Zesz. Nauk. UEK, 2021, 1(991): 23–36 ISSN 1898-6447 e-ISSN 2545-3238 https://doi.org/10.15678/ZNUEK.2021.0991.0102

Enterprise Credit Position and the Risk of Bankruptcy

Pozycja kredytowa przedsiębiorstwa a zagrożenie upadłością

Małgorzata Kowalik

Cracow University of Economics, College of Management Sciences and Quality, Institute of Management, Department of Economics and Organisation of Enterprises, e-mail: kowalikm@uek.krakow.pl, ORCID: https://orcid.org/0000-0002-5645-5771

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial--NoDerivatives 4.0 License (CC BY-NC-ND 4.0); https://creativecommons.org/licenses/by-nc-nd/4.0/

Suggested citation: Kowalik, M. (2021) "Enterprise Credit Position and the Risk of Bankruptcy", Zeszyty Naukowe Uniwersytetu Ekonomicznego w Krakowie 1(991): 23–36, https://doi.org/10.15678/ZNUEK.2021.0991.0102.

ABSTRACT

Objective: This article discusses financial liquidity management in the context of enterprise bankruptcy. It looks at the basic causes leading to the bankruptcy of enterprises, including their credit position and how it changed in enterprises that have gone bankrupt.

Research Design & Methods: The research methods were the study of the subject literature and the analysis of financial statements and reports of companies that had declared bankruptcy. The companies belonged to different sectors.

Findings: Research findings confirmed the following hypothesis: in the time preceding the declaration of bankruptcy, the entity tends to be the recipient of trade credit.

Implications/Recommendations: Drawn on the basis of evidence in the literature and empirical research, the conclusions for selected enterprises indicated that problems regarding the maintenance of financial liquidity, illustrated by the credit position, were an important reason bankruptcy was declared.

Contribution: The research conducted in this article takes its spot among other analyses of the causes of corporate bankruptcy, which are common in the literature.

Article type: original article.

Keywords: enterprise bankruptcy, company credit policy, financial liquidity management, credit position of the enterprise.

JEL Classification: G32.

STRESZCZENIE

Cel: W artykule podjęto problem dotyczący zarządzania płynnością finansową w kontekście upadłości przedsiębiorstw. Celem było zwrócenie uwagi na podstawowe przyczyny prowadzące do upadłości przedsiębiorstw. W artykule dokonano analizy pozycji kredytowej przedsiębiorstw i jej zmian w przedsiębiorstwach, które ogłosiły upadłość w przeszłości.

Metodyka badań: Metodami badawczymi były studia literaturowe i analiza sprawozdań finansowych oraz raportów spółek, które w przeszłości ogłosiły upadłość.

Wyniki badań: Wyniki przeprowadzonych badań potwierdziły postawioną w artykule hipotezę, że w czasie poprzedzającym moment upadłości podmiot znajduje się raczej w pozycji biorcy kredytu handlowego.

Wnioski: We wnioskach wyciągniętych na podstawie badań literaturowych i empirycznych przeprowadzonych dla wybranych przedsiębiorstw wskazano, że problemy w zakresie utrzymania płynności finansowej, zobrazowane przez pozycję kredytową, należały do istotnych przyczyn ogłaszania upadłości badanych przedsiębiorstw.

Wkład w rozwój dyscypliny: Przeprowadzone badania wpisują się w nurt powszechnych w literaturze analiz przyczyn zjawiska upadłości przedsiębiorstw.

Typ artykułu: oryginalny artykuł naukowy.

Słowa kluczowe: upadłość przedsiębiorstw, polityka kredytowa przedsiębiorstwa, zarządzanie płynnością finansową, pozycja kredytowa przedsiębiorstwa.

1. Introduction

Companies strive to maintain financial liquidity in their ongoing activities, posing a complex problem for company managers. Rising to the challenge requires broad knowledge of all areas of management and enterprise activity, and requires complex decisions to be made. It is particularly difficult to maintain financial liquidity in the face of an economic slowdown or crisis, which often cause firms to change how they function. Therefore, financial liquidity is a result of both the macro-economic situation and decisions made, including ones concerning the company's credit policy, and which concern trade credit management in ongoing activities, especially in trade contacts.

