

BUSINESS INTELLIGENCE SOFTWARE IMPLEMENTATION IN THE ROMANIAN COMPANIES

Assoc. Prof. Ph.D Edelhauser Eduard
University of Petroșani
Faculty of Mining
Petroșani, Romania

Abstract: The paper focuses on a modern prospective IT&C section which embeds tools for the simulation and assistance of managerial decision. The author studies aspects of this field by using the IT&C methods as management tools, these methods being Decision Support Systems (DSS), Business Intelligence (BI) and Enterprise Resource Planning (ERP). In addition, I have been implementing integrated information systems in Romanian organisations for more than 10 years and they are now studying the effects that these implementations have induced regarding the management of Romanian organisations, by the efficiency of hard- and software platforms usage, as well as by the improvement of operational and strategic managers' training in using tools such as DSS or BI, and I am also training the human resources of Romanian organisations in the IT&C field

JEL classification: C63, L86, M15

Key words: Decision Support Systems, Business Intelligence, Enterprise Resource Planning, Balanced ScoreCard, Siveco Business Analyzer

1. INTRODUCTION

The evaluations of the local BI market, carried out by means of the main autochthonous implementers indicate an unusual tendency, namely, in the context of a severe reduction of the volume of global sales regarding company informational applications, in 2009 the BI market registered an increase almost 8 times higher than in 2008, and this trend seems to be maintained in 2010 as well.

The paper is organised in four chapters and deals with the essential characteristics of the BI concept regarding two aspects, namely the spatial aspect by analyzing the worldwide and national BI market and the temporary aspect regarding design, implementation and maintenance, corroborated with the continuous update to the customer's needs by the analyzed feedback of the support decision systems.

The first chapter highlights the status of the main competitors on the BI market as it is presented in the studies of the prestigious companies IDC and Gartner regarding the years 2008 and 2009. There are presented both the software tools used and the fields of implementation of the informational systems in the BI category. The second chapter expounds the degree of involvement of the four main worldwide players on the BI market, respectively SAP, Oracle, IBM and Microsoft, on the Romanian market these great actors owning 60% of the entire BI market worldwide. Moreover there is punctuated a problem specific to Romanian economy, valid for all the small and incompletely globalise markets, namely the importance of Small and Medium Enterprises or Business Companies (SME or SMBs). Taking into account the fact that great Romanian companies represent companies

with public capital and subsidiaries of great multinational companies, and the great actors have already managed to implement the assisted managerial decision software within these companies, a market that is very attractive for the companies that create BI and DSS software in the management field is still that of SMBs. This market is the target of both great actors mentioned before as well as the local developers such as Siveco by Siveco Business Analyzer, S&T by MicroStrategy, Spectrum Solutions by Oracle BI and Wizrom by Panorama, out of which Siveco represents by far an autochthonous leader of the ERP and BI market. The third chapter is dedicated to the BI application of Siveco, application fully realized in Romania, and describes the main modules and types of analysis proposed by the Siveco Business Analyzer (SBA) component such as what if and top bottom analysis and various types of simulations, as well as some design characteristics of the application. The last chapter is intended to be a result of the first three chapters and represents the essence of the effects induced by the implementation of the BI applications in the Romanian organisations. When quantifying these effects we relied on a questionnaire directed to a population made up of representative companies in the public and private domain where Siveco carried out implementations of company applications. By virtue of the data that underwent statistical processing we realized correlations and interdependence relations within the informational systems implemented, we validated a series of assumptions, and we identified the weak points of the implementations and proposed optimization procedures.

2. THE PERFORMANCE OF LEADING WORLDWIDE BI TOOLS VENDORS IN 2008

The main objective of any company is to earn profit. In order to achieve it, the company has to be efficient, to bring financial benefit. To that effect there are necessary models of decision making in order to measure, manage and optimize the performance of different activities in the company. These decisions are made on the basis of information, and Business Intelligence is exactly the concept that, if implemented correctly, leads to capitalization of the information necessary to measure, manage, make decisions and optimize performances. The essence of Business Intelligence (BI) is to gain information and knowledge from data in order to enable people to make better decisions. Especially in times of economic turmoil, the quality and efficiency of this process can be a crucial advantage for any company. BI is a highly dynamical field and builds an interface of growing importance between IT and management. Because of this function, the need for a company-wide knowledge base and mutual understanding of the different qualifications of employees and their tasks has become a key factor for economic success of enterprises, in order to use the full potential of BI technologically, as well as in terms of entrepreneurship.

