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APPLICATION OF ECONOMIC POINT ANALYSIS WITH CREDIBILITY AND ENTRY LINES

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Purpose: The aim of the research is to present the practical application of economic and financial analysis when assessing the creditworthiness of a food industry company.
Design/methodology/approach: The research sample included data for four years. Based on the review of the literature, full reporting – balance sheet and profit and loss account (comparative variant), an interpretation and evaluation of the areas of activity of the analyzed entity were made through the ratio analysis.
Findings: The results of the ratio analysis showed that the company pursued a moderate net capital management strategy in the analyzed period. The company opted for a conservative strategy in terms of liabilities and aggressive in terms of assets due to high operating costs. Therefore, it can be concluded that the surveyed company focused primarily on ensuring financial security.
Research limitations/implications: The economic and financial analysis itself has a certain limitation, i.e. a relatively large number of indicators, which complicates and lengthens the assessment process. Therefore, in practice, in order to obtain the best results, the most important measures should be selected in a thoughtful and conscious manner. Thus, further research in the area of financial efficiency of enterprises is recommended.
Practical implications: Scoring takes into account the qualitative and quantitative characteristics of the enterprise. The quantitative method, which is the subject of the research in this study, uses an economic and financial analysis containing a synthetic assessment of the financial efficiency of an enterprise, which allows for the identification of phenomena indicating both the strengths and weaknesses of an economic unit. It covers the areas of liquidity, profitability, debt and operational efficiency (turnover), which indicates the practical application of the analyzes presented in the article.
Originality/value: The result of the analysis is a comprehensive assessment of the financial situation, as well as the use of its practical application to assess the credibility and creditworthiness of the audited company.

Keywords: economic and financial analysis, standing, credibility and creditworthiness.

1. Introduction

The company's creditworthiness is assessed on the basis of an analysis of the economic and financial situation in the period preceding the credit transaction, as well as in the current period through the use of: historical and current financial data and the terms of the requested credit transaction. The company's credit risk assessment using the scoring method is a component of the triad that includes:

- creditworthiness understood as the readiness to meet the obligations towards the bank resulting from the agreement, regardless of economic or financial conditions,
- creditworthiness, i.e. the ability to timely repay the contracted liability with interest,
- security quality.

The literature on the subject assumes that the economic and financial analysis is an extension of the initial analysis of the balance sheet, profit and loss account and cash flow statement. Moreover, the main purpose of the ratio analysis is to establish the relationship between various items of the balance sheet and the profit and loss account, and to compare them with the levels generally accepted as desirable or borderline. It is also worth confronting the obtained results with the results achieved in a given industry, because such action will allow to find out what position the examined enterprise has in its competitive environment (Szyszko, Szczepański, 2003). Therefore, it can be concluded that this analysis allows for in-depth and detailing of the research results obtained through the preliminary analysis of financial statements.

Therefore, there is no doubt that in company management, the areas of financial liquidity, profitability, debt and operational efficiency are a fundamental link that determines the modeling of relations with the broadly understood external environment and the implementation of the company's goal, which may be, for example, maintaining financial stability.

The aim of the research in this article is to show the wide application of economic and financial analysis, taking into account the areas of liquidity, debt, profitability and operational efficiency (turnover), which, thanks to the use of full reporting, i.e. balance sheet and profit and loss account (comparative variant), is a rich source of information about the company.

Such a cross-sectional application spectrum of economic and scientific analyzes has its place in banking, because a comprehensive study of the company is particularly important in the process of credibility assessment, and thus experience business decisions in terms of development. The article includes the results of the research as well as comprehensive interpretations confirming the data for the final analysis.

2. Research methodology and results

Financial liquidity is one of the micro and macro drivers of the company's value (Michalski, 2001), therefore it belongs to the key economic categories that determine the shaping of the company's financial standing understood as showing the company's competitive position in the market, its economic strength and credibility, determining its reputation and shaping the level of trust of contractors (Bień, 1991). It is necessary to point out the necessity to keep the advantage of inflows over the company's financial expenses and to strive to increase the market value of equity (Burzykowska, Duraj 2009).

