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## **MANAGEMENT OF ACCOUNTS RECEIVABLE IN A COMPANY**

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### ***Abstract***

*Accounts receivable management directly impacts the profitability of a company. Firstly, the purpose of the empirical part of the study is to analyze accounts receivable and to demonstrate a correlation between the accounts receivable level and profitability expressed in terms of Return on Assets (ROA) of sample companies. Secondly, the aim of theoretical research is to explore cost and benefits of changes in credit policy, determine the independent variables which have an impact on net savings and establish a relationship among them in order to develop a new mathematical model for calculating net savings following a revision of credit policy. On the basis of research result, a mathematical model for calculating net savings and following a revision of credit policy, has been developed and with this model a company can consider different credit policies as well as changes in credit policy in order to improve its income and profitability and establish a credit policy that results in the greatest net profitability.*

***Keywords: accounts receivable, profitability, net savings, credit policy***

## 1. INTRODUCTION

Accounts receivable is the money owed to a company as a result of having sold its products to customers on credit. The primary determinants of the company's investment in accounts receivable are the industry, the level of total sales along with the company's credit and the collection policies.

Accounts receivable management includes establishing a credit and collections policy.

Credit policy consists of four variables: credit period, discounts given for early payment, credit standards and collection policy. The three primary issues in accounts receivable management are to whom credit should be extended, the terms of the credit and the procedure that should be used to collect the money.

The major decision regarding accounts receivable is the determination of the amount and terms of credit to extend to customers. The total amount of accounts receivable outstanding at any given time is determined by two factors: the volume of credit sales and the average length of time between sales and collections. The credit terms offered have a direct bearing on the associated costs and revenue to be generated from receivables. If credit terms are tight, there will be less of an investment in accounts receivable and fewer bad debt losses, but there will also be lower sales and reduced profits.

We hypothesize that by applying scientifically-based accounts receivable management and by establishing a credit policy that results in the highest net earnings, companies can earn a satisfactory profit as well as a return on investment.

The purpose of this study is to determine ways of finding an optimal accounts receivable level along with making optimum use of different credit policies in order to achieve a maximum return at an acceptable level of risk. In striving to fill in the gaps relating to net savings from changes in credit policy, the study makes its own contribution to research and thereby to managers by giving them general recommendation. With the aim of completing these gaps, the study will investigate accounts receivables, their management and explore costs and benefits from changes in credit policy as well as net profitability.

When a company is considering changes in its credit policy in order to improve its income, incremental profitability must be compared with the cost of discount and the opportunity cost associated with higher investment in accounts receivable.

The outcome represents a new mathematical model for calculating net savings from changes in credit policy and with this model a company can consider different credit policies as well as changes in credit policy in order to improve its income and profitability.

## 2. LITERATURE REVIEW

### 2.1. Accounts receivable management

Accounts receivable represents a sizable percentage of most firms' assets. Investments in accounts receivable, particularly for manufacturing companies, represent a significant part of short-term financial management. Firms typically sell goods and services on both cash and a credit basis. Firms would rather sell for cash than on credit, but competitive pressures force most firms to offer credit. The extension of trade credit leads to the establishment of accounts receivable. Receivables represent credit sales that have not been collected. As the customers pay these accounts, the firm receives the cash associated with the original sale. If the customer does not pay an account, a bad debt loss is incurred<sup>1</sup>.

When a credit sale is made, the following events occur: inventories are reduced by the cost of goods sold, accounts receivable are increased by the sales price, and the difference is profit, which is added to retained earnings. If the sale is for cash, then the cash from the sale has actually been received by the firm, but if the sale is on credit, the firm will not receive the cash from the sale unless and until the account is collected. Carrying receivable has both direct and indirect costs, but it also has an important benefit-increased sales.

According to Chambers and Lacey<sup>2</sup> there are three primary issues in the management of accounts receivable: to whom to extend credit, what the terms of the credit should be, and what procedure should be used to collect the money. Extending credit should be based upon a comparison of costs and benefits. The analysis must build in uncertainty because we are uncertain of future payment, and we will handle this by computing the expected costs and expected benefits through payment probabilities. The potential cost of extending credit is that the customer will not pay. Although there is a temptation to compute this cost as the full price of the product, it is almost always more appropriate to use the actual cost of the product. The potential benefit of extending credit is not just the hope for profit on the one transaction; rather, it is the potential value of the customer for a long-term relationship.

