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After the COVID-19 Recession: Are Canadian Organizations Ready for the Digital Future?



A discussion paper from:
The Centre of Excellence in Disruption and Transformation
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York University, Toronto

After the COVID-19 Recession: Are Canadian Organizations Ready for the Digital Future?

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Introduction

We have all heard of digital disruption, with firms such as Netflix dramatically changing the entertainment industry and Amazon transforming the retail industry while older firms such as Blockbuster and Sears are no longer in business. Digital disruption affects all industry segments, often with competitors that are not foreseen or anticipated. This report presents an analysis of how well prepared Canadian organizations are for digital disruption.

In early 2020, the COVID-19 global pandemic struck Canada and much of the world. The global and Canadian economies will feel the harsh impact of the pandemic for many months, perhaps years. The 2020 Recession will challenge most organizations and the need to be digitally agile will be magnified as the economy begins to recover. Moreover, after months of social distancing and employees working from home, a paradigm shift in the way we work and live is inevitable. Canadian organizations must embrace digital technologies to transform their businesses, as the economy recovers in the coming years.

Executive Summary

Many authors have described digital transformation and most consumers and citizens understand what digital technology can do. We buy books and groceries online; we watch Netflix on our smart phones; our taxes are filed online; and our pictures are stored somewhere in the cloud. The COVID-19 pandemic has re-enforced the value and ubiquity of our digitally transformed world as we communicate with coworkers, family, and friends around the world using Zoom and FaceTime from our individual self-isolation.

However, the research described in this paper suggests that many Canadian organizations are not as well prepared for digital disruption, compared to their global peers. Canadians may be more cautious and less willing to invest in new technologies compared to others, which will put the Canadian economy at a disadvantage during the 2020 Recession and the inevitable economic recovery.

Canadian organizations are less clear about their digital strategy and may have a fuzzy view of the challenges ahead, with a less coherent strategy compared to their global peers. As well, with a planning horizon of more than two years (an average of 2 to 5 years), Canadians perhaps feel less urgent about digital disruption than their global peers do, where the planning horizon is well below two years.

Ironically, Canadians have a very strong anticipation (at 69%) that digital technologies will disrupt their industry, to a “great extent”, but they are unwilling or unable to do anything about it. COVID-19 has magnified this gap as the recession grips the economy in 2020. In the space of one month, the lack of digital planning and capability for many Canadian organizations has become glaringly obvious.

After the COVID-19 Recession: Are Canadian Organizations Ready for the Digital Future?

How should organizations prepare for the digital future, after the recession? They should start by focusing on the four foundational digital technologies identified by our survey respondents: mobile, cloud, analytics, and cybersecurity. The survey also identified Artificial Intelligence as one of the most promising technologies for the future. To prepare for a digital future after the recession organizations must focus on a small set of technologies, and avoid or reduce spending on interesting technologies that lack a very clear business case.

Canadian organizations told us they expect an increase in demand for their core products and services (63%) because of digital trends, and we expect that demand has grown because of the pandemic. At the same time, 74% expect to develop new core business lines in response to digital trends. The challenge will be delivering those new business lines much sooner than the three to five year timeline envisioned before the recession. Canadian organizations do not expect their digital capabilities to differentiate them from competitors. Now that a digital capability has become table stakes, many are trying to catch up to the new expectations. Compared to 68% of global survey respondents who expect digital capabilities to differentiate, only 32% of Canadian survey respondents have that expectation.

This is important because Canadian organizations are not immune to digital disruption, especially during a global recession. Competition and disruption via digital technologies seems inevitable for most Canadian industry sectors, but our survey suggests that there is complacency and lack of clear readiness in the near-term for most organizations.

Canadian organizations must be willing to experiment more with digital technologies. Given the somewhat cautious culture that we have observed with this survey, organization-wide change will be difficult. However, digital disruption has become an inevitable reality of modern business and Canadian organizations must prepare to disrupt with digital technologies, or they will be disrupted.

Motivation for this Research

The Centre of Excellence in Disruption and Transformation, at York University's Schulich Executive Education Centre (SEEC) is dedicated to understanding how organizations prepare, plan and execute to take advantage and defend against business disruption, usually from digital technologies. We do this by working with clients to understand their current challenges and providing custom education programs to address those challenges. As part of our Centre mandate we conduct ongoing research to understand current disruption and transformation trends so that our education programs are relevant and focused on pressing issues.

We developed this research from a study conducted at MIT, with Deloitte, in 2016. We used the MIT survey and asked Canadian firms about their preparations for the digital future. We collected survey data from November 2018 to January 2020. Appendix 1 provides more detail on the research.

The COVID-19 pandemic and recession of 2020 provides an unexpected urgency to the issues of disruption and transformation. Many organizations currently face difficult times and could continue to for years to come, as economic activity shrinks dramatically. Digital technologies are an inevitable future for most organizations. Disruption of the 2020 recession will accelerate the need for Transformation for those that survive.

Findings

This section presents the detailed findings, and a short interpretation, for several of the questions in the survey. Not all data are presented, only the more interesting findings.

The first set of five questions ask respondents how well they are prepared for digital transformation.

