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| Title of the abstract | Exploring Future Horizons: Leveraging Big Data for Strengthening Monitoring and Evaluation of Zimbabwe's National Development Strategy |
| Conference session  | □ Stream C. Future Driven Systems and Approaches  |
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| Preferred format:  |  □ Formal presentation (maximum 10 minutes)  |
| I will need to apply for bursary support, if selected. | □ Yes |
| Language to be used for presentation | □ English  |

**Abstract Text**

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| As Zimbabwe strives to achieve an upper-middle-income society by 2030 through its National Development Strategy 1 (NDS1), the integration of big data for enhancing monitoring and evaluation (M&E) processes presents both significant opportunities and challenges. This strategy, underpinned by the Integrated Results-Based Management (IRBM) system, requires robust M&E frameworks to ensure transparency, accountability, and effective implementation. Traditional M&E methods in Zimbabwe have faced persistent issues such as data fragmentation, delayed reporting, and limited analytical capacity. Big data, with its capacity to manage large volumes of diverse data in real-time, offers an innovative solution to these challenges, potentially enhancing the robustness and responsiveness of M&E systems. Zimbabwe can leverage new sources of big data such as satellite imagery, cell phone records, electronic payment systems and sensor networks to supplement traditional survey. By leveraging large datasets from various sectors such as agriculture, health, education, and finance, this paper proposes a comprehensive M&E framework that enhances data accuracy, timeliness, and granularity. This paper aims to explore and identify the opportunities and challenges that the government of Zimbabwe may face in integrating big data to strengthen the M&E framework of the NDS1. Thus, identifying specific big data tools and methodologies applicable to M&E systems. For instance, combining satellite data on vegetation health, crop yields and livestock movements with mobile money transactions could provide a near real-time window into dynamics of food and nutrition security at the household level. Overlaying this with climate data could help predict and mitigate food insecurity shocks. Another example is the use of mobile data and social media analytics to gauge public sentiment and social outcomes. This innovative approach allows for the continuous assessment of social policies' impact and public services' effectiveness. By analysing trends and patterns in social media discussions and mobile data usage, policymakers can gain valuable feedback on public perceptions and emerging issues, facilitating more responsive and adaptive governance. However, unlocking value from big data for M&E requires building new technical skills, updating legislation around data access, use and protection, and establishing data sharing agreements across government and the private sector. A big data strategy aligned with the NDS1 results framework is needed to capitalize on this innovation. This paper will share learnings from piloting big data analytics for real-time M&E dashboards aligned to NDS1 priority areas. It will highlight the potential challenges and opportunities of integrating big data in national M&E system and to operationalize and sustain the use of big data for evidence-based policymaking and adaptive implementation of Zimbabwe's development strategy through 2025 and beyond. It will emphasize the potential challenges and opportunities associated with integrating big data into the national M&E system, and outline strategies to operationalize and sustain the use of big data for evidence-based policymaking and adaptive implementation of Zimbabwe's development strategy through 2025 and beyond. |