

PERSPECTIVES ON
INTEGRATED
SUPPLY CHAIN MANAGEMENT:

Ontario Broader Public
Sector Interview Findings



**PERSPECTIVES ON INTEGRATED SUPPLY
CHAIN MANAGEMENT:
ONTARIO BROADER PUBLIC SECTOR
INTERVIEW FINDINGS**

OntarioBuys

“Facilitating and accelerating the widespread adoption of integrated supply chain management leading practices in Ontario’s broader public sector.”

Table Of Contents

Section 1: Introduction	1
Section 2: Ten Key Interview Findings	2
Section 3: Action Resulting From Interview Findings	3
Section 4: Sector-Specific Findings	5
4.1 Hospital Findings	5
4.2 School Board Findings	10
4.3 College Findings	14
4.4 University Findings	17
Appendix A: Characteristics of Samples	19
Appendix B: Interview Questions	20
Appendix C: Glossary of Terms and Acronyms	31

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SECTION 1: INTRODUCTION

The mission of OntarioBuys (more formally known as the “BPS Supply Chain Secretariat, Ontario Ministry of Finance”) is to facilitate and accelerate the widespread adoption of integrated Supply Chain Management (iSCM) leading practices by Ontario’s broader public sector (BPS).

Announced in the May 2004 Budget, OntarioBuys had four immediate priorities:

1. to learn more about BPS institutions’ supply chain processes and purchasing patterns;
2. to assess the importance of supply chain management to each institution from various perspectives (i.e., senior leaders, supply chain leaders, front line staff);
3. to assess the extent to which supply chain leading practices had already been adopted; and,
4. to assess the interest in and capacity to shift to a comprehensive integrated Supply Chain Management (iSCM) plan-to-pay operating model.

A fifth priority was to provide participants with information about OntarioBuys and the funding and support available for transformation to an iSCM operating model.¹

With these priorities in mind, supply chain leaders for 80 Ontario **hospitals, school boards, community colleges** and **universities** were asked to participate in structured interviews during May through November 2004.²

This document reports on the interview findings:

- **Section 2** sets out 10 key interview findings
- **Section 3** highlights action underway in response to the findings
- **Section 4** provides sector specific interview details.

OntarioBuys thanks all the BPS supply chain leaders who agreed to be interviewed and the members of the OntarioBuys Working Group who contributed to questionnaire design. Hundreds of ideas, insights and anecdotes were generously shared and have been invaluable to OntarioBuys’ work.

Sector	Institutions Interviewed / Total Institutions	% of Total Institutions	% of Total Delivery Units ³
Hospitals	40 / 155	26%	46%
School boards	23 / 72	32%	52%
Colleges	11 / 24	46%	51%
Universities	6 / 19	32%	53%

¹ See Appendix C for a glossary of terms and acronyms.

² More information about this convenience sample is in Appendix A. The interview questions are in Appendix B.

³ Delivery units: hospitals=beds; education=students.

SECTION 2: TEN KEY INTERVIEW FINDINGS⁴

Supply Chain Knowledge and Support

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|--|--|
| 1. Many skilled leaders and dedicated associations | Ontario's BPS has many highly skilled supply chain leaders and several dedicated supply chain associations. |
| 2. Tactical and transactional orientation | At most institutions, the supply chain function is predominantly tactical and transactional versus strategic and relationship-driven. The exceptions tend to be larger institutions. |
| 3. Modest familiarity with leading practices | Familiarity with supply chain leading practices is relatively modest, especially at smaller institutions that don't have dedicated supply chain leadership. |
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Leader and Internal Customer Perspectives

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|---------------------------------------|---|
| 4. Limited executive support | Executive attitude towards the supply chain function tends to be one of mild interest, with front-line programs a higher priority for scarce resources. |
| 5. Variable internal customer support | Internal customers are generally neutral ("as long as Purchasing doesn't get in the way") although some supply chain organizations reported a strongly supportive relationship with their internal customers. |
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Integration and Cooperation

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|---|--|
| 6. Considerable overlap in products; untapped group buy opportunities | There is considerable overlap in what the BPS purchases (e.g. supplies, equipment, commodities). More group buying, especially in combination with more product standardization, would reduce costs. |
| 7. Some multi-institutional cooperation | Some multi-institution supply chain cooperation is occurring, especially outside the Toronto area. As a rule however, cooperative activities do not yield the benefits that integration does. |
| 8. Limited integration to date | Only limited supply chain integration has occurred to date, with most activity in the hospital sector. |
| 9. Support for (single-sector) integration strongest with hospitals | Support for implementation of comprehensive iSCM was strong in the hospital sector but modest in school, college and university sectors. The support was mainly for single-sector integration, not multi-sector. |
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Performance Measurement

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| 10. Performance measurement difficult | The goal of measuring BPS supply chain performance was not accomplished due to data limitations. The lack of supply chain metrics, benchmarks and comparable data is an impediment to performance improvement. |
|---------------------------------------|--|
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⁴ This summary of the interview findings is believed to be accurate given the size of the interview sample in each of the four sectors and given the extensive additional ongoing contact that OntarioBuys has had with sector institutions since early 2004.

SECTION 3: ACTION RESULTING FROM INTERVIEW FINDINGS

The formal interviews were completed in November 2004. OntarioBuys has also interacted informally with literally hundreds of BPS personnel and other stakeholders including executives, supply chain leaders, front-line staff, associations and suppliers.

It is clear from this extensive contact that a number of obstacles and challenges need to be overcome for widespread integrated Supply Chain Management transformation to occur in Ontario's BPS. However, it is also clear that:

1. the business case for integrated supply chain management (iSCM) is strong, and
2. many BPS supply chain leaders and their institutions are keen to implement the iSCM operating model.

