Global Analysis

Direct Store Delivery (DSD)

Ramin Shariatmadari
SAP AG
Scope and Context of the Global Analysis

Key Findings

Strategic Level

Operational Level
Global Analysis Direct Store Delivery (DSD) Process

- Performed in the context of a Ph.D. dissertation at the University of Regensburg and SAP’s Industry Business Units Consumer Products & Life Sciences, as well as Retail & Wholesale Distribution.
- Goals: Analyze the DSD business process (on strategic & operational level); and, Examine the DSD process supporting IT-systems.

Scope

- Analysis among Fast Moving Consumer Goods manufacturers and Retail companies (Getting the Big Picture)
- Not limited to SAP’s installed base
- All answers aggregated – anonymous participation available

Value-adding outcome

- Better understanding of the DSD business process and the employing companies.
- Global status quo and multi-level insights (strategic, operational, IT) of the DSD business process.
- Drivers & trends of DSD process utilization in the future.
- Globally-evaluated industry best practices on regional and segment levels.
The Global Analysis of DSD has been the first analysis performed to this extent on a global level.

- In the Global Analysis Direct Store Delivery (DSD), 252 responses have been gathered worldwide, representing:

<table>
<thead>
<tr>
<th>Consumer Products:</th>
<th>(n=203)*</th>
<th>Retail:</th>
<th>(n=49)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ 24 out of the FMCG Top 30 companies</td>
<td>✓ 11 out of the worldwide Top 15 Retailers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food:</td>
<td>Americas:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓ 8 out of the worldwide Top 10 companies</td>
<td>✓ 10 out of the Top 30 Retailers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beverage:</td>
<td>Europe:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓ 8 out of the worldwide Top 10 companies</td>
<td>✓ 7 out of the Top 10 Retailers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tobacco:</td>
<td>Germany:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓ 6 out of the worldwide Top 10 companies</td>
<td>✓ &gt; 80 % of the German Retail market</td>
<td></td>
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</tr>
</tbody>
</table>

- Valid for DSD deliveries to more than 15 Mio. Point-of-Sales.
- Respondents’ headquarters are located in 41 countries.
- 82 additional interviews performed.
- Target group: C-Level of Sales & Logistics or C-Level of Information Systems
- Survey execution time: December 2005 – April 2006

* n equals number of responses
The Global Analysis of DSD has extensive applicability and comprehensive relevance in the business.

Due to broad company feedback and the multi-level survey, the results of the Global Analysis are relevant in various parts of the Direct Store Delivery business (e.g., in terms of region, size or volume).

* Large Enterprises: > 2,500 employees and > $1.5 billion USD Revenue

**Share of companies’ deliveries via DSD: High = Equal or more than 66%, Moderate = 25 < 66%; Low = < 25%
DSD generates **value in the business** – but major strategic differences exist

96% of Consumer Product and 88% of Retail respondents see the benefits and competitive advantages coming out of the DSD business process – but, the two industries disagree on the point of origin of the value. Consumer Product manufacturers predominantly focus on the Sales & Marketing side, while logistical benefits prevail from Retail perspective.

DSD increases the **efficiency of innovations and new product introductions**

In light of ongoing (re-)verticalization of manufacturers in today’s consumer product distribution, 67% of the manufacturers understand how DSD brings more efficiency to their product innovation and new product introduction processes. This is achieved by supply chain transparency and process control, as well as adequate downstream information in high quality. 51% of the responding Retailers confirm.

**Consumer Product manufacturers and Retailers stress their need for better IT-solutions for DSD**

Compared to their business needs, the lack of supporting IT-solutions and -functionalities is among the Top 2 issues within both the Consumer Product and Retail industries. 54% of the Consumer Product respondents see the major deficits in the area of route preparation and physical distribution. 68% of the Retailers cite inadequate electronic communication capabilities with their suppliers.
Direct Store Delivery delivers two-fold value to Logistics and to Sales & Marketing

**Logistics:** Based on few distribution levels within the business process, DSD is a quick distribution process enabling lowered reaction time to market opportunities, reduced level of overall supply chain inventory, and better out-of-stock rates.

**Sales & Marketing:** Enabled by logistics, DSD allows the manufacturer direct access to customers/consumers and the product-consumer-interface on a regular basis. Consequently, various activities can be performed by the manufacturer which generate value-add to Consumer Product companies, as well as their trading partners.

