency ratio and liquidity ratio.

Net Assets express the difference between what an entity owns and what it owes. An entity with positive net assets is deemed to be financially healthy. Conversely, if the entity's net assets are negative, it may be experiencing financial problems.

$$(10) \quad \text{Net assets} = \text{Total Equity} - \text{Intangible Fixed Assets}$$

Solvency Ratio (Leverage) evaluates the equity capital as a proportion of the total balance sheet. It helps to assess the company's ability to meet its long-term financial obligations. The higher the percentage, the more debts company has.

$$(11) \quad \text{Solvency ratio} = \text{Total Liabilities} \div \text{Total Shareholder's Equity}$$

Liquidity Ratio (Current Ratio) is the ratio of the current assets on the balance sheet to the current liabilities. The liquidity indicates whether the enterprise can meet its short-term payment obligations. A ratio of 1 would mean that the organization has the same amount of liquid assets as current liabilities. A higher ratio indicates that it could pay off current liabilities several times over. Ratio below 1 means that the business doesn't have enough liquid assets to cover its short-term liabilities.

$$(12) \quad \text{Liquidity ratio} = \text{Current Assets} \div \text{Current Liabilities}$$

Another important indicator for the liquidity position is the *Quick Ratio*, which measures the company's ability to meet its short-term obligations with its most liquid assets.

$$(13) \quad \text{Quick Ratio} = (\text{Total Current Assets} - \text{Inventory} - \text{Prepaid Expenses}) \div \text{Current Liabilities}$$

Regarding the *Financial Leverage* it is important to study what loans company uses to finance its assets. Is the return on the investment in assets is greater than the financial costs of the debts used to finance those assets? The *Debt Leverage Ratio* measures the amount of income generated and available to pay down debt before the entity accounts for interest, taxes, depreciation and amortization expenses. Commonly used by the credit agencies, the ratio determines the probability of defaulting on issued debt. It shows how many years of EBITDA would be required to pay back all the debt.

$$(14) \quad \text{Debt Leverage} = (\text{Longterms Payables to Financial Institutions} + \text{Shortterms Payables to Financial Institutions}) \div \text{EBITDA}$$

One of the important indicators related to the effectiveness of operational management is *Days payable outstanding (DPO)*, which indicates the average time (in days) that a company takes to pay its bills and invoices to its trade creditors, which may include suppliers, vendors, or financiers. A company with a higher value of DPO takes longer to pay its bills, which means that it can retain available funds for a longer duration, allowing the company an opportunity to use those funds in a better way to maximize the benefits. A high DPO, however, may also be a red flag indicating an inability to pay its bills on time (Hayes, 2023).

$$(15) \quad DPO = [Payable\ to\ Suppliers\ and\ Customers \div (Costs\ of\ Materials + Balance\ Value\ of\ Assets\ Sold)] \times 365$$

Also, the period for which the company collects its receivables designates the number of days in which the supplier can expect to receive his payments. A high *Days Sales Outstanding* (DSO) suggests that the company is experiencing delays in receiving payments, which can result in cash flow problems.

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$$(16) \quad DSO = (Receivables\ from\ Customer\ and\ Suppliers \div Total\ Sales\ Revenue) \times 365$$

Days of Inventory Turnover (Days Inventory Outstanding) measures the efficiency of the company's inventories management. It indicates how many days the firm averagely needs to turn its inventory into sales.

$$(17) \quad Days\ of\ Inventory\ Turnover = [Total\ Inventories \div (Cost\ of\ Materials + Balance\ Value\ of\ Assets\ Sold)] \times 365$$

Cash Conversion Cycle (Net Operation Cycle, Cash Cycle) specifies the days the enterprise needs to convert its investments into cash flows from sales. It shows the buyer's ability to maintain highly liquid assets. This is a metric that banks, creditors and investors use to assess the business's potential risk level.

$$(18) \quad Cash\ Conversion\ Cycle = Days\ of\ Inventory\ Turnover + Days\ Sales\ Outstanding - Days\ Payable\ Outstanding$$

And the last indicator that must be inspected in the evaluation of buyer's risk is the *Interest Coverage by EBITDA*. It shows the company's ability to pay the interests on its outstanding debt. Business with higher risk and lower profit margin will have lower ratio. And vice versa – business with lower risk and higher, stable profits will have higher EBITDA to interest coverage ratio.

$$(19) \quad Interest\ Coverage\ by\ EBITDA = EBITDA \div Interest\ Expenses$$

After applying the suggested algorithm and calculating the listed ratios and absolute indicators, they should be analysed comprehensively and in mutual relation of each other. Guided by these considerations the supplier company should make the final decision about its client's financing.

