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Brendan Meany, Manager & Hart Zwingelberg, Senior Analyst




WHAT IS YOUR LONG-RUN LEVEL OF PRINT CIRCULATION?

Matt Lindsay, President

What is your long-run level of print circulation?

The eventual discontinuation of printed newspapers is considered inevitable, but is that the case? Recently, we have observed a steady-state level of new starts at newspapers despite radically lower acquisition budgets. Using this steady-state number of starts, we can estimate the equilibrium print circulation for newspapers: the point at which starts, and stops are equal. In addition, we can measure the ROI from increasing acquisition budgets by showing the difference in business profitability at the new level of circulation sustained by the higher level of starts.

Our conclusion is that there will be demand for printed newspapers for a long time. Is the demand sufficient to support the business? It is likely there is enough demand to keep the printed product as part of a multi-platform strategy, particularly given the effectiveness of printed advertisements and inserts.



This market will maintain the home delivery circulation level if they have 150 starts per week on average.

To determine the equilibrium level of home delivery circulation for a newspaper, we look at the drivers of starts and stops. Stops are a function of the number and types of home delivery customers. For example, a newspaper with 30,000 subscribers has a mix of tenured customers. 50% of them have been active for more than five years with annual retention of 90%. 35% of the subscribers have between two and five years of tenure with annual retention of 70%, and 15% are in their first year with annual retention of 30%. This newspaper will have 150 stops per week on average.

Home Delivery Subscribers	Annual Retention	Annual Stops	Weekly Stops
15,000	90%	1,500	29
10,500	70%	3,150	61
4,500	30%	3,150	61
30,000	74%	7,800	150

This market will maintain the home delivery circulation level if they have 150 starts per week on average. If they only have 125 starts, their circulation will gradually decline until the annual retention rate (in this example a weighted-average of 74%) applied to their home delivery customers produces 125 stops per week, which is 25,000 active subscribers. This newspapers' circulation will decline by 25 active subscribers per week for 200 weeks, or about 3.85 years.

Weekly Starts	125
Annual Starts	6,500
Weighted Average Retention	74%
Home Delivery Accounts	25,000
Weeks to Adjust	200
Years to Adjust	3.85

Starts are a function of the size of the market, the number of voluntary orders, the number of sales attempts across all channels, and the success rate of those sales attempts. As “start pressure” has been reduced through lower acquisition budgets, the number



of sales attempts and new starts has declined. *How much of the decline is due to the lower demand for printed products?* Some insight into the changing demand can be observed through the level of voluntary starts and the effectiveness of sales channels. Indeed, there is less demand for print than in prior years, but the biggest reduction in start volume is due to lower acquisition spending.

Using these before and after home delivery circulation figures, combined with information regarding customer lifetime value, the ROI on additional acquisition spending can be calculated. ROI on retention initiatives can be determined as well as the ROI on efforts to increase the operating margin, such as increasing average subscription rates or lowering operating costs.

A high-level example of the operating margin opportunity is below. In this example, keeping the circulation at 30,000 active home delivery subscribers by keeping weekly starts at 150 instead of 125, creates an annual operating margin difference is \$650,000 with incremental acquisition costs of \$195,000.

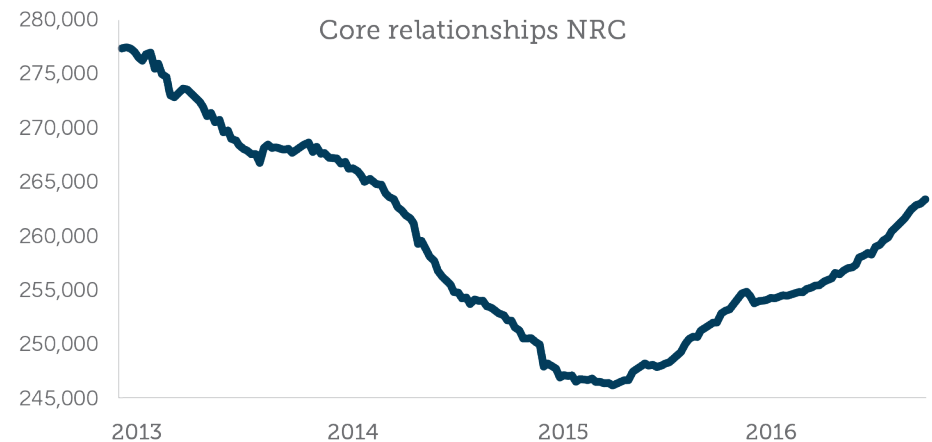
Weekly op margin per active subscriber	\$2.50	Cost per Order	\$150
Total home delivery op margin per week ORIGINAL	\$75,000	Weekly acquisition costs ORIGINAL	\$22,500
Total home delivery op margin per week NEW	\$62,500	Weekly acquisition costs NEW	\$18,750
Difference in weekly op margin	\$12,500	Difference in weekly acquisition costs	\$3,750
Annual difference in operating margin	\$650,000	Annual difference in acquisition costs	\$195,000