In presenting the worldwide BI market we relied on two authorized sources of IT&C market study, namely Gartner and IDC. To start with, we emphasized the fact that in 2008, a year when the crisis made its presence felt all over the world, worldwide BI revenue reached \$8.8 Billion and the growth in business intelligence software continues despite economic pressures, with a 22 percent.

According to Bhavish Sood, principal research analyst at Gartner and co-author of the report, "Market Share: Business Intelligence, Analytics and Performance Management Software, Worldwide, 2008," revenue growth was driven in large part by industry consolidation. "Mega-vendors are offering BI platforms [at a] much lower cost," he says, "enabling users to buy and deploy enterprise wide." Reducing this barrier to adoption certainly helps as companies are looking to "drive better profitability, lower costs, and aid in service enhancement," he adds. In other words, cash in on the business intelligence

promise. Sood also found that revenue growth could be attributed to companies that optimization a step further, investing in niche BI applications that manage risk and control spending.

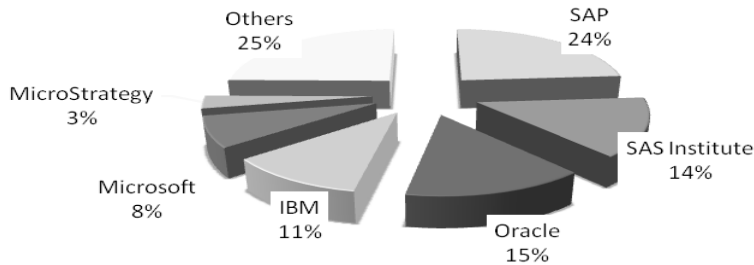


Figure no. 1 Worldwide BI, Analytics and Performance Management Revenue Estimates for 2008

(Source: Gartner, June 2009)

Gartner reports very significant revenue growth in both BI platforms (24.3 percent) and analytics and performance management applications (20.4 percent), summing up approximately \$3.1 billion and \$5.7 billion respectively.

According to IDC, we will highlight the performance of leading BI tools vendors in 2008, such as SAP, SAS, IBM, Oracle and Microsoft. IDC defines the BI tools market as being made up of two market segments: end-user query, reporting, and analysis (QRA) and advanced analytics:

For SAP, 2008 marked the first year of combined BI tools revenue for SAP and Business Objects. The growth rates shown for SAP in this study represent organic growth because IDC methodology back streams revenue of acquired companies. SAP derives all of its BI tools revenue from QRA market segment. In 2008, the company's SAP Business Objects portfolio benefited from the vastly enlarged sales force and was able to sell BI tools to SAP's applications customers. The company ran into some resistance from customers to its pricing structure but was able to overcome this challenge partly through improved communication about its BI tools portfolio road map.

SAS was the second-largest BI tools vendor in 2008 and the only one that derives at least 40% of its BI tools revenue from both the QRA and advanced analytics markets. SAS remains the overwhelming leader in the advanced analytics market. However, its momentum in QRA tools stalled in 2008. During tough economic times, most companies revert to their core competency, which for SAS includes advanced analytics and data integration software. As the economy is expected to start improving in the second half of 2009, the challenge for SAS will be to broaden its footprint within its existing client base. SAS' strength in advanced analytics also contributes to its strong position in various analytic applications market segments of the broader business analytics market. These analytic applications are all built using advanced analytics functionality, which few of its competitors are able to match.

