

# **NEW TECHNOLOGIES TO IMPROVE SALES MANAGEMENT FOR ROMANIAN RETAIL COMPANIES**

Ruxandra Badea, PhD Candidate

Vlad Voicu, PhD Candidate

**Key words: sales management, decision making, GIS, retail**

## **ABSTRACT**

Modern commerce stimulates retail expansion. In Romania this market finds itself in a continuous expansion as can be seen in the growth registered every year. This phenomena is sustained, most of all, by the increasing number of superstores and supermarkets. In the same time mentalities change and people become more and more receptive to what the market has to offer.

Therefore it is necessary to answer the needs of the market with innovative measures, in order to sustain a new approach of the selling process for all companies acting in retail. Combining classical methods and new advanced tools, we intend to show non conventional ways to improve sales management for Romanian retail companies having as a starting point the Western-European Experience.

In the present conditions of the market, businesses need to use powerful instruments for decision making, instruments that can capture, process and display a real image of the reality. This action needs to be done through modeling processes, in a suggestive manner as to obtain a spatial representation of the market's characteristics.

The new tools to be taken into consideration are computer based solutions known as Geographical Information Systems (GIS), which are used successfully in USA and in Western European Countries for market analysis of any kind.

A digital map (and the associated thematic database) becomes a way in which spatial data, sophisticated spatial analysis and display procedures can be integrated.

By representing and identifying the reality on a map it is possible to show tendencies and traits which cannot be revealed easily using only usual data sets and table displays.

In most of advanced western European countries and in the USA they are a common practice. In Romania a basis should be set. Our study wants to serve as a basis for implementing, adapting and expanding these solutions –as platforms for knowledge management-in order to increase competitiveness of Romanian retail companies.

## **1. GIS solutions for business**

In the present context of globalization of the economic activity and the expansion of knowledge management, the structured information a company owns becomes a vital resource for maintaining the level of competitiveness.

The quality and the opportunity of information held influence the strategic decision process, and have a major impact on the future development of the organization. In this context managers need to use powerful instruments for decision making, instruments that can capture, process and display a true image of the reality in a suggestive manner through a spatial representation of its characteristics.

Taking in consideration all these aspects, the paper aims to draw attention on the impact of using Geographical Information Systems in the economic activity. Through these tools users can perform complete and complex market analysis, analysis that brings together geographical, economical and census datasets. This means using complex applications for market analysis, based on GIS technologies.

Recent studies show that 80% of the total data handled by decision makers in any organization, public or private, has a geographic component. Key activities depend on knowing where the clients and the potential clients are. As a consequence, in order to efficiently manage the physical assets and the human resources necessary in forecasting and satisfying the demand, using the geographical component becomes compulsory. All businesses deal with the geographic components.

In the USA and the Western European Countries national databases and GIS applications were created, in order to facilitate public and direct access. Obviously, a necessary condition is using powerful tools and adequate tools to analyze and process these data sources. Using these tools has a great relevance on elaborating the development strategy of different companies, as they give them the possibility to use these datasets in achieving their own objectives. Even if the market niche is different, depending on the object of activity of each organization, knowing in detail the competitive environment becomes a decisive input in underling strategic decisions.

## **2. Business Analysis GIS Software**

Big providers of GIS software started to pay attention to the business analysis component. For example the biggest provider of Geographic Information Systems, ESRI developed an extension specialized in Business Analysis called Business Analyst. In the USA the extension is provided together with a database that consists of business, household and demographic data. Seeing all that data on a map gives a better insight and helps in making better decisions. Through this software solution you can analyze customers and better understand their behavior.

## **3. Business GIS Applications in the world**

In the United States of America and in some Western-European countries, national databases have been created that can be accessed by the public and can be exploited by the economic companies with the help of the software applications. At the European level, such a database has been developed but this is not as complete as the one in the United States

In countries like France or Sweden, applications which embed geo-referenced data have been developed. Following the American model, adapted software instruments have been conceived to fit the national conditions and to satisfy the needs of local users. Such applications exist in England, but the datasets are not geo-referenced. Only local delineations exist for demographic data. This is the cause of a high degree of uncertainty of the analysis performed.

