

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY FACULTY OF APPLIED SCIENCES DEPARTMENT OF COMPUTER SCIENCE

AN INVESTIGATION OF THE USE OF BIG DATA IN COMMUNITY DEVELOPMENT SECTOR IN ZIMBABWE.

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Abstract

The aim of this research was to assess the use of big data by the development sector in Zimbabwe. The major objectives were to explore the usage of big data by development sector in Zimbabwe, challenges being faced and suggest methods of improving its use. The research was carried out in 86 organisations from the development sector in Zimbabwe comprising of international non-governmental organisations and inter-governmental organisations including the United Nations. The research used the positivism philosophy because of the objectivity of the objectives. The research depended mainly on quantitative data collection and analysis methods although there were some elements of qualitative techniques in the analysis of some of the data. The research also took a deductive since the researcher was test existing theories from the empirical data. After data analysis, the results of the analysis showed that development sector in Zimbabwe was not using data for decision making. This means that these organisations were not benefiting from the competitive advantage created by the use of big data to reduce cost and increase productivity. Another finding was that the organisations which had big data strategies in place had no adequate access to relevant, accurate and timely data. In terms of big data skills, it was discovered that the development sector was still relying heavily on skills for managing small datasets which suggests that the volumes of data being analysed were still very low. The biggest challenge of big data was found to be shortage of big data skills. The only other challenge was the lack of policy and legal framework to guide the handling and use of data in general. It was recommended that the that organisations should come up with big data strategies where managers take a leading role and decision making should be based on the evidence generated from the data. It was also recommended to build the capacity of the data management personnel in big data so as to get value from the use of big data. Organisations were recommended to use cloud computing services to promote the usage of big data so that they cut costs on data collection, processing and storage. The policymakers were recommended to come up with policies and legal framework that promotes the use of big data in the country.