Problems with maintaining financial liquidity are among the leading causes of corporate bankruptcy. This led me to look at the basic causes of bankruptcy, and to analyse the credit position of enterprises and how it changes in enterprises that have gone bankrupt. I hypothesised that in the time preceding a bankruptcy, the entity is like the recipient of a trade credit, due to the increasing difficulties it faces in maintaining financial liquidity.

2. Shaping the Credit Policy in an Enterprise

A firm's credit policy to a great extent concerns how it manages receivables, but it is also influenced by the use of trade credit to finance its activities. Receivables are a substantial and practically constantly occurring component of current assets in companies, just like trade liabilities in liabilities. In today's economy, the moment of sales and the moment of payment have clearly been separated. Thus, trade credit is a commonly used instrument in trade contacts between counterparties. Clients making a purchase with postponed payment terms are often able to offer such payment conditions themselves, owing to which trade exchange becomes brisk and company turnover rises.

Thus, the use of trade credit electrifies sales, but at the same time causes the risk of not obtaining receivables to grow. With an increase in sales conducted with postponed payment terms and the overall prolongation of payment terms offered to counterparties, the risk of the occurrence of doubtful or bad debts rises. The execution of this type of receivable bears additional costs and is frequently ineffective (Dankiewicz, Markusiewicz & Tompalska 2017, p. 50).

Thus, conducting an effective credit policy towards customers requires a company to work out a system of crediting principles and the procedures of the assessment of payment credibility of counterparties. The forms of a credit policy are created based on various criteria (Kowalik 2009, pp. 56–60). The most common approach distinguishes the following policies (Sierpińska & Wędzki 1999, pp. 146–147): conservative, aggressive and flexible. On the other hand, where the criterion of the method of financing receivables, a credit policy can be divided into two positions: those of credit "provider" and "recipient". This is a significant approach that looks at the management of financial liquidity in the firm, indicating the problems and the scope of granting a trade credit, as well as self-financing with this credit.

In this context, it seems that an important tool used for the control of crediting recipients is the firm's credit position ratio, which is calculated as the following ratio (Sierpińska & Wędzki 1990, p. 135):

 $Credit \text{ position ratio} = \frac{\text{receivables from recipients}}{\text{liabilities towards suppliers}}.$

A ratio higher than 1 means that the firm grants more credits to counterparties than it itself uses, while a credit position ratio lower than 1 shows that the company is more often in the position of a credit recipient. In economic practice, in addition to granting trade credit, companies just as often use such credit for the temporary financing of their own operating cycle. This increases the risk of maintaining financial liquidity, but given the easy access to and low cost of this source of financing, it also bolsters profitability. Therefore, it seems that the crucial issue in the use of and granting trade credit is the timely settlement of liabilities and the collection of receivables that ultimately allows companies to avoid problems with the loss of financial liquidity.

Unfortunately, the reality is uncertain and complicated. The findings of research carried out by the Association of Financial Companies in Poland and the National Debt Register (*Portfel należności...* 2019), looking at the portfolios of Polish companies in the third quarter of 2019, show further worsening in the subjective assessment of the dynamics of the portfolio of receivables. Again, there was an increase in the share of enterprises declaring the occurrence and simultaneous growth in the scale of problems with timely enforcement of receivables from clients – from 21.5% (July 2019) to 23.9% (October 2019). In the third quarter 2019, the percentage of bad receivables in the portfolios of Polish firms also increased slightly, to 22.2%. For the purpose of comparison, such a level of bad receivables has stayed the same for more than five years. It was as follows in the same periods of previous years: October 2018 – 22%, October 2017 – 21.5%, October 2016 – 21%, October 2015 – 22.9% (*Portfel należności...* 2015–2019).

The lower the percentage of bad receivables accumulated in a company's portfolio, the less likely pay gridlocks are to occur, especially in such industries as construction and in microenterprises and small enterprises, and the less likely the company will be to lose financial liquidity in the case of an economic slowdown.

From the consequences of the occurrence of receivables not paid on time for conducting business activity, growth in the scale of delayed receivables at the firms under study translated into their being unable to pay their own liabilities on time (from 26.4% in 2017, 29.2% in 2018, to 33.2% in 2019). As research shows, in addition to the need to limit investment, this is the most negative consequence of delays.

