Value Stream Mapping in Finance

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About ShawCor
The ShawCor Management System

**SMS is ShawCor’s program of Continuous Improvement in Manufacturing, Service and Office**

It provides a structured approach to:

- **Improve performance by eliminating waste and reducing variation in:**
  - Manufacturing
  - Service
  - Non-Manufacturing processes (Finance, IT, HR, Purchasing, etc.)

- **Introduces:**
  - Standardized operating systems and business processes
  - Company wide systems & techniques
The ShawCor Management System

- Launched in 2006 as the ShawCor Manufacturing System, SMS is an industry-leading continuous improvement program that draws upon the best elements of Lean, Six Sigma, other world class operational systems and our company’s own experience.

- Program integrates these elements with strong leadership and engaged employees to drive excellence in manufacturing and business processes.

- We developed the SMS Vision and Roadmap to keep us focused and aligned on our journey to excellence and make SMS a Way of Life.

- Key elements to achieving our Vision are Leadership, Culture, and reliable Processes. Strategic programs and a collaborative approach are key to the advancement of SMS at our facilities around the world.
ShawCor Journey to Excellence 2015

SMS Vision
- Model Sites
- Empowered Employees
- Reliable Organization
- Flawless Execution
- Outstanding Financial Performance

SMS Yearly Guidebook and Program

2006
- Diagnostic tools and infrastructure
- Initial focused improvements

2007
- Stabilize manufacturing processes

2008
- Formal leadership and culture development

2009
- Surface and resolve opportunities

2010
- Lead & engage employee to accelerate improvements

2011
- Enterprise wide deployment

2012
- Extended enterprise deployment

2013

2014

2015

Achieving the SMS Vision relies on the balanced integration of Culture, strong Leadership and reliable Processes in our company.

SMS Elements
- Standardized Work
- Product/Service and Process Launch
- Process Improvement Engineers and Resources
- Operations Metrics
- Management to Lead SMS
- Engage Workforce and Visual Workplace
- Process and Quality Control
- Knowledge Sharing

SMS Programs
- SMS Champion Certification
- SMS Supervisor Training
- SMS Tactical Training
- SMS Facilitator Training
- SMS Guidebook
- SMS Assessment
- Asset Management and Reliability
- Product/Service and Process Launch

SMS Techniques & Methodologies
- SS and Visual Workplace
- Standard Operating Procedures (SOP)
- Process Maps
- Failure Mode and Effects Analysis (FMEA)
- Control Plans
- Statistical Process Control (SPC)
- Process Capability
- Leader Standard Work (LSW)
- Daily Management Process (DMP)
- Master Plan
- Metrics
- Value Stream Mapping
- SMED
- 5S Problem Solving
- Total Productive Maintenance (TPM)

SMS Database
- Best Practices
- Templates
- Workshops
- Metrics
- Reference

The ShawCor Management System
The ShawCor Management System

SMS is not just about using tools…

…we also need to ensure that:

• We have a Shared SMS Vision
• Our people have a Shared Goal
• Our actions are aligned to the organization’s needs
• We effectively manage our value streams (end to end processes)
• We are listening to the “Voice of the Customer” (internal & external)
• We are sustaining business improvements
The ShawCor Continuous Improvement Model
SMS Enterprise Wide
Everything we do is part of a process…

...all processes can be improved

SMS can be applied to any process!
Why Map a Process?

The Developing Reality - At least Three Versions:

What You *Think* It Is...  
What It Actually Is...  
What You Would Like It To Be...
The Value Stream Approach

- Evaluate the entire process
- Focus on total Lead Time
- Getting away from isolated improvements
The Challenge

- Identify the waste and its causes
- Remove the waste to deliver business benefit
- Improve Flow
- Reduce batch size
Value Stream Management

1) Envision the most advanced position
2) Back off to chosen target
3) Establish new target

Current State

Targeted Future State

Implementation Projects

Achieve Target

Ideal State

New Targeted Future State

Achievable in Timeframe

From mapping to management
Value Stream Management

- Cross-functional team
- Supportive Leadership
  - Close-out meeting
- Targeted improvement summary (metrics)
  - S.M.A.R.T.
- Action Plan and Ownership
VSM in Finance
Month-end Closing

Recognize opportunities to improve:

– Late Month-end closing
– Rework / Low First Time Quality
– Lack of standardization and unclear or dated procedures
– Significant manual processing
– Over-processing
VSM in Finance Month-end Closing

- Current State Mapping - Cross-functional team
- Identification of both issues and possible solutions
- Short-term and Long-term Action Plan
VSM in Finance
Month-end Closing

Results of the VSM Workshop conducted early Q2

- ShawCor standards achieved
- Continual improvement in month-end closing time
- 75% reduction by Q4
- Verified effectiveness

Month-end Closing (days)

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>100%</td>
</tr>
<tr>
<td>Q2</td>
<td>35%</td>
</tr>
<tr>
<td>Q3</td>
<td>30%</td>
</tr>
<tr>
<td>Q4</td>
<td>25%</td>
</tr>
</tbody>
</table>

75% Reduction
VSM in Finance
The Big Picture Map

Initial Application of SMS Methodologies
Enterprise-wide (VSM Workshop) – March 2012

– Canada-USA cross-functional team:
  • Sales, Operations, Finance, Marketing, Manufacturing, Quality and IT
  • Various Functional VPs, Managers, Team Members
VSM in Finance
The Big Picture Map

Opportunities:

– Improve overall process, operational and financial performance, as well as customer satisfaction
– Better understand the process and variation between sites and countries
– Meet and exceed financial targets
– Minimize Lead Time, Processing Time and Improve First Time Quality
VSM in Finance
The Big Picture Map

Order to Cash

Let the Value Stream, the Big Picture Map, drive the Improvement Plan and future actions
VSM in Finance

And we mapped...

