Customer Cross-Sell

Using advanced analytics and creating a marketing-IT partnership to increase cross-sell penetration

People matter, results count.

Contents

1 Executive Summary

Increased cross-sell rates require an empowered analytic environment consisting of closed loop feedback systems, analytically derived customer intelligence, and customer-centric cross-channel offers.

Many of the challenges related to increasing customer cross-sell penetration rates faced by financial services institution Chief Marketing Officers (CMOs) stem from an advanced analytics environment inadequate for generating customer intelligence. Achieving the necessary empowered advanced analytics environment requires an enterprise customer data management strategy and the integration of channel systems with analytics repositories.

In the past, most marketing departments have managed their analytics repositories with minimal IT support. But to gain and utilize a full customer view which includes channel feedback, marketing will need to develop a stronger IT partnership. In this paper, we provide:

- A **roadmap** for creating an analytical environment that is empowered to better supports marketing cross-sell efforts.
- An overview of the **technological enhancements** and changes to the analytics processes that must be put in place to obtain the most benefit from these changes.

The key takeaway: increased cross-sell rates require a stronger analytic environment which combines analytic processes with technology and includes:

- Closed loop feedback systems.
- Analytically derived customer intelligence.
- Customer-centric cross-channel offers.

2 Current Situation

For most financial services institutions, increasing cross-sell penetration is a primary organic growth objective. Marketers are under pressure to improve cross-selling activities while delivering strong return on investment. Today's financial firms have more data than ever before, thanks in large part to the growth of online and mobile channels. With all the additional data, banks should be able to better predict customer needs—but more data does not necessarily translate to improved customer insight.

To gain insight from data, financial firms must build a strong data and analytical foundation. Customer databases—originally built years ago for direct mail—must be adapted to support new and complex cross-channel campaigns. Advanced analytics can be enabled and enhanced to generate predictions. Banks must gain a full view of the activities and behaviors of their customers, not just those limited individual activities stored in various information silos in differing systems or product lines. The question becomes how can a financial firm empower predictive and analytical environments in a way that will have a direct and unmistakable impact on cross-sell penetration?

By starting with the end in mind—a profitable cross-sell strategy—we can more easily identify the path forward. Effective and efficient cross-sell strategies live within a closed loop marketing feedback system where customer intelligence developed through advanced analytics and driven by customer needs is integrated within the pro-active and reactive customer touch points. These components have two things in common: putting them in place requires both technology enhancements and changes to the existing analytical process.

2.1. Building a Partnership Between Marketing and IT

While analytical process changes are within the purview of marketing departments, technology enhancements are not. These enhancements will require close partnership with IT or other lines of business. The tools marketing needs for an enhanced analytics environment are enterprise in nature and present both benefits and challenges.

The benefit of using enterprise-wide analytical tools is the opportunity to split costs across several lines of business. The challenge is the need for marketing to be an informed IT partner. At the core, this marketing-IT relationship is challenging because each group essentially speaks a different language. In most banks, marketing has been burned by the implementation of technology tools that don't meet all their needs. This makes marketing hesitant to share control and responsibility for data and analytics solutions with IT. Since it's difficult for marketers to articulate requirements in a manner that is actionable by IT, any communication gaps can result in significant costs.
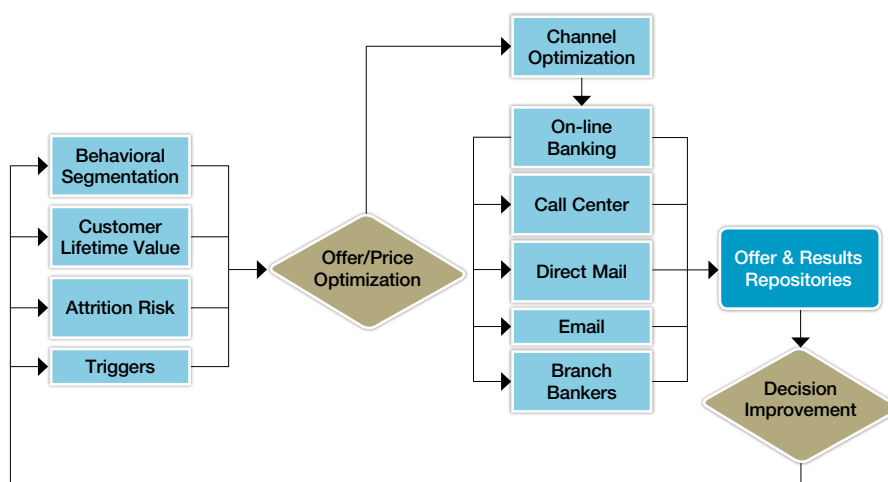
Overall, creating a strong analytical environment that combines technology and analytical processes will help marketing achieve the goal of improving cross-sell opportunities and increase ROI.

