

MEANINGS OF THE GLOBAL BUSINESS INTELLIGENCE

Dinu AIRINEI

Faculty of Economics and Business Administration
Alexandru Ioan Cuza University
Iasi, Romania
adinu@uaic.ro

Daniel HOMOCIANU

Faculty of Economics and Business Administration
Alexandru Ioan Cuza University
Iasi, Romania
dan.homocianu@gmail.com

Abstract

The paper tries to emphasize the usual meanings of this collocation introduced together with the title. So it starts from the globalization phenomenon and continues with some usages and trends for business intelligence applications within this context. The focus is on the further developments in this field, on their challenges and limits. The approach is a critical one and involves references to global coverage in business intelligence, real-world business intelligence, global and real-time decision-making.

Keywords Globalization, Business Intelligence (BI), Global Business Intelligence (GBI), Real-World Business Intelligence (RWBI), BI Trends

JEL Classification: D89

1. INTRODUCTION

The globalization is sometimes seen as a widening, deepening and speeding up of worldwide interconnectedness in all aspects of contemporary social life [ucatlas.ucsc]. Having many forms of manifestation (industrial, financial, political, informational or cultural) and many triggers (capitalism, rationalism, population, regulation, governmental and economical issues, currency and cultural issues, technological innovation) this phenomenon can be the best explanation for many changes which began to happen from the dawn of the 20th Century [Chernomas, 2003]. Moreover, when both universalizing and particularizing tendencies occur we are dealing with the G-localization.

Business Intelligence as an “insight-making” way of dealing with business data and making decisions is very well connected with the globalization phenomenon, as context, mainly because of collaboration and integration requirements. Therefore we can separate between “starting-point”, enterprise-wide, respectively global business intelligence. The last

form usually requires additional support from the Geographical Information Systems (GIS) and also from the virtualization and data-visualization tools.

But in order to provide a deep understanding of the Global Business Intelligence concept, a lot of organizational barriers, different experiences and cultural limits are to be known and faced.

2. BI FROM SCRATCH TO GLOBAL COVERAGE

In ancient civilizations information concerning taxes, armies, population and many more issues, needed to be collected and stored. With the growth of computing power, came the development of information storage capability. Magnetic tapes, capable of mass storage, turned to disk drives, the technology still being used today. The revolution in data maintenance was the relational database technology also used by the POS (Point-of-sale) transactional systems. But transactional systems as tools were wrong for the job of doing research as their primary purpose was to speed along the transactions. Here comes the BI which comprises a wide array of technologies, practices and protocols required to produce business insights of a good value.

Basically Business Intelligence covers now the following areas:

- Data warehousing;
- ETL and Data Integration;
- Reporting, Analysis and Interactive Dashboards;
- Enterprise Performance Management - it broadens the traditional BI concept using terms as score-carding, planning and budgeting;
- Master Data Management (MDM);
- Metadata management.

There are some important requirements that need to be fulfilled in order to have a successful BI:

- Right answers - representation of the closest possible thing to truth (accuracy);
- Insights of good value - insights of high value are not deduced easily, especially when analyses are not readily available;
- Information on time - small time intervals;
- Actionable conclusions – in order to take advantage of any given situation in the company (actionable insights).

The reliable operation of the BI systems has become crucial for most of the companies because the management got to depend on BI tools to run essential monthly, quarterly, yearly reports for planning or reporting purposes. Thus the need for responsive and competent product support with complete availability and global coverage became a necessity for major corporations [downloads.ingres].

