A Proven Approach to Forecasting and Measuring Data Warehousing Value



The Teradata Business Value Consulting team has helped many companies uncover millions of dollars of profitability through smarter decision making enabled by enterprise analytics. The team draws on experience from hundreds of engagements worldwide, applying senior level financial, business analytical, and technology skills to help customers understand the value of their data warehousing investments. Among the services the Business Value Consultant from Teradata brings to the engagement is the ability to help each client objectively determine the financial impact of its prospective and past investments in data warehousing and analytical solutions, as well as track and monitor key performance indicators and value throughout the implementation cycles.

The quantification of Return on Investment (ROI), expressed in terms of both revenue/ profitability/business process enhancement opportunities and cost savings that can be reasonably expected to be achieved, requires an intimate understanding of an organization's circumstances, including technology, strategy, business processes, and people. Because of the unique nature of every business, implementing an enterprise analytics environment will have different impacts. Accelerating customer acquisition,

improving customer retention, developing effective cross-sell/up-sell programs, improving operational effectiveness, building an enterprise-wide data warehouse to rationalize operating costs and optimize decision making, and/or successfully implementing more efficient operating processes will impact ROI differently in different organizations. Please see the appendix of this paper for a more detailed exposition of Teradata's business case development process.



To help determine how data warehousing and analytical solutions will affect an organization, Teradata deploys a team of professionals to assist in identifying an efficient plan that enables clients to reach their business goals. Equipped with a thorough understanding of needs and limitations, our professionals provide clients with the confidence to:

- > Create a single and accurate view of their businesses.
- > Make the necessary investment in Teradata solutions to secure the desired results.

- > Set achievable goals with intermediate benchmarks to help monitor progress.
- > Support and leverage business strategies, initiatives, and tactics by removing limitations and enhancing capabilities to take new and/or better actions.

Teradata's consulting staff works closely with the business-user community to identify strategies to capture value and design processes to most effectively implement those strategies. Consultants lead the effort to develop mutually agreed upon metrics to capture the value associated with the process improvements identified.

By tracking the process improvement from operations to the P&L, and ultimately, to cash flow, Teradata helps clearly identify the solution value.

To illustrate the benefits of an engagement process, the following example is provided. Using the integrated analytical modeling, event-driven marketing, and campaign management capabilities of the Teradata® CRM Solution, combined with the detailed data and operational efficiency of the Teradata Database, Teradata helped a large European client find new ways to improve profitability: automating its marketing processes, improving customer retention, and accelerating the effectiveness of marketing campaigns.

Improving Efficiency by Automating Marketing Processes

Through ongoing discussions among the client and the industry and business value consultants, the automation of marketing processes was identified as one of the key initiatives to improve profitability. Prior to the business value consulting engagement, it took the customer almost five weeks to launch a typical campaign, as shown in Figure 1.

Stages of Current Campaign Process		Number of Campaigns	Average Duration	Number of Days – Forced Conversion
Stage 1	Campaign Objective	1	2 hours	0.5
Stage 2	Agree process for campaign	1	2 hours	0.5
2 (A)	Scheduling/Prioritization	1	2 hours	
Stage 3	Analysis of customer base	1	2 days	2.5
Stage 4	Campaign quality group	1	.5 days	
Stage 5	Direct mail company	1	3 days	3
	Briefing	1	2 hours	1
	Sending/Encrypting files	1	.5 hours	
	Checking cleaned data	1	1 hour	
	Sign off live samples	1	1 hour	
	Ongoing telephone calls	1	2 hours	0.5
Stage 6	Sign off	1	1 hour	
Stage 7	Communication	1	.5 days	
Stage 8	Execute campaign, uploading to system	1	2-4 hours (average 3 hrs)	0.5
	Execute campaign, calls out to customers	1	5 mins per lead	1
Stage 9	Measurement	20	1 day a month	2
Stage 10	Campaign assessment	1	2 days	12.5
Stage 11	Ongoing communication	1	Ad hoc over 2-3 weeks	24
	Total	37		
Average Campaign Duration Measured in Weeks				

Figure 1.



Stages of Revised Campaign Process	Definition of Tasks
Stage 1	
Stage 2	Agree process for campaign
Stage 2 (A)	Scheduling/Prioritization
Stages 3+4+5	Analysis of Customer Base + Campaign Quality Group + Direct Mail Company
Stages 6+7	Briefing/Sending/Encrypting Files
Stage 8	Execute campaign – uploading to system, Execute campaign – calls out to customers
Stages 9+10	Measurement and Campaign Assessment
Stage 11	Ongoing Communication

Figure 2.

