The mental health and wellbeing of small and medium-sized construction firms in New Zealand

Daniel du Plessis and Andrea Simpson
Acknowledgements

In many respects, this body of research rests on the shoulders of giants. Much of the evidence relied upon during this project was produced by organisations other than BRANZ. As such, the researchers wish to acknowledge the following organisations:

- Xero
- Pacifecron
- Productspec
- BDO
- Small Business Council
- Ministry of Business, Innovation and Employment
- Stats NZ
- NZIER
- IBM
The mental health and wellbeing of small and medium-sized construction firms in New Zealand

BRANZ Study Report SR459

Authors
Daniel du Plessis and Andrea Simpson

Reference

Abstract
Through exploring the impact of COVID-19 on the mental health and wellbeing of small and medium-sized enterprise (SME) builders in New Zealand, this research finds itself at the nexus of the social and business management sciences. A literature review of the mental health and wellbeing impacts of COVID-19 on construction firms identified financial wellbeing and future construction pipeline concerns as key stressors for SME builders. Taking a resolutions-based approach, the research concludes with a consideration of measures to support the future resilience of SME operations and consequent mental health and wellbeing of owners and employees. Although not representing a quick fix to historical or current mental health and wellbeing issues facing the construction industry, the research does address a root cause of long-term stress and psychosocial and mental disharmony.

The relevance of some of the COVID-19-specific data and findings will be timebound and become redundant as new research data becomes available. The enduring component of the research, however, is that it establishes a strong causal relationship between the drivers of a well-managed SME and the mental health and wellbeing of owner/operators. As such, it serves as an input to current industry efforts focused on improving the future resilience of the construction sector and SME construction firms in particular.

Keywords
Mental health and wellbeing, New Zealand small and medium-sized enterprise (SME), construction firms, builders, COVID-19, resilience, financial wellbeing, access to finance, COVID-19-related assistance and support, business management practices, digitisation, technology uptake.
EXECUTIVE SUMMARY ............................................................................................................. 1
RECOMMENDATIONS ............................................................................................................... 2
1. RESEARCH PARAMETERS .................................................................................................... 4
   1.1 Research concern .............................................................................................................. 4
   1.2 Research question and COVID-19 timeframe .................................................................... 4
   1.3 Research cohort: SME construction firms ......................................................................... 5
   1.4 Research approach, objectives and methodology ........................................................... 6
   1.5 Report structure .............................................................................................................. 6
   1.6 Research limitations ....................................................................................................... 7
2. SMES IN THE NEW ZEALAND CONSTRUCTION INDUSTRY ........................................... 8
   2.1 Contribution of SMEs to the New Zealand economy ....................................................... 8
   2.2 Common challenges facing SMEs in New Zealand .......................................................... 8
   2.3 The New Zealand construction sector before COVID-19 ............................................... 9
   2.4 SMEs in the construction sector ....................................................................................... 9
   2.5 The impact of COVID-19 on activity levels in the construction sector ............................ 10
   2.6 New Zealand Government response to COVID-19 ....................................................... 11
      2.6.1 Wage Subsidy Scheme ......................................................................................... 11
      2.6.2 Small Business Cashflow Scheme ....................................................................... 12
      2.6.3 Business Finance Guarantee Scheme .................................................................. 12
3. THE IMPACT OF COVID-19 ON THE MENTAL HEALTH AND WELLBEING OF SME OWNERS .............................................................................................. 14
   3.1 The impact of COVID-19 on the mental health and wellbeing of New Zealanders ........ 14
   3.2 The impact of COVID-19 on the mental health and wellbeing of SME owner/operators in New Zealand .......................................................... 14
   3.3 The impact of COVID-19 on the mental health and wellbeing of construction SMEs in New Zealand .......................................................... 17
   3.4 Observations on the impact of COVID-19 .................................................................... 18
4. OPTIONS TO IMPROVE THE RESILIENCE OF SME CONSTRUCTION FIRMS IN NEW ZEALAND ............................................................................................. 19
   4.1 An uncertain future ........................................................................................................... 19
   4.2 Mechanisms to improve the resilience of SME building contractors in New Zealand .... 20
      4.2.1 Business management practices ............................................................................ 21
      4.2.2 Digitisation or uptake of technology .................................................................... 29
      4.2.3 Trades training and technology in the construction industry ............................... 34
5. AREAS FOR FURTHER RESEARCH .................................................................................. 36
REFERENCES .............................................................................................................................. 38
Figures

Figure 1. Top 10 industries by number of SMEs. .............................................................10
Figure 2. Construction enterprise survival rates..............................................................10
Figure 3. Total uptake of government COVID-19 assistance by industry .........................12
Figure 4. Small business owners’ perceived level of threat from COVID-19 .....................15
Figure 5. SME owners’ concern about mental health and wellbeing ..................................16
Figure 6. Primary concerns of SMEs, July 2020. ..............................................................16
Figure 7. Living Standards Framework. ............................................................................20
Figure 8. Maslow’s hierarchy of needs ............................................................................22
Figure 9. Business hierarchy of needs: Maslow’s hierarchy of needs as applied to business management theory .................................................................23

Tables

Table 1. Projects affected by COVID-19. ........................................................................11
Table 2. Annual changes in industry output from an increase in multi-factor productivity from 2019 baseline, in $ millions and percent. .................................31
Table 3. Annual changes in industry wages from an increase in multi-factor productivity from 2019 baseline, in $ millions and percent. .................................32
Executive summary

The financial fallout of COVID-19 will impact negatively on the mental health and wellbeing of SME construction firms in New Zealand for the foreseeable future, placing an already fragile industry on shaky foundations.

In 2018, BRANZ social researchers (Bryson & Duncan, 2018) opened a new frontier in contemporary building and construction sector research by shining a light on mental health and wellbeing. They found that approximately 7% of working-age male suicides in New Zealand were by workers in the building industry. A follow-up study (Bryson, Doblas, Stachowski & Walmsley, 2019) explored the factors that contribute to suicide risk for construction industry workers.

Although the New Zealand Government created a range of COVID-19 cross-sectoral support packages that provided all workers and a large proportion of SMEs in the construction industry with wage and cash flow support, the pre-existing mental health and wellbeing vulnerabilities of the industry compelled BRANZ to focus on the current mental health and wellbeing of SME construction firms.

Early media reports regarding the impact of COVID-19 on the psychosocial wellbeing of New Zealanders pointed to a 40% increase in mental health-related calls to Lifeline within the first weeks of the lockdown. Several other organisations (Xero, IBM, BDO, MBIE, Stats NZ and others) published research on the impact of the pandemic on the mental health and wellbeing of SMEs, their owners and their employees in New Zealand.

Xero (2020) found that the proportion of SME respondents with high or very high concerns about the impact of COVID-19 on their operations increased to 47% in July 2020. Of primary concern to SMEs, however, were personal income and the loss of customers. Nearly half of New Zealand SMEs identified cash flow as a major concern.

