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Understanding RFID Technology within a Business Intelligence Framework

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ABSTRACT
Radio Frequency Identification (RFID) technology provides new and exciting opportunities for increasing organiza- tional, financial, and operational performance. With its focus on organizational efficiency and effectiveness, RFID technology is superior to barcodes in its ability to provide source automation features that increase the speed and volume of data collection for analysis. Today, applications that employ RFID are growing rapidly and this technology is in a continuous state of evolution and growth. As it continues to progress, RFID provides us with new opportunities to use business intelligence (BI) to monitor organizational operations and learn more about markets, as well as consumer attitudes, behaviors, and product preferences. This technology can even be used to prevent potentially faulty or spoiled products from ending up in the hands of consumers. However, RFID offers significant challenges to organizations that attempt to employ this technology. Most significantly, there exists the potential for RFID to overwhelm data collection and BI analytic efforts if organizations fail to effectively address RFID data integration issues. To this end, the purpose of this article is to explicate the dynamic technology of RFID and how it is being used today. Additionally, this article will provide insights into how RFID technology is evolving and how this technology relates to BI and issues related to data integration. This knowledge has never been more essential. While IT academic research into RFID development and issues has declined in recent years, RFID continues to be a vital area of exploration, especially as it relates to BI in the 21st century.

KEYWORDS

Cite this paper

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