Table 1.
Current ratio (CR), quick liquidity (QR) and cash solvency (MR)

Year	CR	QR	MR
1	1,23	0,21	0,03
2	1,22	0,23	0,11
3	1,23	0,19	0,03
4	1,96	1,01	0,02

Source: own study based on financial documents of the surveyed enterprise.

The current liquidity ratio (CR) shows the number of times current assets cover current liabilities. The level of this indicator depends on the type of activity. Its high value usually indicates irregularities in the structure and value of current assets. On the other hand, the low value of the indicator is a signal that the company's payment capacity is at risk (Pomykalska, Pomykalski, 2007).

In the examined enterprise, the obtained results are within the normal range (1.2-2.0) (Bragg, 2010). The industry average in 2 covered by the survey was 0.97 (PONT Info. ECONOMY based on GUS data). In the years 1-3, the level of the ratio fluctuates at the lower end of the range, which proves that the company pursues an aggressive policy regarding assets. However, year 4 shows an increase in the indicator, which is close to the upper limit of the range. The value of current assets is almost twice as high as current liabilities. The quick liquidity ratio (QR) shows the degree of coverage of current liabilities with highly liquid assets (Jerzemowska, 2006). The industry average in 2 years was 0.43 (PONT Info. ECONOMY based on GUS data). In the above case, it has extreme values, because in the years 1-3 it is below 1.0. This result may indicate some payment difficulties. When comparing the CR and QR indicators, it should be noted that in years 1-4 the level of inventory accumulation is high. This condition is responsible for generating significant inventory and storage costs. They are certainly the main determinant of problems with timely payments. It should be noted that both current liabilities and current assets tend to increase. As a result, in year 4 the situation changed dramatically, namely this indicator assumed a satisfactory, almost perfect value. On this basis, it can be concluded that the company is able to cover its current liabilities thanks to liquid financial assets.

The monetary ratio (MR) protects the company in a way, in the event of liabilities with a short maturity that cannot be covered by other sources. A sufficient level of the most liquid assets, i.e. cash in hand or in a bank account, not only enables the repayment of the aforementioned liabilities, but also concluding efficiently and quickly transactions and taking advantage of emerging opportunities on the market (http://finansopedia.forsal.pl/…). In the analyzed enterprise, the level of cash is very low throughout the entire period under examination. In 2, the level of cash made it possible to cover only 11% of this type of liabilities, and in 4 of the audited year – only 2%.

Table 2.
Constant capital of the enterprise, Net working capital in terms of capital and property

Year	Constant capital	KON in terms of capital	KON in terms of assets
1	2 595 614,19	1 459 329,39	171 700,58
2	1 956 509,41	392 208,30	230 444,00
3	1 715 083,30	-361 905,43	280 822,89
4	1 599 784,78	-337 394,26	1 261 442,97

Source: own study based on financial documents of the surveyed enterprise.

Working capital acts as a safety buffer in the enterprise. Its task is to reduce the risk of losing financial liquidity, the determinant of which is the reduction of the liquidity of current assets, in particular inventories and receivables or the related loss (difficulties with selling) (Kowalik, 2015).

The net working capital in terms of capital in the 1st and 2nd audited periods is positive. This means that fixed assets are financed with fixed capital, i.e. equity and long-term liabilities. Part of the fixed capital also finances current assets. On the other hand, in the third and fourth years, the net working capital in terms of capital is negative, therefore the constant capital is not sufficient to finance all fixed assets. The company has to use the current liabilities to finance part of its fixed assets. This situation is typical for trade and service enterprises, i.e. such as the analyzed entity. The period of collecting receivables is shorter than that of paying liabilities. Free cash is available, which can be used to finance fixed assets, e.g. investments, construction of halls or warehouses. In this case, the silver balance sheet rule (Fixed capital/Fixed assets ≥ 1) is not respected.

Working capital in terms of assets in the years 1-4 is positive, so the current assets financed outweigh the current liabilities. The surplus of current assets may also finance fixed assets or be allocated to other investments.

The debt analysis shows the significant importance of external capital in financing the enterprise. Determining the degree of the share of foreign capital in financing assets allows to verify whether the capital structure is correct, and thus whether the enterprise does not predispose it to be considered a financially unstable entity (Gabrusewicz, 2014).

