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SME Business Insights

Artificial Intelligence: 4 in 10 SMEs think AI will make their business more profitable. Understanding & investment varies widely by industry. Finance, Business & Personal services leading the way. Productivity gains & less admin are key opportunities, but barriers remain, particularly around training.

Artificial intelligence (AI) is the reproduction of human intelligence processes by machines, especially computer systems. The technology is rapidly evolving and is likely to become transformative across industries as it reshapes traditional practices and ushers in a new era of intelligent business solutions. In this special SME Business Insight report, NAB explores awareness and understanding of AI among Australian SMEs, how it could potentially assist businesses, if SMEs have or plan to invest in emerging technology solutions to help run their business operations, what SMEs perceive as the main benefits of these emerging technology solutions to businesses and the main barriers to using them.

Understanding of AI and how it can potentially help business is becoming widespread among Australian SMEs, though varies significantly by industry, with Business Services and Finance & Insurance leading the way. SMEs are already actively investing time or money in areas such as AI, machine learning IoT, and automation to help run their business operations. Investment is most prolific in SA and WA. When asked about the main benefits of these emerging technology solutions, productivity increases and reductions of administrative tasks came out on top. 4 in 10 think it will make business more profitable. Though SMEs see a wide range of benefits, many also acknowledge a number of key barriers. NAB's findings are based on the survey responses from over 700 Australian SMEs across states and industries.

Key Findings

Awareness or understanding of AI and how it can potentially help business is widespread among Australian SMEs - though the level of understanding or awareness varies considerably.

Encouragingly 15% of SMEs overall indicated they have a clear understanding of AI and are keen to explore its possibilities and almost 3 in 10 (28%) said they understood the concept of AI and how it could potentially assist their business in the future. Over 4 in 10 (44%) SMEs said they had a basic understanding of AI and its potential (which they have picked up mainly from media/social media). Just over 1 in 10 (12%) had little to no understanding.

Familiarity and comprehension of AI and its potential applications does however vary across the main states, and significantly more by industry.

By state, having a clear understanding of AI and its potential was highest in QLD (18% of SMEs) and lowest in SA and WA (13%). WA (33%) had the highest number who understood the concept and how it could assist business, and QLD the lowest (25%). Only 1 in 3 (36%) SMEs in WA had a basic understanding, compared to around 1 in 2 in all other states. A much higher number of SMEs in WA (17%) also indicated they had no understanding of AI, particularly when compared to NSW, QLD and SA (11%).

By industry, while almost 3 in 10 SMEs in Business Services (28%) and Finance & Insurance (28%) had a clear understanding of AI and its possibilities, this fell to just 6% in Wholesale. Almost 1 in 2 in Finance & Insurance (46%) also understood the concept and how it could help business - more than twice the number in Retail (22%). Basic awareness ranged from around 6 in 10 in the Retail and Wholesale (57%) sectors to 3 in 10 in Finance & Insurance (28%). Around 1 in 5 SMEs in Transport & Storage (21%) and Construction (21%) had no awareness or understanding of AI, compared to none in Finances & Insurance (0%) and very few in Business Services (3%).

Many Australian SMEs are already actively investing time or money in emerging technology solutions such as AI, machine learning IoT, and automation to help run their business operations.

Almost 1 in 4 (23%) SMEs have already invested, while a further 1 in 5 (20%) have not yet done so but are planning to. Almost 1 in 2 (49%) have not invested and are unlikely to do so, and just under 1 in 10 (8%) do not know. Investment was most prolific in SA and WA where 3 in 10 (30%) have invested, and least so in NSW (21%) and VIC (20%). Around 1 in 5 SMEs in most key states were planning to invest, except in SA where only 15% planned to. Around 1 in 2 in QLD (51%), VIC (50%) and NSW (49%) have not invested and are unlikely to do so, compared to only 4 in 10 in WA (41%). The number that did not know ranged from 5% in QLD to 11% in NSW.