The following profiles how the interviews have influenced OntarioBuys' activities:

3.1 Projects		
	Interview Findings	OntarioBuys' Response
1.	The strongest support for rapid implementation of comprehensive iSCM was in the hospital sector.	→ During its first year, OntarioBuys was most active in the hospital sector. Over a dozen project proposals were received, a credit to the energetic efforts of many capable supply chain leaders combined with strong support from hospital executives, industry associations and the Ministry of Health and Long Term Care (MOHLTC).
2.	Support for comprehensive iSCM in the SCU sectors (school boards, colleges and universities) was more modest. ⁵ There was some support for partial supply chain integration in the "Plan" and "Source and Procure" areas.	→ OntarioBuys has approved a funding application from 21 ECU institutions to evaluate creating the "Ontario Education Cooperative Marketplace" (OECM). The envisioned OECM solution will be a procure-to-pay solution fully integrated with back-office financial systems of participating institutions enabling significant transactional streamlining, productivity improvements and coordination of spend.
3.	More strategic management of the BPS supply chain was strongly supported, specifically: <ul style="list-style-type: none"> ▪ coordinated purchase planning ▪ product standardization ▪ strategic sourcing ▪ information sharing. There was a desire for flexibility in how to achieve this – i.e., OntarioBuys should champion a menu of "leading practices," not a specific list of "best practices."	→ OntarioBuys has shifted to using the term "leading practice" and is encouraging institutions to tailor projects to their circumstances. (Projects must still be consistent with the overarching goal of creating efficient, effective and responsive integrated supply chains.)

⁵ The support for a single, comprehensive iSCM solution for the SCU sector has grown substantially since the time of the Interviews.

3.1 Projects (cont'd)		
4.	There was strong interest in improved supply chain metrics and benchmarks, and the implementation of information systems that could generate the required data.	→ OntarioBuys has recently initiated a Supply Chain Performance Metrics Compendium project. Sector experts will be involved in the process. It is expected that a draft "Supply Chain Performance Metrics" document will be circulating for comment in early 2006.

3.2 Advocacy and Standards		
	Interview Findings	OntarioBuys' Response
1.	The preferred role for OntarioBuys was one of "facilitate, accelerate, coordinate" rather than a directly operational role.	→ OntarioBuys is carrying on with its planned modus operandi accordingly.
2.	Familiarity with supply chain leading practices was relatively modest.	→ OntarioBuys worked closely with BPS supply chain expert-practitioners to develop " <i>Integrated Supply Chain Management: A Leading Practice Compendium</i> ," a 12-page booklet profiling 45 supply chain leading practice "top picks." The booklet is already contributing to all parties having a common and comprehensive understanding of the vision. This needs to be complemented with training, communication and resources (see item 3 following).
3.	There was significant interest in the establishment of better and easier ways to share validated information about supply chain tools and processes, common documents (e.g. rules, contracts and terms and conditions) and about change management issues and techniques relevant to supply chain transformation.	→ OntarioBuys is evaluating the establishment of a BPS-endorsed electronic document library supported by training and communications. The concept is similar to one successfully implemented by the U.K. NHS Purchasing and Supply Agency. As a first step, OntarioBuys has published the "OntarioBuys Procurement Policy Guidelines," prepared in consultation with supply chain leaders.
4.	Executive attitude towards the supply chain function was generally reported to be one of mild interest. Front-line programs are consistently a higher priority for attention and scarce resources.	→ OntarioBuys will continue to communicate the case for supply chain leading practices to BPS executives and to ask for their support to bring about the transformation required. To date, OntarioBuys has found executives to be receptive to the strong business case and available funding.
5.	Internal customers are typically neutral towards the supply chain function, "as long as Purchasing doesn't get in the way." A few supply chain organizations reported strong internal relationships.	→ OntarioBuys will continue to communicate the case for supply chain leading practices to BPS personnel and to ask for their support. Issues and concerns will need to be identified and considered against the expected benefits.

SECTION 4: SECTOR-SPECIFIC FINDINGS

Following are interview findings of particular note for each of the four sectors contacted: hospitals, school boards, colleges and universities.

4.1 Hospital Findings

a. Nature of Spend

A hospital's purchases are determined by the nature of its clinical services, research programs and capital projects.

The largest categories of operating purchases for a mid-to-large acute care hospital are typically:

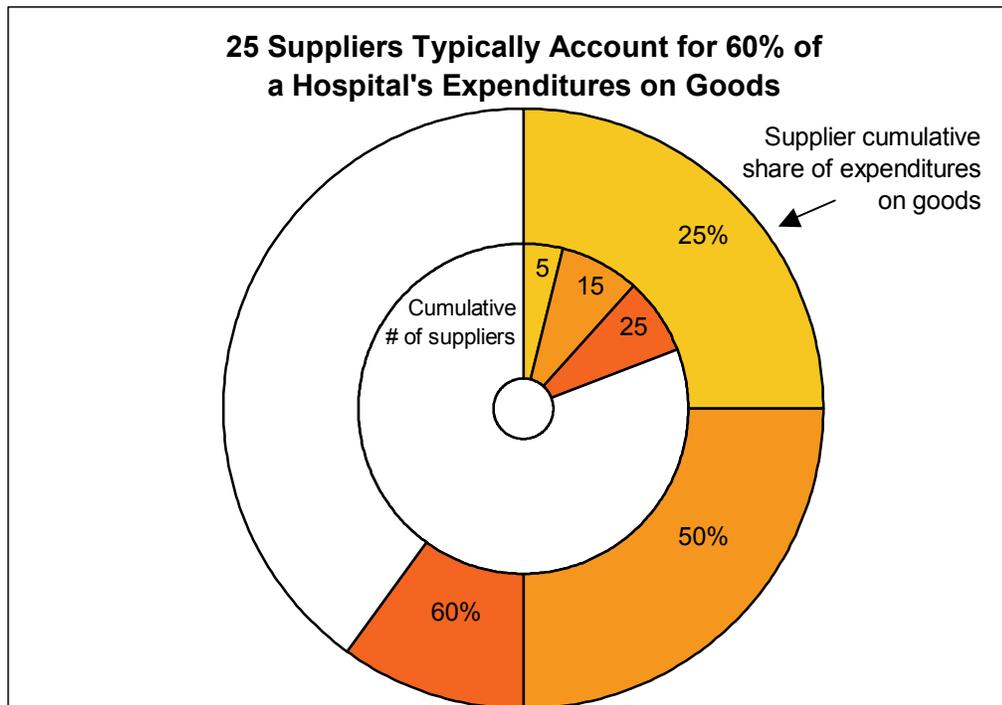
- medical/surgical supplies⁶
- diagnostic imaging
- general supplies (including housekeeping, office and plant operations)
- implants (including cardiovascular, ophthalmologic and orthopedic)
- laboratory supplies, and
- pharmaceuticals.

