



AUSTRALIAN SMALL BUSINESS RESPONSES TO THE COVID-19 PANDEMIC

Part 1

ABSTRACT

Small business responses to COVID-19 reflect the depth and diversity that makes this sector so challenging to study and understand. The results of this survey present strong evidence why understanding small businesses is vitally important. The resilience and adaptations, as well as the failures, suggest support beyond the merely economic will not only be needed for years to come, but will be a good investment for the future economic and social health of the country.

SEAANZ

Working Paper 1/2021

Australian Small Business Responses to the COVID-19 pandemic

BACKGROUND

Small businesses (those with less than 20 employees) make up nearly 98% of all Australian businesses. The majority (62%) are nano businesses and operate as sole traders with no employees, while micro business (1-4 employees) account for 27% and small businesses (5 -19 employees) for 8.5% of all businesses (ABS, 2019). Small business also contributes 33 per cent of Australia's GDP, employ over 40 per cent of Australia's workforce, and pay around 12 per cent of total company tax revenue. However, they are among those being hit hardest by the coronavirus pandemic, with 63% reporting a significant reduction in revenue and demand resulting from the country's lockdown measures (ABS, 2020).

Responding to the COVID-19 crisis has presented small businesses with new challenges, but there is evidence that many are looking to alternative solutions for survival in the longer term. We find evidence of changes being made which can be summed up as focussed on business innovation, flexibility and agility. Most notably, these are being explored not only in terms of the key options many small businesses see as the most likely to provide them with the ability to effectively adapt to changes in demand and needs, but also to pursue new opportunities arising from the uncertain and volatile environment.

RESEARCH OBJECTIVES

The situation facing small businesses was aptly captured very early on in the pandemic by the 'Deloitte: Small Business Roadmap for Recovery & Beyond' published in June 2020 which noted:

“it is imperative that our small businesses not only adjust and recover, but are also set up for success in the “new normal” future. Every decision made now, could impact a business’ ability to thrive in the future. This will require extraordinary flexibility, coordination, and resilience during what may be a protracted period of recovery” (Deloitte, 2020 p.3).

With these salutary words to mind, our joint Monash Business School, Small Business Mentoring Service and SEAANZ research project set the following objectives:

- To study the strategic, innovative, dynamic capabilities that Australian small businesses utilize in their responses to COVID-19, including their business continuity plan.
- To examine specifically the innovation, flexible, and agile strategies that firms adopt and the dynamic capabilities they utilize in responding to COVID-19 and their effectiveness on mitigating the damage caused by (and possibly realizing new opportunities arising from), the pandemic.
- To investigate firms’ resources and capabilities that enable them to be innovative, flexible, and agile during and after the crisis.

THE RESEARCH

This report presents the first stage of the results from an online survey from over 100 small business owners to better understand the effects of the first stage of the COVID-19 pandemic (March-July 2020) on this important sector of the Australian economy. The online survey was run over two time periods (between June and December 2020) to provide deeper insights into the dynamic competencies which have helped small business survival during the first 6 months of the COVID-19 crisis.

Expected Research Outcomes & Benefits

We hope that the outcomes of this initial write up of our research, as well as the incorporation of subsequent results, will help to inform small businesses on the effective potential solutions to help them mitigate the negative effects of the pandemic and to create a road map for recovery.

The results shed light on both the financial fragility of many small businesses, and the significant impact COVID-19 had on these businesses in the weeks after the initial COVID-19 related disruptions. The results also provide evidence on business expectations about the longer-term impact of COVID-19 (particularly the lockdown and international as well as interstate borders closure), as well as small business perceptions of the various support and relief programs offered by Federal, State and Local Governments.

While we are clearly not even close to a normal world – or even the much touted ‘COVID normal’ one, even these early results from the project can be used to establish a knowledge base for fireproofing small businesses in facing future potential volatility and uncertainty in the environment, whether they are caused by pandemic or other sources.

