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Automation

A process that is far
from automatic for
Quebec SMEs

December 2023

Highlights

- 66% of Quebec SMEs are directly affected by labour shortages
- 4 out of 10 SMEs are adopting or exploring automation
- Automation adoption is inversely proportional to business size
- 7 out of 10 SMEs are using automation to improve productivity
- 3 out of 10 SMEs would invest in automation if their taxes were reduced
- 1 out of 2 SMEs say cost is the main barrier to automation
- 2 out of 3 SMEs are unaware of programs aimed at helping businesses to adopt automation

Introduction

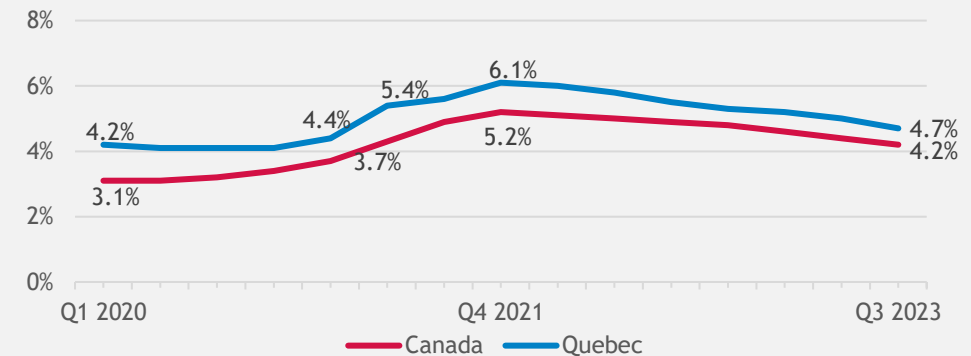
For several years now, all sectors of the Canadian economy have been experiencing labour shortage. Following sustained pressure starting in early 2021, the private sector job vacancy rate rose to 5.2% in the first quarter of 2022. Despite a subsequent downward trend, it remains a major challenge, with a recorded job vacancy rate of 4.2% for Q3 2023 (Figure 1).

The situation is particularly serious in Quebec, where the job vacancy rate (4.7%) far exceeded the national average (4.2%) in Q3 2023. According to CFIB's most recent national survey on the topic (September 2022), 66% of Quebec SMEs are directly affected by labour shortages, compared to 59% across Canada.

Faced with this reality, SMEs are looking for ways to adapt and process automation stands out as the most effective solution. A survey conducted by CFIB in September 2021 identified automation—the use of technology and machines to perform tasks or processes where human input is minimized—as a promising option: 33% of SMEs had invested in automation, with a success rate of 81%.¹

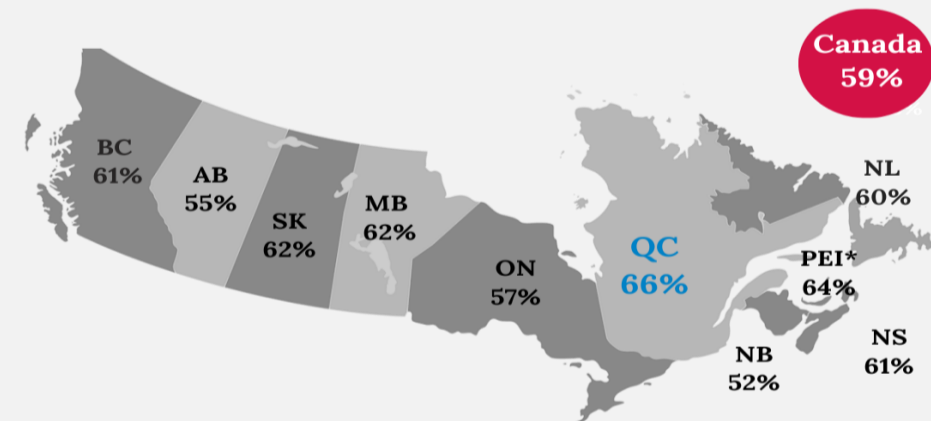
This report looks at the adoption of automation by Quebec small businesses, the obstacles they have encountered, and their future plans in this area.

1. The job vacancy rate remains historically higher in Quebec



Source: CFIB, Your Business Outlook survey, Q1 2020 to Q3 2023. Seasonally adjusted data.

2. Quebec is the province hardest hit by labour shortages



Source: CFIB, Your Voice - September 2022 survey, September 8-26, 2022, n = 3,489.

