

**POINTRA: A User-Centric Mobile Application for loyalty card holders
to support the loyalty Points Redemption process at Retail Stores**

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Abstract

Customer retention is crucial for the success of any business, and loyalty programs are widely implemented in various industries including retail supermarkets to enhance customer retention by offering rewards such as points, discounts, bonuses, or freebies. However, the inefficiencies in the loyalty points redemption process can result in the loss of value for both retail stores and their loyal customers.

In this project, it was analysed the difficulties faced by loyalty card holders or customers in utilizing the obtained loyalty points at relevant retail stores in Sri Lanka. The lack of user-friendliness and tracking in card-based programs, the burden of maintaining multiple loyalty cards, the lack of motivation to utilize points, and poor transparency between customers and stores are among the key challenges.

The aim of this project is to analyse the difficulties faced by loyalty card holders or customers in utilizing the obtained loyalty points at relevant retail stores and to design, develop, test and evaluate a mobile application to support them to redeem the loyalty points while making purchases at the relevant stores. The solution received positive feedback from experts and non-experts who evaluated its usefulness in aiding loyalty card holders to easily redeem their loyalty points including features that allow customers to track their loyalty points and manage multiple loyalty cards in one place, which reduces the burden of maintaining multiple cards. The prototype was developed after conducting thorough research through a literature survey to validate the background and identify the requirements that would suit the proposed solution.

The developed prototype utilizes the redemption behaviour of the customer to provide predictions for both loyalty points for the loyalty card holder and revenue for the retail store, enhancing the overall experience for both the customer and the business.

Keywords: customer retention, loyalty programs, loyalty points, rewards, loyalty card holders, loyalty cards, transparency, mobile application, prototype, redemption behaviour, predictions, revenue, retail stores.