From the perspective of supply chain processes, the following was noted:

- Hospitals varied in their ability to generate reports about their purchasing patterns. Some hospitals had sophisticated report generation capabilities; others were unable to easily respond to data requests.
- The data provided by hospitals varied considerably because of variations in product coding. This made it difficult to analyze inter-hospital purchasing patterns and would have made it very difficult to analyze inter-hospital clinical consumption patterns for case costing purposes.
- Supply chain personnel at several hospitals could not easily generate reports that included pharmaceutical and/or food service detail because these activities were functionally decentralized and the information systems were not integrated.
- Hospitals served by an integrated supply chain organization were more able to generate reports and to make data comparisons.

Also of interest was the concentration of purchases among a relatively small number of suppliers. Typically, 5 suppliers account for about 25% of a hospital's total expenditures on goods; 15 for about 50% and 25 for about 60%.

⁶ Medical/surgical supplies is a wide-ranging category that includes catheters, dialysis supplies, dressings, masks and gloves, medical gases, medications, needles and syringes, solutions, stents, staples and sutures and tubing.



Hospitals' largest suppliers tend to be large corporations. This has potentially positive implications for their support for the end-to-end adoption of integrated supply chain management leading practices in that they either will have already invested in sophisticated supply chain systems or would be able to justify such investments.

b. Supply Chain Structure

Supply chain function size

Understanding the size of hospitals' supply chain function proved difficult. The *reported* annual cost of the supply chain function "per bed" ranged from \$1,400 to \$10,500. This inconsistency resulted from underlying data issues, in particular a wide variation in what was included in the function. For example, some hospitals included portering, printing and/or laundry costs. Others had low to nominal explicit logistics costs because they had outsourced this function as part of a "stockless" inventory program.

Breadth of responsibilities

It was frequently mentioned that the supply chain leader was also responsible for other functions. Portering, printing, laundry, food service and inter-campus transportation were the most common examples.

Only two hospitals indicated that the supply chain function had significant (shared) responsibility for Pharmacy contracting and purchasing.⁷ At some other hospitals, the central supply chain function was not responsible for day-to-day pharmacy activities but supported activities such as contract negotiations and shipping and receiving. The two hospitals where the supply function had

⁷ Responsibility was shared with the pharmacy function due to legal and professional restrictions pertaining to the purchasing and handling of controlled substances (e.g. narcotics and pharmaceuticals).

significant pharmacy supply chain responsibilities reported that the arrangement was working well.

Only five hospitals indicated that the supply chain function had significant food service responsibilities. At many of the remaining hospitals, food services had been outsourced to a third party who was responsible for all aspects of the function.

Supply chain leaders at 28 of the 40 hospitals indicated that they regularly participated in Product Evaluation Committee meetings. Only 16 indicated that they participated in Product Standardization Committee meetings.⁸ The supply chain leader chaired one or both of these committees at about half of these hospitals. At the other extreme, about one-quarter of supply chain leaders described their participation on these committees as “ad hoc” or indicated that the committee did not exist. “Ad hoc” or “no committee” was only reported by hospitals that were smaller than the sample median of 372 beds.

Two hospitals reported having a full-time Product Standardization Coordinator. Both strongly believed that savings and other benefits resulting from increased focus on product standardization were greater than the cost of these positions.

c. Supply Chain Leading Practices

Interviewees were asked to describe the supply chain activities within their organization that could be described as “leading practices.” Most interviewees identified 3–6 practices. A total of 31 practices were mentioned a total of 81 times. Among the more common practices identified were:

Common Practices Identified	Number of Mentions
e-Commerce (including Carenet and Global Health Exchange)	8
Electronic requisitioning	7
Product standardization	5
Barcoded inventory	4
GPO membership	4

One individual indicated that his hospital was following “all” leading practices, using the Ontario Hospital Association 2001 supply chain report as his reference point. Further discussion revealed that this person’s understanding of leading practices differed from many others.

Interviewees were also asked to describe leading practices that their organizations had not implemented and what challenges inhibited improvement. About half of those interviewed had at least one top-of-mind response. A total of 29 specific challenges were mentioned a total of 44 times. Grouped by broad category, the two most common challenges mentioned were:

⁸ At some hospitals, these operate as a single committee. At those hospitals where the central supply function did not report that it was a member of these committees, it is not clear whether that is because the committees do not exist.

Common Challenges Identified	Number of Mentions
Getting support for supply chain improvements	20
Weak information technology tools	6

Interviewees noted the wide range of people from whom support was required for supply chain changes, including doctors, hospital executives, nurses, unions and vendors.

- With doctors, the main challenge was demonstrating why supply chain benefits (for example, product standardization opportunities) should take precedence over their clinical preferences.
- With hospital executives, the main challenges pertained to resource allocation and supporting the supply chain function in its discussion with clinicians.

In general, Ontario’s hospital supply chain leaders believe the supply chain function is under-utilized and under-supported. The consequence of being accorded a smaller share of available resources in turn constricts the function’s ability to hire and retain staff and to purchase and maintain up-to-date supply chain systems and equipment.

d. Cooperation/Integration/Outsourcing

Cooperation

Hospitals reported strong participation in hospital-driven supply chain cooperatives – a good news story. All responding hospitals indicated that they belonged to at least one group, an extremely high rate of participation. All but one hospital reported being a member of either HealthPro or MedBuy. Five organizations were mentioned numerous times: Carenet, Healthpro, Global Health Exchange, MedBuy and St. Joseph’s Capital Buying Group. Half reported being a member of either Carenet or Global Health Exchange. In addition, 14 hospitals mentioned regional cooperatives with which they were affiliated.

Integration

Some hospitals reported at least partial multi-hospital integration of their supply chain function, with three main examples being:

- Healthcare Material Management Services (HMMS) – London area
- Shared Healthcare Supply Services (SSHS) and Hospital Logistics Inc. (HLI) – Toronto area
- Shared Services West (SSW) – Mississauga area.

