The Texas A&M Advantage

For 60 years the Industrial Distribution Program has been providing the industry with cutting-edge research solutions.

GLOBAL SUPPLY CHAIN LABORATORY

Texas A&M Global Supply Chain Laboratory is the nation’s premier distribution research lab. We bring cutting-edge distribution and supply chain research solutions to the industry. We transform companies by creating competitive advantage and by facilitating change management. The lab offers total solutions for companies by providing research expertise, education and implementation support.
## Why Choose Texas A&M?

### **Our Capabilities**
- Applied Research and Proven Methods
- Actionable Results
- Industry-focused Education
- Better Value for Investment

### **Your Benefits**
- Gain Competitive Advantage
- Improve Profitability
- Maximize Asset Efficiency
- Develop New Capabilities

### Table of Project Outcomes

<table>
<thead>
<tr>
<th>Project Area</th>
<th>Client - Line of Trade</th>
<th>Client Revenue</th>
<th>Project Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimizing Distributor Profitability</td>
<td>Wireless</td>
<td>$ 1.2 Billion</td>
<td>Strategic Business Assessment identified TOP 3 initiatives (similar to following projects) for optimal profitability.</td>
</tr>
<tr>
<td></td>
<td>Building Materials</td>
<td>$ 1 Billion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Paper and Chemical</td>
<td>$ 350 MM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electrical and Industrial</td>
<td>$ 175 MM</td>
<td></td>
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<tr>
<td></td>
<td>Chemical</td>
<td>$ 200 MM</td>
<td></td>
</tr>
<tr>
<td>Inventory Stratification</td>
<td>Pipe, Valve and Fitting</td>
<td>$ 1 Billion</td>
<td>12% 7%</td>
</tr>
<tr>
<td></td>
<td>Metals</td>
<td>$ 1 Billion</td>
<td>17% 3%</td>
</tr>
<tr>
<td></td>
<td>Oil and Gas Equipment</td>
<td>$ 1 Billion</td>
<td>20% 6%</td>
</tr>
<tr>
<td></td>
<td>Paper</td>
<td>$ 220 MM</td>
<td>10% 3%</td>
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<tr>
<td></td>
<td>Hardware</td>
<td>$ 125 MM</td>
<td>35% 3%</td>
</tr>
<tr>
<td></td>
<td>Fluid Power Products</td>
<td>$ 125 MM</td>
<td>33% 8%</td>
</tr>
<tr>
<td></td>
<td>Building Materials</td>
<td>$ 80 MM</td>
<td>22% 4%</td>
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<tr>
<td></td>
<td>Building Materials</td>
<td>$ 1.2 Billion</td>
<td>24% 8%</td>
</tr>
<tr>
<td></td>
<td>Chemical</td>
<td>$ 125 MM</td>
<td>33% 8%</td>
</tr>
<tr>
<td></td>
<td>Building Materials</td>
<td>$ 120 MM</td>
<td>20% 3%</td>
</tr>
<tr>
<td></td>
<td>HVAC</td>
<td>$ 250 MM</td>
<td>5% 2%</td>
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<tr>
<td>Network Optimization</td>
<td>Metals</td>
<td>$ 1 Billion</td>
<td>15% 6%</td>
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<tr>
<td></td>
<td>Building Materials</td>
<td>$ 500 MM</td>
<td>20% 6%</td>
</tr>
<tr>
<td></td>
<td>Auto Component</td>
<td>$ 500 MM</td>
<td>33% 6%</td>
</tr>
<tr>
<td></td>
<td>Automotive</td>
<td>$ 4 Billion</td>
<td>The study identified strategic locations for optimal distribution network.</td>
</tr>
<tr>
<td></td>
<td>Cutting Tool</td>
<td>$ 300 MM</td>
<td></td>
</tr>
<tr>
<td>Customer Stratification AND/OR Pricing Optimization</td>
<td>Industrial</td>
<td>$ 750 MM</td>
<td>2.9% (Projected)</td>
</tr>
<tr>
<td></td>
<td>HVAC</td>
<td>$ 500 MM</td>
<td>6.8%</td>
</tr>
<tr>
<td></td>
<td>Electronics</td>
<td>$ 400 MM</td>
<td>1.2%</td>
</tr>
<tr>
<td></td>
<td>Fluid Power Products</td>
<td>$ 190 MM</td>
<td>3.1%</td>
</tr>
<tr>
<td></td>
<td>Electrical</td>
<td>$ 175 MM</td>
<td>2.7% (Projected)</td>
</tr>
<tr>
<td></td>
<td>Outdoor Power Equipment</td>
<td>$ 75 MM</td>
<td>1.5%</td>
</tr>
<tr>
<td></td>
<td>Container</td>
<td>$ 65 MM</td>
<td>3.4%</td>
</tr>
<tr>
<td></td>
<td>Metals and Building Materials</td>
<td>$ 50 MM</td>
<td>Implementation in progress and pilot location results range from 2 - 4% gross margin improvement.</td>
</tr>
<tr>
<td></td>
<td>Building Materials</td>
<td>$ 80 MM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hardware</td>
<td>$ 75 MM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Paper</td>
<td>$ 100 MM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HVAC</td>
<td>$ 80 MM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Building Materials</td>
<td>$ 1 Billion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Industrial Automation</td>
<td>$ 145 MM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Building Materials</td>
<td>$ 120 MM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Building Materials</td>
<td>$ 150 MM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Propane Equipment</td>
<td>$ 40 MM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gases and Welding</td>
<td>$ 100 MM</td>
<td></td>
</tr>
<tr>
<td>Supplier Stratification</td>
<td>HVAC</td>
<td>$ 400 MM</td>
<td>Supplier Rationalization and Preferred Vendor List Creation</td>
</tr>
<tr>
<td></td>
<td>Auto Component</td>
<td>$ 250 MM</td>
<td>15%</td>
</tr>
</tbody>
</table>
Channels We Work In

