A Proposal for Integrated Information System of Municipal Welfare Development Office Using Data Mining Methods for Decision Making Support

Loid Marxz Israel and Riah E. Encarnacion
0009-0005-3276-3891 and 0000-0003-3760-7458
Surigao Del Norte State University, Surigao City, Philippines
lisrael@ssct.edu.ph and rencarnacion@ssct.edu.ph

Abstract: *Technology's pervasive influence shapes contemporary communication, learning, and societal interactions. While its advancements bring benefits, they also pose challenges. This study addresses the complexities of technology in social welfare delivery, focusing on the Municipal Social Welfare and Development Office (MSWDO) of Placer, Surigao del Norte, Philippines. The current system of MSWDO faces operational hurdles particularly in managing social protection programs efficiently, leading to delays and frustrations among beneficiaries. Using a mixed-method approach, the study reviews the current provision through an online survey completed by the respondents selected by purposive sampling method. The findings show that respondents have a high level of agreement for the provision of an enhanced integrated information system. The proposed system, with the utilization of data mining techniques such as clustering, classification, and association rule method, can cater to Cash Assistance Budget Monitoring and Sectoral Records Digitalization. The recommendations prioritize Focal Persons, enhanced communication tactics, regular evaluations, and program designs that are adapted to meet local needs. The significance of digital solutions in optimizing social welfare delivery. By implementing recommended features, the MSWDO can enhance program efficiency, responsiveness, and impact, thereby better serving the community and maximizing resident welfare.*

Keywords: Cash Assistance, Budget Monitoring, Digital Solutions, data mining