Collectively, the hospitals served by these organizations account for 22% of Ontario hospital beds. In addition to these three, a small number of hospitals indicated that their supply chain function was integrated with other hospitals on a smaller scale.

A small number of interviewees expressed concerns about shifting to an integrated supply chain management model. This shift was perceived as highly disruptive: the significant change implications would need to be proactively managed and properly resourced. Two interviewees were explicit in their

scepticism about integration discussions underway in their region, expressing doubt about whether a single entity serving an entire region could provide consistently good service and whether such an entity could adequately respond to the different needs of many different hospitals.

Outsourcing

A few hospitals reported that they had outsourced one or more aspects of their supply chain function. The most common aspect was warehousing and logistics, with several hospitals reporting that they had shifted to or were considering shifting to a “stockless model”. One hospital reported it had outsourced its supply chain function including purchasing and in-hospital logistics to a private third party.

4.2 School Board Findings

a. Nature of Spend

Spend details

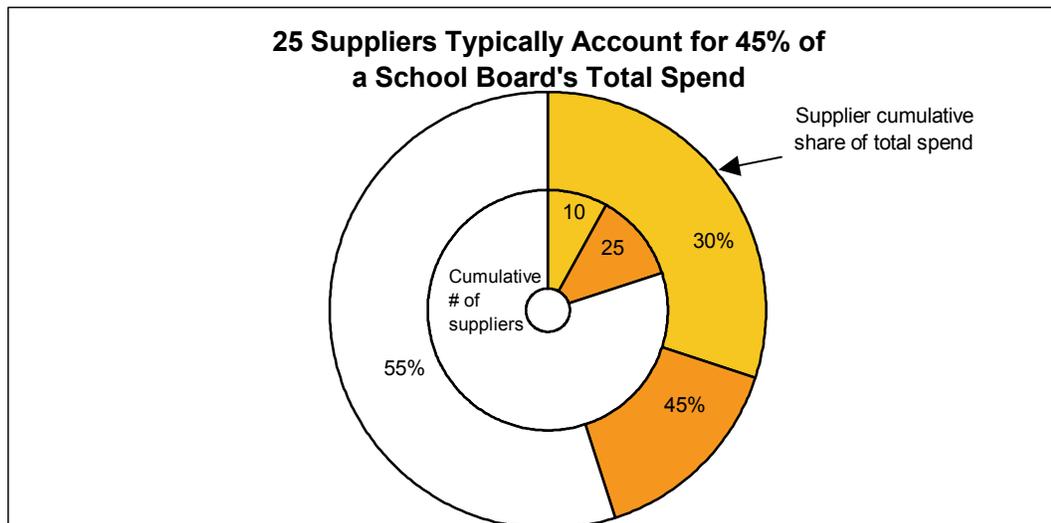
Approximately 60% of purchasing at the 23 school boards interviewed was related to the procurement of goods. Services were the second largest area at 14%.

Specific items purchased by school boards tend to be similar regardless of size or location. Among the 12 school boards who provided data, the largest categories of goods and services in dollar terms were:

- information technology (computers, peripherals and software)⁹
- educational supplies (books, textbooks, classroom supplies, learning materials)
- office supplies (photocopiers, paper, other supplies)
- energy and utilities (heating oil, natural gas)
- transportation (school bus services).

Other categories mentioned were telecom and network services, consulting services, custodial supplies, cafeteria services, waste removal, and construction and maintenance.¹⁰

The Top 10 suppliers accounted for about 30% of a school board's total spend and the Top 25 for about 45%. Supplier concentration tends to vary greatly by size and location of the school board. Outside of major cities, supply chain managers have a greater tendency to use smaller local suppliers – even if prices are higher – citing better service, lower shipping costs and local supplier loyalty as the reasons.



⁹ This was the largest area of spend, mentioned by 7 out of the 12 school boards.

¹⁰ In one school board, construction and maintenance was indicated as a joint Purchasing / Facilities activity.

Most school boards were not easily able to provide information about spend patterns. For example, more than half could not easily determine the percentage of transactions accounted for by the Top 10 suppliers and only two could easily generate detailed reports about their purchases from specific manufacturers.

Scope of responsibility

School board purchasing departments generally have at least some involvement with most spending. In most cases, the department has primary responsibility for the purchase of operating and capital goods but only minor influence over spending on utilities and construction, which are typically managed by Facilities.

“Rogue purchasing” was not identified as a major issue. Thirteen school boards reported the use of purchasing cards, with limits ranging from \$200 to \$3,000 per month.

b. SCM Leading Practices

The leading practices indicated most frequently by school boards surveyed were:

- use of policies and procedures, standards, terms and conditions
- purchasing cards¹¹
- online ordering, electronic catalogue, electronic requisitioning.

Other leading practices identified less often included:

- EFT integrated with financial system (SAP/SDS/BAS)
- information system with ability to determine total cost of acquisition
- electronic bidding and awarding of contracts
- alignment of buyers with commodities
- vendor review and expectations
- professional certification of supply chain personnel
- involvement with clients/users; stakeholder consultation
- product standardization
- total cost of ownership
- “strong sense of service and value.”

Several school boards did not identify any leading practices. Some were candid about their organization’s limitations, using phrases such as “playing catch up” and “just trying to keep going.”

Small school boards tended to identify activities such as cooperative buying, training and their accumulated expertise as leading practices. Larger school boards, in contrast, cited leading practices that were more similar to those in the OntarioBuys’ Leading Practices Compendium.¹²

¹¹ Six school boards cited the use of purchasing cards a leading practice; one cited their *non-use* as a leading practice.

¹² See Appendix A for the definition of small, medium and large school boards.

The most common key challenges identified as preventing a shift to leading practices were:

- lack of support from the senior management team
- lack of human resources
- strong competition for limited financial resources
- cultural resistance and internal politics
- lack of information about the benefits.

Respondents generally described their senior management team as “supportive” of supply chain collaboration but indicated that was difficult to convert this support into hard investments in back office processes. Financial pressures and lack of information about the benefits were the most commonly provided reasons.

