EXPLORING THE EFFICIENCY OF RFID TECHNOLOGY IN REVOLUTIONIZING PAYMENT SYSTEMS WITHIN THE TOURISM INDUSTRY

ABSTRACT

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Traditional toll collection systems often cause congestion, delays, and inefficiencies that negatively affect the tourism experience. While Radio Frequency Identification (RFID) technology presents a contactless alternative that promises faster and more secure transactions, its application within the tourism sector—particularly in toll gate operations—remains underexplored. This study addresses this gap by examining how RFID systems can enhance payment convenience, speed, and reliability for tourist drivers. This study used a quantitative research design with purposive sampling. A total of 50 private car owners using RFID tags at the South Luzon Expressway (SLEX) Skyway C5 Toll Gate were surveyed. A structured questionnaire was administered to gather demographic data and assess factors influencing RFID adoption, such as convenience, cost, and security. The effectiveness of the system in enhancing the travel experience was also evaluated. Responses were measured using Likert scales, and the data were analyzed using frequency distribution, percentage, and weighted mean. The findings revealed that respondents strongly agreed on the benefits of RFID in improving time efficiency, reducing costs, and enhancing convenience. The highest levels of satisfaction were attributed to shorter waiting times and smoother toll transactions. Nonetheless, concerns were raised regarding unclear reloading procedures, challenges with installation, and limited customer support. Data privacy issues also emerged as a point of concern. Overall, respondents reported a more favorable travel experience when RFID systems operated reliably and were properly integrated into toll infrastructure. The findings suggest that RFID technology has the potential to significantly improve payment systems in the tourism transportation sector. However, successful implementation depends on consistent system performance, user-friendly procedures, and robust customer service. Strengthening data security and system reliability is essential to gaining public trust and encouraging broader adoption. Future studies are encouraged to explore RFID applications in other areas of tourism services and transport systems to further validate these findings.

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