NAB LABS AUSTRALIAN BUSINESS INNOVATION INDEX 2017



BUSINESS INNOVATION BEHAVIOURS IN AUSTRALIA

NAB Behavioural & Industry Economics

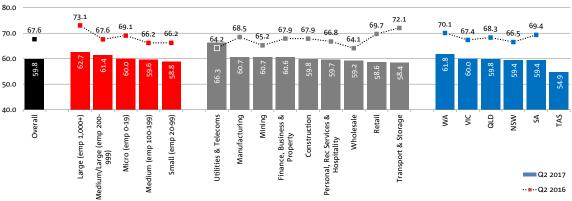
September 2017

The NAB Labs Business Innovation Index measures innovation based on what a business does "differently", "more quickly" and "more cost efficiently" - behaviours at the very heart of innovation. The Index measures innovation across all business sizes and sectors. In this report, around 1,500 Australian businesses were asked to assess their innovation behaviour as well as the "culture of innovation" (i.e. their perception of innovation) within their own firm, industry, and Australia as a whole. While business does not believe that the culture of innovation has changed, when measured against actual behaviours, innovation appears to have declined over the past 12 months, irrespective of business size. Importantly, when innovation is encouraged by the leaders within an organisation, innovation behaviours follow.

KEY FINDINGS

- Overall, the NAB Labs Business Innovation Index fell to 59.8 points in Q2 2017, from 67.6 points a year ago, with all 3 components of the Index doing things differently, more quickly and more cost efficiently lower.
- But, business **perceptions** of the culture of innovation in Australia (6.0 points out of 10), their industry (5.7) and own organisation (6.2) were largely unchanged, despite less positive innovation **behaviours** in the last 12 months.
- Cost efficiency (60.9) continues to be the biggest driver of innovation, just ahead of doing things differently (60.3).
- Innovation was lower across all sizes of business. But large business was again highest for overall innovation (62.7) and the most innovative across all sub-components of the index. Innovation was lowest in small firms (58.8).
- Innovation was also lower in all industries relative to last year, except Utilities & Telecoms (66.3) which also scored highest overall. Transport & Storage (58.4) and Retail (58.6) scored the lowest for innovation in Q2 2016.
- Innovation moderated in all states. Western Australia (61.8) remains the most innovative state and led for doing things differently, quickly and cost efficiently. Victoria (60.0) and Queensland (59.8) were next (59.8) and Tasmania (49.3) a distant last, but from a small sample size.
- When innovation is encouraged from the top, innovation behaviours follow. NAB's Innovation Index is higher in firms where leaders encourage innovation in firms with "extensive" encouragement, overall innovation rises to 73.3 points.
- Businesses reported low levels of "radical" innovation (3.6 points) and moderate levels of "incremental" innovation (5.5). By size, all firms reported low levels of radical innovation. Large (6.1) and medium/large firms (6.0) reported somewhat higher levels of incremental innovation than micro-businesses (5.2) and small firms (5.3).
- All industries reported low levels of radical innovation, except **Utilities & Telecoms** (5.5). Incremental innovation was highest in Utilities & Telecoms (6.1) and **Manufacturing** (6.0) and lowest in **Retail** (5.1) and **Construction** (5.2).
- By state, radical innovation was highest in **Victoria** (3.7) and **Queensland** (3.7) and lowest in **Tasmania** (2.4), but **South Australia** (5.8) led the way for incremental innovation.
- The biggest benefits to business from their innovative activities were improved customer satisfaction (6.0) and productivity (5.9). Innovative activities resulted in fewer benefits associated with new products and services (5.1).

NAB LABS BUSINESS INNOVATION INDEX (score out of 100 where 0 = "not at all" & 100 = "extensively")

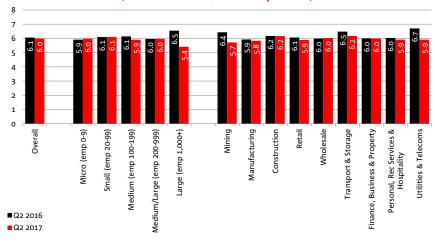


MAIN REPORT

THE CUTURE OF INNOVATION

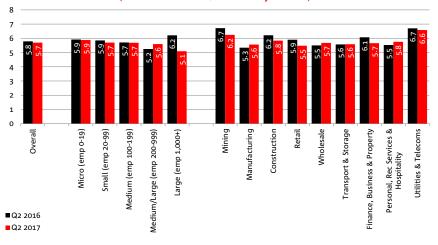
CULTURE OF INNOVATION: AUSTRALIA

(0 = not at all innovative; 10 = extremely innovative)



