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# **Late Payments in Accession Countries: Causes and International Comparison**

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In developed countries in everyday business, payment delays often present a problem. Payment delays have already been a matter of discussion in Slovenia for several years. Irrespective of some positive movements in the past years, the state of payment discipline in Slovenia is not at a satisfactory level. In this area, Slovenia could be classified among the less successful countries when compared to other countries in Europe. Our paper determines factors behind this fact. The findings are important not only for Slovenia, but also for other EU candidate countries faced with similar problems of transition. The paper has led to the following conclusions. Firstly, the more

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indebted companies have longer payment delays. Secondly, the longer the contractual payment period, the shorter the payment delay. Longer payment periods are mostly received by larger companies. And thirdly, the longer the payment delays on the side of companies' buyers, the higher the incidence of late payments by the company. We can therefore conclude, based on our research, that payment delays in Slovenia depend mostly on risks involved with doing business with firms in financial distress, in particular with small businesses.

## Introduction

In developed countries in everyday business, payment delays often present a problem. According to estimates, this leads to the loss of 450 000 jobs each year, adding to the high unemployment rate in Europe. Moreover, one out of four insolvencies is due to late payments and consequently, outstanding debts of EUR 23.6 billion are lost every year (EU Directive 2000/35/EC, 2000). As an answer to the stated problems, the European Parliament passed, in 2000, a directive with the intention to protect commercial transactions of European companies from bad payment habits and its harmful consequences<sup>1</sup>.

Payment delays have already been a matter of discussion in Slovenia for several years. In order to improve payment discipline, the Slovenian parliament adopted the Financial Operations of Companies Act in June 1999. According to this act, the company is obliged to pay attention to the state of affairs on three areas of business – liquidity, capital adequacy and solvency – and to take proper measures at the stated periods and liability for damages. Additionally, the Slovenian Obligations Code that came into force on January 1, 2002, covers most of the provisions of the European Directive on late payments. The Code in its 378th article gives the seller the right to charge penalty interest in case of payment delay by the debtor. The penalty interest is set at 8 percent a year if not otherwise defined by the law or commercial contract. The Code also defines the retention right and the right to recover costs, caused by the payment delay.

Irrespective of some positive movements in the past years<sup>2</sup>, the state of payment discipline in Slovenia is not at a satisfactory level. In this area, Slovenia could be classified among the less successful countries when compared to other countries in Europe. Our paper determines factors behind this fact. The findings are important not only for Slovenia, but also for other EU candidate countries faced with similar problems of transition. The paper has led us to the following conclusions. Firstly, the more indebted companies have longer payment delays. Secondly, the longer the contractual payment period, the shorter the payment delay. Longer payment periods are mostly received by larger companies. And thirdly, the longer the payment delays on the side of companies' buyers, the higher the incidence of late payments by the company. Late payment periods on buyers' side are shorter when they are granted longer payment periods (the higher therefore the bargaining power of the buyer). This is especially the case of Slovenian exporting organizations, since they are forced to accept longer payment periods due to their small size.

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<sup>1</sup> The directive came into force in August 2002 with the following provisions: 1) the directive defines a payment period, fixed at 30 days (this reference period runs from the date on which the payment is due, which is the date of receipt of invoice or the date of receipt of the goods); 2) the payment of penalty interests starts automatically in the event of payment delay with an interest rate of 7 percentage points above the set European Central Bank rate or an equivalent rate set by central banks in the member states outside the Euro area; 3) the seller is entitled to the compensation of all relevant recovery costs unless the debtor is not responsible for the delay; 4) the directive allows the seller to retain title to the goods until payment is completed if that is explicitly agreed to before delivery; and 5) countries have to assure speedy and effective recovery of due payments.

<sup>2</sup> See Bole (2002), who established that the adoption of the Financial Operations of Companies Act has lowered the amount of outstanding payments in the Slovenian industry.

Consequently, payment delays to export firms are smaller. We also show that payment delays are higher if the company is more engaged in business with the public sector. Since firms doing business with the state in our sample are smaller and more indebted than on average, it follows that the state is, by delaying payments to smaller firms, an important source of payment delays. Moreover, higher indebtedness and longer payment delays of small firms put forward a question of the overall efficiency of small firms in Slovenia.

Our paper is divided into four sections. In the next section we provide a comparison of payment habits and causes of payment indiscipline in countries of the European Union and in Slovenia. In the second section, we construct a model and provide hypotheses in order to study the factors of payment delays in Slovenia. Section three summarizes the results of the empirical analysis. In the fourth and last section, we draw our conclusions.

## **I. Payment Habits of Slovenian Companies Compared with Companies from the European Union**

In order to get better insight of the extent of payment indiscipline in Slovenia, we compare Slovenian payment habits with those of companies from the European Union. As a source of data, we use two publications. First, we used the European Payment Habits Survey 1997, conducted by an international company, Intrum Justitia, with its headquarters in Sweden. This document was also used as grounding for the already mentioned European Directive. Second, we infer on the payment habits of Slovenian companies from the survey conducted in 2002 by the Research Center of the Faculty of Economics in Ljubljana as part of the research project, “The Analysis of Payment Habits and Payment Discipline in Slovenia”, requested by the Promotion Center for Small Enterprises of the Government of Slovenia. The survey was sent to 1000 companies, selected into a stratified sample of Slovenian companies. We received 191 filled questionnaires from companies that represent our sample for the empirical analysis.<sup>3</sup> Both sources use some equivalent questions that enable us to directly compare the answers given by the surveyed companies. In order to gain deeper insight into the problems regarding late payments in Slovenian companies, we added some questions to the survey that only relate to companies in Slovenia.