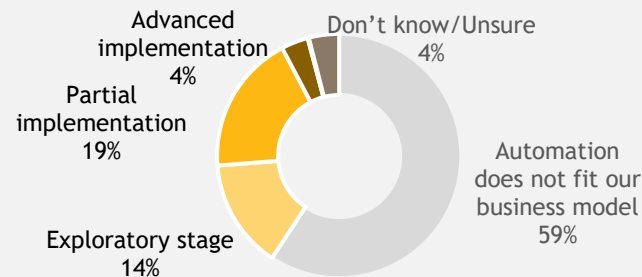
Automation adoption has been slow and varied



Canadian small businesses have been gradually embracing automation

Nearly 4 in 10 Canadian SMEs are at various stages of their automation journeys (Figure 3), while the rest say that automation does not fit their business model. Overall, 14% are in the exploratory stage or considering their options but have yet to implement any automation, while 19% have partially implemented automation in certain tasks or processes and believe they can do more. Meanwhile, 4% say they have implemented automation extensively across multiple tasks and processes.

3. Among Canadian SMEs, 37% have started automating their processes



Source: CFIB, Your Voice survey, July 6-25, 2023, n = 1,138.

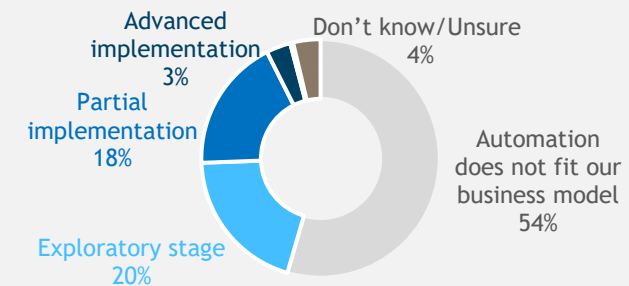
Question: Automation is the use of technology and machines to perform tasks or processes where human input is minimized. At what stage would you say your business is at in terms of automating tasks and processes? (Select one)



Quebec takes the lead

Compared to Canada as a whole, Quebec has taken the lead in automation. This is likely a reflection of the province's tight job market driving more small businesses to automate their activities. In fact, more Quebec SMEs (20%) are interested in automation and exploring its implications. However, numbers vary significantly by business sector and size.

4. 4 out of 10 Quebec SMEs are exploring and implementing automation



Source: CFIB, Your Voice survey, July 6-25, 2023, n = 512.

Question: Automation is the use of technology and machines to perform tasks or processes where human input is minimized. At what stage would you say your business is at in terms of automating tasks and processes? (Select one)

Automation: A process that is far from automatic for Quebec SMEs

The sectors most affected by labour shortages are more interested in automation, except for hospitality and construction

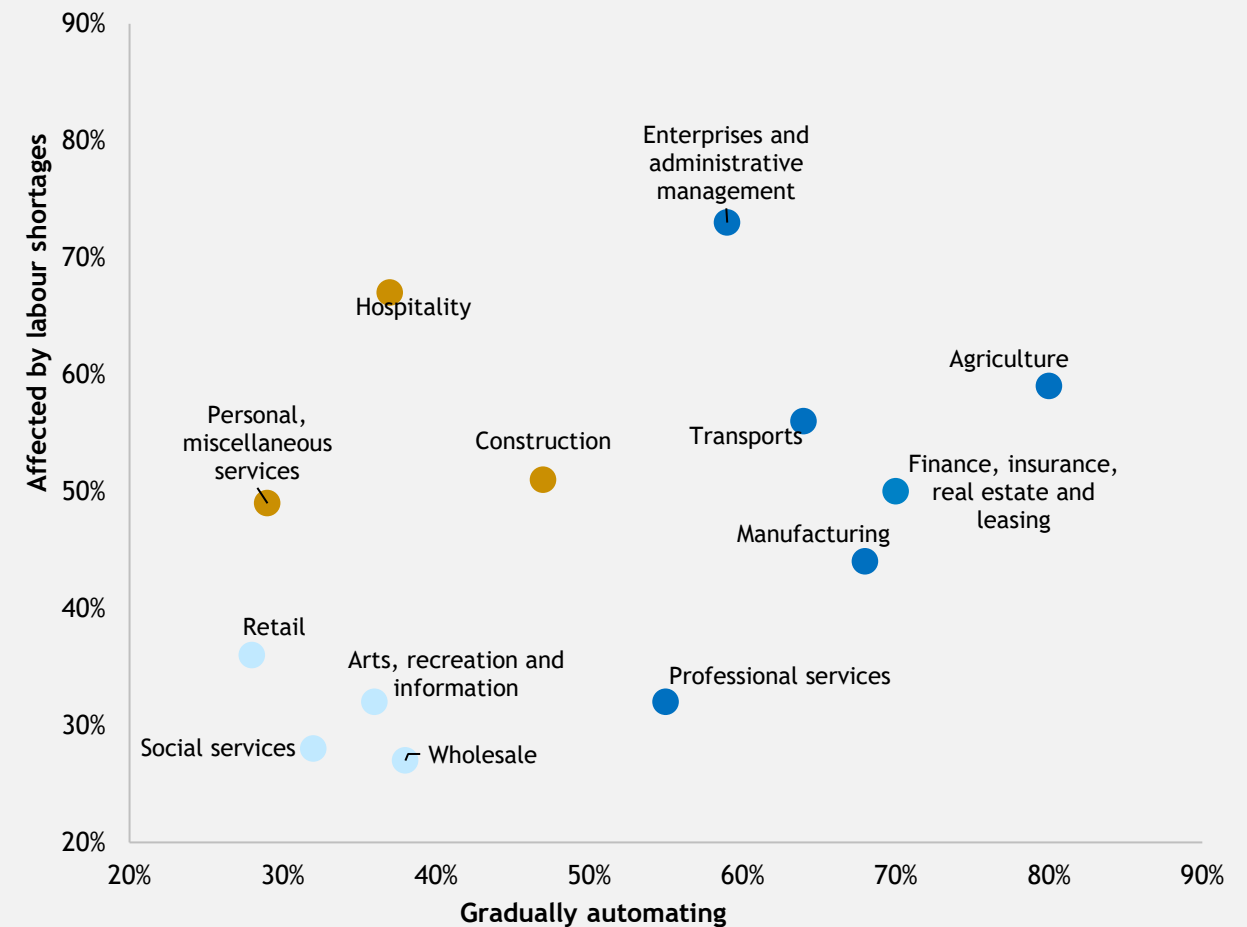
When analyzing the impact of labour shortages on automation plans in Quebec, it quickly becomes apparent that some sectors are responding effectively by gradually automating their processes. The agriculture sector, where 59% of SMEs are affected by labour shortages, has seen a clear trend toward automation (80%) (Figure 5). The same applies to finance and insurance, manufacturing, and enterprise and administration management.