- Automotive
- HVAC/Plumbing
- Electronics
- Chemical
- Food
- Healthcare
- Industrial/PVF
- Metals
- Electrical
- Building Materials
- Power Transmission
- Paper
Sample Clients and Partners
Optimizing Distributor Profitability

Program Overview

- Where do your business processes stand against best practices?
- How does your financial performance compare against cross-channel benchmarks?
- How are business processes linked to shareholder value?
- What is the potential profitability a distributor can achieve through best practices?
- What are the best practices and how to implement them across your firm?

Key Take-Aways

- Proven and structured approach to assess your business performance (Process & Profitability)
- Cross-channel financial benchmarks
- Comprehensive distributor profitability framework explaining process–shareholder value link
- Easy to understand spreadsheet tools that can be readily used
- Detailed roadmap explaining the best practice implementation know-how

Methodology

1. Process Assessment
2. Gap Identification
3. Shareholder Value Map
4. Profitability Analyzer
5. Best Practices Roadmap

“Thanks for the helpful insight and providing tools to lead my company into future profitability growth.”
- Bob Borsh, Principal, SDJ Ventures, LLC
"Delivered the tools we can use to optimize shareholder value. A picture is worth a 1,000 words and A&M’s Distributor Profitability Framework chart is worth a 100,000 words!"

- Ron Cedruly, CFO, Henrietta Building Supplies
**CHALLENGES**
- Misaligned inventory investment
- Critical stock outs
- Excessive ‘C’ & ‘D’ inventory
- SKU proliferation

**SOLUTIONS**
- Multiple criteria stratification
  - Profitability
  - Logistics
  - Criticality
  - Custom criteria
- Combination inventory stratification

**BENEFITS**
- Right-size inventory investments
- Manage item-level profitability
- Maximize your ROI on inventory
- Balance customer service
- Reduce obsolescence

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"Through knowledge learned from the inventory management program, attended by all our management and key salespersons, we have reduced our total inventory levels by over 20%"

-Brent A. Burns, Building Materials Distributor
“We collaborated with Texas A&M on an inventory stratification project which has resulted in a successful classification of our inventory based on item level profitability. We have already seen a significant reduction in capital employed and expect to benefit from further decreases.”