Being late in paying invoices worsens a firm's image and results in poorer financial terms on supplies from suppliers. Should the scale of the company's transgressions grow, a snowball effect may occur (*Portfel należności...* 2015–2019).

One of the biggest internal threats an enterprise faces is payment gridlock. The changes described suggest the occurrence of negative trends that may result in the firms going bankrupt, micro and small ones in particular, as well as those with portfolios in which delayed receivables are a considerable part of payments. Firms conducting activities in industries particularly susceptible to the snowball effect in the event of delays in receivables (e.g. the construction industry) are also at risk.

3. Bankruptcy and Its Causes

Bankruptcy is an important element of economic life. It appeared in Poland after 1989, following the introduction of acts on business activity and restructuring (Ustawa... 1988) within the monetary policy implemented by L. Balcerowicz (Korol & Prusak 2005, p. 5). Regulations within that scope were introduced by means of the Act on Bankruptcy and Rehabilitation (Ustawa... 2003), binding in Poland since October 1, 2003.

Company bankruptcy is an inseparable feature of a market economy. It cleans the market of insolvent entities. Bankruptcy often occurs for reasons that can be traced to the socio-economic system and its failure to match approaching civilisational transformations, including technological ones (*Bankructwa*... 2015, p. 29). Such transformations apply not only to the development of individual countries but to the entire world economy. Bankruptcy rears up more often during crises and depression, but it is present on each stage of the business cycle. Moreover, during recession an unwanted domino effect may appear, with the bankruptcy of one entity causing others to become insolvent (Prusak 2011, p. 7).

Bankruptcy can be studied on both a macro- and microeconomic scale. On the macroeconomic scale, the number and the dynamics of the bankruptcies of firms relative to overall economic prosperity, as well as insolvency at the national level, are considered in the first place. A microeconomic examination will consider the bankruptcy of individual business entities and natural persons not conducting business activity (Prusak 2011, p. 19).

The term "bankruptcy" is understood in a variety of way, with no uniform, generally applicable definition leading the way. Most often, in the process of defining bankruptcy, two approaches are proposed (Prusak 2011, p. 21) - an economic/ financial one (known as economic bankruptcy) and a legal one (legal bankruptcy). Economic bankruptcy is related to the financial standing of an enterprise and is described as the state in which a firm "does not have a capability of continuing its activity independently so that an ability to compete on the market, and at the same time profitability, as well as liquidity and solvency (...) could be restored to it (...) without receiving help from the outside" (Prusak 2011, p. 23). In this approach, the term of the enterprise's insolvency plays a significant role. Legal bankruptcy, according to A. Tokarski (2012, p. 175), is defined as "a set of rules and procedures regulated by bankruptcy law including an entity declaring bankruptcy, conducting and completing bankruptcy proceedings, including, among others, valuating and selling the debtor's assets, compensating creditors". The aims of these actions include, among others, a fair division of the debtor's assets among creditors and compensating them to the greatest possible extent, as well as the liquidation of entities in the case of which it is impossible to restore the ability to compete on the market (Prusak 2011, p. 25).

In legal parlance, bankruptcy is defined as "a procedure defined by the law, initiated in the event of the debtor's insolvency, consisting mainly in joint pursuit of claims by all its creditors" (Lewandowski & Wołowski 2011, p. 7). The condition of initiating such a procedure is the debtor's insolvency.

Insolvency occurs when the market value of the assets possessed by a company is lower than the total amount of its liabilities (Altman & Hotchkiss 2007, p. 19). In an asset-capital–related situation, insolvency is not equal to the lack of financial liquidity, the assessment of which is based on operations related to cash. E. Altman calls the lack of financial liquidity "technical insolvency" and stresses that it can be both a temporary state and also lead directly to bankruptcy. A firm can be simultaneously solvent and not maintain solvency, as well as maintain solvency with a simultaneous state of insolvency (Prusak 2011, p. 24).

Insolvency leads to economic bankruptcy which, as emphasised by B. Prusak (2011, p. 25), does not always imply legal bankruptcy, whereas most cases of legal bankruptcy are equal to economic bankruptcy (as legal bankruptcy is its natural consequence).

