Overview of Dawson’s Cost To Serve (CtS) Methodology
Traditional costing and cost allocation methods rarely provide visibility and insight into the true cost of doing business.

Traditional Approach to Costing

- Look to singular process – product relationships and averaging mechanisms, without providing adequate context for the segment / outcome to which the costs relate
- Various approaches, functional isolation and rigid cost segmentation allows for misrepresentation of real costs
- Traditional methods of cost measurement have focused on dollar outcomes, rather than providing a wider perspective on operational efficiency
  - fixed, variable, semi-variable, direct, in-direct, differential, incremental, controllable, sunk, opportunity
- Make it difficult to set prices that accurately reflect full cost inputs
- Do not provide adequate transparency to allow management to add / drop product lines and customers or increase / decrease production components etc.

Dawsons Cost to Serve (CtS) Approach

- Seeks to establish the relevant cost relationship between the following key supply chain elements: Process, Product, Channel, Customer
- Provides visibility of the true cost of doing business
- Facilitates sound strategic decision making such as the exiting of permanent loss customers to competitors and the capture of high profit customers from competitors
- Allows protection of highly profitable customers
- Encourages re-pricing of existing products and services
- Allows for discounting to gain new business with low cost to serve customers
- Encourages the negotiation of win-win relationships with customers who are prepared adopt a collaborative approach
In a multi product, multi channel, multi customer environment the need for ‘Cost to Serve’ visibility is critical.

Illustrative

In this example:
- Sales and Marketing costs are driven by product
- Warehousing costs are driven by product
- Transport costs are driven by channel and customer
- Administration costs are driven by customer
The analysis is typically performed in two stages

Cost to Serve Transactions

"Baseline Period"

Indirect costs

Activities

Direct costs

Original CtS analysis

Utilising raw data

Quarantine non representative and/or transactions already actioned

Revised CtS analysis

Utilising ‘in scope’ transactions

Action plan

Cost to Serve

Transactions

“Baseline Period”

Indirect costs

Activities

Direct costs

Original CtS analysis

Utilising raw data

Quarantine non representative and/or transactions already actioned

Revised CtS analysis

Utilising ‘in scope’ transactions

Action plan
The key output is a fully costed transaction base that can identify the net profitability of each line item.

ERP systems typically show line items at the gross profit level.

Cost to Serve analysis determines the appropriate indirect costs to apply to each transaction.

...to determine the net profitability of each line item.

<table>
<thead>
<tr>
<th>BillDoc</th>
<th>Material</th>
<th>Sales Office</th>
<th>Customer</th>
<th>Units</th>
<th>COG</th>
<th>Sales</th>
<th>Max Sales</th>
<th>Gross Margin</th>
<th>Customer Freight</th>
<th>Cust Rebate</th>
<th>Interbrch Freight</th>
<th>Freight Recovery</th>
<th>Allocated Whse Cost</th>
<th>Allocated HO Cost</th>
<th>ETC</th>
<th>Product Margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>45000000</td>
<td>ABCDEF</td>
<td>S511</td>
<td>ABC</td>
<td>5</td>
<td>$20</td>
<td>$200</td>
<td>$300</td>
<td>$360</td>
<td>$100</td>
<td>$15.00</td>
<td>$0.20</td>
<td>$1.40</td>
<td>$10.30</td>
<td>$7.70</td>
<td>$4.00</td>
<td>$61</td>
</tr>
<tr>
<td>45000000</td>
<td>ABCDEF</td>
<td>S511</td>
<td>ABC</td>
<td>3</td>
<td>$2</td>
<td>$20</td>
<td>$25</td>
<td>$30</td>
<td>$5</td>
<td>$10.00</td>
<td>$3.20</td>
<td>$7.40</td>
<td>$3.00</td>
<td>$3.00</td>
<td>-21</td>
<td></td>
</tr>
<tr>
<td>45000001</td>
<td>ABCDEF</td>
<td>S514</td>
<td>EDS</td>
<td>1</td>
<td>$20</td>
<td>$20</td>
<td>$25</td>
<td>$30</td>
<td>$5</td>
<td>$5.00</td>
<td>$3.20</td>
<td>$7.40</td>
<td>$3.00</td>
<td>$3.00</td>
<td>-19</td>
<td></td>
</tr>
<tr>
<td>45000002</td>
<td>ABCDEF</td>
<td>S512</td>
<td>FDS</td>
<td>3</td>
<td>$50</td>
<td>$50</td>
<td>$150</td>
<td>$180</td>
<td>$100</td>
<td>$0.00</td>
<td>$0.50</td>
<td>$1.10</td>
<td>$2.50</td>
<td>$2.50</td>
<td>-96</td>
<td></td>
</tr>
<tr>
<td>45000003</td>
<td>HIJKLM</td>
<td>S511</td>
<td>EDS</td>
<td>3</td>
<td>$21</td>
<td>$21</td>
<td>$23</td>
<td>$23</td>
<td>$2</td>
<td>$10.00</td>
<td>$0.50</td>
<td>$4.40</td>
<td>$4.00</td>
<td>$4.00</td>
<td>-16</td>
<td></td>
</tr>
<tr>
<td>45000004</td>
<td>ABCDEF</td>
<td>S512</td>
<td>ABC</td>
<td>1</td>
<td>$100</td>
<td>$100</td>
<td>$120</td>
<td>$144</td>
<td>$20</td>
<td>$5.00</td>
<td>$0.00</td>
<td>$3.20</td>
<td>$12.30</td>
<td>$4.00</td>
<td>-5</td>
<td></td>
</tr>
<tr>
<td>45000005</td>
<td>HIJKLM</td>
<td>S513</td>
<td>ABC</td>
<td>3</td>
<td>$50</td>
<td>$50</td>
<td>$75</td>
<td>$90</td>
<td>$25</td>
<td>$0.00</td>
<td>$0.50</td>
<td>$1.30</td>
<td>$1.70</td>
<td>$12.00</td>
<td>$2.00</td>
<td>$8</td>
</tr>
</tbody>
</table>

