Insights from the Australian SMEs During the Pandemic

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Introduction

The small business sector is among the hardest hit by the coronavirus pandemic, with 63% reporting a significant reduction in revenue and demand resulting from the country's lockdown measures (ABS, 2020). Furthermore, the impacts might be long-lasting, and it is anticipated many small businesses will be unable to return to business in the long-term (Fairlie, 2020). This is significant given the important role of SMEs to the economy. 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% (ABS, 2022). Small

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businesses also contributes to 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.

Several factors determine an SME's ability to deal with the challenges of COVID-19, including organisational resources and capabilities, age, previous experience, competition, governance and the firm's ICT (Chit et al., 2022; Etemad, 2020). Regardless of these factors, success in a crisis often requires innovation (Thukral, 2021) and COVID-19 has prompted innovation as a primary response (Galanakis et al., 2021; Van Auken et al., 2021). Some small businesses have been able to pivot, thus maintaining profitability and customer loyalty (Curtisa & Slocum, 2022). However, this is not the case for all firms and COVID-19 has resulted in both winners and losers (Apostolopoulos et al., 2021). It is not yet clear which smaller firms have engaged in innovation and if so, whether innovation has resulted in improved performance. This study attempts to provide early evidence of the impact of COVID-19 on Australian SMEs by examining a range of factors that determine innovative behaviour and performance during this uncertainty. Our research project sets the following broad research objective: *to examine the innovative behaviours of Australian small businesses in responses to COVID-19 and the impact on performance*.

Considering the difference between states and territories on issues and responses to COVID-19, we utilise the context of Victoria, Australia, which was arguably one of worst affected in terms of COVID-19 cases and government-imposed lockdown measures during 2020. We set out to collect data at two time points during the early stages of the pandemic, thus capturing how SMEs responded to and were impacted by the unforeseen events. We start by reviewing the literature on innovation among SMEs in response to crises and COVID-19. We then provide an overview and justification of the chosen context of this study, explaining how the specific geographic and time boundaries inform the nascent yet growing body of research. This is followed by an outline of the research method. We then present findings and conclude with key takeaways and policy implications.

Literature Review

Some argue that smaller firms have the advantage of being agile and can better adapt to changes in their environments, including events such as the COVID-19 (Eggers, 2020). Correspondingly, there are reports of accelerated innovation by small businesses in response to COVID-19 (van Auken et al., 2021; Zutshi et al., 2021). Innovation is "the generation, acceptance and implementation of new ideas, processes, products or services" (Thompson, 1965, p. 2) and underpins adaption to change and progress towards the future (Hisrich & Ramadani, 2017). For those SMEs able to innovate, COVID-19 presented opportunities to expand into new markets, to offer new and higher quality products and services (Zutshi et al., 2021) and/or to integrate technology such as social media into their business processes (Kwon et al., 2021). However, it is optimistic to present innovation as the COVID-19 panacea; it cannot be presumed that all SMEs can and will respond to COVID-19 through a strategy of innovation.

Crises can have a negative influence on the willingness of SMEs to innovate (Disoska et al., 2020). Many SMEs simply lack the capabilities and slack resources (e.g., human and financial) required to predict and respond to the rapidly changing situations (Chan et al., 2019). The lack of time and information with which to respond are also significant factors (Etemad, 2020). Drawing on learnings from the GFC, Roper and Turner (2020) predicted that the financial constraints brought on by COVID-19 would result in a decline in R&D and innovation by resource-poor SMEs. Eggers (2020) explains by pointing to the interconnectedness between financial and strategic elements. A strategy of innovation requires access to financial resources; if limited, managers may question the risks of investing limited financial resources in innovation (Eggers, 2020). Additionally, the ability of an SME to pivot and innovate during crises might be influenced by entrepreneur traits, knowledge management, resources, age, size, strategy and government initiatives (Curtisa & Slocum, 2022; Gupta & Barua, 2018; Van Auken et al., 2021).