The study on payment habits in Europe shows that there are huge differences in average payment periods across the European Union. The longest average payment time is found in Greece (94 days); there are long payment periods also in Portugal (91 days), Italy (87 days) and Spain (74 days). Companies with the shortest time to settle their liabilities come from Scandinavia – Norway (27 days), Finland (29 days), Sweden (32 days) and Denmark (34 days). The same payment period present in Danish companies can also be found in Germany.

Slovenia has, in comparison with the European Union, one of the longest average payment periods, and its 21-day long delay also places Slovenia in the group of biggest latecomers. The average contractual payment period in domestic trade is 45 days, with its length comparable to those in France and Belgium.

In general, the payment period in international trade follows the pattern in domestic trade. The average difference between payment time in domestic and international trade in the European

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<sup>3</sup> Our stratified sample was comprised of 250 microcompanies (less than 5 employees), 250 small companies (5 to 20 employees), 200 smaller companies (21 to 50 employees), 200 medium companies (51 to 250 employees) and 100 large companies (251 or more employees). The comparison of the structure regarding the size of the companies that returned the questionnaire, with the reference population of 12790 companies from the database of the Agency for Payments (with available data), reveals the underrepresentation of microcompanies in the sample. Otherwise, the sample of 191 companies adequately reflects the structure regarding the size and industry branches (Prašnikar et al., 2002).

Union is 9 days. It can be noted that there are smaller differences among the countries in international trade than in domestic trade, which indicates that there are certain rules established in international business practice that companies more or less consider. When doing business internationally, Slovenian firms do follow these patterns. The companies on average list foreign business partners as better payers than domestic partners. There are 70 percent of liabilities in international trade settled within the payment period and only 52 percent in domestic trade.

European companies most frequently ascribe late payments to intentional delays, cited in 35 percent of cases. Debtors' financial difficulties caused late payments in 33 percent of the companies, while 16 percent of the delays could be ascribed to administrative inefficiency. In comparison, according to the survey, the most important cause of overdue payments in Slovenian companies is intentional late payment, buyers' illiquidity and indebtedness and inefficient and slow recovery procedures. Other causes such as buyers' relative bargaining power, high penalty interest and difficult access to credit were, according to the opinion of Slovenian companies, less important, although they can be highly influential in certain cases. Therefore, we can establish that causes of late payments in Slovenia do not considerably differ from those in the European Union.

Slovenian companies use several measures when dealing with payment delays. Most frequently, they send reminder letters to debtors; less than 6 percent of companies do not use this method. Surprisingly, rarely do they stop shipments to buyers. The most rarely used measure in late payments management is the use of factoring. It is occasionally used by 46 percent of companies; however, none of them uses this method on a regular basis. Extrajudicial settlement and extrajudicial enforcement of debts are also used by less than half of the companies in the sample, and they also use this method only now and then.

Besides measures of negative motivation, conditional on sanctions for late payments, companies also use measures of positive motivation in the form of discounts for prompt payment. Such discounts are offered by 54 percent of European companies. An average discount amounts to 4 percent. In the area of discounts, there are wide differences among individual countries. For example, in Austria, there are 97 percent of companies offering various discounts to their customers while in Ireland, this percentage amounts to only 22 percent.

Data for Slovenia show that companies do not offer discounts for prompt payment to all their customers but only to some. A usual discount ranges between 1 and 3 percent. On average, only 7 percent of buyers take advantage of the discount offered. Almost one fourth of companies at least occasionally also use penalty write-offs as a way of accelerating payments.

Slovenian companies relatively rarely use any kind of instrument to insure payments. The most frequent is the requirement of advance payments, yet the average percentage of sales that companies require advance payments for is quite low. Approximately one half of companies examine the credit rating of their buyers. Companies often estimate that trust in the buyer, given word and business relations with established clients are more important than any instrument of insurance.

Of significant help to companies fighting with undisciplined payers is legislation regarding late payments that, as already mentioned, differs from country to country. European companies mostly share the opinion that the existing legislation is inefficient, slow and too expensive. Firms in Spain, Italy and Portugal share the worst opinion of their legislation, while the highest degree of contentment with existing legal regulation is found in Sweden. Similarly, Slovenian companies to a large extent blame the slow and inefficient legal debt recovery system and the high cost of recovery for existing delays. As an illustration, according to statements of court enforcement

personnel, recoveries in procedure in 2002 referred to payments that were due in 1995. Therefore, what we are dealing with in Slovenia is a delay of as much as seven years (Prašnikar et al., 2002).

