Big Data - to Address The Business Issues

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***Abstract* — Paper is focused on key success elements of big data analytics, business needs and demands, fact-based decision making culture. The efficiency of big data dedicated analytical tools was considered in conjunction with analyze and getting deep insight on current business data for improved performance and results.**

Keywords — Big Data, desition making technology; decision support data management, big data projects.

I. INTRODUCTION

The Big Data ─ is it panacea for companies of business problems, especially during economic crisis? Is it practically helpful? What are the specific capabilities of big data to leverage business activity, to increase revenues from enlarged client basis? What might be an ultimate goal of exploiting of big data as a new business enabler?

The definite answer to these questions would help business stakeholders to avoid thoughts of Big Data as kind of cut-end science experiment. There should be clear business insight into real benefits of Big Data specific opportunities that might drive upgrating of enterprises' current business processes. Big Data is promised to be very instrumental to empower managers to concatenate disembodied data and fragmented, subtle information to reveal current latent processes that could directly affect their business. Variety of data sources, foreseeable analytics ─ are key to big data potentialities that strengthen their current business intelligence to improve the quality of decision making on cases that incorporate their customer and products. From Big Data related experience of many advanced companies it is obvious that the Big Data based market researches and monitoring methods are far more powerful and precise than that were used in past [1]. It gives more flexible tools to develop smarter decisions and make better predictions in areas where so far the only intuition and oversee tooling is prevailed over. As the approaches and analysis tools of big data spread the smart business stakeholders see using big data for what it is ─ deliver new functionality and capabilities to meet the demands and challenges of dynamically changed business situation.

Overwhelming growth of easier accessible of new sources of information favours the gradual digitizing of business activity when the intelligently utilization of huge amounts of on-line information helps to improve business performance. New sources of various data are expected to be able to shed new light on almost any business issues ─ from customer sympathies to supplier relationships.

As large corporations look for leverage for their information assets, the importance of data predominating in any virtual field of interest of business is increasingly magnified. Numerous surveys on Big Data [4] initiatives on analytical application of data among peer institutions discovered that the companies shared a common interest and common objective to utilize effectively data and analytics in supporting of their main business aims. The surveys also revealed that 70% of world famous brand companies have either already deployed or are working on plans to deploy big data-related specific programs. There are huge amounts of Big Data technologies behind new data processing, visualization, and analytical instruments, are aimed to take market share away from well-knowing traditional business intelligence vendors.

A tremendous part of surveys 80% underscore [3] that the dedicated Big Data tools or architectures are already used or planning to use in companies' production environment to cope with the come in of huge amounts of data.

II. BİG DATA AS PROVİDER OF DECİSİON SUPPORT TECHNOLOGİES

The greatest benefit of Big Data for the business intelligence is the leveraging of massive and aggregated data sets from different sources which are difficult to process by traditional methods. Big Data is intended to help companies understand definitely which client groups are unsatisfied with offered service, what is the customer expectation and fix faulty processes or retailer that caused dissatisfaction. To retrieve the relevant information, the huge amount of unstructured bytes from different sources should be handled before the information strips give us the full picture. In principle the similar market analysis can be done by traditional data warehousing approaches in weeks or months. But big data technologies do it several times faster, they are not held captive by their current user base. The most of considerable sources for big data are quite new. The images, multimedia products, comments, messages nowadays are main sources of information. The real business impact is that big data technologies empower managers to measure, and hence to get to know, radically more about own businesses, and immediately convert obtained knowledge into improved decision making and performance. That way [3] business executives could track not what customers purchased, also what else they are seeking for; what they navigated for through on-line shopping; how much they were influenced by promotions, reviews, and page layouts; and similarities across individuals and groups. Big data technologies make available

unexpected sources of data accessible. Those in turn open up opportunities for newcomers to find better way to use big data than an insider.

The technical aspects of big data usage are very practical. It is invaluable to help the enterprises to figure out what to offer to market, and where to go next. However the managerial challenges in most cases are dealing with the role of senior executive staff. Big data related analytic [2] techniques introduce new culture of decision making that encompass:

-Big Data technologies do not diminish role of manager in decision making and do not deny the need for vision or human insight. Especially, when data not available, the experience and intuition of managers have distinguished value;

-To be confident in quality of fetched data and how far you might rely on big data analytical outcomes;

-Critical aspects of big data is its impact on how decisions are made and who gets to make them;

-Data professionals specialized at working with large amount of information. New generation of computer scientists are bringing to bear techniques for working with very large data sets;

-Employing of available open-source software combined with commodity hardware to integrate all relevant internal and external sources of data; to gather, handle and analyze of incoming streams of data and distributes them onto cheap monitoring disks;

-In era of big data, the information is created and transferred, and expertise is often not where the relevant decision making rights are used to be;

-Employees having clear insight into problems to be incorporated with the right data, and with people having problem-solving techniques to exploit them effectively;

-Suppression of imitations of being more data-driven company than they actually are. It's quite easy to make an error to find cause-and-effect relation, and find the numbers that would justify the decision;

The outcomes are self-evident: data-driven decision-making tend to be better decisions. Business executers should decide how harness big data to transform decision making for sector after sector. But the data tell us that's the surest bet.