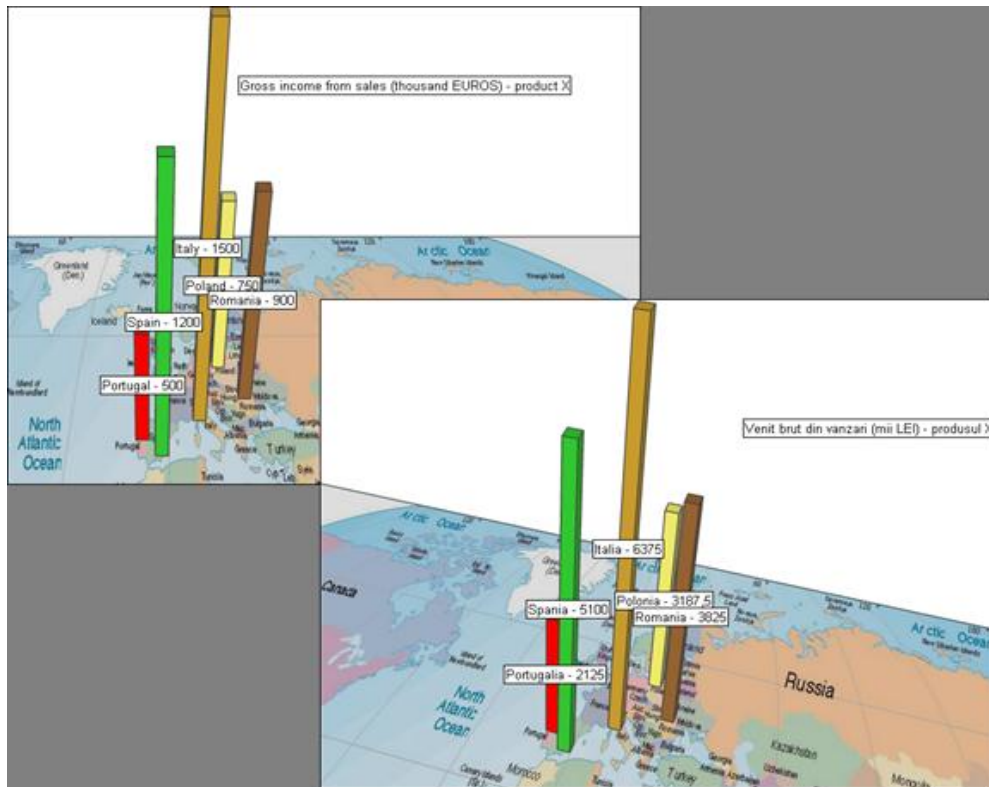
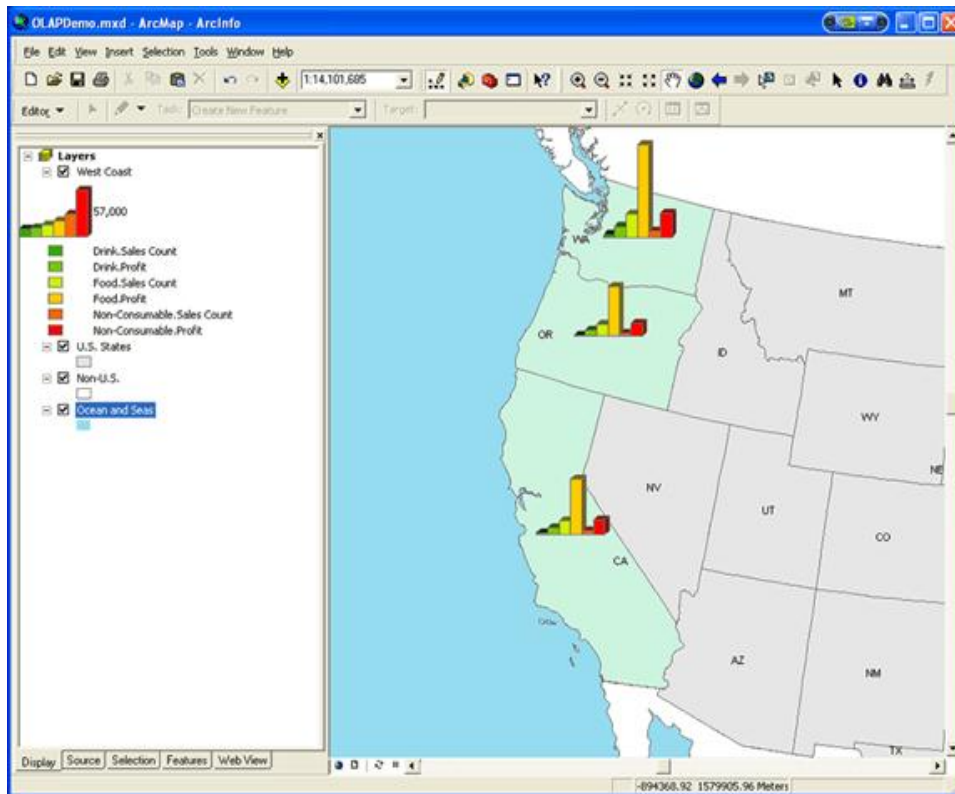


Figure no. 1 Real-time visual access to global data - different (local) 3D views

Although BI has been historically connected with data warehousing technologies, in the future it will be capable of finding and extracting data from source systems and then transform it into whatever will be needed for analysis [bi-dw.info].



Source: [http://www.esri.com/software/arcgis/extensions/olap/graphics/olap_map-1g.gif]

Figure no. 2 Real-time visual access to global data - OLAP map

3. REAL-WORLD BI CHALLENGES

While the fundamental concept of BI meaning to get useful and actionable information from the raw data produced as a result of ongoing business processes has been well-established almost since the dawn of the PC many enterprises continue to struggle with successfully implementing BI and getting it to add real value and a competitive edge to their organizations.

Understanding cultural differences is necessary for conducting business in the context of unfamiliar philosophies. Just as languages don't translate word for word, cultures don't either. Cultural differences, if ignored, can destroy what might otherwise be a successful relationship [Wilfong, 1997]. The cultural and organizational challenges in implementing BI still represent the greatest challenges to BI initiatives. One big problem refers to the process planning, because in spite of the availability of business-to-technology mapping, the business processes should be analyzed well. In order to effectively deliver BI, those processes should be carefully and precisely mapped out and optimized/changed before attaching measurement systems via the BI infrastructure because mapping and reporting on a sub-optimal process rarely makes sense. Usually, the main obstacle is often cultural because few

companies are able to handle mapping and changing large volumes of processes. The key to achieving successful business intelligence is to tie into the business need.

