



Study

Productivity Matters: Benchmarking Your Company to Up Your Game

October 2016



Table of contents

- Summary..... 1
- 1. What is productivity?..... 2
- 2. What are the advantages of better productivity? 4
- 3. What is the situation of Canadian companies in terms of productivity? 9
- 4. How can entrepreneurs meet the challenge of productivity? 12
- 5. The business productivity benchmarking tool 16

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Summary

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of SMEs that formally and comprehensively measure productivity have seen their profits increase.

Canadian companies lag behind their American counterparts in terms of productivity. This gap is mainly the result of two factors: small and medium-sized businesses represent a greater share of the economy in Canada than in the United States, and their productivity is lower than that of large companies. Moreover, American businesses increase their advantage by investing more in information and communications technology.

So what can be done to reduce this gap with the United States and reverse the trend? In our opinion, Canadian small and medium-sized businesses should use formal processes to improve their productivity. A survey¹ of more than 1,500 Canadian entrepreneurs showed that less than half (46%) of Canadian small and medium-sized businesses formally measure their productivity. Furthermore, only 6% adopt formal comprehensive metrics and compare themselves with their peers.

Measuring and improving productivity generates tangible benefits. In fact, a third of respondents who have implemented formal and comprehensive measures to assess productivity indicated that this enabled them to increase their profits. The results of the survey also show that these companies have a better growth outlook compared to companies that do not use any productivity measures.

In order to help Canadian companies improve their productivity, BDC has developed, in collaboration with Statistics Canada, **the first productivity benchmarking tool** for Canadian companies. This online tool is easy to use and free. It allows you to position yourself in relation to other Canadian companies in your industry. We hope that many entrepreneurs will use it and be inspired by the results to deploy structured processes to continuously improve productivity.

The positive impacts will extend beyond the company. Nearly three-quarters of entrepreneurs² agree that greater business productivity would have a direct positive impact on the national economy as a whole.

1 BDC, Survey on the Productivity of Private Companies (Montreal: BDC, July 2016).

2 Ibid.

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What is productivity?

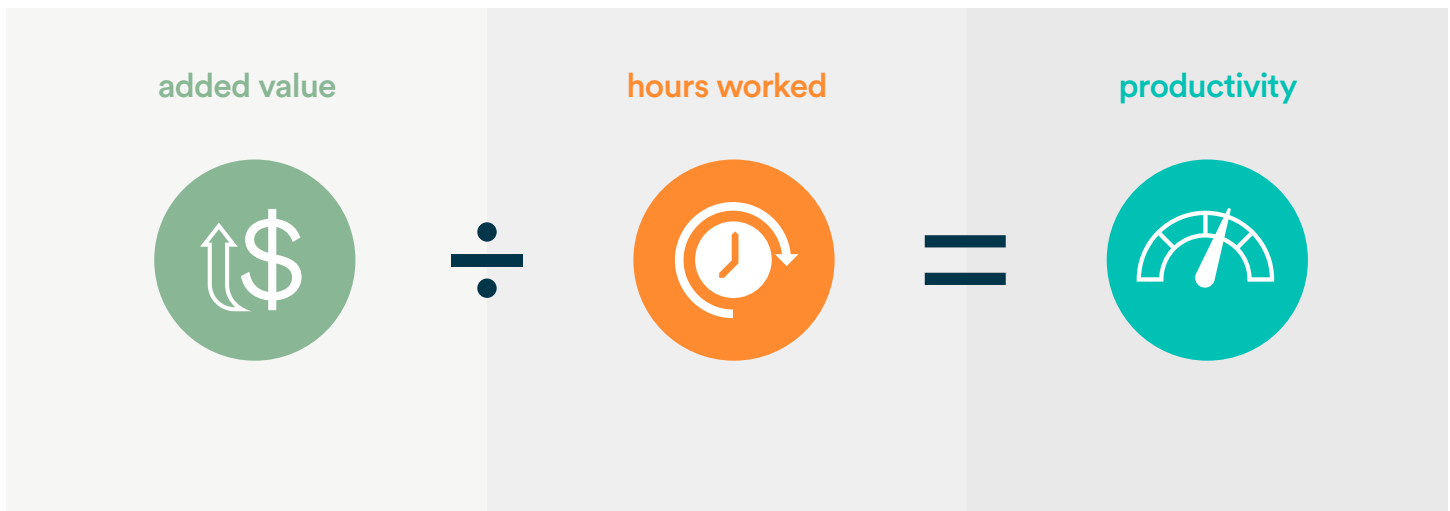
Productivity, first of all, is a performance indicator.

