Measuring the strategic value of Customer Data Integration

An Experian white paper — August 2008
The economics of Customer Data Integration

There is little doubt that customer-centricity has become a strategic battlefront in business. This momentum continues to grow as the “timescales from 'innovation to imitation' reduce dramatically and other traditional differentials — price, quality and service — are losing their ability to differentiate companies” while the Internet is eroding many of the once-formidable advantages of distribution channels. Consequently, about the only thing that is left for competitive differentiation is the customer experience. Even for businesses that do not fully recognize these dynamics, internal pressures reflect customer-centric needs. These include demands to improve marketing productivity, increasing market diversity, fiercer competition, and more informed and demanding consumers.

Yet, in spite of such economic and competitive realities, market research concludes that few executives are satisfied with their firm’s level of customer-centricity or customer experience management. One reason for this is a lack of financial metrics that codify the advantages of a customer-centric strategy. Executives need clear, well-articulated financial metrics that demonstrate the financial impact of improved customer value and provide the information needed to guide spending. Without this, most customer-centric investments — even those in the millions of dollars — cannot be managed with the understanding of their product-centric counterparts.

If Customer Data Integration (CDI) is to reach its full potential, it must be connected to a set of metrics that can be tied to boardroom-level issues such as profitability, market share and customer retention. The purpose of this paper is to provide an economic framework that represents the value of both CDI and the business strategies it supports.

The economic landscape of CDI

CDI is foundational to customer-centricity. CDI enables business intelligence that helps craft customer-centric strategies and the business processes necessary to support them. While the connection from CDI to customer value is intuitively obvious, quantifying that connection can be difficult because CDI is only a portion of the customer management value chain. Many additional factors are involved, including marketing, brand management, people, products, policies, environment and advertising. Therefore, while CDI is never the complete value chain for customer management, it is a critical capability. However, to understand the benefits enabled by CDI, the economic impact of improvements in customer value must be understood.

Economic justification for CDI should include two sets of metrics: one that covers improvements in customer value stemming from CDI-enabled business processes and another that addresses the direct impact of the CDI system on data in areas such as improved compliance management. This leads us to measure the economic impact of CDI in two types of business activities. Direct activities are directly involved in creating value for the customer. These include the programs designed for customer acquisition, retention and loyalty management and are measured

Firms that have managed to successfully traverse the path to customer-centricity have reaped rich rewards in the form of superior financial performance and loyal customers.

Colin Shaw and John Ivens, Building Great Customer Experiences (England: Palgrave Macmillan, 2002)
using top-down value measurement methods. Indirect activities provide the support necessary to perform direct activities. This is a natural category for CDI in that it provides data-driven intelligence that is applied in many of the direct activities. Bottom-up value measurement methods are used for indirect activities.

**Top-down value measurements**

Top-down value measurements apply to business programs that interact directly with the customer. As illustrated in Figure 1, top-down measurements include the traditional bellwether metrics of market share and profit. Customer Lifetime Value (CLV) can be linked to profitability and, to some extent, to market share. Customer profitability also is listed as a top-down measurement because, for those businesses that measure it, it is a very powerful means of managing both customer-centric and product-centric strategies. It can be used separately from CLV and vice versa.

Changes in CLV directly impact profit and therefore can be used to help estimate the final financial impact the customer-facing business processes supported by CDI. CLV also can be used to help understand how much to invest in customer acquisition, retention and loyalty. For example, a company should not spend more than the expected CLV to acquire a customer.

In the illustration above, major corporate objectives and their associated measurements apply strategically across all customer management systems.

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1 In addition to direct and indirect value chains, a third category often included in value chain analysis is quality assurance. However, it is beyond the scope of this paper.
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including CDI. Measurements such as lifetime value and customer profitability also are applied at the individual customer level for tactical purposes. These measurements are enabled by CDI but do not reside in the utility functions that drive it. Finally, operational metrics related to CDI performance such as address accuracy, data currency and their associated data quality metrics apply enabled by the CDI service.