BDO (2020) found that uncertainty regarding the future construction pipeline was the most significant concern affecting the mental health and wellbeing of respondents. The second biggest cause of concern among respondents was the 'race to the bottom', with margins falling as construction companies made lower and lower bids to secure much-needed work.

Of concern is the impact this has on the mental health and wellbeing of many SME building contractors, their employees, subcontractors and the families of those affected. This is bound to spill over into the work environment or worksite, with the resultant impact on worksite behaviour, morale and workplace safety.

COVID-19 will also compel a proportion of SME building contractors to reassess their commercial viability and their unique strengths and weaknesses taking into consideration their own mental health and wellbeing. It could be that some SME owner/operators may need to consolidate their activities and take up tools again with a more experienced industry participant until market conditions stabilise.

This research serves as a valuable input to current industry efforts focused on improving the resilience of the construction sector and has significant overlap with other critical aspects of BRANZ’s wellbeing research workstream, namely those focused on fostering a vibrant, thriving construction industry.
Recommendations

While the relevance of the COVID-19-specific findings is timebound and will become redundant as new data becomes available, the enduring component of the research is that it establishes a strong causal relationship between the drivers of a well-managed SME and the mental health and wellbeing of the associated industry participants.

The notion of ‘being kind’ in business has gained significant traction within the business community (Lewis, 2020). The recommendations could therefore be viewed as preventive or proactive measures to improve the overall mental health and wellbeing outcomes of those working in the construction industry indefinitely.

Construction sector SMEs that are more likely to successfully navigate the uncertain market conditions will be characterised by a set of key strengths including but not limited to:

- cash flow management
- allocation of resources
- strategic planning
- overhead management
- project management
- human resource management
- increased use of enabling technology to facilitate process improvements listed above.

The challenge is that business-as-usual will likely be insufficient to weather the storm. Construction SMEs would therefore be wise to seize the opportunity to implement specific changes to their operations by adopting new ways of doing things at the firm level.

Transforming pockets of the construction industry will require a hierarchy of interventions, with an immediate focus upon obtaining the required skills, followed by secondary process improvements and broader strategic planning.

Skills that require immediate attention include:

- professional financial planning, including cash flow management (particularly following the conclusion of government stimulus packages)
- dedicated overhead, payroll and human resource management services.

Secondary process improvements could see a construction SME conduct a 12-month rolling programme – for example, to implement:

- digitisation tools (i.e. project planning and timeline management tools)
- supply chain and pipeline processes
- inventory management and exposure.

The need for SME-specific education was captured in the Small Business Council’s New Zealand Small Business Strategy (Small Business Council, 2020), which identified a significant discrepancy between construction SME participants’ confidence levels and their formal training in construction business management.

A series of intensive short courses specifically focused on developing the critical skills and behavioural characteristics identified in this research could provide the missing
route for SMEs within existing educational pathways. Such pragmatic case study-centric courses could be supplemented by a supportive business mentoring service to help ensure new skills and behaviours are clearly understood and firmly established in the daily operations of construction SMEs across New Zealand.

On a micro-level, each individual construction SME could help future-proof their enterprise through these improved business practices and enjoy the improved wellbeing and profitability levels that accompany a well-organised business.

On a macro-level, a cluster of individual SMEs seeking to realise their full business potential becomes a group, becomes a segment, and ultimately creates a more stable, healthy, and prosperous building and construction industry - thereby contributing to improved wellbeing, higher-quality outcomes and more-productive endeavours across the sector.

The attributes outlined above form the foundation of a sustainable business model for construction SMEs and significantly mitigate the operational risks that commonly lead to business failure, including maintaining feasible margins, productivity and financial stability.

No doubt, the construction industry and those SME building contractors that choose to follow the basic rules underpinning commercial success will emerge from COVID-19 better prepared, more resilient, and able to provide environments where people want to work.
1. **Research parameters**

In 2018, as part of its interest in the health and wellbeing of construction industry participants, a BRANZ study (Bryson & Duncan, 2018) found that approximately 7% of working-age male suicides in New Zealand were by workers in the building industry – the highest proportion across all industries in New Zealand. The research findings also suggested comparatively worse outcomes for young people, those who had lost jobs or had less work, those with poor health and those who had a past diagnosis of mental illness.

A follow-up study (Bryson et al., 2019), which was partly funded by BRANZ through the Building Research Levy, explored the multitude of factors that contribute to suicide risk for construction industry workers.

The findings provided some new details about some of these factors, especially work-related ones. Of these, job insecurity or uncertainty and work-related stress stood out in coronial reports, particularly for self-employed contractors and business owners.

1.1 **Research concern**

Comprising some 40% of all construction businesses in New Zealand pre-COVID-19, SME construction firms are a large and vital player in the construction sector, providing employment to approximately 90,000 people and delivering an operating profit of almost $2 billion in 2019.

The potentially devastating economic and social impact of the COVID-19 pandemic on the wellbeing of local construction businesses compelled BRANZ researchers to bring forward planned research on the factors underpinning the subjective wellbeing of SME construction firms. This concern was affirmed in April 2020 when Sir Peter Gluckman, former Chief Science Advisor to Prime Minister, appeared before the New Zealand Epidemic Response Committee:

> Based on other disasters, about 10 per cent of the population would develop depression and there would be some who are suicidal, he said ... Gluckman said the past few weeks had left “indelible marks” on our society ... Many Kiwis will have had their certain futures ripped away from them and will mean an increase in fear, anxiety and frustrations emerge ... Gluckman said ... we were not yet at the peak of the distress from the lockdown – that will come in the next few weeks. (Wade, 2020)

In November 2020, researchers from the University of Otago (Every-Palmer et al., 2020) published the findings of a study on the impact of COVID-19 on the mental health and wellbeing of adults in New Zealand. The research found that 30% of respondents reported moderate to severe psychological distress, 16% reported moderate to high levels of anxiety, while 39% reported low wellbeing – well above baseline measures.

1.2 **Research question and COVID-19 timeframe**

This BRANZ research focused on determining the impact of COVID-19 on the mental health and wellbeing of SMEs operating in the construction industry. The research covers the period between the initial announcement of the nationwide COVID-19 Alert
Level 4 Lockdown on 25 March 2020 and the subsequent impact on the construction sector up until October 2020\(^1\) – depending on the availability of information.

### 1.3 Research cohort: SME construction firms

For the purposes of this research, the following terms and definitions were used in relation to various cohorts within the broad definition of construction.