*Table: Transactional data and Allocated Costs*
These fully costed transactions can be viewed from a variety of perspectives.

- Customer
- Product
- Branch

CtS allocation model

Fully costed ‘relevant’ transactions
Project Management: Overall timeline is about 8 weeks

- Feb 6: Kickoff
- Feb 16: Cost driver & category session
- Feb 23: Baseline Review
- Mar 1: Sign off CTS cost rates
- Mar 8: Verify/review Model outputs, prepare initiatives
- Mar 15: Initiative planning
- Mar 22: Present action plan

Project Team
- Feb 1
- Feb 2
- Feb 3
- Mar 1
- Mar 2
- Mar 5
- Mar 9
Model Output;
Client Example
Model Output - Value Creation vs Destruction

Customers contribution to Product Margin and Nett Profit

Cume Customer Margin / Nett Profit $

Cume Net Profit

Cume Gross Profit

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

% of Customers

Profit Creation

Nil Profit Contribution

Profit Destruction

Client example
### Model Output - Customer segmentation

#### Customer Measure of Profitability

<table>
<thead>
<tr>
<th>Customer</th>
<th>NP 39</th>
<th>NP 111</th>
<th>NP 360</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$9.3m</td>
<td>$6.0m</td>
<td>$1.8m</td>
</tr>
<tr>
<td>Profit</td>
<td>$1.7m</td>
<td>$1.1m</td>
<td>$0.4m</td>
</tr>
<tr>
<td>Margin</td>
<td>18%</td>
<td>18%</td>
<td>20%</td>
</tr>
<tr>
<td>Discounts</td>
<td>16%</td>
<td>10%</td>
<td>6%</td>
</tr>
</tbody>
</table>

#### Customer Contribution to Sales

<table>
<thead>
<tr>
<th>Customer</th>
<th>Sales</th>
<th>Profit</th>
<th>Margin</th>
<th>Discounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>$3.3m</td>
<td>$0.1M</td>
<td>4%</td>
<td>19%</td>
</tr>
<tr>
<td>157</td>
<td>$6.7m</td>
<td>$0.07m</td>
<td>1%</td>
<td>12%</td>
</tr>
<tr>
<td>1035</td>
<td>$4.6m</td>
<td>$0.07m</td>
<td>1%</td>
<td>12%</td>
</tr>
</tbody>
</table>

**Net Profit = 11%**

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Client example

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Model Output - Product Value Creation vs Destruction

Product contribution to Product Margin and Nett Profit

- Profit Creation
- Nil Profit Contribution
- Profit Destruction

Client example
## Model Output - Product segmentation

### Client example

<table>
<thead>
<tr>
<th>Product</th>
<th>Net Profit</th>
<th>Sales</th>
<th>Profitability</th>
<th>Discounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>346 $9.7m</td>
<td>$2.6m</td>
<td>27%</td>
<td>13%</td>
</tr>
<tr>
<td>B</td>
<td>1295 $8.1m</td>
<td>$2.0m</td>
<td>25%</td>
<td>13%</td>
</tr>
<tr>
<td>C</td>
<td>1994 $1.9m</td>
<td>$0.5m</td>
<td>0%</td>
<td>9%</td>
</tr>
</tbody>
</table>

- **Product A**
  - 90 $2.9m sales
  - $0.05M profit
  - 0% Net Margin
  - 9% Discounts

- **Product B**
  - 830 $4.6m sales
  - $0.5m loss
  - -12% Net Margin
  - 13% Discounts

- **Product C**
  - 8511 $4.4m sales
  - $1.7m loss
  - -39% Net Margin
  - 15% Discounts

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Net Profit = 11%
Model Output - Nett profitability of individual transactions can be viewed by product and by customer

Customer product profitability matrix

Each transaction can be ‘tagged’ depending upon the rate of net profitability e.g. “+” transactions have nett profitability > x%  