We have observed that newspapers have taken great strides in lowering operating costs and increasing average home delivery rates.

Doing this type of analysis for our newspaper clients, we have observed that newspapers have taken great strides in lowering operating costs and increasing average home delivery rates. Several newspapers have very compelling case studies in retention campaigns using churn risk modeling. A remaining opportunity for newspapers is improving the acquisition process of new home delivery subscribers.

One example of a successful innovation with acquisition offers is at NRC in Amsterdam, where they sell one, two, or three-year subscriptions with monthly billing and constant prices throughout the duration of the term. These offers dramatically lower churn among new customers, which has led to growth in print circulation in that market.

Certainly, the use of database marketing to target new customers is an effective tactic that has been used by newspapers for many years, and that activity will remain imperative in the future. It appears that changing the nature of the new-customer value proposition is where innovation in customer acquisition can occur, and we look forward to working with newspapers on that challenge.



SUBSCRIBER ACQUISITION STRATEGIES

*Brendan Meany,
Manager &
Hart Zwingelberg,
Senior Analyst*

The average company loses between 10% and 30% of its customers each year.

Don't ever stop prospecting. Even when the pipeline is full, a company should still be prospecting. Pipeline activity doesn't equal sales; you never know what the future holds.

On paper, running a successful business is simple: acquire new customers, maintain a solid customer base, and keep those customers satisfied, all while adding to your foundation. Sounds easy enough, right? The difficulty lies in balancing those pieces: deciding how many resources to devote to enlisting new customers versus caring for your current customers. There is, of course, a well-known divergence in ROI between acquisition focused efforts and retention focused efforts, which may steer business managers away from pursuing new customers to raise their bottom line. However, there is little to no business growth associated with actions dedicated to customer retention. Focusing only on retention is a short-sighted business strategy. There should be continual new customer acquisition for a business to be successful. In fact, businesses should make a sustained effort to promote new sales in order to remain competitive in an ever-evolving subscription-based world. There should be some avenue managers can take to boost the ROI of acquisition efforts.

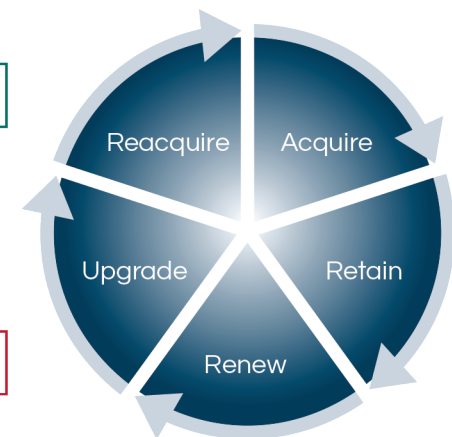
Acquire: Maximize start value/volume

Retain: Minimize churn

Renew: Leverage willingness-to-pay

Upgrade: Grow customer engagement

Reacquire: Target offers based on history



So how can Mather make acquisition more efficient and cost less for you?

The ROI of acquisition is a function of two parts. The initial investment, say, of TV advertisement, and the business that the investment has created, such as improved sales. The goal, then, is to get the ratio as high as possible, by either boosting the return or reducing the investment.


$$ROI = (Total\ Revenue - Investment\ Costs) / (Investment\ Costs)$$

Business managers can manipulate the effort spent on acquisition tactics and strategies. They have the ability to pick and choose the acquisition strategies to use on prospective customers. For example, a toy maker could air a commercial during late night programming, but it wouldn't make sense. The toy maker would be wasting effort on individuals who could not be persuaded to engage with his company. In short, if managers can identify which customer segments are guaranteed not to respond to their advertisement, then they can instantly boost their ROI by not wasting their resources on those customer segments.

