CDW

The Evolution of AI Adoption in Canadian Businesses: Perceptions and Trends

Executive Summary

As demand for productivity and sophisticated data-driven decisions continue to skyrocket, the adoption of artificial intelligence (AI) is rapidly reshaping the Canadian business landscape. Organizations are increasingly recognizing the boundless potential of AI and data analytics tools. However, along with optimism, many organizations remain cautious, as they contend with the complexities and uncertainties surrounding AI adoption.

58% of organizations, irrespective of size and industry, believe that using AI increases productivity and efficiency.

52% of IT decision-makers whose organizations have implemented AI for specific applications believe the process to be easy, but only 21 percent of them are confident in their organization's ability to implement them efficiently.

70% of Canadian organizations expressed concerns about the ethical implications that come with using AI and data processing tools in their industry.

50% of organizations use natural language processing and interaction tools, while 20 percent use machine learning and deep learning platforms and 19 percent use automation and optimization tools.

As organizations continue to implement these new tools, it is important to frame AI adoption in incremental changes to achieve business goals. This approach enables organizations to strategically evolve their operations, adapt to regulatory demands and capitalize on emerging AI opportunities.

Introduction

CDW commissioned a comprehensive survey in collaboration with Angus Reid. The survey consulted IT decision-makers to gather insights on the current state of AI adoption and emerging trends within Canadian organizations. This report delves into the nuances of AI adoption and data processing tool implementation across small, medium and large organizations, while also considering sector-specific factors that influence adoption trends.

AI encompasses a range of technologies that enable machines to perform tasks that have traditionally required human intelligence. From predictive analytics to natural language processing, AI holds the potential to refine business processes, enhance decision-making capabilities and drive innovation across industries.

While the groundwork for AI has been ongoing for several decades, its development has quickly advanced over the last few years, with new products flooding the market. Despite this rapid change, widespread adoption of AI remains in the early stages.

The benefits of AI integration into business operations are promising. However, it's important to also consider the inherent risks of AI that increase the potential for security and privacy breaches, requiring organizations to prioritize robust security measures.

AI is not one size fits all, rather, it requires navigating various complexities and barriers unique to each business, sector and industry. To address these challenges effectively, organizations need to be proactive to mitigate risks, including prioritizing regulatory compliance, the engagement of trusted third-party partners and continuous education to navigate the complexities of AI implementation.

As Canadian organizations navigate AI adoption, understanding the current landscape and key trends, as well as ways to minimize the risks and uncertainties related to AI adoption, is essential. Overcoming limited knowledge around AI's capabilities and the fear of the unknown while dealing with a diverse range of software is crucial. By examining the attitudes, challenges and adoption patterns revealed through this survey, organizations can leverage valuable Canadian-centric insights to inform their AI strategies.

Key Findings

58%

Canadian organizations are increasingly embracing AI, with three-in-five expressing openness to its adoption, recognizing the benefits in enhancing productivity, improving data availability and bolstering financial performance.

More than half (58 percent) of organizations, irrespective of size and industry, believe that using AI increases productivity and efficiency. However, comfort has yet to catch up to openness, as only half of these organizations already feel comfortable with its current use, leaving room for education and training on AI and data analytics tools.

52%

There is a discrepancy between the level of difficulty in implementing AI tools and IT decision-makers' confidence in their organizations' ability to properly implement the technology.

While IT decision-makers whose organizations have implemented AI for specific applications, or have implemented automation and optimization tools, believe the process to be easy (52 percent and 39 percent respectively), they are less confident in their organization's ability to implement them effectively (21 percent and 27 percent respectively).

Key Findings

70%

Organizations spanning various industries and sizes have significant concerns about the risks of AI implementation regarding privacy, over-reliance, ethics and personal data breaches.

Most Canadian organizations (70 percent) expressed concerns about the ethical implications that come with using AI and data processing tools in their industry.

50%

The most widely used AI tools are natural language processing and interaction tools and data processing and analysis tools.

One-in-five organizations use machine learning and deep learning platforms (20 percent) and automation and optimization tools (19 percent) compared to half (50 percent) that use natural language processing and interaction tools.

There is cautious optimism around AI adoption in Canada

While some Canadian businesses are reluctant to embrace current and emerging AI tools, an increasing number of organizations are recognizing the vast benefits and value of artificial intelligence and data analytics tools. Over six-in-ten (61 percent) businesses are open to using AI, while only half (51 percent) already feel comfortable about its current use. In contrast, small businesses are much more hesitant to adopt AI compared to larger organizations. Under half (42 percent) of small businesses are comfortable using AI and only 47 percent show an openness to using AI in the future.

