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INTEGRATED SUPPLY CHAIN MANAGEMENT (ISCM)
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A
LEADING
Practices
Compendium

FOREWORD

The implementation of integrated Supply Chain Management (iSCM) leading practices by Ontario's broader public sector (BPS) would yield significant and much-needed gains in "back-office" efficiency, effectiveness and responsiveness – gains that would also improve core program delivery.

Recognizing this, the Ontario Ministry of Finance announced the creation of OntarioBuys in the 2004 Ontario Budget. OntarioBuys' mission is to facilitate and accelerate the adoption of iSCM leading practices by the BPS.

For OntarioBuys to succeed, it is important that all parties have a clear and comprehensive understanding of this goal. What are iSCM leading practices? How are they best implemented in the Ontario BPS context? What would the benefits be? To help answer these questions, OntarioBuys prepared this booklet *Integrated Supply Chain Management: A Leading Practices Compendium*.

Supply Chain Management is its own area of expertise with hundreds of different tools and processes. The compendium focuses on the "top picks", selected for their critical nature and ultimate value. In all, 45 leading practices are described, organized into seven topics areas that collectively comprise the OntarioBuys iSCM Framework.

OntarioBuys would like to thank the members of the OntarioBuys Working Group for their valuable contribution to this endeavour. Many others also generously contributed their ideas and expertise. Lisa Woznica's leadership in its development and execution is also acknowledged with thanks.

The primary goal is to deliver the benefits to Ontario's citizens. This compendium is only the first step.

INTRODUCTION TO INTEGRATED SUPPLY CHAIN MANAGEMENT (iSCM)

“Supply Chain Management” refers to the full range of processes that manage the flow of goods and services, information and dollars between suppliers, customers, and end-users, as well as the supporting infrastructure required to enable these processes.

“Integrated” Supply Chain Management refers to tight supply chain collaboration among multiple organizations, ideally with a single, focused entity responsible for managing the associated people, processes, information and infrastructure.

Finally, a leading practice can be defined as “any application of process, technology or people practices that allows organizations in a specific business context to function as efficiently and effectively as possible”.

There is no single best approach to the selection and implementation of iSCM leading practices. It is up to each organization to determine the most appropriate target areas for development and implementation of iSCM leading practices, based upon:

- ❑ the resources available for iSCM investment;
- ❑ the current capabilities of the organization; and,
- ❑ the organization’s willingness to change.

BPS organizations are at different levels of evolution with regards to the adoption of iSCM leading practices. On

the whole, relatively few have implemented iSCM to its fullest extent. Though many organizations can point to partial implementation of leading practices, the true benefits of iSCM can be realized only if leading practices are fully and comprehensively implemented.

Organizational characteristics influence whether a BPS organization will devote resources to iSCM leading practice development. Such characteristics include: criticality of product to customers, breadth of products and services purchased, power of suppliers, power of end users and their ability to demand product specification.

LEADING PRACTICES

OntarioBuys has categorized key iSCM leading practices and possible benefits into seven different areas as represented in our iSCM framework below.

1. Plan
2. Source & Procure
3. Move
4. Pay
5. Structure & Staffing
6. Tools & Processes
7. Organizational Alignment

The relationship between the areas is detailed in the graphic depiction of the iSCM framework on the next page.

OntarioBuys Integrated Supply Chain Management (iSCM) Framework

Plan

Business processes to manage demand for products and services

Source & Procure

Business processes including contracting, ordering and expediting

Move

Physical processes from the supplier to the end user

Pay

Financial processes including payments and rebates

Structure & Staffing

Tools & Processes

Organizational Alignment

PLAN

Plan refers to the business and information processes that manage the demand for products and services in an organization. Poor forecasting of demand and supply can increase costs and hurt customer service; in some cases (with hospitals in particular), the consequences can be even more dire. The use of leading practices in planning maximizes supply chain effectiveness by ensuring that the organization understands demand drivers and can more accurately predict users' future needs.