To distinguish the legal and economic aspects of bankruptcy, consider that bankruptcy in the economic sense is simply called bankruptcy (Świerk & Banach 2013, pp. 441–452). Bankruptcy is defined as the situation in which a firm does not have assets, thus the level of its resources makes it even impossible to conduct bankruptcy proceedings. The entity is liquidated and creditors make a full loss and can only pursue their claims by means of civil proceedings (Górka 2011). A bankrupt company, again, is one that has no ability to continue its activity independently and needs external help. Such help can take different forms: an arrangement with the bank in order to restructure debt; remitting some debt or prolonging the dates of their repayment; reaching a settlement; state assistance (recapitalisation of the firm, a takeover of the management, granting guarantees); takeover or recapitalisation by other entities. Thus, bankruptcy does not have to mean bankruptcy in the legal sense but almost every bankruptcy in the legal sense is equal to bankruptcy (Hamrol & Chodakowski 2008, pp. 17–32).

S. Nahotko (2003, p. 43) divides bankruptcy into two states: static and dynamic. Static refers to the state in which the firm stops paying debts, as its assets are not sufficient to full cover the debts. This is in line with the definition of insolvency. The dynamic aspect of bankruptcy is the process of worsening financial results in terms of financial liquidity, profitability and the speed with which cash can be allocated. Nahotko emphasises that such an understanding of bankruptcy enables decisions to be made and can protect the entity from the worst consequences (Nahotko 2003, p. 45). As is often pointed out (White 2001, p. 183), most countries also have two bankruptcy procedures, one for liquidating the assets of failing firms and the other for reorganising failing firms.

Bankruptcy does not necessarily spell the end of a company's operations. Arrangement proceedings can be conducted, with creditors agreeing on a delay period for receivables to be repaid. Bankruptcy law allows for arrangement and curative proceedings thanks to which an enterprise can avoid liquidation (Górka 2011). So, two types of legal bankruptcy are liquidation bankruptcy and arrangement bankruptcy (the first implying that assets will be taken away, and the second that they will not) (Tokarski 2012).

Bankruptcy does not happen overnight. The root causes and symptoms can be observed well in advance, opening up the opportunity for appropriate remedial actions (Hadasik 1998, p. 36). Large corporate failures are often characterised by a very lengthy failure process; whereas for small to medium enterprises (SMEs), problems can emerge quickly (e.g. Argenti 1976, Hambrick & D'Aveni 1988, Laitinen 1991). Bankruptcy has also been viewed as the final stage of the decline process (Lukason & Hoffman 2014, p. 81).

There are two main types of causes of bankruptcy: exogenic (macroeconomic or external ones) and endogenous (microeconomic or internal ones). However, exogenic factors can trigger the occurrence of internal factors. As A. Hołda (2006, p. 55) observes, the macroeconomic situation affects the ability of the company to stay on the market, and at the same time determines the intensity of the occurrence of the bankruptcy phenomenon with regard to the whole economy.

Exogenic reasons come from the entity's environment. They include phenomena associated with the economic situation and the fiscal, monetary and exchange rate policy established by the authorities. They therefore influence the firm, while at the same time remaining beyond its impact (Korol 2010, p. 40). T. Korol (2010) distinguishes three categories of phenomena: those influencing all or the vast majority of entities in the same direction (exchange rates) and those affecting various groups of entities in opposite directions. J. Sułowska (2018, pp. 380–381) elaborates subcategories of macroeconomic and sectoral factors. In the first one she continues the division into foreign, domestic and regional factors.

With regard to this classification, L. Bednarski (1999, p. 167) distinguishes external and internal symptoms of bankruptcy in a similar way. He divides external symptoms arising with the environment of a business entity into: foreign, domestic and industry-related ones. Internal symptoms refer to the resources the firm possesses and can be grouped into financial and non-financial ones. In the financial symptoms group, a quantitative decrease in sales plays the most important role, one which often brings about such consequences as a drop in turnover, operating profit, and problems with maintaining financial liquidity (an increase in receivables, often overdue ones, the growth of demand for credit and loans, followed by difficulties repaying them; the growth of liabilities towards suppliers and public law institutions (including also overdue liabilities) (Nahotko 2003, p. 63).

Non-financial symptoms include mistakes in organisation and management, mistakes in human resources management, behavioural factors, and missteps in financial policy and marketing policy. Managerial mistakes which may be related to the organisational, strategic and tactical sphere are, according to J. Sułowska (2018, pp. 381–383), the main internal trigger of crisis.