Q1 - Our organization has a clear and coherent digital strategy

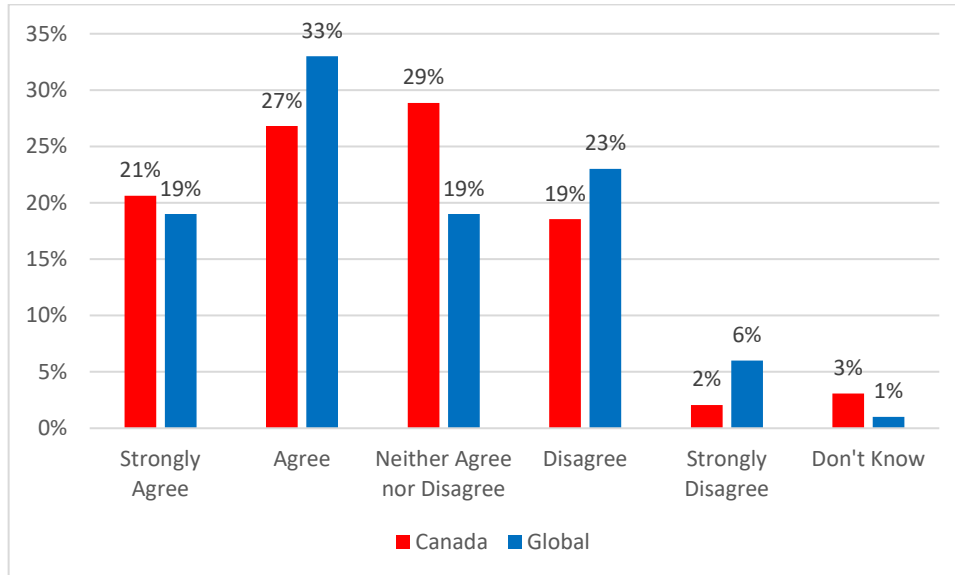


Figure 1 – Responses to Question 1: Canada (n=97) and Global (from MIT)

The above figure shows that 48% of Canadian organizations agree (or strongly agree) that they have a clear and coherent digital strategy. This is below the global figure of 52%. In contrast, the Canadian sample has a much higher rate (29% vs 19%) of undecided organizations, who neither agree nor disagree, and a large number (3%) compared to MIT's global survey, who simply don't know.

We conducted this survey well after the 2016 MIT survey; some of the Canadian data were collected four years after the MIT survey. Therefore, the concept of digital strategy should not be new for Canadians, yet the lower number of those Canadian organizations with a coherent digital strategy relative to the global data is discomfoting. The percentage who simply do not know is alarming.

After the COVID-19 Recession: Are Canadian Organizations Ready for the Digital Future?

Q2 - What are your digital strategy objectives?

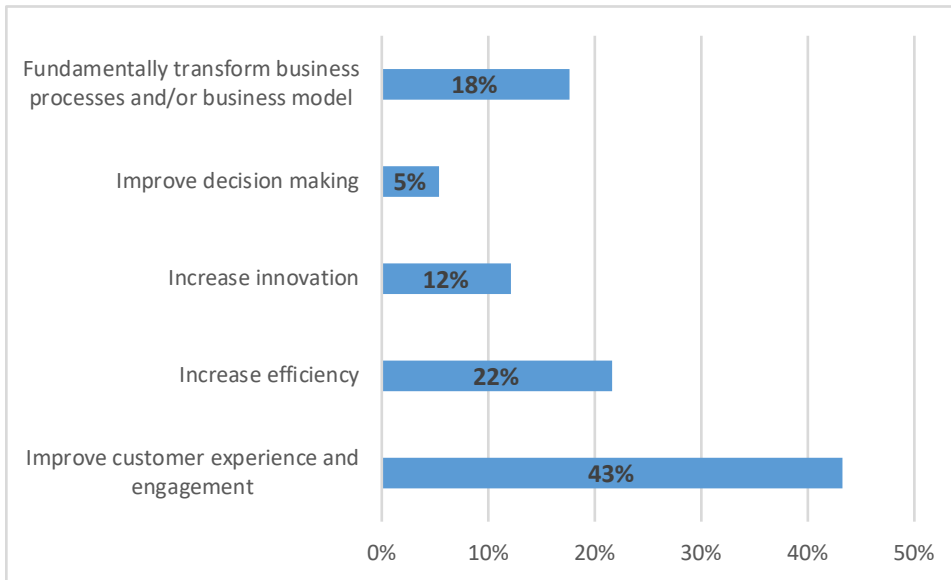


Figure 2 – Responses to Question 2 (n = 74)

The overwhelming digital strategy objective for Canadian organizations is to “Improve customer experience and engagement”. The least strategic objective is to “Improve decision making.” Comparison with the MIT survey is not as straight forward as question 1, due to the formatting of the Canadian surveys. However, the ranking is similar, as depicted below, suggesting that Canadian organizations have focused on the same objectives as their global peers.

Strategic objective	Canadian Rank	Global Rank
Improve customer experience and engagement	1	1
Increase efficiency	2	2
Increase innovation	4	3
Transform business process or business model	3	4
Improve decision making	5	5

After the COVID-19 Recession: Are Canadian Organizations Ready for the Digital Future?

Q3- How far into the future does your organization project when developing its enterprise digital strategy?

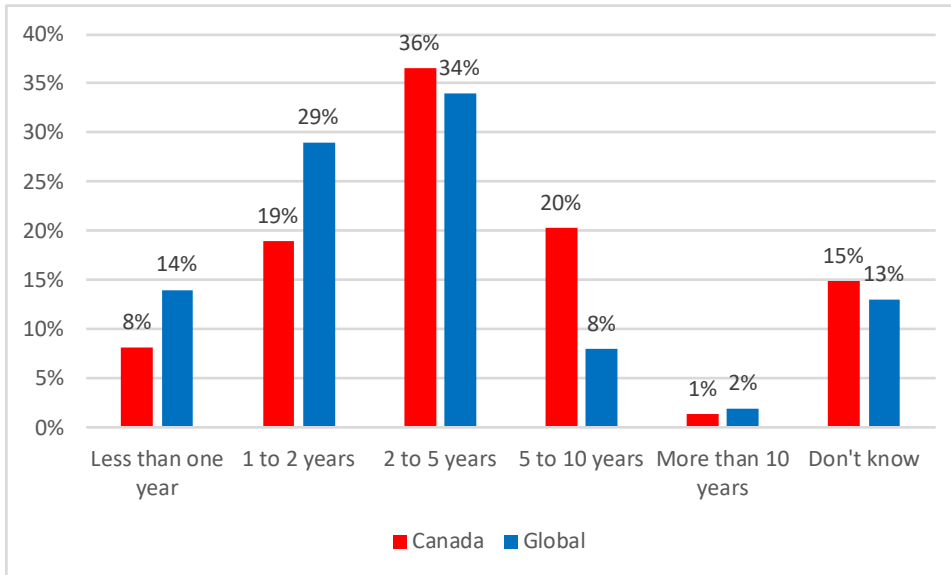


Figure 3 – Responses to Question 3: Canada (n=74) and Global (from MIT)