**Construction sector**

The broadest definition of construction activity includes:

- air conditioning and heating services
- bricklaying services
- carpentry services
- concreting services
- electrical services
- fire and security alarm installation services
- glazing services
- hire of construction machinery with operator
- house construction
- land development and subdivision services
- landscape construction services
- non-residential building construction
- other building installation services
- other construction services not elsewhere classified
- other heavy and civil engineering construction
- painting and decorating services
- plastering and ceiling services
- plumbing services
- road and bridge construction
- roofing services
- site preparation services
- structural services
- erection services
- tiling and carpeting services.

**Construction industry**

The construction industry in the context of this research refers to a combination of two of the industries listed above – house construction and non-residential building construction.

These industries are generally referred to as ‘builders’ – firms that function as construction intermediaries when undertaking a new build or significant renovation.

Although the primary interest of this study was focused on examining the wellbeing of small and medium-sized (SME) construction firms (as a subindustry within the sector), the availability of industry-specific data often limited such an analysis. However, given that much of the available statistics on the impact of COVID-19 on the wellbeing of

---

\(^1\) New Zealand gradually moved to Alert Level 1 on 8 June. After four cases of COVID-19 were reported in Auckland on 11 August, Auckland Region moved to Alert Level 3, while the rest of the country moved to Alert Level 2. On 7 October 2020, Auckland moved to Alert Level 1, bringing the region in line with the rest of the country.
SMEs in general will also be applicable to SME builders, this has been used as a proxy for the construction industry where relevant.

1.4 Research approach, objectives and methodology

Although the original (pre-COVID-19) intent of the research was to gather primary data on the drivers of wellbeing within SME construction firms through surveys, interviews, focus groups and case studies, the appropriateness of these research tools in the context of COVID-19 and the need to produce time-relevant findings prompted BRANZ researchers to revisit the research objectives, approach and methodology.

The objective of the study was consequently refocused on exploring the impact of COVID-19 on the mental health and wellbeing of SME construction enterprise owners.

The study was largely based on a review of current literature and research published in the wake of COVID-19 with a view to extract findings relevant to SMEs operating in the construction industry.

An initial desktop review of the uptake of COVID-19-related financial support measures (mostly Government led) by the construction sector was followed up by interviews with SME builders and key stakeholders in the financial sector.

The research was non-experimental and, as the core research question suggests, was focused on determining the impact of COVID-19 on the mental (or subjective) health and wellbeing of SMEs operating in the construction industry.

The rationale underpinning the research question was to identify potential opportunities and solutions to enhance the mental health and wellbeing of business owners.

The fact that COVID-19 was expected to have an impact on the mental health and wellbeing of SME builders was implicit to the research enquiry. Of specific interest, however, was the level of impact and the body of evidence supporting some of the recommended solutions to some of the research findings. Put simply, the study was not focused on determining whether COVID-19 had an impact on the emotional wellbeing of builders – this was taken as a given fact.

Of interest to the research was the observed level of impact of COVID-19 on the emotional wellbeing of builders and identifying evidence to support the study recommendations. Consequently, the report structure is largely framed around a root cause analysis of research findings and the identification of potential evidence-based solutions and recommendations.

1.5 Report structure

Although the research set out to uncover information specific to the mental health and wellbeing of SME builders at industry level, this study report generally places any findings in the first instance in the context of SMEs in general. This is followed by a more focused consideration of SMEs in the construction sector, before reporting on any SME builder-specific findings.

- Section 2 focuses on the role of SMEs in the economy and identifies some of the common characteristics and challenges facing SMEs in New Zealand. It also outlines the contribution of the construction sector to the economy and that of SME
builders (the construction industry) to the construction sector overall. The section concludes with a consideration of the immediate impact of COVID-19 on the construction industry as well as the uptake of various COVID-19 government relief assistance schemes.

- Section 3 captures current research findings regarding the impact of COVID-19 on the mental health and wellbeing of SMEs in New Zealand – including construction SMEs.
- Section 4 identifies mechanisms to address some of the challenges facing SMEs in the construction industry with a view to enhance their overall financial wellbeing, improve their resilience and support the mental health and wellbeing of their owners.
- Section 5 briefly discusses areas for further research.

1.6 Research limitations

Apart from a series of interviews with stakeholders in the banking sector and SMEs operating in the construction industry, the research is in essence a literature review supplemented with the ongoing monitoring of the research landscape. Even so, it was impossible to explore the full breadth and width of evidence being produced on an almost daily basis given the global focus on the impact of COVID-19.

The current research also excludes a consideration of the significant body of work underpinning the emergent field of wellbeing theory and measurement.

The relevance of some of the COVID-19-specific data and findings is timebound and will become redundant as new research data becomes available.
2. **SMEs in the New Zealand construction industry**

This section considers the role and importance of SMEs in the New Zealand economy and specifically in the construction sector. It then reports on the early impact of COVID-19 on construction industry activity levels and the uptake of COVID-related assistance and support schemes.

Although it would have been interesting to provide an overall perspective of the impact of COVID-19 on all dimensions of SMEs in the construction sector, such as impact on business confidence, current employment levels, future employment intentions and the current and future construction pipeline, this fall outside the scope of the current research.

For the purpose of this report, SMEs are defined as businesses employing 20 or fewer staff (Small Business Council, 2019a). However, international analysis largely uses the broader definition of fewer than 50 employees.

### 2.1 Contribution of SMEs to the New Zealand economy

The New Zealand economy is underpinned by its approximately 542,000 SME businesses, including self-employed New Zealanders (Stats NZ, 2020a). As such, New Zealand has a higher percentage of SME businesses (97%) than other countries, noting that most countries define small businesses as having fewer than 50 employees.

From an employment perspective, SMEs account for approximately 29% of all employment, and sole traders have become increasingly common over the past 10 years, increasing by approximately 45,000 or 12% compared with a 1–3% increase across other segments (Small Business Council, 2019b).

As evidenced later in this report, most of the generic characteristics of SMEs in New Zealand are also observed in SMEs active in the domestic construction industry. Likewise, most of the systemic challenges facing SMEs in New Zealand outlined below also play out in the construction industry.

### 2.2 Common challenges facing SMEs in New Zealand

As part of developing the New Zealand Small Business Strategy, the Small Business Council (2019a) identified the following generic challenges facing SMEs in New Zealand:

- Many costs associated with running a business, including compliance and regulatory costs, are not scaled for business size and can have a disproportionate impact on small businesses.
- Many small businesses do not invest in capability development and are slow to seek advice. This can impact their regulatory compliance, resilience, growth aspirations and preparedness for change.
- Small businesses can have limited capital and cash flow and more difficulty accessing finance on reasonable terms.
- Limited cash flow results in a focus on the short term and can be a cause of stress and poor mental health outcomes for owners.
• Small businesses have less time and resources to consider and plan for wider environmental and economic drivers and processes such as the changing nature of work, climate change and the transition to a low-emissions economy.
• The physical distance between New Zealand and other markets restricts knowledge and technology transfer.
• Due to comparatively high real interest rates and small insular markets, domestic small businesses tend to invest less in new technology and other productivity-enhancing assets. As a result, businesses can be slow to embrace new technology.