Quebec businesses in the hospitality, construction, and personal services sectors are struggling to compensate for labour shortages with automation. In contrast, the wholesale, retail, social services, and arts, recreation, and information sectors—which are relatively unaffected by labour shortages—are moving toward automation at a moderate pace. The degree to which automation has been adopted to compensate for the labour shortage also varies by business size.

“We are currently automating some of our processes. We believe this will increase our productivity significantly and will continue to invest in this area in the coming years.”

Business owner - Manufacturing, Quebec

5. The most affected sectors in Quebec are increasingly moving toward automation



Sources: 1) CFIB, Your Voice survey, July 6-25, 2023, n = 512.

2) CFIB, Your Voice survey, September 8-26, 2022, n = 577.

Automation: A process that is far from automatic for Quebec SMEs

Smaller Quebec businesses are less likely to adopt automation while mid-size businesses are increasingly doing so

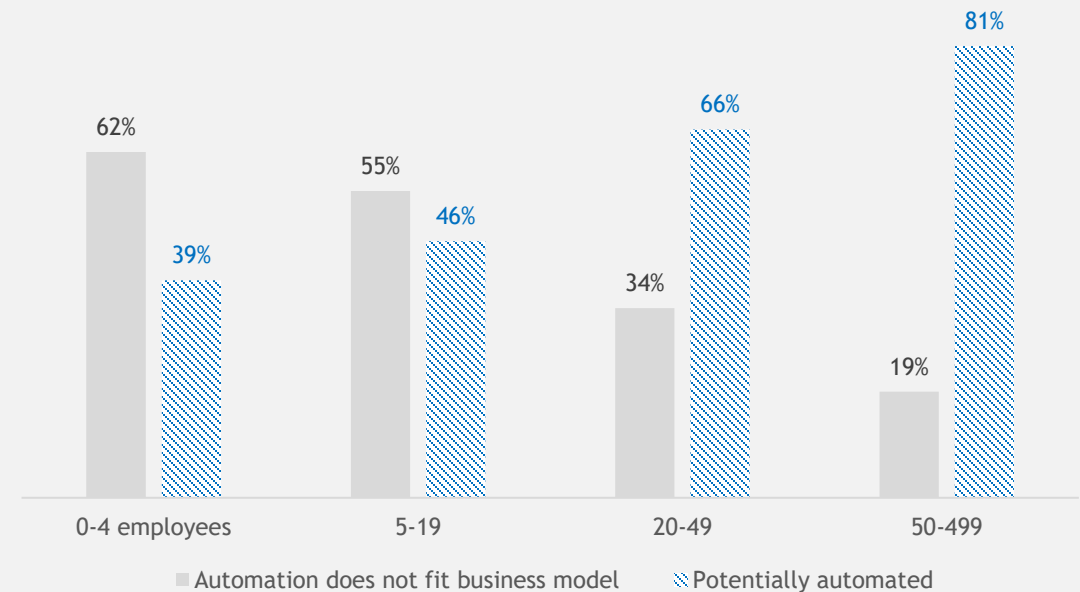
An analysis of automation adoption by business size reveals a notable trend: the bigger the firm, the higher the rate of adoption. The smallest businesses, especially micro-businesses (0-4 employees), generally consider that automation does not fit their business model, while mid-size firms are much more receptive to automation.

