

ANALYSIS OF BIG DATA MATURITY STAGE IN HOSPITALITY INDUSTRY

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Introduction

Big data analytics has attracted a lot of attention in recent years from many industries and businesses due to its huge impact on businesses operations, decision making process, and profitability. As increasing the revenue and improving guest experience are the core goals of the hospitality industry, having a proper and efficient big data analytics platform can dramatically lead the industry to reach its goals and affect the way the industry runs in all the mentioned areas. Unfortunately, most of the hotels currently do not have enough knowledge about their acquired data, hence the data remains under-appreciated and under-used asset. For instance, most hotels capture data about customer loyalty, but very few go beyond the data collection stage and actually exploit this data to enhance their knowledge of their guests and develop a better understanding of the behavior of different customer segments, their expectations, and needs (Marr, 2016). Currently hotels collect more volumes of data than they can actually manage or analyze, however, hoteliers are aware of the significance of big data and its effectiveness on creating strategic competitive advantage. In order to gain a strategic competitive advantage, hotels need to understand where they are, where they have been, and where they need to go on their big data deployments. This study aims to guide information technology (IT) professionals in hospitality on their big data expedition. In particular, the purpose of this study is to identify the maturity stage of the big data in hospitality industry in an objective way so that hotels be able to understand their progress, and realize what it will take to get to the next stage of big data maturity.

Methods

To identify the maturity stage of big data in hospitality industry, this study uses a survey from Transforming Data With Intelligence (TDWI) Big Data Maturity Model and Assessment Tool. The survey targets the hospitality Information Technology (IT) professionals in the United States who are the member of Hospitality Financial and Technology Professionals (HFTP). The survey will be sent to them through Qualtrics. The obtained data will be later analyzed based on the TDWI (n.d.) big data maturity stages. According to the TDWI (n.d.), big data has five stages of maturity: *nascent*, *pre-adoption*, *early adoption*, *corporate adoption*, and *mature/visionary*.

Results/Discussion/Implications

This study will contribute to the public knowledge as well as hospitality IT professionals in order to understand how their big data deployments compare to those of their peers in order to provide advanced insight and support. In addition, this study provides guidance for hotels at the beginning of their big data venture by helping them understand best practices used by other hotels that are more mature in their big data deployments. Hospitality IT professionals can use the result of this study for their big data adoption on organization, infrastructure, data management, governance and analytics level.