IBM was the third-largest BI tools vendor in 2008, which marked the first year of combined BI tools revenue for IBM and Cognos. The growth rates shown for IBM in this study represent organic growth because IDC methodology back streams revenue of acquired companies. It seems that IBM was not as successful as its closest competitors in

being able to execute on Cognos BI tools sales by the expanded IBM sales force. IDC speculates that unlike SAP and Oracle, which have substantial applications software businesses, IBM's focus on infrastructure and middleware software and professional services means that selling to large number of business end users is not a core competency of IBM's non-Cognos sales force. It remains to be seen if IBM regains a higher growth pattern with an additional year of integration of the Cognos organization. In the meantime, IBM continues to bring to market various business analytics products that in aggregate represent one of the broadest portfolios of tools and analytic applications not only for traditional BI but also for content access and analysis, event monitoring, data integration, and data warehousing.

In 2008, Oracle reaped the benefits of its investment in Oracle Business Intelligence Enterprise Edition (OBIEE) — the company's BI platform and its different modules for query, reporting, and analysis. OBIEE was built on the technology acquired from Siebel and has emerged as a growth driver in the overall Oracle portfolio. At the same time, we estimate that Oracle's 2007 acquisition of Hyperion has only marginally contributed to the company's BI tools revenue. The maintenance from Hyperion's legacy BI tools products does continue to contribute to Oracle's BI tools revenue, but the primary focus of the Hyperion product line remains on financial performance and strategy management applications, where Oracle holds the market leading position. Oracle is well positioned to continue to benefit from OBIEE by selling it to its existing vast applications and database customer base.

Microsoft continued its strong growth in the BI tools market in 2008. The company's primary products in this market include SQL Server Analysis Services and SQL Server Reporting Services. Microsoft's packaging of BI tools within SQL Server continues to be an attractive option for its customers. Note that IDC does not allocate any revenue derived by Microsoft from Excel or SharePoint Server to the BI tools market. Yet most of Microsoft's customers that purchase SQL Server for their BI needs also frequently purchase or use these related products. As of January 2009, Microsoft's PerformancePoint Server ceased to be a separate product. Instead the scorecards and dashboards that were referred to as PerformancePoint Monitoring and the query and analysis functionality (technology acquired by Microsoft from ProClarity) became a component of the SharePoint Server. Going forward, IDC may be re-evaluating its methodology for allocating BI software revenue to Microsoft.

“In tough times, the first step is to increase transparency which helps identify cost-centres, and then to more tightly align strategy with execution,” IDC specialists said. “This is why demand for BI, analytics and performance management is relatively strong even in a bearish economy. However, we don't expect these two markets to sustain the same high growth rate in 2009, as much of it came from the lowest-hanging fruit in up-selling products of an acquired company to an existing installed base and because the first half of 2009 was softer due to the recession.”

3. BI MARKET, THE ONLY IT&C MARKET IN ROMANIA THAT REGISTERED A SIGNIFICANT INCREASE IN 2009

I tried to identify which are the main obstacles hindering the penetration of BI solutions on the Romanian market and I reached the conclusion that poor technical abilities, still poor education or qualification in the IT&C field regarding the top management in Romanian companies and the limited budgetary resources are impediments that we are frequently confronted with at the moment we are talking to a potential

customer. This is not, however, a particular situation – it does not happen only in Romania, it is a situation that all the other markets are confronted with. I consider these impediments as opportunities for the solutions as BI to promote. But this does not mean that there are no real obstacles, and the most frequent problem consists of the fact that the direction towards a BI solution is not seen as a business decision, but as one prevailingly technical. Or a successful deployment of a BI solution is always realized when it benefits from the support of those decision persons that are the main beneficiaries and direct users of these types of solutions, that understand the business vision, strategy and motivation de business of that precise company.

However competition increase in some market sectors makes the adoption of Business Intelligence solutions become critical in Romania, too. The companies that were confronted with a real competition are interested in finding out which product is the best on the market, which customer is the most profitable or what new products they should attract in order to improve performance. Besides competitiveness, as a generic element, in adopting BI solutions also contributes the necessity of optimizing the processes and improving the decisions, the high volume of data gathered in the operational systems as well as the European and international standards imposed to the various industries.

There are two distinct situations on the Romanian market: the case of Romanian companies that enter in the category “large enterprise” that are aware of the necessity for BI tools, and the sector represented by Small & Medium Enterprise, a case in which is difficult to assert that a Business Intelligence solution becomes a “must have”.