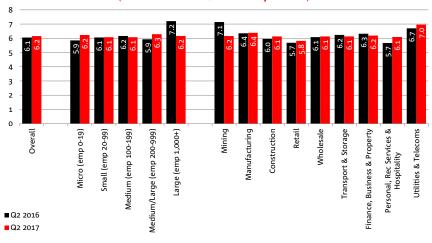
CULTURE OF INNOVATION: YOUR INDUSTRY

(0 = not at all innovative; 10 = extremely innovative)



CULTURE OF INNOVATION: YOUR ORGANISATION

(0 = not at all innovative; 10 = extremely innovative)



One way to measure innovation is to simply ask businesses how they see the level of innovation in Australia as a whole, within their industry and their own business.

Business overall views innovation in Australia "moderately", scoring 6.0 points out of 10 (10 is "extremely" innovative) and marginally lower than a year ago (6.1 points). Only 15% of all firms rated the culture of innovation in Australia "highly".

By size, most firms rated innovation in Australia the same as last year. Large businesses were the exception, scoring just 5.4 points (6.5 in Q2 2016). They also rated innovation in Australia lowest of all business sizes, with only 1 in 20 rating it "highly".

By industry, Utilities & Telecoms and Mining firms were also much less positive about innovation in Australia relative to last year.

Firms were somewhat less positive when asked to evaluate the culture of innovation within the industry they operated in scoring 5.7 points (5.8 in Q2 2016).

By size, large businesses were again much less positive (5.1 vs. 6.2). Micro businesses were the most positive (5.9 points), with 1 in 5 microbusiness firms rating the culture of innovation in their industry "highly". Medium/large firms were the only group to rate their industry innovation higher

Utilities & Telecoms firms reported the highest levels of innovation in their industry (6.6), with around 4 in 10 firms rating innovation in their industry "highly". Retailers rated innovation in their industry the lowest (5.5).

When asked to assess their own level of organisational innovation, firms were more positive, scoring 6.2 points (6.1 in Q2 2016).

There was little difference by business size. But large firms were again much less positive than in Q2 2016 (6.2 vs. 7.2).

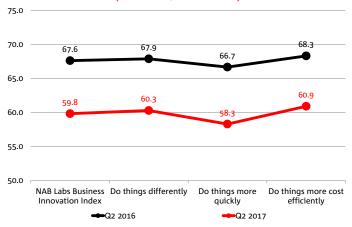
By industry, Utilities & Telecoms firms rated their organisation's innovation highest (7.0) and better than last year (6.7). But Mining firms were far less positive about innovation in their organisation than a year ago (6.2 vs. 7.1), with only 28% of firms rating it "highly" (43% in Q2 2016).

In contrast, Personal, Recreation Services & Hospitality (6.1), Construction (6.1) and Retail (5.8) firms said innovation in their organisation improved.

NAB LABS BUSINESS INNOVATION INDEX

NAB LABS BUSINESS INNOVATION INDEX

(0 = not at all; 100 = extensive)



NAB Labs Business Innovation Index provides another measure of innovation that is more intuitive and easily applicable to all business, regardless of size, type, industry or location.

The Index is based on the extent to which firms' have "tweaked", "adjusted", "improved" or "changed" anything in their business that allowed them in the past year to do things:

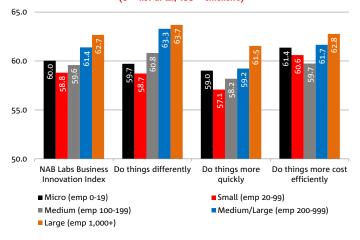
- differently:
- more quickly; and
- more cost efficiently

Overall, the NAB Labs Business Innovation Index fell to 59.8 points in Q2 2017, from 67.6 points a year ago (out of 100, where 0 is "not at all" and 100 is "extensive).

All 3 components of the Index also fell. Cost efficiency (60.3) continues to be the biggest driver of innovation, marginally ahead of doing things differently (60.3).

These results highlight a dis-connect between businesses perceptions of innovation culture and their innovation behaviours over the past 12 months, perhaps reflecting a less conducive economic environment over the past year and more cautious business behaviours.