The New Zealand Small Business Strategy also highlights the comparative advantages of SMEs in New Zealand. We are ranked first in the world for ease of doing business, first equal for least corrupt country, fourth for transparency and 13th for competitiveness.

2.3 The New Zealand construction sector before COVID-19

In July 2020, the Ministry of Business, Innovation and Employment (MBIE) published a construction sector fact sheet detailing the state of the sector pre-COVID-19.

According to the fact sheet, the construction sector:

• was the fifth largest sector in the New Zealand economy
• generated 6.2% of real GDP
• directly employed about 258,100 people in residential, heavy and civil construction and construction services
• was considered average in terms of the survival rate for firms in New Zealand (MBIE, 2020).

2.4 SMEs in the construction sector

When considered through an aggregate lens, SMEs are a large player in the domestic construction sector.

In 2019, construction sector SMEs employed approximately 90,000 people (Stats NZ, 2020b).

In February 2020, (Stats NZ, 2020a) the biggest sector by number of SMEs in New Zealand was the rental, hiring and real estate services sector – 121,257 businesses or slightly more than 22% of total SMEs (Figure 1). The construction sector was the second-largest sector by number of SMEs, constituting more than 12% (65,799) of total SMEs.

As shown in Figure 2, less than a quarter of the construction enterprises that were established in 2010 survived for 10 years. However, it is encouraging to note that the average survival rate for construction enterprises has been improving when comparing cohort generations.
The mental health and wellbeing of small and medium-sized construction firms in New Zealand

Figure 1. Top 10 industries by number of SMEs.

Figure 2. Construction enterprise survival rates.

While construction enterprises established (or born) in 2009 had a 5-year survival rate of approximately 35%, those born in 2014 had a 5-year survival rate of approximately 40%. However, it is to be expected that COVID-19 will have a significant impact on all cohort survival rates going forward.

2.5 The impact of COVID-19 on activity levels in the construction sector

Most of the construction workforce was unable to work during the Alert Level 4 restrictions. Construction businesses were only allowed to undertake essential infrastructure work or work that addressed immediate health or life safety risks.

At subsequent alert levels, businesses could reopen but physical distancing was still in place which limited the number of staff on worksites and likely reduced productivity. In the weeks running up to and immediately following New Zealand’s response to the global outbreak of the COVID-19 virus, several organisations (including BRANZ) undertook survey-based research to gauge the immediate impact on construction sector activity. The findings of two surveys are discussed next.

During the week ending 24 March 2020, Productspec – an extensive library of New Zealand building products – conducted a survey (n=449) of its members to determine the impact of COVID-19 on their current and expected future activity levels.
The research found that, in the residential construction industry, the expectation was that activity will be disrupted for at least 1 year (Productspec, 2020).

The commercial construction industry, however, was strongly divided between expectations of 6 months’ disruption and more than a year, with the ‘too hard to tell’ option favoured by most.

Whether or not orders would be honoured once construction recommenced following an initial 5-week national lockdown period was of greatest concern across the construction sector. Within the responses were several that reflected both hardship and confusion.

Project-level data collected by building research specialist Pacifecon on the initial impact of COVID-19 is based on projects known to Pacifecon and other publicly available information. Table 1 shows that, in the approximately 3 weeks following the implementation of the COVID-19 nationwide lockdown, nearly 300 construction projects were affected. As at 31 August 2020, up to 4,600 projects were affected by delays longer than the initial 1-month national Alert Level 4 period. Industry data gathered by Stats NZ suggested greater holdups for residential projects than other subsectors, with a reported 7-week delay on the completion dates of home building projects in the June 2020 quarter (Stats NZ, 2020c).

Table 1. Projects affected by COVID-19.

<table>
<thead>
<tr>
<th>Projects affected</th>
<th>At 17 April 2020</th>
<th>At 31 August 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned/tendering projects start date postponed</td>
<td>245</td>
<td>363</td>
</tr>
<tr>
<td>Planned/tendering projects put on hold</td>
<td>11</td>
<td>37</td>
</tr>
<tr>
<td>Commenced projects that will finish later than expected</td>
<td>35</td>
<td>85</td>
</tr>
<tr>
<td>Projects cancelled due to COVID-19</td>
<td>2</td>
<td>11</td>
</tr>
</tbody>
</table>

2.6 New Zealand Government response to COVID-19

Faced with the prospect of a one-in-100 year economic and public health event, the New Zealand Government created a range of COVID-19 cross-sectoral support packages that have attracted varying degrees of engagement from the construction industry, as briefly outlined below.

2.6.1 Wage Subsidy Scheme

The Wage Subsidy Scheme initially spanned a 12-week horizon, with applications open from 17 March to 9 June 2020. In mid-June, this was extended for firms with a 40% or greater fall in revenue, providing support for a further 8 weeks through to 26 October 2020.

As of July 2020, the scheme had supported more than 1.7 million employees at a cost of more than $13 billion. A further 2-week wage subsidy introduced when alert levels were raised in mid-August was expected to cost approximately $510 million, subsidising the wages of around 470,000 workers.

2 https://mkt.pacifecon.co.nz/covid-19
As illustrated in Figure 3, based on figures up to mid-May 2020, the construction industry had the highest proportion of supported jobs from the Wage Subsidy at 101%, with subsidies accounting for 30% of the sector's workers as of 1 September 2020.

Figure 3. Total uptake of government COVID-19 assistance by industry.

2.6.2 Small Business Cashflow Scheme

The Small Business Cashflow Scheme was well utilised across the economy, with SMEs in the construction and accommodation sectors the biggest benefactors. As of June 2020, nearly 13,000 construction SMEs had accessed the loan scheme since its inception in May 2020, borrowing more than $216 million. The average payment to construction sector SMEs was approximately $16,700 (George, 2020).

2.6.3 Business Finance Guarantee Scheme

The objective of the Business Finance Guarantee Scheme, valued at $6.25 billion, was to facilitate the availability of credit for commercially viable businesses affected by COVID-19, with the government covering 80% of the lending risk and the banking sector accepting the remaining 20%.

In stark contrast to the Small Business Cashflow Scheme, the original Business Finance Guarantee Scheme was not well subscribed.

Applicants – including construction sector SMEs – expressed concerns regarding the difficulty of accessing the scheme, citing the excessive approval criteria, personal

---

4 There are some Wage Subsidy and Wage Subsidy Extension applications for employees not included in the Inland Revenue data. For example, some business owners could apply as employees and some businesses could apply for casual employees. Excluding these would decrease the proportion supported. By including these, the construction industry had a reported proportion of 101% as of September 2020.
5 Ministry of Social Development COVID-19 reporting.
guarantees, high equity thresholds, limitations on the purpose of the loan and unrealistic forecasting information required. The scheme was subsequently revised in late August 2020.