Australia and the COVID-19 Context

The first domestic effects of COVID-19 in Australia were documented on 23 January 2020 with the screening of passengers on flights between Wuhan and Sydney. Within two days, Australia's first four cases were recorded, and border security measures began. While these included (what has come to be commonplace practice around the world now), restrictions on foreign nationals entering the country, there were also warnings and then restrictions about leaving the country for non-essential reasons.

The first recognised cases of community transmission in Australia were recorded on 2 March 2020 with the peak number of new cases recorded on 24 March 2020. It was a period marked by uncertainty and inconsistency with mixed messages from the various State and Territory governments, as well as from Federal government. While there was general confusion and lack of clarity about everything from the size of outdoor gatherings to physical distancing measures and whether schools should close, there was still relatively little effects on day-to-day business operations.

The difference between States and Territories emerged quickly on some of these issues. For instance, by 18 March 2020, school attendance in Victoria had fallen by up to 50 per cent. However, by 22 March 2020, all bars, clubs, cafes, restaurants, gymnasiums, indoor sporting and entertainment venues and cinemas throughout Australia were closed. On 27 March 2020, all returning permanent residents and citizens were required to enter 14 days of government funded hotel quarantine and Western Australia, the Northern Territory, Queensland, South Australia and Tasmania had placed border control restrictions for anyone wanting to enter from elsewhere in Australia.¹ With all but 'essential businesses' closed and only 'essential workers' able to work, concerns about the economic effects of the pandemic were seen as important as dealing with the medical issues.

¹ We acknowledge O'Sullivan, Rahamathulla and Pawar (2020) clear chronology on the unfolding of the pandemic in Australia provided as the basis for the overview presented here

Job Keeper and Job Seeker

Two major initiatives were put in place by the Australian Government to support both businesses and individuals through the COVID-19 crisis. While the Job Seeker Payments are a continuation of the existing income support payment to individuals looking for *work*, *Job Keeper* was a new initiative aimed at employers. It provided payment to businesses significantly affected by COVID-19 to help them continue to pay their employees' wages.

The role of Job Keeper in helping small businesses survive the pandemic is likely to be a key issue and we therefore included a question about this in this survey. It is also important to note that the program has changed a number of times. The Job Keeper payment was originally designed to end in September 2020. However, in July 2020, the Australian Government announced an extension of and changes to Job Keeper with new eligibility rules introduced on 3 August 2020 and the program extended to 28 March 2021.

The Victorian Story

The extension of Job Keeper also reflects the rather different experience of COVID-19 in the State of Victoria in the second half of 2020. While the first wave of the COVID-19 Australian-wide state of emergency restrictions is generally seen as being between 03/2020 to 06/2020, Victoria experienced a second wave which saw Melbourne enter 'stage four lockdown' on the 2nd of August 2020.

The lockdown measures imposed in Victoria were seen as some of the harshest in the world at the time. They included an 8:00pm curfew, the closing of almost all shops and manufacturing as well as restrictions on individuals travelling more than 5 kilometres from their homes.

These began to be eased with the Victorian government's [roadmap for easing coronavirus lockdown restrictions](#) on Sunday 6 September 2020 and, on 8 November 2020, the lifting of the metropolitan-regional border and Melbourne's 25km movement limit.

Some of the impact on business is already known. The [ABS data](#) confirms the greater economic effect that this has had on Victoria, finding that August 2020 saw small business revenue down by 3.8 per cent — this was a 5.3 percentage point gap compared to the rest of the nation. This research seeks to further our understanding of the impact of COVID-19 on small businesses, including why and how some businesses have been able to mitigate the negative effects. Insights can be used to better support small businesses to withstand and respond to future challenges and uncertainty.

RESEARCH METHOD

The project was undertaken by a consortium of researchers from Monash Business School (MBS), Small Business Mentoring Service and Small Enterprise Association of Australia & New Zealand (SEAANZ) – see Appendix 1 for more detail on the research team.

