

EVALUATION OF PAYMENT RISK IN THE MARKETS OF BALTIC STATES DURING ECONOMIC CRISIS

Ingrida Grigonytė

*Vilnius Gediminas Technical University, Faculty of Business Management,
Saulėtekio ave. 11, LT-10223 Vilnius, Lithuania
Email: ingridagrionyte@yahoo.com*

Abstract. Due to the difficult business situation, payments to business partners, clients or suppliers are delayed more than usual. This can be a serious threat to enterprises. In this article, the importance of solvency to all business units and companies' ability to pay their debts to other enterprises (partners, suppliers, etc.) in the markets of Baltic States is discussed. In addition, the payment index in Lithuania and other countries of the Baltic region, the harm that can be done to enterprises, and the behaviour of companies with regard to payment delays, is analysed. The data used in this article are taken from EPI (European Payment Index) research made by Intrum Justitia OY. The conclusion of the article shows that the payment situation in the Baltic region is rather difficult.

Keywords: paying capacity, payment risk, payment index, late payments, bad debts.

Jel classification: M21.

1. Introduction

Despite recovery in powerhouse Germany and the Nordic nations, late payments by businesses and consumers hang threateningly like a dark cloud over the continent's sluggish economic recovery (Intrum Justitia 2011b).

Every year Intrum Justitia, one of the largest credit management groups in Europe, carries out what is possibly the largest independent pan-European survey to discover the true extent of late or non-payment of invoices for goods and services and how EU businesses, large and small, are coping. Called the Intrum Justitia European Payment Index (EPI) 2011, the survey measures business sentiment among 6000 companies in 25 countries and calculates the payment index (EPI).

The latest survey reveals the written off debt being suffered growing to 2.7 % of total receivables to reach a staggering 312 billion EUR in 2011, and over the past five years (2007–2011) adds up to a massive 1300 billion EUR. Such losses undoubtedly impact businesses ability to stay liquid, invest in innovations and sustain employment. Further, this leads to less tax income for national economies, increases unemployment, elevates debt levels and reduces Europe's global long-term competitive ability (Intrum Justitia 2011a; Intrum Justitia 2011b; Intrum Justitia 2010).

There is no doubt that current European recovery, future growth and ability to compete with Asian and other markets depends on getting our public finances back in shape and the banking system working. But that is not enough; it is necessary to make European economy stronger. Part of that strategy must be to tackle the burden of debt that translates into more firms going bust, greater numbers of the unemployed, reduced tax income and lower investment in innovation.

Achieving greater financial control was a clearly articulated desire in the Intrum Justitia survey, since 52% of respondents said that they were experiencing liquidity problems due to late payment and 45% said that late payments were prohibiting growth of their company (Intrum Justitia 2011b).

In 2010 some 600 companies went into liquidation every day in Europe, amounting to total 220 000 in the entire year. Although that trend seems to be heading downward, a new survey by Intrum Justitia of almost 6000 companies across Europe provides a sharp wake-up call about the perils of late payment by indebted consumers and business.

Therefore, the purpose of this article is to analyze current payment situation in the Baltic region, and suggest possible solutions to help reduce the risks of accounts receivable.

Observations and conclusions are based on the results of the Intrum Justitia survey that was carried out during 2011. The article emphasizes the importance of solvency to companies, as is suggested in the literature. The comparative analysis of data collected by Intrum Justitia OY allowed an evaluation of the extent of risk of business payments in the Baltic region and the consequences that can occur.

2. Influence of late payments on enterprises

It is crucial for every company to be able to meet its obligations. Otherwise, it loses credibility and the ability to compete in the market. Solvency indicates the company's ability to meet its short-term liabilities (Kancerevyčius 2006). A company's financial condition and operating results depend on solvency, furthermore, solvency also determines the company's further development, prospects, tactics, strategy, investment decisions, its image in public and so on. A company that is insolvent is unable to maintain normal relations with other market participants. Therefore, it is clear that solvency is a necessary condition for the existence of firms (Jagminas, Kalčinskas 1999; Susnienė, Sargūnas 2009; Šmaižienė, Jucevičius 2009).