Additionally, a distinction can be made between radical and incremental innovation. Radical innovations are significant departures from the existing products or processes (McDermott & O'Connor, 2002), while incremental innovations represent improvements (Hullova et al., 2016). While a crisis can support radical innovation, providing the imperative to "reset" and develop new competencies and capabilities (Antonioli &

Montresor, 2021), it can also threaten a firm's survival when the firm lacks access to external supplementary resources (Freixanet et al., 2020). Under situations of crisis, such as during COVID-19, small business managers not only lack the necessary time to collect and analyse information but also deal with networks and suppliers that are responding to their own set of challenges (Etemad, 2020). Organisations face several tensions such as the need to exploit existing knowledge or create new knowledge and/or respond to short-term pressure without jeopardising performance in the long-term (Carmine et al., 2021). It is possible that companies will pivot too hastily to maintain short-term survival, without consider long-term implications.

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.

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 programme 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 programme 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 and 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 8:00 pm 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

[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.*

Victorian government's roadmap for easing coronavirus lockdown restrictions (https://www.theguardian.com/australia-news/2020/sep/06/victorias-roadmap-for-easing-coronavirus-lockdown-restrictions-what-you-need-to-know) on Sunday 6 September 2020 and, on 8 November 2020, the lifting of the metropolitan-regional border and Melbourne's 25 km movement limit.

Some of the impact on business is already known. The ABS data (https://www.abs.gov.au/statistics/economy/business-indicators/business-indicators-business-impacts-covid-19/latest-release) 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.

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 and New Zealand (SEAANZ). The MBS team devised an online survey based on well proven and reliable scales investigating organisational innovative behaviour and financial performance. Details on how we measured innovative behaviour and organisation financial performance are included in Appendix 1. 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*'. Additionally, we wanted to explore incremental (often slow and step wise), versus radical change at Time 2. We asked respondents to rate the extent to which innovation reinforced or fundamentally changed/made obsolete prevailing products/services, existing expertise and how they currently compete, versus. To measure organisational performance, respondents were asked to assess this compared to their closest competitors on issues such as profitability, return on assets as well as return on sales. To address the research objective outlined above and the following variables were measured as shown in Appendix 1: industry,

innovation, organisational financial performance, organisation age, organisation size, female ownership, capital intensity, operating efficiency (cost leadership) strategy, quality-focused strategy, market dynamism, external independence and industry awareness.

Sampling and Procedures

The project was subject to Monash Ethics Committee clearance prior to commencement. Data was collected from member organisations of SBMS, all of whom are small or micro firms (i.e., with fewer than 20 employees) as per the ABS definition. The research team emailed SBMS members explaining the study's purpose and procedures and invited them to participate by completing the survey. Two separate phases of data collection were undertaken. The first phase (Time 1) was completed during June 2020. The purpose of the Time 1 survey was to establish a pre-COVID-19 benchmark and capture the immediate response during the first few months of impact. The Time 1 survey was divided into two sections so that we could establish both a benchmark (pre-COVID-19) measure in Sect. 1 as well as the immediate responses during the first few months of the COVID-19 shutdown in Sect. 2. The second phase (Time 2) was completed during December 2020. The purpose of the Time 2 survey was to assess the longer-term effects dealt by small businesses. Responses were obtained from 107 participants for the Time 1 survey. 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 focused 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.

Respondent Profile

The respondent profile is shown in Table 1. Respondents of the Time 1 survey 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 are from Victoria and this explains our

Table 1 Respondent profile across the 2 sample periods

	Time 1/Pre-COVID-19 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%

special focus on this state. Almost half of the original sample responded to the Time 2 survey and provided data on the effects of the first wave of COVID-19 emergency restrictions (i.e., from 03/2020 to 06/2020). Table 1 shows this comparison and confirms that the sample of Time 2 largely replicates the profile of Time 1.