- Kevin C. Reid, Vice President, Strategic Procurement at Copper and Brass Sales, ThyssenKrupp Materials, N. A.
**CHALLENGES**
- Misaligned Sales Force Deployment
- High Cost-to-Serve (CTS)
- High Customer Attrition
- Underpricing or cost-plus pricing

**SOLUTIONS**
- Multi Criteria Stratification
  - Buying Power
  - Profitability
  - Loyalty
  - Cost-to-Serve
- Combination Customer Stratification

**BENEFITS**
- Optimal Sales Force Deployment
- Improved Net Margins
- High Customer Retention
- Competitive Value Proposition

---

### STRATIFICATION METHODOLOGY

**Customer Loyalty (Life)**

- **OPPORTUNISTIC CUSTOMERS**
  - High profitability
  - No relationship
  - Low cost to serve
  - Low volume

- **CORE CUSTOMERS**
  - High profitability
  - Sustained relationship
  - Low cost to serve
  - High volume

- **MARGINAL CUSTOMERS**
  - Low profitability
  - No relationship
  - High cost to serve
  - Low volume

- **SERVICE DRAIN CUSTOMERS**
  - Low profitability
  - Sustained relationship
  - High cost to serve
  - High volume

---

**Customer Buying Power**

---

**Customer Profitability**

---

**Cost to Serve**
"We have found the information from the customer stratification model to be very useful, pragmatic, and quickly applicable into our business. We have realized some early wins and anticipate a greater positive impact in our business."

- Art Kostaras, President (Past), Womack Machine Supply Company

**COST TO SERVE (CTS) FACTORS**

<table>
<thead>
<tr>
<th>Category</th>
<th>Factor</th>
<th>Unit of Measure</th>
<th>Available</th>
<th>Quantifiable</th>
<th>Reliable</th>
<th>Common Factor</th>
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</thead>
<tbody>
<tr>
<td>Finance</td>
<td>Average days to pay</td>
<td>Days</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td></td>
<td>Freight/transportation costs by customer</td>
<td>Dollars</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td></td>
<td>Customer specific inventory requirement</td>
<td>Dollars</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Operations</td>
<td>Average order size</td>
<td>Dollars</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td></td>
<td>C &amp; D items accessed</td>
<td>Percentage</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td></td>
<td>Quote conversion ratio</td>
<td>Percentage</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td></td>
<td>Same day deliveries required</td>
<td>Percentage</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Sales</td>
<td>Number of sales calls</td>
<td>Number</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td></td>
<td>Time spent with customer</td>
<td>Minutes/Hours</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td></td>
<td>Sales expenses by customer</td>
<td>Dollars</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

**SAMPLE RESULTS**

```
<table>
<thead>
<tr>
<th></th>
<th>OPPORTUNISTIC CUSTOMERS</th>
<th>CORE CUSTOMERS</th>
<th>MARGINAL CUSTOMERS</th>
<th>SERVICE DRAIN CUSTOMERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>19</td>
<td>10</td>
<td>403</td>
<td>44</td>
</tr>
<tr>
<td>B</td>
<td>7</td>
<td>24</td>
<td>86</td>
<td>33</td>
</tr>
<tr>
<td>C</td>
<td>31</td>
<td>21</td>
<td>251</td>
<td>15</td>
</tr>
<tr>
<td>D</td>
<td>12</td>
<td>36</td>
<td>129</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CUSTOMER LIFETIME VALUE (CLV)</td>
<td></td>
</tr>
</tbody>
</table>
```

"Customer Stratification’ has the power to enable us to transform our company from being product-driven to customer-driven. It has helped us understand our customers in greater detail, enabling us to optimize our selling resources, which will result in an improved ROI."

- Don Schalk, President and COO, C.H. Briggs Company
Supplier Stratification

**Challenges**
- Sub-optimal Channel Investment
- Misaligned Channel Compensation
- Subjective Performance Analysis
- Lack of Channel Loyalty

**Solutions**
- Multi Criteria Stratification
  - Supply Chain Performance
  - Financial Performance
  - Strategic Alignment
- Combination Supplier Stratification

**Benefits**
- Analytics Driven Process
- Aligned Channel Profitability
- Improved Customer Service
- Focused Channel Investment
- Optimal Channel Proposition

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**Stratification Methodology**

- Supply Chain Performance
- Financial Performance
- Service Drivers
- Value Drivers
- Value Drainers
- Volume Drivers

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“The information is organized very well, supported by robust research specifically on the distribution industry, presented in an easily digestible manner, and linked to real-world examples to help convert concepts into actionable items.”