Customer lifetime value
Since businesses typically have customer management processes in place, value measurements for CDI usually are most effective when they focus on the impact of changes that are enabled by CDI. An excellent all-around customer-centric measurement for top-down value is derived from CLV. Let’s first introduce CLV with a semantic description of the calculation:

\[
\text{CLV} = \text{customer margin} \times \text{margin multiple}
\]

The above uses the average margin earned by a customer for the period being measured (usually a year) and multiplies it by the margin multiple.

The margin multiple
The margin multiple is the heart of the CLV equation. It accounts for both the present value of future dollars and the percentage of customers who will purchase again in the future. Mathematically, it is expressed as follows:

\[
\frac{r}{1+i-r}
\]

where:
- \(r\) = the retention rate (for example 80 percent, or .8)
- \(i\) = the discount rate, or cost of capital (for example 5.5 percent, or .055)

The following table shows a typical range of values for the margin multiple across today’s most common discount rates. At the writing of this paper, most companies have a discount rate around 5 percent and a customer retention rate between 60 percent and 90 percent. If your retention rate is 60 percent and cost of capital is 5.5 percent, your margin multiple is 1.32.

<table>
<thead>
<tr>
<th>Retention rate</th>
<th>Discount rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.0%</td>
</tr>
<tr>
<td>60%</td>
<td>1.33</td>
</tr>
<tr>
<td>70%</td>
<td>2.00</td>
</tr>
<tr>
<td>80%</td>
<td>3.20</td>
</tr>
<tr>
<td>90%</td>
<td>6.00</td>
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</tbody>
</table>

To complete the CLV equation, we need only to insert the customer margin. The complete equation is:

\[
\text{CLV} = m \left( \frac{r}{1+i-r} \right)
\]
Using the above table, if the discount rate is 5.5 percent and the retention rate is 70 percent, the margin multiple is 1.97. If the average margin (or profit) in a year from a typical customer is $40, the lifetime value of that customer is $40 x 1.97, or $78.80. While the total profit from this customer in real dollars will be greater than $78.80, when the profits are discounted to their net present value, the result is lower. This means that no more than $78.80 should be spent acquiring each new customer.

Using lifetime value–based metrics
Maximizing customer value is not possible without CDI. Therefore, it is appropriate to consider the entire customer management process, inclusive of CDI, when determining its value. One of the most powerful ways of doing this is to estimate the impact of CDI on customer retention and then determine the subsequent effect on profits.

Impact of retention of profit
A 1 percent improvement in customer retention is 50 times more valuable than a 1 percent improvement in acquisition costs and five times more valuable than a 1 percent improvement in margins or discount rates. CDI should improve customer retention by feeding high-quality information into processes supporting cross-sales, customer satisfaction and loyalty. Therefore, supporting improvements in retention is a wise usage of CDI and should be a profitable business investment.

If expressed in terms of the impact on retention rates, CDI’s potential value can be translated into reasonable estimates in profitability improvement. This is done by modifying the margin multiple from the CLV equation to include a factor for customer elasticity. The calculation is then represented as follows:

\[
\frac{r}{1+i-r} + 1
\]

As shown in the following table, a 1 percent improvement in customer retention typically results in a 2.3 percent to 6.3 percent increase in profits (before the costs of the retention program).

<table>
<thead>
<tr>
<th>Impact of retention on profit</th>
<th>Discount rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retention rate improvement</td>
<td>5.00%</td>
</tr>
<tr>
<td>60% to 61%</td>
<td>2.33</td>
</tr>
<tr>
<td>70% to 71%</td>
<td>3.00</td>
</tr>
<tr>
<td>80% to 81%</td>
<td>4.20</td>
</tr>
<tr>
<td>90% to 91%</td>
<td>7.00</td>
</tr>
</tbody>
</table>

For example, if the firm’s discount rate is 5 percent and the retention rate is 70 percent, increasing retention to 71 percent will improve annual profit by approximately 3 percent. If the firm made $120 million in profits last year, this improvement translates to $3.6 million in increased profit. (This is before costs.)
Notice that the higher the current retention rate, the greater the impact on profits. However, with higher retention rates, each incremental improvement typically costs more than the previous one. There will be a breakeven point where it does not pay to invest in further increases in retention.