Table 3.
Overall Debt Ratio (GDR), Debt Equity (D / E), Inverse of Debt to Equity and Long Term Debt Ratio - Debt Ratio (LDR)

Year	GDR	D/E	The inverse D/E	LDR
1	0,43	0,80	1,26	0,12
2	0,46	0,99	1,01	0,19
3	0,45	0,93	1,08	0,24
4	0,4	0,73	1,36	0,20

Source: own study based on financial documents of the surveyed enterprise.

In the literature on the subject, it is considered that the value of the overall debt ratio (GDR) should be in the range (0.5; 07). In the case of the examined entity, a given indicator fluctuates in the lower limit of the range. On this basis, it can be assumed that there is a relatively low financial dependence. The indicator remains at the same level in the analyzed period, i.e. the enterprise is financially independent. At the same time, it abandoned the use of the financial leverage effect, which is a consequence of adopting a conservative liability policy (low share of short-term financing).

Equity debt ratio (D/E) determines the degree of debt involvement in relation to equity. The level of 0.5 is considered the norm for this indicator. A large share of liabilities in financing the enterprise is associated with serious debt servicing costs, but at the same time allows the use of the financial leverage effect. On the other hand, limiting liabilities and a high share of equity eliminate such a chance. In the literature on the subject it is assumed that the most advantageous situation, which guarantees security and financial independence, is the share of 2/3 of equity in the fixed capital, although the aspect in which the enterprise operates (Sierpińska, 1997) should be taken into account. In the analyzed case, in the entire four-year period, a significant share of costly and inflexible equity in financing the enterprise is visible. The reciprocal of the debt to equity ratio (the inverse of D/E) tells you how much equity goes to one monetary unit of long-term liabilities (Patterson, 2002). In the above case, in 1 year one monetary unit of liabilities generates a demand for PLN 1.26 of equity. Between years 2 and 3 there was a decrease in demand, but already in 4 it has the highest value in the analyzed period, i.e. PLN 1.36.

The most favorable range of this indicator is 0.5-1.0. The value of 1.0 means that long-term liabilities are equal to equity, while the ratio exceeding 1 indicates an increased risk of insolvency (https://eanaliza.pl/...). In 1 year, in the examined enterprise, equity was financed by long-term liabilities (LDR) in 12%, in subsequent years in 19%, 24% and 20% respectively. It should be noted that the company significantly limited the use of long-term external capital, which is an expensive source of financing.

The analysis of the company's operational efficiency shows the way of using material resources and intellectual capital. It allows you to determine whether the company has an appropriate amount of assets in relation to the scale of its activity. This analysis examines economic activity, management and resource rotation (Klemke-Pitek, Zarzycki, 2000).

Table 4.
Total assets turnover (TATA), inventory turnover (IT) and short-term receivables turnover (RT)

Year	TATA	IT	RT
1	-	-	-
2	5,27	15,20	101,30
3	5,70	17,19	119,71
4	3,96	13,76	21,48

Source: own study based on financial documents of the surveyed enterprise.

The higher the value of the total assets turnover ratio, the shorter the recovery time for the funds invested in assets (Gołębiowski, Tłaczała, 2009). The surveyed enterprise obtains average results in this area. Moreover, in the last period under study, they deteriorated due to the extension of the cycle, which is determined by excessive stockpiling, lower efficiency of their processing into finished products or problems with their sale, which in turn results in charging the company with additional costs.

The inventory turnover ratio determines how many times during the year the inventory level was restored. It is used to research and determine the optimal stock level. Too low level of the discussed indicator means excessive stockpiling, which is associated with high maintenance costs and freezing of funds in cowshed assets in the form of stocks (Jaworski, Zarzycki, 2009). The average results of enterprises in the food industry in which the analyzed enterprise operates in 4 ranged around 38 days. Decile 5 was 30 and decile 9 was 97. 90% of enterprises had inventory levels sufficient for less than 97 days, and 50% performed worse than the industry average (PONT Info. ECONOMY based on GUS data). This also applies to the examined company, which was burdened with excessive costs of maintaining stockpiling.