It is used to measure how efficiently a business, industry or national economy produces goods or services (“outputs”) from elements that go into the production process (“inputs”).

How is productivity measured?

Different ways of measuring productivity exist, but the simplest and most common is to calculate productivity of labour. This involves calculating the ratio between the **added value** obtained and the **number of hours worked**.

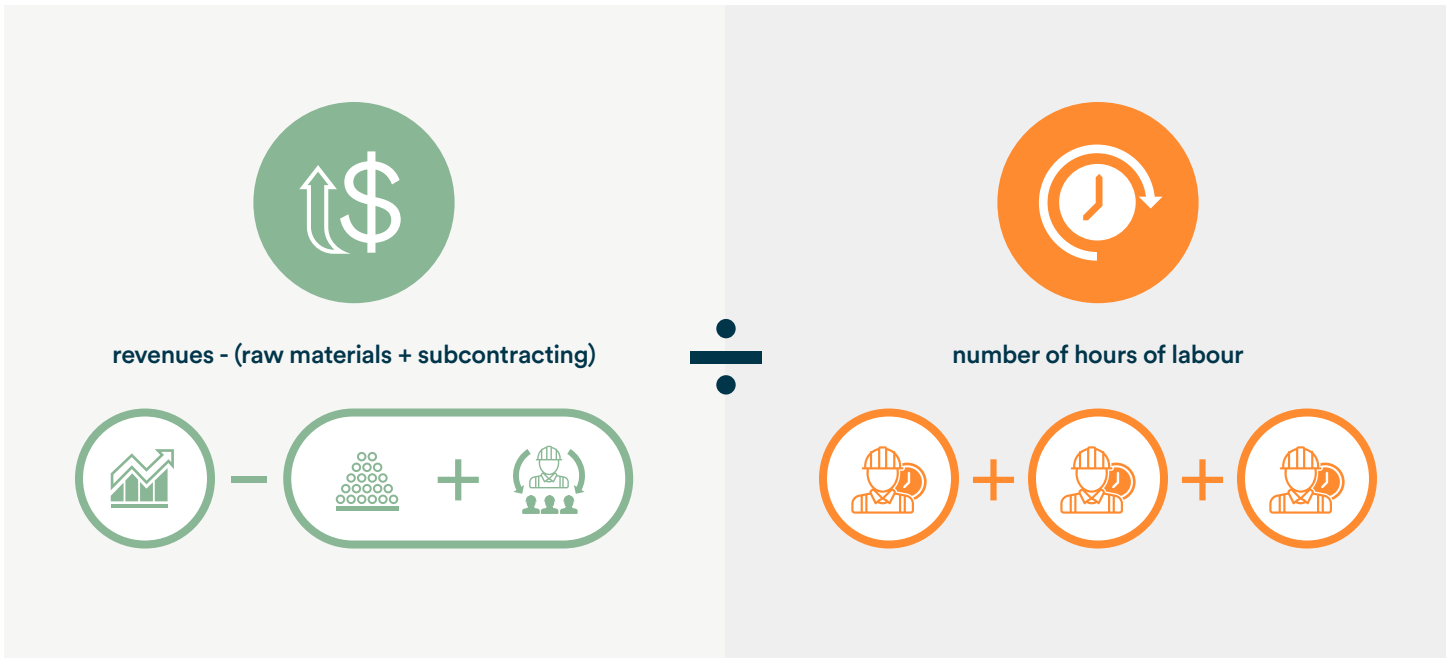
Measuring the productivity of labour



Calculating the overall productivity index

A more complex but more complete calculation method can also be used. It consists of taking into account all factors used in the production process which affect productivity to obtain an overall productivity index. For example, a better training program, the use of more advanced technologies or better production processes can all have positive impacts on the overall productivity.

Measuring the added value³



Example: Calculation of the productivity of labour for an auto parts manufacturer⁴



³ The company's added value can also be calculated by adding the remuneration of labour to the remuneration of capital, through the equation "wages + (profits + deduction for depreciation)."

⁴ This calculation is provided only as an example; it does not indicate low or high productivity.