Another example of problems that overflow into technology decisions relates to BI deployments ignoring the experience of users in using some software products (e.g. spreadsheet). While the widespread acceptance of portal technologies now offers a relatively standardized platform for delivering BI information in summary formats (dashboards, scorecards), the spreadsheets remain one of the most widely accepted delivery mechanisms (lately also in mobile computing). So is a difficult task to convince the users to abandon their spreadsheets which offer them a considerable power to access information. One way to minimize this problem is to take advantage of the existing enthusiasm for spreadsheet technologies. So, all portal systems must allow users to export data into spreadsheet format. In order to obtain greater efficiency and to avoid the creation of fresh data islands which isolate new reports from the wider user community, one must deploy those technologies online (see figure no. 3).

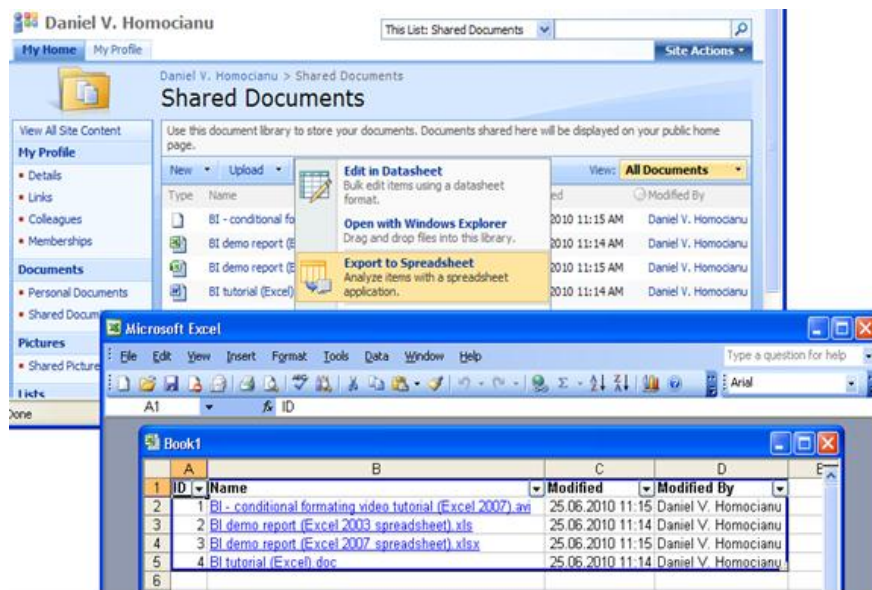


Figure no. 3 On-line exportation (Excel format report) of a file list (portal environment)

A more recent technology challenge in the BI space has been the consolidation amongst analytic vendors, meaning less vendor choices but a simplified task of integrating information from multiple disparate systems. In practice, database technologies are already standardized enough. So accessing data from different systems is not a problem of technology, although the classic inconveniences of identifying disparate data labels and eliminating errors remain.

All these issues need to be considered in conjunction with the identification of the business processes and also with the associated reporting and analysis needs [bdstrategy].

4. TECHNICAL TRENDS FOR BI APPLICATIONS

- In a simple list presented below we have synthesized the last identified trends in the field of business intelligence tools and instruments, indicating some kind of orientation towards:
- Intuitive intelligent information platforms;
- Mobile device productivity;
- Adoption in increasing dependence on visualization, user interfaces and web;
- Acceleration when using automatic data discovery;
- Redefinition of collaboration using social networking;
- Increased dependence on specialized vendors of final solutions;
- Appliance embedding;
- Availability of advanced analytics;
- Software-as-a-service orientation;
- Increased need of new BI specialists [b-eye-network];
- Enterprise-wide data integration as a good investment;
- Exploitation of semantic technologies;
- Narrowed gap between operational systems and data warehouses;
- Growing impact and opportunity of complex event processing;
- Growing importance of integrating and analyzing un/semi- structured data;
- Cloud computing for BI [information-management];
- Open Source offerings on BI market;
- Excel as a dominant paradigm for end-user BI consumption [enterprise irregulars].
- It is true that these tendencies are apparently of technical nature but they are related in many ways to the recent evolutions of the social life and clearly affects the way of doing and managing wide world businesses.

5. CONCLUSIONS

This paper is meant to debate the “Global Business Intelligence” term with its large technological, organizational and cultural implications. Although it begins with generalities, historical facts, classifications and requirements, the focus is gradually set on evolution to global coverage, real-world challenges and perspectives. By that some issues as product support, data access for analysis, real-time capabilities, process planning, specifically infrastructure, technical experience of users and consolidation for vendors are take under consideration and better explained in their relation with business intelligence.

The paper contains some real time reporting examples involving 3D design applications, GIS, portals and spreadsheet products. Together with some identified trends in the field of business intelligence they also come to indirectly support the motivation of associating terms as “Global” and “Business Intelligence”, both of them standing in the title of the paper.

The approach is somehow between critical and pragmatic and that is obvious when seeing theoretical assertions combined and pointing to those effective examples meant to better explain the first ones.

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