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**Logistics**
- Quick Distribution
- Supply Chain Flexibility
- Less Out of Stock
- Lower Inventory Levels
- …

**Sales & Marketing**
- Direct PoS Access
- High Quality Information
- Better Product Innovation
- Increased Customer Service Level
- …
Consumer Product companies highly value benefits to Sales & Marketing which come with DSD

- Based on the logistics, Consumer Product companies incur process benefits from Sales & Marketing mainly facilitated by direct access to the single customer location.
- Enabled by DSD, further activities can be performed on-site. For example, 84% of respondents gather information at the respective Point of Sale, 80% perform direct product merchandizing according to their standards.

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- Less Out of Stock
- Lower Inventory Levels
- …

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- High Quality Information
- Better Product Innovation
- Increased Customer Service Level
- …
88% of Retailers agree that DSD leads to sustainable competitive advantages if carried out effectively

- Retailers are aware of benefits coming out of Sales & Marketing (e.g. 60% of retailers see the DSD correlating positively to shelf efficiency and over 50% understand its impact regarding the efficiency increase in innovation and product introduction processes) – but major incongruities also exist (e.g. promotion effectiveness, consumer loyalty).
- The logistical benefits prevail from the Retail perspective. Responding retailers especially endorse the velocity of the DSD process (82%) and the supply chain flexibility & adaptivity (78%).
- Only a few of the responding retailers have started to appreciate the complete value stream coming out of DSD. These visionary and globally-acting retailers began to see an increase in sales (e.g., by a higher involvement of manufacturer’s high category knowledge), as well as a cost reduction opportunity (outsourcing of process steps).

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- Lower Inventory Levels
- …

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- Direct PoS Access
- High Quality Information
- Better Product Innovation
- Increased Customer Service Level
- …

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Holistic downstream information essential

- Expand the knowledge beyond sales data to a holistic PoS picture, e.g.:
  - are the products placed & positioned correctly?
  - are there any impacts by other environmental factors?
  - is the competitor running a promotion at this location?

- Kind of gathered information is company-specific, but mostly in the areas of:
  - Placement & Positioning
  - Local competitive structure
  - Assortment
  - Outlet structure

Information gathering is the top activity in DSD

- More than 80% of respondents gather information at PoS-level

Suboptimal new product introductions

- Number of new product developments and introductions increased by 50% in the last decade*
- Failure rate of new product introductions is about 75%*

DSD increases the efficiency of innovations, new product introductions and developments

Agreement in the Industries:
Consumer Products 67 %
Retail 51 %

Proof Point:
70% of most successful product introductions in North America are distributed via DSD**

Bring the data back into products & processes

- The re-use of information and the analysis capabilities are crucial for DSD companies to reap all of the benefits from the opportunity by information gathering
- Innovation and new product introduction only as an example for opportunities enabled by downstream information gathering – multiple other areas exist (see slide 18).

Number of new product developments and introductions increased by 50% in the last decade*
Failure rate of new product introductions is about 75%*

* Source: GMA 2005, Productscan 2004
** Source: GMA 2005

Proof Point: 70% of most successful product introductions in North America are distributed via DSD**

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54% of Consumer Product respondents stress their need for better IT-support and functionalities regarding DSD

- Facing increasing costs of distribution (e.g., by rising gas prices), the need for better IT-support for DSD becomes most evident in the route preparation and physical distribution areas.
- 68% of Retail companies look for better communication capabilities with suppliers – especially for checking and coordination issues when products arrive at the PoS.

<table>
<thead>
<tr>
<th>Route Preparation Process Steps</th>
<th>Customer Visit Planning</th>
<th>Dispatching</th>
<th>Transportation Planning</th>
<th>Route Optimization</th>
<th>Vehicle Space Optimization</th>
<th>Picking &amp; Packing</th>
<th>Loading Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Europe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastern Europe, Middle East, Africa</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North America</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Latin America</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Asia, Pacific, Australia</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Color indicates the desired level of IT-Support in the future if compared to today’s situation:
- Fair (30% and less of respondents see strong improvement needs in future)
- High (>30% of respondents see strong improvement needs in future)
- Huge (>50% of respondents see strong improvement needs in future)
Other key outcomes exist – but diverge between regions, segments or other criteria

- In addition to the three key findings shown, there are others having their relevancy in certain regions and segments. You will find all of them in the detailed deck.
- As examples, please find three of them below:

