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Evaluating End-User Satisfaction of Retail Minimarket Applications Using the Net Promoter Score Method

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ABSTRACT

The rapid adoption of digital applications in retail minimarkets has made end-user satisfaction a critical factor influencing customer loyalty and continued usage. This study evaluates end-user satisfaction of a retail minimarket application using the Net Promoter Score (NPS) method, which measures users' willingness to recommend the application to others. A quantitative approach was employed by distributing an NPS-based questionnaire to active users of the application. Respondents were classified into promoters, passives, and detractors based on their ratings. The results show that 52.0% of users were promoters, 27.3% were passives, and 20.7% were detractors, resulting in an NPS value of 31.3. This positive score indicates that the application is generally well received and demonstrates a satisfactory level of user loyalty. However, feedback from passive and detractor users reveals opportunities for improvement in system performance and feature completeness. Overall, the study confirms that the NPS method is an effective and practical tool for assessing end-user satisfaction in retail minimarket applications.

1. Introduction

The rapid growth of digital technology has significantly transformed the retail industry, including the operations of minimarkets that increasingly rely on mobile and web based applications. These applications are no longer limited to supporting payment transactions but also play an important role in managing promotions, loyalty programs, product information, and customer engagement [1]-[3]. As consumers become more accustomed to digital services, their expectations regarding application performance, usability, and reliability continue to rise. Consequently, the success of a retail minimarket application is closely linked to how satisfied users feel when interacting with the system. In practice, however, not all retail minimarket applications deliver a consistently positive user experience. Users may encounter issues such as slow system response, application crashes, complicated navigation, or limited features that reduce convenience [4]-[6] These problems can negatively affect customer perceptions and discourage continued use of the application. In a competitive retail environment, even minor dissatisfaction may lead users to switch to alternative platforms

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that offer better digital services. Therefore, understanding user satisfaction has become a critical concern for minimarket operators seeking to maintain customer loyalty.

Although various methods have been used to evaluate user satisfaction in information systems, many of them require complex measurement models and extensive data analysis. Such approaches may be less practical for retail managers who need clear and actionable insights within a short period of time. As a result, there is a growing need for a simple yet reliable evaluation method that can effectively capture user perceptions and loyalty toward retail applications without excessive analytical complexity. The Net Promoter Score (NPS) method offers a practical solution to this challenge [7],[8]. By measuring users' willingness to recommend an application to others, NPS provides a straightforward indicator of overall satisfaction and loyalty. This method has been widely applied in service and digital platform evaluations, yet its application in the context of retail minimarket applications remains relatively limited in academic studies. This gap highlights the importance of exploring how NPS can be used to assess end user satisfaction in small-scale retail environments. Based on these considerations, this study aims to evaluate end-user satisfaction with a retail minimarket application using the Net Promoter Score method.

2. Literature Study

End-user satisfaction has long been recognized as a critical indicator of the success of information systems, particularly in retail environments where digital applications directly mediate customer interactions [9]-[11]. In the context of retail minimarkets, mobile and web-based applications are increasingly used to support transactions, loyalty programs, inventory visibility, and personalized promotions. Previous studies emphasize that user satisfaction influences continued usage, brand loyalty, and overall business performance. Therefore, evaluating end-user satisfaction is essential to ensure that retail minimarket applications meet user expectations in terms of usability, reliability, and perceived value. Various models and methods have been employed to measure user satisfaction with information systems, including the Technology Acceptance Model (TAM), End-User Computing Satisfaction (EUCS), and SERVQUAL [12]-[15]. While these models provide comprehensive insights into system quality and user perceptions, they often require complex survey instruments and multivariate analysis. In retail application contexts, where rapid feedback and managerial decision-making are crucial, simpler yet effective evaluation methods are increasingly preferred. This has led researchers to explore alternative metrics that can capture user sentiment efficiently without compromising analytical validity.

The Net Promoter Score (NPS) has emerged as a widely adopted method for measuring customer and end-user satisfaction across various industries, including retail and digital services. NPS categorizes users into promoters, passives, and detractors based on their likelihood to recommend a product or service. Prior research indicates that NPS is effective in summarizing user loyalty and satisfaction through a single, interpretable metric. Its simplicity allows organizations to quickly assess user perceptions and benchmark performance over time, making it particularly suitable for fast-paced retail environments such as minimarkets.