The MBS team devised an online survey based on well proven and reliable scales investigating organisational innovative behaviour and financial performance. The project was subject to Monash Ethics Committee clearance (see Appendix 2) prior to commencement. The SBMS and SEAANZ team then emailed their members explaining the study's purpose and invited them to participate. The survey requested completion twice – the first time (Time 1 - in June 2020), was to establish a pre-COVID benchmark and capture the immediate response during the first few months of impact, while the second (Time 2 - December 2020), was sent some weeks later, to assess the longer-term effects that the small businesses were dealing with.

The results presented are generally only those that were statistically significant. They are in table format and colour coded (as shown below), to clearly highlight the importance and direction of the relationships.

Colour Code key Used in Presentation of Results

Negative		Positive	
Highly negative		Highly positive	
Very highly negative		Very highly positive	

RESULTS

In total, 107 responses were obtained from small and micro organisations for Time 1. Respondents were primarily middle aged (50-54 years of age) female owners or co-owners/partners (95%) of a nano to micro business (with between 0-4 employees). On average, respondents had owned/co-owned their organisation for 9.8 years and the majority identified as Australian. Most (60%) had a tertiary qualification and were from one of four industries (see Table 1). Over 90% of respondents came from Victoria and this explains our special focus on this state.

Almost half of the original sample responded to the second survey and provided data on the effects of the first wave of COVID-19 emergency restrictions (from 03/2020 to 06/2020). Data from this Time 2 survey continues to come in as we write. Table 1 shows this comparison and confirms that the sample of Time 2 largely replicates the profile of Time 1.

Table 1: Respondent Profile across the 2 Sample Periods

	Time 1/Pre-COVID Benchmark	Time 2/ 03/2020 to 06/2020
Age	50-54	50-54
Gender	Female – 60%	Female – 58%
Ownership	Owners/co-owners/partners - 95%	Owners/co-owners/ partners - 93%
Size	Nano & Micro (0-4 employees) - 107	Nano and Micro (0-4 employees) - 50
Owned	9.8 years	7.6 years
Ethnicity	Australian – 81%	Australian – 80%
Education	Postgraduate 22% /bachelors 21% /advanced diploma/diploma 17% Secondary education - 17%	Postgraduate 24% /bachelor 24%/ advanced diploma/diploma 24% Secondary education – 12%
Dominant Industry	Wholesale & retail – 21% Manufacturing – 17% Professional, scientific, technical – 15% Accommodation & food services – 13%	Wholesale & retail – 24% Manufacturing – 10% Professional, scientific, technical – 19% Accommodation & food services – 10%

Time 1 Results: Pre-COVID & Immediate Impacts

This section reports on the measures which have provided insight into understanding the impact of COVID-19 Australian state of emergency restrictions on small businesses in terms of organisation innovative behaviour and organisation financial performance. The Time 1 survey was divided into two sections so that we could establish both a benchmark (Pre-COVID-19) measure in Section 1 as well as the immediate responses during the first few months of the COVID-19 shutdown in Section 2. Details on how we measured innovative behaviour and organisation financial performance are explained in more detail below.

Organisation Innovative Behaviour

While we used proven scales, innovation is a complex notion in the academic literature, so we ensured that the measures used are ones that most small business operators would be intuitively aware of and understand. For example, a sample item was, *'at this organisation we create new ideas for difficult times.'*

Organisation Financial Performance.

Innovation is embedded in and determined by the business strategy. We therefore presented 2 main options to explore whether the business used an operating efficiency (often called as cost leadership), or a quality focused strategy. For example, a sample item for cost leadership was *'does your organisation's business strategy emphasizes the importance of cost reduction in all facets of business operations?'*

In contrast, a sample item to identify those pursuing a quality focus was *does 'your organisation's business strategy emphasizes offering products/services of superior quality?'*

Small businesses who have a strategic and competitive focus are also likely to be innovative and be able to respond to change. For this reason, we included questions about the flexibility of their business strategy, their dependence on external suppliers and customers as well as their industry awareness, external sources on knowledge and market dynamism.