Of concern to the current research is the finding that, pre-COVID, many SMEs already experienced challenges related to cash flow and access to finance (on reasonable terms), resulting in a focus on the short term that could be a trigger for stress and consequent poor mental health outcomes for business owners.
3. The impact of COVID-19 on the mental health and wellbeing of SME owners

In March 2020, the World Health Organization expressed concerns regarding the effects that COVID-19 could have on the psychological wellbeing of the general population and published guidelines aimed at mitigating the mental health impacts associated with isolation and social distancing interventions (World Health Organization, 2020).

General concerns for the mental health and wellbeing of New Zealanders were affirmed in April 2020 by Sir Peter Gluckman (Wade, 2020). Every-Palmer et al. (2020) cited a study by Chinese researchers Huang and Zhao comparing social media posts from almost 18,000 users before and after declaration of the COVID-19 epidemic, which found:

- increases in negative emotions (e.g., anxiety, depression and indignation), and decreases in positive emotions (e.g., Oxford happiness scores) and life satisfaction. Another study found 54% of Chinese citizens rated the pandemic as having moderate to severe psychological impacts on them.

3.1 The impact of COVID-19 on the mental health and wellbeing of New Zealanders

Every-Palmer et al. (2020) cited early media reports regarding the impact of COVID-19 on the psychosocial wellbeing of New Zealanders that pointed to a 40% increase in mental health-related calls to Lifeline, a free helpline for those in distress, within the first weeks of the lockdown.

To substantiate these reports, this group of researchers from the University of Otago administered an online panel survey of 2010 adult New Zealanders in April 2020 in order to examine the psychological wellbeing of New Zealanders during the COVID-19 lockdown. They found that 30% of respondents reported moderate to severe psychological distress and 16% reported moderate to high levels of anxiety, while 39% reported low wellbeing – well above baseline measures.

The research findings also suggested comparatively worse outcomes for young people, those who had lost jobs or had less work, those with poor health and those who had past diagnoses of mental illness.

3.2 The impact of COVID-19 on the mental health and wellbeing of SME owner/operators in New Zealand

The literature review identified research undertaken by Xero (2020), a global provider of cloud-based accounting software, on how people in small businesses were feeling, what their biggest concerns were and what their sentiments regarding the future business environment could reveal.

Research methodology

In collaboration with Perceptive, a New Zealand customer insights agency, Xero is undertaking an anonymous and unbranded nationally representative market small
business study across Australia, New Zealand, the United Kingdom, the United States, Canada and Singapore. The ongoing study began in May 2018 and measures Xero’s brand health performance against those of competitors. Respondents are all decision makers for SMEs with fewer than 50 employees.  

The research employs advanced artificial intelligence designed to derive crisis-focused emotional states. It analyses millions of conversations drawn from thousands of varied sources across the internet that are filtered through natural language processing algorithms to clean, analyse and segment findings.

SMEs’ perceived level of threat from COVID-19

The research found that, across Australia, New Zealand, the United Kingdom, the USA, Canada and Singapore, 74% of small businesses perceived COVID-19 as a high to very high threat to their businesses in March 2020. This eased to 53% in August, a slight increase from July, as various restrictions were lifted.

In New Zealand, the proportion of SME respondents with high or very high concerns about the impact of COVID-19 on their operations varied. After decreasing from 56% in May to 39% in June, it again increased to 47% in July. This compared to 54% in Australia, 51% in the United Kingdom, 55% in the USA, 60% in Singapore and 45% in Canada (Figure 4).

![SME owners' perceived level of threat from COVID-19](image)

**Figure 4. Small business owners’ perceived level of threat from COVID-19.**

SMEs’ mental health and wellbeing concerns

Mental health and wellbeing were of concern for two-thirds of employing SMEs and for half of sole traders across the countries surveyed in August 2020. Although the mental health of owners was flagged as an issue for all SMEs, the health and wellbeing of their employees was of greater concern for employing SMEs.

For both New Zealand and Australia, 44% of SME respondents expressed concern about the health and wellbeing of their employees. This compared to 31% in the UK, 39% in the USA, 41% in Canada and 59% in Singapore (Figure 5). In four of the six

---

6 It is important to note that this definition of SMEs differs from the current research that classifies SMEs as having fewer than 20 employees.
countries including New Zealand, 42% of SME respondents expressed concern for their own mental health. The majority (between 53% and 73%) expressed some form of wellbeing concern.

![SME owners' concern about mental health and wellbeing, August 2020](image)

**Figure 5. SME owners’ concern about mental health and wellbeing.**

**Primary concerns for SMEs in New Zealand**

Of special interest to this study are the findings regarding the primary concerns of SMEs in New Zealand during July 2020. As shown in Figure 6, personal income and the loss of customers were the biggest concerns for SME owners with between 58% and 60% of respondents signalling these concerns.

Nearly half of New Zealand SMEs identified cash flow as a major concern. Reducing costs, personal mental health and employee health and wellbeing were raised as a concern by between 29% and 33% of local SMEs.

![Primary concerns of SME owners, July 2020](image)

**Figure 6. Primary concerns of SMEs, July 2020.**
3.3 The impact of COVID-19 on the mental health and wellbeing of construction SMEs in New Zealand

A post-lockdown survey of 100 members of the Master Builders Association of New Zealand (Harris, 2020) found that nearly a third of respondents had lost more than 30% of their future pipeline of work, and nearly two-thirds had seen their order book decrease by more than 10%.

Although only 14% of respondents had to take up the extension of the Government Wage Subsidy Scheme, respondents overwhelmingly felt worried about consumer confidence (86%) and client access to funds (66%) as subsidies neared their end and banks began tightening up on finance.

In early November 2020, BDO released its 2020 Construction Survey Report, an annual survey of the New Zealand construction sector (BDO, 2020). Summarising the survey findings, James MacQueen, BDO’s Head of Construction, provided the following observation:

> Up until March, we saw an extended period of growth and the sector was the strongest it had been for a decade. Whilst margins were still tight, they were improving. However, that all changed when the country went into lockdown and when the economy reopened, some construction projects were cancelled, and unfortunately, we saw a resurgence of the ‘race to the bottom’ behaviour with some construction firms slashing their gross margins simply to secure enough work to survive. (NZIOB, 2020)

The BDO survey found that uncertainty regarding the construction pipeline was the most significant concern affecting the mental health and wellbeing of respondents – 81% identified this as their main area of concern coming out of the crisis.

The second-biggest cause of concern among respondents was the race to the bottom, with margins falling as construction companies made lower and lower bids to secure much-needed work.

Other findings of the BDO survey included:

- 53% of subcontractors indicated that their margins were down by 5–10%, while 11% indicated that their margins were down by more than 10 percentage points
- for head contractors, 78% indicated that margins were down between 1 and 2 percentage points
- only 10% of those surveyed did not need to apply for the wage subsidy to cover costs over the lockdown (BDO, 2020).