Large organizations are most likely to adopt AI, with the majority (69 percent) expressing openness to integrating AI into their operations. Medium-sized enterprises are eager followers, with 67 percent considering AI adoption. This early adoption from large organizations is likely driven by decision-makers who recognize the substantial benefits of AI to remain competitive. In contrast, small businesses may face roadblocks such as limited resources and expertise, leading to a more cautious approach towards AI adoption.

The potential benefits of AI adoption are significant and varied, offering organizations opportunities to enhance productivity, efficiency and innovation. More than one third (36 percent) of organizations found that AI and data analytics tools contributed to increased innovation and helped create a competitive edge.

The most common benefits Canadian organizations believe they will experience following investment in AI include:

58% Increased productivity and efficiency

48% Increased data/information availability

42% Financial benefits or cost reductions

"AI is playing a pivotal role in reshaping business operations and unlocking growth opportunities. The top three benefits Canadian organizations believe they will experience with AI include increased productivity/efficiency (58 percent), increased data/information availability (48 percent) and financial benefits (42 percent)."
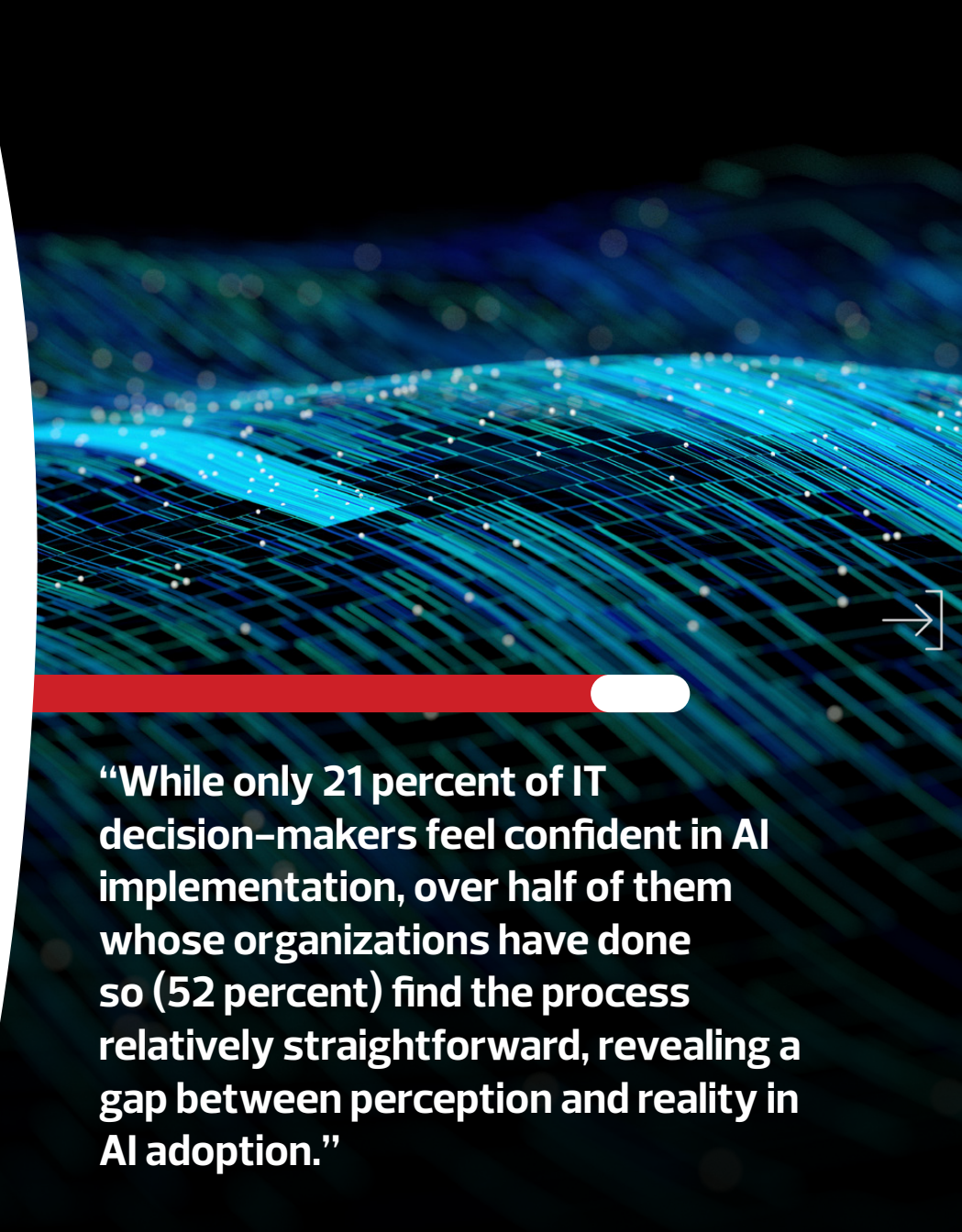
As organizations increasingly recognize the benefits of AI adoption, it becomes crucial to address barriers to entry and establish an infrastructure that ensures security and resilience. Organizations must prioritize privacy measures and equip their IT teams with the necessary tools and expertise. They can also consider partnering with third-party AI experts to implement solutions tailored to their unique needs in order to get ahead in an increasingly competitive market.