Accounts Receivable
(AR 1.0)
The AR Process VSM

Initial Focus – Areas with most opportunities for improvement and affecting subsequent steps in the process (Invoicing of Product and Freight)
The AR Process VSM

Actions and Improvements:

– Batch Reduction
  • Weekly Invoicing vs. monthly
– Improved document management and warehousing
  • Create a digital document flow (expanded IFS)
– Standardization using best practices
  • Quote and Order Process
  • Freight process
The AR Process VSM

Metrics and Results:
– 16% Y-O-Y reduction in DSO

Also... Apply PDCA
– Planned for AR 2.0 VSM
VSM in Finance

PDCA application
Value Stream Mapping of the new Current State in...

Accounts Receivable (AR 2.0)
AR 2.0 - The follow-up VSM Workshop in Finance

AR 2.0 VSM Workshop - May 2013:

– Mapped the new Current State
– Compared to previous Current State and evaluate results
– Envisioned a new Future State and
– Developed a new Action Plan to achieve a new round of improvements
AR 2.0 - The follow-up VSM Workshop in Finance

Y-O-Y Invoicing Improvements:
- Lead Time and Processing Time:
  - Product & Freight – 50-80% reduction
  - Labour and Rentals - 30-50% reduction

<table>
<thead>
<tr>
<th>Invoice Type</th>
<th>Metric</th>
<th>Actual Improvement (Time Reduction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipe</td>
<td>Lead Time</td>
<td>77%</td>
</tr>
<tr>
<td></td>
<td>Processing Time</td>
<td>46%</td>
</tr>
<tr>
<td>Freight</td>
<td>Lead Time</td>
<td>79%</td>
</tr>
<tr>
<td></td>
<td>Processing Time</td>
<td>78%</td>
</tr>
<tr>
<td>Labour</td>
<td>Lead Time</td>
<td>56%</td>
</tr>
<tr>
<td></td>
<td>Processing Time</td>
<td>53%</td>
</tr>
<tr>
<td>Rentals</td>
<td>Lead Time</td>
<td>42%</td>
</tr>
<tr>
<td></td>
<td>Processing Time</td>
<td>32%</td>
</tr>
</tbody>
</table>
AR 2.0 - The follow-up VSM Workshop in Finance

New opportunities to improve identified at the back end of the invoicing process
- Updated the new Action Plan

Added to the new Map:
- 3rd Party Invoicing
- RMA’s & Reel Deposits
AR 2.0 - The follow-up VSM Workshop in Finance

Actions and Status:

– Batch Reduction – Rentals - Weekly invoicing

– Vendor Management - POD’s – met with all trucking vendors to receive signed POD’s within a weeks period of delivery.

– IT/IS Engagement:
  • Improved and fast AR Reporting
  • Investigate options to automate taxes
AR 2.0 - The follow-up VSM Workshop in Finance

**Metrics and Results:**
- Over 20% Y-O-Y reduction in DSO

![Average DSO Graph](image)
VSM in Finance

The success story in Accounts Receivable drove the team to map...

Accounts Payable (AP 1.0)
The AP Process VSM

AP 1.0 VSM Workshop was conducted in 2013:

– And … the story is the same…
  • Canada-USA cross-functional team encompassing:
    – Sales, Operations, Finance, IT, Procurement, Manufacturing, Quality
    – Various Functional VPs, Managers, Team Members
The AP Process VSM

The team:
- Mapped the Current State; Identified wastes and obstructions to flow
- Brainstormed Solutions and opportunities for improvement
- Developed Action Plan
- Targeted significant improvements

<table>
<thead>
<tr>
<th>Metric</th>
<th>Targeted Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead Time (Days)</td>
<td>50% reduction</td>
</tr>
<tr>
<td>Processing Time per Week (Hrs)</td>
<td>70% reduction</td>
</tr>
<tr>
<td>Number of Process Steps</td>
<td>45% reduction</td>
</tr>
<tr>
<td>First Time Quality</td>
<td>130% improvement</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Metric</th>
<th>Targeted Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current State vs. Future State (6 months)</td>
<td>70% reduction</td>
</tr>
</tbody>
</table>
The AP Process VSM

Actions and Improvements:

– Standardization
  • Revised Purchasing SOPs and Guidelines
  • Revised and Standardized the Invoice receipt, distribution and approval process

– Process / Flow Improvements:
  • Moved some approval steps upstream in the process
  • Updated Delegation of Authority (US/CA)
  • Revised inter-company transfer process
The AP Process VSM

Actions and Improvements:

– Standard Work and batch reduction initiatives:
  • Increased frequency of reviewing invoices
  • Reduced batch size and AP reports
    (10 pages reduced to max 2-3 pages)

– Improved reporting:
  • Created additional reports to simplify work, improve process controls and visibility
The AP Process VSM

Actions and Improvements:

– 5S initiatives:
  • System - vendor information
  • Mail distribution process
  • Email protocol
  • GL codes

– Knowledge Sharing:
  • Best practices shared between US and Canada
The AP Process VSM

Results and Benefits:

- Steady increase in the average number of invoices processed monthly in the US:
  - Doubled during 2013
  - No additional resources!
- ~75% reduction in OT and weekend work
Thank You!

Please complete the session survey at: AMESurvey.org

Session Code: (....)

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VSM in Finance

Q&A