There is not a closed "catalogue" of factors that precipitate crisis situations, and in the course of further events are a source of bankruptcy. However, P. Antonowicz (2015, p. 110) believes that specific causes of bankruptcies nearly always arise from managerial mistakes, including the lack of a proper reaction to negative stimuli from the internal and external environment.

Returning to the superior division of the cause of bankruptcies, S. Nahotko (2003, pp. 48–51) suggests they be divided according to two criteria: place and time. With the former, external and internal factors are further isolated, while the criterion of time will present short- and long-term factors. Putting them together yields an additional four factor types: external short-term factors, external long-term factors, internal short-term and external short-term factors (Gabrusewicz 1998, pp. 75–76). External short-term factors come as a surprise to the firm, but they operate for a short time, e.g. the withdrawal of a cooperating entity or a change in the demand for a specific product (group of products). External long-term factors are easier to observe. They grow out of the macro-environment with regard to systemic solutions. As for short-term factors, the internal factor group is, foremost, the effect of the shaping of the volume and structure of sales revenues, enforcement of receivables, as well as the impact on costs, expenses or stock. On the other hand, internal long-term factors are related to the processes of creating assets, their restructuring, and shaping the capital structure.

As should now be abundantly clear, there are a lot of causes of enterprise bankruptcies, both internal and external ones. They differ in terms of how well they can be predicted and prevented, as well as the intensity of results.

Causes occurring inside the organisation exert a large influence, but they are easier to identify and address. External causes influence the firm like internal ones do, but they are more difficult to predict and can have very acute consequences (Świerk & Banach 2013, pp. 441–452).

4. The Credit Position and Bankruptcies among Polish Firms

The symptoms of bankruptcy in Poland can be identified through continuous monitoring of the financial sphere and also by studying changes occurring on the market. It is emphasised in the literature that the results of economic analyses should be paid particular attention as they show whether the situation in the firm has improved or worsened. Research tells us that the beginning of a company's crisis is most often manifested in a falling market share. That is often caused by the lack of or a flawed marketing strategy or a failure to carry out marketing research competently. Financial issues then come to light. A drop in revenues negatively affects cash flow, leading to problems with the timely settlement of liabilities, thus prompting the need to raise cash. Ultimately, alternative solutions must be sought, such as foreign capital. An example scenario might play out as follows: a credit facility is obtained, but at a prohibitive cost due to the risk the firm has itself created. The inability to obtain a credit facility, or the high cost of credit servicing may force the company to seel stock at a lower price, and eventually sell all its fixed assets. Together, these events are called the domino effect. Unless they are stopped, insolvency and the need to declare bankruptcy will result. As research shows, most symptoms of bankruptcy come from the financial sphere, and are relatively easy to capture because they are measurable (Korol & Prusak 2005, pp. 49–50).

One conclusion the present paper enabled is that one of many significant parameters or measures signalling the threat of a firm's bankruptcy may be its credit policy ratio. This ratio presents the situation regarding trade credit management, in terms of both granting and using it. An analysis of the symptoms of the threat of bankruptcy, as well as the published research findings definitely show that one of the basic causes of bankruptcy is the loss of financial liquidity caused by the inability to pay due liabilities on time. Therefore, we can hypothesise that when determining the credit position of the firm in the time leading up to the declaration of bankruptcy, the entity should be in the position of trade credit recipient, and the credit position ratio reflecting the situation should therefore take values lower than one.

In order to verify the hypothesis, a few companies that declared bankruptcy in the past were analysed. The aim in selecting the research sample was to analyse a few exemplary companies operating in various sectors to illustrate changes in their credit position (not resulting from industry conditions) while facing the threat of bankruptcy. Based on the available financial statements and reports from the companies, the values of the credit position ratio over a few years preceding the declaration of bankruptcy by those entities were established. Attention was also paid to the shaping of the current liquidity ratio in that period in order to obtain additional information about the financial standing of those entities.

The following companies were analysed: Advadis SA, Ampli SA, Drewex SA, Krośnieńskie Huty Szkła Krosno SA, Próchnik SA, VRG SA. Table 1 presents credit position ratio values in individual companies over a few years preceding the bankruptcy of the analysed companies. The last year in the Table (the one furthest to the right) for each company is when the enterprise declared bankruptcy.