Overall, 62% of SMEs with 0 to 4 employees say that automation does not fit their business model (Figure 6). This number decreases as the number of employees increases, dropping to 19% for the largest SMEs (50 to 499 employees). This difference highlights the importance of taking business structure into account when implementing programs to support the adoption of automation.

“We have lots of ideas for automation, but with the labour shortage, we don’t have time.”

Business owner - Professional services, Quebec

6. Automation adoption is **inversely proportional to business size** in Quebec



Source: CFIB, Your Voice survey, July 6-25, 2023, n = 512.

Question: Automation is the use of technology and machines to perform tasks or processes where human input is minimized. At what stage would you say your business is at in terms of automating tasks and processes? (Select one)

Note: Total may not add up to 100% due to rounding.

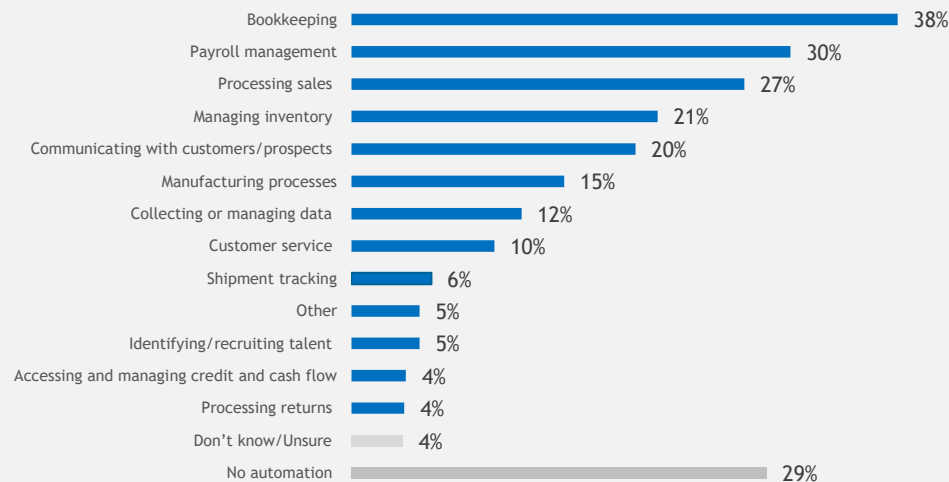
Reasons for adopting automation



Tasks that are most suitable for automation in SMEs

Many Quebec small businesses have automated their accounting and inventory management processes. Overall, 38% have successfully automated their accounting processes, followed closely by payroll management (30%), and sales processing (27%) (Figure 7). In addition, 21% of SMEs have chosen to automate their inventory management, while 20% are using automation to manage their customers and communicate with prospects. It should be noted that the applications of automation vary considerably from one SME to another, as do the reasons for adopting it.

7. Accounting, sales, and inventory management are increasingly automated



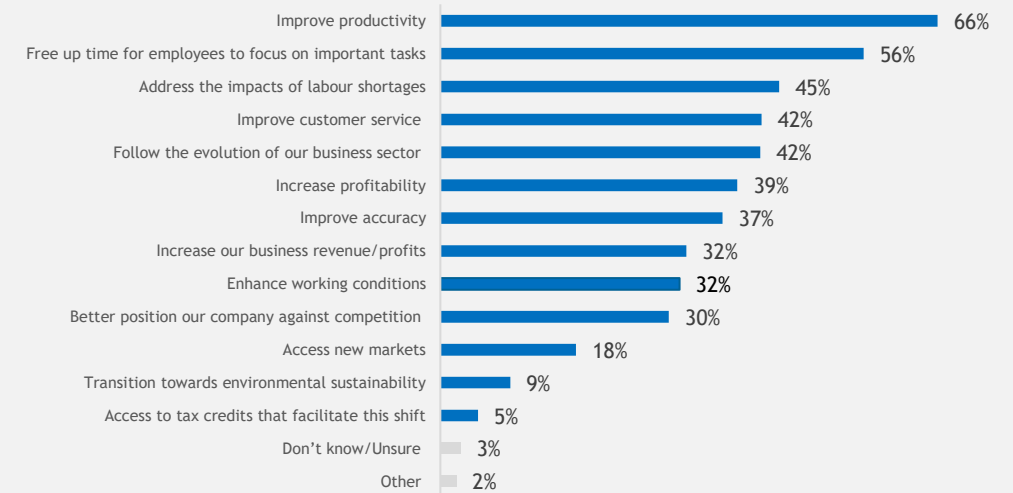
Source: CFIB, Quebec Omnibus Survey, April 20 to May 31, 2023, n = 852.



