

Taking CRM to a Higher Level

Cookie cutter approaches are passé. Companies have the opportunity to focus their promotions and differentiate their services.



By Dr. Abderrahim Labbi,
Kirsti Lindfors and Brad Iverson
with contributions from Christopher Rospenda

The hospitality industry has made great leaps in customer relationship management. It is awash in customer data, yet most loyalty programs take a one size fits all approach to marketing and service differentiation within a given loyalty tier. Despite technological advances and data abundance, hospitality companies largely continue to guess customer value. When asked, most companies consider the upper tier of their loyalty program to be their most valuable customers. Yet, most of today's loyalty programs are one dimensional, concentrating on room nights or stays. Unfortunately, those upper tier guests are not necessarily the most profitable—they may not even be the most loyal. While they might have accumulated the most room nights, they may not have paid rack rates or contributed to ancillary spend.

It is evident that significant opportunity remains—cookie cutter approaches are passé and forward-thinking companies have the opportunity to focus their promotions and differentiate their services. Customer equity and lifetime management (CELM) is an approach that promises to answer questions such as:

- The expected lifetime value of a customer is...?
- Marketing actions that will maximize lifetime value are...?
- Customers most likely to defect are...?
- Defection rates can be reduced by...?
- Customers should be clustered by...?
- Customers should be moved to more valuable segments by...?
- The best series of actions to maximize future benefit are...?
- How do the risk and reward of various marketing campaigns compare? Which customers should they be targeted at?
- Marketing budget ROI should be maximized by...?

Customer Value/Loyalty Tier Misalignment

Beyond profitability loyalty programs have other shortcomings—certainly the road warrior who may achieve numerous nights while changing brands is not truly more loyal than the infrequent traveler who sticks to his/her brand preference. (see Figure 1) Moreover, lifetime value is a critical shortcoming of the

current loyalty measurement system. The truth is customers with similar spend patterns today, may vary considerably in their lifetime value.

Armed with an imperfect understanding of customer value and behavior, most hospitality companies use a one size approach to marketing and service differentiation within a given tier. Front desk staff focus on upper tier guests, when they should concentrate on customers expected to generate superior lifetime value. Marketing campaigns are likely to blanket an entire tier, offering discounted rates even to those highly loyal customers who are price-insensitive.

Clearly, loyalty tiers alone do not provide sufficient means to measure customer value, target marketing campaigns and differentiate service.

One Size Doesn't Fit All

How can hospitality companies move beyond the one size fits all approach to loyalty tiers? How best can customer data be leveraged to help hospitality companies focus their promotions and differentiate their services? CELM is one approach and begins by obtaining answers to a few questions.

How much money is spent implementing and running loyalty programs? Are hidden, misappropriated and unknown expenses skewing the value or impact?

Are loyalty tiers leveraged accurately? Does the loyalty program attempt to capture a greater share of the customer's wallet? Are peripheral spend patterns accurately captured, with the objective of enhancing the understanding of customer wants and needs? Are the highest tiers of the loyalty program populated by the most profitable or most frequent guests?

IBM Research developed mathematical algorithms that help provide answers to these questions and are used for the analysis, simulation and optimization of loyalty program data based on the observed and expected lifetime value and volatility (risk) of customers. They help segment, understand and predict current and potential high value customers. Subsequently, one may use optimization tools to forecast the sequence and timing of marketing campaigns to maximize the customer portfolio's value/risk ratio.

The CELM Approach

Using mathematical finance for asset valuation (over variable time horizons) and portfolio optimization techniques, the bridge between CRM and financial

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engineering is made possible by considering the customer base as a portfolio of financial assets and managing them accordingly. (see Figure 2) Future customer value over variable time horizons are calculated using advanced probability modeling techniques. Thus the financial profile, or value and risk (volatility), of the customer over a given time horizon is understood.

Portfolio diversification and hedging techniques are used to determine how to optimize available marketing dollars across the customer portfolio, with the objective of maximizing ROI. This approach is radically different from common campaign management methods, which do not consider correlations between different customer profiles and the mutual or delayed effects of multiple campaigns. Thus, this approach supports setting up and budgeting marketing plans (i.e. sequences of campaigns) vs. individual campaigns.

The approach models the relationship as a journey through various critical states in the customer lifecycle, and suggests actions and budgets for each state/time in the journey to maximize lifetime value and minimize risk.