What are the advantages of better productivity?

Concrete impacts for Canadian small and medium-sized businesses

Increasing productivity—that is, producing goods and services more efficiently—is a **fundamental requirement** for maintaining or increasing a company’s profitability and strengthening its competitive position.

The entrepreneurs we interviewed confirmed this. They told us that improving productivity produces real gains. Based on our survey,⁵ here are the five main positive impacts generated by deploying efficiency metrics.

Figure 2.1 – Improving productivity: Main impacts, according to Canadian entrepreneurs



Source: BDC, Survey on the Productivity of Private Companies (Montreal: BDC, July 2016).

The equation is simple: When revenues increase faster than production costs, including payroll, the productivity of the business will increase. The same goes for profitability and, as a result, the chances of survival of the business.⁶

⁵ For more details on this survey of 1,504 Canadian entrepreneurs, see <https://www.bdc.ca/surveyresults>.

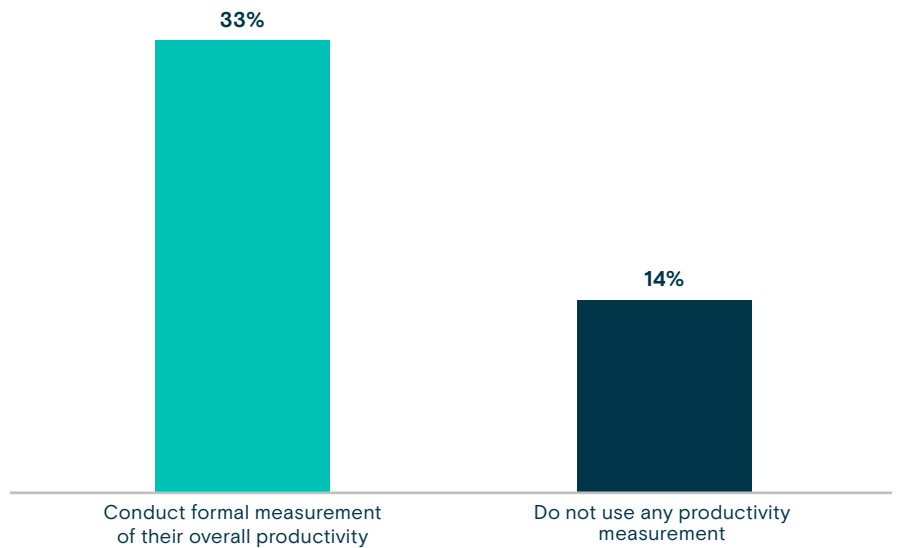
⁶ Syverson, C. (2011), “What Determines Productivity?”, *Journal of Economic Literature* 2011, 49:2, 326–365.

Companies that measure their productivity anticipate higher growth

The more structured and complete the productivity evaluation process, the better a company's sales growth outlook over the next three years.

Among the companies that measure their overall productivity, 33% forecast annual growth of **more than 10%** over the next three years, compared to only 14% of companies that use no measurement.

Figure 2.2 – Companies that anticipate annual growth of more than 10% over the next three years



Source: BDC, Survey on the Productivity of Private Companies (Montreal: BDC, July 2016).

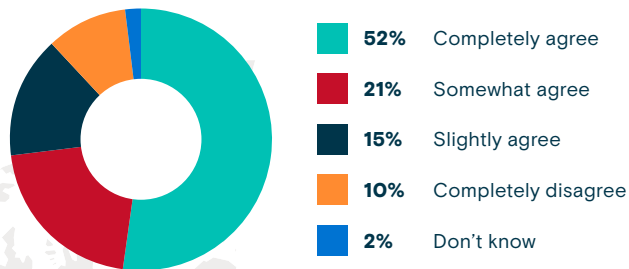
73%

Nearly three-quarters of entrepreneurs agreed that “if productivity of private companies increases, this will have a direct positive impact on the Canadian economy”.

Concrete impact on Canadians’ standard of living

Just as it has favourable concrete impacts for businesses, productivity improvement has positive impacts on Canadians’ standard of living.

Figure 2.3 – An increase in business productivity will have a direct positive impact on the Canadian economy according to nearly three-quarters of entrepreneurs



Source: BDC, Survey on the Productivity of Private Companies (Montreal: BDC, July 2016).

