

Timing Customer Reactivation Initiatives

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Firms increasingly focus their attention on regaining customers considered ‘lost’ to the firm, instead of focusing on the expensive acquisition of new customers. While identifying ‘lost’ customers is straightforward in contractual settings, the unobserved attrition in non-contractual settings provides a barrier to identifying which customers are inactive. Once identified, a second challenge is moving these inactive customers to an active purchasing state. This two-step process is termed *customer reactivation*. Customer reactivation thus requires firms to identify *when which* customer is inactive, and approach them with a reactivation initiative, usually an advertising e-mail reminding the customer of the firm. While various practical tips exist to assist managers, academic guidance on customer reactivation is lacking. In this study, we aim to address this shortcoming by providing a method to effectively target reactivation messages. We test the method’s efficacy in the field.

Existing statistical models identify inactivity stochastically through $P(\text{Alive})$, which prior research showed to be a poor measure of customer activity. Furthermore, these models do not operate in calendar time as managers do, lacking information about *when* to target customers. To address these shortcomings, we develop an approach to time customer reactivation messages at the individual customer level, combining existing behavioral insights from stochastic purchase models with those from statistical quality control theory. Building on the control chart approach from the latter field, we develop a gamma-gamma control chart, which models customer inter-purchase time (IPT) in calendar time. Based on historical purchase data, this dynamic model automatically updates once new customer purchase information becomes available. Beyond modeling the average IPT of customers, the variation in IPT is also taken into account, providing an upper bound to customer (in)activity. Once this upper bound is crossed (i.e. a customer has purchased longer ago than we would expect, and could thus be inactive), the control chart gives a signal indicating that a customer has turned inactive. This is when a reactivation initiative should be taken.

A field-test in the greetings and gifts industry illustrates the approach, and confirms its efficacy. Comparing our proposed approach to current firm policy of sending a reactivation message after two months and to a control group, we establish superior activity when using our proposed approach. The control chart approach increases activity by 2.1 percentage points compared to current firm policy, and 3.5 percentage points to the control group. Additionally, our approach has a 111% larger incremental activity impact and yields an incremental revenue increase of 38% compared to the current firm policy, showing the economic impact of our approach. Finally, we establish that targeting customers earlier than their expected purchase time can be detrimental, as activity drops significantly in this case compared to customers targeted on time. Sending reactivation messages too late does not change the effectiveness of these messages.

Keywords: customer reactivation, control charts, customer-base analysis, non-contractual settings