Solvency analysis involves some difficulties, because in the literature and in practice there is no united opinion about conditions that have to be fulfilled to make sure which company is solvent and which is not. Therefore it always involves some degree of individual assessment (Mackevičius 2007). In broad terms a company's solvency is defined as the potential ability to pay off liabilities with the instruments available (Juozaitienė 2000). Sometimes it is defined as the ability to pay tax (liabilities) (Buračas, Svecevičius 1994; Rutkauskas, Sūdžius, Mackevičius 2009; Rutkauskas 2007). This definition of solvency is quite inaccurate because it

does not show what commitments the company should cover and what kind of funds should be used. Therefore it is better to describe solvency as a company's ability to pay, using existing means, its short-term and long-term liabilities to partners, banks, tax authorities and other institutions (Gronskas 2005).

It should also be noted that other market participants, when evaluating a company, are mainly interested in short-term cash flows, and therefore an unfavorable situation, in the form of unpaid receivables may mislead market participants and cause distrust in the company. It is important for the company to have a strategy on how to deal with customers or partners who are not accountable for the goods or services at the end of the settlement period.

The literature indicates that maximization of value is one of the company's most important goals. The company's value, that interests researchers and economists the most, is defined in scientific literature as the best indicator of business performance, covering the factors that reflect both the company's internal situation and external environment (Kazlauskienė, Christauskas 2008). So the company's value is closely related to its solvency and reputation.

Empirical studies confirm that financial indicators, especially liquidity and solvency are very informative tools forecasting a company's collapse (Ponikvar, Tajnikar, Pušnik 2009; Mortensen 2009). One of the ways to reassure a company's solvency is timely payments from customers for the goods or services. If customers do not pay in time, the company can lose its ability to pay its own debts. In the worst case scenario, the company can face insolvency, which often ends in bankruptcy.

In fact, late payments cause dual problems. First of all, they are a liquidity problem. Late payments reduce the amount of cash and lead to liquidity risk, when even a profitable company can go bankrupt. Another aspect of the liquidity problem is the problem of financing, i.e. finding additional capital which can be used to pay debts (Jasienė, Laurinavičius 2009). Therefore, maintaining a company's solvency requires the management of payment risk and taking of effective actions considering late payments. Such management and control can be attributed to risk management, which may be seen as planning, organization and control of the process, which aims to reduce the effect of risk to the organization's capital and earnings (Tamošiūnienė, Savčiuk 2007).

A company which develops a risk management strategy, analyzes its core operating results, identifies risks and develops plans to manage them will be able to significantly reduce the likelihood of potential losses (Kaleininkaitė, Trumpaitė 2007). Such risk managing mechanism should replace the regular decision-making process when a company faces high financial risk (Vlasenko, Kozlov 2009). This mechanism would help to avoid many insolvent customers and thus improve the solvency ratio. Therefore, a company should seek to create its own strategy and mechanisms to manage the revenues and ensure that they are received on time.

Experience of debt collection companies shows that companies often extend payment period to their debtors if late payments occur, believing that they will pay

later. Unfortunately this seems to be the wrong approach. As quantitative research suggests, contrary to popular belief, prolonged payments do not help. Customers and partners that are prone to delay payments won't pay on time, even when the payment term is prolonged. They will be late as before, just after the longer period that was given (Jasienė, Laurinavičius 2009). The literature and experience of debt collection companies also confirm that the lengthening of the payment period, does not shorten delays, but, on the contrary, increases them. This occurs because buyers' habits do not change, despite the change in the term structure (i.e., if the buyer was willing to delay the payment by half the time granted for the payment, he will continue to do so, even when payment period is longer).

Therefore, it is necessary to analyze the current market situation and identify ways the company could prevent the emergence of late payments. When debts emerge, it is necessary to take steps to ensure that they would be eliminated as early as possible.

3. Analysis and evaluation of late payments in the Baltic states

In order to compare the magnitude of bad debt in different regions and economies of the Baltic region, the payment index is used. Alongside technical financial figures, the index is based on assessments from the companies surveyed. The data forming the basis of the index is generated yearly using a standardized written panel survey. The list of basic data includes: Contractual payment terms (in days); Effective payment duration (in days); Age structure of receivables (DSO); Payment loss (in %); Estimate of risk trends; Characteristics of the consequences of late payment; Causes of late payment. The European Payment Index (EPI) is calculated by Intrum Justitia every year from eight differently weighted sub-indices, which are based on a total of 21 individual values. The values of the European Payment Index (EPI) will be described later in this chapter.