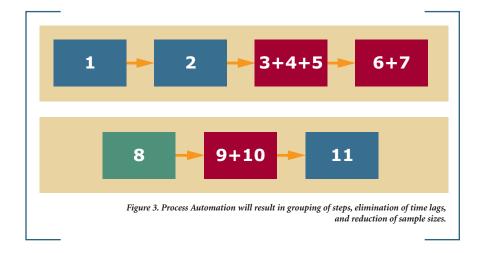
Automating critical functions/steps in the campaign process produced significant savings in marketing expenses. The cost savings and cycle time reductions associated with campaign automation amounted to more than €5.3 million annually. These savings flow directly to the bottom line. While the individual stages appear to be relatively efficient, the delays caused by the handoff between stages represented profits waiting to be captured. The automation of the stages eliminated unnecessary delays and combined campaign steps allowing the firm to conduct each campaign more efficiently. Additionally, given the time savings, it also enabled the organization to be able to conduct more campaigns. Finally, the opportunity revealed that the customer would not only be able to significantly reduce costs, but would also be able to conduct smaller, more frequent, and more relevant campaigns that would ultimately drive incremental revenue.

Rethinking workflow and the functional grouping of stages led to a reduction in the campaign time by almost 38% – from five to three weeks. The revised and resulting campaign process workflow was redefined, as shown in Figure 2.

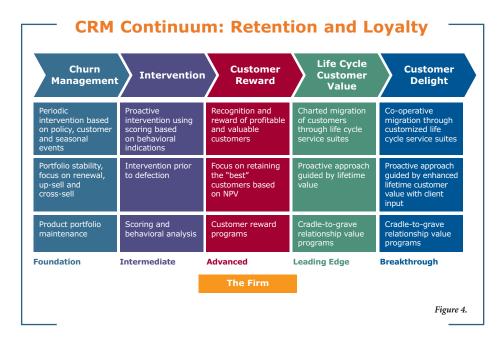
Where, in the past, the firm thought many of the steps had to be done sequentially, our

consultants showed them how many of the steps could be combined and accomplished in parallel. The time savings amounted to cost reductions, productivity enhancements, and staff reassignments, which drove considerable value to the bottom line.

Teradata consultants assist in prioritizing, based on financial returns, among many potential value-creating initiatives. Conservative estimates are typically used to analyze the business impact across different initiatives and across various platforms using sensitivity and scenario analyses. The methodology performed is specific to the business problem, and includes all related technology investments involved in the solution. Regardless of the enterprise analysis issue being addressed, the process to determine the value of the solution to the bottom line can be adapted to any situation.







Improving Customer Retention Initiative

Retaining existing customers and profits lost to customer dormancy were also included in the comprehensive analysis. Many millions of Euros were lost to customer defection and to dormant accounts. The impact of the Teradata solution on these programs depends in a large measure on where the firm falls on the CRM continuum. That impact cannot be predicted unless, and until, we truly understand our customer.

In this instance, the consultants and the client agreed that the firm should be properly classed as being in the advanced stage of the CRM continuum. This institution has long been involved with customer retention and dormancy prevention initiatives, so many of the easily achieved benefits had already been obtained. Nonetheless, the firm continued to lose almost 40,000 customers per year.

By leveraging the detailed customer history, along with a more thorough understanding of customer defection, the impact of new programs operating within a Teradata environment was conservatively forecasted to produce a save rate of 5%. In other words, attrition would be reduced to 95%, or its pre-retention initiative level. Had historical data not been available, our forecast

of lift might have been even greater. That forecast, however, would have been misleading, possibly resulting in a less than expected return on investment. The Teradata Business Value Consulting philosophy is to under-promise and over-deliver. After a thorough analysis of the firm's history of customer retention and dormancy reduction initiatives, we demonstrated that with a €250,000. investment in Teradata solutions, they would preserve revenue of almost €1.5 million over a three-year time horizon.

Prioritization and Benchmarking

Within the context of the customization of the business impact model, Teradata consultants collaborate with our clients to help them prioritize among possible strategies and help them establish appropriate benchmarks against which they can assess their performance. Continuing with the example above, the European client had previously used an analytical customer relationship management solution from a different vendor as a basis for more than 90% of sales campaigns. Their sales conversion experience across these campaigns varied from a low of approximately 1% to a high of almost 10%. The campaign successfully generated new sales approximately 5% of the time.