Some respondents observed that school boards were run by trustees who tended to have education rather than business backgrounds. This being so, even with better information, trustees might not support investing in the back office.

c. Cooperation/Integration/Outsourcing

Cooperation

School boards were supportive of the concept of collaboration through cooperatives. Most boards’ participation in cooperatives had allowed them to reduce costs, particularly on lower-value, high-transaction items (e.g. photocopy paper and office supplies). Cooperatives also assisted resource-limited purchasing departments by allowing the work of sourcing, tendering and negotiation to be shared amongst a wider group of parties. A number of respondents also indicated that cooperatives were one of their few sources of information about developments and trends in supply chain management, allowing them to enhance their expertise in this area relatively easily.

Not all elements of cooperatives were considered positive to respondents. Challenges cited included personality differences, increased time and complexity of decision making and territory issues. Some larger boards reported that cooperatives tended to create work with the benefits mainly favouring smaller boards.

Although support by school board supply chain personnel for supply chain integration was mixed, many school boards are members of a supply chain **cooperative**. An October 2000 Education Improvement Commission report, *Collaboration Among School Boards*, identified 23 Ontario school board cooperatives involved with joint tendering and/or supplier contract sharing (sometimes referred to as “piggybacking”).

Notable among the still-existing cooperatives are the Catholic School Boards Services Association (CSBSA) and the related Ontario School Board Financing Corporation. Founded in 1998, the CSBSA is a not for profit consortium of Greater Toronto Area Catholic School Boards dedicated to providing business opportunities for all Ontario School Boards to: reduce costs, improve efficiencies and generate revenue.

Although no longer operating, also notable is the Public School Boards of Metropolitan Toronto Purchasing and Warehousing Cooperative. It was the integrated supply chain organization for seven Toronto-area school boards prior to the amalgamation of the Toronto school boards in 1998.

The *Collaboration* report found that school board cooperatives had not reached their “full potential.” Specifically, they were not “the norm across the province” and the range of “cooperative or shared services” needed to increase. Concern was expressed that cooperatives’ further development could “stall” or backslide unless they were actively supported by school board leaders and the government. Five years later, this concern appears to have been generally merited.

Integration and outsourcing

Most of the school board personnel who were interviewed were either unaware or sceptical of supply chain integration and outsourcing. Two boards described limited integration “experiments” in the supply chain area that ultimately were not successful. The outsourcing that has occurred is generally in other areas, such as transportation: a few school boards have integrated their school bus systems, with one bus taking children to schools operated by different boards. Few respondents could identify any integration or outsourcing initiatives in the school board sector or elsewhere in the broader public sector.

4.3 College Findings

a. Nature of Spend

Spend details

The most significant community college purchase categories are as follows:

- classroom supplies (instructional supplies, equipment, printing and books)
- construction
- facilities management (utilities, capital, energy, physical plant and maintenance)
- information technology (computers, peripherals and software)¹³
- office supplies, equipment and furniture.

Scope of responsibility

Purchasing departments' scope of responsibility varied across the 11 colleges interviewed. Some examples of the different models used were:

- significant centralization of purchasing
- end user freedom to obtain quotes, with the purchasing department completing the purchase and ensuring the process complied with college policy
- departmental autonomy to make purchases of less than some amount (e.g. \$1,000)
- full departmental purchasing autonomy.

Six colleges had issued purchasing cards to certain employees with the monthly limits ranging from \$200 to \$2,000.

b. SCM Leading Practices

Current leading practices

Most colleges were able to identify two or more leading practices that they had implemented. Seven out of 10 were able to report three or more of these.

Smaller colleges tended to name fewer leading practices and the ones named tended to be simpler in nature (e.g., "lower prices"). Larger colleges were engaged in several practices identified in the Leading Practices Compendium. Two had eliminated warehousing. Three were moving towards e-procurement. Two mentioned implementing purchasing cards as a leading practice.

The more common factors identified as impeding leading practice implementation were:

- lack of support from administration and senior management
- lack of knowledge of leading practices
- lack of money to implement change.

One college indicated that there was no great impediment to implementing leading practices.

¹³ Mentioned by every college except one.

c. Cooperation/Integration/Outsourcing

General impressions of integration/outsourcing/cooperation

Seven of 10 colleges had a positive impression of integration/outsourcing/cooperation.¹⁴ One reported a poor experience with a supply chain cooperative due to divergent member interests.

Cooperation

Five colleges in the Toronto area belong to the “Central Region Purchasing Co-operative.”¹⁵ This group has tendered 25 to 30 different contracts for items such as office supplies and photocopiers. Security services and purchasing cards were also mentioned.

Colleges outside the Toronto area belonged to regional purchasing groups with other local broader public sector institutions. These groups purchased mainly building and maintenance supplies (e.g., light fixtures, garbage bags, janitorial supplies) but one college mentioned computers and paper as well.

One college is part of OUPMA (Ontario University Purchasing Management Association)¹⁶ for customs and brokerages purposes. Several colleges piggyback on government agreements that were already standing, such as the courier agreement Purolator.

Two colleges were not members of a local group.

Integration

Four of 10 colleges identified examples of supply chain integration they were involved in. One of these examples was the centralized application system for students to apply to enter Ontario colleges. Another is the “Bibliocentre” a program run out of Centennial College that links all the libraries of all colleges in Ontario. Local and regional purchasing cooperatives spanning multiple sectors were also cited.

Outsourcing

Five colleges were able to identify examples of supply chain outsourcing they were currently engaged in. The outsourcing of food services, the bookstore, cleaning and security services were also identified by various colleges.

One college identified the outsourcing some years ago of shipping, warehousing and receiving, so that the college now had “zero warehousing.”

¹⁴ 7/10 positive; 2/10 indifferent; 1/10 negative

¹⁵ These are the five of the largest nine colleges

¹⁶ See the Section 4.4 University Findings for more information on OUPMA

SCM of other public sector organizations

Eight of 10 colleges could identify SCM integration/outsourcing/cooperation occurring within the BPS, sometimes identifying local cooperatives they were involved with. One college noted that local hospitals had a purchasing consortium. The belief that most colleges in Ontario belong to a local purchasing consortium was expressed several times.