Results

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. Time 1 results are presented first, followed by the data analysis for Time 2. The data analysis for Time 2 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. Specifically, we report the following as they relate to innovation and performance: quality-focused strategy, industry awareness, external independence, operating efficiency, female ownership, Industry 1 (retail and wholesale trades),

Industry 2 (accommodation and food services), Industry 3 (professional, scientific and technical services), Industry 4 (manufacturing), capital intensity, organisation size, organisation age and market dynamism. We also conducted relevant supplementary analysis at Time 2 to explore the incremental and radical innovation in response to COVID-19.

Colour Code key Used in Presentation of Results

Negative		Positive	+
Highly negative	*	Highly positive	*
Very highly negative	**	Very highly positive	**

Time 1 Results: Pre-COVID-19 & Immediate Impacts

Innovative behaviour at T1

As shown in Column 1 of Table 2, organisational innovative behaviour was *positively correlated* with small businesses with the following characteristics: female ownership, Industry 3: Professional, scientific and technical services, a quality-focused strategy, industry awareness and operating efficiency strategy. However, and perhaps not surprisingly, innovative behaviour was negatively correlated with market dynamism.

Financial performance at T1

Table 2 shows that financial performance (shown in Column 2) and was more nuanced than innovation. Here, we see clear indications as to the industries particularly suffering from the first effects of COVID-19. Industry 1: wholesale and retail trade divisions, was significantly positively correlated with performance, whereas Industry 2: Accommodation and Food Services, was significantly negative correlated with performance. Most other factors were not significantly correlated with performance; the

Table 2 Time 1 innovative behaviour

Variables	Innovative behaviour	Financial performance
Quality focused strategy	**0.34***	
Industry awareness	**0.39***	
External independence	0.24	
Operating efficiency	**0.27***	-0.23
Female ownership	0.21	
Industry 1: retail and wholesale trades		0.22
Industry 2: accommodation and food services.		**-0.19**
Industry 3: professional, scientific, and technical services.	0.22	
Industry 4: manufacturing		
Capital intensity		
Organisation size		
Organisation age		
Market dynamism	**-0.24**	

exception being *operating efficiency*, which was negatively correlated with performance.

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

Innovative behaviour at T2

As shown in Table 3, the following Time 2 measures are positively associated with the ability to be innovative during the first round of COVID-19 shutdowns, as captured by the Time 2 survey: female ownership, Industry 3: Professional, scientific and technology services, organisation age, quality-focused business strategy and industry awareness.

Incremental versus radical innovation at T2

At Time 2, there was no evidence of radical innovation. Rather, the only significant results at Time 2 were negative and related to the age and size of the organisation (see Table 4). The older and larger the firm, the less likely they were to consider making incremental changes, indicating incremental innovation is more likely in younger and smaller firms.

Table 3 Time 2 Innovative Behaviour

Variables:	
Female ownership	0.30
Professional, scientific and technology services	0.43
Organisation age	0.11
Quality focused business strategy	0.19*
Industry awareness	0.29**

Table 4 Time 2 incremental innovation capability

Variables:	
Time 2 organisation size	-1.98*
Time 2 organisation age	-0.55**

Financial performance at T2

Table 5 shows that Industry 1: wholesale and retail trade divisions, as with Time 1, was positively related to performance in Time 2. Organisational size was also positively related to better financial performance at Time 2, with larger small businesses operating more successfully. Regarding strategy, operating efficiency (i.e., adopting a cost leadership approach where competitive advantage is achieved by having the lowest cost of operation in the industry) was significantly negatively related with financial performance at Time 2. Adopting this low-cost approach during a time of uncertainty seems to be counterproductive for financial wellbeing.

Table 5 Results for Time 2 organisation financial performance

Variables:	
Industry 1: Wholesale and retail trade	0.72**
Organisation size	0.20*
Operating efficiency (cost leadership) strategy	-0.31*

Key Takeaways from Time 1 and Time 2 and Future Research

This study examines the innovative behaviours of Australian small businesses in responses to COVID-19 and the impact on performance. The two-phase data collection allows us to capture the very early responses and financial performance during the early stages of COVID-19, which were perhaps the most uncertain and challenging. In doing so, we contribute to the literature on crisis management generally, but more specifically to the emerging literature on SME behaviour during the COVID-19 pandemic. While innovation has been acknowledged as a key element in a small business's resilience (Thukral, 2021), not all small firms were able to engage in innovative behaviour during COVID-19. There are also important differences as regards financial performance.