Retention and market share
When considering improvements in customer retention, it is important to understand whether those improvements can be sustained. Every improvement in customer retention increases the level of sustainable market share. However, it is possible for a company to temporarily surge ahead of its sustainable long-range market share. Sustainable market share is a function of the retention/defection rates of every competitor in the market. If the company is already above its sustainable share and still improves retention rates, a slippage in market share will occur. Sustainable market share can be calculated as follows:

\[ m_a = \left( \frac{d_b}{d_a d_b} \right) \]

\( m_a \) = long-run market share of company A
\( d_a \) = defection rate of Company A (100 — the retention rate)
\( d_b \) = defection rate of Company B (100 — the retention rate)

The following illustrates an example of long-range market share in a simple scenario involving two competitors:

<table>
<thead>
<tr>
<th>Retention rate of Company A</th>
<th>80.00%</th>
<th>81.00%</th>
<th>82.00%</th>
<th>83.00%</th>
<th>84.00%</th>
<th>85.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retention rate of competition</td>
<td>80.00%</td>
<td>80.00%</td>
<td>80.00%</td>
<td>80.00%</td>
<td>80.00%</td>
<td>80.00%</td>
</tr>
<tr>
<td>Company A long-term market share</td>
<td>50.00%</td>
<td>51.28%</td>
<td>52.63%</td>
<td>54.05%</td>
<td>55.56%</td>
<td>80.00%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Retention rate of Company A</th>
<th>73.00%</th>
<th>74.00%</th>
<th>75.00%</th>
<th>76.00%</th>
<th>77.00%</th>
<th>78.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retention rate of competition</td>
<td>75.00%</td>
<td>75.00%</td>
<td>75.00%</td>
<td>75.00%</td>
<td>75.00%</td>
<td>75.00%</td>
</tr>
<tr>
<td>Company A long-term market share</td>
<td>48.08%</td>
<td>49.02%</td>
<td>50.00%</td>
<td>51.02%</td>
<td>52.08%</td>
<td>53.19%</td>
</tr>
</tbody>
</table>

Notice in the first table that with both companies supporting the same retention rate, their market share will level out at 50 percent each. However, when Company A improves its retention rate to 81 percent, it is able to capture more of the market. What is important here is that the maximum long-term market share that should be attainable by company A is 51.3 percent. If it grows to capture 60 percent of the market, it eventually will suffer a loss of customers that should level out at around a 51.3 percent market share. This shows that every improvement in customer retention is valuable in terms of profit and long-term market share. However, the same cannot be said for customer acquisition programs.
Improvements in CLV

CLV is a good indicator for firm value and should be a reasonable indicator of the strength of the stock price. A single percentage point improvement in customer retention will improve CLV between 1.3 percent and nearly 8 percent. Similarly, a 10 percent improvement in retention rates will improve CLV between 67 percent and 200 percent, as shown below.

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<td>80%</td>
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<tr>
<td>90%</td>
<td>90%</td>
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</tbody>
</table>

Ongoing management of customer value

Customers should be continually managed in the same way that product-centric financials are. Customer-centric economic measurements can provide insight into profitability that cannot be revealed in product-centric financials. For example, many companies believe that all their products are profitable, yet it is not uncommon for as few as 30 percent of customers to actually be profitable in many industries. Firing unprofitable customers can be a poor strategy. When customer profitability can be measured, strategies can be implemented to move customers to higher levels of value, preserving their coverage of fixed costs and their seemingly hidden contribution to overall corporate profitability.

Customer profitability

Figure 2

A very simple and powerful means of accomplishing this is to create deciles by either CLV or customer profitability. Each decile then can be analyzed for the root causes of its level of income or CLV. Strategies then can be developed to move these
customers to the next decile. This type of marketing and customer management can provide many times the payback of traditional product marketing and help ensure that the full array of products and services provided to any one customer result in a moneymaking proposition for the business.