In this question, the most interesting gap between Canada and the Global results is at the “5 to 10 year” mark, where Canadians are two and a half times more likely to plan their digital enterprise strategy. In contrast, while 43% of Global firms are more likely to focus on a “now to two-year strategy” only 27% of Canadian organizations have the same short focus. Canadian firms are playing the long game and may not appreciate how rapidly competition can emerge with new digital technologies.

Q4 - To what extent do you believe digital technologies will disrupt your industry?

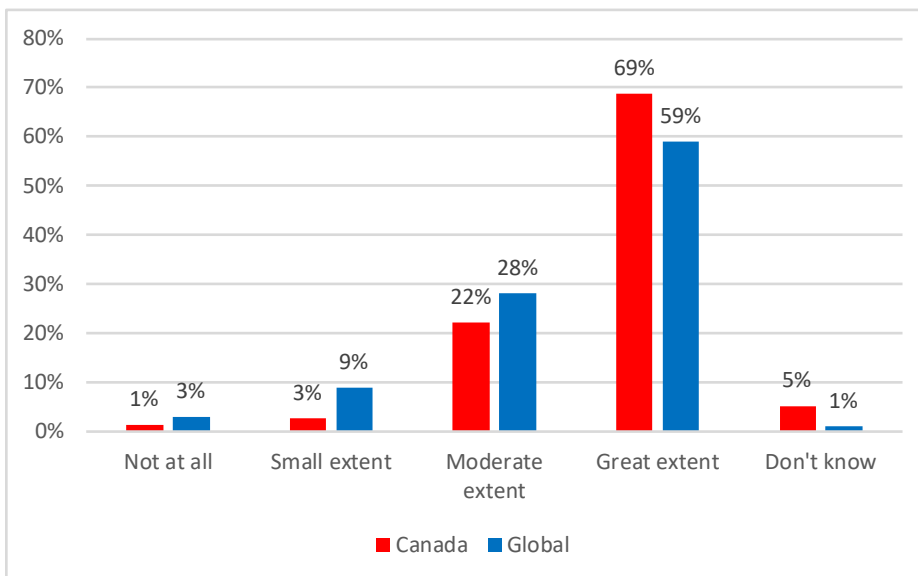


Figure 4 – Responses to Question 4: Canada (n=77) and Global (from MIT)

After the COVID-19 Recession: Are Canadian Organizations Ready for the Digital Future?

Canadian organizations have a strong anticipation (at 69%) that digital technologies will disrupt their industry, to a “great extent”. This is 10% higher than the global response (at 59%), perhaps indicating that four years after the original survey, Canadian organizations are much more aware of the impact of digital disruption, having seen examples of how competition can be changed by new technologies. A harsher interpretation suggests that although Canadian organizations are aware of the coming disruption, they are either unwilling or unable to do anything about it.

Q5 - My organization is adequately preparing for disruptions projected to occur in my industry due to digital trends

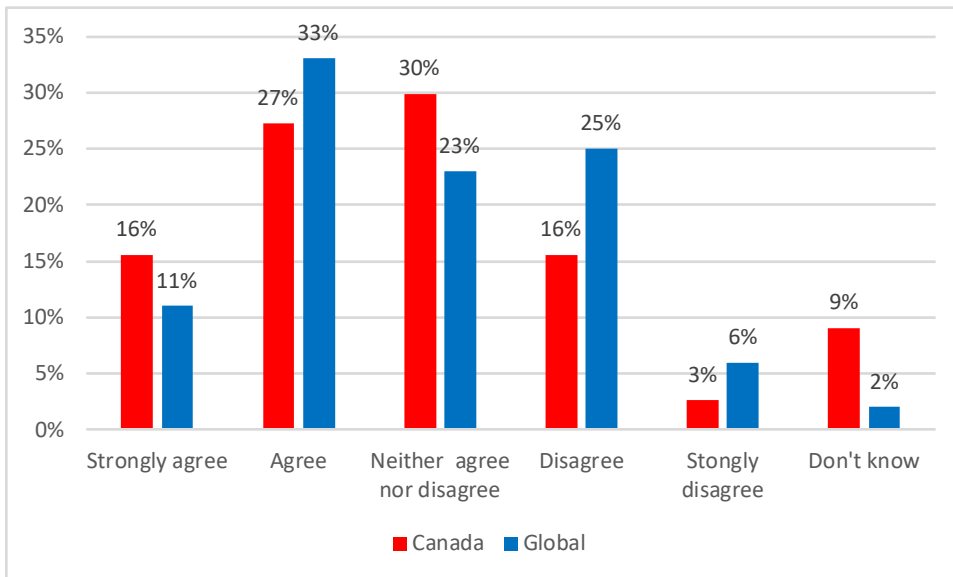


Figure 5 – Responses to Question 5: Canada (n=79) and Global (from MIT)