LEADING PRACTICE	DESCRIPTION	BENEFITS
Demand Management	Ability to determine organizational demand requirements (what and how much) and rationale.	Significant cost savings in terms of inventory, delivery, reduced stock-out; improved customer satisfaction.
Baseline Forecasting	Establishment of baseline forecast incorporating all known information; encompasses regular forecast and incremental event/re-projected forecast.	Mitigation of stock-out risk; better pricing; development of efficient supplier network.
Collaborative Planning	Proactive communications and assessment of new requirements, forecast changes and financial information; process should be collaborative among organizational stakeholders (including suppliers and end users/customers) and integrated throughout organization, ideally in real time.	Elimination of confusion in requirements; more accurate needs forecasting; ensures rapid communication and response to changes; opportunity for immediate feedback.
RFP Development & Compliance Management	Setting of Request for Proposal (RFP) requirements, standards, values and principles; creation of policies related to RFP management; development of internal limitations on use of non-contract suppliers (i.e. prevention of direct purchasing from non-authorized suppliers); inclusion of communication and payment processes in RFP negotiation.	Better pricing based on volume; adherence to strategic contracts; clear expectations of supplier performance.

SOURCE & PROCURE

Source refers to the business processes that manage the interaction with existing and potential suppliers; **Procure** refers to the processes used to execute actual purchase transactions. There is a huge opportunity to increase supply chain effectiveness by implementing Source & Procure leading practices. In particular, advancements in the area of e-Procurement (referring to the use of the Internet and other electronic technologies) have proven to be a significant enabler.

LEADING PRACTICE	DESCRIPTION	BENEFITS
Definition of Acquisition Strategy	Explicit determination of most appropriate strategy for procuring commodities, primary goals and objectives of acquisition, special requirements or constraints, particular methods to be utilized (i.e. RFP or single source).	Clarification of scope of procurement activities.
Identification of Product Standardization Opportunities	Working with end users to reduce variety of products in use within organization and buy fewer products, in increased volumes, from fewer suppliers; determination of extent of standardization in organization (i.e. which commodities would be standardized and prioritized); use of negotiation and evidence to persuade various stakeholders of benefits and efficiency opportunities.	Reduction in administration; improved pricing.
Strategic Sourcing	Rationalization of supplier base in conjunction with product standardization; strategic suppliers determined through purchasing volumes and spend analysis to identify highest-value relationships.	Greater supplier involvement and performance; strong alliances.
Contract Centre of Excellence	Single longer-term corporate contracts developed per item category in order to maximize leverage with suppliers; centralized negotiation based on total cost of ownership including quality, delivery, lead-time; centralization of sourcing function with contracts and standards specifications managed together.	Common repository of contract knowledge ensures strategic pricing.
Supplier Relationship Management	Includes: establishment and regular tracking of supplier performance metrics; establishment of supplier compliance program to ensure suppliers are adhering to organizational standards, specifications and policies; supplier collaboration to determine mutual areas of process improvement and technology incorporation; development of respect for supplier needs, requirements and drivers.	Intimate knowledge of suppliers smoothes tension more easily; can lead to cost reductions and other savings.
Automated Procurement Tools	Electronic procurement capability: see also "Tools & Processes" (page 9).	Faster transactions; lower costs; error reduction; reduction of end-user investment.

MOVE

Move refers to the physical processes that determine how products get from one place to another within and between organizations. The paramount goal of the Move function is to ensure that the right product gets to the right place at the right time, with the least cumbersome involvement of end users. The benefits include greater efficiency through reduction of errors and reduced involvement of end users in the logistics process.

LEADING PRACTICE	DESCRIPTION	BENEFITS
Selective Shared Services/ Third-Party Logistics Arrangements	Use of shared services or third-party partnerships for non-critical, non-core and/ or non-strategic areas, e.g. warehousing.	Cost effectiveness; use of logistics specialists for non-core function; reduction of end-user involvement in logistics.
Centralized Inventory Warehousing	Warehousing located off-site or at one single site for multiple organizations, housing inventory as well as other materials-management functions such as printing, records storage; deliveries on demand; sometimes outsourced; depends on type of commodity and geographic considerations.	Cost reduction; release of space.
Transportation Planning & Delivery Frequency	Ability to determine most effective transportation patterns and frequencies for deliveries, including contingencies for emergency deliveries.	Cost reduction; greater ability to track commodities.
Logistics Process Automation	Use of electronic receiving capability in warehouse and delivery tracking; automated reordering and replenishment.	Improved labour productivity in logistics process.
Bar Coding/Scanning Technology	Use of wireless data collection systems enabling employees to use lightweight scanners with RF (radio frequency) capability to log and process each incoming or outgoing package, flagging those for special handling; technology should be consolidated across departments.	Increase in inventory accuracy; reorientation of end-user time; cost reduction.
Supplier-Managed Inventory	Supplier manages stock levels and ownership of materials in stock; assumes risk for excess stock, either by managing inventory at customer site or by managing customer-dedicated inventory offsite; implies reduced use of front-line staff to manage inventory at end-user level (and use of SCM staff if inventory is on-site).	Reduction in purchase orders (POs) and administrative time; better relationship and improved mutual trust with suppliers; reduction of end-user involvement in logistics (requires superior information and high degree of earned trust).

