



Skilled Trades and Entrepreneurship: The Need for Business Competencies



Partners



The Diversity Institute conducts and co-ordinates multi-disciplinary, multi-stakeholder research to address the needs of diverse Canadians, the changing nature of skills and competencies, and the policies, processes and tools that advance economic inclusion and success. Our action-oriented, evidence-based approach is advancing knowledge of the complex barriers faced by under-represented groups, leading practices to effect change, and producing concrete results. The Diversity Institute is a research lead for the Future Skills Centre.



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Executive Summary

Tradespeople are essential to Canada's economy. Tradespeople keep workplaces and households running. They build, maintain, and modernize the infrastructure that underpins daily life. Their work is only growing in importance, particularly as Canada looks to meet housing needs and advance sustainable energy solutions.

Using self-employed tradespeople as a proxy for entrepreneurship, due to data limitations, this report set out to explore two questions:

- 1 To what extent should entrepreneurship be recognized as a critical dimension of the skilled trades?
- 2 Which competencies are most essential for entrepreneurs in the skilled trades to succeed?

Context

Skilled trades occupy many industries, including manufacturing, construction,

transportation, information and cultural industries, accommodation and food services, and other service sectors, which, together, account for nearly 29% of Canada's GDP. More than 300 designated trades are formally recognized in Canada, 54 of which carry the interprovincial Red Seal endorsement, which allows qualified workers to move freely across provincial and territorial borders without additional certification. Tradespeople are also more likely to be self-employed. In 2021, 17% of Red Seal workers and 20.3% of those in general trades occupations were self-employed, compared to 14.1% of the overall workforce in Canada.

Competencies for success in entrepreneurship in the skilled trades

- **Law and regulation:** In Canada, skilled trades are governed by regulations set at the national and provincial or territorial, as well as by standards bodies. At the national level, Red Seal workers must know to navigate the certification process to ensure they can practise in any province or territory. General trades fall

under provincial or territorial legislative frameworks and regulatory bodies, which oversee trade certification, apprenticeship programs, ratios, reviews and appeals, scope of work, and compliance with regulations. Essential legal knowledge for tradespeople running their own businesses includes contractors' insurance, intellectual property laws, and business registration and incorporation processes.

- **Financial management:** Bookkeeping is an important aspect of financial management, as it provides insights into cash flow, profitability, and overall financial health. However, many self-employed and small business owners cannot afford to hire professional bookkeepers, leading some to manage bookkeeping on their own despite their lack of expertise. While digital tools can reduce some of the burden, financial literacy remains essential for interpreting information and ensuring that projects generate sustainable profits.
- **Project management and co-ordination:** Project management and co-ordination skills are needed in construction and related trades that deal with complex and time-sensitive projects. In today's environment, successful planning and co-ordination are increasingly difficult to achieve due to persistent labour shortages that add strain on timelines and resources. Tradespeople should therefore be adept at risk management to respond to delays and adapt to unforeseen circumstances on the job site.
- **Marketing and promotion:** Marketing skills, particularly through digital channels, are critical to success for self-employed

tradespeople. However, branding and advertising can be a struggle for many, as they often rely on their own abilities to promote services, attract clients, and build brand reputation. To address these challenges, businesses can leverage social media and data-driven marketing to understand customers' preferences and adapt to evolving marketing demands.



In 2021, 17% of Red Seal workers and 20.3% of those in general trades occupations were self-employed, compared to 14.1% of the overall workforce in Canada.

- **Human resource management:** Self-employed tradespeople require human resource management skills as they often hire apprentices, subcontractors, and seasonal workers. Therefore, they need the capacity to effectively recruit and retain skilled workers and ensure compliance with health and safety standards. Honing these skills can ensure project quality, improve client satisfaction, and build a strong reputation.
- **Innovation and digital skills:** Digital skills are becoming increasingly essential in the workforce, especially in the trades where digitization and automation are changing the tasks performed by tradespeople. Business operations are also becoming



automated. For example, artificial intelligence can enhance digital marketing tools, automate financial tasks, forecast trends, and support human resource management. Despite the efficiency of digital technologies, many tradespeople are struggling to adapt quickly as digitization and automation are outpacing the capacity of training programs and curricula.