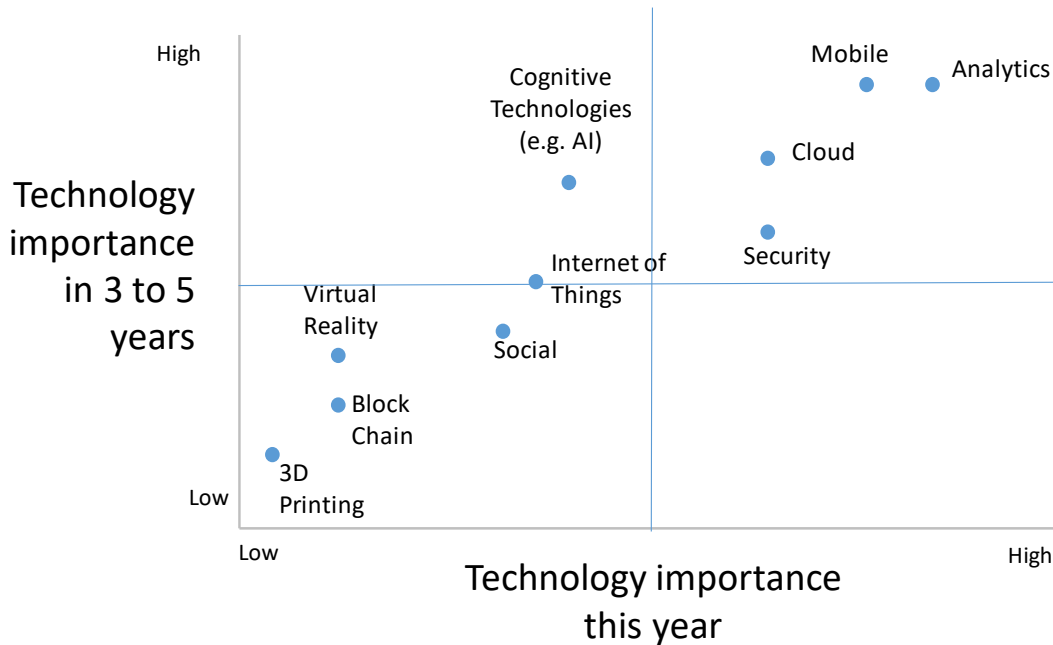
In this question, for those who agree (and strongly agree), the comparison between Canada and the Global survey is very close, with 43% of Canadian organizations adequately preparing for disruption, with 44% of the global organizations doing the same. Worryingly, 9% of Canadian organizations simply do not know if they are adequately preparing, compared to only 2% of the global survey respondents.

The next set of questions, from the long survey, ask respondents which technologies they see as important now and in the future. Figure 6 below depicts responses to the following two questions:

- Q18: Which specific technologies are most important to your organization this year?
- Q19: Which specific technologies are most important to your organization in the next 3-5 years?

The chart plots the current and future importance according to the number of votes provided by 38 respondents, allowing for multiple votes in each question.

After the COVID-19 Recession: Are Canadian Organizations Ready for the Digital Future?



**Figure 6 Current and future importance of selected technologies (Q18, Q19)
Canada n=38**

Over the past few years, authors have used the acronym SMAC to describe disruptive digital technologies, referring to Social, Mobile, Analytics, and Cloud. Based on results of these two questions, we could propose a revision to that acronym: Security, Mobile, Analytics and Cloud. In the top right quadrant, these four technologies are both important now and into the future. It is safe to say that any digital strategy must always consider these four as table stakes.

At the other end of the spectrum, in the bottom left, are technologies that our respondents valued significantly less. 3D Printing and Virtual Reality are interesting, but are not seen as important, either now or in the next 3-5 years by the 38 business respondents. We should note that the demographics of our respondents did not feature individuals from manufacturing, mining, or other heavy industries that may value these technologies. Respondents also rated Blockchain as less important, which is perhaps more interesting considering that our respondents featured heavily from the financial sector.

Technologies to watch include the Internet of Things, which appears to be rising in future importance, and is reasonably important now. Another to watch is Social, which has been a well-explored topic, but seems to be flat or declining in importance into the future. However, the standout winner in this chart is Cognitive Technologies, which include AI. These technologies are already somewhat important and are predicted to become much more important in the future, at the same level as Cloud technologies.

After the COVID-19 Recession: Are Canadian Organizations Ready for the Digital Future?

Technology	This year	Rank this year	Change in 3-5 years	Trend
Analytics	19%	1	-14%	Decline
Mobile	17%	2	-5%	Decline
Security	14%	3	-25%	Decline
Cloud	14%	3	-6%	Decline
Cognitive Technologies	9%	4	40%	Grow
Internet of Things	8%	5	11%	Grow
Social	7%	6	0%	Flat
Blockchain	3%	7	67%	Grow
Virtual Reality	3%	7	133%	Grow
3-D Printing	1%	8	200%	Grow

Important technologies now, but not expected to grow in future importance

These are the technologies to watch, importance will grow

Although these technologies will grow, they are not very important, yet

Table 1 Technology Importance- Changes in 3-5 years

For leaders of both the organization (e.g. CEOs) and technology (e.g. CIOs) three clear messages emerge, as depicted in the above table.

First, continue to devote resources to the four top technologies: Security, Mobile, Analytics and Cloud. This implies strong relations and contracts with external vendors, developing skills and expertise internally, and understanding how to use these technologies to understand and serve your customers better. These technologies will form the foundation of your enterprise digital strategy.