PAY

Pay refers to the financial processes related to verifying and paying for goods and services. Implementation of Pay leading practices can ensure that efficiencies developed earlier in the supply chain process are fully realized. In most organizations, the supply chain and accounts payable functions are separated. Top-notch supply chain performance requires these functions to be tightly integrated.

LEADING PRACTICE	DESCRIPTION	BENEFITS
Tight Supply Chain/Accounts Payable Organizational Relationship	Awareness of supply chain specifics and strong buy-in from accounts payable (A/P) personnel; strong and regular communication and working relationship between A/P and Supply Chain.	Quicker issue resolution; timely supplier payment allows greater discount acceptance.
Purchasing Cards	Use of purchasing credit cards for small-dollar, high-transaction purchases completed by end users.	Reduction of petty cash; reduction of invoicing requirements and time spent tracking small transactions.
Integration of Purchasing & A/P Information with G/L	Automated integration of purchasing and SCM information (purchase orders) with Accounts Payable information (invoices); automatic interface download to General Ledger software.	Better control of payment timing; better analysis capability for purchasing financials; ability to identify SCM-related financials issues and opportunities.
Electronic Invoicing & Payment	Use of electronic facilitation for invoicing; electronic funds transfer (EFT) payments for employee reimbursements and expenses, payment for key suppliers; includes automated transaction matching and matching initiation of most payment scheduling (minimal manual intervention); access to data on supplier payment performance, such as aging report, supplier performance report.	Improved customer satisfaction; reduced processing time; improved supplier relationships, greater cash retention through discounts.
Establishment of Standard Payment Practices	Establishment of standardized payment policies and procedures including compliance, organizational payment standards, payment specifications and requirements, rebate standards, invoice matching requirements (i.e. evaluated receipt settlement [ERS]), signoffs.	Standardized approach to payment and clear understanding for organization and suppliers.
Rebate/Discount Management	Ability to maximize discounts and rebates and ensure discount capability (part of initial supplier negotiation); use of regular reporting to automatically compare potential payment dates to due dates; also includes any potential for federal tax exemptions.	Potential savings and bottom line improvements.

STRUCTURE & STAFFING

Structure & Staffing refers to the selection and execution of the organizational design and the formal systems of governance, accountability and communication. The implementation of **Structure & Staffing** leading practices, specifically those involving people and their skills, can enable the achievement of supply chain excellence, making it worth both the financial and non-financial investment.

LEADING PRACTICE	DESCRIPTION	BENEFITS
Integrated and Aligned iSCM Leadership	Common reporting line for all SCM functions for single or multiple organizations, reporting to one Senior Vice President on the executive team (potentially in Finance); all purchasing functions consolidated into one or a few central groups (depending on the size of organization) at one site, with all products and services bought with knowledge of or approval from purchasing.	Clear authority of supply chain decisions; senior visibility; consistency of quality and pricing; easier to implement iSCM solutions.
Senior Management Support	Awareness of iSCM at executive level and enabling of strategic supplier relationships; whole organization must know about iSCM and possible impact.	Clarification of supply chain value across organization.
Strategic iSCM Leadership	Strategic iSCM decisions and activity must be controlled centrally; transactional execution can be decentralized.	Keen understanding of strategic impact of iSCM; clarification of roles and responsibilities.
Transition from “Transaction to Interaction” Mindset	Shift in focus to customer service and on relationship building with end users, providing single point of contact.	Better understanding of areas of potential cost savings and impact of iSCM on overall business and financial results; clarification of strategic importance of iSCM.
Commodity Specialization	Specific buyers will have shared responsibilities with pre-defined specialist users to act as key sources of information across organization for certain commodities.	Improved customer service and ability to deal with suppliers; improved supplier relationships.
iSCM Policies and Procedures & Code of Conduct	Definition and clarification of purchasing activities, financial restrictions, lines of responsibility; clear and consistent codes of conduct and ethical behaviour for all iSCM activities.	Standardized approach to iSCM and clear understanding for organization and suppliers.
Development of iSCM Skill Sets	Investment in higher iSCM skill sets including: strategic sourcing, cost management, eCommerce, new purchasing techniques and expertise, specialized commodity knowledge.	Greater ability of iSCM personnel to recognize and respond to issues that can have strategic impact.