## **II. Model for payment delays in Slovenian companies: Key terms**

Little research for payment delays is found in the existing literature. Financial analysis mainly deals with this problem of payment delays indirectly and in different contexts as the analysis of short- and long-term payment ability and detection of potentially problematic companies (see e.g. Altman, 1993), finding the optimal level of liquid assets (Myers and Rajan, 1998; Chang-Soo et al., 1998; Opler et al., 1999; Bruinshoofd and Kool, 2002) or the division of roles between companies and the state in assuring an optimal level of liquidity (Holmstrom and Tirole, 1998). The major research is embedded in studies on the motives for the use of trade credit (e.g. Elliehausen and Wolken, 1993). Generally, two main streams are used to help explain the use of trade credit: transaction motives and financing motives. Financing motives usually tackle the issues of limited access to credit and the informational advantage of suppliers (compared to financial institutions) in giving credit to their customers. Transaction motives are connected with lowering transaction costs because of lowering the need for extensive cash balances and easier management of cash flows. Petersen and Rajan (1997) find out that payment delays reflect the financing motives for trade credit use, as firms using trade credit solely for transaction purposes would have no reason to incur additional interest and penalties by delaying payment.

When constructing a model that will explain payment delays of companies in Slovenia, we build on the existing literature on this topic, as those described in the previous section. If we set aside the problem of debt recovery, which seems to be an important factor of payment delays and is a result of existing legislation and business tradition, we can assume three main factors of payment delays: 1) payment ability of the company; 2) a company's bargaining power; and 3) the transfer of delays from debtors to creditors.

### **(A) Payment ability of the company**

The greater the payment ability of the company, the greater the ability to service debts in the short and long run.<sup>4</sup> Petersen and Rajan (1997) found evidence, in a sample of companies in the United States, that restricted access to sources of financing tends to lead to greater payment delays of the company. Financing with trade credit is usually relatively expensive and if the company has access to alternative sources of financing, it will prefer those. A company may be restricted in credit use either because it is already highly indebted and has thus exhausted its ability to get credit or because it faces liquidity problems. In either case, the company tends to use suppliers as the source of financing.

### **(B) Bargaining power of a company**

Companies with greater bargaining power receive longer payment terms and higher discounts for prompt payment. This results in the payment discipline of those firms being better. The negative effect of low bargaining power on payment delays is most evident in the case of small companies. They receive short payment terms and no discounts. Coupled with limited access to other financing, this results in lower payment discipline (Danielson and Scott, 2003).

### **(C) Transfer of delays from buyers to suppliers**

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<sup>4</sup> Payment ability in the short run is usually called "*liquidity*", whereas payment ability in the long run is known as "*solvency*".

Companies often adopt the policy of matching their payments to suppliers with payments from their buyers (Petersen and Rajan, 1997). This is also shown in answers of interviewed companies in Slovenia as well as in the European Union. The size of this phenomenon in Slovenia mainly depends on three factors: First, on the one hand, on the bargaining power of buyers in the fashion described above. Buyers with greater bargaining power trade off between getting long payment terms and high discounts or simply delay payment, if they do not succeed with their demands. Second, in Slovenia, the state is notorious for delaying payments and is considered one of the main initiators of delays, which is then transferred up the supplier-buyer chain. Third, as is shown in the previous section, Slovenian exporting firms should get payments earlier as in the domestic market, since there are in general less delays in European states than in Slovenia. However, Slovenian firms are relatively small and have little bargaining power in western markets. They mainly deal with a small number of buyers. With the existing crisis in EU markets, their payment terms deteriorate. On the other hand, when dealing with former Yugoslavia and Russia, the second most important foreign markets for Slovenian firms, Slovenia faces even more uncertainty, which is reflected in lower payment terms and a bigger need for higher insurance (Prašnikar et al., 2003).

#### **(D) Research hypotheses**

As we stated above, high liquidity gives firms the higher ability to service debt in the short run.

**H1:** *Companies with lower liquidity will have on average longer payment delays to their suppliers.*

However, high liquidity is a necessary but not sufficient condition for payments within the contractual period. A firm with high liquidity may also abuse its bargaining power toward his suppliers and delay payments, if delays are common to the whole economy. Bole (2002) could not confirm (at the industry level) a significant dependence between the level of overdue debts and liquidity in Slovenia. There is, however, a significant negative dependence between productivity and payment delays. The higher the productivity (higher dynamics of sales and profits), the lower the dynamics of the level of unpaid duties. Therefore, payment delays in Slovenia could be connected to long-term payment ability – solvency – problems.<sup>5</sup> In fact, Slovenian companies are traditionally predominantly financed with equity capital (Mramor et al., 1998; Valentinčič, 1999). It is therefore possible that for a company with higher financial leverage, the level of contractual duties due to interest makes it difficult to manage its cash flows. If liquidity problems arise as a reflection of solvency problems, a company tries to solve them with an increased level of financing with suppliers. With increased financial leverage, we could expect payment delays to increase, especially if we consider that this can be the cheapest way of financing. The higher the bargaining power a company has, in order to retain business relations, the higher the possibility that a debtor will delay its payment and that a creditor will write off (part of) penalty interests.<sup>6</sup>

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<sup>5</sup> An additional reason for using solvency is that liquidity ratios are heavily dependent on the industry in which a company operates.