In the year in which bankruptcy was declared, the companies tended to be the recipients of trade credit (except for Drewex SA). In the previous years, however, the firms had been givers of trade credit. Only in the year in which bankruptcy was declared or in the year preceding the bankruptcy (VRG SA) did the firms need

to take trade credit, generally as a result of the considerable growth in their debt levels. These conclusions are borne out by the values of the current liquidity ratio the companies achieved (Table 2).

Company	Values of the Credit Position Ratio in Subsequent Years							
Advadis SA	2009	2010	2011	2012	2013	2014		
	0.76	0.66	0.34	0.05	0.03	0.02		
Ampli SA	2009	2010	2011	2012	2013	2014		
		0.83	0.87	> 1*	> 1	0.31		
Drewex SA	2008	2009	2010	2011	2012	2013		
	0.81	0.58	0.33	0.06	11.8	> 1		
Krośnieńskie Huty Szkła Krosno SA	2003	2004	2005	2006	2007	2008		
			3.83	2.57	2.61	0.83		
Próchnik SA	2013	2014	2015	2016	2017	2018		
	0.33	0.4	0.53	18.85	8.75	0.33		
VRG SA	2003	2004	2005	2006	2007	2008		
		0.80	0.71	1.05	0.79	0.70		

Table 1. Values of the Credit Position Ratio in the Companies in the Period Preceding Their Bankruptcy

*The value of the ratio > 1 stands for the situation when in a given year in the company trade liabilities in the balance sheet are presented at zero.

Source: the author, based on statements and reports available on company websites and in the EMIS base/service.

There are considerable fluctuations of financial liquidity across the companies, expressed in the values the current liquidity ratio achieved. Generally, in all the companies analysed, financial liquidity dropped in the period preceding bankruptcy to adopt the lowest values in the year of its declaration.

Moreover, the companies' financial results generally deteriorated during the periods analysed, as illustrated by changes in profitability ratios, the value of which decreased from year to year and reached the lowest level in the year of bankruptcy. For example, the largest drops in the profitability of total assets (calculated according to the formula: net profit/total assets) occurred at: Advadis SA with -0.49% in 2009 to -82.9% in 2014, Drewex SA from 4.33% in 2008 to -75.33% in 2013, KHS Krosno SA from 5.19% in 2004 to -46.78% in 2008, and VRG SA from 27.05% in 2004 to -22.07% in 2008. At the same time, the companies' debt levels rose significantly in the period preceding bankruptcy. The total debt ratio (the ratio of foreign capital to total assets) achieved the highest increase in these companies: Advadis SA from 0.4 in 2009 to 3.9 in 2014, Drewex SA from 0.46 in 2008 to 2.31

in 2013, KHS Krosno SA from 0.47 in 2004 to 1.10 in 2008. Ultimately, the research leads to the conclusion that the companies' financial situation worsened, resulting in problems maintaining financial liquidity.

Company	Values of the Current Liquidity Ratio in Subsequent Years						
Advadis SA	2009	2010	2011	2012	2013	2014	
	1.05	0.74	0.78	0.03	0.07	0.01	
Ampli SA	2009	2010	2011	2012	2013	2014	
		1.16	1.17	1.19	0.99	0.60	
Drewex SA	2008	2009	2010	2011	2012	2013	
	1.47	1.15	0.92	0.21	0.11	0.09	
Krośnieńskie Huty Szkła Krosno SA	2003	2004	2005	2006	2007	2008	
	•	1.86	1.96	1.55	1.48	0.34	
Próchnik SA	2013	2014	2015	2016	2017	2018	
	2.95	0.66	2.44	0.82	0.46	0.30	
VRG SA	2003	2004	2005	2006	2007	2008	
	•	2.1	2.7	4.1	3.5	0.7	

Table 2. Values of the Current Liquidity Ratio in the Period Preceding Bankruptcy

Source: the author, based on statements and reports available on company websites and in the EMIS base/service.

The results also confirm the hypothesis that in the period leading up to the bankruptcy and in the year of bankruptcy, enterprises were in the position of trade credit recipient. There was a change in the companies' credit position in the period preceding their bankruptcy, due to increasing difficulties in maintaining financial liquidity. The results of the study may contribute to wider research in this area, which would enable the formulation of broader universal conclusions.