Of specific interest to the BRANZ research is a statement James MacQueen provided prior to the release of the BDO survey findings that:

> the margin-cutting actions of a few was forcing the rest of the industry to follow, and clients were putting too much emphasis on price alone when awarding contracts, accentuating the problem. The race to the bottom will amplify the gap between robust and fragile companies, as jobs become riskier. The failure of any one head contractor will have a significant domino effect on subcontractors. (Bevin, 2020)
3.4 Observations on the impact of COVID-19

Given the findings by Bryson and Duncan (2018) that approximately 7% of working-age male suicides in New Zealand were workers in the construction industry and by Bryson et al. (2019) that work-related factors such as job insecurity or uncertainty and work-related stress stood out in coronial reports, the findings of the current research are of concern.

A recurring theme identified throughout the research is the causal relationship between the financial wellbeing (overall financial and commercial or business performance) of a SME and the subjective wellbeing (mental, emotional, psychosocial, physiological) of construction industry participants – notably SME building contractors - with the former acting as a stressor affecting mental health and wellbeing outcomes.

Concurrent BRANZ research on the financial wellbeing of SMEs in the New Zealand construction industry – especially access to finance – explored construction industry participants’ concerns about unsatisfactory interactions with their bankers (Du Plessis & Simpson, in production). Through a series of interviews with stakeholders in the banking industry on the business mechanics of access to finance and financial and commercial acumen, the consensus view was that, although cash flow lending was virtually non-existent for construction firms (particularly SMEs), this reflected general banking industry standards and practices and not specific discrimination against the construction industry or any other industry.

Of further interest to the current research was the concern raised regarding the absence of dedicated resources such as a business manager and the perceived quality of professional services where they were currently being employed.

Considering these findings, the challenges undermining the wellbeing of SMEs in the construction industry could be grouped into the following categories:

- **Wellbeing challenges:** As demonstrated by various construction industry surveys, the financial wellbeing of their business was a key driver of concern or stress for owners.
- **Direct financial challenges:** These relate to a SME’s financial position and subsequent access to competitively priced financial products, largely determined by security, debt, balance sheet strength, business performance, working capital and liquidity.
- **Operational challenges:** Broadly speaking, this concerns the management capability of the SME, including management of project timelines, client and supply chain relationships, project risk management, pricing practices and management of margins and client concentration.

The following section considers potential mechanisms that would enable SMEs in the construction industry to address some of these challenges with a view to improve their overall resilience and the mental health and wellbeing of owners and employees.
4. Options to improve the resilience of SME construction firms in New Zealand

This section considers potential avenues whereby SMEs in the construction industry could improve their commercial resilience as a driver of mental health and wellbeing gains. This includes a cursory consideration of some of the theoretical foundations underpinning the social and business management sciences.

In doing so, this component aims to provide a framework to support the overall research findings and recommendations. It provides evidence of some of the pitfalls of entrepreneurship in general and outlines mechanisms to improve the business performance, financial wellbeing and resilience of SME builders in New Zealand.

It complements the direction taken by the Construction Sector Accord\(^7\) in the wake of COVID-19. As such, the focus of the Accord has shifted to industry resilience and recovery through the Accord’s COVID-19 Response Plan for the Construction Sector.\(^8\)

The interventions discussed below could be considered as preventive measures to improve the overall mental health and wellbeing of those working in the construction industry.

The mindset of the owner of a construction enterprise is bound to have a direct downstream impact on the employees and subcontractors working for that company. This is bound to spill over into the work environment or worksite with the resultant impact on worksite behaviour, health and safety.

As such, although not representing a quick fix to the historical and current mental health and wellbeing issues facing the construction industry, it does address a root cause of long-term mental stress and disharmony.

To improve the overall health and wellbeing of SME owners, their employees and, by extension, the industry within which they operate, many owner/operators of SME construction firms will have to revisit the basics of business management practice.

Based on the feedback from stakeholders in the financial sector, many of the basic or survival needs of SME constructions firms are currently not being met by business owners thereby affecting their ability to access finance and remain in operation.

Given that the interventions or mechanisms identified in the literature discussed below form part of the foundational or survival needs of a business – and are by default more basic – they are also easy fixes for most SMEs operating in the construction industry.

4.1 An uncertain future

The New Zealand economy, like most others, faces uncertain times as the effects of the COVID-19 pandemic continue to reverberate around the world. Historically high levels of net migration have boosted demand for New Zealand’s housing in recent

\(^7\) The Accord is a collaboration between construction sector leaders from across government and industry that was launched pre-COVID-19. It is aimed at addressing some of the key challenges facing the sector.

years, with the construction sector’s associated lift in activity further intensified by a surge of returning New Zealanders as the pandemic has worsened.

While the current low interest rate environment continues to fuel housing demand (and, by proxy, construction), the influx of returnees has dwindled as of October 2020, with the number of New Zealand citizens and permanent residents returning each month declining to one-third of usual levels.

Should New Zealand’s borders remain closed, declining net migration could see population growth falling from almost 2% pre-COVID-19 to approximately 1% over the next few years. This possible decline, combined with shifting demand, limited access to offshore skilled labour, and potentially constrained operating conditions under further lockdowns, suggest unpredictable near-term conditions for construction SMEs and the wider New Zealand economy.

4.2 Mechanisms to improve the resilience of SME building contractors in New Zealand

During 2019, the Small Business Council (2019b) developed the New Zealand Small Business Strategy for businesses that are privately or family owned, and where the owner is significantly involved in the day-to-day running of the business.

Development of the strategy was informed by the New Zealand Treasury’s Living Standards Framework,9 which represents its perspective on what matters for New Zealanders’ wellbeing, now and into the future.

In the Small Business Council’s summary of the framework (Figure 7), two of the four future wellbeing capitals, namely human capital and financial and physical capital, have direct bearing on the research under consideration. The Living Standards Framework highlights the importance of people’s knowledge, and physical and mental health, as enablers of effective social participation, and reflects the connections between SMEs and their communities, the economy, the nation and the environment.

Figure 7. Living Standards Framework.

In a recent discussion paper, IBM (2020) noted that:

there was a growing social conscience developing and that increasing numbers are expressing a desire to move from a currency economy to a social economy. That means a focus away from money and commodities and towards people, sustainability and wellbeing.

The mechanisms to enhance the financial wellbeing and resilience of SMEs in the construction industry outlined below, although primarily focused on operational aspects, are driven by a framework aimed at improving the holistic wellbeing of SMEs, especially the mental health and wellbeing of construction industry SME owner operators.

During the development of the New Zealand Small Business Strategy, the Small Business Council (2019b) conducted a survey (n=1,000) of small business owners and managers to gain a deeper understanding of the issues facing them and their thoughts on the future.