<sup>6</sup> Companies that delay with payments have to pay a penalty interest. In Slovenia, the interest rate for delays is set by law at 13.5 percent in real terms, which was at the time of research, 21 percent in nominal terms. If the supplier writes off one half of this interest, the nominal interest rate is only 10.5 percent, which is lower than the interest rate from most other sources.

**H2a:** *Companies with higher financial leverage will have on average longer payment delays to their suppliers.*

A comparison of payment habits in Slovenia and EU countries showed that Slovenian companies use discounts for fast payments less often. They are common for companies in financial distress. Such companies try to attract new buyers and stimulate existing buyers to pay their debts faster by giving them large discounts. Moreover, to increase their sales, they also use less insurance against late payments.

**H2b:** *More indebted companies try to stimulate existing and new buyers to pay faster by giving them higher discounts.*

**H2c:** *Companies in financial distress less frequently use insurance instruments against late payments.*

Companies with higher bargaining power manage to get longer payment periods and higher discounts for prompt payment – consequently there is less incentive for them to delay payments. Bargaining power depends primarily on the size of a company and we would expect smaller companies to delay their payments longer. When their bargaining power is low, and thus their contractual payment periods are short and they are not offered discounts, they respond by delaying their payment.

**H3a:** *Smaller companies get worse payment terms and less discounts. In addition, they provide shorter payment periods for their buyers.*

**H3b:** *Shorter contractual payment terms make it more difficult for companies to properly manage their cash flows, which more often results in payment delays.*

**H3c:** *Higher discounts for prompt payments raise the opportunity costs of financing with suppliers. This stimulates companies to pay fast and shortens payment delays.*

Companies match the credit they give (shown as accounts receivable) with the credit they receive from their customers (accounts payable). If buyers delay their payments, companies also automatically delay payments to their suppliers. Large firms establish longer payment periods for their buyers. Buyers with longer payment periods and bigger discounts will delay less.

**H4a:** *Longer delays of a company's buyers result in longer delays of the company itself.*

**H4b:** *Buyers with established longer payment periods will delay less.*

**H4c:** *Buyers with higher discounts will have less delay.*

The state is often mentioned in Slovenia as a laggard payer. Consequently, companies that do more business with the state should on average face longer payment delays.

**H5:** *Companies with a larger share of total sales to the state on average face longer payment delays.*

Because of the small bargaining power of Slovenian exporting firms, foreign costumers are offered longer contractual terms. The crisis in European markets and political and other instabilities in markets of the former Yugoslavia and Russia force export firms to use more insurance instruments against late payments.

**H6a:** *Companies that export more are required to use longer payment periods.*

**H6b:** *Companies that export more frequently use insurance instruments against late payments.*

The use of insurance instruments would mean less delay from customers.

**H7:** *Companies that use insurance instruments more frequently against late payments face less delay from their customers.*

In Figure 2 we present the conceptual model of payment delays.

#### **(E) Variables used**

The dependent variable in the model is PAYMENT DELAY, defined as the difference between the actual and contractual payment term. The bargaining power of a company is measured by variable SIZE, which is the average number of employees.<sup>7</sup> The contractually agreed payment term a company receives from its suppliers, expressed in days, is present in the model as the variable CONTRACTUAL TERM FROM SUPPLIERS (SUPTERM). It is measured as the weighted arithmetic mean of payment terms from different suppliers, as declared in interviews. The discounts a company receives from its suppliers are measured by the variable DISCOUNTS RECIEVED FROM SUPPLIERS (SUPDISC). They are expressed in percentage of the contractual value.

The effect of financial leverage is measured through the ratio DEBT TO ASSETS (DA) and is defined as a sum of short- and long-term financial liabilities in total assets. Liquidity is measured with the QUICK RATIO (QR), which is the ratio of current assets (less the inventory) divided by current liabilities.

The extent of transfer of delays from buyers to suppliers is incorporated in the model in the form of variable BUYERS' DELAY (BUYDEL) that expresses the average days of delay on the side of the buyer. The variable GIVEN DISCOUNTS TO BUYERS (BUYDISC) measures the effect of discounts given to buyers, whereas the variable CONTRACTUAL TERMS TO BUYERS (BUYTERM) measures the contractually agreed payment terms with buyers in days. The use of insurance instruments is measured by the most common measure of insurance, CHECKING COMPANIES' RATING (RATING). The variable measures the percentage of revenues in total sales for which the company examined the rating of the buyer.

The effect of doing business with the state (also state companies and local authorities) is incorporated in the model by including the variable SHARE OF BUSINESS WITH THE STATE

<sup>7</sup> We tried to measure the bargaining power with other variables, e.g. the profit margin, total sales and total assets. The number of employees proved to be the best proxy for bargaining power.

(STATE). It represents the share of business, done with the state, in total sales. The effect of exporting (doing business with foreign companies outside Slovenia) is incorporated in the model by including the variable SHARE OF EXPORT IN TOTAL SALES (EXPORT).