The continent's growth and innovation is being stifled by reduced investment and late payment in the wake of the economic downturn (Intrum Justitia 2011b). A substantial majority of 57% of the respondents to the EPI survey said the global recession had negatively impacted their sales and 47% said they had experienced reduced liquidity.

Almost 85 % of all the respondents to the EPI survey believed that the principal reason for late payment was the fact that their debtor was facing financial problems. Around 63 % believed the late payment was intentional. The 2011 Intrum Justitia survey also confirms the deep north-south division that exists regarding attitudes to paying bills on time. In Sweden 95% of the invoices are being paid within 90 days, in Greece just 50% are settled.

45% of EPI respondents said that their companies have invested less in innovation and research due to the economic downturn, also 45% said that lack of liquidity meant that no organic growth had been established (Intrum Justitia 2011a Intrum Justitia 2011b).

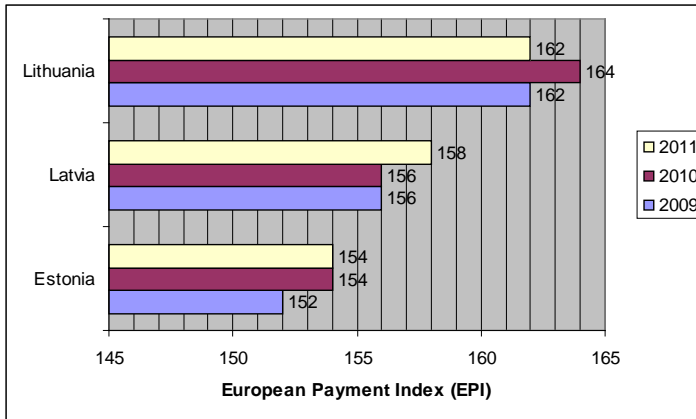


Fig. 1. European Payment Index (EPI) in the Baltic states 2009-2011
(Source: Intrum Justitia 2011b; Intrum Justitia 2010; Intrum Justitia 2009)

Values of the European Payment Index:

100 – no payment risks, i.e. payments are made in cash, on time (or in advance) and without any credit

101–128 – stay alert to keep present situation

130–149 – intervention necessary

150–169 – intervention inevitable, take measures to lower the risk profile

170–200 – intervention emergency, take measures to lower the risk profile

over 200 – case of emergency, take measures to lower risk profile (Intrum Justitia 2011b; Intrum Justitia 2010; Intrum Justitia 2009).

Fig. 1 shows that payments in Lithuania over the past three years remain the most risky of the three Baltic countries, despite the fact that Lithuania's EPI has decreased from 2010 to 2011 by two points. These data suggest that in Lithuania, compared to other countries in the region, businesses delay payments longest to other market participants, thus further damaging the overall solvency situation. It is especially hard for small and medium-sized businesses. Without getting paid, companies cannot pay their own debts to suppliers and business partners. This deteriorates the situation of the entire economy. The longest delay in payments among the Baltic countries also shows that Lithuanian companies spend the most money to recover lost payments. Debt collection experience and research show that the longer the delay, the greater the loss of funds that could have been earned if the payment was completed in time. Also, the longer the debt delay, the harder its recovery, and collection of such debts requires more resources.

Delays in payment and increasing late debts slow down the turnover of funds, reduce the return on investment, limit access to credit, and reduce the short-term and long-term business viability. Consequently, many companies try to artificially shorten the payment period. But this activity burdens firms with some new problems and in most cases, does not solve the initial problem of not paying debtors.

The survey found a consistency that is inherent to many companies when paying their bills in cases of low solvency. In most countries, including Lithuania, Latvia and Estonia, payments of liabilities are made in the following order:

- payments to the public sector (taxes, fees, requirements);
- payments to banks and other financial institutions;
- payments to the guarantee of employee benefits (pension, insurance).

This sequence shows that debt payments to business partners are not considered to be the first obligations to fulfill. It should also be noted that many companies pay taxes and other obligations to public authorities in the first place, however, national institutions delay payments the most (Grigonytė 2010).

