

GROCERIES WEB-BASED RECOMMENDATION SYSTEM WITH EMAIL NOTIFICATION

Nurul Husna Noor Azwan and Nora Yanti Che Jan
College of Computing, Informatics and Mathematics,
Universiti Teknologi MARA, Perlis Branch
husnaazwan292@gmail.com and noray084@uitm.edu.my

ABSTRACT - The title of this study is “Groceries Web-Based Recommendation System with Email Notification”. This research aims to develop a recommendation web-based system for the groceries industry and evaluate its effectiveness through user acceptance and functionality testing. This study utilizes Agile Model as its methodology. The methodology consists of five phases which are System Planning, System Designing, System Development, System Testing and System Publish. The development of the recommendation system will involve the integration of advanced algorithms and machine learning techniques to analyze large datasets of customer transactions, product information, and user feedback. By leveraging these techniques, the system will be able to generate accurate and relevant recommendations tailored to each individual user's preferences. To evaluate the system, both user acceptance and functionality testing will be conducted. Functionality testing will focus on assessing the system's performance in terms of accuracy, efficiency, and reliability. It will involve measuring the system's ability to provide appropriate recommendations based on user inputs. The findings from this research will contribute to the field of grocery retail by providing insights into the effectiveness of recommendation systems in enhancing the shopping experience. Ultimately, the development and evaluation of a recommendation web-based system for groceries will enable retailers to personalize the shopping experience, improve customer satisfaction, and drive business growth in the highly competitive grocery industry.

Keywords: Recommendation, Groceries, Agile Model, shopping.

1. INTRODUCTION

The grocery industry is an important aspect of our daily lives since it provides us with the food and other supplies we require. With the introduction of e-commerce and online shopping, consumers now have instant access to an immense variety of products and brands. However, an abundance of options can frequently lead to decision overload and make it difficult for individuals to navigate through the tremendous array of available possibilities. The use of recommendation algorithms in the context of the supermarket industry has huge potential (Cheng, 2019). Grocery industries may give their consumers personalized product recommendations by utilizing the power of data and analytics, which will streamline the shopping process and raise customer happiness. This ultimately promotes corporate expansion by increasing customer loyalty.

2. METHODOLOGY

The approach that will be used for this research will consist of two primary components where the first will be the creation of a web-based recommendation system for grocery stores, and the second will be the assessment of the usefulness of this system through user acceptance and functionality testing. The results of this study will give grocery retailers valuable information that will help them use recommendation systems to make customers happier, grow their businesses, and stay competitive in the ever-changing grocery market.

3. RESULTS AND DISCUSSION

The findings of this study show how effective the built web-based recommendation system for the grocery sector is. High levels of satisfaction and adoption readiness were found during user acceptance testing, showing the system's usability and potential to improve the shopping experience. Functionality testing showed that the system's recommendations were precise and necessary, closely comparing with users' preferences and buying habits. These results demonstrate the important role that recommendation systems play in enhancing consumer satisfaction, engagement, and loyalty in the grocery sector, and they offer helpful guidance for grocery enterprise looking to put such systems in place and enhance their business growth.

4. NOVELTY OF RESEARCH / PRODUCT

The interesting thing about this research is that it builds and tests a web-based recommendation system for supermarkets. Recommendation systems have been used in a lot of different areas, but they haven't been used much in the food industry yet (Bellini et al., 2022). This research fills a gap in the existing literature by looking at the unique challenges and opportunities in the grocery industry, such as the need for personalized recommendations based on user preference. This study helps to move the field forward by creating and testing a new grocery recommendation system. It also gives valuable information to grocery stores that want to improve the shopping experience and increase customer satisfaction.

5. CONCLUSION

In conclusion, this study was able to create and evaluate a web-based recommendation system for the grocery industry that gives personalized product suggestions based on what the user likes. The results showed that the method improved customer satisfaction. Also, it would be helpful for grocery stores to find out how the suggestion system affects customer loyalty and business growth.

REFERENCES

- Cheng, T. (2019). Product recommendation system design. *ACM International Conference Proceeding Series*, 71–74. <https://doi.org/10.1145/3357292.3357314>
- Dorji, T., Tenzin, S., & Lhamo, T. (2022). Design and Development of E-Commerce Web Application for Cooperative Store. www.irjet.net
- Bellini, P., Palesi, L. A. I., Nesi, P., & Pantaleo, G. (2022). Multi Clustering Recommendation System for Fashion Retail. *Multimedia Tools and Applications*. <https://doi.org/10.1007/s11042-021-11837-5>