

Evaluating the Transportation Sector of Siargao Island: Basis for a Proposed Online Payment System with QR Code Technology

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Abstract: *The rapid growth of tourism in Siargao Island continues to outpace its transportation sector resulting to inefficiencies and security concerns stemming from cash transactions. Tourists face challenges such as fare inconsistencies, limited payment options, and safety concerns due to the reliance on cash transactions, making the current system cumbersome and risky for all parties involved. This study aims to evaluate the current transportation sector and propose "e-Bayad" application, a QR code-based online payment system, to enhance convenience, efficiency, and security for tourists and service providers. A mixed-methods approach was employed, combining quantitative data from surveys and qualitative insights from interviews to understand the transportation challenges and user preferences. The respondents have a high level of agreement in terms of the lack of transparency in fare collection procedures (WM = 4.21), overcharging of fare by transportation providers (WM = 4.17), and inconsistency in fare charges among different transportation modes (WM = 4.14). The study also identified significant points, including fare-related issues, payment difficulties, and security concerns, leading to the proposal of the "e-Bayad" system, an online payment system. This system offers QR code payments that streamlines transactions and improves transparency to address these challenges. The development and implementation of "e-Bayad" has the potential to transform the transportation payments in Siargao. It can significantly improve the overall transportation experience for both tourists and locals and contributing to the sustainable growth of the island's tourism industry.*

Keywords: e-Bayad, Siargao Island, transportation, QR code, online payment.