3 Closed Loop Feedback System

Most financial services institutions are familiar with the open loop system, where customer feedback is not always captured and used to inform new offerings and performance. The closed loop concept is also familiar to most marketers but more difficult to achieve.

Until marketing data repositories are integrated with the sales and servicing channels, a closed loop system is impossible. Only once that integration occurs, can the link between a customer's product behaviors and what they do in the channels exist. Making the link requires having a 360 degree single customer view (SCV) as well as consistently capturing and retaining customer responses to offers in a central repository. First we will examine SCV, leaving the response repository to be covered in the last section.

Exhibit 1: Closed Loop Feedback System

Initially in the quest to achieve the SCV, marketers used contact information fields like social security number or name. The information had to match exactly to be considered as belonging to the same customers. Next came black box algorithms. These worked somewhat well, but the black box nature meant marketing had little control over the process. As a result, marketers limited the output to their analytics work; it was not widely used in front line systems.

Customer Data Integration (CDI) provided a more robust solution and somewhat quickly evolved into what is called Master Data Management (MDM) software solutions. According to Gartner's June 2009, *Magic Quadrant for Master Data Management of Customer Data*, "MDM of customer data systems are software products that:

- Support the global identification, linking and synchronization of customer information across heterogeneous data sources through semantic reconciliation of master data.
- Create and manage a central, database-based system of record.
- Enable the delivery of a single customer view for all stakeholders."

The implementation of MDM solutions requires corporate technology because the MDM software must be fed by all source systems and repositories. A note of caution; MDM software is multifunctional and not all software does everything well. Marketing must be actively involved in the software selection to ensure the chosen solution is able to deliver the single customer view effectively.

Exhibit 2: MDM Evolution at an Enterprise Level

Technology Evolution		Implementation Evolution		Systems Integration Evolution	
SSN & Black Box Algorithms	◔	For a product, e.g., credit card	◔	Single product processing source system	◔
Customer Data Integration (CDI)	◑	Across products within a Line of Business, e.g., retail credit	◑	Multiple product processing source systems	◑
Master Data Management (MDM)	◕	Across Lines off Business, e.g., retail credits & deposits	◕	Analytics databases integration	◕
MDM with Data Governance	●	Across divisions e.g., consumer & corporate bank	●	Service channels integration	●
		Across legal entities	●		

Low ○ ◔ ◑ ◕ ● High

Maturity

Once the technology is in place and delivering the SCV, analytics processes may need to be adjusted to make effective use of it. The linking of many accounts to a single customer is an important but not the only outcome. Rather, this single customer view is the foundation upon which the 360 degree view is created by integrating the household view, transactional data, and external data. It is this 360 degree view which provides the greatest lift in predictive cross-sell models.

- **Householding** is the process of grouping customers into decision making units and is especially important for credit marketing because the debt and income levels it provides are a more accurate indication of credit worthiness and need. The household view provides insight into a customer in relation to others whose income and debt impact financial needs and stability.

- With **product, transactional and behavioral data**—including channel preferences and responses filtered through the household views—marketing has a customer view that is about 75% complete.