Reasons for embracing automation

Improving productivity is the main reason for embracing automation. Overall, 66% of Quebec SMEs say their primary objective in automating processes is to increase their operational efficiency and 56% are aiming to free up time for their employees to focus on higher-value tasks. Moreover, 45% of SMEs view automation as a strategic response to the pressure resulting from staff shortages.

8. Improving productivity is a key motivation



Source: CFIB, Quebec Omnibus Survey, April 20 to May 31, 2023, n = 564.

Investing in automation: A growing priority for Quebec SMEs

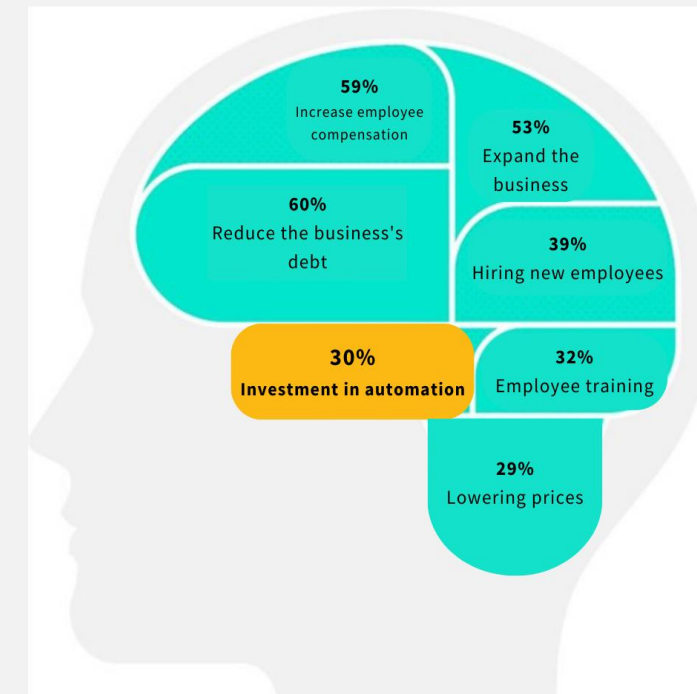
More and more Quebec SMEs are investing in automation

When CFIB's Your Voice - September 2022 survey asked Canadian SMEs what they would do with the savings generated if the overall tax burden were reduced, 21% said they would invest in automation.² It is noteworthy that this proportion remained stable when we measured it again in July 2023.

Upon closer examination of the September 2022 data, compared to the Canadian average, an even greater proportion of Quebec small businesses (30%) said they would invest in automation if their tax burden were reduced. This trend was maintained in July 2023 (30%), clearly demonstrating that compared to the national level, automation is particularly top of mind for Quebec SMEs.

It cannot be stated enough: investing in automation is becoming increasingly important to businesses. By extension, the need for greater government support is more pressing than ever. This is all the more relevant in view of the many challenges that SMEs face as a result of competition, labour shortages, and economic pressures.

9. 3 out of 10 SMEs would invest in automation if their taxes were reduced



Sources: CFIB, Your Voice survey - July 2023 and Quebec Omnibus Survey-April 2023, n = 771.

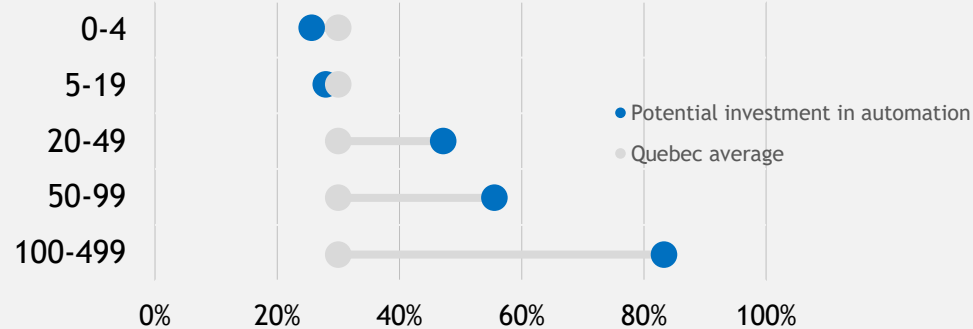
Question: If governments were to reduce the overall burden of taxes and fees, what would your business do with the savings generated? (Select all that apply)

Larger Quebec SMEs and those dependent on manual work are leading in automation

As mentioned above, micro-businesses are very reluctant to invest in automation, largely because they believe it is incompatible with their business model. Such investments would also represent a substantial share of small business budgets.