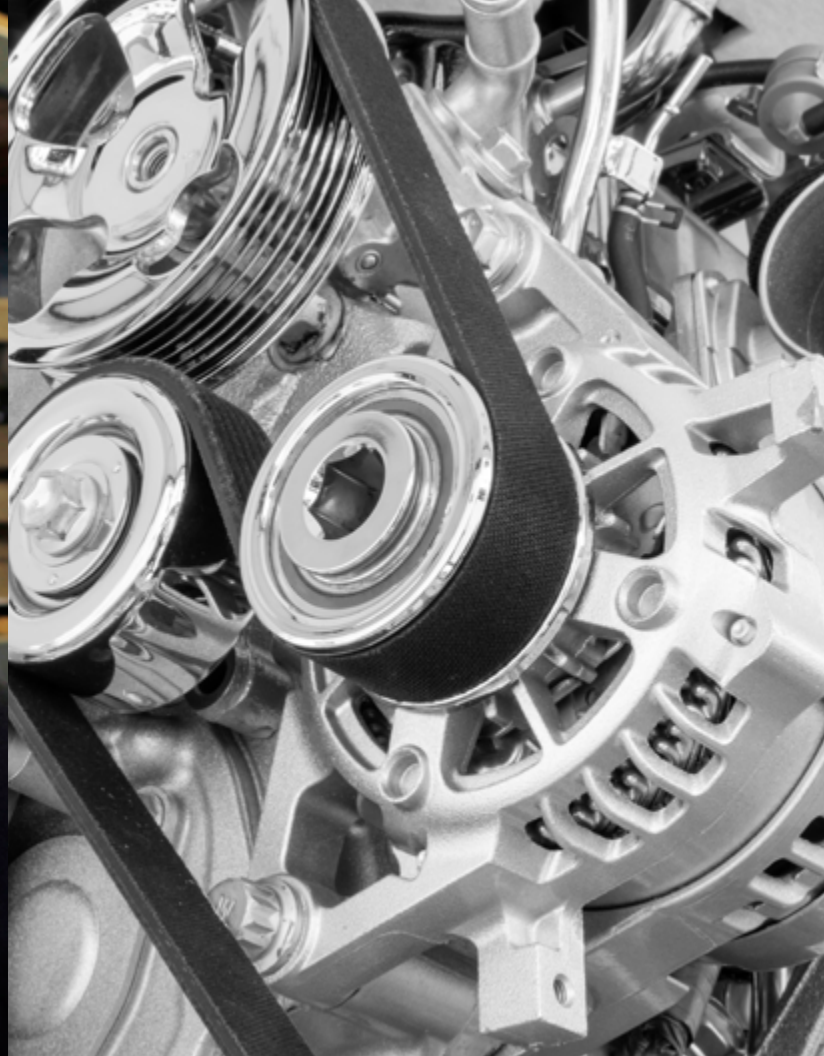




O'Leary's Ltd.

O'Leary's Ltd. is an Ottawa-based company that specializes in the construction of roads, expressways and sidewalks. It has 60 employees. This company undertook an Operations Optimization Potential assessment with BDC—including an audit of key performance indicators, as well as an analysis of operations profitability and waste—which gave it a complete picture of its overall performance. Among the projects identified, the one with the most benefits for the company was process optimization. This project helped simplify processes, reduce errors, better define roles and responsibilities, and improve workflow.

O'Leary expects to reduce order processing times by close to 30%. The company has defined new processes, roles and responsibilities, and is now well positioned to continue pursuing continuous improvement. Furthermore, O'Leary's has decided to invest in process automation.



DFC Diesel Inc.

DFC Diesel is an Edmonton-based company that reconditions diesel engines, which are then sold to auto repair shops, dealerships and resellers throughout North America. The company aims to build engines of the highest possible quality and to offer the most comprehensive warranty in the industry, while providing a cost-effective option to purchasing engines from dealerships.

DFC Diesel undertook an Operations Optimization Potential assessment with BDC—including an audit of key performance indicators, and an analysis of operations profitability and waste—which gave the company a complete picture of its overall performance. It was determined that the key projects that would have the biggest impact on the company were productive supervision training, workplace organization and the implementation of a performance dashboard that would enable the firm to establish a culture of continuous improvement.