- **Integrating external data**—such as credit bureau and demographic data—along with the customers' channel preferences and marketing campaign responses produces the 360 degree single customer view.
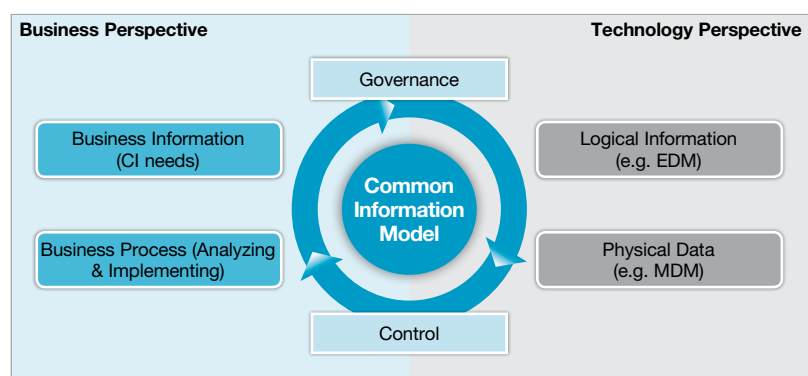
4 Analytically Derived Customer Intelligence

Executing advanced analytics requires more than a data warehouse and statistician. Where once the competitive advantage in advanced analytics came primarily through predictive modeling techniques, now the playing field has been leveled as these best practices have spread. The competitive advantage now comes from data quality. In other words, the value of that data— i.e. the degree to which it contributes to a more powerful cross-sell prediction—depends primarily on its quality.

Achieving high data quality data requires an enterprise level data quality management program. Here marketing has a strong ally in the risk group, as new regulations require management to certify the quality of key data elements in risk reporting. Proactively engaging in data quality efforts should provide marketing with the opportunity to impact the design of the program. Marketing should advocate in support of:

- **Technology tools** that make it easier to understand what type of information a data element contains, its quality score, and how it changes over time.

- A **metadata repository** that provides users with a powerful electronic data dictionary where data lineage, sources and the ability to trace business concepts and terms to conceptual and physical data models are supported.

Marketing and IT must have a method to link the technical specifications of a data element with its business definition.

Exhibit 3: Common Information Model

It is absolutely necessary that marketing and IT have a method to link the technical specifications of a data element with its business definition; this is done through a common information dictionary, housed in a metadata repository.

Marketers often avoid Data Quality and Data Governance programs because there doesn't appear to be a good return on their investment of time. Capgemini's experience strongly indicates the reverse is true. Capgemini estimates that on any given analytical project, currently about 60% of the quant or analyst's time is spent on data quality issues. The successful implementation of an enterprise data quality program can result in that time reduced to 10%—a significant cost savings.
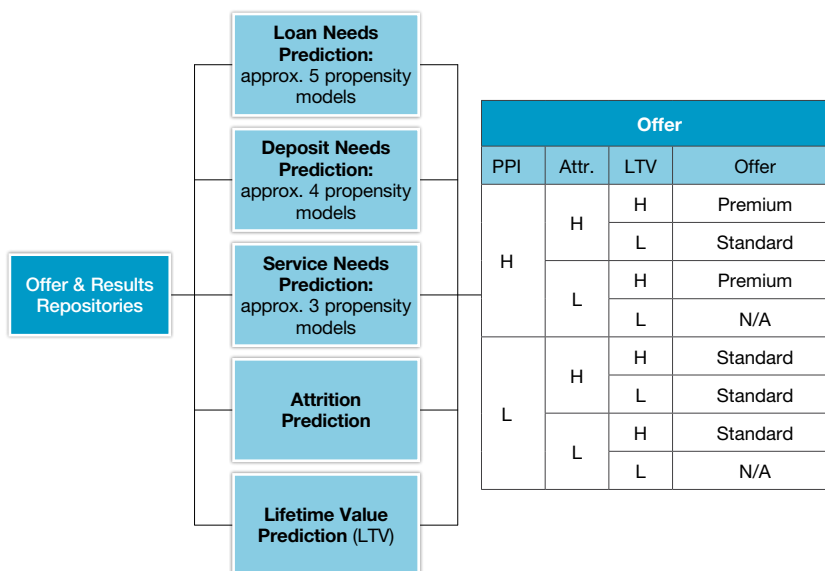
5 Customer-centric Cross Channel Offers

Most cross-sell strategies are executed from a product centric perspective. Each month the propensity model for the product the bank wants to promote is executed. As a result, customers likely to respond to that product are identified but that may not be the best offer for that customer at that time. Gaining this insight requires executing all cross-sell models simultaneously in conjunction with attrition and lifetime value predictions. Now, product prediction becomes customer intelligence.