5. Conclusions

Analysis of an enterprise's financial liquidity, including its credit position, is becoming more and more important to the increasing problem of bankruptcy among firms in Poland. According to statistics (BIG Info Monitor 2020), over a thousand companies declared bankruptcy in 2019, and nearly every third entrepreneur has a problem with liquidity. As a BIG Info Monitor study has shown, for 16% of enterprises these are big or regularly repeating problems. The entities most at risk are those from the transport and trade industries. Liquidity problems can translate into business relations and, in the worst case, lead to bankruptcy.

Problems with maintaining financial liquidity in enterprises are manifested in difficulties with timely settlement of trade liabilities, and often too high a level of receivables, which unfortunately favours the growth of doubtful or lost receivables. Enterprises must adapt to changes in the environment and market requirements and also at least keep pace with their competition, the effect of which is often a departure from standard policy on trade credit, as well as on using this credit (Borowiecki & Wysłocka 2012, pp. 30–42). This makes it necessary to analyse and control the parameters of company credit policy.

Financial Disclosure

The article presents the results of research project financed with subsidies granted to the Cracow University of Economics – project number: 77/ZZE/2020/POT.

References

Altman E. I., Hotchkiss E. (2007), Trudności finansowe a upadłość firm, CeDeWu, Warszawa.

Antonowicz P. (2015), Bankructwa i upadłości przedsiębiorstw. Teoria – praktyka gospodarcza – studia regionalne, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk.

Argenti J. (1976), Corporate Collapse. The Causes and Symptoms, McGraw-Hill, New York.

Bankructwa, upadłości i procesy naprawcze przedsiębiorstw. Wybrane aspekty regulacyjne (2015), ed. E. Mączyńska, Oficyna Wydawnicza – Szkoła Główna Handlowa, Warszawa.

Bednarski L. (1999), Analiza finansowa w przedsiębiorstwie, PWE, Warszawa.

BIG Info Monitor (2020), *Blisko co trzeci przedsiębiorca ma kłopoty z płynnością*. W 2019 upadłość ogłosiło ponad tysiąc firm, https://media.bik.pl/informacje-prasowe/486000/bli-sko-co-trzeci-przedsiebiorca-ma-klopoty-z-plynnoscia-w-2019-upadlosc-oglosilo-ponad-tysiac-firm (accessed: 20.04.2020).

Borowiecki R., Wysłocka E. (2012), Analiza ekonomiczna i ocena ekspercka w procesie restrukturyzacji przedsiębiorstw, Difin, Warszawa.

Dankiewicz R., Markusiewicz R., Tompalska K. (2017), Zarządzanie ryzykiem utraty należności w przedsiębiorstwach, "Modern Management Review", vol. 22, no 24, https://doi.org/10.7862/rz.2017.mmr.40.

Gabrusewicz W. (1998), Zarządzanie przedsiębiorstwem a bezpieczeństwo finansowe. Nowoczesne zarządzanie przedsiębiorstwem, 3rd Scientific Conference, University of Zielona Góra, Department of Organization and Management, Zielona Góra.

Górka K. (2011), Postępowanie upadłościowe w procesach restrukturyzacji finansowej przedsiębiorstw, "Nierówności Społeczne a Wzrost Gospodarczy", no 20.

Hadasik D. (1998), *Upadłość przedsiębiorstw w Polsce i metody jej prognozowania*, "Zeszyty Naukowe/Akademia Ekonomiczna w Poznaniu. Prace habilitacyjne", no 153.

Hambrick D. C., D'Aveni R. (1988), *Large Corporate Failures as Downward Spirals*, "Administrative Science Quarterly", vol. 33, no 1, https://doi.org/10.2307/2392853.

Hamrol M., Chodakowski J. (2008), Prognozowanie zagrożenia finansowego przedsiębiorstwa. Wartość predykcyjna polskich modeli analizy dyskryminacyjnej, "Badania Operacyjne i Decyzje", no 3.

Hołda A. (2006), Zasada kontynuacji działalności i prognozowanie upadłości w polskich realiach gospodarczych, Zeszyty Naukowe Akademii Ekonomicznej w Krakowie, Seria specjalna: Monografie, no 174, Wydawnictwo Akademii Ekonomicznej w Krakowie, Kraków.