As for the segment of large and very large companies and multinational corporations, I can say that they have reached such an awareness threshold. There are some market verticals that reached maturation very rapidly and that progressed up to the international standards: banking, mobile telephony, big retail chains, oil industry, services etc. These verticals (as well as others), where competition is very strong, generate especially the demand for BI. Managers see BI as a solution that will complement the IT&C system of the company and will lend more efficiency in business management, performance improvement and decision making.

Admittedly, BI materialization, under the pressure of the economic crisis, is no longer only a simple “sales argument”. The concept of operational BI outran the theoretic level, gaining materiality under the pressure of a well defined objective – making the business efficient, starting with the operational level, but without neglecting the tactic level of approaching business policy. Still, remains to be seen how much interested in the new offer is the local market. Traditionally, Business Intelligence was viewed as a complex technology, in most cases destined for large companies, whose main purpose is to provide top management with analysis tools that granted strategic or tactic decision making. In other words, it was an abstract concept, having an action area for an unlimited time span, placed in an area hardly accessible for “commoners”, that is medium enterprises that do not possess a solid investment budget and/or an extended IT&C department. Lately this view has changed alertly, the worldwide economic crisis constraining vendors to turn their attention towards medium enterprises that need analysis tools in real time in order to cope with the challenges of the market. The worldwide economic context brought about a visible turn of the Business Intelligence solution editors who, during the last two years, forcefully attacked the sector represented by Small & Medium Enterprises (SME or SMB), trying to destroy the myth according to which BI applications are accessible only for the large enterprises that propagate huge volumes of data and own extended IT&C departments. In order to achieve this, the supply addressed to SMBs was considerably

diversified, trying to cater for the main “reproaches” that the potential customers in the category of medium enterprises made.

In order to broaden the spectra of potential customers, there was a reorientation of the concept of BI, from the traditional “data-centric” to the more pragmatic “process-centric”, meant to enable a quicker reaction to the challenges on the market that appeared as a consequence of the economic crisis. Thus, BI applications are not only for business analysts in top management any more, but they are also accessible for executive directors, managers and final users that have the decision making power who can rapidly interpret and analyze relevant information, using it as a basis to be able to make viable decisions. All the great actors of the world on the Business Intelligence market – Oracle, by Hyperion, IBM by Cognos, SAP by Business Objects, Microsoft etc. – joined this trend, trying to bring supplies as attractive as possible for the SMB sector.

The double perspective would enable speculating the assumption that the Romanian BI market extends due to the large enterprises or that what is presented as a BI solution is a more elevated reference solution. In the first case we are confronted with a limited manipulation platform, which will not be able to maintain the trend up for a long time. In the second case, there is the hope that the excessive reported data, at some point, will call for a complex analysis tool. Even if “our IMMs are smaller than their SMBs”, the recipe applies for Romania as well. Numerous software editors turn to such a solution or sign partnership agreements in order to furnish such integrated applications. A clear example is represented by the newly launched WizCount Vista application (owned by Wizrom company), which includes all the functionalities previous to the WizCount solution and in addition it integrates the BI WizAnalyzer solution. And we do have to take into consideration the fact that Wizrom already has in its portfolio (beginning with 2005) a dedicated Business Intelligence solution, Panorama. Practically, the issue is not the doubling of supply, but its refinement, more precisely an adaptation to the demand of the market. “In order to supply for the demands of the small and medium enterprises, that do not have financial possibilities to implement a complete BI solution, Wizrom «packed» a business intelligence module in the financial management system. By supplying a BI solution incorporates in another application, the cost for the deployment of such a solution can be reduced considerably. The BI module is already integrated in the main application, so the cost for the interfacing is eliminated, and the module includes many readymade developments specific to the information in the respective application, so that the cost of the deployment is dramatically reduced. Another advantage is that of the time necessary for the implementation of the solution, because many developments are eliminated”; this is how Zemy Apfelbaum, Wizrom managing partner, explained the distinctiveness of the solution.

4. SIVECO BUSINESS ANALYZER A HIGH PERFORMANCE INFORMATION MANAGEMENT SYSTEM

Business Intelligence Solutions of SIVECO Romania monitors and correlates all the levels of company activities, positively influencing its performances. Through configuration and specific attributes, our Business Intelligence solutions provide you the ideal tool in drafting of analyses, statistics and reports, extremely useful for business decision making.