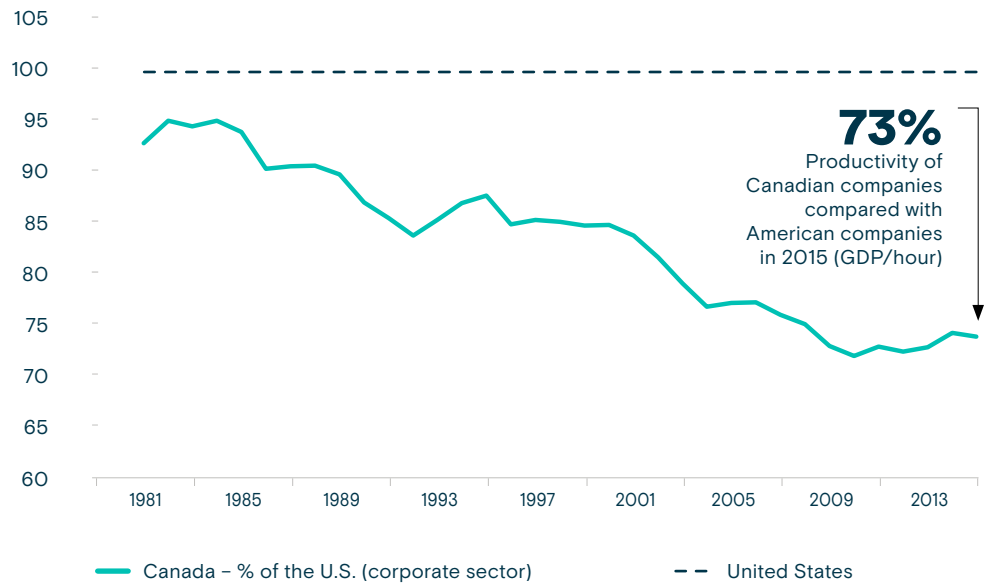
Through this approach and its operational efficiency projects, DFC Diesel increased its production capacity by 20%. Furthermore, DFC Diesel's revenues grew by 5% in an economy where performance at similar companies declined by 35%. The company is now able to move forward on its continuous improvement process.

3

What is the situation of Canadian companies in terms of productivity?

Canada enjoys one of the highest standards of living in the world. However, the overall productivity rate of businesses as a whole has declined over recent decades. This is even more evident in comparison to our main trading partner, the United States.

Figure 3.1 – Productivity level of Canadian companies compared to their American competitors

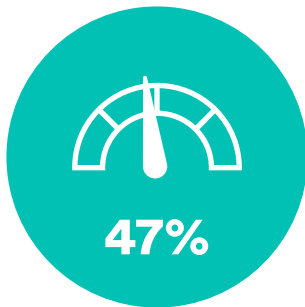


Source: Centre for the Study of Living Standards.

United States



Canada

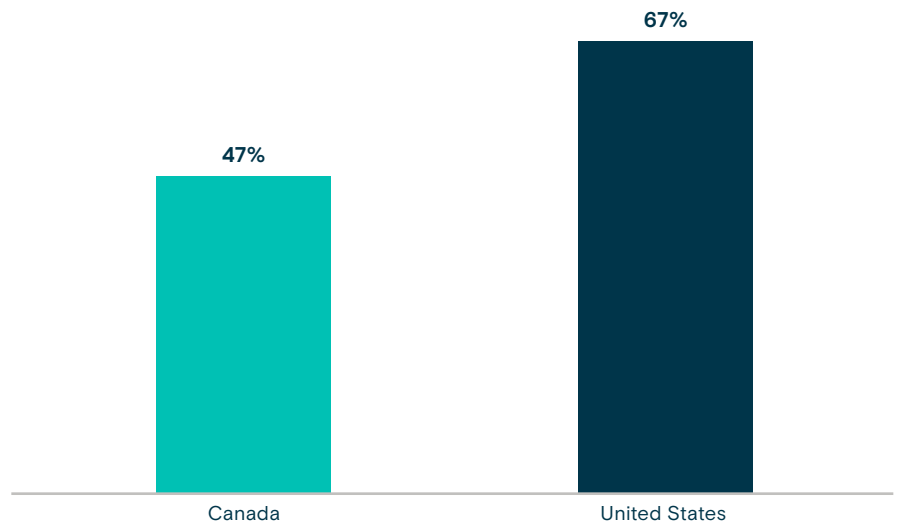


What is the reason behind the gap in productivity between Canada and the United States?