<table>
<thead>
<tr>
<th>Products</th>
<th>+</th>
<th>-</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>$3,481,079</td>
<td>-$411,928</td>
<td>$3,069,151</td>
</tr>
<tr>
<td>-</td>
<td>$1,584,006</td>
<td>-$1,842,606</td>
<td>-$258,600</td>
</tr>
<tr>
<td></td>
<td>$5,065,085</td>
<td>-$2,254,534</td>
<td>$2,810,552</td>
</tr>
</tbody>
</table>

There is a bigger issue with “-” products than “-” customers.
Model Output - The branch network has some key differences

Branch View

<table>
<thead>
<tr>
<th>SOff</th>
<th>City</th>
<th>MaxSales</th>
<th>Sales</th>
<th>AveDiscount</th>
<th>Disc</th>
<th>COGS</th>
<th>GM%</th>
<th>AllocCosts</th>
<th>NetProfit</th>
<th>Total cost</th>
<th>NetProfit</th>
<th>NM%</th>
</tr>
</thead>
<tbody>
<tr>
<td>S511</td>
<td>Brisbane</td>
<td>$12,920,311</td>
<td>$9,237,098</td>
<td>$3,683,213</td>
<td>28.5%</td>
<td>$5,908,591</td>
<td>36%</td>
<td>$2,288,840</td>
<td></td>
<td>$8,197,431</td>
<td>$1,038,669</td>
<td>11.3%</td>
</tr>
<tr>
<td>S512</td>
<td>Sydney</td>
<td>$10,894,180</td>
<td>$9,301,902</td>
<td>$1,592,278</td>
<td>14.6%</td>
<td>$5,729,771</td>
<td>38%</td>
<td>$2,437,440</td>
<td></td>
<td>$8,167,211</td>
<td>$1,134,691</td>
<td>12.2%</td>
</tr>
<tr>
<td>S513</td>
<td>Melbourne</td>
<td>$8,117,797</td>
<td>$7,033,852</td>
<td>$1,083,945</td>
<td>13.4%</td>
<td>$4,288,749</td>
<td>39%</td>
<td>$2,224,653</td>
<td></td>
<td>$6,513,402</td>
<td>$250,803</td>
<td>7.4%</td>
</tr>
<tr>
<td>S514</td>
<td>Adelaide</td>
<td>$4,262,640</td>
<td>$3,644,513</td>
<td>$618,127</td>
<td>14.5%</td>
<td>$2,245,932</td>
<td>38%</td>
<td>$1,147,778</td>
<td></td>
<td>$3,393,710</td>
<td>$250,803</td>
<td>6.9%</td>
</tr>
<tr>
<td>S515</td>
<td>Perth</td>
<td>$4,321,523</td>
<td>$3,802,570</td>
<td>$518,953</td>
<td>12.0%</td>
<td>$2,282,628</td>
<td>40%</td>
<td>$1,140,898</td>
<td></td>
<td>$3,423,527</td>
<td>$379,043</td>
<td>10.0%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$40,516,452</td>
<td>$33,019,935</td>
<td>$7,496,517</td>
<td>18.5%</td>
<td>$20,455,671</td>
<td>38%</td>
<td>$9,239,609</td>
<td>$29,695,281</td>
<td></td>
<td>$3,324,654</td>
<td>10.1%</td>
</tr>
</tbody>
</table>

Client example
Profit is generated mainly through “+” Customers

...and especially through “+” Products

Model Output - Where are the issues?
There appear to be key trends in product and customer profitability

Profitability strongly correlated to both customer and product categorisation

..a similar picture emerges when nett profitability in % terms
This analysis also identifies and quantifies other supply chain issues

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer returns</td>
<td>Significant activity (over 10% of sales)</td>
</tr>
<tr>
<td>Pricing</td>
<td>Relevance of “Max sales” (average discount 18%)</td>
</tr>
<tr>
<td>- Level of discounting</td>
<td></td>
</tr>
<tr>
<td>- Errors in Execution</td>
<td>Numerous credit and debit memos and adjustments</td>
</tr>
<tr>
<td>Inter office product</td>
<td></td>
</tr>
<tr>
<td>movements</td>
<td></td>
</tr>
<tr>
<td>- Interbranch transfers</td>
<td>$ 300k</td>
</tr>
<tr>
<td>- Interstate supply</td>
<td>$ 228k (of 760k total customer freight)</td>
</tr>
<tr>
<td>- Freight recovery</td>
<td>Now recovering only 70% of budget amounts (about 70% of actual amounts)</td>
</tr>
<tr>
<td>Role of branch facilities</td>
<td>Significant costs in the distribution facilities ($3.7m unallocated)</td>
</tr>
<tr>
<td>Allocation sensitivity</td>
<td>Most costs allocated using “Salary and Wages” allocation methods ($6m)</td>
</tr>
</tbody>
</table>