Respondents were also asked to assess this compared to their closest competitors on issues such as profitability, return on assets as well as return on sales. A full description of the variables is provided in Appendix 3.

As shown in Column 1 of Table 2, organisational innovative behaviour was positively related to small businesses with:

- female ownership
- professional, scientific, and technical services
- a quality focused strategy
- industry awareness
- operating efficiency strategy
- and where older, more established small businesses were doing better

However, and perhaps not surprisingly, innovative behaviour and the changing nature of the marketplace saw market dynamism as negatively correlated (shown in the yellow zones in Table 2).

Table 2: Time 1 Correlations

Variables	Innovative behaviour	Financial performance	Quality focused	Industry awareness	Operating efficiency	Female ownership	Capital intensity	Organisation size
Quality focused strategy	0.34							
Industry awareness	0.39							
External independence	0.24							
Operating efficiency	0.27	-0.23	0.34	0.44				
Female ownership	0.21							
Industry 1		0.22						
Industry 2		-0.19						
Industry 3	0.22							
Industry 4								
Capital intensity					0.23			
Organisation size							0.23	
Organisation age							0.24	0.37
Market dynamism	-0.24					-0.25		

Industry 1: retail and wholesale trades

Industry 2: accommodation and food services.

Industry 3: professional, scientific, and technical services.

Industry 4: manufacturing.

Colour Code

Positive
 Highly Positive
 Negative
 Neutral

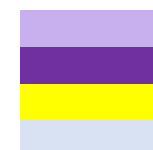


Table 2 also shows that financial performance (shown in Column 2), was more nuanced than innovation. Here we see clear indications as to the industries particularly suffering from the first effects of COVID-19 with *operating efficiency in the negative*. This was particularly for Industry 2: accommodation and food services.

However, this pattern reversed and was positive for Industry 1: retail and wholesale trades.

The larger picture shown in the rest of the columns in Table 2 support the view that being quality focused and having an awareness of the industry provided a strong basis for better small business operating efficiency. Here again though, it was the larger, more established SMEs that coped best.

Key Take Away from Time 1

Gathered in June 2020, these pre and immediate dealing with COVID-19 responses from small businesses identified clear relationships. Factors of organisational age, size and female ownership were associated with cost efficiency and a quality focused business strategy as the key areas of difference for small businesses being able to cope with the demands of the first few months of COVID-19.

RESULTS: Time 2 - First Wave COVID-19 State of Emergency Restrictions


Of the 107 respondents who completed the survey at Time 1, 48 completed the survey for Time 2 (03/2020 to 06/2020). The items from Time 1 were repeated but now focussed exclusively on the March to June 2020 period to allow a detailed comparison between the 2 sets of survey results in terms of organisation innovative behaviour and organisation financial performance.

The data analysis for this section used regression analysis as this allows us to confidently determine which factors matter most, which factors can be ignored, and how these factors influence each other. This section presents the (statistically) significant results of the Time 1 variables that emerge as important in explaining the first responses small business had to COVID-19 in terms of their innovative behaviour and financial performance.

Innovative Behaviour

As shown in Table 3, the positive Time 1 measures of organisation female ownership, professional, scientific, and technology services, organisation age, quality focused business strategy, and industry awareness were also associated with the ability to be innovative during the first round of COVID-19 shutdowns.

Table 3: Time 2 Innovative Behaviour




Variables:			
Female ownership	0.30	Colour Code Positive Highly Positive Very Highly Positive	
Professional, scientific and technology services	0.43		
Organisation age	0.11		
Quality focused business strategy	0.19		
Industry awareness	0.29		

Financial Performance

As shown in Table 4, Time 1 operating efficiency (adopting a cost leadership approach where competitive advantage is achieved by having the lowest cost of operation in the industry) was actually negatively related with Time 2 organisation financial performance. Adopting this low-cost approach during a time of uncertainty seems to be counterproductive for financial wellbeing.