### III. Results

Interlocking of direct and indirect effects on payment delays indicated the use of linear structural models – LISREL (Joereskog and Soerbom, 1993). Parameters of the model are estimated with the use of the maximum likelihood method, incorporated in the LISREL software.

Originally, the model was meant to be both a metric and structural one. A separate factor analysis with the use of a principal axis method showed that the bargaining power and measures of payment insurance could be measured indirectly through factors. However, the use of a maximum likelihood method proved that variables intended to measure the two depend heavily on random factors and are therefore inappropriate to measure latent dimensions. Instead, we decided to use the most representative variables for bargaining power and insurance, which resulted in the model being a pure structural model (see Table I).

For estimates, the method used was the “robust maximum likelihood” method, which is robust against the violation of normality assumptions and does not require large samples to be estimated (Boomsma and Hoogland, 2001). The methodology uses, besides the covariance matrix of variables, also the *asymptotically distribution-free covariance matrix*. Table II presents, for simpler reference, the correlation matrix of the variables used.

We estimated the original model, as presented in Figure 3 (solid lines), and it was not rejected as inappropriate. However, in order to further improve the model, we added some path dependencies between variables, indicated by dashed lines. There is an important connection between the received and given payment terms (path  $\beta_{36}$ ), as well as for the discounts (path  $\beta_{47}$ ). Dealing with the state does affect payment terms (path  $\gamma_{64}$ ), as does the use of insurance against late payments (path  $\beta_{35}$ ).

The RMSEA measure of the final model (Figure 4) with its low value indicates the appropriateness of the model. Some non-significant connections are left in the model due to their theoretical importance. They are indicated by dotted lines.

The effect of financial leverage (DA) on payment delays is positive and significant, and even more, it is the strongest influence on payment delays of the company. A company with higher financial leverage delays its payments more because of reduced possibilities of alternative, e.g. bank, financing. This confirms hypothesis H2a. The more indebted companies also seek to attract new customers and increase sales to existing ones. Such companies offer more discounts (confirming hypothesis H2b) and use less measures of insurance against late payments (confirming hypothesis H2c). Short-term payment ability (liquidity), measured by the quick ratio (QR), does not have a significant effect on payment delays. Thus, we cannot confirm hypothesis H1, although the effect is negative as expected.

Larger companies receive longer contractual payment terms from their suppliers, but are offered smaller discounts. Hypothesis H3a thus can only be partially confirmed. This may indicate that small firms receive higher discounts in order to speed their payments. Namely, firms with higher discounts delay more (hypothesis H3c is not confirmed). The effect of payment term from suppliers (SUPTERM) is negative and significant. This confirms hypothesis H3b – that shorter payment terms increase delays in payment.

As expected, buyers' delay (BUYDEL) had a strong positive effect on payment delays. Hypothesis H4a is confirmed, meaning that companies transfer payment delays to a great extent

from their buyers to their suppliers. On the other hand, buyers' delays are influenced by the given payment term. Hypothesis H4b is confirmed, as the path coefficient of payment term to buyers (BUYTERM) shows a significant negative influence on buyers' delays. On the other hand, offering higher discounts to buyers does not have a significant effect on their delays, although the sign of the variable is negative as expected (hypothesis H4c is not confirmed). We could also confirm hypothesis H5 – that companies with a higher percentage of business with the state face longer buyers' delays than other companies. State, local authorities and public companies are indeed more laggard payers. On the other hand, when they find themselves on the supplier side, their payment periods are shorter (a path suggested by the model), and delays are therefore bigger.

It follows from our research that larger companies export more and that foreign buyers receive longer payment terms than the average buyer, thus confirming hypothesis H6a. Exporting companies do use more insurance against late payments (confirming hypothesis H6b), but the rating checking does not affect buyers' delays. Therefore, we did not find support for hypothesis H7.

An additional finding of the model is that there is much "mimicry" in the behavior of companies. This is suggested by a strong positive dependence between given received discounts (BUYDISC and SUPDISC) and given received payment terms (BUYTERM and SUPTERM). Both paths were additionally included as suggested by the modification indices in LISREL.

#### **IV. Conclusion**

The main result of this research is that in Slovenia more indebted companies delay their payments more. Namely, banks use their screening possibilities and identify companies that have a history of late repayment of their debts, and lower their ratings, thus limiting their ability to acquire additional debt (Prašnikar et al., 2003). Therefore, the more the absence of other sources of financing, the more indebted companies try to solve their liquidity problems by delaying payments for goods and services from their suppliers. In this respect, Slovenian companies are similar to small companies in the United States, as described by Petersen and Rajan (1997).

Bigger companies that have, because of larger volume of trade, bigger bargaining power often succeed in lowering the costs of financing with trade credit by forcing the supplier to write off the penalty interests in the case of late payment. If they are successful, such financing with suppliers might be even cheaper than accepting the offered discounts for early payment. Namely, discounts in Slovenia are used less often than in other (EU) countries, and their percentage is usually quite small.

