Call for Papers - Special Issue

The Impact of Big Data on Decision-Making, Processes and Organizational Change

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Mastering and managing the abundant flow of information known as "Big Data" today represents a real challenge for organizations (Wamba et al., 2017).

Big Data is one of the most popular topics across a wide range of academic disciplines, industry sectors, and business functions, and widely influences organizations and society in general. Moreover, Big Data has high-level operational and strategic potential in terms of business value creation and competitive advantage (Mikalef et al., 2020).

Proper integration of the large volume of structured and unstructured data enables managers to obtain easy access to useful information, improve their decision-making, and foster innovations to ultimately develop a competitive advantage.

Big Data can be used to predict consumer behaviour and adjust marketing strategies. More precisely, it can be used in the following ways:

(i) for companies to get to know their customers better and gain a deeper understanding of their needs in order to improve consumer engagement and loyalty by offering them tailor-made offers (Park, 2019),
(ii) to assess the risk of potential clients in terms of credit or insurance (van Thiel & van Raaij, 2019),
(iii) to better understand branding issues (Shirdastian et al., 2019),
(iv) to predict consumer needs and expectations and estimate potential sales. For example, Amazon conducts targeted email campaigns to propose products to people who have made a recent purchase or search. Boone et al. (2018) show how the quantity and quality of user-generated Facebook data can be used to enhance product forecasts, and improve out-of-sample forecast errors,
(v) to co-create products. Evidence from the findings of Acharya et al. (2018) suggests that knowledge-based interactions between customers and the salesforce in fashion retailing organizations form the core of knowledge co-creation. Their results have revealed that Big Data can indeed support knowledge co-creation, which can in turn effectively lead to evidence-based, successful and efficient decision-making and can strengthen profitability.

(vi) to adjust prices in real time. Big Data enable automatic price calculation for revenue management based on changes in demand, competition and consumer profiles (Antonio et al., 2019).

(vii) to highlight stakeholder insights so that more effective communication strategies can be implemented (Wiencierz & Röttger, 2017).

(viii) to better understand the end-user consumer experience and the problems encountered in product use: condition of use, deviation of use, damage to products, guarantees, fraud (Zhou et al., 2020), etc.

Big Data also improves production, distribution and logistics within companies. For example, Big Data enables the identification of optimal facility locations and the distribution processes of an international manufacturing network to meet the demand of global markets (Mishra & Singh, 2020).

However, using Big Data may lead to some problems and risks due to the organizational changes it induces. There is a high risk of "organizational myopia" due to the radical transformation caused by operating in data mode, placing data at the heart of the corporate strategy and business models. It is a real mutation, a change of DNA, which impacts the whole business process and even redefines their ways of working, communicating and interacting.

Moreover, Big Data has numerous security and ethical issues for managers, including its impact on consumer equality, diversity, autonomy, wellbeing, and protection. Accordingly, Big Data can be mobilised for a variety of purposes, some of which may have positive outcomes for the community, specifically in healthcare sectors (Obermeyer and Emanuel, 2016) and social policy (Blumenstock et al., 2015). In healthcare, Big Data introduces new opportunities for medical practitioners and patients with the improvement of medical treatments and patient quality of life. However, ethical issues relative to the personal privacy involved in healthcare data acquisition, storage, and processing have become predominant in some countries (Clim et al., 2019). The list of dilemmas created by advances in Big Data is long (Ludwin and Murray, 2017).

The question thus arises of how companies, public institutions, stakeholders, etc. should resolve such dilemmas. Indeed, the new and complex field of Big Data offers numerous
opportunities for research and dialogue among researchers and practitioners. Therefore, this special issue focuses on impacts of Big Data, and especially (more precisely) how it affects access to new information, and knowledge sharing and transfer, in order to enable decision-making, strengthen innovation and ensure successful transformations within organizations.

**Suggested Topics (non-exhaustive list)**

- Using Big Data to analyse customer behaviour and behavioural intentions
- Big Data and marketing strategies
- Big Data and intra- and inter-company knowledge sharing
- Using Big Data to support fast prototyping and Lean start-up
- Big Data and distribution strategies
- Big Data and logistical processes
- Big Data and healthcare issues
- Big Data and organizational change
- Big Data and social media
- Big Data and collective intelligence
- Big Data and artificial intelligence
- Big Data and ethical issues
- Big Data and governance

**Details of Paper Submission and Due Date**

The authors are encouraged to present their paper at the “Digital, Innovation, Entrepreneurship & Financing” (DIF 2021) international conference which will be held on December 20-22, 2021 in Lyon (France).

[https://dif2021.sciencesconf.org](https://dif2021.sciencesconf.org)

Interested contributors should preferably (ideally) submit full papers in PDF format in English, but extended abstracts may also be considered if they show considerable potential, no later than Sept. 15, 2021 via:

1/ email to Prof. JM. Sahut, jmsahut@gmail.com

2/ the submission platform of the DIF 2021 conference: [https://dif2021.sciencesconf.org](https://dif2021.sciencesconf.org)

In a second step, after the conference, the selected papers will be submitted to the CJAS submission platform, no later than January 31, 2022.
References