For the purpose of the current paper, a descriptive analysis is run, examining the portfolio of random sample of 116 Bulgarian nonfinancial companies, insured against nonpayment risk. The research explores the companies' turnover and their requests for credit limits. The aim of the analyses is to examine the background of the current economic situation in Bulgaria and the distribution of enterprises according the approved/ unapproved credit limits.

Results and discussions

The application of the presented methodology will be demonstrated through real studied cases. There are *three possible answers of a credit limit request: cancelled, partly approved and fully approved*, therefore *three cases* of credit limits decisions are demonstrated. The financial ratios are calculated with specialized software for credit reports distribution. The information for the calculations is taken from the balance sheets and the income and expense reports of the chosen companies.¹ The desired credit limit is for 50 000 EUR (according to the obtained results shown in Table 4, the most frequently requested and approved credit limit is 50 000 EUR). According to Bulgarian Commercial Law, the parties to a commercial deal cannot agree on a longer term than 60 days deferred payment.

For clarity of the results, as well as to facilitate comparisons and interpretation, they are presented on separate graphs, emphasizing *key aspects of the financial status* of the three selected enterprises (Figures 1-5).

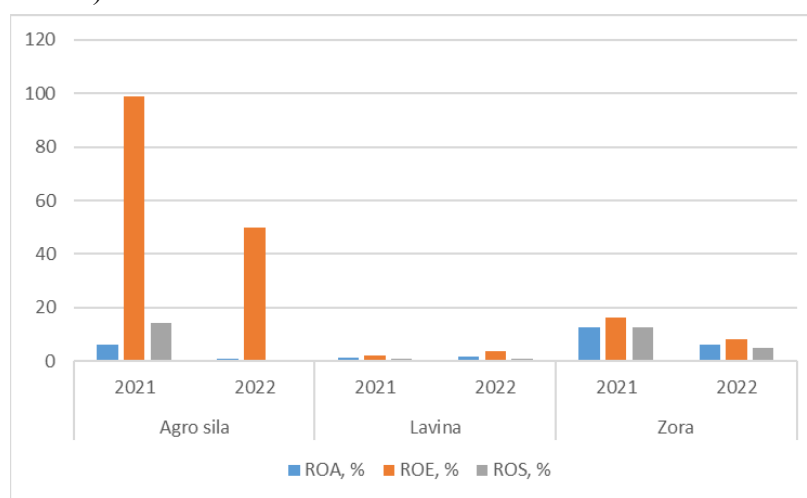


Figure 1. Comparison between the indicators of net profitability of the three enterprises

Source: Author's calculations.

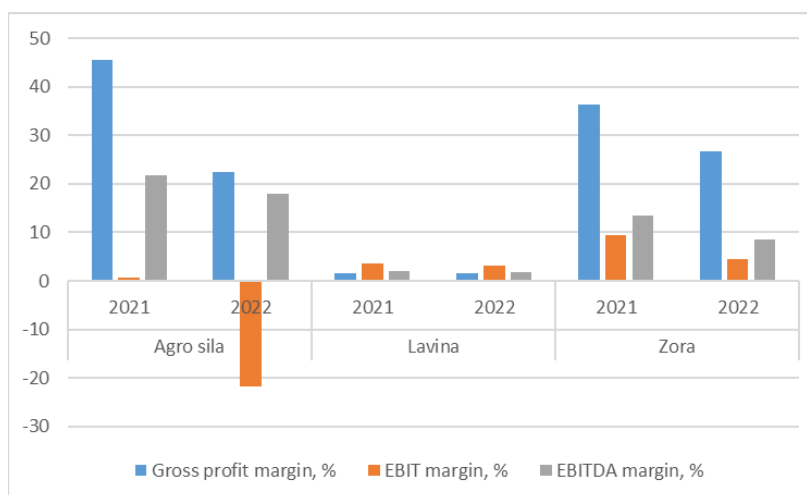


Figure 2. Comparison between some profit margins

Source: Author's calculations.

¹ For reasons of confidentiality, company names have been changed.

