

The UAE Employees' Perceptions Towards Factors for Sustaining Big Data Implementation and Continuous Impact on their Organization's Performance

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Summary

Purpose and importance of study for the UAE – UAE has officially launched the Big Data Initiative in the year 2022 as part of the 2030 Agenda for Sustainable Development. Even though it is recently officiated, the Big Data technologies have been adopted and implemented in a large scale by organizations from both public and private sectors. One of essential component to ensure the success of the new technologies is the employees and their perceptions towards the implementation of the Big Data and its sustainability. The purpose of the study is to investigate the perceptions of employees in UAE on the factors that contribute towards sustaining the implementation of Big Data initiatives.

Methods – the selection of the organizations that participated in the study is judgmental and the participants are randomly selected from different levels of ranking within the organizations. The survey consists of 40 questions with 5-point Likert-scale including questions on the demographic profile. The data is analyzed using SMART-PLS to construct the validity and reliability of the hypotheses. The constructs that are involved in the study are related to the Quality of Big Data Architecture, Organizational Readiness, Human Factors and Business Performance.

Study key points – The study looks at the quality of the Big Data architecture in terms of scalability, compatibility, and connectivity as factors towards the sustainability. The organizational aspects with regards to alignment of value creation to the Big Data strategy, e-governance maturity level and Big Data governance framework as well as the availability of the expert are also the concern of the study. The study also focuses on the cognitive styles of the staff in the organization as these could be the moderating impact to other factors. Finally,

the perceptions towards the improvement of business performance as the results of the Big Data implementations, are measured.

Findings – the result indicates that 58.8% of the respondents believe that their organizations have the factors needed to ensure sustainability of the Big Data implementation. The results can be interpreted in various ways. Even though the survey requires employees to be in the organizations that implemented the Big Data initiatives, some respondents may not directly be involved in the initiatives to express their opinion positively. The investigation intends to collect perspectives from general audiences regardless of technical background or designation of respondents, hence, the result shown is within the expectation. Finally, majority of the organizations are in the early stage (2 – 4 years) of implementation such that the impact at personal level is less conspicuous.

Recommendations – the study on the sustainability of big data implementation should be conducted in periodical manner by organizations to measure the appreciation of employees as well as the stakeholders or the customers who are the main target of the beneficiaries on the new technology adoptions. It is also recommended that the study to be conducted by segregating the demographic for closer understanding on the perspectives by different group of people. This is achievable if the survey is conducted internally by the organizations as controlled experiment.