

An Intermediate Information System Forms Mutual Trust

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Abstract. On the Internet, business transactions between anonyms are being made on a minute cycle. How can confidence between such business partners be obtained? For this purpose, an organization called the “credit bureau” exists in all countries having a functioning free market. In Germany, the leading credit bureau is the SCHUFA.

On the one hand, a credit bureau operates an information system which supplies for the credit grantor data about the credit-worthiness of his clients. On the other hand, the credit bureau offers the customer the possibility to document his reliability to the contractor or the credit grantor, respectively. Of its own accord, the credit bureau strictly commits itself to neutrality and only gives data to credit grantors that are relevant for the credit granting itself. This procedure prevents the system from being abused thereby alienating customers.

In many branches, the credit-granting process is highly automated. Via statistical methods the data of the credit bureaus are condensed into scoring systems. Via correlation of scores, equivalence classes of customers are being formed according to their non-payment risk.

The final credit decision is not only based on the data and the score of the customer in question but obviously also on the data which the credit grantor already possessed or which he was collecting since the contract was concluded. An integrated decision support system for credit processing starts at the point of sale. It supports an appropriate computer-based dialogue and it includes a rule engine in which the rules for risk assessment are integrated. The information system of the credit bureau can be used in an interactive way.

While a credit is used, the non-payment risk and its probability are of substantial interest. For this purpose, a special monitoring process has to be established.

In summary, the credit-bureau system combines several techniques of computer science in an interesting way. You will find everything from database technology, via mathematical/statistical methods and rule-based systems to Web-based communication.

1 Introduction

A credit bureau is the ancestral model of a commercial data base. The data collection concerning the credit-worthiness and credit standing is almost as old as trade itself.

In a free market economy, granting a credit to a business partner and relying upon the repayment belongs to the basic principles of economy. Originally, trade was the only area where you could find consumer credits, the granting of a credit relying upon the settlement of the debt.

In former times, you could drink on tick in your local pub, where a chalk board was placed on the wall on which the regular customer's debt was openly written. Visitors could immediately find out who was well known and thus was creditworthy. There were negative entries (the debt had not been paid back on pay-day) and positive entries (one actually was on the list). Not being on the list meant that you were not creditworthy, either because you were not known or because you were not trustworthy.

Today, we make business on the internet. How well acquainted are business partners there? At ebay's, for example, there is a rating system working with asterisks showing the performance of buyers and sellers; but can we confide in this system?

When two parties close a deal and money and goods are not being exchanged at the same time, a credit or economic risk is being created. Obviously, the party which delivers in advance wants to minimize this risk or at least wants to take the risk consciously, thereby following one of the slogans "nothing ventured, nothing gained" or "there is no chance where there is no risk".

In order to meet these requirements, in market economies all over the world credit bureaus are being established providing potential credit grantors with credit biographies of their customers [3]. Credit bureaus of this type are working on a commercial basis which means one has to pay for the information which is basically related to private persons. The first credit bureau was founded in New York around 1830. In Germany, SCH-UFA ("Schutzgemeinschaft für allgemeine Kreditsicherung") as the first credit bureau was founded in Berlin in 1927 [7].

2 The Credit Bureau — Benefits for the Credit Grantor and the Consumer

The basic purpose of this business does still not have changed: A credit bureau protects a credit grantor against default risk and a consumer against over-indebtedness. The credit bureau creates confidence between credit grantor and client, which is essential for a credit business. Using this procedure the credit grantor is protected against undesired default risks which helps to minimize the interest rates as the criterion default risk has to be taken into less consideration. Another advantage is the increasing mobility. Via the information exchange between the various credit grantors, the consumer is able to prove his credit-worthiness anywhere at any time (see Fig. 1).