Challenges hindering business investment in artificial intelligence

Despite the transformative potential of AI and data analytics tools, many organizations face notable hurdles in fully embracing this technology. While almost half (48 percent) of organizations feel positive about the use of AI in the workplace, the vast majority (93 percent) have concerns regarding the associated risks, particularly ethical implications. The main reasons for reluctance towards AI adoption include fear of job displacement (17 percent), ethical unknowns (10 percent) and security risks (8 percent).

The study reveals a notable difference between confidence levels in implementing AI tools and the actual ease of implementation. While only one-in-five (21 percent) IT decision-makers whose organizations have implemented AI for specific applications felt confident in their company's ability to implement them effectively, over half (52 percent) found the implementation process easy.

Similarly, while confidence levels in implementing machine learning tools are low (29 percent), 38 percent of companies found the adoption process relatively easy. This highlights a lack of trust from IT decision-makers in their company's ability to adopt AI and a misconception that AI is highly complex. This also underscores the need for education and awareness initiatives to bridge the gap and allow Canadians to leverage AI effectively.

"While only 21 percent of IT decision–makers feel confident in AI implementation, over half of them whose organizations have done so (52 percent) find the process relatively straightforward, revealing a gap between perception and reality in AI adoption."

"AI adoption for small businesses is a lower priority, as fewer witness tangible benefits compared to larger organizations."

Canadian small businesses face hurdles in embracing AI

Small businesses face unique challenges related to AI adoption, mostly due to their size and structure. There is a lack of awareness of AI tools, with just over a quarter (28 percent) of small businesses being aware of the available data processing and analysis tools, compared to 60 percent of large companies. This knowledge gap suggests that small businesses may lack exposure to resources necessary to stay ahead of technology trends, often due to time and financial constraints required for investment, despite being more agile in their ability to implement new processes.

Unlike larger organizations, smaller businesses are less likely to see the benefits of investing in AI, with fewer witnessing any tangible benefits. For instance, while over one-third (37 percent) of larger organizations reported an enhanced customer experience from AI implementation, less than a quarter (18 percent) of small businesses experienced these benefits. Similarly, only one-in-five (20 percent) small businesses noted improved decision-making, compared to almost half (44 percent) of larger businesses.

This discrepancy underscores the lower priority that AI adoption holds for small businesses, which is only exacerbated when their current AI usage fails to produce significant results. The three key risk factors cited by small businesses include:

52% Ethical implications around consent and autonomy

47% Over-reliance on potential AI systems

38% Economic and employment impacts

Overall, these obstacles highlight the need for tailored solution strategies and support to address small businesses' specific concerns and facilitate smoother adoption processes that enable these organizations to experience the full benefits of AI.

Public vs. private sector perceptions of AI implementation

The landscape of AI adoption varies between the public and private sectors, with each facing distinct challenges and opportunities. While both sectors demonstrate openness to AI implementation, there are notable differences related to priorities and concerns.

Both public and private sectors are open to AI adoption, but interestingly, a higher portion of public sector respondents were more inclined, with 64 percent expressing their openness compared to 58 percent in the private sector.

However, the public sector places stronger emphasis on security, privacy and data protection, with over half (57 percent) citing these as high-risk factors, along with personal data breaches (54 percent). By comparison, the private sector is more concerned about issues such as biased inputs/user programming (42 percent), ethical implications (41 percent) and unclear legal regulations (40 percent). This discrepancy underscores the public sector's heightened sensitivity to the potential consequences of breaches and its commitment to safeguarding Canadians' data and privacy.

While both sectors face challenges in navigating the ethical and regulatory landscape of AI, the public sector's focus on protecting sensitive information reflects its responsibility to uphold public trust and compliance with regulatory standards. On the other hand, private sector organizations may prioritize addressing biases and ethical considerations in AI algorithms to maintain consumer trust and protect brand and reputation.

"While the public sector shows openness to AI–driven changes (78%), many are hesitant to implement AI due to concerns around privacy, security and personal data breaches."

AI tool utilization across sectors and businesses

Who is using AI?

Many organizations are utilizing analytical data tools at a higher rate (61 percent) compared to AI tools (36 percent). Sector-wise, the private sector leads in AI tool utilization, with a 40 percent adoption rate compared to 30 percent in public organizations. Small businesses in particular exhibit the lowest usage at 26 percent, compared to 35 percent of medium-sized businesses and 47 percent of large businesses. This underscores the complex landscape of AI adoption and the need for targeted interventions to foster greater acceptance across all sectors and business sizes.