Several studies have applied the NPS method in evaluating digital platforms, mobile applications, and e-commerce systems, demonstrating its relevance in capturing user experience and satisfaction [16],[17]. In retail application studies, NPS has been used to identify service gaps, usability issues, and factors influencing customer loyalty. Researchers have also highlighted that combining NPS results with qualitative feedback can provide deeper insights into user expectations and areas for system improvement. This approach supports evidence-based enhancements to application features and service quality. Despite its growing adoption, the application of NPS in evaluating retail minimarket applications remains relatively limited in academic literature. Most existing studies focus on large-scale e-commerce platforms, leaving a gap in research related to small-format retail systems such as minimarkets. Addressing this gap, the present study employs the Net Promoter Score method to evaluate end-user satisfaction with retail minimarket applications, contributing empirical evidence and practical insights for system developers and user loyalty.

3. Method

This study adopts a quantitative research approach to evaluate end-user satisfaction with retail minimarket applications using the Net Promoter Score (NPS) method (Figure 1).

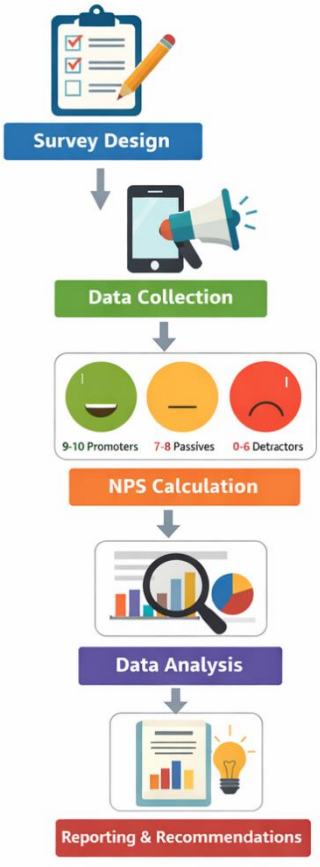

Figure 1 – Methodology

The overall research procedure is structured into five main stages, as illustrated in Figure 1, namely survey design, data collection, NPS calculation, data analysis, and reporting with recommendations. Each stage is designed to systematically capture user perceptions and translate them into actionable insights.

a. *Survey Design*

The first stage involves the development of a survey instrument based on the Net Promoter Score framework. The primary question asks respondents to rate their likelihood of recommending the retail minimarket application to others on a scale from 0 (very unlikely) to 10 (very likely). In addition to the core NPS question, supplementary questions are included to collect demographic information and qualitative feedback regarding user experience, such as application usability, transaction convenience, and feature satisfaction. This design ensures that both quantitative and contextual data are obtained to support a comprehensive evaluation of end-user satisfaction.

b. *Data Collection*

Data collection is conducted by distributing the questionnaire to users of the retail minimarket application. The survey is administered through online platforms and, where applicable, in-store digital access points to reach active users. Respondents are selected using a purposive sampling technique, focusing on users who have prior experience with the application. This stage aims to gather sufficient and representative responses to accurately reflect user perceptions and satisfaction levels.

c. *Net Promoter Score (NPS) Calculation*

After data collection, respondents are classified into three categories based on their rating scores: Promoters (scores of 9–10), Passives (scores of 7–8), and Detractors (scores of 0–6). The Net Promoter Score is then calculated using the standard equation:

$$\text{NPS} = \%\text{Promoters} - \%\text{Detractors}$$

This calculation produces a single numerical value that represents overall user satisfaction and loyalty toward the retail minimarket application. A higher NPS indicates stronger user advocacy and a more positive user experience.

d. *Data Analysis*

In this stage, the computed NPS value is analyzed to interpret the level of end-user satisfaction. Descriptive statistical analysis is employed to examine the distribution of promoters, passives, and detractors. Additionally, qualitative feedback from respondents is analyzed to identify recurring issues, user expectations, and strengths of the application. This analysis helps uncover underlying factors influencing satisfaction and dissatisfaction among users.

e. *Reporting and Recommendations*

The final stage involves compiling the analysis results into a structured report. The findings are presented in terms of NPS score interpretation, user segmentation, and key insights derived from user feedback. Based on these findings, practical recommendations are proposed to improve application functionality, user experience, and service quality. These recommendations are intended to support retail managers and application developers in enhancing user satisfaction and increasing customer loyalty.

4. Result and Discussion

A total of 150 valid responses were collected from users of the retail minimarket application. Respondents consisted of active users who had utilized the application for transactions, promotions, or loyalty services. Table 1 presents a summary of the respondent demographics.

