

## **Survey on Vendor-managed inventory practices for high value parts**

Conducted by the research group “Small & Medium Batch”  
at Technische Universität Berlin

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*Confidentiality note: Information provided in this survey will not be used for other purposes than the publication of the anonymised summary data of the entire survey.*

## Explanation of terms and general instructions

<b>OEM</b>	refers to your company
<b>Customer</b>	refers to your customer
<b>Supplier</b>	refers to your 1 <sup>st</sup> tier supplier
<b>3PL</b>	3 <sup>rd</sup> party logistics provider for logistics-related services such as transportation, supplier management, kitting etc.
<b>High-value parts</b>	refer to A-class parts according to the traditional ABC-Analysis. A-class parts are approximately 20% of total items that account for approximately 80% of total value.
<b>Vendor-managed inventory (VMI)</b>	<p>The vendor (or a 3PL) is responsible for the management and replenishment of the OEM's inventory while the OEM shares certain inventory information.</p> <p>The vendor (or a 3PL), responsible for VMI, will further be referred as <b>VMI-partner</b>.</p>
<b>Consignment Stock</b>	Consignment stock is owned by the vendor (or a 3PL) and held on the OEM's (or 3 <sup>rd</sup> party) premises. Ownership changes when stock is used or sold by the OEM.

In general, ticking more than one answer is possible. At the end of each section you will find an area for comments.

## I. General questions

1. When did you start implementing VMI programmes for high-value parts?

2. How many different high-value parts do you have, approximately (according to the definition on page 2)?

3. How many of these are or will become VMI-parts?

Number of parts already: \_\_\_\_\_

Number of parts planned: \_\_\_\_\_

4. Based on what criteria did you choose **suppliers** for VMI?

- Location of supplier
- Past delivery performance
- Characteristics of parts
- All parts of the supplier are suitable for VMI
- Supplier delivers a small range of parts
- Compatibility of supplier's IT-infrastructure
- Long-term relationship with supplier
- Other, please specify:

5. Based on what criteria did you choose your VMI-**parts** (amongst your high-value parts)?

- Value
- Physical size
- Physical sensitivity
- Criticality for production process
- Parts of specific subassembly modules
- Other, please specify:

6. Who are your **VMI-partners** (i.e. who takes the stock replenishment decision)?

- Suppliers
- 3PL
- Combination/other:

7. How many VMI-partners do you have?

Comments on this section:

## II. VMI Model used

### A. Flow of information

8. Can the VMI-partner ship parts without the authorisation of the OEM?

Yes

No

9. What information is transferred to the VMI-partner?

Suggested shipping orders

Items in stock

Signal when parts are consumed

Demand forecasts

Actual orders of your customers

10. How often do you transfer the stock information?

In real-time

\_\_\_\_\_ times a week

11. What tracking system do you use to capture stock levels and stock consumption?

Scanner

RFID

Webcam

Physical Kanban signal, e.g. cards

Manual

Other, please specify:

12. How do you transfer the information to the VMI-partner?

- Fax
- Manually sent e-mails
- Auto-generated e-mails
- One-way communication via web-based platform
- Two-way communication via web-based platform
- Connection of the MRP-systems of both companies
- Other, please specify:

13. What replenishment technique do you use?

- Kanban
- Fixed Min/Max-levels
- Reorder Point – Reorder Quantity
- Other, please specify:

Comments on this section:

### **B. Flow of goods**

14. At which stages of the supply chain is inventory held?

- Supplier
- External warehouse
- On-site warehouse
- Shop floor buffer

15. On average: how many weeks of stock are held at all stages in total?

16. In your storage area, are there designated spaces assigned only to your VMI-partners' items?

- Yes, designated space for **all VMI parts together**
- Yes, designated space for **each supplier**
- Yes, designated space for **each part**
- No

17. How many of your VMI-parts are delivered as:

- \_\_\_\_\_ % single parts
- \_\_\_\_\_ % kits (set of different parts used in one product)
- \_\_\_\_\_ % batches (set of parts or kits of the same kind)

18. Where does the shop floor feed preparation take place, e.g. unpacking, sequencing and kitting?

Comments on this section:

### C. Commercial arrangements

19. From what point in time do you **own the inventory**?

- Pick-up of part
- Delivery at storage area
- Consumption into the shop floor
- Delivery of final product to customer

20. From what point in time do you assume **responsibility for damages** of the inventory (custodial ownership)?

- Pick-up of part
- Delivery
- Consumption into the shop floor
- Delivery of final product to customer

21. If you run a consignment stock arrangement, what percentage of your high-value-parts inventory (before implementation of VMI) did you transfer to your VMI-partner?

22. In the event of an unexpected production delay on your site, what concept of compensation do you offer to your suppliers in order to maintain the suppliers' cash flows?

- None
- A compensation fee is paid to the supplier
- Parts paid in full max \_\_\_\_\_ days after delivery
- Other, please specify:

Comments on this section:



### III. Benefits and Problems of the model implemented / KPI improvements

23. Please specify to what extent you experience the following benefits:

- *strong negative impact*
- *small negative impact*
- 0 *no impact at all*
- + *small positive impact*
- ++ *big positive impact*

	--	-	0	+	++
a. Improved service levels					
b. Reduction of safety stocks					
c. Reduction of transactions					
d. Reduction of in-store process times					
e. Capacity levelling in the production process					
f. Less administrative effort					
g. Faster information with regard to real demand					
h. Inbound quality performance					
i. Outbound quality performance					

j. Other, please specify:

24. What are the benefits of the VMI model to your suppliers?

- No direct benefits to the supplier
- Higher item price paid
- Service fees
- Earlier payment
- Additional business
- Improved processes
- Improved planning (more stable demand, improved demand signal)
- Optimisation of lot sizes in production and transportation by the supplier
- Other, please specify:

25. What problems do you experience?

- Demand fluctuation too high to be dealt with by the VMI model
- Inventory ownership discussions
- Stock-outs
- Excessive stocks/slow moving stocks
- Payment discussions
- Discipline to maintain information quality at OEM
- Trust issues
- Others, please specify:

26. Please state the key lessons learned from the VMI project:

Comments on this section:

#### **IV. Personal Information**

27. What is your job title/function?

- Senior management
- Project manager of VMI programme
- Director of logistics department
- Manager
- Staff/consultant
- Other, please specify:

28. What is your functional division?

- Logistics
- Supply chain management
- Procurement
- Operations
- Other, please specify:

29. Would you be so kind to provide your favourite way in which we can contact you in case we might have any inquiries:

Name: \_\_\_\_\_

Phone: \_\_\_\_\_

E-mail: \_\_\_\_\_