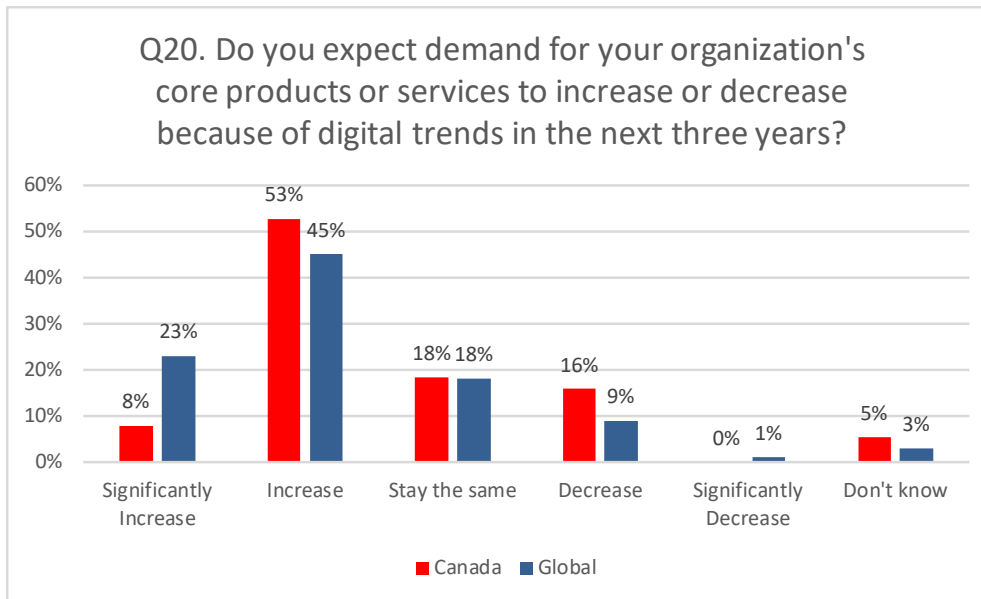
Second, invest now in AI and other cognitive technologies such as natural language processing (e.g. in the call centre) and Robotic Process Automation (RPA). The survey suggests that these technologies will become even more important in the future, and they will apply across a broad range of industry sectors and applications. Indeed, AI is poised to become a foundational, general-purpose technology like electricity or the internet.

Third, be cautious of investing time and resources into specific technologies, such as 3D printing and Virtual Reality, unless there is a clear benefit or need in your organization. These technologies demand a business case justification. Blockchain may be a sleeper technology, with general applicability across many sectors, but the evidence is not yet apparent. Certainly, Blockchain enables crypto-currencies such as Bitcoin, but that is a focused and specific application.

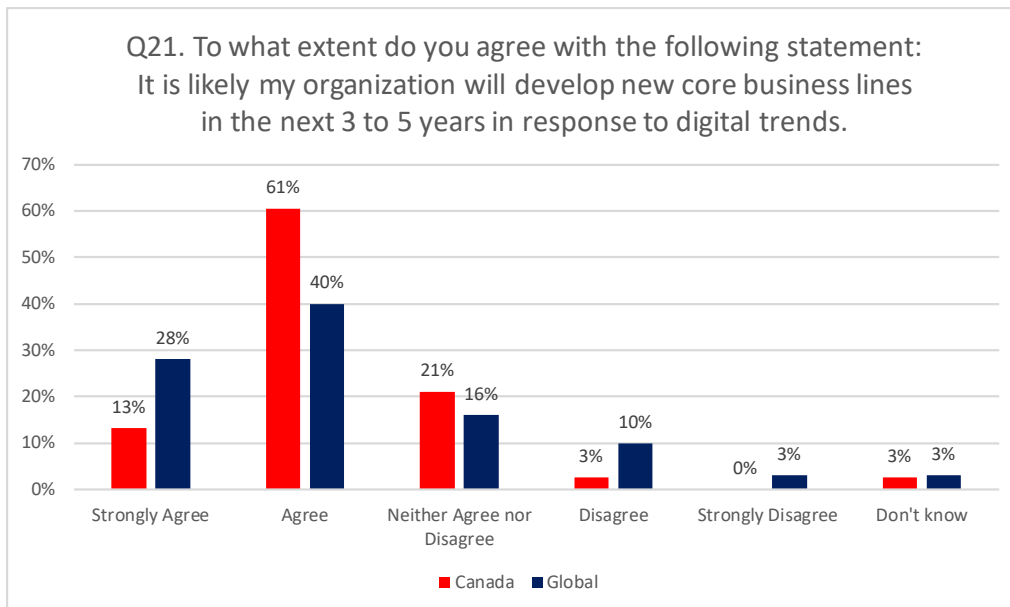
Lastly, although Social technologies receive much fanfare, they may not be as important as promoters (at least for business) would suggest, either now or in the future. Of course, if our respondents were selling to a younger demographic, Social technologies may have ranked higher. Our survey respondents, particularly in the banking sector, did not place significant importance on Social technologies.

The next questions examine how demand for products and services will change because of digital trends.

After the COVID-19 Recession: Are Canadian Organizations Ready for the Digital Future?



The responses to this question suggest that demand for current products and services will increase because of digital trends. However, in Canada that expectation is muted compared to the global data. Of the Canadian respondents, 61% expect increased demand, compared to 68% of the global respondents. In particular, expectations of the global respondents are almost three times more than Canadian expectations for significant increase in demand (23% vs 8%). In contrast, it is interesting to see that 16% of Canadians expect a decrease in demand because of digital trends, compared to only 9% of global respondents.

