The Role of Credit Insurance in Accounts Receivable Management

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Abstract

Accounts receivable management should focus on one hand on strengthening the benefits of credit sales. On the other hand, it should implement available tools and techniques which help to reduce costs of credit sales. Credit insurance should be considered as one of such tools. The paper explains briefly key concepts of credit insurance and discusses its role in receivables management from the cost-reduction point of view. The theoretical aspect was supported by the presentation of the exemplary calculation of potential benefits related to the consideration of credit insurance in credit sales profitability account.

Key words

credit insurance, credit policy, accounts receivable management

1. Costs and benefits of credit sales

Nowadays, credit sales is a common phenomenon. Many businesses offer credit sales aiming at increased sales revenues as it is a common knowledge that attractive credit terms encourage customers. Another reason for offering credit sales springs from the competitiveness. Demanding cash on delivery is safe, especially from financial stability point of view. However, in highly competitive surrounding such attitude may result in lost of significant portion of customers base to the competitors [compare: 7, p.467; 10, p. 804]. Very often a company finds it impossible to offer less generous credit terms than its competitors.

Whatever is the reason for offering credit sales, a company should always balance carefully the potential benefits and costs related to trade credit policy. Typical costs resulting from credit sales include:

- **costs of bad debts** – represent the unpaid element of sales, result from customers defaults (particularly when the credit period taken by customers is long or when the credit sale is allowed also to lower-quality, and thus high-risk customers);
- **costs of creditworthiness analysis** – costs of vetting new customers, especially costs of credit analysis system (the careful assessment of customers' creditworthiness before credit is granted or before the credit agreements – including credit limits – are defined) [6, p.209];
- **costs of credit control system or monitoring system** – costs of periodical revision of granted credits, sending statements of account, etc. [3, p. 726];
- **costs of debts collection** – costs of steps to chase late payers, sending reminders, phone calls enquiring about any overdue amounts, personal visits if the outstanding debt is becoming a cause for concern, legal proceedings [4, p. 297];

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- **costs of carrying receivables** – costs of average investments in accounts receivable; debts represent the currently unpaid element of sales and therefore receivables break the circle of cash flows inside the company and tie up company's financial resources. The financial need resulting from credit sale or bad debts expenses should be covered by other sources of finance (e.g. short term credit). Costs of carrying receivables are therefore closely related to costs of available sources of funds [7, p. 467].

Costs related to customers defaults and bad debts are particularly harmful as it may affect the future operations of the company. Customer defaults may lead to problems in cash flows. A company may find difficulties in paying own debts or in financing day-to-day operations such as purchase of materials, payment of wages etc. Therefore, the debtor insolvency may cause problems with maintaining adequate liquidity level. Often, the companies are forced to finance the loss or late payment of debts from their own turnover. Also, customers insolvency may lead to reduced competitiveness of the company due to the necessity to decrease the scale of offered credit sales which in effect leads to lowered future sales revenues.

As mentioned above, corporate trade credit policy affects strongly the sales revenues. Whenever credit sales occur, an account receivable is created. Therefore, decisions involved in credit sales policy cover also all aspects of receivables management.

On one hand, receivables management focuses on activities encouraging sales and thus sales revenues, e.g. the choice of credit terms which specify how the credit will be paid, including credit period and credit discount. On the other hand, it aims at prevention of customers default. A high level of bad debts undoubtedly proves the poor management of accounts receivable and can push a company into financial distress [compare: 11, p. 720-721]. Therefore, effective management of receivables should implement tools and techniques useful in reduction of above listed costs of credit sales.

2. Key concept of credit insurance

Credit insurance is designed to protect a company against losses resulting from non-payment of receivables by company's customers. It is important to point that credit insurance covers specified risks[2] which can be divided in two general groups. The first group includes:

- insolvency of the buyer (legally confirmed),
- past due accounts when they are failed to be collected within a specified time stated in the insurance policy (usually 180 days, however this period may range between 90 and 360 days depending on particular insurer),
- buyer's failure to take up the goods.[compare: 5, p.40-42; 9, p.223-224]

The above specified risks have one common feature – depend on creditworthiness of the buyer. Therefore, to some extent, such risks can be effectively controlled by the seller and the buyer while allowing credit sales.