The decision of how much credit to offer must be made when the customer initially requests credit and when the customer requests additional credit. The fundamental principle that guides financial decisions can be used: marginal benefit versus marginal cost. The marginal cost is the additional potential lost costs of the product. The costs of past uncollected sales are sunk costs and should not be included as a marginal costs. The marginal benefits are the potential sales and

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<sup>1</sup> Pinches, G.: Financial Management, Harper Collins College Publishers, New York, 1994., p. 701-702.

<sup>2</sup> Chambers, D. R., Lacey, N. L.: Modern Corporate Finance, Hayden McNeil Publishing, Michigan, 2011, p. 518.

interest revenues – including the potential to recover past sales that remain uncollected<sup>3</sup>.

Once the decision to grant credit has been made, the firm must establish the terms of the credit. Credit terms are often separated into two parts: the credit period and the credit discount.

Collection of accounts receivable is an important process for a corporation and requires a well-designed and well-implemented policy. One technique is the factoring of accounts receivables. In a typical factoring arrangement, one firm will sell their accounts receivable outright to another firm for an agreed-upon price. There is usually no recourse in such transactions, such that the buyer (also known as the factor) takes the loss if the purchaser of the goods does not ultimately pay for them.

Another technique to expedite the receipt of accounts receivable is to utilize lock boxes. Lock boxes are payment collection locations spread geographically so as to reduce the amount of time required for checks mailed to the firm to be deposited and cleared. The lock boxes are typically post office box addresses from which deposits go directly to a bank on the day of receipt. The reduction of mailing time and check clearing time for the banks can produce significant savings when large sums of money are involved.

Payments of accounts receivable should be closely monitored to detect potential problems such as would be indicated by slow payments. Following up on slow-paying customers is an important function of the credit department. Procedures should be carefully developed and consistently implemented<sup>4</sup>.

The major decision regarding accounts receivable is the determination of the amount and terms of credit to extend to customers. The total amount of accounts receivable is determined by two factors: the volume of credit sales and the average length of time between sales and collections. The credit terms offered have a direct bearing on the associated costs and revenue to be generated from receivables.

In evaluating a potential customer's ability to pay, consideration should be given to the firm's integrity, financial soundness, collateral to be pledged, and current economic conditions. A customer's credit soundness may be evaluated through quantitative techniques such as regression analysis. Bad debt losses can be estimated reliably when a company sells to many customers and when its credit policies have not changed for a long period of time. In managing accounts receivable, the following procedures are recommended:

- establish a credit policy
- establish a policy concerning billing
- establish a policy concerning collection.

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<sup>3</sup> Ibidem, p. 520.

<sup>4</sup> Ibidem, p. 521-522 .

The establishment of a credit policy can include the following activities:

- A detailed review of a potential customer's soundness should be made prior to extending credit. Procedures such as a careful review of the customer's financial statements and credit rating, as well as a review of financial service reports are common.
- As customer financial health changes, credit limit should be revised.
- Marketing factors must be noted since an excessively restricted credit policy will lead to lost sales.
- The policy is financially appropriate when the return on the additional sales plus the lowering in inventory costs is greater than the incremental cost associated with the additional investment in accounts receivable<sup>5</sup>.

The following procedures are recommended in establishing a policy concerning billing:

- Customer statements should be sent within 1 day subsequent to the close of the period.
- Large sales should be billed immediately.
- Customers should be invoiced for goods when the order is processed rather than when it is shipped.
- Billing for services should be done on an interim basis or immediately prior to the actual services. The billing process will be more uniform if cycle billing is employed.
- The use of seasonal dating's should be considered.

In establishing a policy concerning collection the following procedures should be used:

- Accounts receivable should be aged in order to identify delinquent and high-risk customers. The aging should be compared to industry norms.
- Collection efforts should be undertaken at the very first sign of customer financial unsoundness<sup>6</sup>.

## 2.2. Managing the credit policy

The success or failure of a business depends primarily on the demand for its products.

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<sup>5</sup> Shim, J. K., Siegel, J. G.: Financial Management, Third edition, Mc Graw Hill, New York, 2007, p. 107-108.