<table>
<thead>
<tr>
<th>Performance Indicator</th>
<th>Finding</th>
<th>Agreement by Industry</th>
<th>Level of Difference</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out of Stock</td>
<td>The majority of CP manufacturers and Retailers agree that DSD positively impacts the out of stock situation – but differences across regions and segments are evident.</td>
<td>CP: 65% Retail: 51%</td>
<td>Regions</td>
<td>CP consistent across regions, Retailers differ (High: Western Europe, Latin America and Asia, Pacific &amp; Australia – others comparatively low).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Segments</td>
<td>Snack companies see high impact by DSD to the out of stock rate.</td>
<td></td>
</tr>
<tr>
<td>Promotion Effectiveness</td>
<td>High divergence regarding the impact of DSD towards an increase of promotion effectiveness between CP and Retail.</td>
<td>CP: 71% Retail: 25%</td>
<td>Regions</td>
<td>No Retailer in North America and Asia, Pacific &amp; Australia saw increased effectiveness of promotions through DSD!</td>
</tr>
<tr>
<td>Customer Loyalty</td>
<td>DSD is said to increase the loyalty of customers. While CP manufacturers endorse, Retail respondents provided inconsistent feedback.</td>
<td>CP: 81% Retail: 48%</td>
<td>Regions</td>
<td>Retailer perspective is: The higher the retail concentration level in the respective market, the lower Retailers rated DSD’s impact on customer loyalty.</td>
</tr>
</tbody>
</table>
On the operational level, the survey was structured around a generic “Direct Store Delivery” value chain.
Major process shifts are shown in DSD’s order entry process – but Presales and Call Centers will remain key

The DSD order entry process is very heterogeneous on region and segment level. From a consolidated view, the survey shows two fundamental changes for the DSD order entry process in the future. Traditional order entry process types will decrease in utilization while more automated, non-interactive types will catch up comparatively. However, orders via presales and call centers will remain in the top position.

Four strategies in the execution of physical distribution in DSD have been identified

The DSD process is performed differently in the various regions and segments. This is also valid for the execution of product delivery to the PoS. Within the Global Analysis, four major strategies could be identified, depending on the Consumer Product manufacturer’s attitude regarding the DSD engagement and process delegation.

The information gathering is the most performed activity by DSD companies on a global level

Followed by merchandizing, placement & positioning, and category / assortment related activities, the collection of information (by 84% of CP respondents) is the overall top activity performed in DSD. Differing slightly in the levels, this remains valid for regions and segments.

SAP is the only vendor in the market to deliver an integrated end-to-end DSD solution in the market

Although various vendors provide focused solutions in specialized areas of the DSD process, SAP is the only vendor to offer an integrated end-to-end DSD solution.
Despite its heterogeneity on regional & segment levels, two major directions are evident in the DSD order entry process.

**Today**

- 53%*: Preseller
- 36%: Call Center
- 25%: Van Sale
- 22%: Mail/Fax/Telex
- 25%: EDI
- 19%: Estimated demand by driver
- 18%: Predicted order (single stat)
- 15%: Predicted order (multiple stat)
- 9%: Internet

**Future**

- 56%: Preseller
- 49%: Call Center
- 48%: EDI
- 44%: Predicted order (multiple stat)
- 34%: Internet
- 29%: Predicted order (single stat)
- 26%: Van Sale
- 23%: Mail/Fax/Telex
- 15%: Estimated demand by driver

\[ n \text{ (Today)} = 193, \ n \text{ (Future)} = 194 \]

**Consumer Products Industry**

- Presales and Call Center remain as top order entry types in the future.
- High Volume DSD** companies focus on proactive order entries.
- Low Volume DSD** companies look for automated order entry types.

**Retail Industry**

- Retailers see automated and supplier-responsible order entry types as more relevant in the future.
- 80% of the retailers say that EDI will be the preferred order process type for retailers in the future.

* Agreement as the percentage of ratings “often” or “very often”
** Volume as share of company’s deliveries via DSD: High = Equal or more than 66%, Low = < 25%
Four major distribution strategies have been recognized regarding the physical distribution within DSD

- Recognized distribution strategies in DSD differ based on a Consumer Product manufacturer’s level of process engagement (pro-active push of DSD, e.g., via conditions & prices, or reactive fulfillment of demand side orders) and level of process delegation (whether in- or out-sourced distribution capabilities). CP companies are placed in the matrix based on this separation. Boundaries between these stages are fluid, mixtures certainly exist.

