

A study outlining the importance of next-generation skills and technologies in the advancement of Canadian owned small businesses. The third in a four part series, this report highlights the current technological skills gap present in the Canadian workforce and outlines what next-generation skills small business owners (SBOs) need to adopt in order to remain competitive in today's digital global economy.



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EXECUTIVE SUMMARY

In February 2017 <u>Startup Canada</u>, the national rallying community and voice for Canada's entrepreneurs, released a national report revealing that the majority of small business owners (SBOs) in Canada consider themselves to be high adopters of new technologies. In another national report released in May 2017, Startup Canada examined the troubling gender divide that persists in digital adoption rates amongst women SBOs. While lower digital adoption rates amongst women SBOs has proven to be a problem for Canadian small and medium sized enterprises (SMEs), it is not the only barrier affecting digital adoption rates in Canada.

With the rapid change of technology, 29 per cent of Canadian SBOs do not believe that the current workforce possesses the right digital skills to help start and grow their companies.

Ninety-one per cent of SBOs consider digital skills and knowledge as one of the most important factors when hiring new employees. SBOs indicate that the Canadian labour market currently lacks five major skills: social media skills; data analytics skills; digital marketing skills; programming and web development skills, such as the ability to code in different languages; and web design skills, such as the ability to format and create online graphics to create a website. Additionally, of the 29 per cent of Canadian SBOs who believe that there is a digital skills gap, Artificial intelligence; the Internet of Things; and Data Science related skills are also considered to be lacking. SBOs will need to increase their digital literacy in order to find, evaluate, utilize, share and create content online as well as be competent in computational thinking (World Economic Forum).

In order for Canadian small businesses to remain competitive during the Fourth Digital Revolution, SBOs believe that over the next five to 15 years their teams will need to adopt the aforementioned skills to keep their businesses afloat. In order for SBOs to increase digital literacy amongst their current team members, SBOs are interested in training workshops and professional development programs; outsourcing their digital projects to contractors and experts; and hiring new employees with the necessary knowledge and skillset to help successfully grow their business.

INTRODUCTION

Sixty-five per cent of children entering primary school today will end up working in jobs that do not yet exist (World Economic Forum). To avoid significant structural unemployment and inequality, Canada must anticipate the skills required for its citizens and entrepreneurs to be meaningful contributors to the future economy. Canada is taking steps towards this, but change must come fast (Advisory Council on Economic Growth). It is expected that the global workforce will lose 5.1 million jobs due to disruptive technologies such as artificial intelligence, robotics and nanotechnology by 2020 (Advisory Council on Economic Growth). The entrepreneurs who can keep up with rapid digital transformation, particularly the fast-changing nature of digital skills and tools, are most likely to succeed in today's economy.

To increase digital adoption amongst Canadian SBOs, and to increase the competitiveness of Canadian owned business on the global stage, these barriers must be addressed. To better understand the needs of Canadian SBOs and to take steps towards closing the skills gap, Startup Canada engaged over 400 SMEs across various stages of business, demographics, and geographies in a national study. The third in a four-part research series to advance the conversation on digital adoption amongst SBOs, this report uncovers the importance of digital literacy in a time of vast technological change, as well as outlines the principal challenges and barriers regarding digital literacy that many Canadian SBOs currently face. Finally, this report provides recommendations on how to increase digital literacy in the Canadian workforce and outlines ways in which Canada can continue to grow as a leading digital nation.

METHODOLOGY

A study was conducted between June 29, 2017 and July 31, 2017 through a national survey that engaged 428 respondents from across Canada. The confidence level for this sample size is 95 per cent, with a margin of error of 1.96. This report summarizes the results of the research.

RESPONDENT PROFILE

Thirty-five per cent of respondents are 18 to 35 years of age; 44 per cent of are 36 to 54 years old; 16 per cent are 55 to 64 years old; and, five per cent are over 65 years old. Fifty-five per cent of respondents self identify as women, 44 per cent as men and 1 percent classified themselves as other. Respondents represent a wide spectrum of industries that range from education, media and entertainment to retail, transportation and telecommunications. Nineteen per cent of respondents have been in business for for less than one year, 38 per cent have been in business for one to three years, 19 per cent for three to six years, nine per cent seven to 10 years and 15 per cent for more than 10 years.

INVESTING IN SKILLS OF THE FUTURE

All SBOs surveyed use technology for the development and success of their business in one way or another, whether it be through advertising, communication, content development, or marketing. With technology being key to small business success, it is important that SBOs keep up to date on the newest digital technologies in order to remain competitive in the national and global markets and SBOs should be updating their digital skills to better prepare themselves for this inevitable technological shift.

IMPACT ON THE SBO LABOUR MARKET

Digital literacy vastly increases the number of employable people for SBOs. Ninety-one per cent of SBOs consider digital skills and competencies as an important employable factor when hiring new employees and 29 per cent of SBOs do not believe that the current workforce possesses the right digital skills to help grow their companies. According to the 29 per cent of respondents who do believe that there is a digital skills gap, the top five digital skills lacking in the labour market are social media skills (49 per cent); data analytics skills (49 per cent); digital marketing skills (48 per cent); programming and web development skills (45 per cent); and web design skills (39 per cent).