For example, Capgemini uses a Product Propensity Index (PPI), a set of approximately 14 quantitative models that segment customers on behaviors and identifies each customer's current propensity for the financial institution's product set. By considering a customer's product propensity, attrition likelihood, and predicted lifetime value, an offer is identified that is both.

Exhibit 4: Behavior Based Segmentation Drives Enterprise Cross-sell for Retail Banking

| Loan Needs Prediction: approx. 5 propensity models |
| Deposit Needs Prediction: approx. 4 propensity models |
| Service Needs Prediction: approx. 3 propensity models |
| Attrition Prediction |
| Lifetime Value Prediction (LTV) |

Offer & Results Repositories

Offer			
PPI	Attr.	LTV	Offer
H	H	H	Premium
		L	Standard
	L	H	Premium
		L	N/A
L	H	H	Standard
		L	Standard
	L	H	Standard
		L	N/A

Finally, the integration of customer intelligence across both proactive channels like direct mail, email, and outbound telemarketing and reactive channels such as customer service call center, branches, or on-line banking site results in several important benefits:

- A more consistent customer experience.
- Offer exposure to a greater number of customers.
- Increased efficiency and effectiveness of bank branch staff through targeted sales messages and information on available offers.

To achieve this integration, marketing must advocate that the selected channel integration solution enables:

- Distribution of cross-sell offers to all channels at the same time.
- The capture of customer responses to the offer.
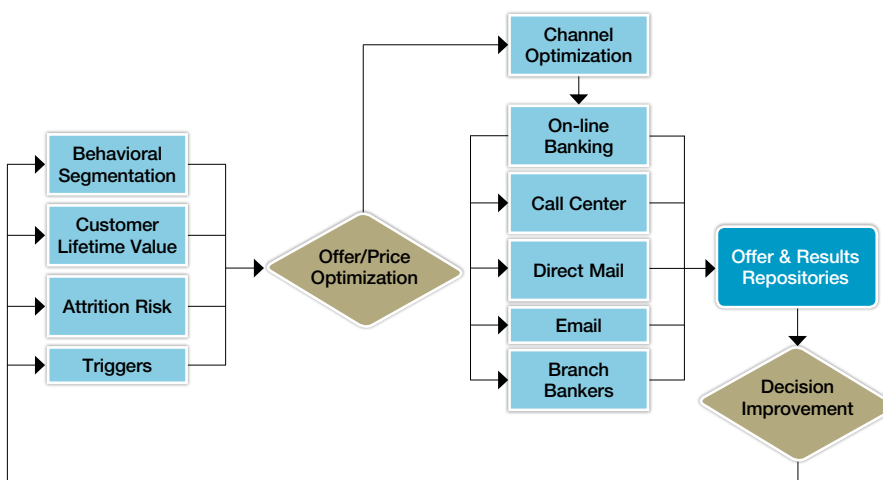- An update of the offer matrix with customer's response.

6   Conclusion

Many of the challenges faced by financial services Chief Marketing Officers related to increasing customer cross-sell penetration rates stem from the lack of an advanced analytics environment to generate customer intelligence. Overcoming these challenges requires a partnership between IT, which has data management capabilities and technology integration expertise, and marketing which brings customer analytics expertise. The roadmap for developing an effective partnership and analytics environment includes both technology and analytic process changes.

Exhibit 5: Roadmap

Requirement	Technology	Analytic Process
Closed loop feedback systems	Integration of channel, response and product use behaviors into a single customer view (SCV)	Creating 360° single customer view by integrating: external "graphic data" i.e. demographic, psychographic etc., external credit behavior, household behaviors
Analytically derived customer intelligence	Metadata repository	Operationalized data quality
Customer centric cross channel offers	Integration of analytically derived customer intelligence into channels	Propensity index

Exhibit 6: Closed Loop Feedback System

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