



INTELLIGENTLY DRIVEN:

FACTORS ASSOCIATED WITH THE USE OF
AND ATTITUDES TOWARD ARTIFICIAL
INTELLIGENCE IN SMALL BUSINESSES

Mark D. Drapeau

May 2024

SUMMARY

Using data from a survey of 2,000 leaders of small and medium-sized businesses (SMBs) defined as having 500 full-time employees (FTEs) or fewer, we investigated several major factors correlated with using artificial intelligence (AI) in SMB workplaces. We found that younger SMB leaders, SMBs with more employees, and SMBs that sell physical goods are much more likely to understand and use AI and see its current and future importance than their counterparts. We also found that urban-based SMBs, SMB leaders of color, and male SMB leaders are more likely to understand and use AI and see its current and future importance than their counterparts. These results have implications for lawmakers, marketing and sales employees in the AI space, technology training, education professionals, and the broad innovation economy.

FINDINGS

MAJOR FACTORS ASSOCIATED WITH THE USE OF AND ATTITUDES TOWARD AI AT SMBS

Age of SMB Leaders

SMB leader age is a major factor associated with the use of and attitudes toward AI. For example, 71% of leaders between 18 and 34 are using AI in their businesses already, compared to only 40% at SMBs with leaders over 55 years of age, a difference of 31%. 63% of leaders 18-34 have already seen positive outcomes compared to only 36% of leaders over 55 - a 27% difference. Younger leaders are also more likely to say they understand AI tools, believe that they will be a part of their business' success in the near future, and prioritize training their workforce on them.

Current understanding and use of AI at SMBs

	Overall	SMB leaders (55+)	SMB leaders (35-54)	SMB leaders (18-34)
Understand AI tools and how they might be used in their small business	72%	56%	73%	82%
My small business is certainly or likely using AI right now	58%	40%	60%	71%

Current positive outcomes and success from use of AI at SMBs

	Overall	SMB leaders (55+)	SMB leaders (35-54)	SMB leaders (18-34)
Have already seen positive outcomes on their small business by using AI tools	51%	36%	51%	63%
AI tools are critical to the success of their business right now	48%	35%	47%	59%

Forward-looking attitudes on AI-related workforce training and future success at SMBs

	Overall	SMB leaders (55+)	SMB leaders (35-54)	SMB leaders (18-34)
Have training their small business workforce to use AI tools as a priority	49%	37%	49%	59%
Believe AI tools will be critical to their small business' success over the next two years	60%	44%	57%	62%

Number of SMB Employees

The number of full-time employees (FTEs) at an SMB is another major factor associated with the use of and attitudes toward AI. For example, 80% of SMBs with between 50-500 FTEs are already using AI in their businesses, compared to only 49% of SMBs with fewer than 10 FTEs, a 31% gap. And whereas 68% of SMB leaders with 50-500 FTEs believe AI tools are critical to their business right now, that figure is only 39% for SMB leaders with fewer than 10 FTEs, a gap of 29%. Leaders of SMBs with more FTEs are also more likely to say they understand AI tools, believe that they will be a part of their business' success in the near future, and prioritize training their workforce on them.

Current understanding and use of AI at SMBs

	Overall	SMB FTEs (0-9)	SMB FTEs (10-49)	SMB FTEs (50-500)
Understand AI tools and how they might be used in their small business	72%	65%	73%	87%
My small business is certainly or likely using AI right now	58%	49%	63%	80%

Current positive outcomes and success from use of AI at SMBs

	Overall	SMB FTEs (0-9)	SMB FTEs (10-49)	SMB FTEs (50-500)
Have already seen positive outcomes on their small business by using AI tools	51%	42%	57%	69%
AI tools are critical to the success of their business right now	48%	39%	51%	68%

Forward-looking attitudes on AI-related workforce training and future success at SMBs

	Overall	SMB FTEs (0-9)	SMB FTEs (10-49)	SMB FTEs (50-500)
Have training their small business workforce to use AI tools as a priority	49%	39%	54%	72%
Believe AI tools will be critical to their small business' success over the next two years	60%	48%	58%	72%