With digital literacy being such a key in the hiring process of SBOs, 73 per cent of respondents indicated that building existing digital skills is among their top three priorities.

"The Fourth Industrial Revolution is definitely a push through with digital technologies," **said one SBO working in the Sustainable Energies Technologies sector.** "Only companies with these core digital skills will excel."

PREPARING FOR THE FUTURE

Since technology is an essential part of business development, SBOs need to begin adopting new digital skills in order to succeed in the future. Sixty-six per cent of SBOs anticipate their team needing digital marketing skills in order to scale their company in the next five to fifteen years. Fifty-nine per cent will require increased social media skills; 55 per cent will require data analytics skills; 52 per cent will require digital production skills; and 51 per cent need programming and web development skills.

"Mid-to-advanced level competencies in digital skills is lacking," **said an SBO working in the Information Technology sector.** "There is lots of base knowledge in our work force but very little real expertise and real-world application experience of those skills. School is not enough, we need people who have tried new technologies before in a real-world environment."

In addition to these more standardized skillsets, many SBOs are looking into more advanced technologies to help grow their businesses. Thirty-nine per cent of SBOs will require team members to posses AI related skills, 33 per cent will require Data Science related skills and 32 per cent will require employees with knowledge of the Internet of Things.

"The world is changing very fast," **said and SBO in the Food Services sector.** "Any way that we can continue to adapt, improve, and expand our horizons will help our business and allow us to do more for the people around us."

BARRIERS AND CHALLENGES

There are still some major challenges SBOs face when attempting to implement these new digital technologies into their business plans. The largest challenge currently facing Canadian

SBOs is the presence of a digital skills gap. In order to remain competitive and increase revenue SBOs indicated needing to improve their current teams digital skills.

DIGITAL SKILLS GAP

Hiring employees with the necessary skillsets to help scale a business is beneficial, however, training current employees is just as important. With the rapid change of technology, many SBOs are beginning to see themselves and their team members fall behind on the newest digital trends. The top five skills SBOs would like to improve amongst their teams are: digital marketing skills (47 per cent), social media skills (39 per cent), data analytics skills (35 per cent), programming and web development skills (31 per cent) and web design skills (27 per cent).

"The way customers buy services are evolving [and] any company in our industry that does not acquire basic social media, communication and digital production skills is fated to stagnate at best," said an SBO identifying himself as working in the Resources sector.

Thirty per cent of SBOs who are lacking the necessary digital skillsets have outsourced their digital projects to contractors and experts. Nonetheless, it is essential for the future success of Canadian businesses that SBOs hire employees who already have the necessary digital skills needed to help start and scale a business. Twenty-nine per cent of respondents said that in order to keep up with advancing digital technologies, they will hire employees who already have the necessary knowledge and skills.

"Continuous improvement is part of our model and we need coders, digital markets, web designers, as well as chemical engineers to evolve and grow our business," said an SBO in the Consulting and Professional Services sector.

RECOMMENDATIONS TO INCREASE DIGITAL LITERACY AMONGST SBOs

DIGITAL LITERACY TRAINING PROGRAMS

In order to keep their business thriving and remain a valuable contributor to the Canadian economy, 38 per cent of SBOs stressed the importance of taking part in digital training workshops and professional development programs. This has been a recurring theme present throughout the entire report series. For instance, in report one 50 per cent of the SBOs surveyed indicated wanting better access to training programs and in report two 64 per cent of women SBOs said that training workshops would be beneficial to the growth and sustainability of their company.

IMPROVED DIGITAL EDUCATION IN PRIMARY AND POST-SECONDARY INSTITUTIONS

According to a report by released by the World Economic Forum, on average, by 2020, more than a third of the desired core skill sets of most occupations will be comprised of skills that are not yet considered crucial to the job today (World Economic Forum). The World Economic Forum report explains that most existing education systems provide a highly siloed training systems and continue a number of 20th century practices that are hindering progress of today's talent (World Economic Forum). The two problems outlined in the report is the divide between the study of Humanities and Sciences in post secondary institutions as well as the divide between theory training and applied hands on training (World Economic Forum). These educational divides are causing a digital skills gap which is making it difficult for SBOs to find qualified employees. Businesses should consider working closely alongside government and educational institutions to implement a 21st century curriculum that will better prepare the SBOs of the future with the necessary skillsets to build successful companies.

During previous industrial revolutions, it often took decades to build the proper training systems needed to develop major new skill sets on a large scale(World Economic Forum). However, given the rapid pace of change brought about by the Fourth Industrial Revolution action must be taken much faster by government and industry in order to build a workforce with future proof skills (World Economic Forum).

"The Fourth Industrial Revolution is definitely a push through with digital technologies. Only companies with these core digital skills will excel," said an SBO from the Sustainable Energy Technologies sector.

FINAL REFLECTIONS

The rate of technological change has never been higher and as technology advances, it is essential that SBOs keep up with the ever changing landscape. In order to do so, SBOs need to invest the time and money into different training programs to ensure that they do not fall behind the digital technology trends because ultimately, the businesses that keep up with digital transformation are the businesses that are most likely to succeed in today's economy. Finally, it is important for SBOs to work in unison with government and educational institutions in order to ensure that future SBOs possess the proper skills to create businesses that will aid in the development of Canada.

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