Korol T. (2010), Systemy ostrzegania przedsiębiorstw przed ryzykiem upadłości, Wolters Kluwer, Warszawa.

Korol T., Prusak B. (2005), Upadłość przedsiębiorstw a wykorzystanie sztucznej inteligencji, CeDeWu, Warszawa.

Kowalik M. (2009), Polityka kredytowa przedsiębiorstwa a zapotrzebowanie na kapitał obrotowy netto na przykładzie przemysłu chemicznego, "Przegląd Organizacji", no 7/8, https://doi.org/10.33141/po.2009.78.14.

Laitinen E. K. (1991), *Financial Ratios and Different Failure Processes*, "Journal of Business Finance & Accounting", vol. 18(5), https://doi.org/10.1111/j.1468-5957.1991.tb00231.x.

Lewandowski R., Wołowski P. (2011), *Prawo upadłościowe i naprawcze*, Wydawnictwo C.H. Beck, Warszawa.

Lukason O., Hoffman R. C. (2014), *Firm Bankruptcy Probability and Causes: An Integrated Study*, "International Journal of Business and Management", vol. 9(11), https://doi. org/10.5539/ijbm.v9n11p80.

Nahotko S. (2003), Zarządzanie przedsiębiorstwem w warunkach zagrożenia upadłością. Podejście finansowe, AJG, Bydgoszcz.

Portfel należności polskich przedsiębiorstw (2019), Projekt badawczy Związku Przedsiębiorstw Finansowych w Polsce oraz Krajowego Rejestru Długów, prepared by P. Białowolski, T.M. Napiórkowski, 3rd quarter 2019, October 2019, https://zpf.pl/pliki/informacjasygnalna/ inp_iii_kw_2019.pdf (accessed: 20.04.2020).

Portfel należności polskich przedsiębiorstw (2015–2019), Projekt badawczy Związku Przedsiębiorstw Finansowych w Polsce oraz Krajowego Rejestru Długów, Raporty cykliczne 2015–2019, https://zpf.pl/badania-i-publikacje/raporty-cykliczne/portfel-naleznosci-polskichprzedsiebiorstw/ (accessed: 20.04.2020).

Prusak B. (2011), *Ekonomiczna analiza upadłości przedsiębiorstw. Ujęcie międzynarodowe*, Wydawnictwa Fachowe CeDeWu.pl, Warszawa.

Sierpińska M., Wędzki D. (1999), Zarządzanie płynnością finansową w przedsiębiorstwie, Wydawnictwo Naukowe PWN, Warszawa.

Sułowska J. (2018), Analiza zagrożenia przedsiębiorstwa bankructwem (in:) Analiza ekonomiczna w przedsiębiorstwie, ed. M. Jerzemowska, PWE, Warszawa.

Świerk J., Banach A. (2013), *Upadłość polskich przedsiębiorstw w latach 2009–2012*, "Zarządzanie i Finanse", vol. 2, no 2.

Tokarski A. (2012), Charakterystyka podstawowych rodzajów upadłości firm w edukacji przedsiębiorczości, "Przedsiębiorczość – Edukacja", no 8, https://doi.org/10.24917/ 20833296.8.14.

Ustawa z dnia 23 grudnia 1988 r. o działalności gospodarczej (The Act of 23.12.1988 on Economic Activity), Dz.U. 1988, nr 41, poz. 324, http://prawo.sejm.gov.pl/isap.nsf/DocDe-tails.xsp?id=WDU19880410324 (accessed: 22.04.2020).

Ustawa z dnia 28 lutego 2003 r. Prawo upadłościowe (The Act of 28.02.2003 The Law on Bankruptcy and Rehabilitation), Dz.U. 2003, nr 60, poz. 535, http://prawo.sejm.gov.pl/isap. nsf/download.xsp/WDU20030600535/U/D20030535Lj.pdf (accessed: 22.04.2020).

White M. J. (2001), *Corporate Bankruptcy* (in:) *Banking, Capital Markets and Corporate Governance*, eds H. Osano, T. Tachibanaki, Palgrave Macmillan, London, https://doi.org/ 10.1057/9780230288140_7.