This gap is mainly attributable to the combination of two factors: the relative weight of small and medium-sized businesses is greater in Canada than in the United States, and their productivity is lower than that of large companies. Moreover, American businesses are increasing their advantage by investing more in information and communications technology (ICT).

- **Lower productivity of Canadian small and medium-sized businesses**— In the United States, the productivity of small and medium-sized businesses is 67% that of large businesses. In Canada, this proportion is reduced to 47%.

Figure 3.2 – Productivity of small and medium-sized businesses relative to that of large businesses

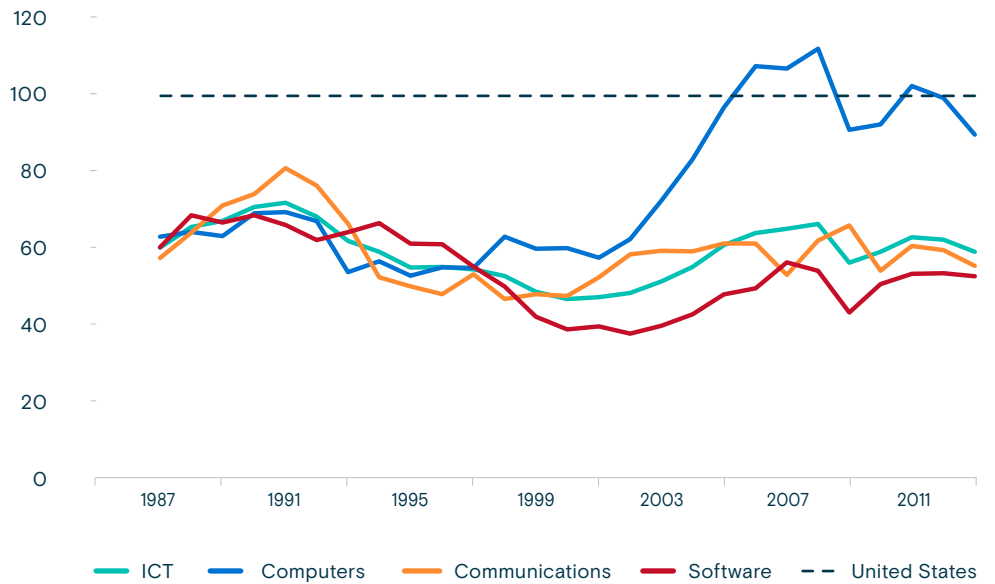


Source: Statistics Canada, *Canada–United States Labour Productivity Gap Across Firm Size Classes* (Ottawa: Statistics Canada, 2014).

- **Relative weight of small and medium-sized businesses is greater in Canada than in the United States**—Small and medium-sized businesses account for 53% of GDP in Canada, compared to 46% south of the border.

→ **Underinvestment of Canadian companies in ICT**—In 2013, Canadian firms' investments in ICT were slightly above half (56%) of those made by American companies.⁷

Figure 3.3 – Investments in ICT by Canadian companies compared with American companies



Source: Centre for the Study of Living Standards.

→ **Underrepresentation in Canada of companies that invest massively in ICT**—The weight of these sectors relative to the economy as a whole is clearly greater in the United States than in Canada.

→ **Canada's competitive environment makes companies less likely to invest and innovate**—Some researchers⁸ hypothesize that American companies face greater competition than Canadian companies, which compels them to invest and innovate more.

⁷ Based on data from the Centre for the Study of Living Standards, 2015.

⁸ M. Souare, *Role of Competition in the Canada-U.S. Productivity Gap: Empirical Evidence from Industry Panel Data*, Working Paper 2008-06 (Ottawa: Industry Canada, 2008).