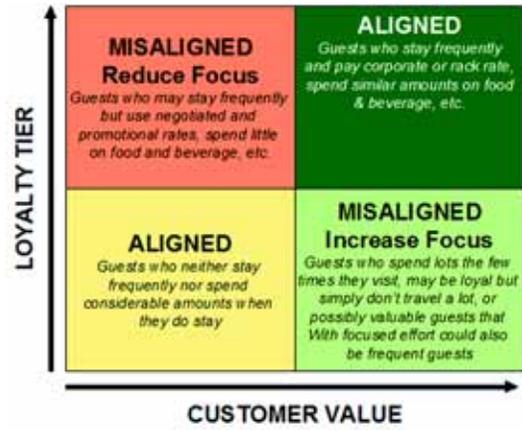


Figure 1. Customer value/loyalty tier misalignment.

Predicting the Impact of Future Marketing Action

Numerous factors can be considered with the model providing different targeting policies for a given customer depending on: 1) the given time horizon, 2) the available targeting budget, 3) the risk appetite of the marketing manager (aggressive, risk-averse, neutral, etc.), and 4) the types of available marketing actions (options).

The benefits that result from applying CELM reside in the areas of segmentation, customer dynamics, portfolio optimization and service differentiation.

Segmentation: CELM helps define customer groups based on demographics and transactional behavior (value/loyalty/recency/frequency) or customized (business) segmentation rules.

Customer dynamics: CELM helps identify customer transitions (the probability to move to a higher/lower value state), estimate customer lifetime value and risk (volatility), predict the impact of future marketing action sequences on customer lifetime value, identify optimal future marketing policy and assess historical and optimized marketing policies.

Portfolio optimization: CELM helps allocate limited marketing funds to maximize return on investment and minimize risk (uncertainty). (see Figure 3)

And while the approach has so far been used primarily to enhance marketing campaigns, the customer insights gained provide the opportunity for differentiated service, including the ability to use targeted marketing and service differentiation in conjunction, as a focused series of steps designed to increase customer value.

The results of CELM exercises can be dramatic. As reported in *The New York Times*, Finnair started working on a CELM project using “mathematical modeling and optimization algorithms to increase customer loyalty, reduce marketing costs and improve response rates among members of its frequent-flyer program.”¹

The airline was able to increase the level of customer understanding with superior insight into buying patterns and the effect a given set of marketing campaigns would have on a particular customer segment. Armed with this understanding, sub-classes of loyal, high value customers were identified (customers who might no longer receive many marketing offers as doing so simply added cost and drove down margins), while additional sub-classes of attractive, moldable customers, ripe for incentives, were also pinpointed. During the initial project Finnair reported that the technology had “reduced marketing costs by more than 20 percent and improved response rates by up to 10 percent.”²

Clearly, customer equity and lifetime management provides an opportunity to move beyond one size fits all approaches to customer value, campaign management and service differentiation—and can offer hospitality companies the opportunity to leap-frog the competition and enter the next era of CRM.

Dr. Abderrahim Labbi (abl@zurich.ibm.com) is a CRM analytics, data mining and statistical modeling expert based in IBM's Zurich Research Lab. Kirsti

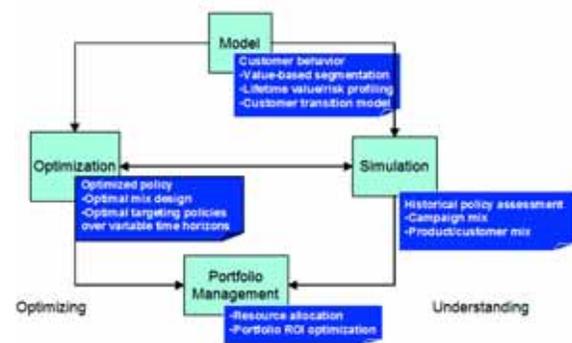


Figure 2. Calculating future customer value.

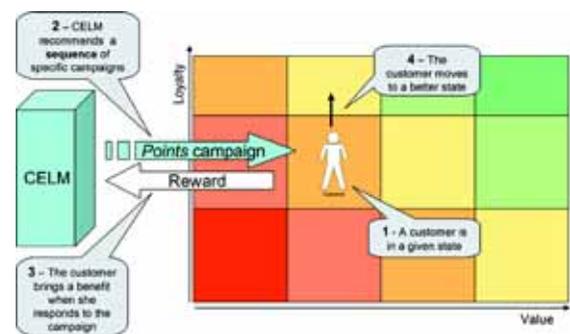


Figure 3. The CELM approach.

Lindfors (kirsti.lindfors@fi.ibm.com) and Christopher Rospenda (rospenda@fi.ibm.com) are based in IBM's Finnair Innovation Center in Helsinki, Finland. Brad Iverson (brad.iverson@us.ibm.com) is IBM's global offering leader for Hospitality & Travel Related Services in Chicago, Ill.

Sources

¹ Lohr, S. (2004, January 25). *Big Blue's Big Bet: Less Tech, More Touch*. The New York Times.

² *ibid.*