Companies that combine exports, research outperform competitors

June 20 2011

Economists recognize that companies that export are more productive. However, a more complex relationship between exporting and investing in research and development may better explain the high productivity of companies in "economic miracle" countries such as China and Taiwan, according to a team of economists.

"The old story is that there's some type of magic that makes your company more productive if it exports," said Bee-Yan Aw, professor of economics, Penn State. "Actually what we found is that really productive firms tend to export in the first place."

The researchers, who released their findings in the current issue of the American Economic Review, said companies that exported and invested in R&D significantly outperformed other companies significantly in productivity, including companies that just began exporting. They examined data on the relationship between R&D investments, exporting practices and productivity for Taiwanese electronic product manufacturing plants from 2000 to 2004.

A company that both invests in R&D and exports is 123 percent more productive than a plant that does neither, said Mark Roberts, professor of economics, Penn State. A plant that exports, but does not invest in R&D, is only 35 percent more productive. A plant that only invests in R&D has productivity that is twice as high.

According to Aw, manufacturers may be tempted to seize higher productivity gains by investing only in R&D and not in exports, but the costs of implementing new technology and updating equipment could be prohibitive.

"There are often higher costs associated with research and development that may make it impractical for companies to implement," said Aw. "Exporting may actually be a more desirable way to improve productivity initially because it is relatively low cost."

The Penn State researchers, who worked with Daniel Yi Xu, assistant professor of economics, New York University, said companies that export gain a competitive edge by learning more from their customers, which are often larger companies in Western countries.

Because companies that export are more productive, they may have a significant advantage over non-exporting firms that are hoping to sell their goods overseas. Government programs can help ease this transition for non-exporting companies that are looking for customers in foreign markets, according to Aw.

"Governments can set up programs that help non-exporting companies connect with customers in other countries," said Aw. "In fact, that's what a lot of countries are already doing."

Provided by Pennsylvania State University