Concluding remarks and steps forwards

This paper identifies essential entrepreneurial competencies for self-employed tradespeople. However, more detailed data collection on representation, demographics, and business characteristics in trades-based small and medium-sized enterprises are needed to provide a strong evidence base for program development. Such data is important for ensuring that programming and support lead directly to tangible and measurable outcomes. Program design should also be informed by entrepreneurial competency frameworks such as the Inclusive Entrepreneurship Competency Framework (IECF), which accounts for the layered challenges faced by business owners. These include competencies and challenges relating to business stage, sectoral dynamics, and the identity of business owners. Overall, greater attention needs to be paid to self-employed tradespeople in Canada, especially as many face labour shortages and skills gaps in management, strategy, and innovation that are essential for building sustainable businesses.

Context

Canada's economy depends heavily on skilled trades. Tradespeople build and maintain the infrastructure Canadian residents depend on every day, and their role is becoming increasingly important as governments and communities work to meet housing needs, modernize infrastructure, and advance sustainable energy solutions. Their importance is also evident in the everyday reliance individuals and businesses place on their skills, whether for repairing equipment, completing renovations, or supporting the smooth operation of workplaces and households.

Many tradespeople operate as self-employed business owners, making entrepreneurship a central part of their work. To grow their businesses, they need more than a trade certification or hands-on ability and must also draw on a wider set of entrepreneurial competencies that help them manage their operations and adapt to changing demands. This paper explores the key skills that enable trades-based entrepreneurs to operate successful businesses, from building client relationships and managing employees to handling finances, coordinating projects, and adopting new technologies.

Activities in the skilled trades span many industries. In 2021, sectors where trades are concentrated, including manufacturing, construction, transportation, information and cultural industries, accommodation and food services, and other service sectors, together accounted for close to 29% of Canada's GDP.^{1,2}



In an increasingly competitive and digitally driven market, independent tradespeople must be able to promote their services effectively, attract and retain talent, manage operational and financial systems, and respond to changing industry trends like other entrepreneurs.

The skilled-trades system covers a diverse range of occupations. Over 300 designated trades are formally recognized in Canada, 54 of which carry the interprovincial Red Seal

endorsement that enables qualified workers to move freely across provincial and territorial borders without additional certification.^{3, 4}

skilled trades are concentrated, along with common occupations in those fields.

Table 1 highlights the main industries where

Table 1

Key industries employing skilled trades, GDP contribution, and common occupations, 2021^{5, 6}

Industry	2021 GDP Contribution		Skilled Trades Employed by Sector
	CA\$(1,000,000)	% of Canadian GDP	Examples of Common Occupations
Construction	183,263	8	Electricians, carpenters, plumbers, steamfitters or pipefitters, welders, heavy equipment operators, crane operators, painters, and others
Manufacturing	234,678	10	Tool and die makers, industrial mechanics (millwrights), metal fabricators, and others
Transportation and warehousing	103,007	4	Automotive service technicians, heavy-duty equipment technicians, motorcycle technicians, and others
Information and cultural industries	73,570	3	Instrumentation and control technicians and machinists
Accommodation and food services	36,783	2	Cooks, bakers, and others
Other services	43,327	2	Hairstylists, landscape horticulturists and others



Self-employment is a defining feature of the skilled trades. In 2021, the overall self-employment rate in Canada was 14.1%⁷ while nearly 17% of Red Seal workers were self-employed.⁸ The share is even higher among those in general trade occupations, where 20.3% were self-employed in 2021.⁹ Self-employment in skilled trades requires navigating a complex set of demands that extend beyond technical skills for the worksite. In an increasingly competitive and digitally driven market, independent tradespeople must be able to promote their services effectively, attract and retain talent, manage operational and financial systems, and respond to changing industry trends like other entrepreneurs.



Competencies for Success in Entrepreneurship in the Skilled Trades

As with other entrepreneurs, the competencies required for tradespeople include knowledge and capacity to apply law and regulation, handle finances, plan and manage projects, market and promote their services, manage workers, and adapt and leverage new technologies. These competencies not only support the ongoing viability of these businesses but also position them for growth.