NAB LABS BUSINESS INNOVATION INDEX: BUSINESS SIZE (0 = not at all; 100 = extensive)



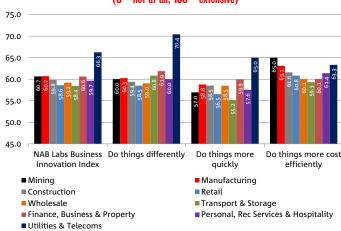
The NAB Labs Business Innovation index continues to mask some big differences in innovation by business size, industry and state.

Large business continued to score highest for overall innovation (62.7), but much less so than at the same time last year (73.1).

Large business also led for innovation across all subcomponents of the index - especially in relation to doing things more quickly. Again however all sub-components were rated lower than last year.

Small business (58.8) was the least innovative by business size - and across all sub-components (except for doing things more cost efficiently, where medium-sized businesses ranked lowest).

NAB LABS BUSINESS INNOVATION INDEX: INDUSTRY (0 = not at all; 100 = extensive)



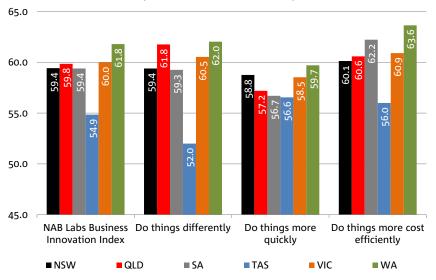
By industry, Utilities & Telecoms scored highest for innovation (66.3) by some margin. It also reported much higher levels of innovation in regards to doing things differently and quickly.

Mining (60.7), Manufacturing (60.7) and Finance, Business & Property (60.6) were the next most innovative sectors and Transport & Storage (58.4) and Retail (58.6) the least innovative - after having been the two most innovative sectors last year.

Cost efficiency was the biggest driver of innovation in all industries, except Transport & Storage, Finance, Business & Property and Utilities & Telecoms where doing things differently was most important.

We also noted that the 3 innovation behaviours impacted different industries to varying degrees. For example, Mining was the most innovative for doing things cost efficiently, but among the least innovative when it came to doing things more quickly. Transport & Storage under-performed across all subcomponents (except doing things differently).

NAB LABS BUSINESS INNOVATION INDEX: STATE (0 = not at all; 100 = extensive)



WA (61.8 points) continued to be identified as the most innovative state in the country.

Victoria (60.0) and Queensland (59.8) were the next most innovative, followed by NSW (59.4) and SA (59.4). Tasmania (54.9) was a distant last (but from a smaller sample size).

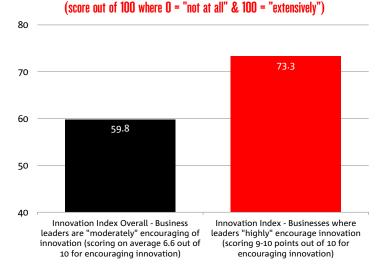
WA also led the country for doing things more cost efficiently (63.6), differently (60.3) and more quickly (59.7).

Cost efficiency (60.9) and doing things differently (60.5) were the biggest drivers of innovation in Victoria. In Queensland, doing thing differently (61.8) was the biggest driver of innovation, while cost efficiency (62.2) was a much bigger driver of innovation in South Australia. In NSW, all 3 sub-components of the index contributed about the same to overall innovation.

Tasmania reported the lowest levels of innovation across components of the NAB Labs Business Innovation Index.

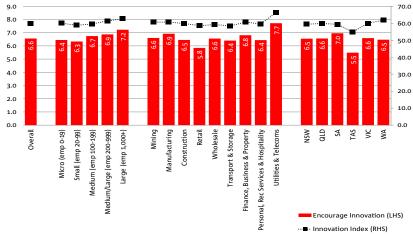
ENCOURAGING INNOVATION

NAB LABS BUSINESS INNOVATION INDEX - OVERALL VS. FIRMS WHERE LEADERS ARE HIGHLY ENCOURAGING



EXTENT ORGANISATION'S LEADERS ENCOURAGE INNOVATION

(0 = not at all encouraged; 10 = strongly encouraged)



When Australian businesses were asked to rate the extent to which their own organisation's leaders encouraged innovation, it was clear that in some firms, leaders were more encouraging of innovation than others.