The short-term receivables turnover ratio informs how many times during the year the enterprise renewed the state of short-term receivables (Biznes tom 4, finances, 2007). In some publications you can find information that this ratio should not exceed by 50% the term contained in the terms of sale. The average value in the industry in 2 years was 11 days, and the duration of the receivables turnover cycle of 90% of enterprises was shorter than 32 days. In the analyzed case, there were extremely high values, especially between the second and third year covered by the study. This situation proves that the company had a very strict policy of crediting customers. It preferred cash transactions and prompt payment for its services. Such an attitude provides guarantees of receiving payment (limited risk of overdue and bad debts), but at the same time means that the company exposes itself to the loss of some recipients. In 4, there was a sharp change and approximation to the average value in the industry.

The assessment of the company's profitability performs various functions in management that are oriented towards the implementation of many different goals of its stakeholders who first allocate certain capital to set up an enterprise, and then strive to multiply its value throughout the entire period of operation of a given economic unit (Sajnóg, 2011).

Table 5.
Return on Assets (ROA), Return on Equity (ROE) and Return on Sales (ROS)

Year	ROA	ROE	ROS
1	-	-	4,03%
2	23,85%	48,33%	4,52%
3	23,86%	50,45%	4,18%
4	22,44%	43,33%	5,67%

Source: own study based on financial documents of the surveyed enterprise.

The return on assets ratio (ROA) informs about the profitability of all assets of the enterprise in relation to the generated profit (Kątnik, 2011). Several dozen percent that the enterprise obtains is satisfactory. The profit per PLN 1 invested in assets, which amounted to PLN 0.24 in 2 and 3 years, decreased slightly in 4 years, by PLN 0.2. However, such a minimal change does not adversely affect the assessment, because the results in this area obtained by competing companies are much worse. Only 10% of enterprises operating in this industry achieve a result higher than 17% (PONT Info. Economy based on GUS data). The effectiveness of own funds involved (ROE) in the examined enterprise is quite high. It oscillates around the average values in the industry. However, the worst result was achieved by the audited entity last year, which may be a bit worrying, especially in the context of the average achieved in the industry, which is 56% (PONT Info. Economy based on GUS data). The profit from each PLN involved in equity was 0.48 PLN in 1 year, 0.50 PLN in 3, while in 4 it decreased to 0.43 PLN.

The sales profitability ratio (ROS) determines how many zlotys of profit generates one zloty of revenues. The company's sales profitability level oscillates around only a few percent (Majewska, 2009). The main reason is the high operating costs characteristic of this type of activity. In the analyzed case, the profit per PLN 1 obtained from revenues in the entire analyzed period is higher than the industry average, which is approximately 3%. Only 10% of enterprises achieve ROS higher than 5.8% (PONT Info. Economy based on GUS data). Therefore, the above results should be considered positive.

3. Conclusions from carried out economic and financial analysis

To sum up, the results of the ratio analysis, it should be stated that the company pursues a moderate net capital management strategy. It decided to be conservative in terms of liabilities and aggressive in terms of assets. The relationship ROE > ROA > ROS is maintained. However, the ROS parameters are disproportionately low in relation to the other two profitability ratios. The main reason for the situation is high operating costs. The company in the area of financial liquidity achieved satisfactory results, although the current liquidity ratio fluctuates within the analyzed period within the acceptable norm, or even on the verge of the risk of insolvency, because it decided to pursue an aggressive policy concerning assets, which was eased in year 4. Apart from the significant operating costs, the audited entity is also characterized by a high level of freezing inventories. This state has contributed to the incurring of excessive costs

and proves some problems with the sales market. This translates into a low ROS value. Nevertheless, these values tend to decline. In recent years, the company was very protective in terms of engaging foreign capital, not using the financial leverage effect and involving largely inflexible and expensive equity capital. Therefore, the earlier thesis about the adopted policy of net capital management is confirmed. The company focused on ensuring financial security. The costs of lost opportunities became a consequence of these actions. However, in 3, this situation changed. The company's financial dependence has decreased. Additionally, it limited long-term loans, which are an expensive source of financing. This was possible due to the simultaneous shift in counterparty lending, which evolved from an extremely strict, conservative policy, especially in 1-2 years, to an increasingly aggressive one (see Table 6). This procedure has a dual dimension, because in order to increase both the group of recipients and the company's profit, the company exposes itself to the risk of overdue and bad debts.

