



Maximizing Return

Don't trip over dollars to pick up pennies

By Daniel Parry



Shortly after I graduated from college, I worked as a manager for a large retail electronics chain that was rapidly expanding across the United States. One of the challenges that comes with being a high growth retailer is keeping up with inventory. During my time as a store manager, we had a widely known reputation for being out of whatever was in the current week's newspaper advertisement. While I did learn quite a bit about business in that job, I did not enjoy getting constantly berated by frustrated shoppers over product shortages that were beyond my control. There was one item, however, that we always had plenty of – camcorders.

Customers would routinely abuse the return policy by purchasing the camcorder prior to a special event, and then returning it afterward. The stores were overrun with open box product, which we sold at a discount. Camcorders are also a high theft item, and as such, we were required to keep them in the upstock (the storage area above the gondolas that products were displayed on). The company's corporate risk management department tightly controlled how much the product could be discounted, and how we had to secure it to avoid theft.

Unfortunately, the discount was not compelling enough for customers to purchase the open box product, as for just a little more they could buy a brand-new one. In addition, they would never see the camcorders because they were secured in the upstock. To exacerbate the problem, each of the manufacturers

would regularly release model updates with newer features. The longer the product was held in inventory, the less it was worth.

I came up with what I thought was a fantastic solution. I bundled the open box camcorders with a 3-year warranty (sold for \$30), an extra battery and a carrying bag. I did not discount any of the additional items, but merely put a single price on the total package. The cameras were secured to the display using locking cables, and in four months not one was stolen. Our store was moving open box cameras at a record pace and we had the lowest inventory in the state of Texas... until corporate risk management audited my location. I was reprimanded for not having the camcorders secured up top, and for bundling products that competed with advertised items that we were regularly out of.

The risk management team was singularly focused on loss prevention. They did not care about the plummeting value of the stockpiled inventory because they were not evaluated on it. They also did not care about the fact that we increased our margin by selling additional accessories. The risk team was focused on goals that were suboptimal to the company's financial return. Experiences like this motivated me to quit my job and go to graduate school. Ironically, I ended up in risk management.

Stories like this are common in many industries, and particularly so in auto finance. From loan origination through to asset disposal, many lenders are focused on hitting targets that make the company worse off. The goal of a for-profit lender is not to optimize price, minimize losses or increase dollars collected. These are subordinate metrics that if taken in isolation will lead the company to be penny wise, but pound foolish.

The primary objective for auto lenders is to maximize the return on every dollar deployed in the business. All other goals must be balanced against the impact to total return. Unfortunately, this is frequently not the case. The most common offenders are:

- Manual mayhem
- Exorbitant analytics
- Costly credit rules

Manual mayhem

When you observe an auto lender that consistently (i.e., across credit cycles) produces superior results in terms of yield and performance, it should be credited to a very strong leadership team. The reason I say this is that there is a common dynamic between originations and collections that breeds inefficiency. Originations managers are tasked with getting volume, and to do that they must take care of their dealers. Collections managers are often blamed for credit issues and are regularly tasked with performing miracles to right the ship. Both groups have a lot riding on the outcome,

and they tend to be very resistant to anything that would limit their control or headcount.

This results in a strong insistence on doing things manually that could, to a large extent, be automated using models. For example, several years ago I worked with a company that had 500 employees processing about 200,000 applications per month. The average salary between managers, buyers and funders was around \$60,000 per year. If you add 20 percent for a bonus and 30 percent for taxes and benefits, you top out at a little over \$90,000 annual cost to the company per originations employee. That adds up to a headcount expense of \$45 million per year.

The company had a well validated scoring model, but resistance to it was intense. Interestingly enough, the underwriters agreed with the score-based approval or decline more than 80 percent of the time. Analysis of the reasons for disagreement were widely conflicting among buyers, and a credit bureau analysis of high-side overrides demonstrated better performance than the deals the company booked. If the lender in this case auto-declined the bottom 50 percent of applications and auto approved the top 20 percent of the remaining ones, they could reduce headcount by 60 percent, eliminating \$27 million in expense.

A similar situation exists in collections, which typically accounts for two-thirds of a non-prime lender's operating expense (OPEX). To illustrate this, consider the case of using behavior scoring models, which serve to identify which accounts should be targeted for collections activity and which ones may be put off until a later period. In my experience, lenders who successfully integrate model-driven prioritization achieve improved performance with between 30 and 40 percent fewer resources. For a \$100 million portfolio with a 6 percent OPEX, this is an annual savings of \$1.4 million even without considering an improvement in performance.

I am a little sympathetic to the resistance of senior servicing executives, as these models will recommend not calling a portion of delinquent accounts. I have seen far more servicing heads roll for bad performance than originations heads, even though the vast majority of historical credit issues may be tied back to buying practices when the market was frothy. This is where strong leadership comes in. The chief executive officer should make certain the entire operations management structure (front-end and back-end) is incented on operating efficiencies in conjunction with other performance metrics. In addition, leaders should embrace a champion/challenger methodology in order to get operations buy-in on a smaller portion of the portfolio before making large-scale changes.

Exorbitant analytics

Last week, I received an e-mail solicitation from a new analytics

vendor who mistook me for an active lender. The e-mail promised a state-of-the-art originations model that would cut my losses by 40 percent, with a 90 percent accuracy rate. First, I laughed, and then I forwarded the e-mail to my team as an example of what never to say to a client – particularly if we have zero knowledge of the client's credit niche.

