Productivity Commission

Submission to 5-Year Productivity Inquiry: Interim Report no. 3 - Innovation for the 98%

Simon Kwok, 21 October 2022

I like to thank the Productivity Commission (the Commission) for making publicly available the six volumes of insightful and informative interim reports. I made this submission as an individual drawing on insights gained from working in a number of professions in the private and public sectors. My submission is focused on contributing to the discussion of Interim Report no. 3 "Innovation for the 98%" ("the Report"). I hope my small contribution would nevertheless be useful to the inquiry.

Measuring productivity in services

Metrics for measuring (for example, hours of employees worked) and techniques for improving productivity (for example, Lean Six Sigma) are mostly adapted from the manufacturing sectors. Compared to services, the manufacturing environment is more "closed-looped" and as such there are fewer variables to control to reduce waste and lift productivity.

To illustrate this point, it is quite logical to measure manufacturing productivity to tally the number of hours worked to the value and number of widgets **produced.** In services, each time a customer **consumes** a service, it is instantiated and as such the customer experience is subjected to a range of variabilities each time (for example, availability of data, network performance, systems availability, employee behaviour etc).

Further, many services are delivered as "self-service", the customer is often the consumer and "part-producer" of the service. The customer brings a range of variabilities such as obsolete devices, cyber vulnerabilities, and language and accessibility requirements.

There is a case to develop measures and techniques that are specific to address the complexities of services.

Recommendation 1 – Government research bodies and universities to undertake primary research in "service first" techniques designed specifically to lift productivity in modern digitised services

Given the dominance of service sectors in our economy, new techniques, even if it is to improve productivity by a small fraction over existing practices, will significantly benefit the economy. For example, is the customer an actor in the service "production" process? If so, in addition to customers' satisfaction, should customers' productivity be measured? If so, how?

Innovations are important to disrupt the established modus operandi. However, it takes deliberate and concerted efforts to continuously improve the services to maximise productivity and minimise waste and errors. Government bodies like CSIRO[1] and universities have traditionally played a significant role in advancing productivity in our economy. As service sectors (market and non-market services) dominate our economy, they should play a more active role in advancing research into the science and engineering of services as mainstream disciplines in the relevant business, ICT, and engineering streams.

[1] With Data61, CSIRO already has a group with research focusing on data and digitisation.

Large businesses have an advantage over small businesses investing in service innovations

Digital transformation projects often have high hurdles in productivity improvement for small and medium businesses to justify the investments and risks. The factors include:

i) Digitisation requires a significant upfront investment in capital and resources. Once delivered, the business must keep data secure, systems up-to-date, and the services available. This demands technical and management capabilities that are high-cost, difficult to recruit, and often outside the core competencies of the business.
ii) Service innovation-enabling products and technologies may require tailoring to comply with legislative and government policy requirements and Australian standards. Small and medium businesses often need to wait for off-the-shelf products to be available in the local market. This limits the ability to introduce "first-to-industry" innovations.
iii) Small and medium businesses do not have the scale and risk appetite. They lack
    - the management capabilities[2] to successfully deliver the digital transformation cost-effectively to deliver the business outcome,
    - scale of customer base, data analytics, and social media resources to identify service improvement ideas. Service innovations are often "crowd-sourced" or "co-designed"[3]. In this context, businesses that are better resourced and with a larger customer base are in a better position to hit on promising ideas to fuel innovations,
    - the "transaction volume" to attain a reasonable return on investment (given the significant risk of failure) just on productivity savings. Large businesses can recoup their investments with transactions that are often orders of magnitude higher than small businesses, and
    - resource capacity to absorb the impact of failure. A failure to successfully implement an innovation could result in a loss of strategic advantage, revenue, and customers.

Encouraging workforce mobility to diffuse innovation

Anecdotally, there are highly capable managers and professionals across a breadth of competencies in large organisations wanting to transition from corporate employment to a more independent and flexible work pattern. They can be attributed to

- lifestyle choice trend of people looking for better work-life balance. According to ABS data[4], almost twice as many employed Australians worked from home one or more times a week in April 2022 compared with before COVID-19 restrictions in March 2020 (46% compared with 24%). Anecdotally, many would not want to return to the pre-COVID working arrangement, and
- economic/workforce trend of people quitting their regular jobs due to dissatisfaction factors such as stagnant wages, the rising cost of living, or the desire for interests and challenges outside of corporate work (the "Big Resignation", this apparent trend is often characterised as accelerated by the COVID-19 pandemic).

[2] As noted in finding 2.3 (p. 37) in Interim Report no. 3 "Innovation for the 98%"
[3] Sorry for the use of buzzwords, the idea is not new. For example, the book "Democratizing Innovation" by Eric von Hippel (The MIT Press, 2005) discussed how technologies help to accelerate user-driven innovations.
[4] ABS - Household Impacts of COVID-19 Survey https://www.abs.gov.au/statistics/people/people-and-communities/household-impacts-covid-19-survey/latest-release

According to ABS data[5], 1.3 million people (or 9.5% of employed people) changed jobs, the highest annual job mobility rate since 2012. However, it is not clear that the idea of the "Big Resignation" is supported by data[6].