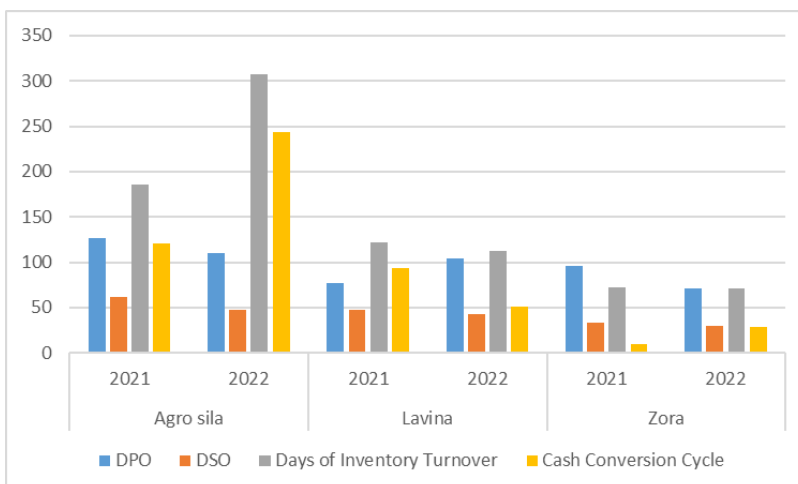


Figure 3. Comparison between turnover indicators (in days)

Source: Author's calculations.

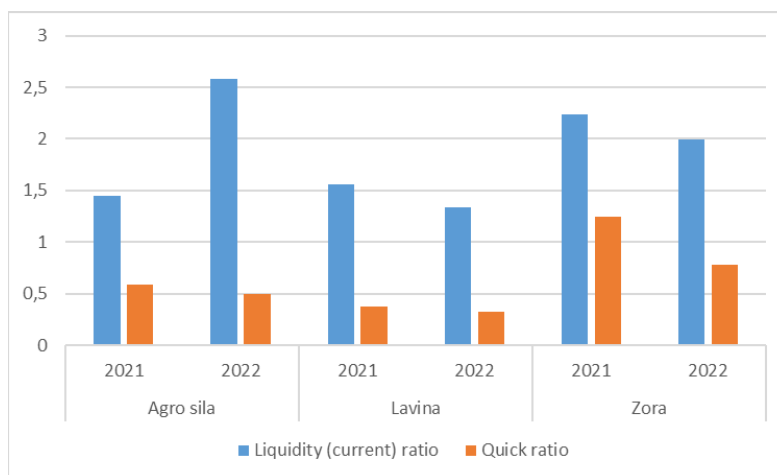


Figure 4. Comparison between liquidity ratios

Source: Author's calculations.

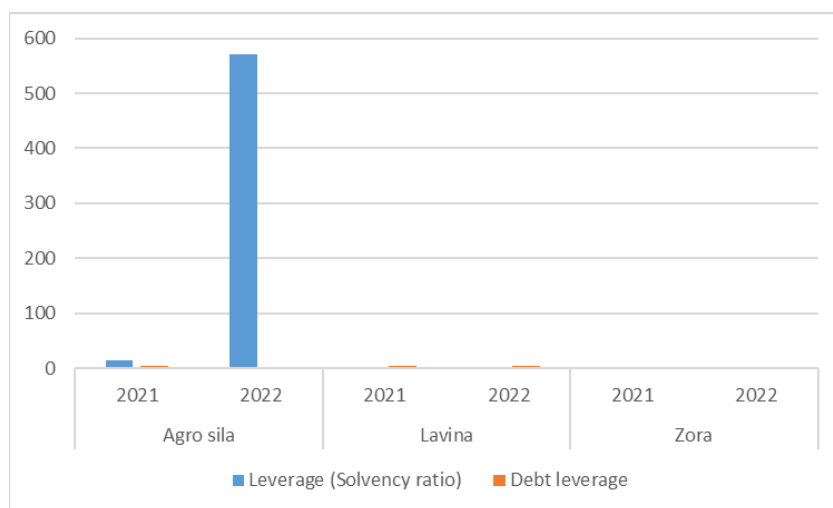


Figure 5. Comparison between key debt indicators

Source: Author's calculations.

First, let's demonstrate a case of rejecting a trade credit application (Table 1). As stated, the beginning of the assessment should be set by checking the credit rating of the country and the sector in which the buyer operates. According to Standard & Poor's the credit rating for Bulgaria stands at BBB (stable) with positive outlook. In November 2023 the trade credit insurance provider Allianz Trade raised Bulgaria's medium-term country grade rating to B (medium) from BB (low). The positive rating is result of the reduction in the medium-term risk of delayed payments and bad debts in relation to transactions between companies.