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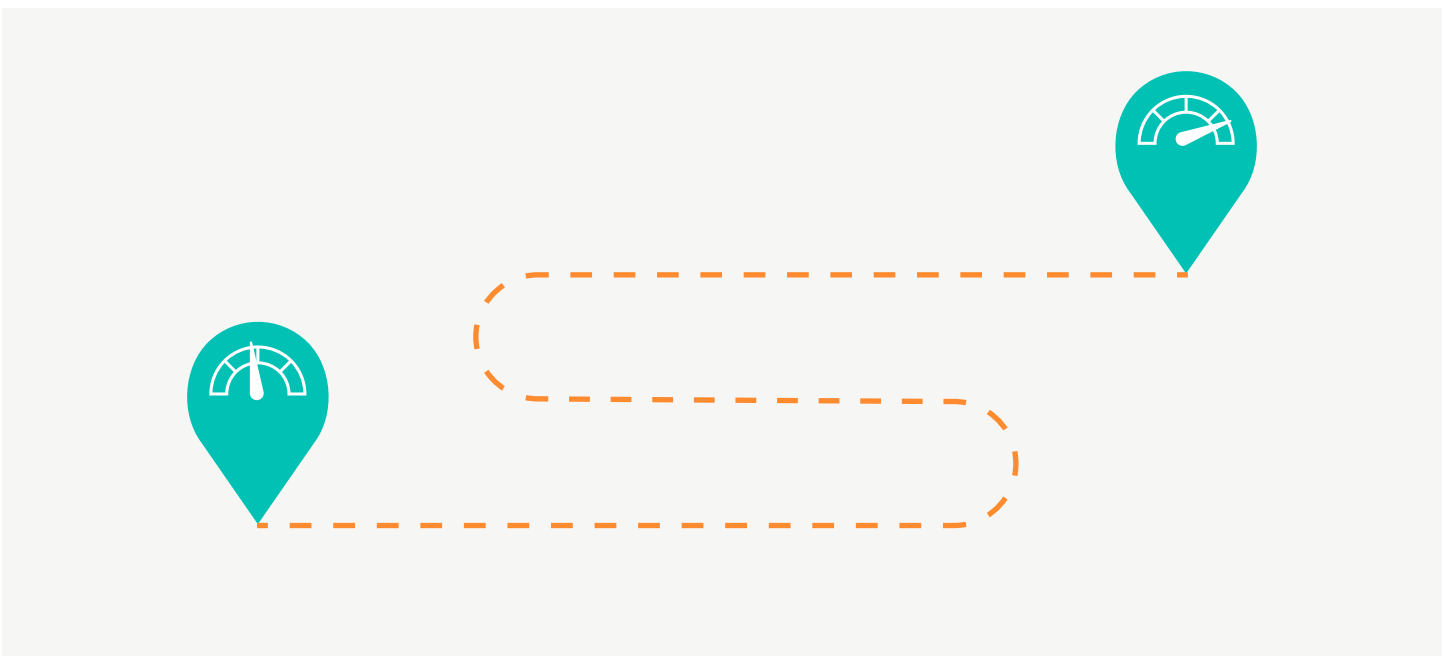
How can entrepreneurs meet the challenge of productivity?

Any business that wants to improve its productivity must first measure it and compare it with that of other firms.

After finding that Canadian businesses are less productive than their American counterparts and identifying the main causes of this phenomenon, including underinvestment in ICT, we must look at ways to encourage more businesses to improve efficiency.

Starting point: Measuring and comparing productivity

To improve, we need to know what does not work well and requires special attention. Any business that wants to improve its productivity must first measure it and compare it with that of other firms.



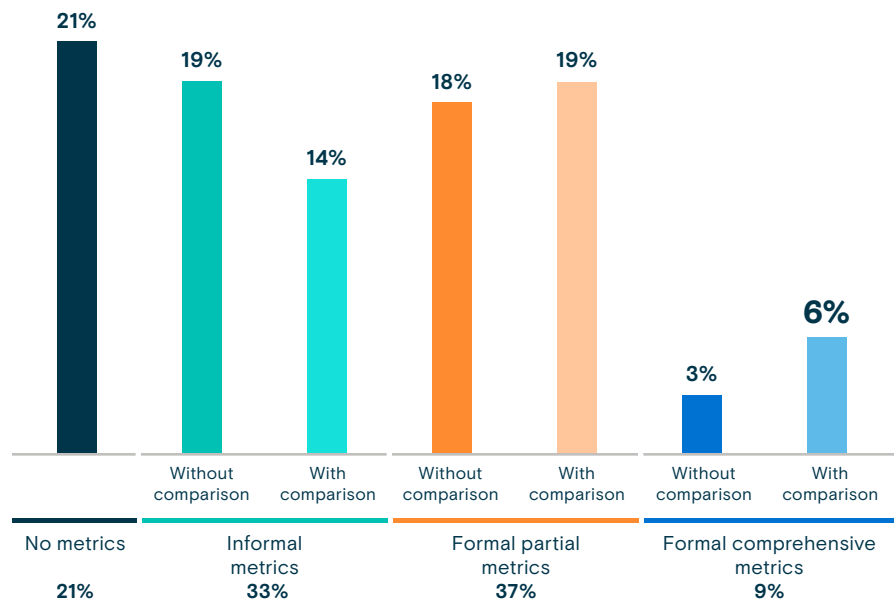
6%

of Canadian small and medium-sized businesses have formal comprehensive metrics and compare themselves with their peers.