Experience shows that the longer the delay of debt repayment, the lower the chances of its recovery. If a customer or a partner does not return debt in time and the transaction was not secured with promissory notes or factoring, it is advisable to contact the debt collection company in one month after the deadline of payment. Debt collection companies engage in pre-trial exaction of debts, which means that if the customer does not have short-term assets, which may cover the liabilities, the debt becomes unsustainable. The more time that passes, the greater the chance that an insolvent client's situation will only get worse, therefore it is recommended that active steps should be taken to recover the debt as soon as possible. These risks can be avoided if the customer signs a promissory note at the time of the purchase. At the end of the payment period, the note payee can protest the note and take it to a notary, who shall forward the debt to bailiffs. This saves time and money by avoiding court procedures. Moreover, a promissory note does not cost anything, because costs of bailiffs and debt recovery are retrieved from the borrower, adding them to the amount recovered.

The EPI indicators (Fig. 1) show that in all three Baltic countries intervention into transactions is inevitable, and measures to lower the risk profile must be taken.

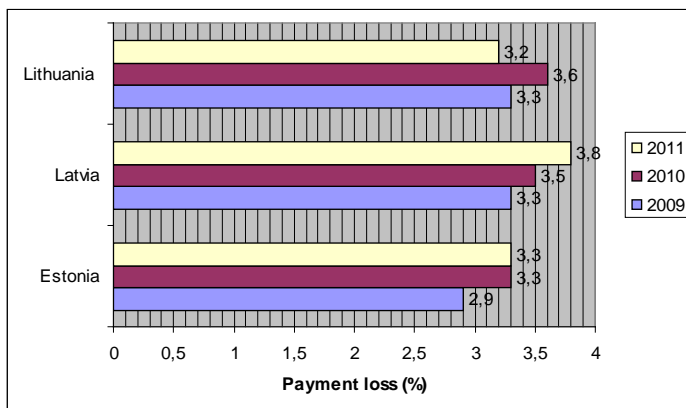


Fig. 2. Average payment loss on enterprises in EU states (made by the author, based on Intrum Justitia 2011b; Intrum Justitia 2010; Intrum Justitia 2009)

This means that almost all companies have late debts that must be trusted to professional debt collection companies or courts. The study also showed the amount of receivables that was written off, and cannot be recovered (Fig. 2).

Fig. 2 shows that in Lithuania, as well as in Latvia and Estonia, written off debt (given as percentage of total turnover) is similar, but that gives little comfort, because bad debt in the Baltic region is one of the highest in Europe (Intrum Justitia 2011b). A similar amount of written off debt is in Slovakia, Czech Republic and Greece. The lowest amounts of written off debts are found in Finland (1.9%) and Austria (2.3%).

Late payments or written off debts represent “frozen” money and cannot be used for growth. When debt recovery fails there are additional losses incurred, because not only the debt is lost, but also the money that could be earned if payment would be made in time, as well as the funds that were intended for recovery of the debt. Only faster and more secure payments can encourage new investment and business development, especially for small and medium businesses. Clients, who delay their payments, force their suppliers into a difficult position, and can even cause bankruptcy. It is worth noting that unpaid invoices hinder not only national trade, but also international transactions.

4. Creation of a model preventing late payments

According to the survey and debt collection business experience, it is possible to propose measures which business units can take to avoid late payments. These measures can be divided into two categories: internal and external.

4.1. Model of preventing delayed payments using company's internal resources

Overdue payments' prevention measures, for which only the internal resources of the company are used, are effective when used with other prevention instruments, such as promissory notes, letters of credit or factoring, against the risk of late payment. The following proposed actions would help to recover overdue payments, and speed up recovery of debt when it is transferred to a debt collection company.

In order to avoid problems when accounts receivable are delayed too long or are not receivable, enterprises are encouraged to review their actions against the debtor. The action taken against a debtor should be transparent and consistent, focused on the risk and financial strengths of an individual company. The framework of receivables policy should include: deliveries in advance, solvency testing before deciding to supply goods or services, ensuring payment priority, clearly expressed measures and consequences if the payment is delayed (calculation of interest for late payments, compensation payments, shipping delays, cooperation with professional credit management companies) (Fig. 3).

In order to implement the receivables management policy, customers and all company personnel who work with clients should be informed of the receivables' policies in the company. Receivables restrictions should also be actively applied. For example, for each customer there should be two debt ceiling limits. When the lower threshold is crossed an alert is sent, additional information is gathered and appropriate measures taken. After going beyond the upper limit, the supply of goods and services are automatically suspended (Urbanskienė 2008; Ginevičius 2007; Mortensen 2009).