On the other hand, businesses that employ between 20 and 499 people tend to show the most interest in automation and are most likely to consider major investments should their tax burden be reduced.

10. Larger companies are most likely to be considering investing in automation

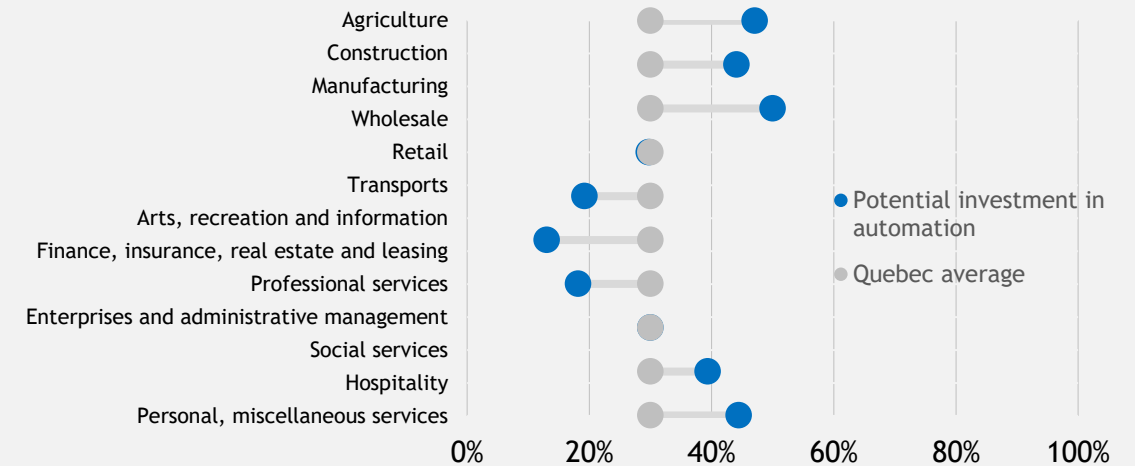


Source: CFIB, Your Voice survey, July 6-25, 2023, n = 530.

Question: If governments were to reduce the overall burden of taxes and fees, what would your business do with the savings generated? (Select all that apply)

As illustrated in Figure 11, manufacturing (50%), agriculture (47%), and construction (44%) businesses are most likely to be considering investing in automation should their taxes be substantially reduced. This is in stark contrast to the transportation, finance and insurance, and professional services sectors, where human input continues to dominate most activities.

11. The situation is similar for SMEs in agriculture, wholesale, and construction



Source: CFIB, Your Voice survey, July 6-25, 2023, n = 530.

Question: If governments were to reduce the overall burden of taxes and fees, what would your business do with the savings generated? (Select all that apply)

The costs of automation are significant for SMEs

Small businesses face a number of challenges when considering automation. First, the majority (47%) say the costs of this transition are too high. This goes a long way to explaining the gap between companies of different sizes. Consequently, an important way to support SMEs would be to work on amortizing these costs.

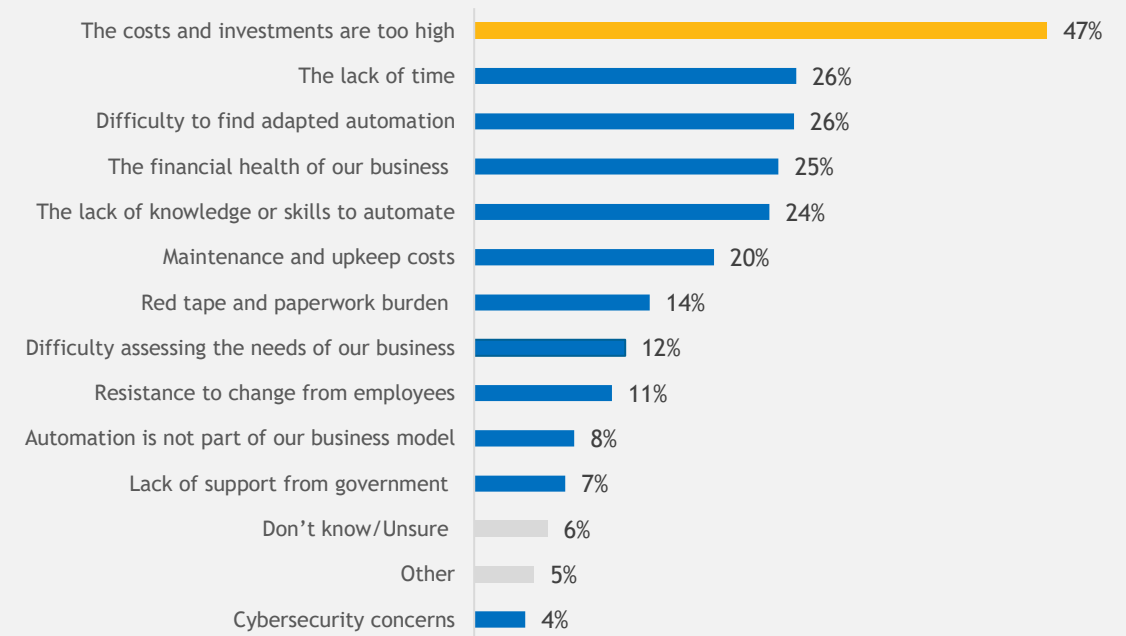
Beyond financial considerations, many businesses also pointed to the lack of time (26%) required to fully engage in the automation process. The difficulty in finding the right automation solution for the firm's specific needs is another frequently cited challenge.

