The Role of Big Data Analytics and Corporate Social Responsibility in Driving Green Innovation

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Abstract : This study addresses the increasing environmental concerns faced by businesses due to regulatory and stakeholder pressures. It explores how big data analytics (BDA) and advanced technologies, particularly artificial intelligence, combined with corporate social responsibility (CSR), can foster green innovation and sustainable practices. The research builds on existing literature, highlighting the critical role of technologies and CSR in achieving sustainability goals. This research adopts a multidimensional approach, offering a more comprehensive understanding of the interplay between technologies, governance, and environmental policies. A qualitative methodology was chosen, involving a systematic literature review and semi-structured interviews with executives from Canadian companies. NVivo software will be used to analyze interview data, ensuring a rigorous approach to identifying key contextual factors. The cross-analysis of literature findings and interview insights will help validate theoretical constructs and develop a conceptual framework. This study contributes by providing both theoretical insights and practical recommendations. It offers executives actionable guidance on integrating CSR into strategic decision-making and aligning technological capabilities with sustainability objectives. This approach aims to improve firms' competitiveness, ensure regulatory compliance, and enhance their role in promoting green innovation.

Keywords : big data analytics, corporate social responsibility, green innovation, advanced technology

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