The number of SMEs that have invested in emerging technology solutions ranged considerably across industries - from around 4 in 10 in Personal Services (42%), Business Services (37%) and Finance & insurance (36%), but much lower in Wholesale (13%), Retail (16%) and Construction (17%). The number planning to invest was lowest in Manufacturing (15%) Construction (15%) and Personal Services (16%), and more than doubled in Finance &

Insurance (31%), Business Services (31%) and Accommodation & Hospitality (29%). Around 6 in 10 in Wholesale (61%), Construction (50%) and Manufacturing (59%) have not invested and have no plans to invest in this technology, compared to just 1 in 4 (26%) in Finance & Insurance.

When asked about the main benefits of AI technology solutions, around 6 in 10 SMEs identified productivity increases (58%) and reductions of administrative tasks (57%).

About 4 in 10 think it will make business more profitable (39%), Around 1 in 3 (32%) said it will reduce the need to employ staff, while 3 in 10 expect to reap benefits as online queries are dealt with by technology (29%). Only 1 in 20 (6%) see no benefits from using this technology.

This did however vary across the main states. While 6 in 10 SMEs in QLD (61%), NSW and VIC (60%) believe productivity increases were key, this fell to just 1 in 2 in WA (52%) and SA (48%). Noticeably more SMEs in NSW (62%), pointed to reduced administrative tasks, particularly compared to SA (50%). A reduction in the need to employ staff resonated with most SMEs in QLD (36%) and the least in SA (22%). Far more SMEs in VIC (43%) believe emerging technology solutions will improve business profitability than in WA (30%), and somewhat more in NSW (33%) that it will help in dealing with online queries than in other states. Just over 1 in 10 (11%) in SA saw no benefits - around twice more than in most other states.

Most SMEs in all sectors believe the main benefits of emerging technology solutions businesses will come from productivity gains, except Manufacturing and Construction where most think they will benefit from reduced administrative tasks. The survey also found a much higher number signalling gains from productivity increases in Finance & Insurance (82%), Business Services (78%) and Health Services (72%), particularly when compared to Construction (47%). Reduced administrative tasks were most viewed as a benefit in Finance & Insurance (74%) and Accommodation & Hospitality (68%), and least in Retail (51%) and Transport & Storage (54%). Twice as many SMEs in Accommodation & Hospitality (42%) and Manufacturing (41%) believe emerging technology solutions will reduce the need for staff than in Wholesale and Transport & Storage (21%), while noticeable more in Personal Services (47%) said it will help in dealing with online queries, particularly when compared to those in Transport & Storage (14%). The highest number of SMEs who saw no benefits were in Accommodation (11%) and Retail (9%).

Though SMEs see many benefits of emerging technology solutions for businesses, many also acknowledge barriers to using this emerging technology.

The main barrier according to around 1 in 2 (48%) SMEs overall is the need for training. For 1 in 3, lack of time (36%), not understanding the technology (35%) and cost (32%) were problematic. Around 3 in 10 (28%) SMEs simply did not know how to start. Very few - only 7% - saw no barriers to using emerging technologies.

The need for training was identified as a barrier by more SMEs in SA (52%) than in other states, especially when compared to WA (42%). Time was also a bigger issue for more SMEs in SA (41%) and NSW (39%), and not understanding the technology in VIC (38%). Only 15% of SMEs in SA saw price as an issue - around half that in all other key states. A broadly similar number (around 3 in 10) in all states did not know how to get started, while a lot more SMEs in QLD (13%) saw no barriers than in other states.

Most SMEs in all sectors identified the need for training as a barrier to using emerging technology solutions, except in Health Services where time was the main barrier and in Retail where a similar number also said they did not understand the technology. That said, the number of SMEs that highlighted training as a barrier ranged widely - from over 6 in 10 (61%) in Accommodation & Hospitality to less than 4 in 10 (38%) in Retail. The number that cited time was highest in Health (49%) and lowest in Retail (28%). Not understanding emerging technologies was a bigger barrier in Construction (40%), Transport & Storage (39%) and Retail (38%), and lowest in Manufacturing (25%). Price was an issue for most SMEs in Health (38%) and Finance & Insurance (36%), and not knowing how to start in Accommodation & Hospitality (35%), Construction (34%) and Wholesale (33%), and lowest by a considerable margin in Health (15%). The highest number of SMEs who saw no barriers from emerging technology solutions to businesses were in the Personal Services sector (12%).

