THE IMPACTS OF THE BIG DATA MANAGEMENT ON THE MANAGEMENT OF THE UNIVERSITY HOSPITALS

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Abstract

The university hospitals – called teaching hospitals – face serious management challenges in all over the world because of the economic conditions in the countries and changing demands of the patients. Hence, in order to deal with these problems, the big data mining and management has been used. In most university hospitals, the leaders have been reevaluated the current situations and decided according to the results of the big data mining and management.

In this comparative research study, the leaders in the university hospitals have been engaged in order to understand deeply how the data mining and management is used to improve the management of the university hospitals in Turkey and in the US taking into account four hospitals. The semi-structured interviews have been chosen by asking 29 open-ended questionnaires for the participants (n=25). Then, all the collected data are clustered and analyzed by using NVivo. In that way, as the main goal of this study, how the data mining and management would be used in improving the management of university hospitals is critically studied.

The analyzed research results show that the participants who are coming from the American university hospitals are more aware about the big data mining and management than Turkish participants since they have spent more time and efforts on existing challenges, strategies, and processes. Secondly, the use of the big data mining and management give them (75%) the opportunities to reevaluate and change their strategies to cope with the global economic ecosystem. More importantly, the big data and mining results allow them how to redesign their organizations to be effective and efficient. Additionally, the leaders of the university hospitals by using the big data mining and management can cope with the growing medical records. In that way, it is easily control the history of the patients’ health even those who are coming from different hospitals. According to the participants, to have the big data of the gives the chances to improve their patients’ recovery percentage in their hospitals, which help to decrease their finances. Furthermore, the use of big data mining and management upgrade the doctors, including the students’ analyses since they have the most updated data to make different comparative analyses. In most of the hospitals in which the big data mining and analyses are used effectively, the academic studies of the researchers are improved in terms of the comparative analyses on different illnesses, including those of the rare ones. As a result, most of the sophisticated analyses have been developed in order to use in the field of the pharmacy as well in the healthcare of the other patients’ recovery. Additionally, as the participants have clearly mentioned that the big data mining and management gives the opportunities to analyze and to predict properly the future. Due to the fact that the university hospitals have the record of the past years, the doctors understand better the medical conditions of their patients in order to make better treatment. These conditions also help the education of the students in the medical schools since they have more well-rounded information and analyses even to decrease the costs of the hospitals. Consequently, the results of this study show that the leaders of the university hospitals should use effectively and efficiently the big data mining and management to improve the infrastructure of the university hospitals.

Keywords: Big Data Management, University, University Hospitals, Leadership, University Administration.