Which AI tools are being used?

Natural language processing and interaction tools are the most widely used, with half (50 percent) of organizations currently employing them, closely followed by data processing and analysis tools (39 percent).

The top three tools are:

27% ChatGPT	**16%** Microsoft 365 Copilot	**14%** SAP Business Intelligence

Large businesses (65 percent) have the highest rate of broad-scale integration of natural language processing and interaction tools, while small businesses display the lowest adoption rate at 33 percent.

How businesses are using AI

The three most significant ways organizations utilize AI and data analytics tools are:

15% Analyzing data/ consumer data analysis

10% Customer service/CRM/ help desk

7% Efficiency

The most utilized AI tools among Canadian organizations, along with their specific applications, include:

- **ChatGPT:** Report writing (19 percent), developing course materials/training (13 percent), flow of communication (11 percent)

- **Microsoft 365 Copilot:** Report writing (12 percent), developing course materials/training (8 percent), business plans/intelligence (6 percent)

- **SAP Business Intelligence:** Data analysis (14 percent), business plans/intelligence (10 percent), forecasting models (7 percent)

Most Canadian businesses are in an early stage of exploration with AI. As organizations become more familiar with AI's capabilities and applications, there remains significant room for growth and innovation to improve business operations.

Third-party assistance for AI adoption is in demand

As businesses navigate the complexities of AI integration, third-party assistance can help facilitate adoption and maximize the potential of these transformative technologies.

Only a modest proportion of companies (29 percent) have turned to third-party assistance to implement AI tools. This increases to just under half (45 percent) for larger organizations, highlighting that a considerable portion of businesses have yet to tap into external expertise.

Organizations not currently using third-party services or those yet to use AI show an interest in leveraging external support for various aspects of implementation. The top three tasks identified by these organizations as potential areas for third-party involvement include:

50% Addressing legal, ethical and regulatory challenges related to AI	**49%** Evaluating, recommending and choosing suitable AI tools	**49%** Providing AI training and fostering AI literacy among the organization

Choosing the appropriate third-party IT partner with comprehensive expertise in AI implementation becomes increasingly important as organizations navigate the complexities of these technologies while minimizing the risks. In addition, engaging a third-party partner can guarantee a smooth integration process for organizations, ensuring the effective utilization of AI tools and capitalizing on its capabilities to improve business functions.

"Organizations not engaged with third–party services for AI demonstrate interest in leveraging external support for AI implementation. Top tasks include addressing regulatory challenges (50 percent), recommending suitable AI tools (49 percent) and fostering AI literacy (49 percent)."

The way forward: Key recommendations for AI optimization

The AI landscape is diverse and constantly evolving and each organization has varying AI needs and levels of maturity. By approaching AI adoption with flexibility and an openness to new information, businesses can effectively harness its potential and stay ahead in today's rapidly evolving landscape.

Our CDW experts recommend the following considerations:

- **Tailor solutions to specific employee, team and organizational needs:** Recognizing that different users and organizations have varying levels of AI maturity and specific needs, tailoring AI solutions to these individual requirements is essential for successful adoption and optimization.

- **Partner with a third-party IT solutions provider:** A knowledgeable external partner can provide valuable insights, guidance and support throughout the AI adoption journey, to help overcome implementation challenges and maximize the benefits of AI technology.

- **Invest in employee development and education:** Allocate resources to provide ongoing education and training programs for internal teams to enhance their understanding and proficiency in AI technologies. By empowering employees with the necessary knowledge and skills, Canadian organizations can effectively leverage AI tools to drive innovation and increase their competitive advantage.

- **Conduct an assessment on diverse AI options:** Evaluate different AI and data analytics tools as they apply to individuals, teams and their organizations. Consider the need for specialized tools tailored to meet the unique requirements and needs of organizations' verticals, enabling optimization at each level and with each end user.

Whether you're looking for predictive guidance, increased customer engagement or to optimize operational efficiencies, our industry-leading IT experts at CDW can help you identify, implement and maintain AI tools to help you remain competitive and achieve your organizational goals.

To learn more and get started today, contact your account representative or call 800.972.3922

About the study

These are the findings of an online survey conducted by CDW from February 1 to February 8, 2024, among a sample of 309 IT decision-makers who are members of the Angus Reid Forum. The survey was conducted in English. For comparison purposes only, a probability sample of this size would carry a margin of error of +/-6 percentage points, 19 times out of 20.

The purpose of this study was to investigate the attitudes, concerns and adoption patterns of businesses, categorized by size (small, medium and large), towards artificial intelligence technology. The report identifies barriers to AI adoption, such as awareness gaps, security concerns and the need for third-party assistance, while also highlighting the differing needs and preferences of businesses based on their size and industry.

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