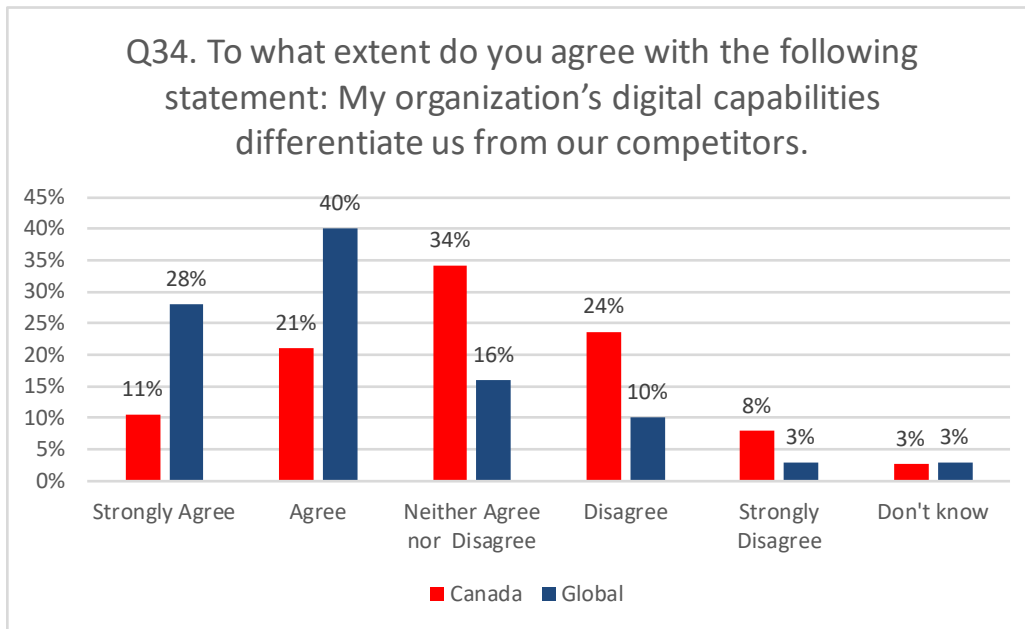


Canadians are slightly more confident that new core business lines will be developed in response to digital trends at 74% either agreeing or strongly agreeing, compared to global respondents with only 68%. However, the global respondents are more than twice as likely (28% v 13%) to strongly agree about

After the COVID-19 Recession: Are Canadian Organizations Ready for the Digital Future?

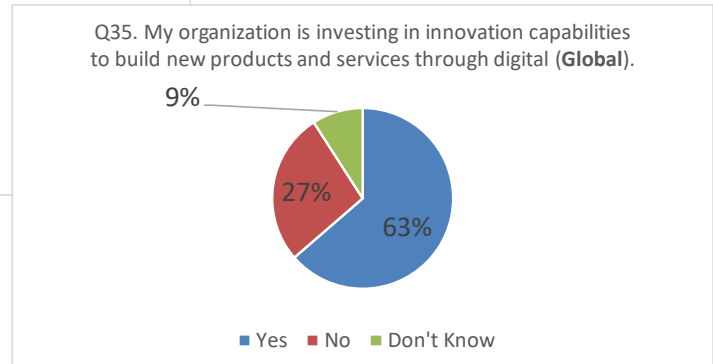
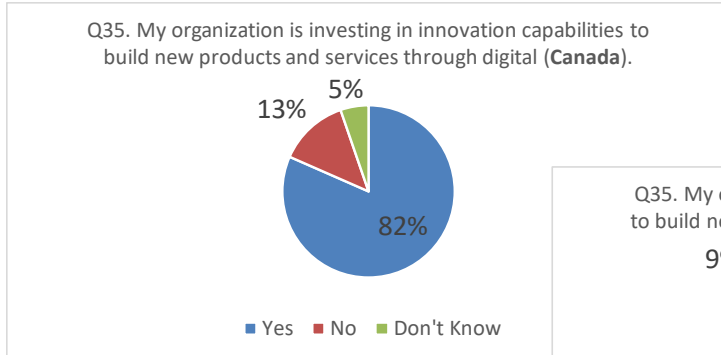
new core business lines compared to Canadian respondents, again suggesting a more cautious view in Canadian organizations.

The next five questions explore how the reputation and culture of the organization are changing due to digital capabilities.

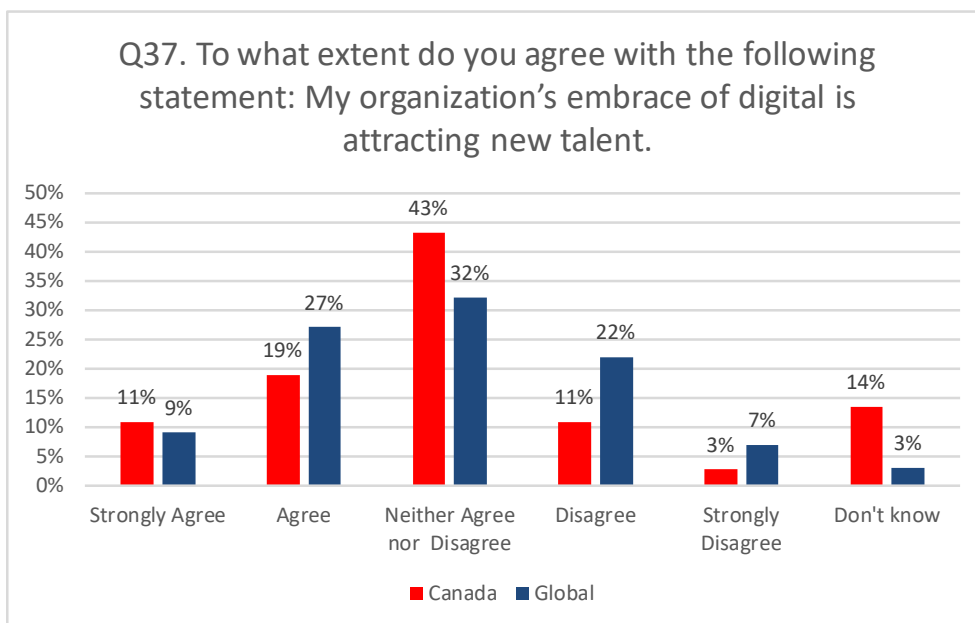


The distinction between Canadian and global respondents is very clear in this question. Canadian organizations are more likely to disagree that the digital capabilities will differentiate them from their competitors, with 32% compared to a global response of 13%. In contrast, the global respondents are much more likely agree or strongly agree, at 68%, that their digital capabilities will distinguish them from their competitors. Only 32% of Canadian respondents agree or strongly agree. The middle category, Neither Agree nor Disagree, sums up the Canadian position, with about a third of respondents sitting in the middle. Clearly Canadian organizations have lower expectations regarding digital capabilities. This may be for several reasons, such as the bulk of digital innovation coming from outside of Canada making digital capabilities less of a differentiator and more “table stakes” to remain competitive. Alternatively, this perspective could be due to less conviction in the value of digital technologies by Canadians.