Table 1. Example for cancelled credit limit – key ratios of “AGRO SILA” LTD

Key ratios	2022	2021
ROA, %	0.99	6.21
ROE, %	50	98.93
ROS, %	0.26	14.07
Gross Profit Margin, %	22.38	45.46
EBIT Margin, %	-21.87	0.62
EBITDA Margin, %	18.06	21.68
Net Assets in EUR	-140	176
Leverage (Solvency Ratio)	570.91	14.91
Liquidity Ratio (Current Ratio)	2.58	1.45
Quick Ratio	0.5	0.59
Debt Leverage	2.59	4.43
Days Payable Outstanding	110.40	126.63
Days Sales Outstanding	46.93	61.19
Days of Inventory Turnover	307.32	185.63
Cash Conversion Cycle	243.85	120.19
Interest Coverage by EBITDA	4.06	6.18

Source: Based on data from the company's financial report for 2022 and author's calculations.

“AGRO SILA” Ltd is established in 2007. It is a sole owner limited liability company with 10 employees and 5 624 EUR total shareholders' equity in 2022. The trade activity is mixed farming. The sector corresponds to moderate risk. The profit before tax for year 2022 is 3 579 EUR. The company has no records for pledges of a Company Share registered and no records for overdue debts to the State Budget registered.

The financial data analyses shows that the company's net profit diminishes. Although ROA, ROE and ROS are good, the business is operating at a loss, because of the grand amount of long-term liabilities. The Gross profit margin decreases too, due to the unsold production. The EBIT margin and net assets are negative. This means that the liabilities exceed the assets and there aren't enough earnings to cover the expenses. The level of inventory is too high, and it takes much time to turn it into sales.

The cash conversion cycle is slow. The liquidity is good, due to the relatively low share of current liabilities. The extremely high-rise solvency ratio indicates that the entity borrows large number of resources from financial institutions to fund its operations and it struggles to meet its long-term debts. The buyer should quickly and significantly increase its sales, or his already diminished equity capital will gradually disappear, and the result might be insolvency.

The next case demonstrates partly approved credit limit request (Table 2).

Table 2. Example for partly approved credit limit – key ratios of “LAVINA” LTD

Key ratios	2022	2021
ROA, %	1.57	1.13
ROE, %	3.91	2.28
ROS, %	0.99	0.83
Gross Profit Margin, %	8.16	9.87
EBIT Margin, %	1.54	1.55
EBITDA Margin, %	3.17	3.53
Net Assets, in EUR	1.778	2.037
Leverage (Solvency Ratio)	1.49	1.02
Liquidity Ratio (Current Ratio)	1.34	1.56
Quick Ratio	0.32	0.37
Debt Leverage	3.49	4.65
Days Payable Outstanding	103.76	76.62
Days Sales Outstanding	42.46	47.29
Days of Inventory Turnover	112.66	122.43
Cash Conversion Cycle	51.36	93.10
Interest Coverage by EBITDA	6.92	5.88

Source: Based on data from the company's financial report for 2022 and author's calculations.

“LAVINA” Ltd is established in 2004. It is a sole owner limited liability company with 48 employees and 1 778 273 EUR total shareholders' equity in 2022. The trade activity is wholesale of metals and metal ores, i.e. sensitive risk. The profit before tax for year 2022 is 77 205 EUR. The company has no records for pledges and distraint of a Company Share registered and no records for overdue debts to the State Budget registered.

Regarding the financial ratios ROA, ROE and ROS are low. The Gross profit margin is tide, due to the high costs of materials. The net profit is minimal. EBIT margin is below 3%, which is relatively modest for this sector during the last years and could be a sign for worsened profitability. The quick ratio is below 1 and it is equal to low liquidity. The overall liquidity is rather bad. The solvency ratio and the debt leverage are worrying too. Furthermore, the company needs above 100 days to pay its liabilities, meaning that it is delaying payments.

Despite all these indicators the Cash conversion cycle and DSO are good. The entity is working on a profit and the business is solvent. The net profit and the sales revenue are almost 1,5 times larger in comparison to the previous year. However, margins are low compared to other companies, operating in the metals sector. Therefore, a partial credit limit of 25 000 EUR can be granted.

The last scenario is for fully approved credit limit (Table 3).

Table 3. Example for fully approved credit limit – Key ratios of “ZORA” LTD

Key ratios	2022	2021
ROA	6.32	12.84
ROA, %	7.99	16.15
ROE, %	5.09	12.49
ROS, %	26.7	36.37
Gross Profit Margin, %	4.39	9.35
EBIT Margin, %	8.53	13.49
EBITDA Margin, %	80,740	79,766
Net Assets, in EUR	0.26	0.26

Key ratios	2022	2021
Liquidity Ratio (Current Ratio)	1.99	2.24
Quick Ratio	0.78	1.25
Debt Leverage	0	0.04
Days Payable Outstanding	71.25	96.08
Days Sales Outstanding	29.36	33.76
Days of Inventory Turnover	70.75	72.07
Cash Conversion Cycle	28.86	9.75
Interest Coverage by EBITDA	766.25	1527.11

Source: Based on data from the company's financial report for 2022 and author's calculations.