The survey findings included the following:

- Almost all respondents were confident in their business management skills but only a third had done any form of management training.
- Digital and technical resources, business and strategic planning and growing the business were the areas of most interest in training.
- Most respondents reported that they use some technology, with accounting software, a business website, social media and cloud computing being the most common. However, the proportion of respondents reporting use of each of these tools individually was 20% or lower.
- Understanding how technology would improve their business and having time to learn how to use it were the factors most likely to encourage respondents to use technology.
- For 60% of respondents, the main difficulties were long and complicated processes and information being hard to find.

4.2.1 Business management practices

SMEs in the New Zealand construction industry are not immune to the challenges affecting business start-ups from other sectors.

A well-structured and effectively managed SME has multiple positive flow-on effects for not only the individual business owner and their associated employees and contractors but also for the wider industry, contributing to improved wellbeing, higher quality outcomes and more productive endeavours across the sector.

Most SME firms in the construction industry would agree that access to finance goes hand in hand with sound business management practices, including financial management. However, the New Zealand Small Business Strategy noted:

Almost all respondents (96%) were confident in their business management skills but only 36% had done any form of management training. The main reasons for not doing business management training was that respondents did not think they needed it, or they did not have enough time to do it. (Small Business Council, 2019b)
Business management theory and practice

Business management theory and social science both draw in part on the principles of Maslow’s hierarchy of needs (Maslow, 1943), a theory in psychology proposed to explain the basic building blocks of holistic human wellbeing and business success.

As illustrated in Figure 8 (Shelton, 2020), Maslow presented the range of human needs in pyramid format consisting of five ascending levels ranging from basic physical needs necessary to survive at a foundational level to the need for self-actualisation at the very top. He argued that human beings seek the fulfilment of basic physiological needs before all others. These being satisfied, they move on to seek fulfilment of higher-order needs.

Put simply, for any human being (for example, the owner of a SME in the construction industry) to achieve complete mental health and wellbeing – a state Maslow calls self-actualisation – certain basic needs first need to be met.

![Figure 8. Maslow’s hierarchy of needs.](image)

Although the research discussed in this report was not based on a deliberate exploration or application of business management or social development theory, Maslow’s hierarchy of needs also provides a useful framework for communicating the theoretical foundations underpinning organisational wellbeing – the basic building blocks of a healthy business or SME.

A review of over 2,000 studies on the needs of businesses (Harrison & Firth, n.d.) pointed to a hierarchy of needs in businesses that is very similar to the hierarchy of human needs. As illustrated in Figure 9, these range from rudimentary survival needs to recognition needs and self-actualisation needs at the pyramidion.
The mental health and wellbeing of small and medium-sized construction firms in New Zealand

**Figure 9. Business hierarchy of needs: Maslow’s hierarchy of needs as applied to business management theory.**

It falls outside the scope of this research to explore the intimate dynamics of Maslow’s theory as manifested in the SME construction industry. However, of importance to the research is the foundational level or survival needs. Just as in the case of a human, for a company to survive, a small number of basic conditions such as access to finance, products to sell (core product promises), ability to transact, customers and some form of marketing must be present.

**Construction SME business management practices**

Considering the feedback from lenders regarding the low level of basic business knowledge (or understanding of the basic needs of a business) observed among construction industry clients, against the backdrop of Maslow’s hierarchy of needs it could therefore be argued that an insufficient focus on some of the foundational aspects of business management theory and practice in the construction industry is undermining its resilience, and could explain many of the systemic challenges faced by construction SMEs, placing undue stress on business owners with the eventual spillover onto the worksite.

These findings support those of the New Zealand Small Business Council. During the development of its strategy for SMEs in New Zealand, it found that:

numerous private sector and government agencies currently provide information, advice and training on how to set up and run a small business. However, much of this help is not coordinated and not widely known. Getting finance, finding and hiring the right staff, investing in training and development, keeping abreast of change, and a heavy compliance burden, all pose significant challenges to small businesses. (Small Business Council, 2019b)

The Small Business Council found that a key factor in the success of small businesses was owners who invested in their own development as well as that of their staff. However, owners often had limited resources to devote to increasing their own management capability.
The Small Business Council recommended a Small Business Capability and Ambition Programme to provide tailored, relevant and affordable training opportunities to small business owners. They also recommended that the development programmes ought to be easily accessible and delivered in a range of formats to suit the needs and locations of business owners.

**Training pathways**

The construction sector has benefited from an array of educational initiatives in recent years focused on both attracting new people to the sector and upskilling existing industry participants. A selection of industry education programmes is briefly outlined below.

The TANZ eCampus platform offers construction-related diplomas through the following institutions:

- Ara Institute of Canterbury
- Otago Polytechnic
- Universal College of Learning
- Nelson Marlborough Institute of Technology
- Eastern Institute of Technology
- Toi Ohomai Institute of Technology
- NorthTec
- Western Institute of Technology at Taranaki

The diploma courses available across these locations include the New Zealand Certificate in Project Management (NZQA Level 4), the New Zealand Diploma in Business (Project Management) (NZQA Level 5), New Zealand Diploma in Construction (Construction Management, NZQA Level 6) and diploma programmes in the construction and built environment (NZQA Level 6).

These courses aim to produce well-rounded construction supervisors and managers with the ability to achieve the successful completion of a contract on time, on budget and to a high standard. Covering the skills required at all stages of a building project with an emphasis on building technology, communication and health and safety, these courses also include vocation skills such as planning, methodology and site management, procurement, programming and financial administration of contracts, and some also include a work experience component.

While entry prerequisites and flexibility vary across the institutions, these courses typically require 2–2.5 years of full-time study or 2.5–5 years of part-time study for those already employed in the industry via a mix of daytime, evening and online classes and assessments.

At the more intensive end of the educational spectrum, Massey University offers a Bachelor of Construction (Construction Management, NZQA Level 7), which typically requires 3 years of full-time study to achieve (or significantly longer on a part-time basis). This degree-level course encompasses the skills required to plan, schedule and implement new builds, refurbishments and conversions (including financial, quality and time management) and has a strong focus on digital technology with core courses including computer-aided design (CAD) and computer modelling of buildings (for example, BIM and augmented and virtual reality).
The selected diploma and degree options discussed above offer students extensive and in-depth qualifications in all aspects of construction management and operational best-practice protocols and meet an identified requirement for higher levels of education across the New Zealand construction sector.

**One size doesn’t fit all: SME-specific educational programmes**

A series of intensive short courses specifically focused on developing the critical skills and behavioural characteristics identified in this research could provide the missing route for SMEs within existing educational pathways. While clearly not a substitute for the comprehensive study programmes noted above, these short courses could provide the necessary first level in the hierarchy of interventions by addressing the skills requiring immediate attention in many constructions SMEs – financial planning (particularly cash flow management) and sector-specific overhead, payroll and human resource management skills.