SMBs Selling Goods vs. Services

We segmented businesses that sell physical goods (and may or may not also offer services) and those that only sell services in order to understand whether the more complex nature of selling physical goods (typically some mix of digital marketing, online and in-person sales, and product fulfillment and logistics including remote customer service and product returns) lends itself to using AI more often. Indeed, we found that whether an SMB sells physical goods is another major factor associated with the use of and attitudes about AI. For example, 56% of leaders of SMBs selling goods say AI tools are critical to their business success right now, as opposed to only 31% from SMBs only offering services - nearly twice as many. 57% of leaders of SMBs selling goods say training their workforces on AI is a priority, compared to only 32% at services-only SMBs; again, nearly twice as many.

Current understanding and use of AI at SMBs

	Overall	SMBs that sell only services	SMBs that sell physical goods
Understand AI tools and how they might be used in their small business	72%	56%	80%
My small business is certainly or likely using AI right now	58%	39%	68%

Current positive outcomes and success from use of AI at SMBs

	Overall	SMBs that sell only services	SMBs that sell physical goods
Have already seen positive outcomes on their small business by using AI tools	51%	33%	60%
AI tools are critical to the success of their business right now	48%	31%	56%

Forward-looking attitudes on AI-related workforce training and future success at SMBs

	Overall	SMBs that sell only services	SMBs that sell physical goods
Have training their small business workforce to use AI tools as a priority	49%	32%	57%
Believe AI tools will be critical to their small business' success over the next two years	60%	40%	63%

ADDITIONAL FACTORS ASSOCIATED WITH THE USE OF AND ATTITUDES ABOUT AI AT SMBS

Race of SMB Leaders

The race of SMB leaders is an additional factor associated with the use of and attitudes toward AI at SMBs. In this section, the differences between groups are consistent and real but relatively smaller than those of the “major” factors above. Hispanic and Black SMB leaders understand, use, and have more enthusiasm for AI in the workplace than White SMB leaders. For example, 71% of Black leaders say their business already uses AI compared to only 55% of White leaders, a 16% difference. And 62% of Hispanic leaders say AI is critical to their business right now, in contrast to only 45% of White leaders - a 17% difference.

Current understanding and use of AI at SMBs

	Overall	White SMB leaders	Hispanic SMB leaders	Black SMB leaders
Understand AI tools and how they might be used in their small business	72%	69%	82%	81%
My small business is certainly or likely using AI right now	58%	55%	68%	71%

Current positive outcomes and success from use of AI at SMBs

	Overall	White SMB leaders	Hispanic SMB leaders	Black SMB leaders
Have already seen positive outcomes on their small business by using AI tools	51%	48%	62%	61%
AI tools are critical to the success of their business right now	48%	45%	62%	55%

Forward-looking attitudes on AI-related workforce training and future success at SMBs

	Overall	White SMB leaders	Hispanic SMB leaders	Black SMB leaders
Have training their small business workforce to use AI tools as a priority	49%	46%	59%	58%
Believe AI tools will be critical to their small business' success over the next two years	60%	53%	65%	61%

Gender of SMB Leaders

The gender of SMB leaders is a second additional factor associated with the use of and attitudes toward AI at SMBs. Here, too, the differences between groups are consistent and real but relatively smaller than those of the “major” factors above. Male SMB leaders understand, use, and have more enthusiasm for AI in the workplace than female SMB leaders. For example, a majority (57%) of male leaders say they have already seen positive business outcomes from using AI, compared to only 45% of female leaders - a 12% difference. Generally speaking, the factor of gender appears to have a smaller effect on the use of and attitudes about AI at SMBs than race.