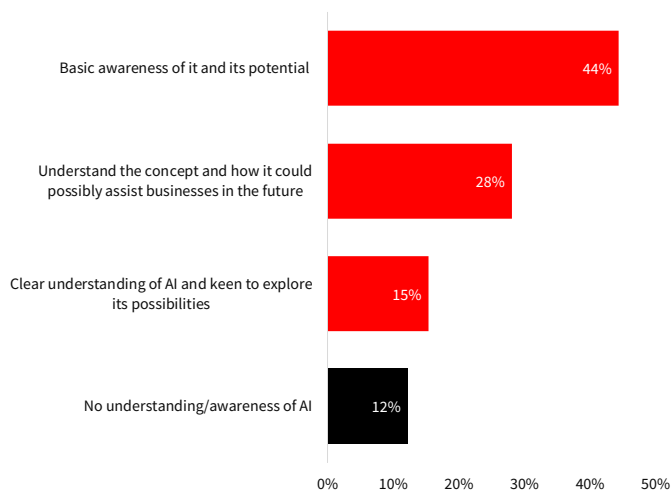
Main Report:

Artificial intelligence (AI) is the reproduction of human intelligence processes by machines, especially computer systems. Rapidly evolving, it is becoming a transformative force in for businesses across industries and reshaping traditional practices. From automation and customer service to marketing, finance and beyond, AI’s virtual capabilities are leading in a new era of intelligent business solutions.

In this special SME Business Insight report, NAB explores awareness and understanding of AI among Australian SMEs and how it could potentially assist businesses, if SMEs have or plan to invest in emerging technology solutions (such as AI, Machine Learning, Internet of Things (IoT), Automation) to help run their business operations, and what SMEs perceive as the main benefits of these emerging technology solutions to businesses and the main barriers to using them.

Our findings are based on the survey responses from over 700 Australian SMEs across states and industries.

Awareness/Understanding of AI & How it Could Potentially Assist Businesses



Awareness or understanding of AI and how it can potentially help business is widespread among Australian SMEs - though the level of understanding or awareness varies considerably.

Encouragingly, almost 3 in 10 (28%) SMEs overall said they understand the concept of AI and how it could potentially assist businesses in the future. In addition, a further 15% indicated they have a clear understanding of AI and are keen to explore its possibilities

Over 4 in 10 (44%) of SMEs also indicated they have only a basic understanding of AI and its potential (which they have picked up mainly from media/social media).

Just over 1 in 10 (12%) of SMEs had no understanding or awareness of AI.

Awareness and understanding of AI and its potential applications does however vary across the main states, and significantly more so across industries.

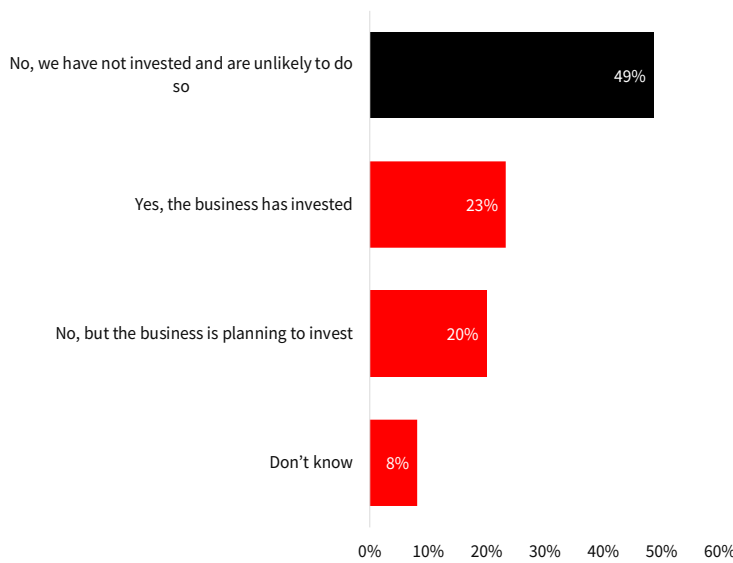
Awareness of AI & Potential to Assist Business: State & Industry