Outlandish claims are nothing new in the world of sales, but over the last few years they have become noticeably more frequent in the auto finance industry. While I am a huge fan of analytics, and what it can do for a lender, legitimate tools provide improvement within a reasonable and relative range. The world's most clever price optimization model will not allow you to charge 20 percent on paper with an 800-plus credit score. Likewise, the Terminator's Skynet computer will not allow you to achieve one percent losses on applications in the mid-500s range. If that were possible, all of the prime lenders with minimal funding costs would adopt the technology, and non-prime lenders would still be left with the dregs. The arbitrage would be gone.

Some of the promise of too-good-to-be-true results comes from running a new model on yesterday's fundings. A model calibrated with more recent performance will always outdo one that did not have the benefit of the updated outcomes. In addition, if the lender had actually approved deals under the newer model, they would likely have closed an entirely different set of loans. Dealers do not operate in a vacuum, meaning that if the lender's approval is not within a market-range of competing offers, the lender will not get that deal.

Substantial improvement from a first-generation analytic solution (i.e., where the company was purely judgmental prior to the new model) is easily achieved; however, each successive generation of model update tends to produce marginally less lift as much of the analytic benefit has already been exploited. When faced with more exotic, potentially expensive risk products, lenders would be well advised to negotiate service level agreements that mitigate expense if the promised results are not achieved.

Most of the more tried and tested risk solutions do not over-promise on results, but the cost may completely outweigh the benefit. Early on in my auto finance career, several vendors were trying to sell me fraud products at \$1 per application, delivering scores that were primarily targeting identity theft. Since most lenders were not tracking varying types of fraud, vendors would validate using first payment defaults as a proxy for fraud.

At the time, my company was evaluating more than 500,000 applications per month. Due to the potential \$6 million annual price tag for these scores, I chose to do a little homework. In

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JANUARY 2019

The Credit Process

LTVs Impact on Loss

Table 1

Amount Financed	LTV	Default Rate	Recovery Dollars	Net Charge-off	Portfolio NCO Percent (Default x NCO)
\$ 18,000	115%	25%	\$ 8,100	\$ 9,900	13.75%
\$ 18,800	120%	25%	\$ 8,100	\$ 10,700	14.23%
Increase					0.48%

conversations with collections managers I learned that first payment defaults were very rarely related to false identity and most often related to poor income verification. In discussions with our company attorneys, I learned that the company pursued less than 100 cases per year related to fraudulent identity on a \$10 billion loan portfolio.

Even if all 100 cases resulted full high credit default, I would be spending \$6 million to mitigate a \$1.7 million risk. The cure was clearly worse than the disease, which leads to an important message for lenders. That is, to quantify the benefit against the cost, and to set up contractual arrangements to mitigate expense if the product does not deliver.

Costly credit rules

Regardless of whether a lender deploys high-end analytic solutions or relies on judgmental experts to select the best credit, they all have the potential to spend far more mitigating a loss than it is worth. Risk managers and buyers are often too focused on reducing or eliminating losses, and not on maximizing the balance between yield, losses and expense. As a case in point, consider the recent Wall Street Journal story from April 7, 2019 titled "Add-On Services Emerge as Car Dealers' Profit Generator".

The article highlighted the shrinking margins on the sale of new and used vehicles, and how back-end products are more important than ever to dealers. Most lenders have tight controls around Loan-to-Value (LTV) Ratio, as they should; however, too restrictive a policy will easily cost you more in efficiencies than the additional loss you might incur. Consider the table above (Table 1).

In this example, we have a lender that averages a 25 percent default rate and an average amount financed of \$18,000. The company is presently at a 115 percent LTV, with a 45 percent recovery rate. This implies a 13.75 percent cumulative net loss (not accounting for principal paydown). Keeping all other factors equal, and raising the amount financed by \$800 increases LTV to 120 percent. The result on net loss is an increase of 48 basis points, or roughly 25 basis points annually. For a non-prime lender booking 500 contracts a month, which equates to a \$200 million portfolio, they would incur \$500,000 in additional losses annually.

Allowing an additional 500 basis points in back-end products is very meaningful to dealers in the present environment and could easily increase closure rate by 2 percent. Assuming the lender has an \$800 cost per closed deal (system, data and headcount cost), they would reduce expense by \$200 per contract. This equates to a savings of \$1.2 million annually, easily justifying the change.

LTV is but one factor related to underwriting. Most lenders operate with a mix of formal credit policy and varying levels of underwriter scrutiny that limit the company's competitive offering. While limits are crucial, they should all be tested periodically in order to assess whether there is a real mitigant to loss. If there is, the lender should evaluate whether the impact to program efficiency merits the rule.

Putting first things first

Lenders can repo away delinquency, ramp up deferments or delay charge-offs in order to manipulate performance results. For this reason, banks and other debt providers prefer to evaluate portfolios using loss to liquidation metrics – because you can't fake cash collected. On the same note, you can't really fake equity in the business. The true measure of a lender is whether they are actually making a return, and how that return compares to companies in the same credit niche.

A culture focused on maximizing return does not happen naturally, as mid-level managers (and even senior executives) may have personal objectives that insulate them while impeding overall efficiency. Correct priorities must be driven from the top down. Best practices for fostering this environment include:

- Adjusting incentive programs to include expense ratios at every level of management
- Benchmarking operations against industry norms such as cost-per-closed loan and collector to loan ratio
- Running champion/challenger tests in order to validate strategy, models and policy assumptions
- Performing periodic reviews with outside consulting firms so that the senior management team can obtain outside objectivity
- Developing a strong culture of audit and controls to ensure the integrity of the process

Avoiding loss, lowering delinquency, increasing recovery rates and other performance targets are unquestionably important; however, they must all be subordinated to the primary objective of maximizing total company return. By doing so, lenders will avoid tripping over dollars in order to pick up pennies.

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