<sup>6</sup> Ibidem, p. 108 .

The major determinants of demand are sales prices, product quality, advertising, and the company's credit policy. The financial manager is responsible for administering the company's credit policy. Receivables management begins with the credit policy. Credit policy consists of four major components: credit standards, credit terms, the credit limit and collection procedures.

Credit standards refer to the required financial strength of acceptable credit customers.

Based on financial analysis and non financial data, the credit analyst determines whether each credit applicant exceeds the credit standard and thus qualifies for credit. Lower credit standards boost sales, but also increase bad debts. The minimum standards a customer must meet to be extended credit are: character, capital, capacity, conditions and collateral.

The credit period, stipulating how long from the invoice the customer has to pay, and the cash discount together comprise the seller's credit terms. A company's credit terms are usually very similar to that of other companies in its industry<sup>7</sup>.

Discounts given for early payment include the discount percentage and how rapidly payment must be made to qualify for the discount.

If credit is extended, the dollar amount that cumulative credit purchases can reach for a given customer constitutes that customer's credit limit. The customer periodically pays for credit purchases, freeing up that amount of the credit limit for further orders. The two primary determinants of the amount of a customer's credit limit are requirements for the supplier's products and the ability of the customer to pay its debts. The latter factor is based primarily on the customer's recent payment record with the seller and others and a review and analysis of the customer's most recent financial statements<sup>8</sup>.

Detailed statements regarding when and how the company will carry out collection of past-due accounts make up the company's collection procedures. These policies specify how long the company will wait past the due date to initiate collection efforts, the methods of contact with delinquent customers, and whether and at what point accounts will be referred to an outside collection agency<sup>9</sup>.

Collection policy is measured by its toughness or laxity in attempting to collect on slow-paying accounts. A tough policy may speed up collections, by it might also anger customers, causing them to take their business elsewhere<sup>10</sup>.

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<sup>7</sup> Maness, T. S., Zietlow, J. T.: *Short-Term Financial Management*, Third Edition, Thomson South-Western, Ohio, 2005, p. 139.

<sup>8</sup> *Ibidem*, p. 139 .

<sup>9</sup> *Ibidem*, p. 141 .

<sup>10</sup> Brigham, E. F., Daves, P. R.: *Intermediate Financial Management*, 8th edition, Thomson South-Western, Ohio, 2004., p. 715 .

A firm may liberalize its credit policy by extending full credit to presently limited credit customers or to non-credit customers. Full credit should be given only if net profitability occurs. A financial manager has to compare the earnings on sales obtained to the added cost of the receivables. The additional earnings represent the contribution margin on the incremental sales because fixed costs are constant. The additional costs on the additional receivables result from the greater number of bad debts and the opportunity cost of tying up funds in receivables for a longer time period.

If a firm considers offering credit to customers with a higher-than-normal risk rating, the profitability on additional sales generated must be compared with the amount of additional bad debts expected, higher investing and collection costs, and the opportunity cost of tying up funds in receivables for a longer period of time. When idle capacity exists, the additional profitability represents the incremental contribution margin (sales less variable costs) since fixed costs remain the same.

### **3. RESEARCH**

#### **3.1. Methodology**

This paper presents results from the empirical research undertaken on a representative sample of Croatian companies with the aim of exploring their receivables, accounts receivables and, finally, explore changes in credit policy especially costs and benefits as well as net profitability from changes in credit policy.

The empirical research was based on a sample of randomly selected companies in the Republic of Croatia. The analyzed sample comprises 60 large companies and 60 medium-sized companies.

We analyzed the structure of receivables used by sample companies in the Republic of Croatia in 2010, accounts receivable ratios along with a dependence between accounts receivable levels and profitability. Using methods from statistics, we investigated whether there was a relation between accounts receivable ratios and profitability expressed in terms of return on assets. To improve the quality of analysis and descriptive statistics analysis, we used financial ratios.

Our body of data includes: receivables levels, accounts receivable divided by current assets, accounts receivable divided by total assets and Return on Assets (ROA).