Importantly, there is a strong correlation between the level of innovation within a business and the extent to which their leaders encourage innovation - clearly when innovation is encouraged from the top, more innovation behaviours follow.

Overall, business leaders in Australia were seen as being "moderately" encouraging, scoring 6.6 points out of 10 (10 is strongly encouraged).

But in those firms that said their leaders "extensively" encouraged innovation (i.e. scored 9-10 points), innovation was much higher (73.3 points vs. 59.8).

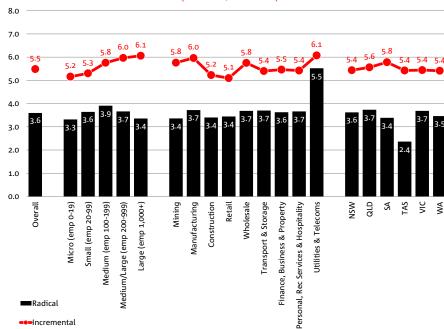
By size, leaders in large organisations were the most encouraging (7.2) and small business leaders (6.3) the least.

There was greater variation by industry. Leaders in Utilities & Telecoms firms were the most encouraging of innovation by some margin (7.7 points), followed by Manufacturing (6.9) and Finance, Business & Property (6.8). Leaders of Retail firms were rated the least encouraging (5.8).

By state, South Australia led (7.0), with business leaders in all other states ranking the same, except in Tasmania (5.5), where organisational leaders were viewed much less favourably when it came to encouraging innovation.

RADICAL & INCREMENTAL INNOVATION

EXTENT INNOVATION IN PAST 12 MONTHS HAS BEEN RADICAL OR INCREMENTAL (0 = not at all; 10 = extensive)



Innovation can be "radical" (e.g. the development of a new business, product and / or process that transforms a business) or "incremental (e.g. an improvement an existing product, service or process. For the first time, we asked businesses to identify the extent to which their innovation behaviours had been radical or incremental.

On average, businesses reported "low" levels of radical innovation and "moderate" incremental innovation, scoring 3.6 and 5.5 out of 10 respectively (10 is extensive).

By size, all firms reported low levels of radical innovation, ranging from 3.9 points for medium-sized firms to 3.3 points for micro-businesses.

Large (6.1) and medium/large firms (6.0) reported much higher levels of incremental innovation, compared to micro-businesses (5.2) and small firms (5.3).

Radical innovation was low in all sectors, except Utilities & Telecoms (5.5). Incremental innovation was highest in Utilities & Telecoms sector (6.1), Manufacturing (6.0) and Wholesale (5.8) and lowest in Retail (5.1) and Construction (5.2).

By state, radical innovation was highest in Victoria (3.7) and Queensland (3.7) and lowest in Tasmania (2.4), but South Australia (5.8) led the way for incremental innovation.



SOME EXAMPLES OF "RADICAL" INNOVATION

"Use of technology/purchased a drone for surveying."

"New plumbing drainage system that reduces labour inputs by 80%."

"Location of our administration team to be centralised rather than scattered nationally."

"Purchased another business outside our core."

"We completely changed our telephone system so we can start video calls, and work from anywhere in the world."

"We've invested a lot of capital into automation/our manufacturing production and we've outsourced services to India."

"We're taking mining technology from the surface underground, which hasn't been done before."

"We are an aquarium. For the first time we arranged a dining experience under the main tank."

"We've stopped buying newspapers for our guests. We encourage them to download in an app we provide them with."

"Breaking away from the old aged care hospital model and creating little homes within the facility. Rather than having the care staff to look after a facility of 60 people, they look after a group of 12."

"We're now using robots to do the welding where previously it was done by hand."

"Engagement with competitors- using them as partners instead of competitors."

"Moved to a new location that allowed much easier production - i.e. on a single level that allowed much better use of mechanical advantage."

SOME EXAMPLES OF "INCREMENTAL" INNOVATION

"Upgraded a kitchen and put in new innovative equipment which has sped things up."

"Slowly moving toward machine guidance control systems as capital equipment is upgraded."

"Purchase of a sat nav system to plot site works rather than physically peg all the points."

"Regular online updates to our clients to as to what is happening in the industry."

"More working from home, cutting out travel time which makes it hard sometimes."

"Moving to online sales platforms."

"Putting together a technical group better able to respond to customer requirements."