	Basic awareness of AI and its potential	Understand concept & how it could possibly assist businesses in future	Clear understanding of AI and keen to explore its possibilities	No awareness or understanding of AI
All SMEs	44%	28%	15%	12%
NSW	46%	28%	15%	11%
QLD	47%	25%	18%	11%
SA	46%	30%	13%	11%
VIC	44%	27%	16%	13%
WA	36%	33%	13%	17%
Manufacturing	46%	30%	11%	13%
Construction	43%	26%	11%	20%
Retail	57%	22%	12%	9%
Wholesale	57%	25%	6%	13%
Transport & Storage	43%	25%	11%	21%
Finance & Insurance	28%	46%	26%	0%
Business Services	37%	32%	28%	3%
Personal Services	30%	30%	23%	16%
Accommodation & Hospitality	48%	26%	19%	6%
Health Services	31%	33%	23%	13%

By state, the number of SMEs who had a clear understanding of AI and were keen to explore its potential was highest in QLD (18%) and lowest in SA and WA (13%). WA (33%) had the highest number who understood the concept and how it could assist business, and QLD the lowest (25%). Only 1 in 3 (36%) SMEs in WA had a basic understanding, compared to around 1 in 2 in all other states. A much higher number of SMEs in WA (17%) also indicated they had no understanding of AI, particularly when compared to NSW, QLD and SA (11%).

Industry responses varied much more. Whereas almost 3 in 10 SMEs in Business Services (28%) and Finance & Insurance (28%) had a clear understanding of AI and were keen to explore its possibilities, it fell to just 6% in Wholesale. Almost 1 in 2 in Finance & Insurance (46%) also understood the concept and how it could help business - more than twice more than in Retail (22%). Basic awareness ranged from around 6 in 10 in the Retail and Wholesale (57%) sectors to 3 in 10 in Finance & Insurance (28%). Around 1 in 5 SMEs in Transport & Storage (21%) and Construction (21%) had no awareness or understanding of AI, compared to none in Finances & Insurance (0%) and very few in Business Services (3%).

Invested/Planning to Invest in Emerging Technology Solutions



Many Australian SMEs are already actively investing time or money in emerging technology solutions such as AI, machine learning IoT, and automation to help run their business operations.

Our survey results reveal that almost 1 in 4 (23%) SMEs have already invested in emerging technology solutions. A further 1 in 5 (20%) have not yet done so, but are planning to invest. Almost 1 in 2 (49%) have however not invested and are unlikely to do so, and just under 1 in 10 (8%) do not know.

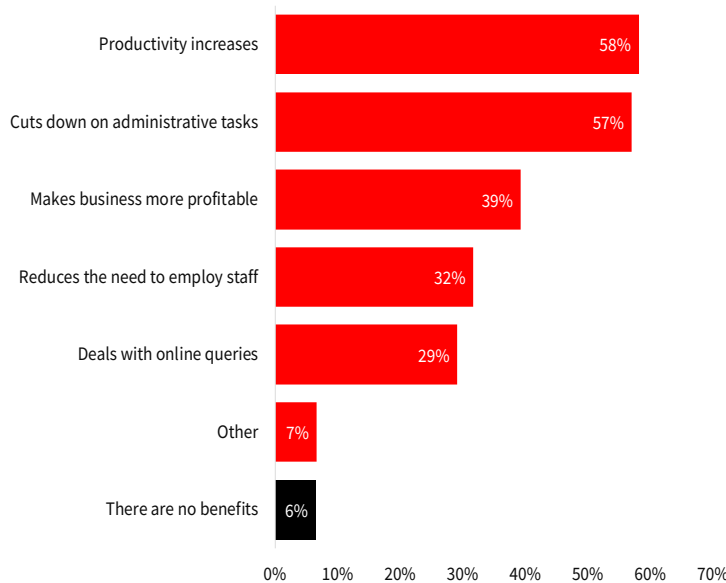
Investment was most prolific among SMEs in SA and WA where 3 in 10 (30%) said their business has invested, and least so in NSW (21%) and VIC (20%). Around 1 in 5 SMEs in most key states were planning to invest, except in SA where only 15% planned to. Around 1 in 2 in QLD (51%), VIC (50%) and NSW (49%) have not invested and are unlikely to do so, compared to only 4 in 10 in WA (41%). The number that did not know ranged from 5% in QLD to 11% in NSW.