We also analyzed costs and benefits from changes in credit policy as well as net earnings from changes in credit policy. The independent variables which determine net earnings from revising the credit policy have been selected and the relations between them have been defined. On the basis of research results, we

have introduced a new model for calculating net earnings from changes in credit policy which is a system of mathematical equations.

### 3.2. Results of analysis

We analyzed the structure of receivables used by sample companies in 2010, accounts receivable ratios along with a dependence between accounts receivable levels and profitability as well as changes in credit policy.

#### 3.2.1. Structure of receivables used by Croatian companies

The structure of receivables in sample companies in 2010 has been analyzed and presented in Table 1.

Table 1

Structure of receivables in Croatian companies in 2010  
(in 000 kuna)

<b>Company Receivables</b>	<b>Large companies</b>	<b>%</b>	<b>Medium-sized companies</b>	<b>%</b>
Receivables from related parties	1.830.931,10	17,55	75.853,34	7,97
Accounts receivables	7.134.284,13	68,37	681.804,04	71,62
Receivables from employees and shareholders	24.579,02	0,24	9.139,85	0,96
Receivables from government and other institutions	498.062,56	4,77	47.780,24	5,02
Other receivables	946.220,10	9,07	137.323,15	14,43
Total receivables	10.434.076,91	100,00	951.900,62	100,00

*Source: Author's calculations*

Analysing the structure of receivables of sample large and medium-sized companies it can be seen that they mainly invest in accounts receivables. The share of accounts receivables in total receivables is the highest and it amounts to 68,37% of total receivables for large companies and 71,62% for medium-sized companies under review.



The shares of receivables from related parties, receivables from employees, receivables from government and other institutions as well as other receivables together amount to 31,63% of total receivables for large companies and 28,38% for medium-sized companies under review. The funds invested in a given receivable category may change daily, and require close scrutiny. As the shares of these receivables amount to 0.24 % to 17.55% of total receivables for sample large companies and from 0.96 % to 14.43% for sample medium-sized companies, consideration should be given to the company's accounts receivables and their management.

### 3.2.2. Analysis of accounts receivables used by Croatian companies

Investments in accounts receivables in sample large and medium-sized companies in 2010 have been analyzed by using financial indicators and presented in Table 2.

Table 2

Accounts receivable ratios of Croatian companies in 2010

Companies Ratio	Large companies	%	Medium-sized companies	%
Accounts receivable/ current assets ratio				
Up to 10%	12	20,00	9	15,00
Between 10 and 20%	8	13,33	12	20,00
Between 20 and 30%	13	21,67	20	33,33
Between 30 and 40%	8	13,33	6	10,00
Between 40 and 50%	7	11,67	3	5,00
Over 50%	12	20,00	10	16,67
Total	60	100,00	60	100,00
Accounts receivable/ total assets ratio				
Up to 10%	40	66,67	35	58,33
Between 10 and 20%	8	13,33	12	20,00
Between 20 and 30%	4	6,67	7	11,67
Between 30 and 40%	5	8,33	4	6,67
Between 40 and 50%	2	3,33	0	0,00
Over 50%	1	1,67	2	3,33
Total	60	100,00	60	100,00

Source: Author's calculations

The most surveyed large companies (21,67%) and medium-sized companies (33,33,%) have a share of accounts receivable in current assets between 20 and 30% .

The share of accounts receivable in current assets amounts to 10% for 20% of surveyed large companies and for 15% of surveyed medium-sized companies.

The share of accounts receivable in current assets amounts to between 10 to 20% for 13,33% of surveyed large companies and for 20% of surveyed medium-sized companies.

Consequently, the share of accounts receivable in current assets amounts to 30% for 55% of surveyed large companies and for 68,33% of surveyed medium-sized companies.

The most surveyed large companies (66,67%) and medium-sized companies (58,33,%) have a share of accounts receivable in total assets up to 10%. The share of accounts receivable in total assets amounts to 20% for 80% of surveyed large companies and for 78,33% of surveyed medium-sized companies.

The lower accounts receivable ratios may indicate that average investment in accounts receivable is unsuitable and the company's credit policy is too stringent, with the company failing to tap into the potential for profit through sales to customers in higher risk classes. A stringent credit policy might result in a loss of business.