Regular address checking of a company which is invoiced for the goods or services would help to avoid misunderstandings when there are long outstanding accounts receivable. Experience of debt collection companies shows that debt collection problems often arise due to incorrect or old customer contact details (addresses) and ineffective supplier and customer communication. Address updates should be done as a continuous process, and be a part of routine inspections. Literature suggests that proper management of communication with the customer can help to optimize the profitability of the company and at the same time increase customer satisfaction.

Another very important measure is permanent solvency testing before deciding on the supply of goods or services (Fig. 3). If solvency is insufficient, delivery should be done after payment, or alternative forms of payment should be arranged (settlement using goods or services). Continuous monitoring of solvency must be done regarding main customers. According to debt collection companies, the majority of payment loss is the result of losing payment for goods or services delivered to several major clients. Constantly repeated solvency testing, consistently integrated into the operating procedures is a very important element in a successful debt management process.

Another technique that can be applied to prevent overdue payments is the offering of flexible payment terms on a preferential basis. For new customers, shorter periods should be given to pay for goods or services compared to regular customers, who pay according to an agreed schedule. At the same time, new customers should be offered longer payment terms once they pay on time. Regular customers may lose the privilege of a longer payment period if payment is delayed.

If the payment is delayed by only a day or two, it is important to remind a customer about due payment. Reminders should be sent sequentially and, if necessary, repeatedly. In practice of credit management companies, there is a tested and successful formula is known as the 2-2-2 (“three two”) formula:

- sending the first reminder no later than two weeks after the agreed date of commitment fulfillment date;
- send only two reminders before taking any legal action or handing debt over to credit management company;
- between the first and second reminder there should be an interval no longer than two weeks.

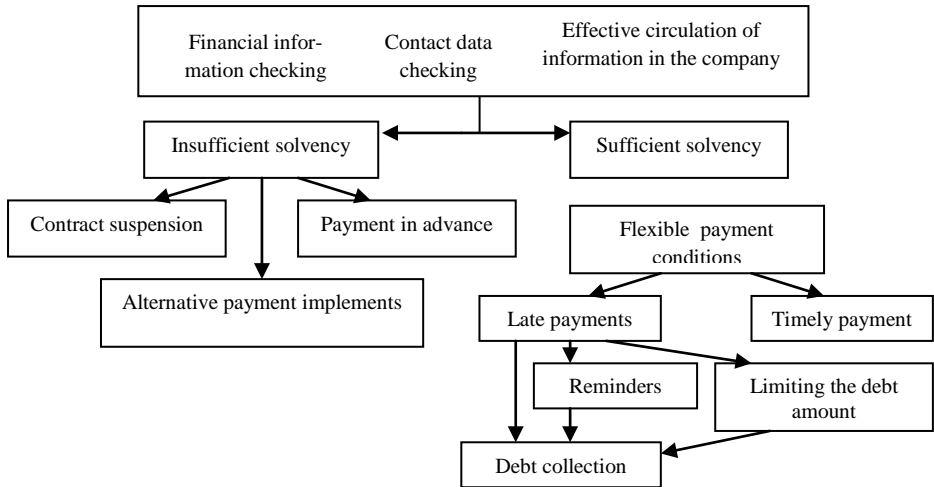


Fig. 3. Overdue receivables prevention scheme (made by author)

Meanwhile, most companies make the mistake of sending reminders only when payment date has long expired.

Constant cooperation with a professional debt collection company should be developed as well as timely passing of claims to the debt collectors.

4.2. Model preventing delayed payments using external resources and third-party services

Earlier investigations made by the author reveal that some implements such as promissory notes, letters of credit or factoring are used dully by companies. Letters of credit and factoring require additional funds and therefore can be unacceptable for the companies who are trying to save money, or for small enterprises. However, promissory notes are very cheap and convenient and are very popular in the West. Companies using this tool could collect their debts without court or debt collection company intervention. Therefore, corporate executives should actively explore possibilities and measures that reduce the risk of payment delays. The result would be more efficient if the enterprises would make more use of services offered by credit management and debt collection companies, such as reminder or preventive stamp. There should also be a greater use of informative services provided by credit management companies such as debtor databases.