Table 4: Results for Time 2 Organisation Financial Performance

Variables:

Industry 1: Wholesale and retail trade	0.72	Colour Code Positive  Highly Positive  Highly Negative 
Organisation size	0.20	
Operating efficiency (cost leadership) strategy	-0.31	

However, the strength of small businesses in the wholesale and retail sector that emerged in Time 1 continues in Time 2 and finds organisational size (with larger small businesses operating more successfully), related to better financial performance. This result is worth unpacking so we investigated this in terms of the role of the Government Job Keeper program.



Time 2 Supplemental Analyses: Job Keeper and Financial Performance

The effects of the organisational size, financial performance and the Australian Job Keeper program created to avoid temporary layoffs were explored in the Time 2 survey. As shown in Table 5, organisation financial performance during the first shutdown and the use of the Australian job keeper program in Time 1 was positively related to organisation size – with the larger small businesses rather than the nano to micro end actively using the program to remain financially viable.

Table 5: Results for Time 2 Organisation Size (Number of Employees)

Variables:

Time 2 organisation financial performance	0.47
Time 2 organisation job keeper program use	0.27



Colour Code	
Positive	
Highly Positive	

It was not just size but also age that emerges as important for survival. As Table 6, reveals, older small businesses were proactively using the Australian job keeper program to only temporarily lay off workers rather than making them permanently redundant.

Table 6: Results for Time 2 Organisation Job Keeper Program Use

Variables:

Time 2 organisation temporary lay-offs	0.68
Time 2 organisation age	0.24

Colour Code	
Positive	
Very Highly Positive	

Supplemental Analyses: Innovation

Innovation is a complex notion and we wanted to explore incremental (often slow and step wise), versus radical change. While we found no evidence to support recognition by small businesses of a need to start making incremental changes, it is perhaps more concerning that the only significant results we found here were negative - and related to the age and size of the organisation. Contrary to popular press coverage and common stereotypes, younger and smaller businesses were actually those less likely to be considering making incremental changes.

Table 7: Incremental Innovation Capability

Variables:

Time 2 organisation size	-1.98
Time 2 organisation age	-0.55

Colour Code
 Highly Negative
 Very Highly Negative



We find quite a different picture when the focus of the questions moved to the notion of radical innovation as a means of dealing with the COVID-19 pandemic. As Table 8 shows, the emphasis of the business changes and we find that an organisation who identified themselves as adhering to a quality focused strategy in the first (Time 1) survey, by Time 2 viewed radical innovation negatively and that incremental innovation was in fact the way to survive.

Table 8: Radical Innovation Capability

Variables:

Time 1 organisation quality focused strategy use	-0.45
Time 1 professional, scientific & tech services	0.84
Time 2 incremental innovation capability	0.28

Colour Code
 Positive
 Negative




However, there is an important corollary to this as there was a strong industry effect found in the professional, scientific, and technology services sector. They seemed to represent an area where small businesses believed that they did have the capability to undertake incremental innovation.

We wanted to explore why this industry sector was so sure of their capability and we found some answer for this in terms of the financial rewards they saw in undertaking radical innovation. Here, as we see in Table 9, while radical innovation was seen as a

negative way to achieve financial success prior to COVID-19 (Time 1), it had become a positive by Time 2 and now seen as a way of coping and even doing well during the pandemic.

Table 9: Organisation Financial Performance

Variables:

Time 2 Professional, scientific & technical services	-1.53	Colour Code Positive Highly Negative	
Time 1 Professional, scientific & tech services	0.46		

The reluctance to embrace innovation in Time 1 (Pre-COVID 19), may well be explained by the often very long lead times for innovation within the professional, scientific, and technical services sector.

Added to this are the expenses and time needed for research and development that tends to typify this sector. The move to embrace the need for change as a result of the pandemic seems to accord with the media stories many of us become so familiar with about organisations ‘pivoting’ to new business services and products in response to COVID-19.