“ZORA” is established in 1994 as Limited Liability Company. It has 707 employees and 81 983 097 EUR total shareholders’ equity in 2022. The trade activity is manufacture of soap and detergents, cleaning and polishing preparations. The level of the sector risk is moderate. The profit before tax for year 2022 is 7 277 217 EUR and this is enough for the credit limit of 50 000 EUR and much more to be fully approved.

ROA, ROE and ROS are good. Gross profit margin shows a profitable business. The EBITDA margin is satisfactory too. The organization almost doesn’t have any long-term financial obligations. The Debt leverage is 0, meaning that the entity finances its operating activities by itself. The Cash conversion cycle is very quick, which is a signal for high liquidity and no concerns with the cash flow. The current ratio shows that the company can cover its short-term liabilities two times. The Interest coverage by EBITDA ratio indicates low risk. The business is stable and in a good financial health.

Ultimately, to assess the current situation in Bulgaria, a random sample of 116 enterprises of various industries and sizes in the non-financial sector is formed, for which key financial parameters are extracted. The companies are analysed by its annual turnover, number of requested limits and the ratio of the approved, partly approved and unapproved credit limits (Table 4).

Table 4. Descriptive analyses of the subordination between the companies’ turnover and the credit limits

	Turnover in EUR	Number of requested credit limits	Amount of the approved credit limit in EUR	Cancelled credit limits in %	Partly approved credit limits in %	Fully approved credit limits in %
Mean	24 694 114	51	76 189	11,99	12,27	75,74
Standard Error	5 446 197	5,37	8534			
Median	8 200 000	30	50 000			
Mode	11 000 000	100	50 000			
Standard Deviation	41 477 003	40,56	125 719			
Kurtosis	6	-0,54	78,29			
Skewness	3	0,75	7,64			
Range	179 000 000	154	1 495 000			
Minimum	1 000 000	6	5 000			
Maximum	180 000 000	160	1 500 000			
Confidence Level	10 905 822	11	16821,39			

Source: Authors’ own research.

From the descriptive statistical analysis performed with MS Excel the following conclusion can be drawn. The average annual turnover of the studied companies is 24 million EUR. The companies' portfolio consists mainly of 51 buyers. The average percent of the fully approved credit limits is 75,74%, partly approved – 12,27% and cancelled – 11,99%. The most frequently requested credit limit is for 50 000 EUR. However, the data on statistical dispersion, skewness and kurtosis shows the considerable diversity in the parameters of the studied enterprises, including their turnover, the number of clients in the portfolio and the requested credit limits.

Limitations of the study

First, it should be noted that the study is conducted on a sample formed from a population that consists only of companies with trade credit insurance, which to some extent distorts the results obtained. If the company turnover is not insured against the buyers' default risk or if the outstanding trade receivables aren't assigned to a factoring company, it is very difficult to collect information about the supplier's portfolio and credit limits. The enterprises in Bulgaria are not in the habit of keeping such a register unless the factor or the underwriter obliges them to do so.

Second, the research focuses primarily on the so-called traditional financial ratios and indicators calculated based on financial statements of companies. A significant limitation of this analysis is the reliability and limitations of the data used, to overcome which it is recommended a thorough examination of the explanations to the financial statements, comparisons of information from independent sources, use of integrative indicators for analysis, including those based on the forecasting of future cash flows, economic added value, etc. (See e.g. Tsonkova, 2019, 37-41; 77-78) However, for a competent financial analyst, the presented indicators, calculated using information from balance sheets and income and expense reports, can show emerging trends and dependencies in the company's activity, as well as signal possible threats and problems.

Conclusion

Trade receivables management ensures companies remain on track. The accounts receivable assessment practices play a key role in the business growth. It is very important for the suppliers to know how to mitigate and avoid the risk of non-payment. Every buyer should be checked before the deal's closure. Every business owner should endeavour to use the credit risk assessment practices and to deduce a level of acceptable risk. A good strategy on trade credits risk assessment and management should be formulated and applied all the time, not only when the circumstances dictate. These can be done through proper know-how and methodology.

The main focus of the paper has been to present a strict methodology of the assessment of the account receivables and buyers' risk. The research shows that applying the proposed approach every supplier can make an acceptable evaluation of trade credit application and to mitigate and avoid its customer receivables to not being paid. The research doesn't take into account the numerical measurements used to predict the chances of a total non-payment and a business going bankrupt which can be the aim of the next elaborated study by the example of Altman's Z-Score Model.

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