"Pre-loading of trucks to save time in customer's yard and delivering on time."

"Being a hotel, we've changed the traditional in-dining method to grab and go."

"Changing of opening times to reduce hours spent on non-productive wages."

"Increased use of social media to promote business."

"Changed a lot of the energy costings by becoming far more efficient in that area by installation of solar panels and replacing lighting with led."

"Gradual change in management practices, change in allowing staff more independence in decision making and actions."

"Introducing b-pay, online payment processes, providing parents (of students) with a portal."

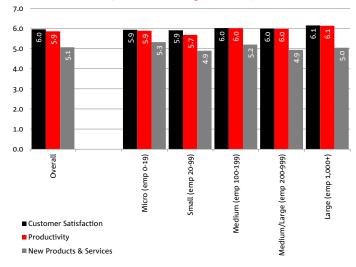
"Moved to new CBD office. Full new fit out to encourage staff to mingle and work together."

"The way we do our quotes for insurers. The use of tablets and photos/images."

BENEFITS FROM INNOVATION

BENEFITS OF INNOVATION: BUSINESS SIZE

(0 = no benefit; 10 = significant benefit)



According to surveyed Australian businesses, the biggest benefits they gained from their innovative activities came from improved customer satisfaction (6.0 out of 10 where 10 is significant benefit) and productivity (5.9). Innovative activities resulted in fewer benefits associated with new products and services (5.1).

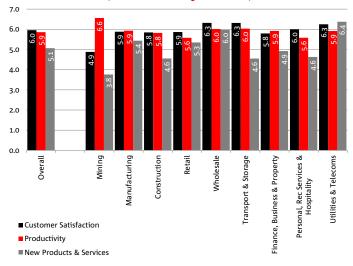
By size, all businesses derived the greatest benefits from innovation through improved customer satisfaction and increased productivity.

While improvements in customer satisfaction were broadly the same across all sizes of business, large firms enjoyed somewhat greater productivity benefits (6.1) than small firms (5.7).

Benefits of innovation were less obvious for new products and services across all sizes of business. However, the benefits were most significant in micro-businesses (5.3) and mediumsized firms (5.2 points).

BENEFITS OF INNOVATION: INDUSTRY

(0 = no benefit; 10 = significant benefit)



The benefits of innovation were much more widespread by industry.

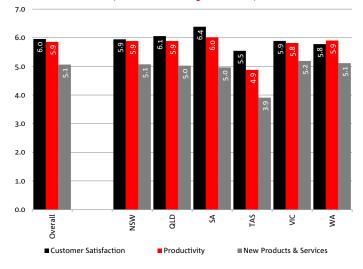
Firms operating in Wholesale (6.3), Transport & Storage (6.3), Personal, Recreational Services & Hospitality (6.3), Wholesale (6.3) and Retail (6.3) industries derived the most benefit from their innovative activities in customer satisfaction.

The biggest gains in the Mining (6.6) and Finance, Business and Property Services (5.9) industries came in the form of improved productivity. Firms in the Manufacturing (5.9) and Construction (5.8) industries enjoyed equal benefits from customer satisfaction and productivity.

Utilities & Telecoms firms were the only group who identified the greatest benefit from their organisation's innovative activities coming from new products and services (6.4). This was in sharp contrast to firms in the Mining sector, which reported very little befit coming from new products and services (3.8).

BENEFITS OF INNOVATION: STATE

(0 = no benefit; 10 = significant benefit)



By state, the benefits arising from innovative activities were greatest in South Australia in relation to customer satisfaction (6.4) and productivity (6.0).

Victoria led the way when it came to new products and services (5.2).

Firms in all states said the biggest benefits they gained from their innovative activities came from improved customer satisfaction, except in WA where the greatest benefits were in terms of productivity.

Firms in Tasmania said they derived less benefit from innovation than any other state in relation to customer satisfaction (5.5), productivity (4.9) and new products and services (3.9) - although these results may have been unduly influenced by a smaller size.

ABOUT THE SURVEY

Many businesses innovate continuously to survive and prosper. But few call this "innovation". Instead they talk about "improvements", "changes" and "adjustments" to their everyday processes, products or services.

The NAB Labs Business Innovation Index is based on what a business does "differently", "more quickly" and "more efficiently".

Around 1,500 Australians businesses across all industry sector and business sizes participated in the survey.

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