Our results show that the problem of indebtedness is more prominent in smaller companies, thus further delaying their payments. This is consistent with the findings of Bole (2002) and Berk (2002). Bole shows that the average number of employees in companies that are late with their payment is relatively low (2.5 employees) and that these companies have a below average productivity. Berk analyzes the reorganization of microcompanies (less than 5 employees) in 1999 and 2000, and finds that microcompanies try to solve their financial problems by selling surplus capacities and dismissing employees. By doing this, they lose additional business and their sales decrease, not only in real but also in nominal terms.

After a relatively successful first wave of new businesses, and after legal constraints for establishing small private firms were removed in 1989 (Bartlett and Prašnikar, 1995; Ferligoj et al., 1997), small sector development in Slovenia has come to a halt. There is a lack of creative destruction, which would result in growth orientation of small firms and the quick expansion of

the whole sector of small firms. Above average indebtedness and bigger lags in payments is therefore just a reflection of the lower efficiency of small companies in Slovenia.

Another result of our research is that smaller companies do more business with the state and local authorities. They are thus more affected by the state, which is notorious for late payments. When faced with these delays from the state, these companies have no choice but to delay payments to suppliers.

In contrast to smaller companies, bigger companies offer their buyers longer payment terms and delay their payments less. Because of longer payment terms, their buyers delay their payments less. This is especially the case for exporters – buyers in other countries are offered longer payment terms, and thus delay their payments less.

We can therefore conclude, based on our research, that payment delays in Slovenia depend mostly on risks involved with doing business with firms in financial distress, in particular with small businesses. Factors that would, in our opinion, contribute most to ameliorate the payment discipline are 1) an increase in the efficiency of small companies; 2) a fair attitude of the state toward timely payments, especially to smaller companies; and 3) a better functioning of courts, which would facilitate and expedite the legal recovery of debts.

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**Table I**  
**Descriptive statistics of variables used**

<b>Variable</b>	<b>Variable description</b>	<b>Mean</b>	<b>Median</b>	<b>Standard deviation</b>
DELAY	Payment delay	20.6	15.0	21.9
BUYDEL	Buyers delay	25.3	17.9	33.1
BUYTERM	Term to buyers	40.9	42.1	21.5
SUPTERM	Term from suppliers	42.0	38.8	20.6
SIZE	Number of employees	145.3	44.0	236.9
DA	Debt to assets (indebtedness)	0.50	0.48	0.27
QR	Quick ratio (liquidity)	1.33	0.99	1.20
SUPDISC	Discount from supplier (%)	3.57	3.00	1.90
BUYDISC	Discount to buyers (%)	3.44	3.00	2.19
EXPORT	Share of export in total sales	20.34	0.17	30.0
STATE	Share of bus. with state in tot. sal.	8.47	0	18.5
RATING	Rating checking (% contracts)	11.85	0.00	22.86

Source: Research study, "The Analysis of Payment Habits and Payment Discipline in Slovenia, 2002".

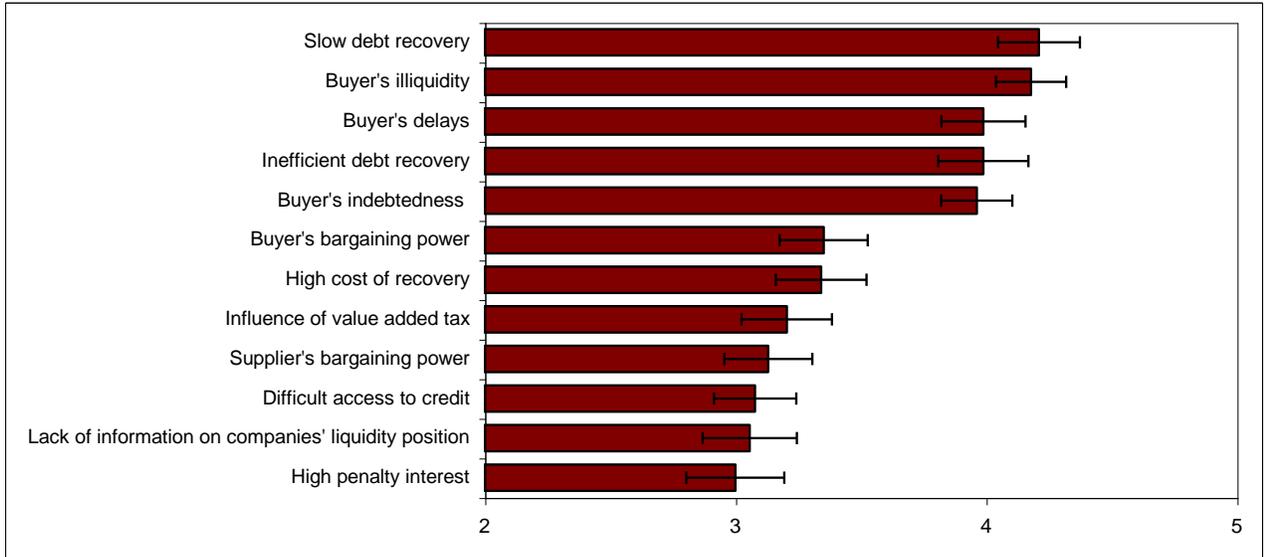
**Table II**  
**Correlation matrix of variables used**