After careful study of its sales campaign process and much deliberation with the



Benchmarking Analysis					
Client	Pre-CRM Conversion Rate	Post-CRM Conversion Rate			
Canadian Client	6%	13.5% > +125%			
U.S. Client	3%	7.2% > +140%			
Australian Client	8%	17.5% > +119%			
European Client	5%	10.5% > 110%			

Figure 5.

client, Teradata consultants forecasted the benefit of an integrated CRM suite over their current sales campaign initiatives: event-based marketing coupled with analytical marketing capabilities should conservatively increase the sales conversion rate 7.5% – a full 50% improvement over the current results using the rationale shown in Figure 5.

By tracking the performance of other Teradata customers, the consultants compared pre-CRM results to post-CRM performance. A Canadian customer experienced a 125% improvement in conversion rate; a U.S. client improved its conversion rate by 140%; an Australian customer increased its conversion rate by almost 120%; and another European customer more than doubled its conversion rate. The forecasted improvement

of only 50% represents a conservative estimate that is not only achievable, but could certainly be exceeded.

Moreover, Teradata helped to set strategic priorities for this client. While improving customer retention is an important and profitable endeavor, greater benefits will be derived by focusing on improving sales campaign effectiveness. The client already operated close to world class with respect to customer retention. The detailed analysis of the client's strengths and opportunities for improvement shows that the firm will grow much stronger, much faster if it emphasizes sales campaign effectiveness.

Teradata focuses on helping our customers get the most out of their investments in Teradata solutions by facilitating their understanding of our solutions and their ability to determine how and where to deploy them for the most effective use in their businesses. The engagement process analyzes more than the technology investment by showing what the technology enables - very specifically, the new and/or better actions that can be taken, which in turn, drive higher profits. This is a highly interactive process requiring full cooperation between various constituents (i.e., business users, technology group, finance, marketing, and operations) and Teradata to ensure that all requirements are captured, documented, and analyzed. This is accomplished by understanding a customer's business, technology, process, and financial landscape to identify areas of potential benefits and quantify the financial impact resulting from addressing these problems. The knowledge derived, along with Teradata's experience and expertise, allows for the development and quantification of meaningful and accurate value-statements and the cost associated with implementing the new initiatives.

For more information about Teradata's Business Value Consulting services, contact your Teradata representative or visit Teradata.com.



Teradata.com

Appendix

Business Case Development Process

1. Determine initiative(s) (BIOs) with potential for revenue enhancement and/or cost rationalization based upon:

> Business imperatives

- a. Customer centricity
- b. Real-time analytics
- c. Growth objectives
- d. Competitive pressures
- e. Change reactivity

> Technological considerations

- a. Architecture
- b. Functionality
- c. Adaptability
- d. Reusability and extendibility

> Financial imperatives

- a. Financing considerations: leasing, depreciation, etc.
- b. Tax regulations
- c. Capital allocation and cost
- d. Risk
- e. Cash flow optimization

> Other imperatives

- a. Organizational factors
- b. Environmental variables
- c. Legal constraints
- 2. Collect key performance indicators and cost data: revenue metrics, cost metrics, and process metrics.
- Select and prioritize key initiatives depending on funding availability and strategic urgency.
- > Avoid conflicting objectives and processes.
- Holistic approach not just divisional
 to avoid investment redundancy and
 allow for optimization of reuse.
- > Ensure strategic alignment.

- 4. Establish project costs.
- > Outside costs: technology, consulting, and training
- > Internal costs: project/resources, incentive, process change
- 5. Establish and benchmark expected financial lift and cost savings.
- Build a RIGOROUS, CONSERVATIVE, AND ACHIEVABLE financial model, and sensitize forecast to evaluate financial risk.
- 7. Determine financial desirability: go/no go (NPV, IRR, Payback Period).
- 8. Establish benefit accountability to reflect actual buy-in.
- 9. Implement and continuously track.

Business Value Consulting Team

- > Proven business and analytic skills
- > Ability to lead the quantification of value and the articulation of that value at all levels of the client's organization
- > Cross-industry experience
- > Portfolio of testimonials available upon request

Teradata and the Teradata logo are registered trademarks of Teradata Corporation and/or its affiliates in the U.S. and worldwide. Teradata continually improves products as new technologies and components become available. Teradata, therefore, reserves the right to change specifications without prior notice. All features, functions, and operations described herein may not be marketed in all parts of the world. Consult your Teradata representative or Teradata.com for more information. Copyright © 2009 by Teradata Corporation

All Rights Reserved.

Produced in U.S.A.