Practice shows that preventive stamp to avoid formation of late payments is quite an effective tool for encouraging customers to pay on time. Preventive stamp comes from debt collection and credit management companies. It indicates that in

case of delayed payment debt collection will be carried by a certain debt collection company. Invoices that are given to customers or partners are stamped with it.

Of course these services are not completely free of charge. Some companies may try to avoid these costs, but it is likely that the formation of delayed payments will cause more loss than these savings. It is necessary to mention that debt collection is more expensive when the delay period is long and sometimes debt collection may even become impossible. Often, assets that are lost are not estimated properly, because companies lose not only money that should be paid for their goods, but also money that could have been earned if payment was timely.

Most companies send reminders to debtors on their own, but these reminders are often sent too late. From experience it is known that the debtor is more responsive when they receive a reminder from a debt collection company rather than from their supplier, to which they owe. Thus, a more efficient way would be to provide reminders by professional debt collectors. If, however, the company decides to do it on its own, reminders must be sent ahead of the payment time. It is best to use the “three two” rule as described earlier.

Active use of credit information services provided by credit management companies and other institutions can help to avoid untrustworthy partners before any problems with collection arise. The obvious problem is that in order to save money, companies avoid using preventive measures offered by third parties. But then they risk losing even more. So first of all, corporate managers should change their thinking and not be afraid to invest in debt prevention measures offered by third parties. These parties have more experience in credit management, and therefore these measures are more effective than those taken by the company itself.

Credit insurance should be coordinated and used actively with other late payment prevention implements. Since credit insurance companies offer insurance cover against one or several customer risks, credit insurance is efficient in large transactions. Futures or option contracts may also be used to secure payments. Although all these implements do not necessarily ensure timely payment, they provide a higher probability of payment. Some implements such as futures or option contracts are financial instruments and may be transferred to third parties in order to obtain funding. However, the client or supplier that participates in the transaction secured by such implements must be sufficiently solvent; otherwise the sale of the mentioned implements may not be possible.

The discussed measures of prevention against overdue receivables should be coordinated and combined. By combining the appropriate payment instruments (such as promissory notes, factoring, letter of credit, etc.), and prevention measures proposed by credit management companies, debt collection and insurance companies, sellers could minimize delays in payments and avoid the formation of non-performing debt that cannot be recovered.

5. Conclusions

A company's ability to pay for its liabilities is very important to successful existence and development of a business. On the basis of data presented and due discussion concerning possible debt collection instruments in the Baltic region, the following conclusions can be made:

1. The situation in Lithuania, Latvia and Estonia with respect to payment index is among the worst in Europe. Almost every company has bad debts that need professional supervision.
2. The written-off debts in the Baltic countries (Lithuania, Latvia and Estonia) are one of the highest in Europe and hamper business opportunities.
3. Lost receivables break the cash conversion cycle because a creditor, not receiving payments for its goods and services, cannot pay his suppliers. This consequently spurs a chain reaction that increases insolvency of market participants, especially to small- and medium-sized businesses.
4. In order to avoid frozen money because of insolvent customers, businesses should carry out a regular customer monitoring and continually monitor customers according to their payment options, choose the right customers according to their economic performance. This would allow companies to avoid insolvent customers, especially in the economic downturn.
5. Measures of overdue payment prevention cannot be used in isolation, they must be combined. At the same time, preventive measures must be taken both inside the company - internal measures (customer monitoring, timely reminders, credit limit applications) - as well as outside - external prevention measures (using of corporate credit management services, promissory notes, credit insurance, futures etc.).

All these means and methods, if properly applied in practice, can be very useful, particularly during the economic downturn. Active use of the proposed measures and their combinations can help companies to improve their performance, reputation and competitiveness. More widespread use of debt prevention measures can reduce the risk index (EPI) of Lithuania.