DELAY	BUYDEL	BUYTERM	BUYDISC	RATING	SUPTERM	SUPDISC	DA	QR	SIZE	STATE	EXPORT
0.280	1.000										
-0.116	-0.264	1.000									
0.210	-0.118	-0.085	1.000								
-0.088	-0.041	0.167	-0.147	1.000							
-0.211	-0.165	0.480	0.020	0.113	1.000						
-0.027	-0.055	-0.044	0.241	-0.025	0.217	1.000					
0.175	-0.087	0.001	-0.007	-0.045	-0.158	0.035	1.000				
-0.293	0.075	0.025	-0.098	0.049	-0.013	-0.094	-0.392	1.000			
-0.074	-0.059	0.175	-0.091	0.048	0.320	0.000	-0.178	-0.068	1.000		
0.113	0.044	0.046	-0.059	-0.021	-0.093	0.152	0.017	-0.071	-0.024	1.000	
-0.139	-0.175	0.229	-0.046	0.141	0.161	-0.159	-0.103	-0.043	0.311	-0.244	1.000

Source: Research study, “The Analysis of Payment Habits and Payment Discipline in Slovenia, 2002”.

**Figure 1**

**The importance of specific causes of late payments in Slovenia  
(estimated on a scale of 1 = not important and 5 = very important)**



Source: Research study, "The Analysis of Payment Habits and Payment Discipline in Slovenia, 2002 (data from 2002)".

