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THE PRODUCTIVITY CHALLENGE

Productivity that starts on the shop floor

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NEW LISKEARD, ONT. AND TORONTO

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A worker pours molten metal from a furnace into a ladle during casting at the Wabi Iron and Steel fabricating division and foundry in New Liskeard, Ont.

FRED LUM/THE GLOBE AND MAIL

On the surface, Wabi Iron and Steel Corp. looks like a small company destined to succumb to the forces that have sent much of Canadian manufacturing to the scrap heap.

Wabi's factories are almost a century old. Many of its products - mining cages, ore loading systems and pump housings - are bound for export markets, a problematic destination when the Canadian dollar is strong, as it is now. To add to its challenges, Wabi is located in New Liskeard, Ont., in the heart of Northern Ontario mining country, but thousands of kilometres from mines operated by some key customers.

None of that bothers Wabi president Peter Birnie. He and his management team thrive on what others might consider disadvantages.

"New Liskeard, in our opinion, is the centre of the world," Mr. Birnie says.

Take a tour through New Liskeard, Ont.'s Wabi Iron and Steel Corp. and find out

For Wabi, the battle against larger rivals in distant markets such as Chile and Australia starts on the factory floor with a non-stop campaign to improve efficiency, reduce waste and eliminate bottlenecks - in short, to increase productivity.

Wabi's daily fight for higher productivity is being duplicated at many Canadian companies. The outcome of their struggles will determine how Canada fares in the global market against growing competition from low-wage countries such as Mexico, China and India.

The G20 summit focused partly on correcting global fiscal and trade imbalances. To help redress the imbalance on the trade side, Canada must boost its exports. Fixing its lagging productivity would go a long way to helping the country become more competitive in global markets.

In recent years the bulk of businesses across Canada have done a poor job of doing more with less. The country's dismal productivity performance has prompted Bank of Canada Governor Mark Carney to call out Canadian firms, blaming executives for the poor showing and urging them to increase investment.

Improving the country's performance is crucial for all Canadians and not just a theoretical exercise for economists, Bank of Canada governors, and consultants bearing flow charts.

"In the long run, our standard of living is based on the productivity of the country. It's that simple," says Andrew Sharpe, founder and executive director of the Ottawa-based Centre for the Study of Living Standards.

Canadian productivity has inched ahead by only about 0.7 per cent a year over the past decade. And in 2008, it actually shrank by 0.6 per cent, according to the Organization for Economic Co-operation and Development, which ranks this country's performance behind such economic basket cases as Greece and Spain. That same year, the United States, Canada's biggest trading partner, boosted its productivity by 1.3 per cent, widening an already large gap.

Toronto-Dominion Bank recently described Canada's record on productivity as appalling. If Canadian productivity growth remains sluggish over the next 10 years while an aging labour force expands at a projected annual rate of about 0.5 per cent, GDP will grow at only slightly more than 1 per cent a year, or about a third of its historic pace, calculates Craig Alexander, chief economist with the bank.

Slow growth would, in turn, hurt the ability of governments to raise sufficient revenues to meet the rising costs of health care, education and other social priorities. "This is why productivity is probably the No. 1 problem facing Canada today, from an economic perspective," Mr. Alexander says.

"My main worry is that Canada is becoming too resource-dependent and is not obsessing enough over human capital," says Tyler Cowen, an economics professor at George Mason University in Arlington, Va., who specializes in

globalization issues. "High resource prices have been good for Canada, but at the same time have given the country too easy a ride."

There are time-honoured ways to boost productivity, including increasing investment capital, reducing wages and making better use of technology. Failure to tackle the problem can sound the death knell for any company.

"Are there [Canadian] companies that have not succeeded because of productivity? Unfortunately, yes," says Robert Hattin, president of Edson Packaging Machinery in Hamilton.

Mr. Hattin believes many companies are not willing to invest enough to take advantage of growth opportunities presented by global markets. "It's a mindset within these companies, whether they are branch plants of multinationals or private companies. You have got to want to play. If you're scared of it, do your employees a favour. Sell your company to somebody who wants to make it grow."

If Mr. Carney is seeking an example of Canadian companies that are addressing the problem head on, he should come to Wabi, where Mr. Birnie and his team have discovered that improving productivity can be deceptively simple, even for smaller companies without access to huge amounts of capital.

When it comes to well-paid jobs, there aren't a lot of options in New Liskeard, a town of about 5,000 people and two Tim Hortons outlets, 500 kilometres north of Toronto. But Wabi's lean operating style has enabled the company to continue employing about 120 people.

Along the east wall of one factory on the site Wabi has occupied since 1912 is a shiny new steel door. The factory is the home of the company's mechanical business, which makes products including cages that carry miners down to the depths, as well as giant steel boxes called skips that are lowered into mine shafts, then filled with ore and rock and hauled back to the surface.

A Wabi team started looking for ways to improve the factory by drawing up "spaghetti diagrams" that track the flow of material that goes into assembling products.

The diagrams showed that steel and other raw materials were coming into the shop from the existing door on the west end of the L-shaped building at the same time as workers were trying to move finished products out through the same door.

"That was causing a huge mess," says vice-president Stan Gorzalczynski, noting that manufacturing had been done that way since Wabi started up.

So the company built a road on the east side of the property and installed a new door. Now the raw materials come in the east door and finished skips go out the other end. That has helped cut in half the amount of time it takes to fabricate a skip.

"In the end you look at that and say: 'Wouldn't you have done that in 1912?' " Mr. Gorzalczynski asks. "I'm embarrassed to say it took us nearly 80 years to decide a door was needed on the other end of the shop."

