

Measuring the performance of big data analytics process

ABSTRACT

Big data analytics (BDA) in a process perspective has major benefits towards a better outcome, thereby satisfied customers and evidence-based practices. The aim of BDA is to examine and analyze raw data and to derive and extract actionable insights from it. BDA involves data and tools for processing and analyzing, and the process which data is handled and managed. BDA process is the end-to-end process which consists of phases named as data acquisition, data preparation (integration and preprocessing), data analysis, visualizations and interpretation. The performance of big data analytics is not merely dependent on having quality data input, but also on performance of the process which the data goes through from acquisition to visualization and interpretation. Measuring the process performance has the benefit of identifying problems and launching corrective actions before these problems deteriorate. The aim of this paper is to present the evaluation for BDA process performance. In view of that, the study identifies the measures, metrics, and indicators for each phase of the BDA process. A subject-matter expert review and a pilot study were conducted, and the results obtained were reported in this paper.

Keyword: BDA process; Process performance; Big data; Measures; Performance measurement