Implementing a Newsletter Recommendation System: How Leimberg Services Inc. Can Improve Customer Satisfaction

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ABSTRACT

This paper explores the implementation of a newsletter recommendation system for Leimberg Services Inc. (LISI) to enhance its customer satisfaction. By employing machine learning algorithms and data analysis to segment subscribers and predict their newsletter interests, Leimberg could improve customer satisfaction and engage subscribers more effectively. These recommendations aim to enhance personalization, improve user experience, and automate data-driven decision-making to optimize LISI’s service and content over time.

INTRODUCTION

Leimberg Information Services Inc. (LISI) is a subscription-based service that offers newsletters and podcasts to various sectors, including healthcare, real estate, and financial planning. Although the company has been undergoing changes to implement a more focused business model, they currently lack a marketing strategy to engage existing customers and attract new subscribers.

METHODS AND MATERIALS

Data collection involved obtaining consumption records, and newsletter content from our sponsor. However, we faced challenges during data processing due to insufficient user data for segmentation. To overcome this, we removed irrelevant features, selected subscribers with comprehensive data, and manually categorized records based on company names. The project employed four models: a web crawler for extracting executive summaries, a text rank model for keyword extraction, a clustering model, and a similarity calculation model. This workflow allowed us to extract keywords, cluster subscribers, and match them with suitable newsletters.

The main challenge lies in how subscriber information is collected during the sign-up process. Where customers are not required to provide their industry interests, leading to a lack of personalized email communication and a more generic collection of generic emails, causing customer disengagement and unsubscribing. The objective of this project was to analyze customer data using machine learning algorithms and develop a marketing strategy based on customer segmentation and predicted newsletter interests. By understanding customer needs and preferences, the study aims to provide recommendations to Leimberg Services on how to implement personalized email campaigns and improve customer satisfaction.

RESULTS

Throughout the process, we selected 500 subscribers from the original data and ensured they had valid inputs for name, email, address, zip code, and company affiliation, and that they met the criteria specified by the selection process above. In the matching process, each subscriber was assigned two keywords that describe the industry they belong to, as shown in Table 1. Next, these subscribers were separated into five clusters: Investment Management, Legal Services, Financial Services, Accounting and Tax Services, and Consulting. Based on the clusters, Leimberg was able to match up subscribers with different newsletters.

Next, we further categorized the subscribers based on the key words associated with their respective industries, as presented in Table 2. These key words were then utilized to classify and extract keywords associated with different industries in future editions. After determining the common key words between the subscribers and the newsletters, we have matched each subscriber with the relevant newsletters as shown in Table 3 and provided personalized recommendations accordingly.

DISCUSSION

Based on our analysis, three recommended strategies for Leimberg include utilizing recommendation systems, implementing customer segmentation, and conducting A/B testing. Recommendation systems powered by AI can enable personalized email marketing campaigns, increasing subscriber engagement and reducing churn. Customer segmentation, achieved through clustering based on demographic and consumption data, allows targeted content and communications for improved engagement and retention.

A/B testing helps optimize email campaigns by testing variables like subject lines, call-to-actions, and send times. Despite requiring additional resources, the benefits of personalized content, targeted messaging, and optimized campaigns can drive long-term growth and customer loyalty. Continuous analysis of subscriber data and experimentation with different strategies allow Leimberg to build stronger relationships with subscribers, ultimately boosting revenue.

CONCLUSIONS

To enhance personalization, we recommend that Leimberg adjusts its registration system by offering clearer categorization of newsletter topics and allowing subscribers to select and unsubscribe. This would reduce the bulk of untargeted emails and provide more personalized content. Additionally, offering options for subscribers to customize the frequency and timing of newsletter emails would improve the user experience and prevent overwhelming amounts of communication.

We also suggest that Leimberg establishes a steady database by regularly sending surveys to gather customer feedback on satisfaction, preferences, and desired content. Tracking metrics like click rates and reading time in A/B testing and emails can provide valuable insights for improving engagement. By analyzing subscriber data using machine learning and natural language processing techniques, Leimberg can personalize newsletter recommendations and tailor content to individual interests. These adjustments and data-driven strategies will enable Leimberg to better understand its target audience and continuously optimize their service and user experience.