SIVECO Business Analyzer (SBA) is a high performance Information Management System, capable to be adapted and customized according to the business particularities of any company. Already a reference product on the Romanian market, SIVECO Business Analyzer has been successfully implemented both in the private and

public sector. SBA supports the decision making process during the activities of planning monitoring, control, forecast and prognosis, provides information support for the adoption of strategies for cost control and the identification of sources to increase profit, provides synthesis, coherent, consistent and real-time information, represents the requested analyses under the form of graphs and tables in an appealing manner, easy to manage and customize. The online real-time analytical processing technology (OLAP) is one of the newest and most performing technologies in the field of information processing as a support for analysis and economic decision in a competitive environment.

The second application in the field of BI is SIVECO Balanced ScoreCard (SBSC), a software solution for strategic management and a latest generation information product launched on the Romanian market, able to monitor, analyze and compare the organization's performance in order to improve it. Placing the strategy at the centre, the proposed solution provides the beneficiary with relevant information regarding the manner in which the organization is heading towards reaching its strategic objectives. SIVECO Balanced Scorecard is a strategic management software solution implemented with Oracle Express technology aimed at providing primary data and structured information to shareholders and top management, as a real support for the decision-making process within the company.

Respecting modern concepts of strategic management, SIVECO Balanced Scorecard offers the possibility of monitoring key performance indicators (KPIs). You will thus get a concrete and comprehensive picture of business areas within the company. With a multi-layer architecture based on a web interface, SIVECO Balanced ScoreCard provides a quick way for studying different management collaborative analyses. The primary data from source systems is aggregated, processed and loaded into OLAP analysis databases as indicators, sizes and analysis specific formulas. Specifications for data loading are entered into administration component of SIVECO Balanced ScoreCard. End users can view loaded indicators through the analysis component of the Balanced ScoreCard, having powerful embedded features of filtering, sorting, customization of the data display mode, forecasting and simulations ("What-If" type of analysis).

I have exemplified four simulation analysis and models of SBA and SBSC that are useful in the management activity and in the researches very much used by the managers of Romanian enterprises that purchased this type of product.

The analysis of the evolution of an indicator allows the representation of the values in the database under the form of diagrams or charts.

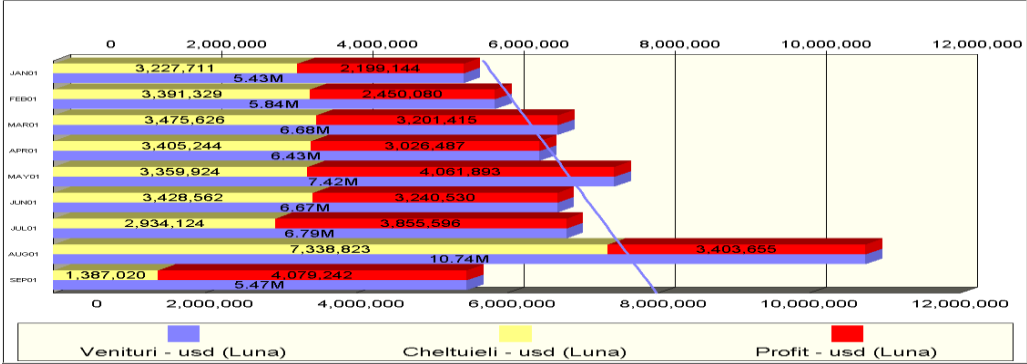


Figure no. 2 The status of revenues, costs and profit regarding the entire enterprise, in which the selection of the displayed values may be changed by the user while the program is running

(source SIVECO)

“What if?” Analysis consists of the possibility to modify the entrance parameters of an indicator and to see how this indicator varies after this modification. One can easily imagine potential situations when this type of analysis would be useful. For example, what happens with costs and profit if there is a certain percentage increase of the salary or power costs? What happens if the number of employees decreases or increases? Or if the value of certain taxes is modified (VAT, income taxes).

