Maximizing Clicks in Email Marketing Campaigns for a Retail Company

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ABSTRACT

Retailers rely on strong marketing programs to make sales in a competitive environment. One of the biggest sectors of marketing is email loyalty programs. The industry uses Click Through Rate to measure the effectiveness of an email marketing campaign. Click Through Rate measures the ratio between emails sent to customers and the number of customers that open and click on the email’s link. The purpose of this analysis is to define the relationship between the rate of emails sent and the amount of emails opened, opened and clicked, sent to spam, and unsubscribed. The authors’ 800 million records of data consisted of all of the emails sent by a large retail company to its approximate 8 million customers and their responses to those emails for 12 weeks during the winter holiday season. The results show that the optimal send rate of 6.4 emails per week leads to an increase of emails opened and clicked while minimizing the number of users that unsubscribe, and, assuming open source revenue per click figures apply, would generate an additional $1.3 million in weekly revenue.

KEYWORDS

Big Data, Click Through Rate, Email Frequency, Mathematical Programming, Optimization

INTRODUCTION

Background

Retail companies operate in competitive industries with saturated markets. This has led to countless innovations in order for organizations to maintain the upper hand. Online shopping has risen as one of the significant enhancements to traditional brick-and-mortar shops. In 2014 e-commerce sales grew at a rate of 17%, five times faster than that of in-store sales growth (ICSC, 2014). Thus, retail companies implement many tools to grasp the attention of consumers.

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Email marketing plays a large role in retailer’s ability to reach out to their customers and provide them information regarding various offers and deals that they are providing. Digital Equipment Corp was the first to exploit email marketing when, in 1978, they sent an email to 400 users promoting their machines (Chaffey, 2013). Since then, email marketing has proven to be a powerful and cost-effective communication channel, making it a required tool for any large company’s marketing plan. Companies that send over 100,000 emails each month see a 94% return on investment (Beashel, 2014), and 55% of companies generate more than 10 percent of sales from email (Email is Not Dead, 2015). The affordability and effectiveness seen by these statistics explain why retail corporations effort to improve their email marketing process.

Email campaigns are becoming more and more influential to a company’s foothold in their target market, so it is vital that they are done effectively. To calculate the benefit of an email campaign, companies measure click through rate (CTR); a ratio of the number of customers who click the link within an email to the total number of emails sent. Retail has the worst CTR of all commercial industries, with a 1.6% CTR (IbisWorld, 2015). However, merely sending more emails does not result in more sales. If customers receive too many emails, they may become irritated and either ignore emails or unsubscribe altogether. Churn rate, a ratio of customers who unsubscribe to customers who receive campaign emails, is something that retail businesses seek to minimize. On the other hand, if the customers do not receive enough emails, companies are not utilizing all of their marketing opportunities.

The retail company this report is based upon wishes to remain anonymous, though the data used in this study are compiled from the company’s 2014 winter holiday season email campaigns and the analysis presented is consistent with its actual business. Throughout the report, this company will be referred to by the pseudonym ABC Retail.

Problem Statement
An increase in the total amount of clicks on ABC Retail’s email campaign will almost surely increase its sales. However, the total amount of clicks is a result of the CTR as well as the frequency of emails sent and membership program size. ABC Retail’s lower than average CTR, as well as its email membership list size remaining constant, suggests that ABC Retail is not receiving the maximum amount of email clicks. The purpose of this analysis is to determine how the rate of emails sent affects the CTR and churn rate, and to find the optimal rate to send emails in order to maximize the total emails clicked (thereby increasing sales).

Organization
The remainder of this article is organized as follows. Related works are discussed in the next section. In the next section, we describe our data and methodology. Following that, we present analysis of the data provided by ABC Retail as well as the results. We conclude with recommendations and suggestions for future work.

RELATED WORK
The primary purpose of this paper is to describe an analysis for ABC Retail to determine how the rate of emails sent affects the CTR and churn rate, and to find the optimal rate to send emails in order to maximize the total emails clicked (thereby increasing sales). The direct application of optimization methods, including mathematical programming, to determine the optimal CTR and churn rate has not been addressed by the literature.

The studies of Kumar, Zhang, and Luo (2014) and Foreman (2013) sought to uncover the relationship between opt-in time and opt-out time of an email campaign. These terms can be defined as the time customers subscribe to the email campaign and the time they unsubscribe, respectively. The paper explained the detrimental effects of over-communication with customers and explains
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