Current understanding and use of AI at SMBs

	Overall	Female SMB leaders	Male SMB leaders
Understand AI tools and how they might be used in their small business	72%	67%	76%
My small business is certainly or likely using AI right now	58%	55%	62%

Current positive outcomes and success from use of AI at SMBs

	Overall	Female SMB leaders	Male SMB leaders
Have already seen positive outcomes on their small business by using AI tools	51%	45%	57%
AI tools are critical to the success of their business right now	48%	44%	52%

Forward-looking attitudes on AI-related workforce training and future success at SMBs

	Overall	Female SMB leaders	Male SMB leaders
Have training their small business workforce to use AI tools as a priority	49%	43%	55%
Believe AI tools will be critical to their small business' success over the next two years	60%	51%	60%

Location of SMBs

This survey was given to SMB leaders based in rural, suburban, and urban locations (self-reported), which is another factor associated with the use of and attitudes toward AI at SMBs. Urban-based SMB leaders understand, use, and have more enthusiasm for AI in the workplace than rural- or suburban-based SMB leaders. For example, 60% of urban-based SMB leaders have already seen positive outcomes from using AI tools, compared to just 46% of rural-based leaders - a 14% difference. And 65% of urban-based SMB leaders believe AI tools will be critical to their small business success over the next two years, compared to just 40% of rural-based leaders - a 25% difference.

Current understanding and use of AI at SMBs

	Overall	Rural SMBs	Suburban SMBs	Urban SMBs
Understand AI tools and how they might be used in their small business	72%	69%	67%	79%
My small business is certainly or likely using AI right now	58%	54%	55%	67%

Current positive outcomes and success from use of AI at SMBs

	Overall	Rural SMBs	Suburban SMBs	Urban SMBs
Have already seen positive outcomes on their small business by using AI tools	51%	46%	47%	60%
AI tools are critical to the success of their business right now	48%	43%	43%	58%

Forward-looking attitudes on AI-related workforce training and future success at SMBs

	Overall	Rural SMBs	Suburban SMBs	Urban SMBs
Have training their small business workforce to use AI tools as a priority	49%	44%	44%	60%
Believe AI tools will be critical to their small business' success over the next two years	60%	50%	51%	65%

DISCUSSION

SMBs number in the millions, are found in every city and town, work in every industry, and sell anything and everything you can imagine (and some things you can't imagine). In this report, we briefly review how different segments of SMBs have dramatically different uses of and attitudes about AI in their workplaces.

Factors most associated with these differences among SMBs are the age of the SMB leader surveyed, the number of FTEs at the SMB, and whether or not the SMB sells physical goods (which requires more of a supply chain, multiple sales methods, and the logistics and customer service associated with fulfilling orders). Younger SMB leaders, larger SMBs, and SMBs that sell goods are far more likely to already use AI and have more positive attitudes about its business value than their counterparts.