Law and regulation

As part of their training, most tradespeople must demonstrate knowledge of standards, laws, and regulations specific to their trades. In Canada, skilled trades are governed by a mix of national, provincial or territorial, and standards bodies regulations. At the national level, the Interprovincial Standards Red Seal Program provides certifications for Red Seal workers, although apprenticeship and trade certification is managed by provinces and territories.¹⁰ Understanding the Red Seal certification process is important for skilled trades workers to ensure that they can practise in any province or territory.

Each province and territory has its own legislative frameworks and regulatory bodies

to oversee trade certification, apprenticeship programs, ratios, reviews and appeals, scope of work, and compliance with regulations. Tradespeople are responsible for understanding the regulations and standards as outlined by their province or territory's legislative frameworks. For example, the *Building Opportunities in the Skilled Trades Act, 2021 (BOSTA)* establishes Skilled Trades Ontario as a Crown agency to oversee trades certification and apprenticeship programs in Ontario.¹¹ Similarly, the skilled trades in British Columbia are overseen by SkilledTrades BC, which was established under the *Skilled Trades BC Act* (assented March 10, 2022).¹² While these legislative frameworks streamline the skilled trades within provinces, they were developed in recent years, meaning tradespeople are still adapting to these evolving provincial guidelines. For instance, BOSTA's use of the term "scope of practice" to outline work activities has created confusion in tradespeople's interpretations of their work jurisdictions.¹³

In addition, tradespeople must be well-versed in the contractor insurance they need, which typically entails commercial

general liability insurance and coverages for property, equipment, tools, and business income insurance.¹⁴ Intellectual property laws, including patents, trademarks, and copyrights may also apply to their work, as these protections can safeguard a business's brand, serve as collateral to secure future funding, and be monetized through various channels, including licensing agreements and franchising.^{15, 16} Furthermore, knowing how to register or incorporate a business legally is essential for managing liability, meeting tax obligations, and increasing the ability to raise capital.¹⁷

Financial management

Financial management is a critical skill for self-employed business owners, and bookkeeping is one of the most critical components within this broader skill set. Bookkeeping provides the structure for organizing and recording transactions, managing invoices, accounts receivable, payroll, subcontractor payments, and generating financial reports.¹⁸ Beyond recordkeeping, bookkeeping provides insights into cash flow, profitability, and overall financial health, which are essential for informed decision-making.

While many business owners recognize the importance of bookkeeping, budget constraints and affordability concerns often prevent them from hiring professional bookkeepers.¹⁹ As a result, many attempt to manage bookkeeping on their own, despite lacking the necessary expertise. This can expose businesses to compliance risks, particularly with tax regulations, and can undermine their ability to assess financial performance.



Digital tools and artificial intelligence offer new opportunities to automate aspects of bookkeeping and payroll management, helping to ease administrative burdens and reduce errors.²⁰ However, these technologies are not a substitute for financial literacy. Training is required. Small business owners need training not only to use these tools effectively but also to interpret the information they produce. Without the ability to analyze cash flow, evaluate costs, or understand financial reports, entrepreneurs risk treating digital tools as a quick fix rather than a resource for sound decision-making.

Financial management abilities also include pricing and profitability analysis, which is critical for setting competitive prices that attract customers and maximize profit margins.²¹ Project costing often relies on experience, and self-employed individuals must set their pricing to account not only for the time spent delivering services but also for the full investment of time in the business.

Costing also requires effective contingency planning. While many tradespeople will bid low in order to get a job, the results may be that they lose money on the project.²²



Entrepreneurs in the trades must be highly skilled in project management and coordination to deliver work efficiently and meet client expectations.

These challenges are especially clear in construction and other project-based industries. Common issues include accurately tracking and allocating costs to projects, calculating payroll for a diverse workforce that includes full-time employees, part-time workers, and subcontractors, managing cash flow, and complying with complex tax laws and regulations.^{23, 24} In such contexts, strong bookkeeping combined with broader financial management skills is indispensable for compliance and profitability.

Project management and coordination

Entrepreneurs in the trades must be highly skilled in project management and coordination to deliver work efficiently and meet client expectations. This involves keeping track of multiple projects at once, allocating resources effectively, scheduling tasks, and adjusting plans when conditions change. Strong co-ordination also requires

managing scope, balancing competing priorities, and ensuring that teams, subcontractors, and suppliers remain aligned throughout the project. These skills are important in construction and related trades, where projects are complex, time-sensitive, and often involve many moving parts.

