SURVEY THE NECESSITIES OF DATA MINING IN THE BANKING SYSTEM AND CRM

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ABSTRACT
In recent year, data mining knowledge has always been one of 10 sciences in developing which scientists believe that has extraordinarily rapid development in recent year and the next decade will deal with the technological revolution. Data mining knowledge is hidden knowledge discovery process inside data. The data that organizations, particularly large bank for collection and maintenance costs are incurred But do not take optimal utilization of it. Data mining technology enable organization to exploit their data assets and to use this tool to support decision – making process. This can enable organization, particularly bank in the domestic market and global competitive environment, create competitive advantage and customer satisfactions are looking for.

Keywords: Data Mining, Banking Systems, Customer-Oriented

INTRODUCTION
Business culture in recent decade, to improvements have been achieved. According to that, customer economic relationship to fundamental manner is changing. To monitor these changes, companies are required to provide solutions. The advent of the internet has had a significant role in changing the focus of marketing.

If more information becomes available on – line, leads to more conscious customer. What is offer, they are locate in flow and they demand the best. For the rise in such condition, the system must be able to accurately respond to customer. Collect data of the customers and behavior data, makes possible the main objective and accurate. This type of plan at creating a tough competition to identify potential customer, to help offer new product.

DATA MINING
Today we are dealing with huge volumes of data. For use of those, we need to knowledge discovery tools. Data mining as an advanced ability in data analysis and knowledge discovery cam be used. Data mining in science (astronomy) in business (advertising, customer relationship management) in web ( search engines,…) in public issues (anti- terrorist activities ) are used. Data mining phrase is similarity to extraction of coal and gold. Data mining, the data warehouse that is buried, is extracted.

In fact, purpose of data mining, create models to make decisions. These models be expected the future behavior based on an analysis of past.

Applying data mining as a lever to prepare the data and complete the data storage capabilities, is created the best position to gain competitive advantage. A database system includes a database file and database management system that play a key role in management systems and data warehouse plays.

Most businesses, strategic making decisions or adopt new policies, need to better serve to customers. for example, stores to create more desire for buy do re-design or airline to spot special accommodations in order to fly repeated for customer. These two examples need to data about past consumer behavior of customer by data mining for determine of pattern. Based on these patterns, to make the necessary decision. In fact, data mining tools take data and form a picture of reality that makes the model, the model describes the relationship in data.
The process of data mining activities are divided into three general categories:

**Explore**
Search process in a database for finding hidden patterns without a predetermined assumption about what is possible in this model. Such this basket analysis indicate cases that every customer willing to buy them. This information can lead to improve supply, design strategy, store formation and advertising.

**Prediction Model**
A process that take data from database to discover pattern and uses them to predict the future. Like forecast retail sale, discovered pattern for sale, helping them to make decision in respect to inventory.

**The Court's Analysis**
Process of applying the extracted patterns for a given irrational and contradictory factors are concerned as to identify and recognition in financial institution. largely on amount of fraud is costly and harmful, bank can by analyze past fraudulent transaction, to obtain pattern for fraud identify and discovery.

**IMPORTANCE AND NECESSITY OF DATA MINING IN BANK**
Bank from among organization is that bank's profitability and success are heavily dependent on recognition and customer satisfaction with the aim of having loyal customers.
Many of scientists believe that the organization must truly identify unit to unit of their customer and learn that which from customer have a investment cost and consumer of continue effort and must line around any one. Banks continue to maintain a balance between the paid interest to depositors and profits from lending facility are given. Due to lack of proper attention to this balance, disrupts the profit equation.
In normal and small businesses such as supermarkets, correct recognition which lead to keep customer is happy and loyal occur in the months and years and to understanding their needs. Customers rang is so limited in such businesses that vendors are able to create this understanding in mind.
But banks are faced with million of customers and lack of the advantage this knowing and true personal relationship with each of our client. It is also the intermediary function of banks, relocation branches of employee, takes place at a high level, and this knowledge is not necessarily passed on to the next generation of employees.
Given that the relationship with the customer each time is established with a different employee, how can banks attend to these interactions, remember them and learn from them?
What something can replace a creative sense of cashiers which identify the customer by name and face and voice and know their habits and to be recalled their preferences.
The answer is that although nothing can not fully replace, But it will be easy with an intelligent application of information technology. Effective knowledge and processes that enable learning relationship between the bank and customer, is important to establish, it is knowledge of data mining.
Data mining in banks to detect and analyze of huge the data, to discovery the pattern and hidden laws and meaningful of data inside and based on this fundamental, identify the customer behavior pattern.
Behavioral categories of credit titles such as low risk, medium risk and high risk is part of the data mining.