Foremost the principal point is that any data collecting and collating should be separated from Big data dedicated analytics. Business entities demand immediate insight into their momentary situation — strike moment in time where information and current data fuels decision-making, prompts a client to purchase, and get companies to present brand immutability across services. However, companies need current data from a big group of sources in order to feed processes through the combination of big data and analytics. The global supply chain management provides opportunities to [3] demonstrate how relationship between big data and analytics generates more efficient business processes.

What is much demanded ─ is to have actionable business intelligence retrieved from big data. To find the clue idea held therein, the big data specific tools are required for the predictive analytics to mine them. Intelligent predictions of business processes in future can be elaborated on the base of predictive analytics platforms. That is highly competitive market that includes world famous brands as well as several new companies that are specializing in data visualization and geospatial analysis. Business analysts apply algorithms to company's data sets to yield granular and real-time predictions. It takes form of recursive process for predictive analytics

III. LEVELS OF BIG DATA IMPLICATION INTO BUSINESS

Different companies are moving ahead at different paces with respect to how they fast are adopting big data to their business and how wide they are implementing the advanced analytics to create competitive advantage. As many surveys revealed [5] the most advanced companies in their strive to be data-driven went through several levels:

- to monitor current business activity to deploy BI (Business Intelligence) solutions. BI utilizes basic analytical methods to set alert under- or over-performance areas of business, and automates sending alerts with relevant information to business executers;

- through the Business Monitoring do observation on a specific area of business where these particular actions can be taken to improve business performance;

- enterprises develop and implement embedded analytics enabling automatically optimize parts of their business processes;

- companies try to sale to different organizations the packet of their firsthand data including analytical insights. Integrate analytic results directly into manufactured products to create more "sophisticated" products. They incorporate actionable insights and outcomes to deepen their client relationships and seriously review their "customer experience."

-ultimate aim of advanced companies in using dedicated Big Data tools is to leverage the insights that they are gathering about their clients' usage patterns, product performance behaviors, and dominated market trends [5] to convert their business models into advanced services in new markets;

The business opportunities have much of future with regards to how and where companies can exploit big data and how they can benefit from advanced analytics to navigate their business perspectives – from observation over the monetization of data for business usage to building intercorporated newest net business models

Presumably enterprises need to get grasp what they want to achieve from business perspective. Before commences travel through big data space it is required to know intended waybill destination.

The companies proceeded on the assumption that Big-data related projects have a several layers of formalization from abstracting of big data up to exercising analytics against the formalized data. General elements of analytical Big-data and are their relation to each other. The higher level elements allow to simplify big data projects and do them more productive. Underlying thought is Hadoop is usually at the core of Big-data projects, but it is not obligatory

IV. BENEFİTS OF BİG DATA SPECİFİC ANALYTİCS

Collecting and storing Big Data is just collecting and storing data. Big Data by its own cannot create business value. Business value could be created only when data is handled, processed analyzed, collated and acted on. The benefits from big data analytics [2] can be varied, and could be a basis for competitive advantage. Big data has strong perspective in business forecasting due to its potential benefits of using data and analytics in decision making. It is revealed that publically traded firms found that enterprises that have implemented "data-driven decision-making" gain output and productivity that is 5-6% higher than different companies. It is included relationship expanded to performance elements like asset market value, return on equity and utilization. Findings indicate [6] that top-performing organizations use analytics five times more than lower performers.

There are also potential benefits from governments' use of big data, following the scenario how to take advantages of big data analytics: to reduce strain on services and infrastructure because of growing population but a reduced; to improve health care to stimulate its efficiency and less investment; to strengthen levels of security through effective predictions of threats to public safety and national borders; to increase accuracy in prediction and managing of country's economy risks.

Impact of big data might to fuel development of the Internet itself. Abstracting from the specifics of each project, we can identify their common features that ensure their success

-projects should be focused on business issues rather than technologically oriented. The business needs should be addressed ─ solving a problem or seeking for opportunity.

-it is dead-end road when some executives to push big data projects without clearly identified goals;

-big data analytics projects focus on customer-centric objectives and exploit current and newly accessible internal sources of data;

-big data analytics projects are particularly useful for enterprises that want to get better understanding of customers demands, develop adequate relationships with customers, and intensify operations that enlarge customer experience.

-apart from focus, successful big data initiatives have to begin with a narrowly specified set of objectives rather than a sluggish " create it — they will come up" approach.

CONCLUSSİONS

Big data can be considered as very recently generated tool that support computer-based decision making. It supports a data-centric approach to modeling business operations and processes. Big data is 4th generation of decision support data management system. It introduces the capacities to grasp, store, and analyze high-volume, high-velocity, and high-variety data. That capacities provide support to automatic decisions making processes. Big data devoted analytic introduced mew type of fact-based decision-making culture. Business is getting to be able to "run by the numbers" and to do experimentation to see what works best. The shaping and supporting of this culture depends on senior management. Big data begets different [7] new data management technologies, systems and platforms. The Big data dedicated analytics requires traditional tools and as well as newest data analysis and visualization languages. However, most important are there business users, analysts, and data scientists who can work with and handle big data.

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