Revenue from the mechanical business has tripled since the productivity project began, Mr. Birnie says. His target for Wabi as a whole is to more than double revenue over the next five to six years to the \$40-million to \$50-million range. Revenue in 2009 was about \$18-million.

Mr. Birnie, who grew up in New Liskeard, bought the company in 1995 after retiring from accounting firm Grant Thornton LLP, where he was a member of the national policy board for 10 years.

Wabi is named after an Algonquin chief who established his camp at the head of Lake Temiskaming. The firm was founded in 1907 when two English entrepreneurs capitalized on the need for a repair shop and foundry to make parts for local steamboats and sawmills. The company took off as a mining supplier with the discovery of silver and other minerals in Cobalt, about 16 kilometres away.

The history is not lost on Mr. Birnie and Mr. Gorzalczynski. While the executives lead a visitor on a tour of played-out silver mines in Cobalt, Mr. Birnie scrambles to check out a rusted mining car to determine if it came out of Wabi's shop. It did.

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During the Second World War, under John McKay-Clements, one of the \$1-a-year men who donated their services as senior executives to help drive Canadian business during the conflict, Wabi turned out depth-charge racks and other war materials for the Royal Canadian Navy. The \$1 salary cheques Mr. McKay-Clements received in 1942, 1943 and 1944 are framed and adorn a small space in the art gallery attached to the company's head office.

These days, business is international and the pressure to shave costs and improve productivity is unrelenting.

A cheaper work force alone is not the answer.

"There is no advantage going to a place where wages are low, if you don't get good value for what you pay," says Brian Crowley, managing director of the Macdonald-Laurier Institute, a public policy think tank in Ottawa. "As a well-known economist used to say, if low wages were the issue, Haiti would be the manufacturing capital of the world."

The issue, Mr. Crowley contends, is cost relative to performance.

At Wabi, Mr. Gorzalczyński meets weekly with workers to kick around ideas to reduce waste and increase efficiency. Out of one of these meetings came an idea to reduce the time it takes to weld components.

The welding machines have a feeder that carries the wiring and the gas and holds the welding gun. Every time an operator shifted to a different location

the entire apparatus had to be moved. So an employee came up with the idea of suspending the welding machines and moving the parts to fixed stations, which cut as much as an hour out of the welding time.

"That's not management, that's the shop saying: 'This will work,' " Mr. Gorzalczynski says.

The linchpin of the productivity initiative at Wabi is a program called 5S - sort, straighten, sweep, standardize and sustain.

One aspect of 5S involved putting all tools in one location so workers don't have to wander around the shop looking for them. "Any time you have to go find something, you're not adding value," says manufacturing engineer Isaac Blount.

Shop floor employees now have the ability to view parts in 3D on computer screens in the factory, meaning workers don't need to walk 100 metres into the engineering office to check dimensions.

But Wabi officials weren't sure last year whether what they were doing was making things any better. So they hired Grant Thornton to quantify the gains and devise a more-rigid schedule for manufacturing.

"The sales grew and [they]didn't increase the work force. That's the equation we like to see," says Derrick Somers, project chief of productivity improvement for Grant Thornton.

Not surprisingly, Mr. Birnie is an apostle of productivity and lean manufacturing. *The Toyota Way*, a study of the auto maker's legendary production system, sits on a shelf in his office, next to *Six Thinking Hats*, written by innovation guru Edward de Bono.

"This is truly a business of pennies," Mr. Birnie says, speaking over the sound of a forklift grinding away in Wabi's yard. "How do you take 10 seconds out of an operation?"

He is convinced that Mr. Carney's hectoring about productivity, and that of his Bank of Canada predecessor David Dodge, is not as helpful to Canadian business as would be an increase in the budgets of Canadian trade offices in some foreign markets

But Mr. Sharpe of the Centre for the Study of Living Standards and a report from TD Bank both emphasize that Ottawa and some provincial governments have already put in place policies to encourage productivity, including lower taxes on capital, a stable inflation rate and more investment in education.

"It's the businesses that have to do it themselves," Mr. Sharpe says.

Edson Packaging Machinery's Mr. Hattin puts it in stronger language, saying that a change in mindset is vital if Canada is to build a robust economy and capitalize on the opportunities presented by rapidly expanding markets in China, India and elsewhere. "With all the challenges that globalization presents to us, we also get to compete in a [global]marketplace that is three times the size it was only 10 years ago. Canadians cannot watch on the sidelines, waiting for a better opportunity."

With files from Jeremy Torobin

Part of an occasional series on Canada's productivity challenge

Nuts and bolts

PRODUCTIVITY

At its most simple, productivity is defined as increases in output per hour worked. It's the production of a service or product with as few labour hours as possible, explains Robert Hattin, president of Edson Packaging Machinery in Hamilton. "To achieve that requires investment of time [people]and money [equipment and people development.]rdquo;

CANADA'S PERFORMANCE

Canada has been a laggard in productivity since the early 1970s. Between 1947 and 1973, productivity improved by more than 4 per cent annually. After 1973, the rate of improvement in productivity slowed to 1.6 per cent annually on average until 2000. Between 2000 and last year, it slumped again to just 0.7 per cent a year, data bordering on "catastrophe," according to Toronto-Dominion Bank.

HOW TO FIX IT

Experts agree that government policies in Canada have eliminated many barriers to productivity, including: major improvements in the fiscal positions of the federal and provincial governments; the elimination of capital taxes and other drags on business investment; trade agreements that have exposed Canadian companies to competition and forced them to become more productive. The key now is for business to invest in measures to improve productivity - such as new machinery and equipment - and work smarter, adopting best practices.

Greg Keenan

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