Too few Canadian small and medium-sized businesses measure and benchmark their productivity

Even though eight out of 10 entrepreneurs surveyed said it is important to measure and benchmark their productivity, **only 6% of Canadian small and medium-sized businesses have formal comprehensive metrics and compare themselves with their peers.**

Figure 4.1 – Productivity measurement in Canadian small and medium-sized businesses



Source: BDC, Survey on the Productivity of Private Companies (Montreal: BDC, July 2016).

Observation of competitors' and their industry's financial ratios, as well as the comments of clients and employees who have worked for competitors, are among the informal productivity metrics used by small and medium-sized businesses. Examples of formal partial metrics include sales per employee or volume of work per hour. Businesses with formal comprehensive metrics regularly track all their activities—using dashboards, for example—and account for all their resources, both human and material.

Several reasons motivate CEOs to measure their companies' productivity. The two main reasons are the desire to improve continuously (according to 63% of respondents) and the desire to track the company's progress over time (61%).

Measuring and comparing productivity is a first step that leads entrepreneurs to take concrete actions on improvement. The following are main strategies small and medium-sized businesses use to improve their efficiency.

Figure 4.2 – Main strategies for improving productivity



Source: BDC, Survey on the Productivity and Efficiency of Private Companies (Montreal: BDC, July 2016).

The Eight Wastes

Waste of resources is one of the main causes of inefficiency within a company. According to BDC's operational efficiency experts, there are eight main sources of waste. Those illustrated here pertain more to the manufacturing sector, but some could also apply to service delivery.



OVERPRODUCTION

- Producing sooner or in greater quantity than what is required by the process that follows



WAITING

- A worker who waits
- An idle machine that should be operating



TRANSPORT

- Moving parts and products unnecessarily because of excessive distance between workstations



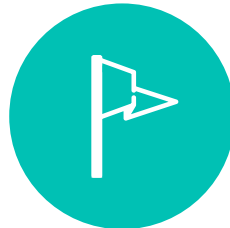
INEFFICIENT OPERATIONS

- Unnecessary or non optimal operations



INVENTORY

- Having more inventory than what is required in a pull system



MOTION

- Workers straining or making unnecessary movements



NON-QUALITY

- Correction: inspection, rework and scrap



POOR DESIGN

- A poorly designed product that takes more time to produce than originally planned
- A product containing materials that are not adapted to the client's needs

5

The business productivity benchmarking tool

In collaboration with Statistics Canada, BDC has developed the first productivity benchmarking tool custom-made for Canadian companies. This online tool, available at bdc.ca, is easy to use and free.

A custom-made tool for Canadian companies

Our survey exposed a major obstacle to improving productivity in Canadian small and medium-sized businesses: the absence of formal and complete measurement processes.

In just a few minutes, you can do the following:

→ position your company in relation to the other Canadian companies in your industry on the following five indicators:

①. overall efficiency level

②. revenue per employee

③. profit per employee


④. productivity of labour

⑤. productivity of capital

→ discover your potential to improve productivity

→ obtain a printable report of your results, which you can refer to at any time

We hope many of you will use this tool and be inspired by the results to use structured processes to continuously improve productivity.



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Evaluate your company's productivity

Canadian Business Productivity Assessment Tool

Entrepreneurs who want to measure their productivity and benchmark it against their peers will find this tool useful.

How efficient are you at generating revenues based on your current human resources and fixed assets? Are you as efficient as the most productive firms in your industry? Do you generate enough profits?

Measuring your level of productivity (in other words, your "efficiency") vis-à-vis all **Canadian businesses** operating in the same industry as you is only the first step. The next steps are up to you to discover.



3 reasons to use the tool

- **Compare your business**
With Canadian businesses in your industry
- **Learn from the experts**
On how to improve efficiency
- **Discover our solutions**
To help your business grow

Start



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financing.
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