TOP/BOTTOM Analysis. This analysis enables one to select the most important types of incomes or the most important customers. The existence of this possibility is necessary especially in case the dimensions have many values that cannot be monitored each at large, but you want to monitor the extreme values: the highest ones and the lowest ones.

Forecasting is a simulation process in which the forecast values are based on the existing data history and the richer this history is the higher the accuracy of the forecast. In selecting the forecasting method out of the preset one can take into account the linear, exponential or periodic evolution of the indicators. In order to augment its value, the forecast can be used together with “what if?” analysis.

With respect to the design characteristics we would like to mention the fact that the basis of the SBA creation consists of an OLAP tool from Oracle. Oracle Express Analyzer is an OLAP tool that enables data analysis, briefing creation, updating the briefings created using Express Analyzer or Express Objects, running a briefing and the applications created using Express Objects. Oracle Express Analyzer can access the data stored up in multidimensional Express databases or relational databases.

5. EFFECTS INDUCED BY IMPLEMENTING BI APPLICATIONS IN ROMANIAN ORGANISATIONS

To start with, we tried to identify the applicability field of different applications and BI tools, the way they are perceived in the view of managers as beneficiaries of BI solutions.

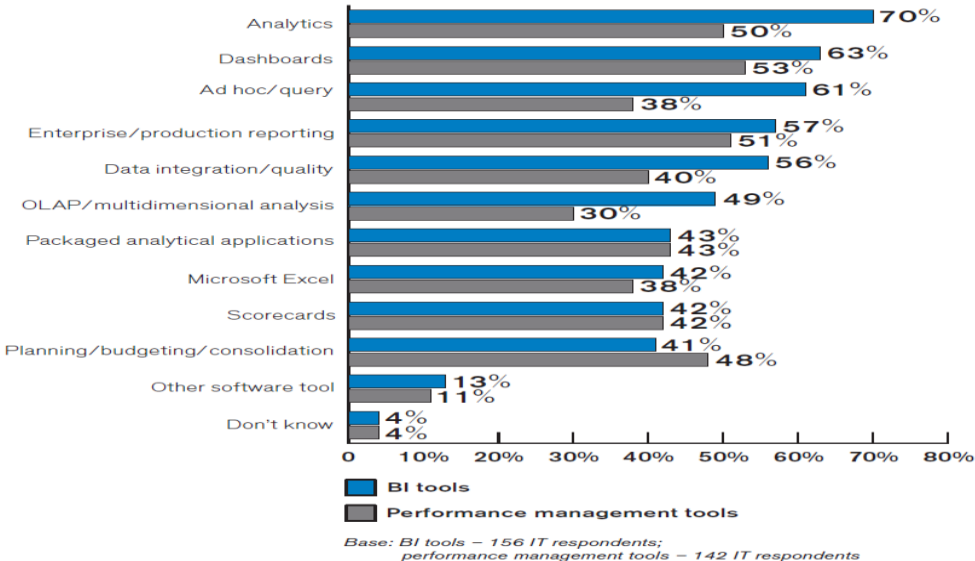


Figure no. 3 Software tools considered part of BI and performance management
(source Computerworld)

When asked which tools they consider to be part of their BI solution, IT respondents most frequently mentioned analytics, dashboards, adhoc query, enterprise production reporting and data integration quality. Dashboards, enterprise production reporting, analytics and planning budgeting consolidation are the software tools IT respondents most frequently reported to be part of performance management.