One college supplier chain leader commented, “If these things were mandated, we’d save a whole pile of money in the province.”

Experience of college staff/stakeholders

The interest of college leaders and faculty in supply chain collaboration was reported as ranging from “generally supportive” to “unaware.” Several of those interviewed indicated that colleges were torn between finding savings and supporting local suppliers, even if at a greater cost to the college. Some of those interviewed indicated that either their college or other ones had signed long-term supply agreements with key suppliers in exchange for donations. These agreements would constrain the ability of the colleges to collaborate with others in the product categories covered by them.

4.4 University Findings

a. Nature of Spend

The most significant university purchases can be broken down into four categories:

- computers
- construction
- lab and research supplies
- office supplies.

Specifically mentioned products and services included:

- audit services
- computer hardware
- couriers/carriers
- custodial supplies
- office equipment and supplies
- furniture
- laboratory supplies
- legal services
- maintenance products
- photocopyers
- research equipment and supplies
- travel services
- waste management.

At two of the six universities, the purchasing department manages all procurement. At other universities, some areas of procurement were managed by other departments such as construction, food services, library books and utilities.

Fourteen universities reported the use of purchasing cards.¹⁷ The number in circulation ranged from 12 to 2,000. The maximum transaction limit ranged from \$500 to \$5,000.

Additional spend pattern notes:

- purchase cards were identified by one university as the single largest source of transactions
- travel services were identified by one university as the third biggest item of dollar value
- courier services were identified by one university as the third largest purchase by transaction volume.

The products and services associated with research, travel and customs differentiate university and college procurement. In terms of the scope and scale of their supply chain activities, universities are more similar to hospitals than colleges and school boards are.

b. SCM Leading Practices

Current leading practices

Five universities named at least four leading practices they had implemented or were in the process of implementing. Three specifically mentioned e-procurement. Interestingly, with the exception of e-procurement, there was little commonality in the implemented leading practices named by universities.

¹⁷ Ontario University Purchasing Management Association 2004 Purchasing Card Survey, Ontario University Purchasing Management Association

One university thought it had been slow to implement supply chain leading practices but was just starting to do so.

Key challenges impeding leading practices

Obstacles to implementing supply chain leading practices that were identified included:

- lack of university leadership interest and support
- “academic freedom,” resulting in procurement rules not being mandated, low product standardization and underutilization of e-procurement
- a lack of financial resources to implement up-to-date supply chain systems such as e-procurement, purchase cards and electronics funds transfer.

c. Cooperation/Integration/Outsourcing

General impressions of integration/outsourcing/cooperation

Supply chain personnel at the universities interviewed were generally supportive of supply chain integration in principle but felt a number of obstacles would impede real change. These included:

- a lack of university leadership interest and support
- no pressure to make it happen
- a lack of interest in integration at other organizations
- geography (potential participating institutions too far apart)
- potential conflict with unionized employees.

Cooperation

The universities all mentioned membership in purchasing-related cooperatives. These included local cooperatives typically involving local school boards, other nearby universities and municipalities. Also mentioned was the Ontario University Purchasing Management Association (OUPMA). OUPMA counts in its membership almost every university in the province and has been active for more than 40 years.

View of other university personnel and stakeholders

Two universities described their leadership as supportive, with one indicating that supply chain efficiency was one of the institution’s performance metrics and the other that e-procurement had been included in the institution’s business plan. However, for the most part, university leaders, faculty and administrative staff were described as being either unaware, neutral or in some case unsupportive of the supply chain function.

APPENDIX A: CHARACTERISTICS OF SAMPLES

Hospitals

The hospitals interviewed had the following characteristics:

- hospitals interviewed: 40 (19% of Ontario hospitals)¹⁸
- beds represented by the hospitals surveyed: 14,390 (46% of Ontario beds)¹⁹
- median size of surveyed hospitals: 372 beds (all Ontario: 95 beds)
- Local Health Integration Networks (LHINs) represented by survey: 10 of 14²⁰

The sample was biased towards teaching and larger hospitals because of their more complex supply chain operations. Twelve small hospitals were also interviewed.²¹

In addition to the hospitals formally interviewed, OntarioBuys staff had contact with 145 hospitals, comprising 93% of all hospitals and 98% of all hospital beds.²² The data in this report is based on the formal interviews but the overall findings reflect OntarioBuys' overall contact.

School Boards

The school boards interviewed had the following characteristics:

- school boards interviewed: 23 (32% of Ontario school boards)²³
- students represented by survey: 1,116,000 (52% of Ontario students)²⁴
- public school boards: 13; Catholic school boards: 10
- by size: small: 9; medium: 9; large: 5.²⁵

Colleges

The colleges interviewed had the following characteristics:

- colleges interviewed: 11 (46% of Ontario colleges)
- college full time students²⁶ represented by survey: 83,301 (51% of Ontario students)
- median size of surveyed colleges: 5,994 full time students.

Universities

The universities interviewed had the following characteristics:

- universities interviewed: 6 (33% of Ontario universities)
- university students²⁷ represented by survey: 205,904 (53% of Ontario students)
- median size of surveyed universities: 30,003 students.

¹⁸ Estimate based on MOH data. Includes all public hospitals.

¹⁹ Based on 31,376 total Ontario beds at the time of the survey.

²⁰ Local Health Integration Networks. OntarioBuys staff have met with at least one hospital from every LHIN.

²¹ Smaller means fewer beds than the mean of 95 beds.

²² Contact includes meetings, presentations or receipt of a funding proposal directly or indirectly from a hospital.

²³ Based on 72 Ontario school boards (including Catholic and French-language and excluding school authorities).

²⁴ Based on 2,129,742 total Ontario students.

²⁵ Small means <20,000 students; medium means 20,000-80,000 students; large means >80,000 students.

²⁶ College students means the total number of full time students attending each college as reported by the Ontario College Application Services, November 1, 2004.

²⁷ University students means the total number of full time and part time students attending each university as reported in the Facts and Figures 2005, A Compendium of Statistics on Ontario Universities, Ontario Universities Association.