Yet, successful planning and co-ordination are increasingly difficult to achieve in today's environment. Persistent labour shortages make it harder to assign the right people to the right tasks, while high demand in construction places additional strain on timelines and resources.²⁵ Risk management is therefore a critical part of co-ordination, requiring adaptability and flexibility to respond to delays, shifting client demands, or unforeseen challenges on the job site. These pressures are compounded by the growing complexity of regulatory requirements. A recent survey by Canadian Manufacturers and Exporters found that many manufacturers struggle to adapt to the volume of new regulations, with small businesses carrying the greatest burden due to limited compliance resources.²⁶ This underscores the significance of strong planning and coordination skills for managing risk, meeting client expectations, and staying competitive in a demanding business environment.

Marketing and promotion

Unlike large firms with dedicated marketing teams, trades entrepreneurs often rely on their own ability to showcase their services, attract clients, and build a reputation. This makes marketing skills, particularly through digital channels, fundamental to success. Yet, many tradespeople, especially in construction, continue to struggle with branding and

advertising. Common challenges include the absence of a clear brand identity, untailored messaging to target audiences, heavy reliance on word of mouth, and limited digital presence.²⁷

When applied effectively, marketing and promotion can increase brand visibility, expand reach, and support business growth.²⁸ Social media, for example, allows businesses to demonstrate high-quality work. These strategies not only attract customers but also help recruit young talent.²⁹ Data-driven marketing is also increasingly important. The ability to leverage analytics enables tradespeople to understand customer preferences, tailor service offerings, and set pricing strategies that balance competitiveness and profitability.³⁰ Without these insights, entrepreneurs risk missing opportunities to adapt to evolving market demands.

Human resource management

Even when working independently, many skilled tradespeople will hire apprentices, subcontractors, or seasonal workers to complete projects. The capacity to recruit effectively, retain skilled workers, and ensure compliance with health and safety standards will affect project quality, client satisfaction, and reputation. Human resource management skills will only increase in importance for those interested in expanding their operations. To remain competitive, self-employed businesses must be able to design and implement workforce development strategies that align with their business objectives, while also monitoring and adjusting these efforts over time.³¹



While technological advancements bring many benefits, skilled trades employers and businesses struggle to adapt quickly.

Effective human resource management requires building knowledge and skills across all stages of the employment cycle. In recruitment, this includes the ability to attract prospective employees through well-crafted job postings, online resources such as job boards and social media, and by leveraging professional networks and referrals.^{32, 33} For retention, skills training is commonly deployed to enhance performance, competitiveness, and employee retention.³⁴ However, businesses must be able to accurately assess training needs, allocate resources, and provide or facilitate training opportunities.³⁵ This extends to mandatory occupational health and safety training, which is especially critical in high-risk sectors such as construction and mining.³⁶ Beyond compliance, it is important to have the capacity to design safety protocols and conduct risk assessments that reduce hazards and protect workers.³⁷ By embedding these practices into their operations, tradespeople not only address immediate staffing challenges but also build more sustainable, resilient workplaces capable of adapting to evolving labour market demands



Innovation and digital skills

Digitization and automation are rapidly changing the tasks performed by tradespeople,³⁸ making innovation and digital skills essential for success. Many activities, that were once manual, are now supported or replaced by advanced digital tools, software, and automated equipment. For example, in Ontario's construction sector, digital technologies (e.g., building information modeling, augmented reality, and virtual reality), safety and sustainability devices (e.g., site sensors, real-time monitoring systems), and automation and robotics (e.g., 3D printing construction, automated material handling systems) are becoming increasingly prevalent, contributing to more efficient building processes by streamlining operations.³⁹ In a recent KPMG survey, 90% of Canada's construction leaders indicated that new and advanced technologies such as AI, analytics, building information modelling, and digital twins could boost productivity and efficiency.⁴⁰ With the growing importance of these technologies in the trades and increased recognition of their value by industry leaders,

independent tradespeople must keep pace with these changes to remain competitive in the industry.