-David A. Larson, Vice President–Operations, DW Distribution Inc.

“Linking customer stratification to our supplier and inventory systems empowers our team to quickly distill the variables affecting risk and reward so they can make better and more profitable business decisions.”

-Frank Flynn, President, Sager Electronics
ROI ON SUPPLIER STRATIFICATION

 CHANNEL ALIGNMENT

Customer Loyalty (Life)

Customer Buying Power

Cost to Serve

Supply Chain Performance

Financial Performance

Inventory Profitability

Inventory Movement

Customer Profitability

Value Drivers

Volume Drivers

Service Drivers

Basic Input Parameters

Additional Revenue

Expected Turns

% of Re-investment

Average Inventory

P&L and Balance Sheet

EBITDA

RONA GMROIII

Turns

Re-invest?

Yes

No

VENDOR NO | Safety Stock
--- | ---
| ACTUAL | AGREED | ADDITIONAL
V50160 | $4,741,632 | $3,006,102 | $1,735,530
V50665 | $2,182,698 | $1,207,422 | $975,276
V50805 | $472,485 | $267,983 | $204,502
V61445 | $214,369 | $177,098 | $37,271
V57340 | $99,067 | $72,992 | $26,075
V50105 | $34,130 | $22,775 | $11,355
V63675 | $1,854 | $1,716 | $138
TOTAL | $7,776,565 | $4,768,364 | $3,008,201

FINANCIAL PERFORMANCE

EBITDA and Balance Sheet

RONA

GMROI

Turns

Safety Stock

% of Re-investment

Average Inventory

Expected Turns

Lead Time Variability

Basic Input Parameters

Additional Revenue

Vendor No
Pricing Optimization

**Program Overview**

- Multi-criteria pricing model – Item, Customer, Geography and Time
- Stratifying and moving customers to ‘Profit Zone’
- A practical and effective ‘Cost To Serve’ model
- Rules for profitability (Risk vs. Reward)
- DO IT YOURSELF – Easy to implement pricing framework
- A best practice approach to pricing

**Key Take-Aways**

- Sales Force Dashboard – Information for better negotiation
- How to leverage on existing and readily available system information?
- Why and how to link inventory and customer classifications?
- Structured & easy-to-understand approach
- Optimal allocation of sales force resources
- Real-world implementation benchmarks

**Pricing Framework**

1. **Analytics**
   - Customer stratification
   - Item stratification
   - Customer’s item visibility
   - Item unit cost level
   - Customer-item GM level

2. **Optimization**
   - Recent price/margin
   - Recent cost
   - Customer max price/margin
   - Group max price/margin
   - Overall max price/margin

3. **Execution**
   - Potential GM$ improvement
   - System aided decision-making
   - Augmenting Factors
     - New Customer
     - Competitor price, etc.

“The Pricing Optimization program really opened my eyes to a holistic approach to pricing strategy. This program is about more than just pricing—it makes you consider the cost-to-serve, which products to sell, and how to use your resources to build more core customers, serve them better, and be more profitable doing it.”

- Duane Van Dyke, Womack Machine Supply Co.
“Given the complexity of pricing, the Texas A&M Pricing Optimization program has gone a long way to specifying all the relevant elements and more importantly putting them in terms that can be quantified and managed.”

Lawrence Mohr, Ph. D., Retired - Senior Vice President, F.W. Webb Company

“The Pricing Optimization conference provided an expert level of analysis and insight that every distributor needs but few have the time or resources to produce on their own. It was both timely and valuable.”