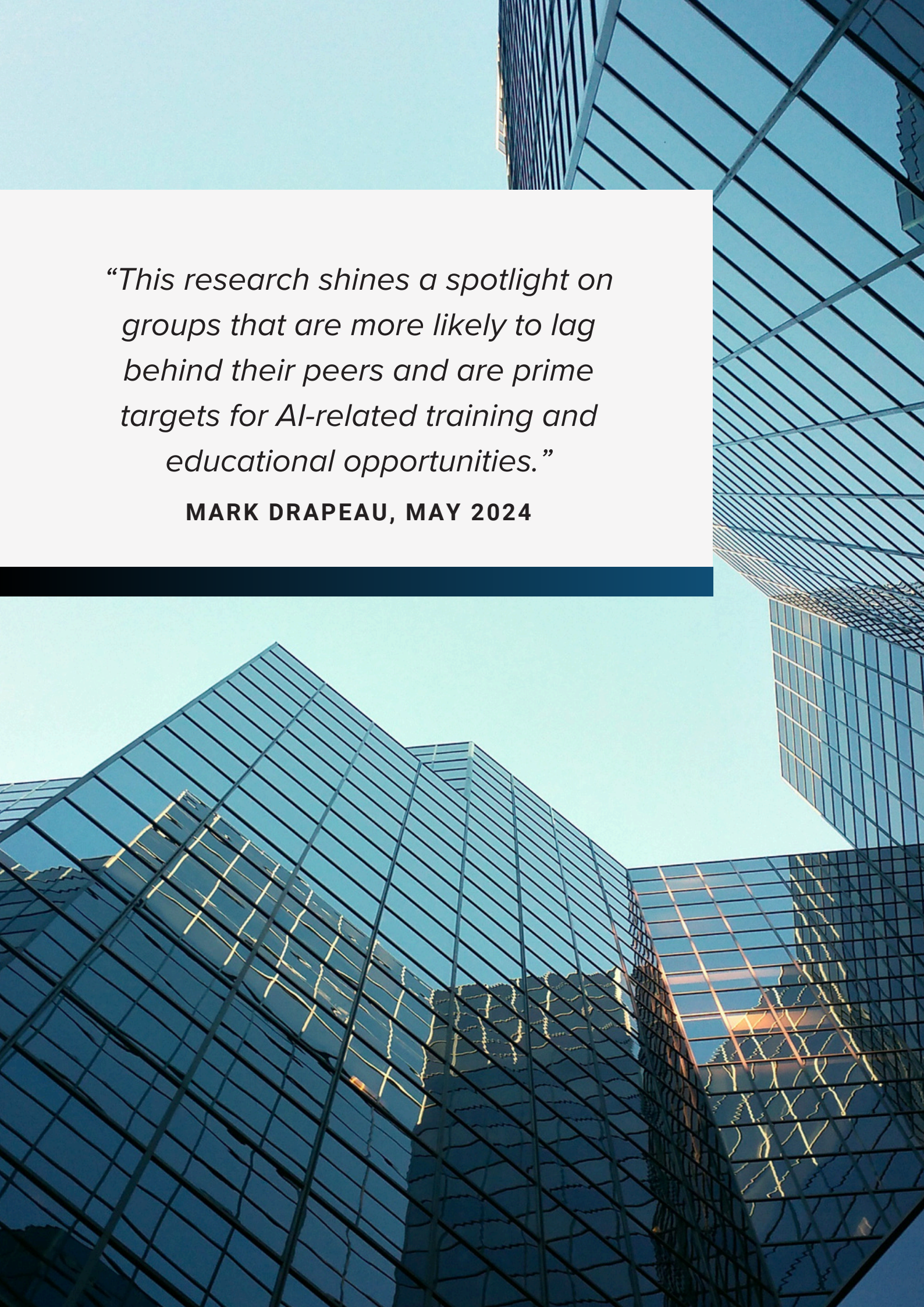
We also identified SMB leaders' race and gender, and the SMB's location (urban vs. rural) as additional factors that have relatively smaller associations with higher or lower AI use. SMB leaders who are male, Hispanic/Black, and urban-based SMBs are more likely to already be using AI and have more positive attitudes about its business value than their counterparts. (We note that similar findings on the relationship between AI and some of these factors were published by the Bipartisan Policy Center in March 2024.)

While the reasons behind these associations aren't fully clear, and they are likely due to a mix of direct and indirect effects, the differences between SMB groups are strong and consistent. More research is needed to understand these associations in more depth, but the implications are clear. SMBs and their leaders are not a monolith, and when it comes to AI or any digital tool, there will be SMBs and leaders that are more advanced and those that lag behind.

With AI seemingly being such a major component of future success, SMBs and leaders that fit the description of small, rural, services-oriented businesses are less likely to seize this opportunity and more likely to lag behind their counterparts. On a more positive note, though, this research helps to shine a spotlight on groups that are more likely to lag behind their peers and which are thus prime targets for AI-related training and educational opportunities.

METHODS

The Data Catalyst Institute conducted an online survey of 2,000 SMB leaders (owners and senior decision-makers) across the U.S. from November 27 - December 4, 2023. The survey has a margin of error of +/- 2.2%; the margins of error are larger for subgroups. The final data were weighted to known variables, including Census data. The full results of our survey can be found [here](#). The Connected Commerce Council (3C) originally published a subset of the survey data as “Small Businesses See the Transformative Potential of Artificial Intelligence” [here](#).

A low-angle, upward-looking perspective of several modern skyscrapers with glass facades. The buildings are arranged in a way that creates a sense of height and scale, with the sky visible in the background. The glass reflects the sky and each other, creating a complex pattern of lines and reflections. The overall color palette is dominated by the blue of the sky and the dark, reflective surfaces of the buildings.

“This research shines a spotlight on groups that are more likely to lag behind their peers and are prime targets for AI-related training and educational opportunities.”

MARK DRAPEAU, MAY 2024