- In total, the survey revealed a slight trend from “Process Owner” to “Selective Contractor.” This was driven by increasing cost awareness from rising expenses. These companies are aware that the value generated by DSD decreases as outsourced capabilities increase.
The pattern of the regions and segments depend on companies’ attitudes regarding their DSD engagement and process delegation.

- Regions and segments are characterized by a mix of companies. The center of profiles differ depending on the companies’ attitudes regarding process engagement and process delegation.
- For example: North American respondents tend to be in the “Process Owner” section, while Latin American companies spread across the upper two boxes. Respondents with high DSD volumes are predominantly “Process Owners”; those with low DSD volume tend to outsource their distribution or combine with other companies’ products in order to cut costs.*
What are the most performed activities besides the physical distribution within today’s DSD businesses?

- The information gathering is not limited to a special kind of data. Moreover, all kinds of downstream information are collected by the companies (e.g., sales, inventory, out-of-stock, quality of product / assortment / merchandizing, competitive intelligence, outlet structure).
- The kind of information gathered and its extent are company- and segment-specific.
- The collected information is reused in various areas – for example, timing and design of promotions, customer and market analysis, performance measurement of own products and Point of Sale (e.g., control of shelf availability, service level agreements, product pricing).
- In addition, the growing knowledge base increases the capability to react to market changes rapidly and pro-actively.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gathering of Information</td>
<td>84%</td>
</tr>
<tr>
<td>Merchandizing</td>
<td>80%</td>
</tr>
<tr>
<td>Placement &amp; Positioning</td>
<td>79%</td>
</tr>
<tr>
<td>Category / Assortment</td>
<td>67%</td>
</tr>
<tr>
<td>Management</td>
<td></td>
</tr>
<tr>
<td>Equipment Service</td>
<td>49%</td>
</tr>
</tbody>
</table>

Further activities mentioned: Payment collection, On-site price control, Tracking of trade Assets, Gather customer queries

* Numbers as the percentage of ratings “very often”, “often” and “moderate” of today’s performed activity
SAP is the only vendor in the market to deliver an integrated end-to-end DSD solution

From a backend perspective, it seems that SAP has reached a good footprint with its DSD backend solution. However, only 30+ companies are live using SAP’s DSD backend so far. Since SAP’s DSD offering is a relatively new solution to the market, other companies modified their R/3-systems with customer-specific enhancements to overcome the lack of IT-support availability in the past.

From a front-end perspective, there is no vendor that has reached a deep footprint in the global market. The big portion of others, as well as homegrown solutions, reinforce the lack of available end-to-end IT-solutions via standard software in the market.

Many companies use customer-enhanced, modified R/3 releases for the DSD process in the backend.

The front-end market in the DSD business is heterogeneous.

* Others include IBM, Dogas, ROSS systems, FRIDA, Hamilton, Weihenstephan, Manugistics, CAS, Nesfa, OBICS
**Others include CAS, Esfera, Hasar Intelliroute, Nesfa, Univera (EnRoute), bMobile, XSales, Ross Systems, Eleven, Mowis, Touchstar, Cognos, Hamilton
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Analysis Direct Delivery (DD) Process with Nestlé

- Nestlé’s Globe Center Europe Business Excellence and Zone-Europe Supply Chain Management enhanced, together with the University of Regensburg and SAP, the Global Analysis on Direct Store Delivery (DSD) with Nestlé-specific content. The objective was to complete the broad oriented Global Analysis on DSD with a comprehensive Nestlé-specific analysis. A high convergence between the two surveys has been retained in order to compare both outcomes.
- Goal: Analyze the DSD business process (strategic & operational level) & Examine the DSD process supporting IT-systems.

Scope

- Analysis among all Nestlé Direct Delivery businesses
- All Line-of-businesses (LoB’s) & on Country - level
- In-depth analysis with high convergence to Global Analysis on DSD

Value-adding Outcome

- Supply a complete process understanding within the Direct Delivery business in Europe.
- Provide external benchmarking possibilities to globally evaluated market best practices.
- Enable future self-assessment exercises to align identified areas of priority for Nestlé and for SAP.
Thank you very much for your participation and support!

In case of comments or remarks please do not hesitate to contact me:

Ramin Shariatmadari
Solution Management Direct Store Delivery
Industry Business Unit - Consumer Products & Life Sciences
Product & Technology Unit - Industry Solutions
SAP AG
Dietmar-Hopp-Allee 16
69190 Walldorf
Germany
T +49 (6227) 7 45283
F +49 (6227) 7 8 35103
M +49 (177) 7616139
E ramin.shariatmadari@sap.com