Second group of risks covered by the credit insurance form:

- transfer delay, or delay in payment due to the imposition of foreign exchange controls in the buyer's country,
- cancellation of imposition of import license in the buyer's country,
- catastrophic risk which results from natural environment (e.g. bad weather conditions),
- war and other disturbances in the buyer's country which could affect the settlement of the debt (often called political risks) [14; 5, p. 40-42]

[2] The term „risks“ or „insurance risks“ derives from insurance jargon and means simply the event causing indemnification of losses.

The distinctive feature of above listed risks is the impossibility of effective risk control both by the buyer and the seller. In other words, the buyer or the seller have no possibility to influence the occurrence of mentioned events.

Credit insurance is highly recommended for exporters. Many unforeseen and disruptive circumstances can appear while trading with other countries, especially third world countries. War, political unrest, military coup d'état, fraud, and all the problems any business in the world can suffer makes export sales without credit insurance extremely dangerous. Export credit insurance offers insurance cover against non-payment of overseas customers [13].

Credit insurance premiums vary depending on the type of the buyers, the allowed payment terms, economic and political environment of the buyer's market, among other factors. The premium is expressed as a percentage of annual turnover (e.g. 0.3 - 0.7% of annual turnover) or turnover of the portion of customers insured. However, the way of premium calculation may differ depending on the type of credit insurance and the number of customers covered. Offered types of credit insurance are usually tailored to the specific security needs of a particular company. Usually, the following options are obtainable [13]:

- whole turnover cover – this comprehensive policy will cover the whole business. The policy allows the company to offer credit up to a certain amount: anything above this figure must be agreed in advance with the insurance company. The premium paid is based on the turnover of the company;
- critical customer cover – this policy allows a company to have insurance cover against a number of named customers (usually up to 10). Such customers may be under threat of insolvency, have a poor credit rating, or may be key customers. The business will be fully responsible for the remaining customers not covered by the insurance. The premium paid is based on the total outstanding debts of the named customers;
- specific risk cover – this policy allows a company to purchase insurance against a single customer or a large contract. The premium paid is based on the contract value or the turnover of the customer over the policy period.

Insurance indemnity covers usually up to 90% of gross invoice value payable. Claims waiting period depends on type of event occurred. For example, in the case of bankruptcy of debtor indemnity is paid immediate upon proof of debt failed and acknowledged by receivers (after the insolvency of the buyer is confirmed). In the case of default in payment claims waiting period is usually no shorter than 6 months on due date or extended due date.

Insurers usually define the amount of a deductible which means a requirement that some portion of any damages arising from the insured risk be paid by the insured before the insurance company makes a payment of indemnification [2, p. 317]. In the case of credit insurance losses may be subject to the following types of deductibles:

- primary loss amount, which reflects the company's normal credit losses. It is a percentage of the firm's net annual sales based on the bad-debt experience,
- coinsurance percentage, it acts as deductible and means that the insured is expected to bear a portion of any credit loss. The purpose of such deductible is to encourage the insured to be careful in granting credit, especially to companies with poor credit ratings [8, p. 279].

The credit insurance policy defines individual credit limits attributed to each customer. The limits are pre-set, and a company can trade within the credit limit throughout the year without further reference to the insurer. However, the company can request an increase in the credit limit at any time. There usually is a limit on the amount paid to on any one account which is based on the debtors' credit rating. Insurer defines also a maximum limit on total losses paid during the policy term.

3. Accounts receivable management with credit insurance

Account receivables management requires to use all techniques in order to maximize the profitability of credit sales. On one hand it focuses on relaxation of credit terms which stimulates sales and thus sales revenues. On the other hand it should focus on tools and techniques that help to reduce credit sales related costs. Credit insurance should be considered in such procedure as it was created to reduce financial losses springing from non-payment of receivables. The purchase of credit insurance results in direct or indirect reduction of all types of costs related to credit sales specified above.

First of all, costs of bad debts (or customers defaults) can be minimized. In the case of receivables non-payment the company receives the amounts due in the form of indemnification. Obviously, it does not cover the whole amount of credit (due to deductibles). However, it gives an important financial support to the company and may prevent the financial distress or endangered liquidity. Credit insurance ensures that "sale is a sale" and brings cash to the company cash flow circulation.

Secondly, costs of creditworthiness analysis are reduced. Before calculation of the final height of the insurance premium the insurer analyses carefully the financial situation of company's buyers. Therefore, there is no point in repeating such procedures in the insured company. Moreover, the analysis conducted by the insurer is more complex because as a rule the insurer has a larger access to advanced credit scoring techniques or sources of information about debtors credibility.