APPENDIX B: INTERVIEW QUESTIONS

OntarioBuys

*“Supply Chain Best Practices in Ontario’s BPS”
Confidential Interview*

Thank you for participating in this interview, one of a series being conducted by Dexio Group on behalf of **OntarioBuys**.

OntarioBuys’ mission is to facilitate and accelerate the widespread adoption of integrated supply chain management best practices (iSCM) by Ontario’s broader public sector (BPS). Its sponsor is the Ontario Ministry of Finance in cooperation with the Ministry of Education, the Ministry of Health and Long Term Care and the Ministry of Training, Colleges and Universities.

The purpose of the interview is to learn about procurement activities at your institution.

Your completed interview form will be **confidential** to Dexio Group. Only aggregated responses will be reported to the Ministry of Finance unless you agree otherwise in writing. If you’d like to receive a summary of the results, please indicate this at the end of the interview.

It will take about sixty minutes to complete the interview. Some questions ask for specific information that you may need to locate and provide subsequently. With the open-ended questions, please elaborate as much as time permits.

If you have any questions about the interview form, please contact Dan Wright (danwright@dexiogroup.com) or Peter Mercer (ppmercer@dexiogroup.com).

Your interview responses will greatly assist **OntarioBuys**. Thanks again for your time and participation.

Yours sincerely,

Gabriel Sékaly
Associate Deputy Minister
Ministry of Finance

Dan Wright
Principal
Dexio Group

Peter Mercer
Principal
Dexio Group

Part 1: Please Tell Us About You and Your Organization

- 1.1 Name ▶▶
- 1.2 Position ▶▶
- 1.3 Organization ▶▶
- 1.4 Address ▶▶
(attach business card if available)
- 1.5 Sector: ▶▶
- 1.6 Region: ▶▶

Please provide answers that are at least roughly accurate (+/- 10%). Exact answers would be appreciated if the information is readily available. Definitions are at the end of this interview form.

Total Organization, Most Recent Year:

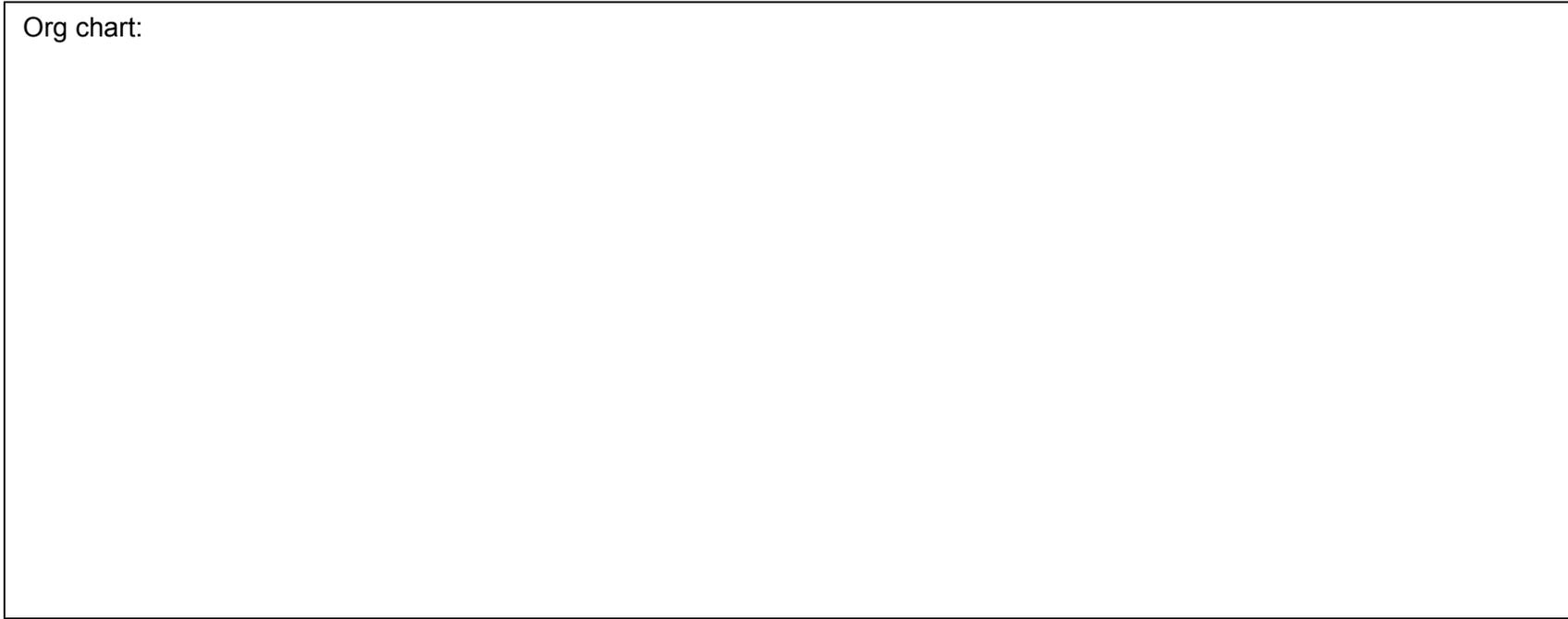
- 1.7 Gross Operating Revenue ▶▶ 1.71 Year Used: ▶▶
(see definitions)
- 1.8 Employees, # FTE ▶▶ 1.81 As of date: ▶▶

Procurement Department, Most Recent Year:

- 1.9 Purchase orders issued, # ▶▶ 1.91 Year Used: ▶▶
- 1.10 Annual operating budget ▶▶ 1.101 Year Used: ▶▶
- 1.11 Employees, # FTE ▶▶ 1.111 As of date: ▶▶

- 1.12 Please describe (sketch out if possible) your organizational structure from the perspective of Procurement, noting:
- your relationship to CEO and senior managers; to front-line staff; to clients (e.g. patients/students)
 - committees on which Procurement sits
 - purchasing positions/functions not in Procurement
 - key external relationships (cooperation/integration/outsourcing)
 - please indicate all the various locations where Procurement Department employees physically work.