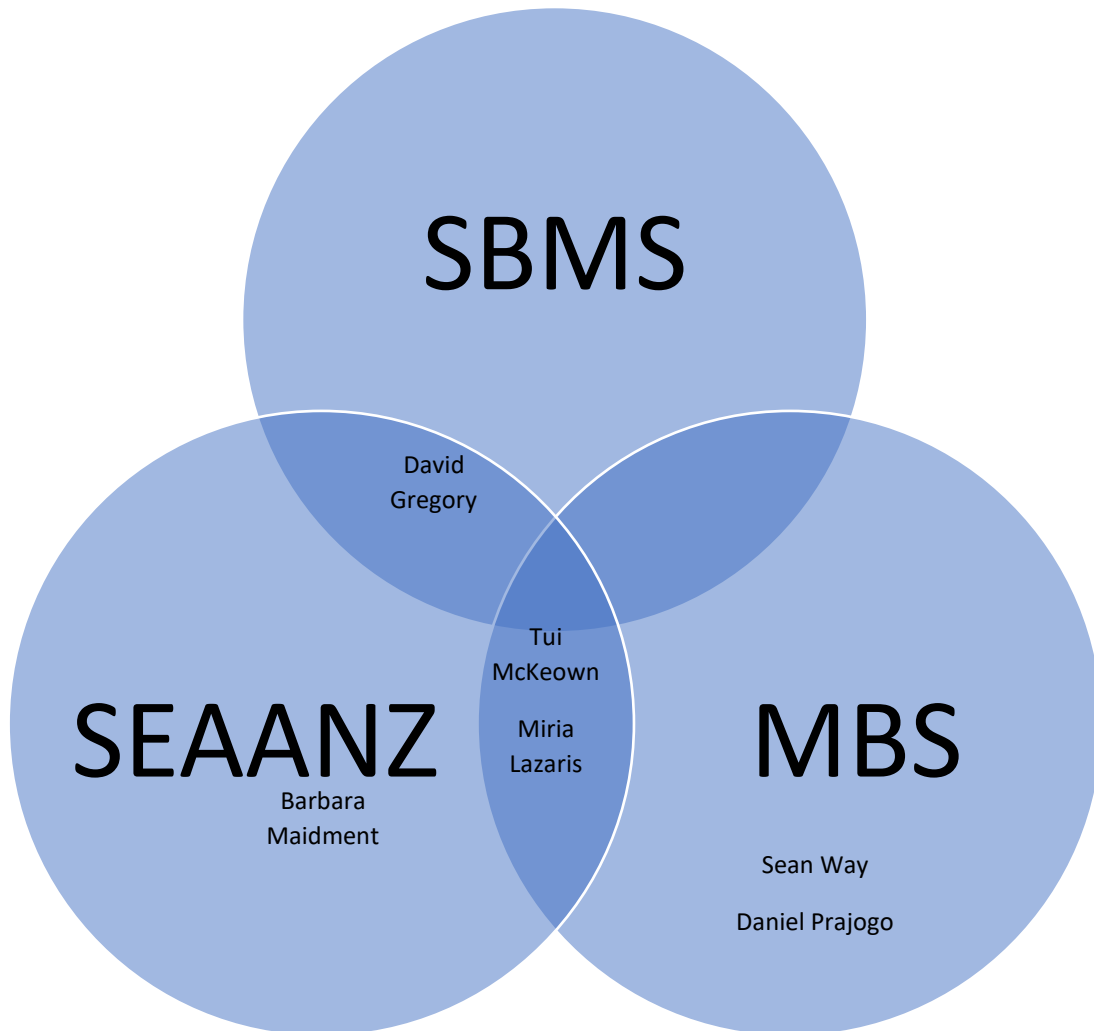
Key Take Away Points – Time 1 and Time 2

The wholesale and retail industry emerge as ‘the winners’ during the first stages of the shutdown - with larger and older small businesses in particular performing better than those at the nano and micro end. What is notable is that most of those small businesses that have done well moved to a quality rather than low-cost strategy to initially cope with the COVID-19 shutdown. Further, the Federal Governments’ Job Keeper program was a key tool that assisted many to survive in the early stages of the lockdown.