Invested/Planning to Invest in Emerging Tech Solutions: State & Industry

	Yes, the business has invested	No, but the business is planning to invest	No, we have not invested and are unlikely to do so	Don't know
All SMEs	23%	20%	49%	8%
NSW	21%	20%	49%	11%
QLD	24%	20%	51%	5%
SA	30%	15%	46%	9%
VIC	22%	21%	50%	6%
WA	30%	22%	41%	7%
Manufacturing	20%	15%	56%	10%
Construction	17%	15%	60%	7%
Retail	16%	21%	53%	10%
Wholesale	13%	18%	61%	8%
Transport & Storage	25%	21%	43%	11%
Finance & Insurance	36%	31%	26%	8%
Business Services	37%	31%	29%	3%
Personal Services	42%	16%	30%	12%
Accommodation & Hospitality	26%	29%	42%	3%
Health Services	31%	13%	49%	8%

The number of SMEs that have invested in emerging technology solutions ranged considerably across industries - from around 4 in 10 in Personal Services (42%), Business Services (37%) and Finance & insurance (36%), but much lower in Wholesale (13%), Retail (16%) and Construction (17%). The number planning to invest was lowest in Manufacturing (15%) Construction (15%) and Personal Services (16%), but more than doubled among SMEs in the Finance & Insurance (31%), Business Services (31%) and Accommodation & Hospitality (29%) sectors. Around 6 in 10 in the Wholesale (61%), Construction (50%) and Manufacturing (59%) sectors have not invested and have no plans to invest in this technology, compared to just 1 in 4 (26%) in the Finance & Insurance sector.

Main Benefits of Emerging Technology Solutions to Businesses



Around 6 in 10 SMEs see the main benefits of emerging technology solutions coming from associated productivity increases (58%) and reductions of administrative tasks (57%). About 4 in 10 think it will make business more profitable (39%), Around 1 in 3 (32%) said it will reduce the need to employ staff, while 3 in 10 expect to reap benefits as online queries are dealt with by technology (29%). Only 1 in 20 (6%) see no benefits from using this technology.

This did however vary across the main states. While 6 in 10 SMEs in QLD (61%), NSW and VIC (60%) believe that productivity increases were key, this fell to just 1 in 2 in WA (52%) and SA (48%). Noticeably more SMEs in NSW (62%), also pointed to reduced administrative tasks, particularly when compared to SA (50%). A reduction in the need to employ staff resonated with most SMEs in QLD (36%) and the least in SA (22%). Far more SMEs in VIC (43%) believe emerging technology solutions will improve business profitability than in WA (30%), and somewhat more in NSW (33%) that it will help in dealing with online queries than in other states. Just over 1 in 10 (11%) in SA saw no benefits - around twice more than in most other states.

Main Benefits of Emerging Tech Solutions for Businesses: State & Industry

	Productivity increases	Cuts down on administrative tasks	Reduces need to employ staff	Makes business more profitable	Deals with online queries	There are no benefits	Other
All SMEs	58%	57%	32%	39%	29%	6%	7%
NSW	60%	62%	32%	39%	33%	6%	6%
QLD	61%	55%	36%	39%	26%	6%	5%
SA	48%	50%	22%	39%	26%	11%	15%
VIC	60%	57%	32%	43%	26%	7%	8%
WA	52%	52%	29%	30%	30%	4%	4%
Manufacturing	54%	61%	41%	38%	26%	5%	3%
Construction	47%	57%	32%	35%	21%	8%	10%
Retail	53%	51%	28%	34%	38%	9%	3%
Wholesale	51%	46%	22%	31%	31%	7%	8%
Transport & Storage	57%	54%	21%	50%	14%	4%	18%
Finance & Insurance	82%	74%	36%	46%	33%	3%	8%
Business Services	78%	59%	29%	54%	25%	3%	6%
Personal Services	63%	63%	37%	49%	47%	7%	2%
Accom & Hospitality	55%	68%	42%	35%	29%	10%	3%
Health Services	72%	56%	36%	38%	28%	5%	8%