- Paul Sommerfeld, Director, Applications & Training, CSC, A Division of WESCO Distribution

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**Primary Pricing Variables**

- **Customer Type**
- **Historical Gross Margin Levels**
- **Seller’s Item Rank**
- **Item Unit Cost**
- **Customer’s Items Visibility**

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**Texas A&M Pricing Methodology Impact**

*(Real World Results - HVAC Distributor)*

<table>
<thead>
<tr>
<th>Branch</th>
<th>GM% with Manual Pricing</th>
<th>GM% with A&amp;M Pricing Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch 1 ($3.3MM Sales)</td>
<td>18.4%</td>
<td>24.4%</td>
</tr>
<tr>
<td>Branch 2 ($4.2MM Sales)</td>
<td>14.9%</td>
<td>16.5%</td>
</tr>
<tr>
<td>Branch 3 ($2.4MM Sales)</td>
<td>21.8%</td>
<td>48.6%</td>
</tr>
<tr>
<td>Branch 4 ($11.4MM Sales)</td>
<td>36.3%</td>
<td>19.4%</td>
</tr>
</tbody>
</table>
### CHALLENGES
- Unplanned Organic Growth
- Multiple Facilities through M&A's
- Long Lead Times
- Excessive Inventory
- Competition Driven
- Ineffective Routing/Scheduling
- Poor Truck Capacity Utilization (loading or cubing) Market
- High Cost-to-Serve

### SOLUTIONS
- Facility Network Optimization
- Hub and Spoke Design
- Service vs. Cost Matrix

### BENEFITS
- Facility Reduction/Expansion, Optimal Network Capacity, and Reduced Operating Expenses
- Optimal Network Configuration
- Aligned Inventory Deployment
- Insight Into Service-cost Trade-offs
- High Profitability
- Reduced Delivery Cost Per Order
- Increased Capacity Utilization

"The network optimization research has allowed our company to continue to stay ahead of our competition and excel in customer service."

-Tim Miller, Vice President – Operations Security Contractor Services, Inc.

BEFORE CONSOLIDATION

AFTER CONSOLIDATION
Hats off to Texas A&M for taking common industry problems with complex components and developing scientific methodologies that are flexible enough to work for any company.

Jimmy Roark, Regional Sales Manager
NOV Wilson
"A collaborative research effort that brings multiple distribution and manufacturing firms and industry associations across diverse lines of trade together to solve an industry wide challenge."

<table>
<thead>
<tr>
<th>Year</th>
<th>Consortium Topics</th>
<th>Number of Companies</th>
<th>Number of Industries</th>
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<td>Information Systems Consortium</td>
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<td>2005</td>
<td>Pricing Optimization</td>
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<td>6</td>
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<tr>
<td>2007</td>
<td>Optimizing Distributor Profitability</td>
<td>11</td>
<td>6</td>
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<tr>
<td>2008</td>
<td>Texas Mexico Trade Corridor</td>
<td>15</td>
<td>6</td>
</tr>
<tr>
<td>2009</td>
<td>Sales and Marketing Optimization</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>2011</td>
<td>Optimizing Growth and Market Share</td>
<td>19</td>
<td>8</td>
</tr>
<tr>
<td>2011</td>
<td>Optimizing Customer Service</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>2012</td>
<td>Optimization Channel Compensation</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>2014</td>
<td>Optimizing Human Capital Development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>Optimizing Value Add Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>Market Access Through Distribution - Asia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

"Womack Machine Supply literally owes much of its success to Texas A&M’s Industrial Distribution program. We have successfully used the university’s consortia and research projects to improve profitability, operations and supply chain management practices."

- Mike Rowlett, CEO, Womack Machine Supply

"I’ve attended Texas A&M distribution consortium sessions, and I’ve found them to be among the best, most thought-provoking gatherings I’ve ever experienced in all my years in the distribution business."

- Byron Potter, CEO, Dallas Wholesale Builders Supply
THE BENEFITS

> Economical path to high quality research
> Competitive head start to cutting edge best practices
> Network with forward thinking distribution firms
> Educate your work force on advance techniques and tools

THE RESEARCH CONSORTIUM PROCESS

1. KICK-OFF MEETING
2. INDIVIDUAL WORKSHOP
3. PRELIMINARY RESEARCH
4. FINAL MEETING
5. APPLIED RESEARCH
6. EDUCATIONAL SESSIONS

RESULTS FROM PAST CONSORTIA
ADVANCING THE SCIENCE OF DISTRIBUTION

INDUSTRIAL DISTRIBUTION PROGRAM
204 Fermier Hall, 3367 TAMU
College Station, TX 77843-3367
PH 979-845-4984 FX 979-845-4980
WEB id.tamu.edu