Table 6.
Position indicator credit

Year	Position indicator credit
1	0,11
2	0,08
3	0,13
4	0,90

Source: own study based on financial documents of the surveyed enterprise.

This indicator confronts the efficiency of settlements with customers and suppliers. Moreover, it is the relation of receivables from customers to liabilities to customers. The result above 1 means that the enterprise credits its contractors to a greater extent than it uses credits (http://www.epodatnik.pl/…). The surveyed enterprise is characterized by the opposite relationship. It uses loans to a greater extent, although this trend is slowing down as in 4 the indicator hovers around 1. This may mean a change in the company's lending policy aimed at acquiring new customers by easing it.

4. Assessment of credibility and creditworthiness of the analyzed enterprise

The above information has been enriched with supplementary data to the balance sheet, i.e. data that represent the level of: receivables from the owner (in the audited enterprise they amounted to PLN 1,150,465.06 in the last period subject to the audit), receivables and overdue liabilities, which are not present in this case. The company's credibility assessment included a scoring as well as an assessment of the historical and current proceedings. The performed assessment of the creditworthiness of the examined enterprise (see Table 7), in accordance with financial practice, takes into account the scoring assessment, credit history and other elements of creditworthiness (Kitowski, 2011).

Table 7.
Business creditworthiness assessment

Scoring evaluation	System recommendation	Positive
	Risk class	B
Credit history assessment	Entrepreneur's credit report	Positive
	Owner credit report	Positive
Other elements of credibility	Inspection	Good
	Relationship risk	Positive
	The risk of enforcement activities	Positive
	Risk of external fraud	Positive

Source: own study based on financial documents of the surveyed enterprise.

The final phase of the credit report is the assessment of creditworthiness, collateral and the bank's commitment both before and after the transaction. The creditworthiness assessment contains the disposable income elements necessary to calculate the investment loan limit and the maximum loan amount relating to the creditworthiness assessment algorithm and the maximum loan amount. These components are the basis for making a credit decision (Juszczyk, 2008).

5. Summary

The company obtained a positive assessment of its credibility and creditworthiness. The methodology used to assess the company's creditworthiness differs depending on the organizational and legal form and the form of accounting used. The performance of a credit transaction is conditional on the economic entity having credibility and creditworthiness in terms of both qualitative and quantitative terms (Ermel, Oral, Reisman, Yolalan, 2003). The main factor that affects the assessment of creditworthiness is the completeness and compliance with the current factual and legal status of information and documents collected by the bank on the economic and financial situation of the enterprise. The company credibility assessment includes scoring, historical and current proceedings (Gaspodarowicz, 2000). The use of ratio analysis, which is holistic in nature, allows to determine whether the examined economic entity is capable of continuing operations in the future and with what result. It is also an important tool that is used both for system monitoring and internal control in the company. All factors that affect creditworthiness are thoroughly analyzed, and then assessed and scored according to the bank's guidelines (Schab, 2005). However, one should also take into account the imperfections present in this process, namely the incorrectly adopted rules for conducting creditworthiness assessment by a bank. On the other hand, from the opposite perspective, i.e. the entity subject to assessment, it is possible to indicate the risk of manipulating by the enterprise to its advantage the financial documents constituting the basis for the research and, consequently, significantly affecting the final assessment of creditworthiness. The economic and financial analysis itself also has a certain limitation, i.e. a relatively large number of

indicators, which complicates and extends the evaluation process. Therefore, in practice, in order to obtain the best results, the most important measures should be selected in a thoughtful and conscious manner. Nevertheless, due to the fact that this analysis has a wide range of applications and covers various areas of the company's operations, i.e. liquidity, debt, profitability, operational efficiency (turnover), it gives the opportunity to conduct objective research evaluating the results achieved by the company in a given time horizon.

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