DATA MINING FOR CUSTOMER RELATIONSHIP MANAGEMENT IN BANKS

Fields of use

Customer relationship management in Insurance related and Banking companies, Artificial Intelligence (AI), Databases, Database Management, Data Mining, Knowledge Management, Process Management, CRM - Customer relationship Management

Current state of technology

Concept stage

Type of cooperation

Technical cooperation agreement

Intellectual property

Secret Know-how

Developed by

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Summary

Researchers from a leading Slovenian public research institute are developing data mining methods for customer relationship management (CRM) in banking. They are offering a customized solution to the banks based on their data about customers. The system enables extracting frequent questions, supporting business decisions related to customers and more. The researchers are looking for banks interested in the joint development of a customized CRM system under technical cooperation agreements.

Description of the invention

Today, many specialist organizations like banks and insurance agencies use customer relationship management (CRM) systems as an efficient tool to support sourcing of new clients, create better customer services and maximize the customer lifetime value. The main features of commercially available CRM systems are customer segmentation, communication with customers and aligning products to customer needs.

The researchers of the Slovenian research institute are developing data mining algorithms and tools that enable a human expert to actively participate in the knowledge extraction process and adapting existing algorithms for specific applications, such as banking CRM.

The specific gains of such customized systems are an integration of learning algorithms with the information system of a bank; improvement of existing decision models in a bank; social networks analytics for scouting new customers. Additional customer profiling will take into account obtained data, such as the customer's revenues, fixed costs, cyclical trends within the year and over a longer period, periods of higher consumption and other specific customer data. The built models are also expected to be able to detect the increased consumption of certain customers in a particular industry, which will be a good indicator for the bank to establish partnerships with trading companies to be offered for instalment payment to their customers. The obtained data will be enriched by external financial and economic indicators as provided by regional or national statistical offices, Eurostat and OECD.

The researchers are experts in the computational theory of intelligence. They have developed several practical applications in the field of intelligent information systems, intelligent web retrieval, medicine, language technologies and others. The group has over 20 years of experience in R&D, natural language processing, and cognitive sciences.

The researchers are looking for companies in banking and insurance businesses which are interested in technical cooperation to jointly develop a CRM system for their needs by the employment of the innovative data mining algorithms based on the described concept. The system will be developed in the first phase on a local level (limited customer segments and geographical area of one bank's branch) and in the second phase, the system will be implemented on a wider scale of other bank's branches.

Main Advantages

The main advantages of the proposed solution, as opposed to currently available CRM systems on the market, are:
• Customized solution to specifics of the organization.
• Analytics based on the keywords answering the questions like:
• What are the main issues with the software?
• Automatic feature requests extraction.
• What are the main topics the customer support struggles with?
• More directed training.
• Specific training for individuals with problems.
• Faster learning for newly employed.

Partner Sought

Type: Banks and insurance companies.

Role: Bank (or insurance company) will be cooperating as a development partner and an end-user of the customized CRM system under a technical cooperation agreement.

Specific role: The specific role of the bank or insurance company in the project is in providing the domain knowledge and experience in company's business process and decision making, definition of system specification and defining legal, regulatory and other specific requirements for the banking sector, testing of the prototype system, providing anonymized customer data, integration of the algorithms in the company's information system, improvement of decision models.