Most SMEs in all sectors believe the main benefits of emerging technology solutions businesses will come from productivity gains, except Manufacturing and Construction where most think they will benefit from reduced administrative tasks. The survey also found a much higher number signalling gains from productivity increases in Finance & Insurance (82%), Business Services (78%) and Health Services (72%), particularly when compared to Construction (47%). Reduced administrative tasks were a benefit according to most firms in Finance & Insurance (74%) and Accommodation & Hospitality (68%), and the least in Retail (51%) and Transport & Storage (54%). Twice more SMEs in Accommodation & Hospitality (42%) and Manufacturing (41%) believe emerging technology solutions it will reduce the need for staff than in Wholesale and Transport & Storage (21%), while noticeable more in the Personal Services sector (47%) said it will help in dealing with online queries, particularly when compared to those in Transport & Storage (14%). The highest number of SMEs who saw no benefits were in the Accommodation (11%) and Retail (9%) sectors.

Main Barriers to Using Emerging Technology Solutions to Businesses



Though SMEs see many benefits of emerging technology solutions for businesses, many also acknowledge barriers to using this emerging technology. The main barrier according to around 1 in 2 (48%) SMEs overall is the need for training. For 1 in 3, lack of time (36%), not understanding the technology (35%) and cost (32%) were problematic. Around 3 in 10 (28%) SMEs simply did not know how to start. Very few - only 7% - saw no barriers to using emerging technologies.

The need for training was identified as a barrier by more SMEs in SA (52%) than in other states, especially when compared to WA (42%). Time was also a bigger issue for more SMEs in SA (41%) and NSW (39%), and not understanding the technology in VIC (38%). Only 15% of SMEs in SA saw price as an issue - around half that in all other key states. A broadly similar number (around 3 in 10) in all states did not know how to get started, while a lot more SMEs in QLD (13%) saw no barriers than in other states.

Barriers to Using Emerging Tech Solutions to Businesses: State & Industry

	Need to have training	Don't have the time	Don't understand them	Price	Don't know how to get started	Other	There are no barriers
All SMEs	48%	36%	35%	32%	28%	16%	7%
NSW	49%	39%	34%	34%	27%	15%	5%
QLD	46%	32%	31%	30%	27%	21%	13%
SA	52%	41%	33%	15%	30%	11%	4%
VIC	48%	34%	38%	33%	28%	18%	8%
WA	42%	33%	35%	35%	28%	13%	6%
Manufacturing	41%	34%	25%	25%	23%	13%	7%
Construction	56%	42%	40%	29%	34%	18%	7%
Retail	38%	28%	38%	34%	26%	17%	9%
Wholesale	43%	35%	33%	33%	33%	13%	6%
Transport & Storage	46%	32%	39%	29%	25%	14%	0%
Finance & Insurance	56%	41%	31%	36%	26%	13%	8%
Business Services	47%	32%	32%	32%	25%	19%	9%
Personal Services	53%	30%	35%	26%	26%	7%	12%
Accom & Hospitality	61%	42%	35%	35%	35%	10%	0%
Health Services	44%	49%	28%	38%	15%	31%	8%

Most SMEs in all sectors identified the need for training as a barrier to using emerging technology solutions, except in Health Services where time was the main barrier according to most SMEs and in Retail where a similar number also said they did not understand the technology. That said, the number of SMEs that highlighted training as a barrier ranged widely - from over 6 in 10 (61%) in the Accommodation & Hospitality sector to less than 4 in 10 (38%) in Retail. The number that cited time was highest in Health Services (49%) and lowest in Retail (28%). Not understanding emerging technologies was a barrier according to most SMEs in the Construction (40%), Transport & Storage (39%) and Retail (38%) sector, and by the lowest number in Manufacturing (25%). Price was an issue for most SMEs in Health Services (38%) and Finance & Insurance (36%), and not knowing how to start in Accommodation & Hospitality (35%), Construction (34%) and Wholesale (33%), and lowest by a considerable margin in Health Services (15%). The highest number of SMEs who saw no barriers from emerging technology solutions to businesses were in the Personal Services sector (12%).

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