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Business intelligence: issues for management

The upset of the terrorism attack on 11 September 2001 in the USA in the financial markets in recent months and the problems of dot.com organizations are indications of possible changes to the structure of the economy that will result from new business models.

Which issues are management facing? Changes, ignorance and useable information. Anticipate incoming changes to mitigate losses and maximize benefits. Ignorance is one of the greatest threats to a modern business. The risk of not knowing is high. Incomplete information can be even more harmful than no information.

One of the pillars of effective and efficient management is based on useable information for decision making. This activity falls in the realm of information management and should be one of the critical management focus areas in the organization. Doing business is information intensive. Organizations are being pushed to share information with increasingly more stakeholders.

Business intelligence (BI) strives to eliminate guessing and ignorance in organizations by leveraging masses of quantitative data collected and captured every day in a variety of corporate applications. It is the most strategic component of information management for improving business decisions based on better information. According to the Butler Group, BI is a set of activities supported by concepts, techniques and technologies for improving business decisions based on better information. Ultimately, it aims at improving the ability of an organization to respond to events and changes in customers, markets or the environment. BI is being driven by the pace of technological development, but also the need to service customers in a more personal and individual way. The BI imperative insists that BI is considered for elevation to a strategic initiative.

What are the issues for management? One of the core issues is the integration of data and information from a variety of sources and from the decision makers themselves and less on the management of information technology (IT). Information management is being neglected due to the fixation with the management of information systems (IS) and IT.

Information is the foundation of a business, allowing each department or area to function. Information resources are not localized and people need to cooperate over time and distance. Organizations, more comfortable operating in the new economy, will be familiar with the characteristic shift in value away from technology and physical assets to information. Well-conceived information management that integrates people with processes and technology could make a breakthrough in creativity and productivity possible. Some examples of business areas that could benefit include market intelligence, sales support, the maintenance of complex systems, remote learning and executive management information.

BI can only become a strategic weapon when business users are able to obtain answers (the information) to questions and make decisions in a time frame consistent with the

requirements of a dynamic and agile organization. Factors driving the organization to consider BI include the need to service customers in a more personal and individual way, the pace of technological development and achieving a sustainable competitive advantage.

BI can assist the organization, according to a Gartner report, in at least four areas:

Make sense of the business
This is the process of trying to understand what drives the business (i.e. what trends, anomalies and behaviours are present). A reasoning process follows this in an effort to organize around these significant trends and leverage them for the benefit of the organization.

Measure performance and projects
Once it is known what to measure, BI can be used to set expectations for employees and help them track and manage their own performance. The budgeting process is an example. Budgets are developed based on the previous period's data and used to drive forecasts for the future. This is then managed throughout the year and measured to ensure that the forecasted budget is met. Using BI in this context, exceptions can be more readily understood and built into the system, if *needed*.

Improve relationships with stakeholders
Providing useful information about the organization and business to customers, employees, suppliers, stockholders and the general public increases awareness and fosters consistency across the information chain. By introducing BI to these groups, one can quickly identify problems and address them before they become crises. BI also fosters customer allegiance. An informed customer who is part of the process is more likely to remain a customer.

Create a profit opportunity
All organizations that capture information about their businesses could sell this information. Competitive and legal issues aside, a real profit opportunity exists for most organizations. The challenge is to determine the buyer and delivery mechanism.

Components or tools that could assist management include the increasingly important role of the Internet in which application-to-application (e.g. intelligent agents) and people-to-people (knowledge management) could play a more important strategic role. The mechanism used to take into account the data collected from the surrounding world is the subject of 'cybernetics'. If it is viewed that organizations are systems, then BI is a component of the control of such systems; control based on the reactions of customers, the market, the competition and the environment, obtained through a feedback mechanism and so on. Separate facts may not have any value, but when combined represent information with context; if an organization in the financial services sector shows interest in retail channels, this may indicate a change of direction or a diversification that could be of interest to competitors.
Before disparate data sources can be joined and integrated, the organization must embark on the process of an information audit to identify and recognize the information sources that exist and their potential. If the decision maker or 'information customer' has to spend hours searching through a huge report, performing analysis, or waiting for a report, then the value and potential of the information are being wasted. The benefit of BI, including maximum return of the BI investment, should include the mechanisms for delivering the information to the required users.

Current business initiatives, such as e-business, enterpriser resource planning (ERP), knowledge management (KM) and customer relationship management (CRM), have now all become imperative to improve corporate agility. What is the issue for management? The need for an information portal covering and supporting the organization. One of the

characteristics of such an enterprise information portal (EIP) is the ability to address personalization to a particular user or group of users.

Other issues requiring the attention of management include the user interface and business model. The user interface is a challenging subject where new innovative solutions are required to access the BI system. A number of different views of what BI represents is prevalent in business. BI could be dissected into four core entities; users, documents, filter and context. Organizations may consider the need to adopt a more formal corporate business model, which can provide end-to-end process alignment to the business strategy across both new and legacy systems.

The demise of many dot.com organizations should not give a false sense that the importance of information in the organization is now diluted. A false sense could prevail that information and communications technology (ICT) is a pervasive technology and an economical force (according to Butler more people are reported to work for IT than in the automotive industry), which is influencing the belief that the end of the transition to the new information age has been reached.

Sustainability and power in conducting business will be granted to those organizations that have the capability, through intelligence, to develop real-time insight and increase collaboration. The application of information and knowledge could assist in anticipating incoming changes to mitigate losses and to maximize benefits that may arise from these changes. BI can play a significant strategic role in the organization to achieve business sustainability.

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