References

- Bryan, D. M.; Tiras, L. S.; Wheatley, M. C. 2002. The Interaction of Solvency with Liquidity and its Association with Bancruptcy emergence, *Journal of Business Finance & Accounting* 29(7/8): 935–965. <http://dx.doi.org/10.1111/1468-5957.00456>
- Buračas, A.; Svecevičius, B. 1994. *Biznio, bankų, biržos terminų žodynas-žinytas*. Vilnius: Žodynai. ISBN 9986465060
- Ginevičius, A. 2007. Rinkodaros būklės įmonėje kiekybinis vertinimas, 1(8): 21–20.
- Grigonytė, I.; Sūdžius, V. 2010. *Business, Management and Education* 2009. Research Papers. Vilnius: technika. ISSN 1648-8156. 7–20.
- Gronskas, V. 2005. *Ekonominė analizė*. Kaunas: Technologija. ISBN 9955098708
- Intrum Justitia OY. 2011a. *Annual report 2011*. Helsinki: madeleine Bosch.

- Intrum Justitia OY. 2011b. *European payment index 2011*. Helsinki: madeleine Bosch.
- Intrum Justitia OY. 2010. *European payment index 2010*. Helsinki: madeleine Bosch.
- Intrum Justitia OY. 2009. *European payment index 2009*. Helsinki: madeleine Bosch.
- Jagminas, V.; Kalčinskas, G. 1999. Nenori būti likviduotas? Būk likvidus, *Vadovo pasaulis* 7/8: 47.
- Jasienė, M.; Laurinavičius, A. 2009. Kredito rizikos valdymo įmonėse problemos ir jų sprendimo būdai, *Verslas: teorija ir praktika* [Business: Theory and Practice]. 1(10):17–20.
- Juozaitytė, L. 2000. *Įmonės finansai: analizė ir valdymas*. Šiauliai: ŠU leidykla.
- Kaleininkaitė, L.; Trumpaitė, I. 2007. Verslo rizikos valdymas ir jo tobulinimas, *Verslas: teorija ir praktika* [Business: Theory and Practice]. 3(8): 176–181.
- Kancerevyčius, G. 2006. *Finansai ir investicijos*. Kaunas: Smaltija.
- Kazlauskienė, V.; Christauskas, Č. 2008. Business Valuation Model Based on the Analysis of Business Value Drivers, *Inžinerinė ekonomika – Engineering economics* (2): 23–31.
- Mackevičius, J. 2007. *Įmonių veiklos analizė*. Vilnius: TEV.
- Mortensen, T. 2009. Getting cash in, *Chartered Accountants Journal* 88(10): 56.
- Ponikvar, N.; Tajnikar, M.; Pušnik, K. 2009. Performance ratios for managerial decision making in a growing firm, *Journal of Business Economics and management* 2(10): 109–120. <http://dx.doi.org/10.3846/1611-1699.2009.10.109-120>
- Rutkauskas, V. A.; Sūdžius, V.; Mackevičius, V. 2009. *Verslo finansų principai ir praktika*. Vilnius: Technika. <http://dx.doi.org/10.3846/1042-S>
- Rutkauskas, V. A.; Sūdžius, V.; Mackevičius, V. 2007. *Verslo finansai: sistema, struktūra ir elementai* Vilnius: Technika.
- Susnienė, D.; Sargūnas, G. 2009. Suinteresuotųjų šalių vadybos prielaidos organizacijoje, *Inžinerinė Ekonomika – Engineering Economics* (2): 58–64.
- Šmaižienė, I.; Jucevičius, R. 2009. Corporate Reputation: Multidisciplinary Richness and Search for a relevant Definition. *Inžinerinė Ekonomika – Engineering Economics* (2): 91–100.
- Tomašiūnienė, R.; Savčiuk, O. 2007. Rizikos valdymas Lietuvos organizacijose – sąsajos su vidaus auditu ir finansinių ataskaitų kokybe, *Verslas: teorija ir praktika* [Business: Theory and Practice]. 4(8): 207–213.
- Urbanskienė, R.; Žostautienė, D.; Chreptavičienė, V. 2008. The Model of Creation of Customer relationship Management (CRM) System. *Inžinerinė Ekonomika – Engineering Economics* (3): 51–59.
- Vaškelaitytė, V. 2001. *Piniginiai atsiskaitymai*. Vilnius: Eugrimas.
- Vlasenko, O.; Kozlov, S. 2009. Choosing the risk curve type, *Technological and Economic development of Economy* 2(15): 341–351. <http://dx.doi.org/10.3846/1392-8619.2009.15.341-351>

Ingrida GRIGONYTĖ, doctoral student at Vilnius Gediminas Technical University, Finance engineering department. Her research is focused on finance risk management and evaluation; sustainable development of business.