**Summary of top-down measurements**

CDI is multifaceted in that a single CDI service can (and, over time, should) support a diverse set of customer management processes. Such a service is somewhat analogous to electrical power. Once it is in place, it can be used for many different things, but it must be connected to something else before its true value is realized. Likewise, the data created by CDI must power another business process — whether that is marketing, analytics, customer relationship management, master data management or an operational system — before its full value can be realized.

The business benefits of CDI can be difficult to quantify. Yet, without CDI, most customer-centric information systems could not function. Albert Einstein also offered some sage advice for these types of problems through a sign that hung on his office wall that simply stated, “Not everything that counts can be counted, and not everything that can be counted counts.” Even if some aspects of CDI cannot be quantified as clearly as desired, the ultimate value of a CDI service should be approximated through the top-line business value it supports. Top-down measurements allow the business to approximate this through a view of value added to the customer.

**Bottom-up value measurements**

Bottom-up value measurements do exactly what their name implies. They start with the indirect value chain of CDI services and usually project their impact on operations, risk management, systems development and/or customer service. The specifics of bottom-up justification are completely dependent on the type of CDI service being implemented. Some CDI processes cannot be separated from the business system that consumes the data. However, when implemented as a shared service, or hub, CDI value is in its own category and therefore becomes an indirect value chain that supports multiple direct customer-facing value chains. The CDI hub is a generalized CDI service that supports any and all CDI applications in the enterprise with a single consistent standard for customer identity resolution. It may be justified as part of the initial application to be supported or as a standalone support service.

Depending on the business area using CDI, any number of improvements on operations and top-line revenue generation can be sources of economic justification. The detailed savings for each of these areas will be different by company and industry. Therefore, this paper lists only areas to investigate, and the list is by no means exhaustive. Subject matter experts should be available within the appropriate business units of the company to flesh out these types of savings into economic projections. The following is an initial list of areas to investigate:
Sales and marketing
- Improved cross-sell/up-sell to existing customers
- Higher response rates from marketing campaigns
- Lower wasted/returned mail costs
- Improved identification of prospects versus customers in marketing campaigns
- Lower customer acquisition costs through improved targeting

Customer service
- Lower account setup costs
- Increased customer satisfaction
- Lower data error/correction costs
- Improved customer experiences
- Less call time

Systems development/Information technology
- Reduced redundant operations
- Lower processing costs
- Fewer failed customer-centric initiatives
- Decreased time to market (30 percent to 60 percent of redundant CDI development can be eliminated)
- Reduced project risk

Compliance
- Reduced fines and penalties
- Decreased fraudulent transactions

General benefits
- Increased knowledge of customer buying trends
- Better insight into customer needs and demands
- Improved insight into customer experience
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Data quality management
The cost of customer data quality problems is so extensive that it may be impossible to fully quantify. This is a particularly heinous problem because left alone, customer data will degrade naturally. Between marriages, divorces, relocations and deaths, customer data degrades at a rate of about 20 percent annually. Theoretically, over a three-year period, that could mean that 60 percent of the customer records in the database become inaccurate.

Correcting data quality problems is only part of the issue. Unfortunately, customer data resides in many different systems across an enterprise and is at many different levels of freshness — even if all errors are corrected. This causes problems when attempting to link different records for the same customer across variations in name and address. The data quality problem of unrecognized duplicate records can add to the magnitude of problems in almost every facet of CDI justification — from regulatory compliance to customer service and direct marketing.

Conclusion
The best business case for CDI will include both top-down and bottom-up measurements. While the best justification for CDI is to tie it to strategic initiatives, bottom-up measurements can be valuable in helping demonstrate the direct benefits of the CDI processes themselves. Experian Marketing Services has resources that can help research and quantify the expected benefits of CDI and its associated business strategies.

For more information, contact Experian Marketing Services at 1 800 836 7086.