On the basis of conducted analysis the insurer also sets the credit sales limits. One should also consider that such limits inform the company to such extent a particular buyer can be safely credited. It is also worth mentioning that credit insurance helps to reduce costs of monitoring accounts receivables as the insurance company monitors receivables by itself.

Credit insurance may also have an indirect impact on costs of carrying receivables because it can influence the cost of external sources of funds. The insured company is better judged by the creditor (the bank for example) as it has taken adequate steps to reduce the risk of loosing financial liquidity.

To conclude, the major benefits connected with using credit insurance in accounts receivables management are connected with the reduction of credit sales costs. However, the insurance itself generates a cost in the form of insurance premium. In some cases, such cost can be too high for the company. However, it is advisable to balance carefully costs of credit insurance with the projected reduction of credit-related costs. Below an exemplary calculation is presented.

4. The benefits of credit insurance – an empirical study[3]

"Company A" produces office and school articles. It operates in a competitive market and is forced to consider its larger and more famous competitors. The company works continuously with 40 customers. Relations with customers depend heavily on the offered prices and payment terms. "Company A" is considering relaxation of trade credit terms and hopes that it will retain its current and attract new customers.

Before taking the decision connected with credit terms relaxation the careful analysis of potential profits was carried out. The main assumptions related to current and planned credit policy of "Company A" are presented in table 1. Table 2 depicts the structure of receivables

[3] Presented example is the real one. All calculations related to credit insurance premium were made by one of the insurance company offering such insurance. The example was first published in [12, p. 8-10].

collection together with days sales outstanding both for the current and planned trade credit policy.

Assumptions:	***Current credit policy***	***Planned credit policy***
credit terms which means: - the percentage of discount for customers paying in cash within 5 days - the maximum credit period	2/5 net 20 2% 20 days	3/5 net 40 3% 40 days
planned annual sales	50 000 thousands PLN	60 000 thousands PLN
expected percentage of receivables that never will be collected	2,5%	4%

Table 1. Main assumptions of current and planned credit policy in "Company A"

Current credit policy		***Planned credit policy***	
receivables paid within 5 days (with discount)	**30%**	receivables paid within 5 days (with discount)	**50%**
receivables paid within 20 days	**60%**	receivables paid within 40 days	**40%**
receivables paid late – 10 days after maximum credit period (after 30 days)	**10%**	receivables paid late – 10 days after maximum credit period (after 50 days)	**10%**
DSO* (days sales outstanding)	**17 days**	DSO ** (days sales outstanding)	**24 days**

** DSO =30% * 5days + 60% * 20days + 10% * 30days = 16,5 ≈ 17days*
*** DSO = 50% * 5days+ 40% * 40days+ 10% * 50days = 23,5 ≈ 24days*

Table 2. Planned structure of accounts receivable collection in "Company A"

Further assumptions taken into consideration in the calculation of costs and benefits of changes in credit policy are as follows:

- variable costs constitute 50% of price,
- fixed costs are equal to 10 000 thousands PLN,
- cost of obtainable external source of finance in the form of short-term bank credit is equal to 15%,
- costs of vetting customers and debt collection expenses do not exceed 500 thousands PLN.

The account[4] of "Company's A" earnings before taxes is presented in table 3. Calculations depicted in table 3 are based on data presented in table 1 and 2:

- cost of discounts was calculated as follows (in thousands PLN):
  - current credit policy 50000 * 2% * 30% = 300
  - planned credit policy 60000 * 3% * 50% = 900

(annual sales percentage of discount* percentage of clients willing to take the discount)*

- costs of carrying receivables were calculated as follows (in thousands PLN):
  - current credit policy 17 days* 50000 / 360 days * 15% = 354

[4] Calculations are based on the exemplary analysis of proposed changes in credit policy presented by E.F. Brigham [1, p. 807].