Org chart:



Part 2: Definitions

The Supply Chain Framework



- Plan pre-purchasing activities, such as product evaluation, supplier selection and demand planning.
- Source information activities, such as contracting, ordering, expediting and reconciliation.
- Move physical activities, from the supplier to the end-user, including inventory management and returns.
- Pay financial activities, including payment, reconciling and rebates; also including performance tracking.

In the context of Supply Chain Management:

- Cooperation working together, for example on tendering or product evaluation, but with each organization retaining its own purchasing functions. (Example: Ontario public sector purchasing consortia, such as the Catholic School Boards Services Association)
- Integration “shared services” - the unification of purchasing functions into a new entity under common ownership or control; alternatively, the provision of functions by one organization to others for the benefit of all. (Examples: SHSS, Toronto school board purchasing cooperative)
- Outsourcing similar to Integration, but where the providing entity is a private company operating at arm’s-length from its client organizations. (Example: Source Medical)

Integration/Outsourcing can be partial (e.g. HealthPro, MedBuy, Canadian University Reciprocal Insurance Exchange) or complete (e.g. HMMS provides all services to LHSC and St. Josephs).

Part 2: Focus On Supply Chain Cooperation/Integration

2.1 Please describe the nature of any Supply Chain Cooperation in which your organization is involved:

2.2 Supply Chain Integration...?:

2.3 Supply Chain Outsourcing...?:

2.4 Supply Chain cooperation/integration/outsourcing by other public sector organizations that you are aware of...?:

Part 3: Focus On...OntarioBuys SCM Initiative

3.1 Please describe your experience with and general impression of supply chain cooperation/integration/outsourcing.

3.2 Overall, has your experience been good/bad/indifferent?
Would you describe yourself as generally supportive/unsupportive/indifferent?

3.3 How do you believe others in your organization would describe their experiences and level of support for iSCM?

Leaders?

Professionals? (clinicians/faculty)

Other staff?

Suppliers?

Other stakeholders (specify)?

3.4 Please describe supply chain activities at your organization relative to “best practices” (as you understand them). What are some of the key strengths? Areas for improvement?

3.5 What are the key challenges impeding the shifting of your organization closer to best practices? Please describe as many as come to mind.

3.6 What are the “lost opportunities” to your organization resulting from your current supply chain practices? Please provide quantitative or qualitative examples, or anecdotes.

Part 4: Procurement Specifics

4.1 Procurement Table
(see definitions)

Purchases, Approximate \$ Most Recent Year	Managed/monitored by Procurement Department	Managed/monitored by Other Departments and not by Procurement	Employee purchases not managed/monitored
Goods excluding all below			
Services excluding all below			
Utilities, excluding Bulk Commodities			
Bulk Commodities			
Capital Equipment excluding Construction			
Construction			
TOTAL			

4.2 Year Used: ▶▶

4.3 Comments/explanation: ▶▶

- 4.4 What are the broad categories of goods and service purchases managed/monitored by Procurement?
- 4.5 Which three are the largest in dollar terms? In transactional terms?
- 4.6 How many different items are purchased (e.g. SKUs or equivalent)?
- 4.7 What percent of total dollars are accounted for by your Top 10 suppliers? Top 25?
(If possible, please provide a list of your Top 25 suppliers)
- 4.8 Please describe the nature of purchasing managed/monitored by Other Departments (what, and why not?).

4.9 Describe the nature of purchasing by individual Employees (what, and why not?). To what extent are these purchases sanctioned (completely consistent with your organization's rules) or unsanctioned?

4.10 To what extent and how does Procurement assist/influence purchasing activities by Other Departments and Employees?

4.11 What information system does Procurement use (supplier and version)?

4.12 Accuracy of Part 4 answers (rough or exact)?

Thank you for your participation in this interview.

4.13 Would you like a summary of the results once available? ► yes or no

Part 4: Definitions

Gross operating revenue	Income from government grants and other sources before the deduction of any expenditures. Includes income from trusts and fundraising to the extent expended on operating activities.
Procurement Department	The formal workgroup within an organization (if any) responsible for the procurement of goods and services.
Other Departments	All other formal workgroups within an organization.
Employees	Individual employees of an organization (in this context, acting on their own).
Procurement Department managed/monitored	Purchases where Procurement approves or issues the purchase order, or approves payment.
Goods	Tangibles.
Services	Intangibles.
Utilities	Services provided by public utility companies, such as water, gas, electricity and telephone.
Bulk Commodities	Undifferentiated bulk goods such as chemicals, gasoline, natural gas and propane.
Capital Equipment	Goods with a value in excess of \$1,000 and an expected life of more than one year, such as automobiles, computers, and furniture, but excluding goods related to construction.
Construction	Expenditures on building construction, renovation or expansion, including expenditures on land and capital equipment.
Most Recent Year	The most recent 12-month period that is convenient for the respondent to reference.

APPENDIX C: GLOSSARY OF TERMS AND ACRONYMS

ACAATO	Association of Colleges of Applied Arts and Technology of Ontario.
Broader Public Sector (BPS)	Institutions and organizations in Ontario funded and supervised through public means, but not run by the government, e.g. colleges, hospitals, school boards, universities.
CSBSA	Catholic School Boards Services Association.
e-Commerce	The tools and processes that enable commercial transactions to be conducted electronically. Supply chain examples include the issuing of purchase orders and invoices, the exchange of related information, and electronic payments.
SCU	School boards, Colleges, Universities.
EFT	Electronic Funds Transfer.
Integrated Supply Chain Management (ISCM)	“Shared Services” – functions unified into a single new entity under common ownership or control, or the provision of functions by one organization to others for the benefit of all.
LHINs	Local Health Integration Networks.
MOHLTC	Ministry of Health and Long Term Care.
OECM	Ontario Education Cooperative Marketplace.
GPO	Group Purchasing Organization.
OUPMA	Ontario University Purchasing Management Association.
Purchasing Cards	Institutional credit cards that allow employees to buy supplies on an as-needed basis.
Stockless Model	The "just in time" model of supply-chain management, where minimal inventory is kept warehoused and supplies delivered as needed.

OntarioBuys is a program under the Treasury Board Office
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