However, we also find evidence that it is the professional, scientific & technical services industries that were in fact the source of innovation in moving forward, at least during the first stage of lockdowns experienced in Australia in early to mid-2020. Here again though it appears that it is the larger and older small businesses that saw themselves as having the most capability in terms of innovation. Further, it seems that many in this sector still require financial support to move from incremental innovations and into the radical innovations they see themselves as capable of.

Providing such financial support for innovation is made even more pressing (and perhaps distressing) by the fact that the small businesses most clearly identified here as leading the way are likely to be female owned and focussed on a quality rather than quantity and a cost reduction strategy. The possibility that this profile presents is one where the individual small business owner may well be putting their employees and relevant others (clients, customers, and others), first rather than themselves. While we have looked to financial outcomes, this is a result that points to the need to address more individual issues such as mental and physical health – issues that have implications just as important to national wealth and productivity as business innovation and financial viability. We hope to be able to provide more insight into these in our future SEAANZ White Paper series.

APPENDIX 1: THE RESEARCH TEAM



- Small Business mentoring Service (SBMS <https://www.sbms.org.au/>)
- Small Enterprise Association of Australia & NZ (SEAANZ <https://www.seaanz.org/>)
- Monash Business School, Department of Management (MBS <https://www.monash.edu/business/management>)

APPENDIX 2: MONASH ETHICS APPROVAL



Monash University Human Research Ethics Committee

Approval Certificate

This is to certify that the project below was considered by the Monash University Human Research Ethics Committee. The Committee was satisfied that the proposal meets the requirements of the *National Statement on Ethical Conduct in Human Research* and has granted approval.

Project ID: 25019
Project Title: SMEs Coping with COVID-19
Chief Investigator: Assoc Professor Tui McKeown
Approval Date: 22/06/2020
Expiry Date: 22/06/2025

Terms of approval - failure to comply with the terms below is in breach of your approval and the *Australian Code for the Responsible Conduct of Research*.

1. The Chief Investigator is responsible for ensuring that permission letters are obtained, if relevant, before any data collection can occur at the specified organisation.
2. Approval is only valid whilst you hold a position at Monash University.
3. It is responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval and to ensure the project is conducted as approved by MUHREC.
4. You should notify MUHREC immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.
5. The Explanatory Statement must be on Monash letterhead and the Monash University complaints clause must include your project number.
6. Amendments to approved projects including changes to personnel must not commence without written approval from MUHREC.
7. Annual Report - continued approval of this project is dependent on the submission of an Annual Report.
8. Final Report - should be provided at the conclusion of the project. MUHREC should be notified if the project is discontinued before the expected completion date.
9. Monitoring - project may be subject to an audit or any other form of monitoring by MUHREC at any time.
10. Retention and storage of data - The Chief Investigator is responsible for the storage and retention of the original data pertaining to the project for a minimum period of five years.

Kind Regards,

Professor Nip Thomson

Chair, MUHREC

CC: Professor Daniel Prajogo, Assoc Professor Sean Way

List of approved documents:

Document Type	File Name	Date	Version
Supporting Documentation	SBMS draft	14/06/2020	1
Explanatory Statement	explanatory-statement	14/06/2020	1
Questionnaires / Surveys	ETP 2020 SURVEY MASTER COPIES	14/06/2020	1

APPENDIX 3: THE RESEARCH VARIABLES EXPLAINED

Industry

The Australia and New Zealand Standard Industrial Classification (ANZSIC) system classifies entities based on their main business activity and is used to collect and analyse data across industries. There were 4 Industry Codes that dominated our results. These were:

- Industry 1 - whole sale and retail trade divisions (ANZSIC Division F and Division G, respectively)
- Industry 2 - accommodation and food services (ANZSIC Division H)
- Industry 3 - professional, scientific, and technical services (ANZSIC Division M)
- Industry 4 - manufacturing (ANZSIC Division C);

Innovation

Was first assessed with Jansen's (2000) nine-item innovative work behaviour scale. A sample item was, at this organisation we create new ideas for difficult times

We explored the notion of innovation in more detail in Time 2 by dividing it into *incremental (three-item scale) and radical (three-item scale)* with the two scales from Subramaniam and Youndt (2005).