Investment in accounts receivable represents the cost tied up in those receivables, including both the cost of the product and the cost of capital. Before revising its credit policy, a company has to weigh the profit potential against the risk inherent in selling to more marginal customers. The profitability on additional sales generated must be compared with the amount of additional bad debts expected, higher investment and collection costs, along with the opportunity cost of tying up funds in receivables for a longer period of time.

### **3.2.3. Relation between accounts receivable level and profitability**

We investigated whether there was a relation between the accounts receivable level, which compared accounts receivable to current assets, and profitability and analyzed the dependence between accounts receivable level and profitability. We hypothesize that there may be a positive correlation among them coupled with the fact that an increase of accounts receivable triggers an increase of profitability expressed in terms of return on assets.

The level of accounts receivables expressed in terms of ratios and return on assets in large and medium-sized sample companies in the Republic of Croatia in 2010 has been analyzed as seen in Table 3.

Table 3

Descriptive statistics of accounts receivable ratio and return on assets in Croatian companies in 2010

Companies	Large companies	Medium-sized companies
Accounts receivable/current assets ratio		
Arithmetic mean	25,51	23,09
Standard deviation	18,77	19,69
Coefficient of variation	73,58	85,28
Return on assets		
Arithmetic mean	0,03	0,02
Standard deviation	0,08	0,06
Coefficient of variation	278,23	326,82
Correlation coefficient	0,34	0,44

Source: Author's calculations

The average value of accounts receivable/current assets ratio for large companies during the observed period is 25,51, while the average value of Return On Assets (ROA) is 0.03. The standard deviation of accounts receivable/current assets ratio for large companies (18,77) is higher compared to the standard deviation of ROA (0,08).

The largest standard deviation has been noted with the accounts receivable/current assets ratio for large companies and shows how widely members of a related group diverge from the average. Coefficient of variation for ROA is 278,23 and shows that a relative dispersion is significant. Coefficient of variation for ROA is higher than for accounts receivable/current assets ratio and shows that the variability of ROA is higher than the variability of accounts receivable/current assets ratio for large companies. The correlation coefficient for large companies is 0,34 which confirms that the correlation between accounts receivable/current assets ratio and ROA is positive and weak. The positive correlation between variables accounts receivable/current assets ratio and ROA may be an indication that a change in the accounts receivable level is associated with an equivalent change in the value of the return on assets.

The average value of accounts receivable/current assets ratio for medium-sized companies during the observed period is 23,09, while the average value of Return On Assets (ROA) is 0,02. The standard deviation of accounts receivable/current assets ratio for medium-sized companies (19,69) is higher compared to the standard deviation of ROA (0,06). Coefficient of variation for return on assets is 326,82 and shows that a relative dispersion is great. The coefficient of variation for accounts receivable/current assets ratio is lower than coefficient of variation for ROA and shows that consistency of accounts

receivable/current assets ratio is higher than consistency of ROA for medium-sized companies. The correlation coefficient for medium-sized companies is 0,44 which confirms that the return on assets is correlated positively and weakly with the accounts receivable/current assets ratio, thus suggesting that an increase in the level of accounts receivable triggers an increase in return on assets.

The positive correlation between variables accounts receivable and ROA means that as values of accounts receivable expressed in terms of accounts receivable/current assets ratio increase, the values on the return on assets tend to increase in a predictable manner.

We confirm that during the observed period the correlation between variables accounts receivable expressed in terms of accounts receivable/current assets ratio and return on assets for Croatian sample companies is positive and an increase in the level of accounts receivable triggers an increase of profitability expressed in terms of return on assets.

Accounts receivable management directly impact on the profitability of the company. In accounts receivable management, a financial manager should consider that there is a opportunity cost associated with holding receivable balances. As the credit terms offered have a direct bearing on the associated costs and revenue to be generated from accounts receivables, the increased sales and higher investment in accounts receivable can increase revenue and profits, but they will also increase opportunity costs and cause additional bad debt losses. In order to minimize bad debt losses, a detailed review of a customer's credit worthiness should be made prior to giving or extending credit to customers and collection efforts should be undertaken at the very first sign of customer financial instability.

