BUSINESS INTELLIGENCE MODELS AND APPLICATIONS IN ROMANIA


Abstract: The paper analyzes one of the top domains that will be heard about in the future, that of integrated informatics systems – Business Intelligence (BI) for enterprises’ administration. In the context of more and more acute globalization, of the extremely dynamic international business environment, but also of dovetailing with the Romania’s integration in E.U., the local companies in order to be successful and integrated in competitive unit networks (e-commerce, B2B, PDS) should adopt such systems.

Key words: integrated informatics systems, business intelligence, decision models

1. INTRODUCTION

In order to be successful and integrated in competitive networks, local Romanian’s companies should adopt innovative solutions to get near to customers and suppliers, to include customers within the processes, to reduce production and stocks expenses, to improve productivity and maximize the profit.

Such solution is Business Intelligence (BI). Here we compare BI type solutions from the Romanian market to see which is best or right from the point of view of platform capabilities (information delivery, integration and analysis capabilities).

Business Intelligence is a generic concept which groups under the same title business and computer science instruments used to change data into information, information into decisions, and decisions into actions. The computer science applications used in BI are of various types, and they refer to support systems for decision taking, reports and interrogations, on line analytical data processing (OLAP), statistical analyses, forecasting, data mining, interrogation facilities, reporting and graphs drawing up, geospatial analysis, knowledge management, etc. They are intelligent informatics systems. The today’s solutions of BI type may be looked upon as an important integrating stage of the business domain with that of informatics. Actually, the implementation of a BI type solution is quite a challenge both for management specialists and for those from informatics domain (Gartner, 2009).

Although in Romania the interest for such solutions has not reached the level of the world’s advanced markets, it seems that, lately, the situation has started to change.

We may say that the native market is nevertheless growing. It is also confirmed by studies and by the market “gamblers”, as well. But, in case of BI complete solutions, or of somewhat more complex report instruments, one cannot be certain unless the user identity is established. For instance, if the user belongs to the large enterprise category, the BI is certain. But, if reference is made to small and medium enterprises (SMEs), the situation is somewhat different (Ziarul financiar, 2007).

The double perspective might allow speculating the hypothesis that the Romanian BI market grows on the basis of large companies, or that the BI solution is a more elevated report solution. In the first case, we face with a limited scheme space which does not allow the growing trend for a longer time. As for the second case, there is at least the hope that the excess of report data may need, in the future, a complex analysis instrument. This may happen unless software vendors will adapt their offer to local requirements.

2. THE DECISION TO ADOPT BI SOLUTIONS

Under the circumstances of today’s business environment, the information quality and readiness, as far as a firm is concerned, is not a question of profit and loss, but of survival and bankruptcy. The benefits of a BI system are obvious – analysts are optimistic, showing that in the coming years millions of people will use, day by day, visual instruments of analysis and BI instruments. The market is already saturated with offers of most diverse analytical applications which can make various analyses to support the decision process.

The decision of a BI system implementation (Vodapalli, 2009) has to be making in accordance with a precisely selection criteria list and also accordingly with a comparative analysis of many applications variants which are focused on the following aspects: the incumbency to observe the national settlements of each country, the alignment to the European legislation and laws, the possibility to operate in a national currency, the implementation of European unique currency, the easy work with other circulating medium, the processing of information in real time, the modular structure of the applicable software necessary for a step by step implementation in order for a future extension of the operating area, the independence up hardware platform, the operating characteristics, the guarantee of a high level of dates security ant integrity, the flexibility to increase the number of users, the direct advantages, the possibility to clearly justify the investment, the minimizing of the risks etc.

Analyzing the BI type solutions from the Romanian market, there have been obtained the following results (fig. 1 and 2).

Adding to the previous criteria the cost of implementation and maintenance we have in the following figure (fig. 4) the hierarchy for analyzed platforms.

Fig. 1. BI Platform Capabilities: Information Delivery
Starting from these premises, and using multiattribute decision models - the global utility method (Lavu, 2005), there has been obtained the following result presented in table 3.

### 3. CONCLUSIONS

The decision to adopt a BI solution is stimulating, because, in our opinion, it also offers the following advantages:
- getting near to customers and suppliers by making an efficient supply chain;
- reduction of production and stocks expenses;
- global improvement of productivity;
- profit maximization through flexibility and increased reactivity to market demands;
- errors reduction within order-invoicing-delivery chain;
- waiting time reduction;
- quality increase;
- customer including within the process (e.g. extranet).

In this paper we compare BI type solutions from the Romanian market and we realize a hierarchy of 15 solutions using specific criteria of analysis.

The decision to adopt BI solution depends, at the same time, on the organization size, and on the internal processes characteristics, which influence the implementation strategy, time, and costs. This criteria should been taking into account also when compare this solutions.

### 4. REFERENCES