Sample items were, *compared to your competitor's how would you rate your organization's capability to generate:*

- 1) innovations that reinforce your prevailing product/service lines*
- 2) innovations that fundamentally make your existing expertise in prevailing products/services obsolete (radical innovative capability).*

Organisation financial performance

Was assessed with four items taken from established organisation performance measures (from Way, Wright, Tracey, & Isnard, 2018; Miles, Covin, & Heeley, 2000). Each respondent was asked to assess (compared to its closest competitors) her/his organisation's financial performance in terms of:

- 1) profitability (profit margin);
- 2) return on assets (ROA); return on equity (ROE); return on sales (ROS)

Organisation age.

Measured as the number of years since the organisation's founding.

Organisation size.

Measured as the number of employees.

Female ownership.

Dummy code: 1 = female owner/co-owner; 0 = male owner

Capital intensity.

Was a single item measure developed by Way et al. (2018):

- Compared to your closest competitors, your investment in fixed capital stock (e.g., buildings, machinery, et cetera) is?

Operating efficiency (or cost leadership) strategy.

Three-item scale (Miles et al., 2000; Parthasarthy & Sethi, 1993); a sample item was, *your organisation's business strategy emphasizes the importance of cost reduction in all facets of business operations*

Quality focused business strategy.

Two-item scale (see Miles et al., 2000; Parthasarthy & Sethi, 1993); a sample item was, *your organisation's business strategy emphasizes offering products/services of superior quality*

Market dynamism.

Two-item scale (McKelvie, Wiklund, & Brattström, 2018); a sample item was, *in your organisation's principle industry, market demand and customer tastes are unpredictable*

External independence.

Two-item scale (Miles et al. (2000); a sample item was, *this organization has actively attempted to minimize our dependence on any single customer*

Industry awareness.

Three-item scale (Miles et al. (2000); a sample item was, *this organisation this organisation has actively attempted to predict competitors' moves*

Sources:

ANZSIC

[https://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/1292.0Search12006%20\(Revision%202.0\)](https://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/1292.0Search12006%20(Revision%202.0))

- Janssen, O. (2000), "Job demands, perceptions of effort-reward fairness and innovative work behavior", *Journal of Occupational and Organizational Psychology*, Vol. 73 No. 3, pp. 287-302
- McKelvie, A., Wiklund, J., & Brattström, A. (2018). Externally acquired or internally generated? Knowledge development and perceived environmental dynamism in new venture innovation. *Entrepreneurship Theory and Practice*, 42(1), 24-46.
- Miles, M. P., Covin, J. G., & Heeley, M. B. (2000). The relationship between environmental dynamism and small firm structure, strategy, and performance. *Journal of marketing Theory and Practice*, 8(2), 63-78.
- O'Sullivan, D., Rahamathulla, M., & Pawar, M. (2020). The impact and implications of COVID-19: An Australian perspective. *The International Journal of Community and Social Development*, 2(2), 134-151.
- Parthasarthy, R., & Sethi, S. P. (1993). Relating strategy and structure to flexible automation: a test of fit and performance implications. *Strategic Management Journal*, 14(7), 529-549.
- Subramaniam, M., & Youndt, M. A. (2005). The influence of intellectual capital on the types of innovative capabilities. *Academy of Management journal*, 48(3), 450-463.
- Way, S. A., Wright, P. M., Tracey, J. B., & Isnard, J. F. (2018). HR flexibility: Precursors and the contingent impact on firm financial performance. *Human Resource Management*, 57(2), 567-582.