The Time 1 survey results provided initial 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. Gathered in June 2020, these pre and immediate dealing with COVID-19 responses from small businesses identified clear relationships. Factors such as strategy choice (quality focused and operating efficiency), industry awareness, external independence, female ownership and industry (professional, scientific and technical services) were positively related to innovative behaviour and presented the key areas of difference for small businesses being able to cope with the demands of the first few months of COVID-19. Interestingly, market dynamism was negatively related to innovative behaviour. We are also able to report that the following are negatively related to performance: operating efficiency and Industry 3: accommodation and food service. Industry 1: retail and wholesale trades were positively related to performance.

Some of the relationships seem right. It makes sense that organisations with an industry awareness and a focus on quality and efficiency strategy would embrace innovation. Innovation is embedded in and determined by the business strategy and small businesses who have a strategic and competitive focus and industry awareness are likely to be innovative and able to respond to change. That female ownership is positively related to innovative behaviour, while market dynamism is negatively related to innovative behaviour require additional research.

Similarly, it makes sense that COVID-19 produced favourable conditions for some firms and not others. People initially spending more on goods; stockpiling supports the financial performance of businesses in retail and wholesale trade, while government-imposed restrictions on

travel will negatively impact the performance of those operating in the accommodation industry. However, the negative relationship between performance and operating efficiency is less sound and can be examine through future research.

The Time 2 survey results provided additional information on the early response of small businesses to COVID-19. The results were gathered December 2020 and reveal female ownership, industry (professional, scientific and technology services), organisation age, quality-focused business strategy and industry awareness were the key areas of difference among SMEs are regards innovative behaviour during the second wave of COVID-19. Interestingly, there were no relationships with radical innovation; the only significant results 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 those less likely to be considering making incremental changes. It is possible that small businesses were expecting to eventually return to a normal post-COVID-19 world, which has not yet happened.

Regarding performance, it is of little surprise that Industry 1: wholesale and retail trade divisions and organisational size were positively related to financial performance at Time 2. However, again, operating efficiency (i.e., adopting a cost leadership approach where competitive advantage is achieved by having the lowest cost of operation in the industry) was significantly negatively related with financial performance at Time 2 reinforces that adopting this low-cost approach during a time of uncertainty seems to be counterproductive for financial wellbeing and can be further investigated.

Policy Implications and Directions

These preliminary findings have policy implications, and also point to research opportunities. First, we echo previous calls for a considered approach by the government on developing ecosystems that support SMEs, especially during crises (Eggers, 2020; Thukral, 2021). This transitions into our second point and findings as to the differences in how SMEs respond and perform in the early stages of COVID-19. We believe that these can be used to determine the type of support provided and where it is most usefully channelled. For example, we present evidence of factors at the industry level that can be harnessed to better contribute

to the small business ecosystems. This suggests that it may be possible for cross-industry partnerships and knowledge sharing. A third point we believe is a key one to showcase—our findings reveal that, contrary to some suggestions, entrepreneurial and small businesses are not necessarily likely to have the capacity or perhaps even the ability to recognise and respond to opportunities presented in a crisis (Beliava et al., 2018). Our findings around the lack of radical innovation suggests a more pragmatic and prudent approach in the face of crises can be addressed through initiatives that support partnerships and a change in mindset (Zutshi et al., 2021). These findings add support to earlier studies (Morgan et al., 2020; Williamson et al., 2021), where smaller firms face both limitations and opportunities when faced with events such as COVID-19; to respond to change, SMEs may need support to develop innovation capabilities, while addressing innate rigidities. What is exciting is our fourth point, the finding that innovative behaviour was more enduring among female-owned small businesses, and we see this as an area for future research. It also presents opportunities for knowledge sharing and support. There are several reports of responses to the COVID-19 crisis, and the findings of the present study point to directions for future research and support for SMEs in this context.

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