#### **3.2.4. Managing the credit policy**

A company should revise its credit policy by giving credit to more marginal customers or non-credit customers. Before revising its credit policy, a company has to weigh the profit potential against the risk inherent in selling to more marginal customers. Credit should be given only if net profitability occurs. A financial manager should compare the earnings on sales obtained to the added cost of the receivables. The additional earnings occurs because fixed costs are constant. The additional cost on the additional receivables results from the greater number of bad debts and the opportunity cost of tying up funds in receivables for a longer time period.

In developing a new model for calculating net savings from changes in credit policy we use the basic analytical concept of comparing the additional earnings versus the additional bad debt and opportunity costs.

Net advantage of changes in credit policy can be expressed as follows

*net savings = additional earnings - additional bad debt - opportunity costs*

Benefits from changes in credit policy can be defined as follows

*additional earnings = (selling price - variable costs) × additional units*

Incremental bad debt can be expressed as follows

*additional bad debts = additional units × selling price × bad debt percentage*

Opportunity costs of funds tied up can be computed as follows

*opportunity costs = additional investment in accounts receivable × return rate / 100*

Additional investment in accounts receivable can be expressed as

*additional investment in accounts receivable = investment in accounts receivable after change in credit policy - investment in accounts receivable before change in credit policy*

Average investment in accounts receivable after change in credit policy is represented by equation

*investment in accounts receivable (1) = (credit sales (CS1) / accounts receivable turnover (ART1)) × (unit cost (UC1) / selling price (SP))*

New average unit cost can be computed as follows

*unit cost (UC1) = (current units (CU) × unit cost (UC0) + additional units (AU) × variable cost (VC)) / (current units (CU) + additional units (AU))*

Average investment in accounts receivable before change in credit policy is represented by equation

*investment in accounts receivable (0) = (credit sales (CS0) / accounts receivable turnover (ART0)) × (unit cost (UC0) / selling price (SP))*

Unit cost before change in credit policy can be computed as follows

*unit cost (UC0) = fixed cost (FC) + variable cost (VC)*

Additional investment in accounts receivable can be reexpressed as

*additional investment in accounts receivable = (credit sales (CS1) × unit cost (UC1) / accounts receivable turnover (ART1) - credit sales (CS0) × unit cost (UC0) / accounts receivable turnover (ART0)) / selling price (SP)*

Opportunity costs of funds tied up can be reexpressed as

*opportunity costs = (credit sales (CS1) × unit cost (UC1) / accounts receivable turnover (ART1) - credit sales (CS0) × unit cost (UC0) / accounts receivable turnover (ART0)) × return rate (RR) / (100 × selling price (SP))*

It will be convenient to define variables that determine net savings from changes in credit policy. The independent variables that determine net savings are:

- selling price (SP)
- variable costs (VC)
- fixed costs (FC)
- current units (CU)
- additional units (AU)
- bad debt percentage (BD)
- credit sales before change in credit policy (CS0)
- credit sales after change in credit policy (CS1)
- accounts receivable turnover after change in credit policy (ART1)
- accounts receivable turnover before change in credit policy (ART0)
- return rate (RR).

This leads us to introduce a new model for calculating net savings from changes in credit policy which is a set of mathematical equations.

The relations between independent variables that determine net savings (NS) can be established as follows

$$NS = \frac{(SP - VC) \times AU - SP \times AU \times BD/100 - [CS(1) \times UC(1)/ART(1) - CS(0) \times UC(0)/ART(0)]}{RR / (100 \times SP)}$$

It will be convenient to rewrite CS(1) and CS(0) as

$$CS(1) = (CU + AU) \times SP$$

$$CS(0) = CU \times SP$$

After rearrangement, we evidently obtain

$$NS = \frac{(SP - VC) \times AU - SP \times AU \times BD/100 - [(CU + AU) \times UC(1)/ART(1) - CU \times UC(0)/ART(0)]}{RR/100}$$

whereby dependent variables UC(0) and UC(1) are defined by

$$UC(0) = FC + VC$$

$$UC(1) = [(FC + VC) \times CU + VC \times AU] / (CU + AU)$$

A financial manager may decide to liberalize credit policy only if the net advantage of relaxation in credit standards occurs and must ensure that in his decision to change a credit policy this condition is met:

**net savings from changing in credit policy > 0.**

When a company is considering changes to its credit policy in order to improve its income, incremental profitability must be compared with the cost of discount and the opportunity cost associated with higher investment in accounts receivable. Full credit should be given to limited or non-credit customers only if net profitability occurs.