Each year, there are international conferences and events on this topic that show the increasing interest granted to GIS by the world-wide managers and decision-makers. (For example GEOINFO SUMMIT organized each year by ESRI Inc., the world leader in GIS software). Google Earth and the concept that represents it, is, obviously, one of the solutions. Google Earth, as well, is meant to stimulate business benefit and is part of an industry named GISs oriented to the principle of Web Mapping.

These systems are used successfully in USA and in Western European Countries for economic studies like consumer profiling, complex marketing analysis, strategic segmentation, and logistics, in helping create and analyze market areas or analyze customer profiles. It is also easier to find people in target marketing, create analysis for locations, conduct drive time analysis, perform site prospecting etc. Geographical Information Systems are used in all economic fields and it is obvious that the modern management has to more and more exploit the geographical component.

At European level efforts are made for adapting and completing the datasets, so that the national statistics services will be able to supply relevant information. Romania will have to retrieve the conceptual gap in order to be in line with the European Union tendencies. Romania supplies general datasets to EUROSTAT, in predefined content and format, but still does not have the aggregate of detailed, geo-referenced datasets, necessary for building an application adapted to the Romanian market, that can be used at regional or local level. The impediment is that even if these datasets are available, they are in unsuitable formats, are not unitary, which makes impossible using them, in the present condition.

#### **4. Geographical Information Systems-Sales Management Support**

GIS Applications reached many business activities, because it is not just a way to see things and get informed, it is a way through which analysis can be performed and solutions can be found. GIS can be found at operational, tactical and strategic decision making levels.

We can say that retail is one of the fields in which a business can really take advantage of GIS benefits. If until now GIS was used to map marketing and sales results, now more and more analytical processes go on. In this way it becomes very easy to determine sales areas, to identify proper retail sites, to analyze your competitors and to predict future development and sales. Different models have been developed and they all work in a GIS environment

Retail marketing means a report between demand and supply, between clients and suppliers. Both these two major components can be easily displayed on a map, as each of them has a geographic component. Afterwards it becomes easy to analyze with the help of GIS.

Practically, large organizations allocate considerable resources for focus-groups, for market-polls and other instruments used to determine the consumer's profile and its behavior. But, it's obvious that, besides the demographic information regarding: age, sex, income, family situation, etc, the managers need also the geographic information to control the expansion or to optimize the presence on the market, facilitating in this way the management for interest zones and also the oriented marketing. Knowing the client localization area (own clients and also the competition's clients) and the efficient using of this strategic information turns into a crucial advantage.

The economic organizations must manage and use a large amount of thematic information. This information includes: a geographic localization, an address, a specific service's area coverage, a sales territory, a delivery route that may be visualized and analyzed on a map. The profitableness maximization is realized through a suite of geographic applications that include selection of the best emplacements, defining the consumer's profile, the market-poll and the supplying of services based on optimal localization.

As punctual connection elements between the thematic information layers, that are rigorously defined, the following data is introduced in the system: the address, the postal number and the stereographic (x, y) or geographic coordinates.

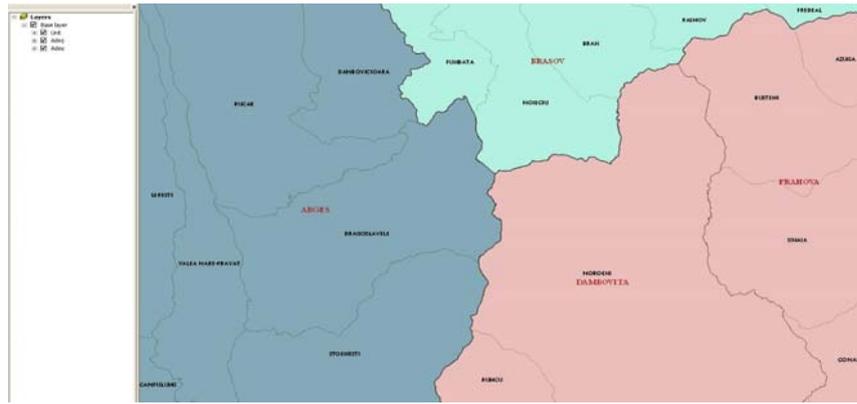
GIS has the capacity to incorporate large databases with useful information that can be further used in analysis and can also be showed on a map. All businesses deal with the geographic components. In these ways the information can be available at different levels. Top managers can benefit from GIS applications while making strategic decisions, when deciding what markets to enter or what products to create.

