# research snapshot

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# When Buyers and Suppliers Work Together, the Environment Wins

## What is this research about?

In a quest to improve their public image, many companies have tried to become more environmentally friendly. But 70% of the parts that a typical manufacturing plant processes comes from outside suppliers. As a result, manufacturers – or 'buyers' – need to ensure that their suppliers also take part in environmentally friendly activities. They can do so in two ways: evaluation and collaboration. Through evaluation, buyers review the environmental practices of their suppliers. Through collaboration, however, buyers more actively share information, about good environmental programs, technologies, and management tools, with their suppliers. They can also work together to develop more eco-friendly products and processes. Environmental technologies, which suppliers may potentially invest in, include:

- Pollution Control (PC) technologies, which help to reduce the risks of spills and contamination after they have taken place, as used in waste water treatment plants.
- Pollution Prevention (PP) technologies, aimed at avoiding pollution in the first place by preventing it, often through the redesign of products and processes.
- Management Systems (MS), such as training programs for employees, designed to improve a company's environmental performance.

**What you need to know:**

When buyers collaborate with their suppliers, the suppliers are more likely to invest in technologies that not only react to environmental problems but prevent them. These investments have benefits for both the suppliers and the buyers – economically, socially, and environmentally.

PP and MS technologies are proactive technologies; they aim to prevent environmental problems before they occur. PC technologies, on the other hand, are reactive; they clean up problems like airborne pollution after they have happened.

But virtually no research has been conducted – on a sample representative of the Canadian manufacturing landscape – that investigates the effectiveness of the evaluation and collaboration activities that buyers engage in. And little is known about how suppliers' investments in environmental technologies impact both the supplier and the buyer.

## What did the researcher do?

Researchers at York University in Toronto looked at a sample of 156 Canadian manufacturing companies. Their goal was to determine the effectiveness

of these buyers' evaluation and collaboration activities. They also looked at a smaller sample of 63 buyers to determine how suppliers' investments in environmental technologies impact both the suppliers' and the buyers' economic, social, and environmental performance.

## What did the researcher find?

The researchers found that, when buyers evaluate their suppliers' activities, the suppliers tend to invest less in reactive, PC technologies. However, when buyers collaborate with their suppliers, the suppliers are more inclined to invest in both types of technologies – reactive and proactive. And the more the supplier has to lose by not working with a specific buyer, the more responsive the supplier will be to the idea of investing in both technologies.

The researchers also found that investments in reactive technologies can hurt suppliers' bottom lines, financially speaking. But these investments do make the activities of suppliers somewhat more environmentally friendly. On the other hand, suppliers' investments in more preventative technologies have a positive overall impact on suppliers – environmentally, financially, and socially. Their investments also benefit their buyers – both directly (through shared cost savings or the creation of less toxic products) and indirectly (because buyers are often known by "the company they keep").

## How can you use this research?

Manufacturers that want to improve the environmental practices of their suppliers need to be aware that they must do more than simply evaluate their suppliers. They need to actively collaborate with their suppliers. This will encourage suppliers to invest in technologies that are not just reactive but proactive, which will help to prevent environmental problems.

## About the Researcher

Drs. Markus Biehl and Ashwin Joshi are Associate Professors in the Schulich School of Business, York University. This Research Snapshot is based on their project, "Green Supply Chain Management: Antecedents and Outcomes."

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## Citation

Biehl, M., & Joshi, A. (2005). How can manufacturers influence the environmental performance of their suppliers? In K. Engemann & G. Lasker (Eds.), *Advances in decision technology and intelligent information systems* (pp. 6-11). Windsor: The International Institute for Advanced Studies in Systems Research and Cybernetics.

## Keywords

Environment and sustainability, Manufacturing, Environmental ethics, Corporate and social responsibility, Product evaluation.

## Knowledge Mobilization at York

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