The numerator in the ROI equation is a little more difficult to influence, but it is possible. Here, we are interested in finding the most profitable customers; those that will bring the most return on investment, or the biggest bang for your buck. One customer who remains loyal for the long-term is worth more than ten one-time customers. Our goal is to help you find as many of those “valuable” customers as possible.

OK, sounds reasonable: In any business action, try to maximize ROI. But is it actually possible to know which prospective customers are worth your time and money?





There is a plethora of data available from subscription-based companies, which we can use to ascertain customer behavior and turn into actionable insights.

There is a plethora of data available from subscription-based companies, which we can use to ascertain customer behavior and turn into actionable insights. Acquisition campaigns in this industry tend to be cheap and far reaching. The more campaign history available, the better, however only a few customer acquisition campaigns are needed to create an understanding of which potential subscribers value the product most, and which aren't worth the effort. We can identify a set of characteristics that befit the highest potential subscribers by analyzing customers who were receptive to acquisition campaigns in the past and the price point at which they were acquired. These characteristics can be used to inform our decision on which customers to target and which price to offer them.

Getting Started with Targeted Acquisitions Campaigns

In order to build a successful acquisition model, the following information is required:

Acquisition Campaign History


- *Households sent offer(s) and households that accepted the offer(s)*

- *Offer characteristics: frequency of delivery, price, term length, autopay status, etc.*
- *Former or never status for each household*

Acquisition Cost

- *Average cost per order by acquisition channel*

The goal is to distill the characteristics positively related to acquisition from those that are not. Here is how we typically approach this analysis to score prospects and gauge expected longevity. We perform a regression on campaign history results and check what types of people and type of offers were successful—this is the propensity to subscribe regression. We iterate through a few specifications of the model using campaign data like income, age, gender, former subscriber (yes or no), former price, former tenure (if applicable), and digital engagement, etc. We take our acquisition and retention estimates to understand the likelihood of a non-subscriber accepting the offer itself, as well as the value of that offer once they've subscribed.



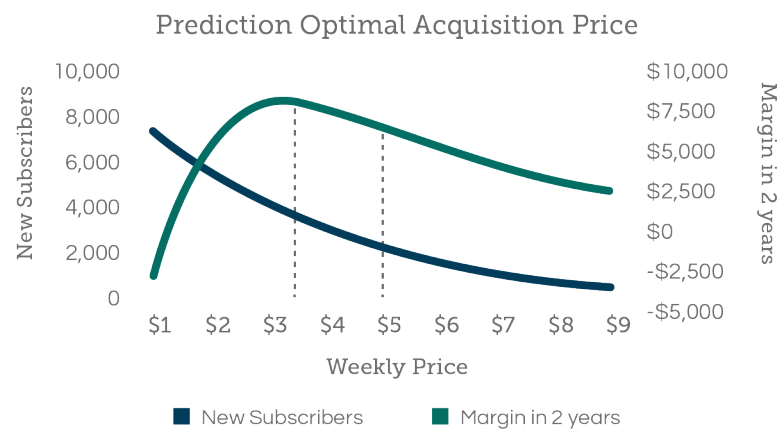
We focus on scoring non-subscribers based on the offer combinations available, and recommend the offer that maximizes lifetime value given the acquisition probability at that price point.

The application of the acquisition model to your universe of formers and nevers.

After we select the highest-performing model, we find either (a) the best offer by household or (b) the best offer to all households if you can only send one. In this case, the “best” offer refers to the price that maximizes lifetime value, either at the household level, or at the campaign level. From this analysis, we can isolate the top prospects: the formers or nevers that have a high likelihood of accepting our offers and are the most profitable long-term. In short, we focus on scoring non-subscribers based on the offer combinations available, and recommend the offer that maximizes lifetime value given the acquisition probability at that price point.

Here are some of the questions you will want to consider beforehand:

- *What is the lowest possible offer amount?*
- *What is the highest possible offer amount?*
- *What are the increments between the highest and lowest?*
- *What are the term lengths?*
- *Should we consider both autopay and non-autopay?*
- *Should we focus on former subscribers or a mixed bag?*
- *How many offers should we send per campaign?*
- *How frequently should we initiate campaigns (monthly, quarterly, etc.)?*



The figure above best illustrates how we arrive at the optimal price to offer the universe of non-subscribing households. The left axis displays new subscribers (blue line); the right axis shows the margin in two years (black line); the x-axis shows the offer prices. In terms of subscribers, as offer price goes up, the acquisition rate decreases. In terms of the margin, as price increases, the margin quickly increases until the inflection point (\$3.20/week) then curtails as price continues to increase (i.e. diminishing marginal returns). In this example, we maximize the margin by offering \$3.20 (left dotted line) as opposed to \$4.80/week (right dotted line), which had been the go-to business-as-usual offer in recent campaigns.