After the COVID-19 Recession: Are Canadian Organizations Ready for the Digital Future?



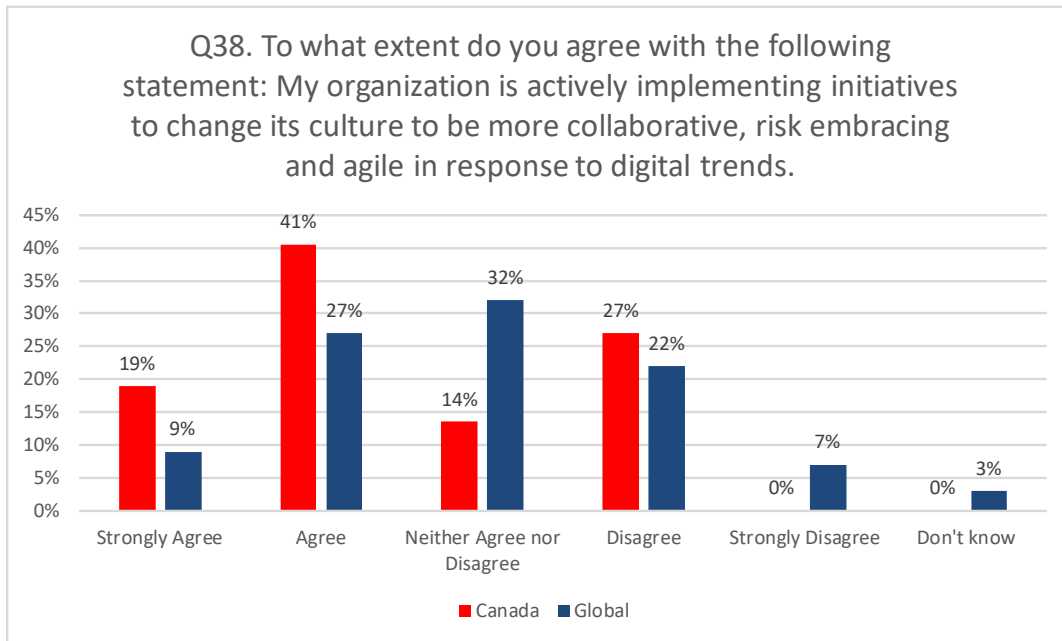
Question 35 highlights a very positive picture, however, one that could be explained by the timing of the survey data collection. Canadian organizations show a strong leadership pattern in investing in innovation capabilities to build new products and services using digital technologies, with 82% of respondents agreeing compared to only 63% of global respondents. Though a promising subjective report, it would be interesting to validate this data through confirmed investment amounts.



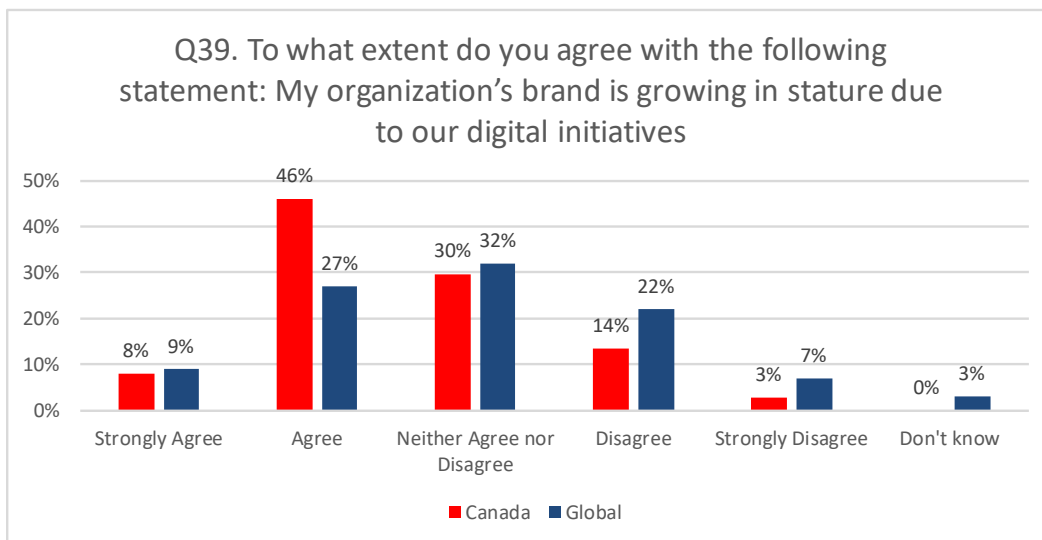
In this question, the Canadian responses are more aligned with those from global organizations. Although there is a substantial number of Canadian responses in the middle (43% Neither Agree nor Disagree), the global responses are much higher in the Disagree category with 22% compared to Canada's 11%. These responses may reflect the difference in timing for the data collection, with Canadian data collected in 2018-2020 and the global data collected in 2015-2016. The recognition

After the COVID-19 Recession: Are Canadian Organizations Ready for the Digital Future?

of digital capabilities being attractive for new talent is more developed now in Canada than it would have been three or four years ago.



