

Identifying strategies & barriers to sustainable procurement at Canadian universities: An exploratory study on information technology (IT) equipment & supplies

BACKGROUND

- Sustainable procurement is a powerful yet underused mechanism for public institutions such as universities to address environmental, social, and economic issues stemming from purchasing decisions.
- Sustainability champions advocate for the evaluation of Total Cost of Ownership (TCO) in request for proposal (RFP) documents to account for all costs throughout the life cycles of services & goods.
- The materials extraction required for products including computers, printers, paper, and ink & toner cartridges makes the IT category an ideal candidate for sustainable procurement improvement.

RESEARCH QUESTIONS

- *What strategies have Canadian universities adopted in their sustainable procurement practices for information technology (IT)?*

Supporting Questions:

- What sustainability criteria inform these sustainable IT procurement strategies?
- What barriers do universities face in advancing sustainable IT procurement?
- How has total cost of ownership (TCO) factored into procurement decision-making?



METHOD

- This exploratory study included primary research through semi-structured interviews.
- Six Canadian universities were interviewed, with staff from procurement, sustainability, and/or IT roles.
- Interview transcripts were coded using NVivo 12 to qualitatively analyze strategies and barriers.

KEY FINDINGS

- Centralized vs. decentralized procurement departments produce different outcomes in terms of employees' purchasing autonomy for sustainable products.
- The focus on "best" or lowest initial price is still prevalent, though a focus on triple-bottom-line (TBL) sustainability inclusion is increasing.
- Sustainability criteria in RFPs and supplier codes of conduct were not mandated, but rather encouraged/recommended.
- Several universities were shifting away from: (1) desktop computers in favour of laptops; and (2) personal printers in favour of commercial printers.
- COVID-19 created some positive impacts for paper reduction by accelerating the adoption of e-signing and e-procurement processes, though in some cases increased IT purchases for employees working from home.



DISCUSSION & RECOMMENDATIONS

- Meaningful sustainability criteria for IT requires greater weighting in RFPs.
- Universities have a responsibility to focus on the sustainability impacts and costs of services and goods over the whole life cycle (i.e., TCO), as opposed to a fixation on the lowest initial purchase price.
- Buy-in and collaboration is needed from administration, departments, and faculty for successful sustainable procurement practices.
- IT departments, in addition to procurement and sustainability, have a critical role to play in sustainable procurement.
- Coordination among universities through collective purchasing agreements/partnerships and other best practices can accelerate sustainability adoption and benefits.



REFERENCES

1. Da Ponte, M., Foley, M., & Cho, C. H. (2020). Assessing the Degree of Sustainability Integration in Canadian Public Sector Procurement. *Sustainability*, 12(14), 5550. <https://doi.org/10.3390/su12145550>
2. Ayarkwa, J., Agyekum, K., Opoku, D., & Appiagyei, A. (2020). Barriers to the implementation of environmentally sustainable procurement in public universities. *International Journal of Procurement Management*, 13(1), 24. <https://doi.org/10.1504/IJPM.2020.105201>
3. Pacheco-Blanco, B., & Barrantes-Cecia, M. (2018). Green public procurement as an initiative for sustainable consumption: An exploratory study of Spanish public universities. *Journal of Cleaner Production*, 133, 649-656. <https://doi.org/10.1016/j.jclepro.2016.05.056>
4. Filho, W., Skouloudis, A., Brandli, L., Salmá, L., & Rayman-Bacchus, L. (2019). Sustainability and procurement practices in higher education institutions: Barriers and drivers. *Journal of Cleaner Production*, 231, 1267-1280. <https://doi.org/10.1016/j.jclepro.2019.05.202>