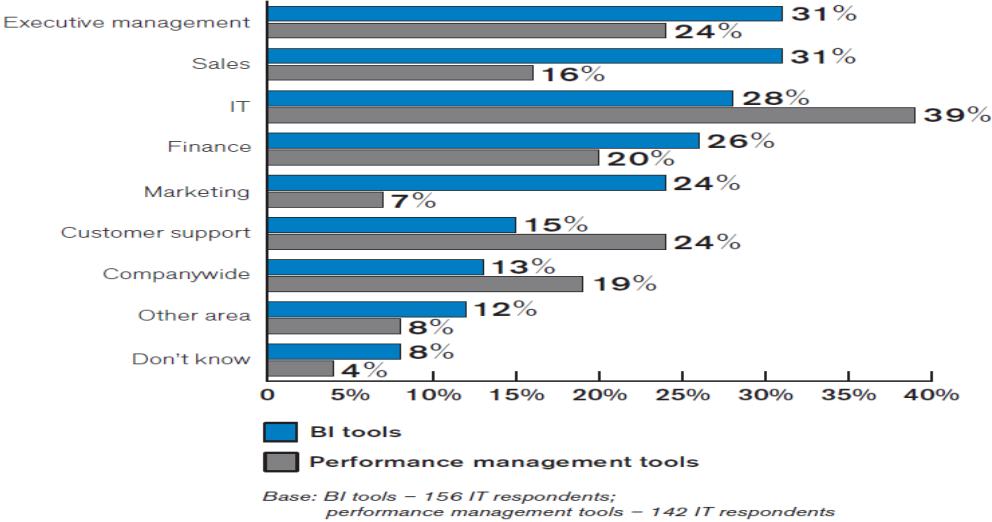


Figure no. 4 Departmental implementation of BI and performance management (areas in which a company first implement a BI/performance management tool/solution)
(source Computerworld)

Sales and executive management were reported as the first departments to implement BI, at 31% each, probably in response to pressure from those areas for improved data availability. The IT&C department, a group that can test the tools before the rest of the organization sees them was cited most for initial implementation of performance management tools (39%), followed by executive management and customer support, at 24% each.

The third field of investigation was the key benefit that is derived or expected to be derived from BI and performance management tools is improvement of the decision-making process, such as the quality and relevance of decisions made. Seventy percent of IT&C respondents indicated this as the top BI benefit, and 55% indicated this as the top performance management benefit. Producing a single, unified view of enterprise wide information (57%), better aligning resources with strategies (56%), speeding up the decision-making process (53%), and responding to user needs for availability of data on a timely basis (52%) are the other top BI benefits reported by IT respondents.

As a conclusion for BI implementation we can say that the nature of the top benefits and challenges cited by IT&C respondents make it clear that today’s technology purchasers demand comprehensive and integrated BI and performance management solutions that can overcome challenges related to integrating data from multiple sources and data quality. What are companies hoping to achieve with BI and performance management solutions? Seven out of 10 BI respondents and more than half of performance management respondents cited the desire to improve the decision-making process, including the quality and relevancy of decisions. Vendors that have the technical expertise

to deliver these benefits can expect to appear on the short lists of BI and performance management technology purchasers.

I also asked the respondent companies a series of questions regarding the main obstacles in the penetration of BI solutions on the autochthonous market. Taking into account the “scores” they provided, the results are the following (ranking according to the degree of importance):

Defective knowledge of the “concept” and of the advantages offered by the BI solutions;

Romanian companies’ prevailingly focusing on the operational aspect (to the detriment of the strategic one);

Low technical “appetite” of decision factors;

BI solution vendors’ difficulty to demonstrate the possibility to obtain a real RoI and a TCO according expectances;

Low financial power of potential customers;

Low technical abilities of potential customers;

Inadequate IT&C infrastructure.

Still in the virtue of the questionnaire I achieved the results and I was able to formulate and validate research assumptions. Thus I formulated an assumption presuming that in the private domain there is a more efficient usage of money than in the public domain.

This hypothesis would be explained by the following specifications:

In private companies hardware facility is correlated with the number of employees

In private companies hardware facility is correlated with software facility

I have used statistical techniques in order to define the differences between the groups, using T test. For this purpose I have tested the average equality of two paired samples (Paired Samples T Test) for 6 variables grouped in 4 pairs each. Out of the 6 variables 3 pertain to the companies with public capital (pers_public, calc_public and BI_public), respectively 3 to companies with private capital (pers_privat, calc_privat and BI_privat).

Table no. 1 The result of the T test for 6 variables grouped in 4 pairs each

	N	Correlation	Sig.
Pair 1 pers_public & calc_public	4	,997	,003
Pair 2 pers_privat & calc_privat	4	,632	,368
Pair 3 calc_public & ERP_public	4	,613	,387
Pair 4 calc_privat & ERP_privat	4	,979	,021

I have noticed that if in the public domain exists a better correlation between the number of employees and the number of computer-related equipment (0.997 in comparison with 0.632), the situation is different regarding the correlation hardware – software which we defined as using computers for BI applications. (In this case the figures in the private domain are 0.979 in comparison with 0.613 in the public domain). I reach the conclusion that providing with excessive hardware is not necessarily a useful thing to do, if that hardware is not then correlated with the software devices.

