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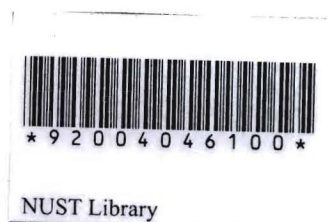


The design of a data driven business decision model - Application of Business Intelligence at Air Zimbabwe

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Abstract

Organisations are collecting more and more business data by the day. This data is a potential key resource in increasing an organisation's market share and revenue. This potential is however not always realised as companies may be unable to fully utilise the data at their disposal. Reasons for this may include the unstructured nature of some of the data, for example data coming through social media, or the data residing in many different systems that use incompatible technologies. The purpose of this research was to develop a business intelligence based data driven decision model for use by Air Zimbabwe. The researcher was guided by the TOE theoretical framework in determining technological, organisational and environmental factors to be considered in developing the model. Questionnaires and interviews were used to gauge the current decision model, assess the potential for the adoption of business intelligence, and identify key questions that any business intelligence tool would need to answer. Key applications that house the requisite data for decision making were identified. A high level business intelligence model was developed. It was refined to build a data warehouse, outline the process of extracting data from current systems, transform it, and load it into this data warehouse. Analytics features such as OLAP cubes and the multidimensional expressions language (MDX) were incorporated into this model. Reporting and data presentation features that include interactive dashboards were designed, and a demonstration of the Business Intelligence functionality was done using Microsoft Power-BI desktop.