**Figure 2**  
**Conceptual model of payment delays**

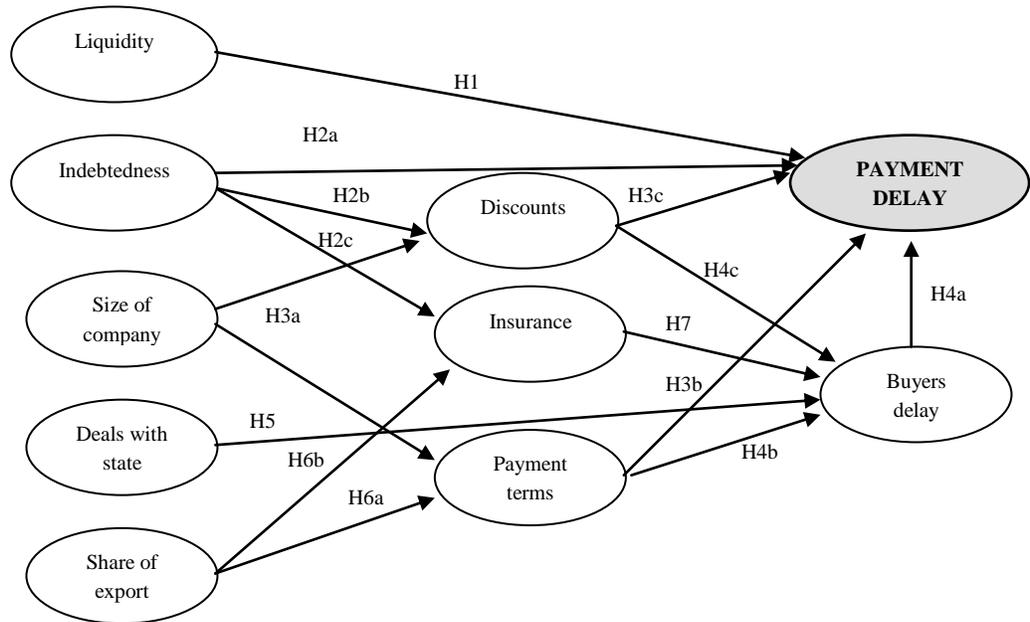
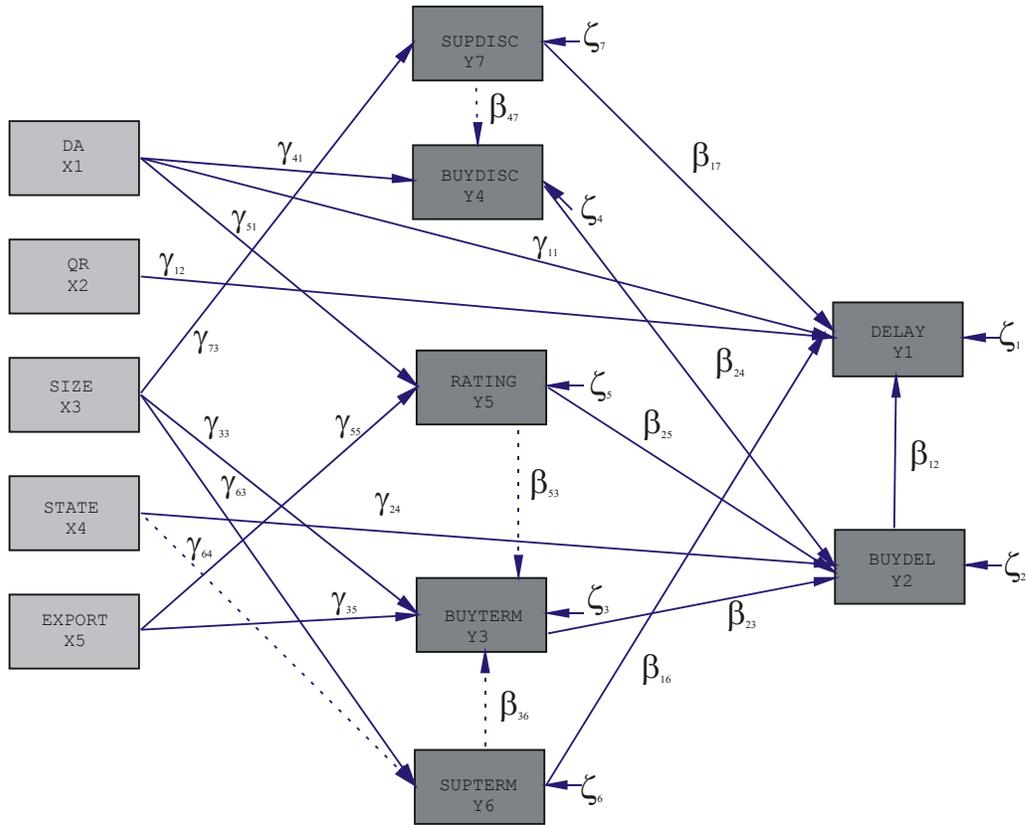
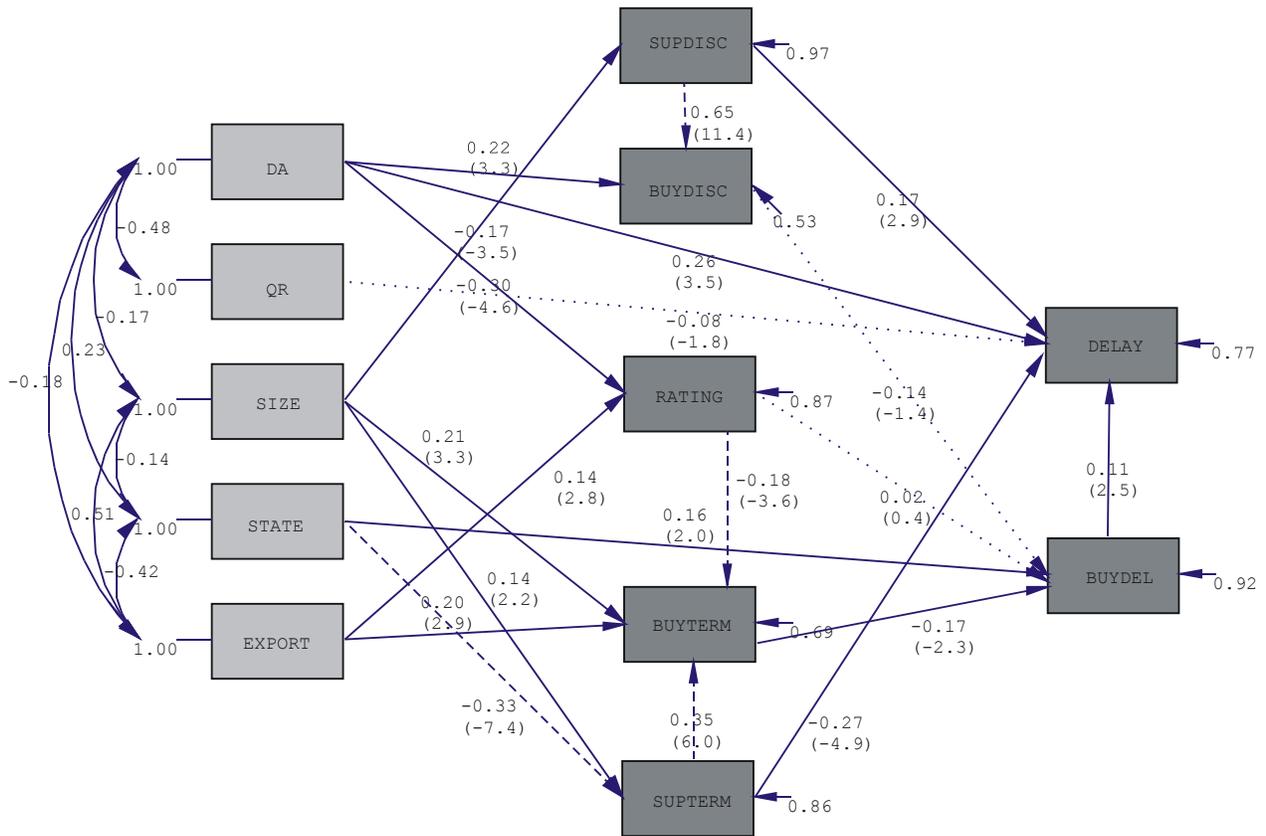


Figure 3

Operational model for testing the payment delays



**Figure 4**  
**Empirical results**



Chi-Square=41.50, df=36, P-value=0.24320, RMSEA=0.029

*\*Values in brackets are t-statistics; t-values above 1.95 indicate significance at 0.05.*