In order to analyze the statistical connections I used correlation analysis for the intensity of the connections between the variables and regression analysis to estimate the

value of a dependent variable (effect) taking into account the values of other independent variables (causes). I carried out a multiple regression analysis in order to identify the effect that the number of employees, the number of de computers as well as the number of computers interconnected in a network has upon the software devices materialized under the form of computers on which a BI application is running. Thus there was validated the hypothesis referring to the better efficiency of investing money in the private domain, and also a better correlation between the efficiency of the hardware and employee resources and the implementation of a BI in the private domain in comparison to the public one.

6. CONCLUSIONS

We are trapped in the middle of an economic-financial crisis, and Romania, I dare to assert, is affected more by the faulty management of some of its leaders than by the crisis itself. Thus in a country where we ask ourselves if there are more retiring persons than employees or if the salaries of the public employees are higher than those of the employees in the private sector or the production and services sector, we definitely have to change fundamental things. One of the ways that I consider to be possible would be the use of some advanced management methods in the Romanian organisations.

It is obvious that the performance and success of an organisation has as basic element the management method governing it. It is certain that Romania cannot find an honourable place in the European Union just by filling in the gaps it “owns” at the present moment. In order to try to do this thing we will surely have to try to use “something else” as working tool within reach of our managers. A solution seems to turn up from a field which is greatly expanding in the majority of the organisations, and that solution would be the advanced management methods that use information and communication technology.

The first step towards regaining a decent position in Europe must be the elaboration of a national strategy for the promotion of professional management that should realistically establish the objectives to be attained according to the status and the needs of the national economy, as well as the ways of actually achieving them, assigning the necessary resources regarding gaining competitive advantages at a managerial and especially economic level. Such a strategy, judiciously designed and unfailingly implemented, can and must represent one of the main stimuli for re-launching the Romanian economy and society, in the complex and harsh context of the transition towards market economy and of the internationalization of economic activities.

The conclusion of the author is that in the 2010 Romania, a country that lately has managed to make itself known worldwide, most often by means of local achievements in the field of software industry, and less in other fields of industry, we should take advantage of this appetite of the Romanians for the computer-science field and try to improve the management of the organisations by prevailingly using these management methods in the category of DSS and BI, that are based on informational tools; and if possible the product has to originate in the Romanian market and at the same time we should always monitor especially the efficiency of the implementation and the efficiency of the investment in management information systems.

REFERENCES

1. Brandas, C. Decision Support Systems for Performance Management: Creation, Design and Implementation, Brumar Publishing House, Timișoara, 2007.
2. Burlea Success Factors for an Information Systems Projects Team Creating

- Şchiopoiu A., New Context, Journal of the International Business Information Management Association Vol. 9, 2009
3. Burlea Şchiopoiu, A. The Complexity of an e-Learning System: A Paradigm for the Human Factor, The Inter-Networked World: ISD Theory, Practice and Education. Vol. 2, SPRINGER-VERLAG: NEW YORK. 2008
 4. Edelhauser, E. Study Regarding the Implementation of Enterprise Resource Planning în the Romanian Companies, The 9th International Conference on Informatics in Economy, Bucharest - Education, Research & Business Technologies, 2009.
 5. Edelhauser, E., Ionica, A. Enterprise Resource Planning through Structural Founds in the Romanian Economy, The 6th International Conference Management of Technological Changes, 2009.
 6. Vessel, D., McDonough, B. Worldwide Business Intelligence Tools 2008 Vendor Shares, IDC Competitive Analysis, Report, Volume: 1, Business Intelligence and Data Warehousing Strategies, 2009.
 7. * * * Implementation of Business Intelligence and Performance Management Tools and Solutions, Computerworld Journal, White Paper, 2007.
 8. * * * Market Share: Business Intelligence, Analytics and Performance Management Software, Worldwide 2008, Gartner Report, 2008.