While technological advancements bring many benefits, skilled trades employers and businesses struggle to adapt quickly. Digitization and automation are outpacing the capacity of training and curriculum standards. To bridge this gap, targeted training programs to upskill trades workers are essential; however, these programs often struggle to evolve quickly enough to keep up with technological advancements.⁴¹ Businesses believe that technological change is increasing the skill requirements for skilled trades occupations while also recognizing the costs associated with these changes, including upgrading equipment and systems, as well as the need for retraining.⁴²

Businesses could further strengthen their competitiveness by adopting digital transformation strategies, which can reshape operating models, processes, products, as well as employee and customer experiences.^{43, 44} Common examples include traditional web technologies, cloud-based services, mobile Internet technologies, big data, Internet of Things, and design thinking.⁴⁵ Artificial Intelligence (AI) can play a critical role: it can enhance digital marketing tools,^{46, 47} automate financial tasks,⁴⁸ forecast trends,⁴⁹ and support human resource management by streamlining recruitment, informing engagement and retention strategies, and supporting performance management.⁵⁰



Concluding Remarks and the Way Forward

This report focused on self-employment due to data constraints. Small and medium-sized enterprises (SMEs) in trades are difficult to identify since industry-level classifications do not capture the diversity of trades activity across and within industries. As a result, information on representation, demographics, and business characteristics of trades-based SMEs remains limited. What we do know, largely anecdotally, is that many tradespeople operate SMEs, and the competencies discussed here are equally, if not more, relevant to these business owners. More detailed data collection is needed to fill this gap and to provide a stronger evidence base for program development.

By focusing on well-defined competencies that reflect the entrepreneur's context, programs can design supports and training that connect more directly to tangible and measurable outcomes. While existing frameworks offer useful insights, many are limited in scope. Some emphasize the skills required at different points in the entrepreneurial journey,^{51, 52, 53, 54} while others focus solely on specific sectors (e.g., food industry,⁵⁵ sustainability entrepreneurship,⁵⁷ financial sector,⁵⁷ technology,⁵⁸ institutions,⁵⁹ etc.). There are also models developed for

particular groups, including women,^{60, 61} youth,⁶² or SME managers.⁶³ However, these approaches often fall short of capturing the layered challenges entrepreneurs encounter, which are shaped by a combination of business stage, sectoral dynamics, and personal identity.

The Inclusive Entrepreneurship Competency Framework (IECF) was designed to address these gaps. It is grounded in extensive research on entrepreneurship, drawing on studies of entrepreneurial intent, cognition, skills development, and the systems that support business growth.^{64, 65, 66, 67, 68, 69} The framework sets out the key competencies required across five stages of business development: Ideation, validation, launch, growth, and sustainability. In addition, it accounts for sector-specific skills relevant to fields such as manufacturing, construction, health care, finance, retail, services, and technology. A central feature of the IECF is its recognition of the distinct needs of equity-deserving groups, with competencies tailored to women, Black and other racialized entrepreneurs, Indigenous Peoples, immigrants, 2SLGBTQI+ communities, and persons with disabilities.

It is important to recognize that the IECF applies equally to trades-based entrepreneurship, where business owners face many of the same hurdles as entrepreneurs in other fields. Too often, however, entrepreneurship is framed through the lens of technology, which risks pigeonholing tradespeople as individuals who can only be supported through technical training. This narrow view is concerning given the central role of the skilled trades in Canada's economic resilience and growth. Recognizing the entrepreneurial dimension of the trades is especially relevant in the context of Canada's growing skills shortage. The sector is expected to lose an estimated 700,000 workers to retirement by 2028, yet too few young people are entering the trades to close this gap.⁷⁰ While governments have responded with initiatives to expand the pipeline, including giving skilled trades workers greater priority in immigration pathways, these efforts address only one side of the challenge.⁷¹

Attention must also be directed to those already in the field, particularly the self-employed who represent a significant share of



the workforce. Although technically proficient, many lack the complementary competencies in management, strategy, and innovation that are essential for building sustainable businesses. For lasting impact, there must therefore be investment in supporting a broader agenda that focuses on building the entrepreneurial capabilities that independent tradespeople and small business owners need.



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