**APPLICATION OF DATA MINING IN THE BANK AND THE EXECUTIVE STEPS**
The Most Common Applications Of Data Mining In Banks Can Be Outlined As follows:
* Classification and identification of customer, with aim to determine the allowable a level of confidence in Bank to provide banking tools.
* Classification and identification of customer behavior to reduce the risk of increasing deferred demand and credit facilities.
* Classify and identify the greatest needs and interests of bank customers for receive the banking services.
* Identification and cluster customer satisfaction factors based on the results satisfaction surveys of bank customer.
* Identification and clustering of driving customer satisfaction in loyalty customer and extend to the entire.
* Exploitation for identify and fraud detection even before the onset of fraud.
* Application of data mining in other application that support process service.
* In order to be effective the data mining, banks must perform the following action to create learning relationship with customers.
* Attend to be have according to what customer are doing to remember their performance and customer during different time.
* Recall what they learn.
* To adjust their behavior with customer based on what they learned.

Obviously, learning does not happen in a vacuum. So three of necessity, the transaction processing systems to infer customer interaction, data storage for storing the data of past behavior of customer and a strategy for customer relationship should exist to bring those program into practice.
Banks, substantially success in the first part of act. That is, characteristic and record relating to customers accurately recorded and stored in data bank as rich, but the third stage of the analysis, behavior and strategy for dealing with customer is poor. in this section, data mining plays a key role.
Data mining can be effective when applied to ground and the results of its product, has allowed bank to implementation in away that allowed the banks to change their behavior according to the learning result. Data mining should be locate in Relations strategy with bank customer until action plan should be done to determine and the action taken as a result through data mining.
At the point, data mining complete the making decision process and give the decision to managers. In fact, data mining, predicate to review and analyze huge amount of data to uncover pattern and meaningful hidden rules inside the data. The main difference between data mining and classical analysis of data can be considered in classical models, the function is used to analyze that is done based on subjective experiences and perception of analysts from situation, However in data mining, the function is created of the heart data and by the system.

CUSTOMER RELATIONSHIP MANAGEMENT
Customer Relationship management is a business process that addresses all aspects of customer characteristic, creates customer knowledge, shape the customer relation and provide the removal of the products or services the organization. Customer relationship management is defined by for elements of a simple frameworks knowledge, purpose, sale and service.
Customer relationship management is considering what products or service to the customers, when and through what channel to be offer, improvement will follow. The management consist of several component. Before the process begins, the company should have customer information. This information can be obtained by internal data of customer and or purchased from data of external sources. There are several references to internal data such as questionnaires and blogs, videos, credit card, …
External data sources or data banks purchased such as addresses, phone number, profiles, visit the website is key to gain more knowledge of the customer. Most companies, large data banks including marketing data, have the financial and human resources.
Therefore, investment in ground of data storage is a vital component of customer relationship management strategy. After preparation and devotion of data resources, customer relationship management should be analyze the data with the use of tools such as data mining. Whether the company
uses traditional statistical techniques of software tools such as data mining, experts need to understand the customer data and business relationship. So, have people who are skilled that to bring this data by tools in respect to extraction and such as information is important.

**DATA MINING IN CUSTOMER RELATIONSHIP MANAGEMENT**

Data mining in customer relationship management in modern companies through the customer life – cycle analysis found to enhance customer value. Tools and technologies of data storage, data mining and other customer relationship management techniques, are approaches that have provided new opportunities for trade.

Indeed, product perspective view of the pivot axis is replaced by the customer. Thus, by collecting customer relation to data and making decisions based on patterns extracted from the hidden relationship among data using data mining tools can be oriented to customer demand that moves. This paper, is examined the concepts of customer relationship management and one of its elements of data mining.

**THE PROCESS OF DATA MINING IN CUSTOMER RELATIONSHIP MANAGEMENT**

Data mining is an element of customer relationship management and can help move companies towards customer orientation. The raw data are collected from various sources and through the extraction, translation and retrieval processes are entered into the data storage management. In sector of presenting data, the data out of the data storage and data come in a convenient format for data mining.

Pattern Discovery Section, Includes Four Layers:

Business question such as customer description, applications like rating, prediction, methods such as time series, category, algorithms.

In this section, data mining methods with its special application to answer business question that come to mind, extract the algorithms and from this algorithms are used to build the model. In section of pattern analysis, pattern conversed to usable knowledge and useful and the improvement of their, models that are efficient, will be used in an operating system.

**CONCLUSION**

Customer relationship can change over time, and the client and business learn more about each other, the relationship will evolve and grow. Customer life cycle provide good framework for applying data mining in customer relationship management.

The data mining of input section, life cycle tells what information is available and the output section, it tells what is interesting and what decision should be taken. Data mining can be predict profitably of potential clients that converted to potential clients and how long it will remain a loyal customer and how likely the will leave us.

some clients regularly to corporate clients to gain the competitive advantage that arise among them, are changing. Thus, through data mining can identify value customer predict their future behavior and adopt the informed making decisions in this regard.

**APPRECIATION AND THANKS**

The National Iranian oil products distribution company that help me out in this matter thanks in advance and I appreciate.

**REFERENCES**


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