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Challenges and Outcomes using Big Data as a Service

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Big Data as a Service (BDaaS) encompasses the software, data warehousing, infrastructure, and platform service models in order to deliver advanced analysis of large data sets, generally through a cloud-based network. It is a solution-based system designed to provide organizations with the wide-ranging capabilities to gain insights from data. With a rapidly growing amount of data, businesses require advanced technologies to harness the power of data science effectively (Al-Hakeem 2016). These convergent technological trends will significantly redefine business applications for both e-business and more traditional sectors such as manufacturing or logistics. As enterprises acquire the opportunity to store and analyze gigantic amounts of data, ranging from detailed customer behavior traces to demographic shifts of clientele in emerging markets, they play a significant role in creating novel business opportunities. Further, it helps them to disparate data to drive insights through which the businesses can make efficient decisions and create a competitive advantage. Practically, big data services are most important for business applications, not just because the data is big but also because its potential or impact is tremendous (Wessels and Jokonya 2022; Sharma 2021). Despite the advantages, the major challenge in dealing with big data applications is that it requires more innovative technological solutions that replace the traditional databases with more scalable architectures. This is where big data as a service (BDaaS) can make a difference for business applications (Elshawi et al. 2018; Ardagna et al. 2021; Singh et al. 2019). BDaaS has been commercialized and implemented in many business platforms. The cloud infrastructure required to use BDaaS is provided by both Microsoft Azure and Google BigQuery, which are both data services. The cloud data lake, data warehousing, and data sharing are located on top of the data services layer (Fan and Rana 2021). Their purpose is to offer the analytics and sharing bridges that lead to end user analytics (Katal et al. 2021).

BDaaS solutions implementations take entire business IT platforms to the next level. They integrate various software services and apply them to massively large datasets in turn helping organizations meet evolving needs faster, more accurately and more cost-effectively. Furthermore, offloading data management across BDaaS platforms provides more internal capacity for business development. With BDaaS, businesses are no longer associated with their local servers and storage systems. It enables them to securely store their data and access it across remote locations, such that they can efficiently collaborate with their business partners and extract important business insights to drive their business. In short

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terms, BDaaS enables access to business data from anywhere in the world and at any time. So that businesses of all kinds and sizes, particularly the E-business applications, can acquire a maximum benefit from using BDaaS tools. Some of the considerable advantages include seamless data access, easier setup, remote collaboration, data crash protection, improved financial reporting, cost- effectiveness, and providing more advanced insights for various business improvements. An E- business application can regularly track the user activities without compromising security and implement the extracted insights in a meaningful way to acquire benefits in offering more advanced services to the end-users.

This special issue intends to explore the advances in BDaaS to enhance the customer relationship measures across the entire spectrum of business applications.

Topics of interest include, but not limited to, the following:

- Role of BDaaS in the evolution of business applications for future era
- Benefits and challenges of BDaaS in business applications
- Advances in BDaaS for data intensive applications
- BDaaS for personalization of commerce services and products
- Implications of mobile commerce and ubiquitous applications on BDaaS
- Emerging technological innovations in BDaaS for business applications
- Business intelligence sharing across E-commerce platforms with advanced BDaaS tools and techniques
- Role of BDaaS in changing landscape of E-business applications
- Emerging trends in E-business with BDaaS
- Enabling better user engagement in E-business applications with BDaaS
- Providing user-centered Experience in E-business with BDaaS
- Human–Computer Interaction Framework for BDaaS
- Data Security and Privacy in BDaaS
- Data Management and Authorization for BDaaS

We welcome researchers and practitioners from various backgrounds to present their novel and innovative research contributions relating to these topics against this background.

Schedule Timeline:

Submission Deadline	2 January 2023
Author Notification 1	15 April 2023
Completion Revision 1	1 July 2023
Author Notification 2	1 August 2023
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