Finally, the lack of necessary knowledge or skills and the financial health of the business are also obstacles to automation for one quarter of SMEs.

“Getting started is very costly, and it doesn't become efficient overnight.”

Business owner - Manufacturing, Quebec

12. 1 out of 2 SMEs say cost is the main barrier to automation



Source: CFIB, Quebec Omnibus Survey, April 20 to May 31, n = 564.

Question: What are the main challenges in making the switch to automation? (Select a maximum of three responses)

A strong need to spread awareness about existing programs

Quebec has many programs to help small businesses in their shift to automation. Alarming, on average, nearly two thirds of Quebec SMEs are unaware of the assistance programs that are available to support businesses through this vital transformation (Figure 12).

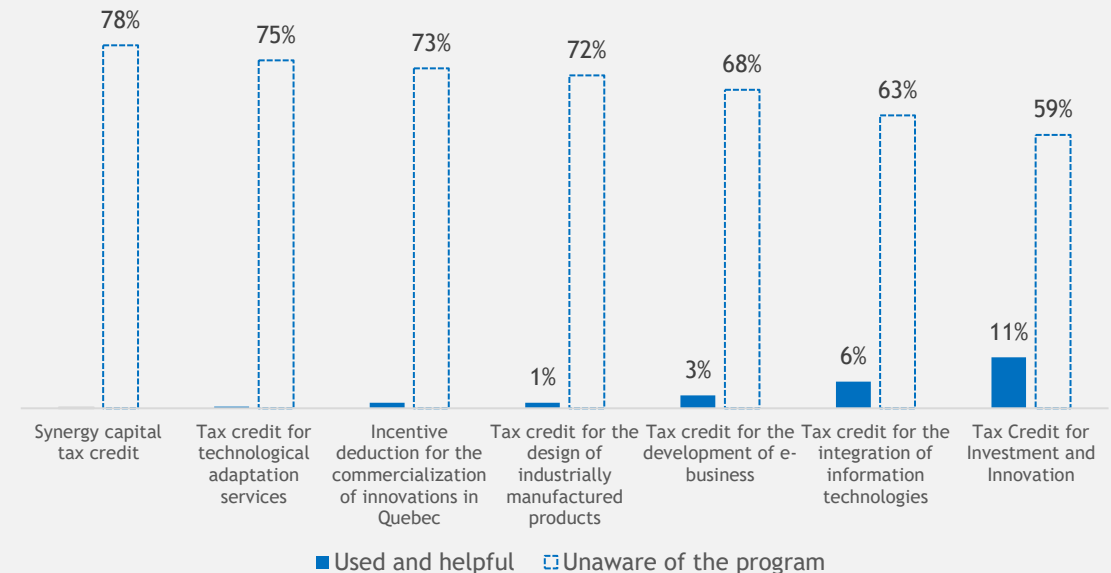
The only program that SMEs are aware of (11%) is the tax credit for investment and innovation. Some SMEs also know and make use of the tax credit for the integration of information technologies (6%). Firms operating in manufacturing, professional services, and agriculture are the most aware of the various programs in place to support innovation.

An in-depth awareness campaign is sorely needed to inform small businesses about the government resources and initiatives designed to encourage automation. Moreover, intensifying and diversifying these efforts is of vital importance given that most SMEs find the costs of automation prohibitive. These initiatives will help foster the adoption of automation by Quebec SMEs, which will in turn stimulate innovation, improve business productivity, and help address the challenges posed by labour shortage.

“None of our automation plans are eligible for the available programs. The programs are inflexible and do not help SMEs seeking to automate certain services, even though this would make all the difference to our profits and our customer service.”