This is a good news story for Canadian organizations, with 60% agreeing or strongly agreeing, compared to 36% of global respondents that their organization is responding with cultural changes to respond to digital trends.



After the COVID-19 Recession: Are Canadian Organizations Ready for the Digital Future?

Again, a very good profile for Canadian organizations who agree or strongly agree (54%) that their brand is growing in stature due to digital initiatives. Global organizations are less likely to see that growing stature with a total of 36% agreeing or strongly agreeing.

Interpretation

First the good news: Canadian organizations are focusing on similar strategies as their global peers, with a priority on improving customer experience and engagement with digital technologies. This suggests that technologies using digital devices such as smart phones, smart home devices, wearables, etc., connected to 5G internet will be the focus of most organizations, as well as understanding and anticipating customer expectations using large volumes of data analyzed with artificial intelligence services. Less important will be the desire to fundamentally transform the business or support internal decisions using digital technology. As well, Canadian organizations appear to be equally (or more) concerned about the extent to which digital technologies will disrupt their industry and seem to be adequately preparing for the disruptions that will occur in their industry; Canadian organizations are on par with their global peers with respect to digital disruption readiness.

However, our data suggest that Canadian organizations are less clear about their digital strategy and may have a fuzzy view of the challenges ahead, with a less coherent strategy compared to their global peers. As well, with a planning horizon of more than two years (an average of 2 to 5 years), Canadians perhaps feel less urgent about digital disruption than their global peers, where the planning horizon is well below two years. This can be risky; U.S. organizations have the potential to overtake and disrupt even some of our most regulated and established industries. Surprisingly, 15% of the respondents simply do not know the planning horizon, and when coupled with the 9% who don't know if their organization is adequately preparing for disruption, a more worrisome picture begins to appear.

In our view, Canadian institutions have historically been less aggressive than our American and global counterparts, in part due to our more stringent regulation and the business culture it creates. Until recently, Canada has had a mixed relationship with high technology. We had brief stints of global success at the turn of the millennium with Nortel and RIM, but have gone quiet for a while. However, now that Toronto, Montreal, Edmonton, and other cities are becoming world-renowned hubs for AI and other technologies, the broader Canadian business community should look to leverage this home-grown talent and innovation to become leaders and disruptors on the global stage.

Conclusion

Why is this important?

Canadian organizations are not immune to digital disruption. Some industry sectors such as banking, education, and healthcare may be protected by government regulations. However, even these stoic sectors are feeling the demand for digital transformation during the pandemic. Canada is a small market relative to Europe, China and others. However, for US organizations Canada can be an attractive market because of its proximity and cultural similarities. Competition and disruption via digital technologies seems inevitable for most Canadian industry sectors, but our survey suggests that there is complacency and lack of clear readiness in the near-term for most organizations.

After the COVID-19 Recession: Are Canadian Organizations Ready for the Digital Future?

In lieu of confident, large-scale digital strategies, Canadian organizations must be willing to experiment more with digital technologies. Given the somewhat cautious culture that we have observed with this survey, organization-wide change will be difficult. However, small, separated working teams (skunkworks), can be effective, low-risk ways to trial new digital innovations and build momentum and buy-in from employees before broader roll-out. Moreover, as a global leader in research on emerging technologies such as AI, Blockchain, and more, Canada has no excuse to be a laggard on the global stage. Digital disruption has become an inevitable reality of modern business.

Are you ready to disrupt or will you be disrupted?



The authors extend a thank you to the 92 individuals who participated in the survey, through the Schulich Executive Education Centre at York University. This discussion paper poses several interesting questions for Canadian organizations based on the data collected and presented here. The authors welcome your thoughts and feedback.

We welcome you to join our upcoming September program at SEEC to explore how your organization can prepare for digital disruption. Here's our education program site: [Strategies for Managing Disruptive Digital Change](#). Our next class will focus on digital strategies to get through the recession.

We expect to revisit these issues in future Discussion Papers from the Centre of Excellence in Disruption and Transformation. Let us know if you would like to participate.

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Appendix 1 – Research Methodology

Over the course of 15 months, from November 2018 to January 2020, a team of Toronto researchers at the Centre of Excellence in Disruption and Transformation collected data to understand how well Canadian organizations are prepared for disruption to their business from digital technologies. The data collection consisted of five (or more) survey questions to understand the expected impact and timing of the digital disruption. The survey questions are based on a similar set of questions from MIT, published in a 2016 article in Sloan Management Review, “Aligning the Organization for Its Digital Future”. The researchers previewed and discussed preliminary findings with workshop participants to help interpret and understand implications.

Seven groups of participants completed 92 surveys. Each group consisted of managers and senior executives who participated in a Toronto-based workshop, a learning module or an electronic survey, where the topic of discussion was disruption and transformation through digital technologies. Two survey formats were used, one with a short set of five questions and a longer one with 34 questions. The five questions were included in the set of 34. In total, 54 short surveys were completed and 38 long surveys were completed.

The table below provides an overview of how and when the survey was administered.

Source	Timing	Long (34 questions) or Short (5 questions)	Number of responses
1. Client education class	November 2018	Long	18
2. Innovation lecture - 1	April 2019	Short	16
3. Innovation lecture - 2	September 2019	Short	11
4. Client workshop	October 2019	Short	6
5. Transformational Leadership lecture	October 2019	Short	8
6. Outsourcing e-survey	November 2019	Short	13
7. Invited e-survey	January 2020	Long	20
Total			92

Appendix 2 - Survey Demographics

For the long survey, respondents provided data regarding Industry, Country or Region of Operations and Size of Organization (number of employees). The three charts below provide survey demographic data from the 38 long survey respondents.