- planned credit policy 24 days* 60000 / 360 days* 15% = 600

(day sales outstanding average sales per day* cost of capital)*

- costs of bad debts were calculated as follows (in thousands PLN):
- current credit policy 2,5% * 50000 = 1250
- planned credit policy 4% * 60000 = 2400

*(expected percentage of receivables that never will be collected*annual sales)*

Profit and loss account		Current credit policy	Planned credit policy
		in thousands PLN	
1	Annual gross sales	50 000	60 000
2	*(minus)* cost of discounts	300	900
3	*(minus)* variable costs	25 000	30 000
4	*(minus)* fixed costs	10 000	10 000
5	**= Earnings before credit costs and taxes (1-2-3-4)**	**14 700**	**19 100**
6	*(minus)* credit related costs in total (7+8+9)	2 104	3 500
	in this:		
7	costs of carrying receivables	354	600
8	costs of credit analysis and collection expenses	500	500
9	costs of bad debts	1 250	2 400
10	**= Earnings before taxes (5-6)**	**12 596**	**15 600**

Table 3. Planned profit and loss account of "Company A" considering current and planned credit sales policy

Calculations presented in table 3 prove that the planned change in credit sales policy will be profitable and will increase "Company's A" earnings before taxes.

The "Company A" decided to check, whether the purchase of credit insurance will help to reduce costs related to credit sales. In the application for insurance "Company A" included following information (required by the insurer):

- the value of goods sold on credit terms to all of customers will be equal to 60 000 thousands PLN; it means that the total amount of planned annual gross sales will be offered on credit terms;
- number of customers – 40;
- maximum amount of credit sales approved for one customer in one invoice (so called credit limit) will not exceed 100 thousands PLN;
- acceptance of 20% of deductible.

The insurance company calculated the premium of 310 thousands PLN as follows:

- cost of credit limit definition – 0,1% from the sum of limits:
  0,1%*40 customers*100 thousands PLN = 4 thousands PLN
  *(0,1%*number of customers*credit limit per one customer);*
- the minimal insurance premium per one debtor covered by the insurance – 150 PLN (according to the general insurance conditions):
  150 PLN * 40 customers = 6 thousands PLN;
- the current insurance premium calculated periodically to the real turnover covered by the insurance (the insured is obliged to provide insurer with such information on regular basis) – 0,5% from each invoice value; „Company A“ plans that the whole

annual sales will be offered on credit terms, therefore an assumption can be made that 60 000 thousands PLN is equal to the value reflected in all invoices within the year:

0,5% * 60 000 thousands PLN = 300 thousands PLN.

Table 4 presents the calculation of earnings before taxes for planned credit sales policy with and without credit insurance. Thanks to credit insurance the "Company A" is able to reduce effectively costs of bad debts (to the level of 480 thousands PLN). This level represents accepted deductible of 20%. The company expects that the 2 400 thousands PLN of credit sales will never be collected. Therefore, this amount reflects probable amount of indemnification. With the deductible of 20% insurance company will cover 80% of that amount which is 1 920 thousands PLN. "Company A" may also reduce costs of credit analysis and debts collection as it forms an obligation of insurance company. However, the 'new' cost appeared in the calculation – the insurance premium of 310 thousands PLN. As a result, the change in credit terms policy combined with the insurance cover may lead to the increase in earnings before taxes of 5 114 thousands PLN in comparison to the effects of change in credit policy without the purchase of credit insurance (17 710 thousands PLN minus 12 596 thousands PLN).

Profit and loss account		**Planned credit policy without credit insurance**	**Planned credit policy with credit insurance**	**Change**
		in thousands PLN		
1	Annual gross sales	60 000	60 000	
2	*(minus)* cost of discounts	900	900	
3	*(minus)* variable costs	30 000	30 000	
4	*(minus)* fixed costs	10 000	10 000	
5	**= Earnings before credit costs and taxes (1-2-3-4)**	**19 100**	**1 390**	
6	*(minus)* credit related costs in total (7+8+9+10)	3 500	3 500	- 2 110
	in this:			
7	costs of carrying receivables	600	600	
8	costs of credit analysis and collection expenses	500	0	- 500
9	costs of bad debts	2 400	480	- 1920
10	costs of credit insurance premium	0	310	+ 310
11	**= Earnings before taxes (5-6)**	**15 600**	**17 710**	**+ 2 110**

Table 4. Planned profit and loss account of "Company A" considering planned credit sales policy with and without the financial effect of credit insurance.

The analysis carried out in table 4 convinces that credit insurance helps to reduce significantly costs directly related to credit sales: costs of creditworthiness analysis, debts collection system, credit monitoring and – which is of great importance – costs of bad debts resulting from customers insolvency. Undoubtedly, the role of credit insurance should be taken into account in solid accounts receivable management considering all possible ways of strengthening the final effectiveness of credit sales.

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[14] http://www.ecics.com.sg/p1a.htm

Summary

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