Business owner - Arts, recreation, and information, Quebec

13. On average, nearly 2 out of 3 SMEs are unaware of programs aimed at helping businesses to adopt automation



Source: CFIB, Quebec Omnibus Survey, April 20 to May 31, n = 564.

Question: The Quebec government has created programs and measures aimed at helping businesses to adopt automation. In the past 5 years has your business used any of the following government programs? (Select one for each line)

Conclusion

Labour shortages have put all sectors under heavy pressure, and Quebec is the hardest-hit province. Automation stands out as a crucial solution among the approaches that could help relieve this pressure, and according to SMEs that have adopted it, it is the most effective.

Although Quebec SMEs have taken the lead in relation to their counterparts in other provinces, there are still many challenges to overcome to make the transition to automation more generally affordable and accessible.

Implementing awareness initiatives to better inform business owners about the resources available to support them is critical. Since SMEs identified cost as one of the barriers to automation, government should make a substantial financial effort to support them in this process.

Finally, the Quebec government should undertake a major initiative to reduce the tax burden on small businesses, making Quebec an even more attractive place to invest and do business.

“It was very hard to find lenders to help us with our plans. Information on subsidies and/or tax credits is just as difficult to find and understand.”

Business owner - Retail sector, Quebec

Recommendations

1. Clarify the automation process for small businesses and help increase the adoption rate.
2. Carry out a major awareness campaign in collaboration with economic players to better inform small business owners about government resources and initiatives designed to encourage automation.
3. Specifically target the construction and hospitality sectors, which are suffering from labour shortages but have been slow to automate their processes. Efforts should involve a number of departments and agencies, including the ministère de l'Économie, de l'Innovation et de l'Énergie, the ministère de l'Emploi et de la Solidarité sociale, the ministère des Finances, Investissement Québec, and Revenu Québec.
4. Create accessible training to support employees through the transition and help them navigate changing responsibilities as automation is implemented.
5. Evaluate how the regulatory and administrative burden in some sectors can hinder automation implementation.
6. Undertake an ambitious plan to reduce the tax burden on SMEs to give them the breathing room to invest in automation. This plan should include the following measures:
 - a. Abolish the paid-hours requirement that blocks access to the small business deduction (SBD) for the smallest businesses in the service and construction industries.
 - b. Continue to lower the small business tax rate until it reaches the Canadian average (excluding Quebec).
 - c. Harmonize Health Services Fund (HSF) rates so that all sectors have the same rate as the manufacturing and primary sectors.
 - d. Lower payroll taxes to close the gap with Ontario.
 - e. Introduce a basic exemption for the HSF for small businesses, as is the case in other provinces.

Automation: A process that is far from automatic for Quebec SMEs

Endnotes

¹ Bomal, Laure-Anna, [Labour shortages are back with a vengeance](#). CFIB, 2021.

² CFIB, Your Voice - September 2022 survey, September 8-26, 2022, n = 3,489.

Methodology

CFIB's research is based on members' views, which are collected through various controlled access member surveys using a one-member one-vote system. CFIB produces clear, credible, and compelling analysis that supports the success of independent business in Canada.

CFIB membership has good representation across regions, sectors, and business sizes; hence the survey data offers a reasonable estimate of the distribution of economic activity across Canada.

Your Business Outlook is a monthly CFIB tracking survey that covers small business confidence, expectations, and operating conditions. Findings are typically based on several hundred responses from a stratified random sample of CFIB members. Every last Thursday of the month, results are released in our Business Barometer® reports (Canada, provinces and industries), at cfib.ca/barometer.

Your Voice is a monthly CFIB omnibus survey that covers a wide range of current topics related to small business. Results are based on several thousand responses each time and are presented in a few monthly key charts at cfib.ca/yourvoice.

About CFIB

CFIB is a non-partisan organization exclusively representing the interests of 97,000 small and medium-sized businesses in Canada. CFIB's research capacity is second-to-none because it is able to gather timely and concrete information from members about business issues that affect their day-to-day operation and bottom line. In this capacity, CFIB is an excellent source of up-to-date information for governments to consider when developing policies impacting Canada's small business community.

To learn more, visit cfib.ca.

Additional resources

Questions or data requests

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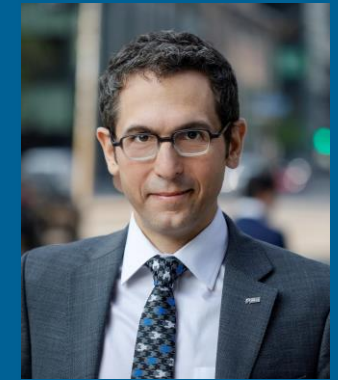
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