

Why Do The Higher Education Institutions Need Big Data Management?

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The number of the students who are studying at the universities has markedly increases while million students have been taking online courses. The interaction of the data has rapidly improved due to the Internet ecosystems: therefore, big data mining and management play important and crucial role in the sustainable growth, success, and quality assurance of the universities. By measuring the students' achievement, knowing the credits and courses taken by the students, assessing the professors' success and qualifications, and analyzing the attendance lists, the ability to empower and improve the quality of the higher education has significantly become possible and strategic. By knowing the expenses, by studying the investments on research, education, and administration, the strategic planning and the effective and efficient allocation of the financial power can be much better than ever before. The confluence of higher education institutions, mainly those in the best ranking lists, and big data management represents an extraordinary change and transformation in the innovative ecosystem in which students, academics, admins, and entire university network would benefit because of the systematic and strategic revolution. The impacts of big data mining and management on higher education institutions' sustainable funding, financing, planning, success, research and development, and innovation were critically studied. By studying the perceptions and the experiences of the managers (23), the experienced academics (32) who were responsible about the data mining and management at two state and two private universities, why the higher education institution need critically, crucially, and strategically the big data mining and management is answered. The phenomenological analysis was preferred in this study, in which twenty-eight research questions were answered through the semi-structured interactive interviews. The collected data of this study, which were analyzed in data analysis software-program NVivo 10, showed clearly that a few number of the participants (28%), who were active in planning, funding, investing, and performing according to the big data mining results, had significantly much better results in using their financial investments. However, those (78%), who could not be so successful in using big data mining and management, lose their vision and long-term strategy in making good investments. As the participants (45%) had declared that the best big data management reports had opened new dimension for the administration in developing better classes in which better professors were chosen at the right time and at the right places where the students' achievements and happiness had markedly improved. In conclusion, the effective and efficient structure had been analyzed in order to improve the efficiency of the students, as well as the faculty and the administrations. According to the participants (76%), since the big data mining and management had clearly and crucially showed the drawbacks and benefits, the higher education administration had significantly found more opportunities to make right investments and improvements. In this way, they could invest in the right research and development projects, which accelerate both their sustainable growth, success, and reputation. However, those, who could not control and give feedbacks by means of big data mining and management, did not have good results and consequences as the other higher institutions had done.

keywords: higher education institutions, universities, big data management, data mining, sustainable growth and development, quality assurance, funding of the universities.