In marketing research GIS applications help in knowing where clients live, in determining their profile, in the strategic analysis of the competitive environment, in finding out where the competition is located, in seeing where there is potential for expanding, and in finding out how to reach the customers through promotional activities.

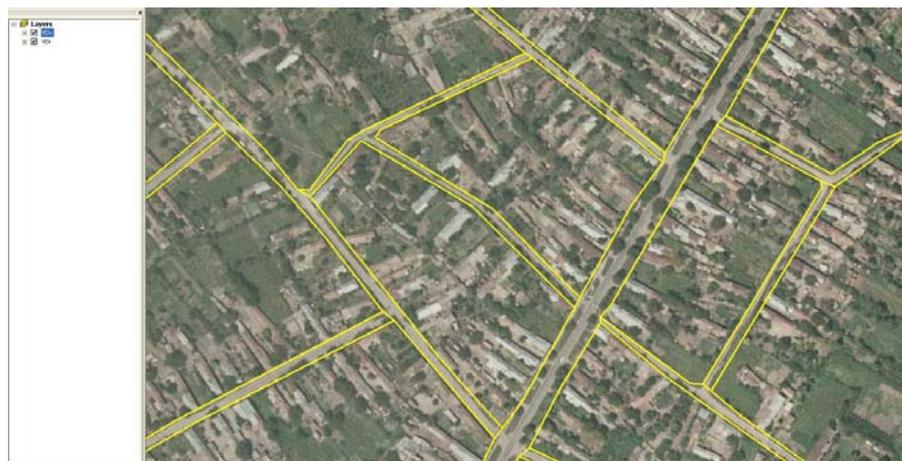
## **5. GIS Solutions for Romanian Retailers**

In Romania GIS is used in different industries but in the business sector very few companies take it into consideration. In most of advanced western European countries and the USA they are a common practice, In Romania a basis should be set. Companies shave to understand the benefits and the fact that GIS are platforms for knowledge management. By using this modern computer technology is possible to turn it into a real economic advantage.

The goal is to create a synergy between the structured GIS techniques and the present Romanian economic context by analyzing the ways to create specialized data sets. This is a compulsory stage for the elaboration of GIS based applications for local companies. In order to achieve such a goal it is necessary to identify, adapt and integrate thematic information in a database with geographic reference. These are laborious processes considering the limited Romanian experience in this field, the lack of structured data. In fact, most of the data is available but it is unprocessed and can't be used.



A study going on in the present is focused on a Romanian retailer and tries to create an application that integrates demographic, geographical and economic datasets. Afterwards reports will be created and analyzed. Using the GIS platform everything will be represented on a map showing the relevance of the application and all the valuable information it can offer. Practically, it will be possible to demonstrate how the application can be used efficiently in customer profiling, sales force management, drive time analysis, market segmentation, market prospecting, marketing activities, etc and how this contributes to a better sales management.



Hypermarkets, supermarkets, etc can make their databases transparent by using GIS. In this way they will know exactly where their clients live, how much they spend every week or month in their store, how much time it takes for them to go to the supermarkets, and so on. They will know how to orientate their direct marketing, their promotional activities and more.

## 6. Conclusions

The expansion of GIS technology is a major asset for the business world. All the benefits of using spatial data are available for businesses and major providers of GIS technology take into consideration adapting them even more to the business needs.

In the present context of the market, in which competition becomes more and more intense using these advanced solutions can turn into a real competitive advantage.

Retail in Romania can benefit from GIS and maybe in the future Romania can think of building a national database with data that all economic agents can access, after the USA model. As a conclusion: GIS can improve results in any business.

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