

CAN BIG DATA BE A PANACEA FOR BUSINESS?

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This issue features a number of interesting but varied articles on the theme of business. There is focus on economic issues (e.g., Mudaraba Financing), environmental issues (e.g., BP Oil disaster), and social issues (e.g., smart education, job satisfaction and CSR) facing businesses. There is an acute need for supporting businesses for efficiently managing these economic, social and environmental issues. Can Big Data be a panacea here?

The idea of Big Data became evident with the advent of the internet and digital communications. Astounding levels of data gets generated every minute, every second, even every nano second. There is realisation that this Big Data holds promise to organisations in getting deeper insights into their customers, partners, and other stakeholders. Big Data can touch economic, environmental and social issues addressed in individual articles in this issue.

Economic issues are the prime reasons why businesses are interested in Big Data. There is potential, which is partly realised at this stage with a number of success stories, that investing in Big Data provides substantial returns on investment. Retail organisations that are able to better understand customers are able to provide right products to customers at right time to maximise not only their own profits but also customers' satisfaction levels. Logistics organisations are able to provide accurate information on the location of their trucks with Big Data, which helps their customers plan their activities more effectively. Small farmers, agriculture and fishing are seeing more yield with optimised farming/fishing system thanks to the use of Big Data. Manufacturing organisations are able to use Big Data to organise schedules more effectively and monitor health of their production machinery. In health care, Big Data is being used to remotely monitor patient health.

Environmental issues are getting better addressed with the help of Big Data. Thus increased understanding of customers by retail firms reduces the chances of overselling and saves money. Individuals are able to buy exactly what they want (as helped by the Smart machines such as smart fridges) and thus can avoid waste. Any excess food can be shared to needy people with smartphone apps. With Big Data, quality of produce can be tracked during transportation and appropriate rerouting can be done depending on quality.

Social benefits of Big Data use have also been explored. For example, in social sectors, big data is helping to reduce crime rate and support effective social care. Local councils can rely on smart sensors for making appropriate social decisions (e.g., rerouting buses or locating potholes). Universities can use big data for efficient learning analytics and improve benefits to learners.

However, it is time to think about the impacts of continuing emphasis on the use of Big Data. What is the negative side of using Big Data? What if Big Data is misused for bringing destruction? When will we enter “analytics paralysis” and how can we avoid it? Is human intelligence integral part of the evolution of Big Data or can we continue to rely of amazing computing power for simply number crunching? What are the conditions leading to “trusting” big data analytics or disbelieving it? Does Big Data only help big companies that continue to invest in related technologies? How can smaller companies be empowered to benefit from Big Data? How can the privacy and security of individuals be protected in the era of Big Data (for example, avoiding cold callers who locate vulnerable individuals with the help of Big Data)?

There are no quick answers to these issues but it is important to remind us the dark side of Big Data while businesses continue to exploit it for achieving economic, social and environmental improvement. With this in mind, we hope that the readers will enjoy reading the articles in this issue.

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