Enabling Lean Through Customer-Focused Metrics

LFM 2009 Internship Project

Dell Inc. Global Consumer Services & Support, Process Engineering

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Big Idea

- Re-cast Dell’s call center metrics in terms of LEAN metrics (value added vs. non-value added), project code name: CustFM
  - Customer Focused Metrics
- Break away from an agent-facing measurement system and calculate metrics from the customer perspective
- Uncover blind spots in Dell’s contact-center performance
Context in 2008: Tumultuous

- Dell still recovering from “Dell Hell” blog posts, and lawsuits about customer service
- Leadership Change: “Maniacal” focus on cost-cutting
  - Major layoffs in Consumer group
  - Project cancellations
  - Cancellation of Lean call center initiative
- World’s largest Siebel ERP implementation underway
- Cannot reconcile two key objectives:
  - Customer Experience vs OpEx
Objective: Reduce Cost of Expensive Support in All Channels
Key Insight

DELL has **no** visibility into cost of supporting individual customers

CustFM is an analytics framework that delivers this visibility

- High resolution
- Emphasizes OpEx reduction
- Tracks with CE
CustFM Approach: Massive Data Integration

- 1 Entire Quarter of data (millions of records)
  - Consumer laptop and Desktop sales
  - Web, Email, Chat, Phone presence (all queues)
# Approach: Create Lean Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
<th>Formula</th>
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</table>
| cCPR     | Customer Contacts per Resolution across all possible channels (OTB, Online, email, chat, phone). | \[
\frac{\sum_{\text{CustID}} \text{Cases}}{\sum_{\text{CustID, CaseID}} \text{Contacts}}
\] |
| cTPR     | Customer Time per Resolution, time between first contact and final resolution | \[
\sum_{\text{CustID, CaseID}} (T_{\text{max (JournalSeq)}} - T_{\text{min (JournalSeq)}})
\] |
| cVART    | Customer Value-Added Resolution Time                                         | \[
\sum_{\text{CustID, CaseID}} \text{Interaction Time}
\] |
| cNVART   | Customer Non-Value Added Resolution Time                                     | \[
\sum_{\text{CustID, CaseID}} (cTPR - cVART)
\] |
| cNVANRT  | Customer Non-Value Added Necessary Resolution Time                           | \[
\sum_{\text{CustID, CaseID}} (\text{QueueTime + HoldTime})
\] |
| cVAR     | Customer Value-Added Ratio                                                   | \[
\frac{cVART}{cTPR}
\] |
| OwnR     | Ownership Ratio: Agents per Resolution                                      | \[
\frac{1}{\text{distinct(Badge)_{CaseID}}}
\] |
| cCUPR    | Customer’s Channels used per resolution                                      | \[
\sum_{\text{CaseID}} \text{distinct(ContactType)_{CaseID}}
\] |
Deliver: A Useable IT Product
Shocking Findings

Unique Users

Proportion of Contacts

- 1-6
- 7+
Next Steps: Numerous Areas of Application

People
- Metrics usable by several Dell departments, e.g., call center forecasting, service monetization

Process
- Call center CRM
- Issue early-warning
- Kaizen impact measurement

Technology
- SQL Server
- SAS
- Siebel CRM

Product
- CustFM dashboard
- Customer satisfaction Cpk capability
Lean Metrics Approach Compatible with Dell Culture

- Dell is driven by measurement. Measure the right thing and people will do the right thing for the customer!
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