TOOLS & PROCESSES

Tools & Processes refer to the process and technology enablers for iSCM. Both internal and supplier-based processes are performance drivers. “Technology” by itself is not a leading practice in supply chain management, but intelligent use of information technology within supply chain management can enable the seamless movement of information. Different types of technology platforms can be used, but supply chain systems in all cases should capture and share information across functional groups and organizational boundaries.

LEADING PRACTICE	DESCRIPTION	BENEFITS
“Total Cost” Focus	Focus on total cost of ownership of purchased products and services (beyond price discounts); includes purchase price, quality considerations and process costs plus costs of all other activities needed to perform the action; needs to be data-driven.	Improved strategic assessment capability for all costs related to purchased goods.
“End to End” eSupply Chain	Electronic data invoice (EDI) or Extensible Markup Language (XML) for key processes (Purchase Order [PO], PO Acknowledgement, Advance Shipping Notice, Electronic Catalogue, eInvoice, EFT Acknowledgment).	Faster and more seamless transactions; reduced cost.
“End to End” Supply Chain Partnerships	Access to information to forecast departmental requirements; high level of information sharing; mutually beneficial strategic alliances with key users and suppliers promote innovative solutions and programs.	Ease of service; long-term supplier relationships.
Performance Measurement & Balanced Scorecard Reporting	Measurement and reporting of key elements of SCM: pricing, total cost of ownership, customer service; need for upfront collaboration with key stakeholders regarding measures and report parameters (e.g. forecast accuracy, actual versus budget); ability to track improvements and efficiency of key processes.	Improved accountability of SCM; clarification of financial position and iSCM opportunities.
Comprehensive Understanding of Spend Data	Use of data warehouse capability to comprehensively analyze purchases and utilization by item, category and cost centre; ability to access historical data (inventory, supplier, financial) and reports on multi-site basis.	Improved measurement capability for all costs related to purchased goods; better understanding of total supply chain impact.
Conscious Risk Management	Development of risk management procedures, practices and contingency plans.	Preparation for iSCM issues.
Fully Functional iSCM Systems	Use of specialized supply chain software integrated with Enterprise Resource Planning (ERP) systems; use of Active Server Pages (ASP) model to share ERP applications across organizations; iSCM information should be easily shared amongst all systems.	Enhanced communication and clarification of requirements; value-added supply chain data.
Process Productivity Tools	Automated PO generation and scheduling; vendor summary billing and posting; automated recurring payments; “procure-to-pay” software; demand planning software; workflow approval (automated approval requirements, audit capabilities).	Faster and more seamless transactions; improved accountability.

ORGANIZATIONAL ALIGNMENT

Organizational Alignment refers to the organizational conditions that should be present for the implementation of a successful iSCM transformation program. To move toward leading practices successfully, an evolution process must gain the approval and buy-in of not only the SCM group but also the other organizational functions that are impacted by the supply chain. The most important leading practice in this area is considered to be senior management support, since sufficient management support and subsequent dedication of resources can facilitate the implementation of other leading practices.

LEADING PRACTICE	DESCRIPTION	BENEFITS
Little Disruption of Day-to-Day Activity	Assurance that iSCM initiatives do not conflict with everyday operations.	Improved organizational buy-in.
Clearly Articulated SCM Rationale	Identification of rationale for transformation and clarification of decisions based on policy vs. those based on efficiency.	Improved understanding of iSCM importance.
Cross-Functional Supply Chain Teams	Creation of cross-functional working teams to bring all purchasing, payment and warehouse expertise together on the transformation project, including suppliers and end users.	Improved understanding of iSCM importance across all stakeholders.
Cost Assessment	Upfront spend analysis by commodity to determine specific target commodity areas.	Ability to determine actual savings from technology implementation, distinguish productivity vs. cash savings.
Business Case Development	Adequate up-front analysis for business case development around technology requirements.	Ability for accurate budgeting and clear expectations.
Realistic Business Requirements Definition	Definition of specific business requirements and outcomes; development of appropriate transformation methodology and critical initiatives.	Ability to assess iSCM activities within organizational context.
Organizational iSCM Training	Development of and commitment to organization-wide education and communication on iSCM.	Improved understanding of critical importance of iSCM.
Outreach Communication	Development of outreach campaign ensuring end-user understanding and support.	Improved organizational buy-in.

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