Table 1 - Respondent Demographics

Category	Description	Percentage (%)
Gender	Male	46
	Female	54
Age	18–25 years	32
	26–35 years	41
	36–45 years	19
	>45 years	8
Usage Frequency	Daily	38
	Weekly	44
	Monthly	18

The demographic distribution indicates that the majority of respondents are within the productive age range and are frequent users of the application, suggesting that the data adequately represents the target end-user group. Respondents were asked to rate their likelihood of recommending the retail minimarket application on a scale of 0 to 10. Based on the responses, users were categorized into Promoters, Passives, and Detractors. The classification results are shown in Table 2.

Table 2 - NPS Classification Results

Category	Score Range	Number of Users	Percentage (%)
Promoters	9–10	78	52.0
Passives	7–8	41	27.3
Detractors	0–6	31	20.7
Total		150	100

The Net Promoter Score was calculated using the standard equation:

$$\text{NPS} = \%\text{Promoters} - \%\text{Detractors}$$

$$\text{NPS} = 52.0\% - 20.7\% = 31.3$$

An NPS value of +31.3 indicates a positive level of end-user satisfaction, suggesting that the application is generally well received and has more loyal users than dissatisfied ones. Figure 2 illustrates the distribution of user categories based on NPS classification. The figure shows that Promoters constitute the largest group, indicating strong user advocacy. However, the presence of a notable percentage of Passives and Detractors suggests opportunities for further improvement, particularly in converting neutral users into promoters and addressing dissatisfaction factors.

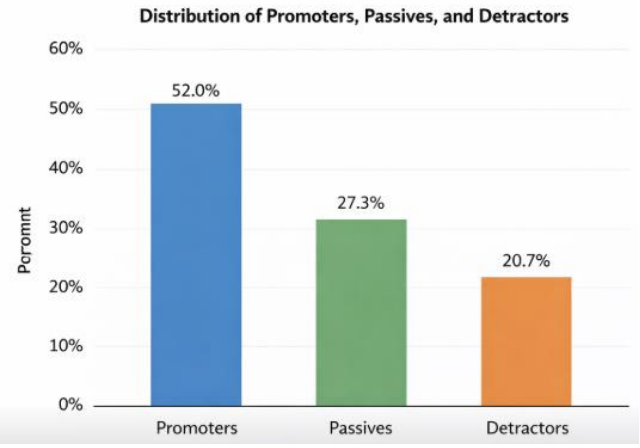

Figure 2 - Distribution of Promoters, Passives, and Detractors
(Description: A bar or pie chart showing 52% Promoters, 27.3% Passives, and 20.7% Detractors.)

In addition to the NPS rating, respondents provided open-ended feedback regarding their experience with the application. The feedback was grouped into several dominant themes, as summarized in Table 3.

Table 3 - Summary of User Feedback Themes

Theme	Key Issues Identified	User Category
Application Usability	Easy navigation, simple interface	Promoters
Transaction Speed	Fast checkout and payment process	Promoters
System Performance	Occasional lag and app crashes	Passives
Feature Completeness	Limited promotions and search filters	Passives
Technical Issues	Login errors and payment failures	Detractors

Promoters generally emphasized ease of use and transaction efficiency as key strengths of the application. Passives highlighted acceptable performance but expressed expectations for feature enhancements. Detractors mainly reported technical issues, indicating areas that require immediate attention.

The results demonstrate that the retail minimarket application has achieved a positive NPS score, reflecting satisfactory end-user experience and a reasonable level of customer loyalty. Compared to similar studies in retail and digital commerce applications, an NPS above +30 is considered indicative of good performance, particularly in competitive retail environments. However, the proportion of Passives (27.3%) suggests that many users perceive the application as adequate but not exceptional. This group represents a strategic opportunity, as targeted improvements in system stability, feature richness, and personalization could shift their perception toward promoter behavior. Meanwhile, the presence of Detractors highlights critical technical and usability issues that could negatively affect user retention if left unresolved. Overall, the findings confirm that the Net Promoter Score method is effective in capturing end-user satisfaction in retail minimarket applications. By combining quantitative NPS values with qualitative feedback, this study provides actionable insights for improving application quality, enhancing user experience, and strengthening customer loyalty in the retail minimarket sector.

5. Conclusion

This study concludes that the retail minimarket application demonstrates a generally positive level of end-user satisfaction, as evidenced by a Net Promoter Score of 31.3, indicating that the proportion of promoters exceeds that of detractors. The findings suggest that users appreciate the application's usability and transaction efficiency, which contribute to their willingness to recommend it to others. However, the presence of passive and detractor users highlights the need for continued improvements, particularly in system stability, feature completeness, and technical reliability. Overall, the Net Promoter Score method proves to be an effective and practical tool for evaluating end-user satisfaction in retail minimarket applications, offering valuable insights that can guide strategic enhancements to improve user experience and strengthen customer loyalty.

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