How good does the acquisition model perform against your market offers?

At Mather Economics, we aim to always vet our models and processes through A/B testing. This allows us to determine the incremental value added by the model. In the case of the acquisition campaigns, we compare the performance of model generated offers versus business-as-usual generated offers. We communicate the results of this test through a reporting platform that we've built internally. The below table is an example of the report output.

	Cumulative Revenue		Avg Retention (Weeks)		Average Acquisition Rate		Average Start Price		Average Offer Price	
	Mather	Market	Mather	Market	Mather	Market	Mather	Market	Mather	Market
All	\$2,590.56	\$2,071.33	14.18	13.34	1.63%	1.13%	\$2.08	\$2.09	\$2.07	\$1.68
Acq. Lift	\$519.23		6.28%		44.44%		\$0.00		\$0.23	
Quintile 5	\$673.10	\$262.58	16.15	17.75	1.14%	0.74%	\$3.60	\$1.92	\$3.21	\$1.84
Quintile 4	\$539.73	\$394.81	13.05	13.77	1.61%	1.19%	\$2.14	\$2.02	\$2.05	\$1.77
Quintile 3	\$453.53	\$450.67	12.71	15.73	1.82%	1.03%	\$1.84	\$2.45	\$1.98	\$1.91
Quintile 2	\$406.48	\$441.34	13.25	12.39	1.45%	1.50%	\$1.62	\$1.94	\$1.92	\$1.67
Quintile 1	\$517.72	\$521.93	12.67	13.54	2.12%	1.13%	\$1.73	\$2.16	\$1.58	\$1.33

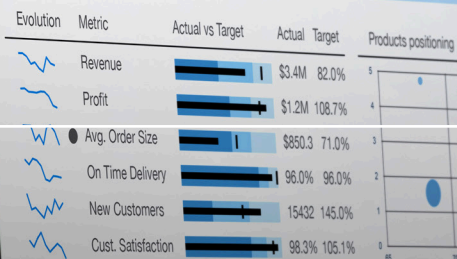
Here, we are comparing the performance of the Mather group (offers determined by the model) versus the performance of the market group (offers the market would have sent). Here are some of the important metrics useful for judging performance contained in the table:

Cumulative Revenue

- *The sum of all weekly revenue accumulated over the retention weeks for each sub acquired in the acquisition lists*

Average Retention Weeks

- *Number of weeks between today's date and the start date, averaged over all starts*



We have improved and expanded upon our non-subscriber valuation process to allow for greater accuracy in determining a potential subscribers' long-term worth if acquired.

Average Acquisition Rate

- *The percentage of those targeted that were successfully acquired*

Average Start Price

- *Average weekly rate of the subscription started by those acquired in the campaigns*

Average Offer Price

- *Average weekly rate offered to subscribers included in the acquisition campaigns*

The lift can be seen in the row titled *Acq. Lift*, where we show the improvement in each metric of the model offers over the business-as-usual offers. We consider this to be the value added of utilizing analytics to inform our acquisition efforts. This example illustrates early results; we anticipate the Mather lift to sharpen as time progresses.

You can also see we're able to segment the targeted non-subscribers into quintiles based on their risk adjusted operating margin, which allows us to examine the results separately between the quintiles. Those in lesser quintiles are expected to have lower lifetime

values. You will notice the lesser quintiles have an acquisition rate comparable to that of the higher quintiles. This is because the offers are unique to each non-subscriber. The lower quintiles were sent lower value offers, specifically geared towards their lower probability of acquisition and retention given they accept.

Final Thoughts

In summary, there have been several enhancements to our lifetime value calculation and acquisition services, and we're excited to share them with you. We have improved and expanded upon our non-subscriber valuation process to allow for greater accuracy in determining a potential subscribers' long-term worth if acquired. We use the information to create market-specific campaigns that optimize the acquisition rate at either the household or offer level and can report on those targeted campaigns in an acquisition dashboard. This dashboard allows us to compare our targeted acquisition efforts against yours and displays important acquisition lift metrics to show our value add in acquisition.