To determine an optimal decision from among a number of credit policies, financial managers should take into consideration their net earnings and the credit policy that results in the highest net earnings should be chosen. Companies can maximize net earnings and trigger an increase of profitability.

The managers of surveyed companies do not sufficiently consider different credit policies as well as different investments in accounts receivable, changes in credit policies and net earnings from these changes that result in unsuitable investments in accounts receivable and have a negative impact on profitability.

Efficient accounts receivable management implies formulating an appropriate sales strategy, considering different credit policies, choosing the appropriate credit policy from among different credit policies, computing net earnings and establishing the optimal credit policy that results in the greatest net earnings.

The results support the hypothesis that by applying scientifically-based accounts receivable management and by establishing a credit policy that results in the highest net earnings, companies can earn a satisfactory profit as well as a return on investment.

#### 4. CORPORATE MODEL

To enable us model the relations between independent variables which determine net savings from changes in credit policy as a dependent variable, a new corporate model has been introduced.

Consequently, the main findings is new corporate model for calculating net savings from changes in credit policy.

$$NS = (SP - VC) \times AU - SP \times AU \times BD/100 - [(CU + AU) \times UC(1)/ART(1) - CU \times UC(0)/ART(0)] \times RR/100$$

whereby dependent variables  $UC(0)$  and  $UC(1)$  are defined by

$$UC(0) = FC + VC$$

$$UC(1) = [(FC + VC) \times CU + VC \times AU] / (CU + AU)$$

The new corporate model is a mathematical model designed to determine an optimal decision from among different credit policies and involves a set of equations for calculating net savings from changes in credit policy. This model

helps management better understand the business and its functional relationships as well as helping to improve decision-making ability in management of accounts receivable.

A financial manager may decide to liberalize credit policy only if the net advantage of relaxation in credit standards occurs and must ensure that in his decision to change a credit policy this condition is met:

**net savings from changing in credit policy > 0.**

The decision rules would then be defined as follows:

If  $NS > 0$  extend credit

If  $NS = 0$  probably extend credit (marginally acceptable)

If  $NS < 0$  do not extend credit.

## 5. CONCLUSION

Accounts receivable management includes determining an appropriate credit policy as well as investigating ways of speeding up collections and reducing bad debts.

We analyzed the structure of receivables, accounts receivable levels expressed in terms of financial ratios along with a dependence between accounts receivable levels and profitability and we also analyzed changes in credit policy as an important activity in management of accounts receivable. A corporate model has been designed on the basis of the analysis results of this activity. The development of the model essentially involves a definition of variables and model specification.

Major findings include a new corporate model for calculating net savings from changes in credit policy and demonstration of the correlation between accounts receivable levels and profitability. The contribution of this paper is to model all the relationships between independent variables which determine net savings from changes in credit policy as an dependent variable. The corporate model can be used as a tool to consider changes in credit policy and to make optimum use of accounts receivable in order to achieve a maximum return at an acceptable level of risk.



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**UPRAVLJANJE POTRAŽIVANJIMA KUPACA U  
PODUZEĆU*****Sažetak***

*Upravljanje potraživanjima od kupaca neposredno utječe na profitabilnost poduzeća. Svrha empirijskog istraživanja je analizirati potraživanja kupaca i ovisnost ulaganja u potraživanja kupaca i profitabilnosti poduzeća iskazane u obliku Return on Assets (ROA). Cilj teorijskog istraživanja je istražiti troškove i koristi od promjene kreditne politike, odrediti nezavisne varijable koje utječu na neto uštedu i urediti odnose između tih varijabli radi razvoja novog matematičkog modela za izračun neto uštede koja je ostvarena nakon promjene kreditne politike. Na temelju dobivenih rezultata istraživanja izrađen je novi matematički model za izračun neto uštede ostvarene nakon promjene kreditne politike koji omogućava razmatranje različitih kreditnih politika i odabir kreditne politike koja rezultira najvećom neto profitabilnošću.*

***Ključne riječi: potraživanja kupaca, profitabilnost, neto ušteda, kreditna politika***

***JEL klasifikacija: G32, D29, M41***