Amongst the cohorts of people who want to change jobs or careers, there is a cohort of highly capable managers and professionals wanting to make a change. This cohort represents a readily available workforce pivotal to diffusing innovations, especially "new to the industry" and "new to the business" innovations to the "neglected 98 per cent".

Recommendation 2 – workforce data "deep dive"

The Australian Bureau of Statistics (ABS), National Skills Commission, and other government agencies produce timely labour and economic data and insightful analysis across a range of topics. There is an opportunity for government agencies to collaborate on providing data and analysis on professionals and managers in the Australian workforce and how they transition to new career challenges and work/life balances before retirement.

Encouraging workforce mobility to diffuse innovation

The Report provides well-researched information and analysis and made findings to uplift innovations to the "neglected 98 per cent" (page ix of the Report). I assert there is an opportunity to help diffuse innovations to the less innovative 98% of businesses by harnessing the latent capacity of experienced and highly capable managers and professionals to bring their knowledge and expertise to the wider markets.

There are highly capable managers and professionals working in large innovative businesses reaching a life stage where they want to make a transition to strike a better balance. They often want to work part-time and apply their knowledge in a consultant capacity rather than working as an employee.

As the Report highlighted (pages 45, 47-48), many businesses (especially large businesses) "outsource" tasks to implement innovations by engaging consultants. For small to medium-sized businesses, I submit that it would be even more effective to engage consultants to uplift their management capabilities as well as diffusing innovations to their business with lower risk and fewer barriers. The challenge is often connecting and sourcing the consultants with the right expertise, availability, and costs.

Recommendation 3 – harness the latent capacity of management and professional capabilities in the Australian workforce to the "neglected 98 per cent"

There is a cohort in our workforce who are highly capable and experienced and could diffuse innovations for small to medium size businesses.

Governments of the day have developed pathways and programs for people to **ente**r the workforce or re-skill to **change** industries to promote productivity. There is an opportunity for the government to consider refining the regulatory and policy settings with pathways and programs for this cohort in the workforce to make the **transition** to become independent and engage in more flexible and

[5] ABS job mobility data February 2022, https://www.abs.gov.au/statistics/labour/jobs/job-mobility/latest-release, extracted 12 August 2022.
[6] Blog post from the National Skills Commission (https://www.nationalskillscommission.gov.au/insights/looking-great-resignation-what-data-tells-us-so-far, 16 November 2021, extracted 19 October 2022)

valuable work. They can be the catalyst to accelerate the diffusion of innovations to the "neglected 98 per cent".

Regulatory and compliance settings can inhibit or accelerate innovations

The Report highlighted obstacles to innovation and diffusion (sections 3.3 and 3.4, pages 66-80) and made findings and recommendations to address these obstacles including reducing the administrative burden and barriers to innovate (Recommendation directions 3.1,3.2,3.3)

Modern businesses are under escalating demand to use data and digitised services just to be competitive. Government agencies often require businesses to be part of non-market service processes. For example, businesses in industries such as telcos, banks, fintech, and energy retailers are required to collect and store PII (Personal Identifiable Information) inside their databases. Often the PII is required by law but is not necessary for improving productivity and services.

Obviously, all businesses must secure all their business data assets. The risk to customers' trust, financial damage, and corporate reputation can be catastrophic to businesses if they are subject to a major cyber hacking incident. However, as recent events have shown, even exceptionally large and highly capable businesses are vulnerable to cyber security threats.

Refining regulatory framework and policy settings for businesses to reduce the administrative burden **and** reduce the security risk of data may help to open new entrants (by extension, potentially new innovations) into these industries and the existing industry participants become more productive.

Recommendation 3 - Innovating government services to reduce businesses' need to store personal data

There is an opportunity to enhance the Document Verification Service (DVS[7]) protocols. DVS is used by many organisations to verify identity documents online. The service currently returns a "Yes/No" response to each verification request.

Supported by a strengthened policy and regulatory framework, in addition to a "Yes/No" response, the enhanced DVS should also return a unique and auditable receipt to each request. Once the business has confirmed the document has been verified, it gives rise to the opportunity for businesses to negate the need to persist the identification data (for example, passport number, license number, date of birth etc.) in their databases. Instead, businesses only need to store electronic receipts. In circumstances where there is a legislative requirement to track down verification information, the authority can use the receipt as a "key" to track down the information.

Conclusion

The interim report no. 3 "Innovation for the 98%" highlighted significant insights into the stagnation of productivity growth in the service sectors and inhibitors to the diffusion of innovations in the "neglected" 98%' of Australian businesses that did not introduce any goods or services that were new to the world. I hope my small contribution provides additional facets of the central issue of stagnant productivity growth and innovation diffusions, and a few suggestions for addressing these issues.

[7] The ID Match website (https://www.idmatch.gov.au/) provides a detailed description of DVS.