This would build the essential base for a subsequent short course programme addressing the secondary interventions (including strategic planning, digitisation tools, supply chain and pipeline processes and inventory management and exposure to risk).

Such pragmatic, case study-centric courses – potentially tailored and provided with the assistance of BRANZ – could be supplemented by a supportive business mentoring service to help ensure new skills and behaviours are clearly understood and firmly established in the daily operations of construction SMEs across New Zealand.

**Case study: Getting business management basics right**

This case study is an excerpt from a recent article (McGregor, 2020) published on www.stuff.co.nz on 12 November 2020 that documents the importance of getting the business management basics right when operating a SME in the New Zealand construction industry.

**Real-life business lessons: Being brilliant on the basics is a great way to find success**

**By Graham McGregor Simple Marketing Expert**

[www.simplemarketinganswers.com](http://www.simplemarketinganswers.com)

One of the good things about business success is that often you don’t have to super clever to build a successful business. In fact, if you can just be brilliant on the basics that can often work very well to create all the business success you want.

I was chatting recently with Mike Kidd, the managing director of a successful new home-building company in Christchurch called Fortified Homes. Mike is 30 years old and has been in the building game for 10 years. He was 20 and on his OE when he got an opportunity to come back and work with his dad doing building (Mike’s dad had been a builder for 40 years.) Mike knew it would not be easy as his dad took a lot of pride in being a builder and worked really hard.

In fact everyone that knew Mike’s dad said he was the hardest working and best builder they had ever seen and that showed in his workmanship, how tidy he kept jobs and how well-organised every building job was. It was from his dad that Mike first learned the importance of becoming brilliant on the basics.

After a number of years working with his dad, Mike decided to start Fortified Homes.
Initially when Mike started Fortified Homes they did subcontracting work for other building companies. But after a year or two that work dried up, so they decided to jump in the deep end build their own homes and sell these homes to clients. Now they were new home builders and no longer sub-contractors.

They did some brainstorming and had a planning session and decided that first home buyers would be a good target market to build new homes for as they got a bit of help from the government. Mike realised they needed some plans to sell at the right price and got their draftsman to create these plans. They then started advertising their home building services on Facebook.

This is another ‘brilliant on the basics’ strategy: Identify the skills you need to do well in business and if you don’t have some of these skills then learn them. Mike’s wife is their Facebook marketing expert. They do a range of things on Facebook – they offer info in the way of blogs on their website, and they give people handy tips they can use. They update people on the home building jobs they have currently and the progress of each job. People love seeing their handover posts where they can see the finished home after watching the progress shots of that house over the previous months. Mike finds that these posts are usually their most popular ones.

Mike was very nervous about what other people would think when they first started promoting their house designs on Facebook. However, they started to get calls and messages from people enquiring about building. The next step from there was to actually sell a home to someone.

In the early days Mike was not very good at selling. He didn’t take notes properly, he didn’t have his figures worked out for potential upgrades, and he didn’t have a set sales process to take clients through. Every time Mike had a rejection he had to go and analyse why he wasn’t getting the job. Mike wasn’t previously used to getting rejected. He was a builder doing subcontract work, and he didn’t have to do any selling. Now he was a business owner it was very different.

Mike still doesn’t really know how he sold to his first few clients! But a few key basic things he had going for him were his knowledge about the products he was using, the best way to get ‘bang for your buck,’ and that he could also help out with almost any technical question the client had. So with these things and a truckload of enthusiasm, he got a few clients across the line. Mike then went to a few free seminars on how to talk to people, how to structure a simple sales process and just general business guidance which gave him a bit of a base which helped him to get a few more clients on board.

From there Mike started to get into networking groups which was a big unknown for him at the time. He got in with The Networkers and they have been great connecting Mike with different professionals to help their business.

The key Mike found is that they kept investing in themselves with the money they made as they always wanted to be better. Today they still invest a lot of money in improving their business and their skills. All part of being ‘brilliant on the basics’. Mike identified the skills he needed to improve in and took action to improve his skills in these areas. Another basic business skill that is critical for business success is finding new ideas to improve the results you are currently getting. Mike found that he gets lots of good ideas from his own people. They have taught Mike how he can manage them better and stop and look at things from their perspective.
Mike remembers when he had just employed his foreman Ryan. He was the first qualified carpenter Mike had employed which was interesting as he hadn't been taught Mike’s way of doing things. This was a bit of a struggle for Mike at the start. Then Mike decided to listen to Ryan’s ideas and look at how he was doing things and was pleasantly surprised that some of those things were better than his way!

Mike and his team now ask some very simple questions about every part of their business: Is it economical? Do we achieve the same or better outcome? Is the process easier? Is the process faster? Is it easier to understand?

These questions help them to come up with lots of good ideas for improvement. As Mike told me: “Who cares where the idea came from? If it is a better idea that is great for everyone!”

Mike also enlisted the help of a business coach for builders. He has been a great help in teaching Mike some of the in-depth keys to success in business with regard to sales, forecasting and tracking your numbers. He has helped Mike implement an effective sales process and helped them to put great lead generators into their website.

Mike made a great comment about business success that I really liked: "No-one in business seems to know it all and it seems to be a journey rather than somewhere we get to". And a major part of the journey is learning how to improve your key business skills.

Being ‘brilliant on the basics’ has meant the number of new homes that Mike’s company builds each year is steadily increasing. In 2018 Fortified Homes built seven new homes for clients. In 2019 that increased to 11 new homes built. In 2020 there were 15 new homes build. And it looks like they are on track to build around 20 new homes in 2021.

Mike’s whole family was involved in the business. His mum and dad have been Mike’s rocks and mentors throughout the business to date and all major decisions still get discussed in depth with them and his wife. His mum does all the accounts side of the business and Mike’s brother is their accountant. This meant the business has tidy books and good cash flow. His dad helps with costing all the jobs and does the project management of every job as well. And his wife does all their social media marketing.

Mike found that the best thing about having family involved is that you can always count on them to do their share and if they aren’t doing something you like, you can always have a frank conversation about it. The worst thing about having family involved is that when you have a family tragedy, someone has to pick up the slack.

Every single business owner interviewed for my Real Life Business Lessons has had big challenges and hurdles to overcome in building their business. Sometimes the challenges are in the business side of things. And sometimes (like with Mike) they are in their personal lives. Whatever the challenges you face in business it is critical to have a good support network in place to help you through these tough times.

One of the keys to success for Mike and his new home building business was their focus on a very specific market niche: First home buyers. Fortified Homes focus on building single story homes for first home buyers that are around $500,000–$550,000 (including the land). The homes they build are high quality, they can be customised for clients and are built on time.
Mike knew they could offer a better quality at a better price for people. They had friends who had built with other builders, and he remembers thinking that we should be able to compete with a higher quality product as well as one that was bigger in size. They created a few set plans which could be paired with a section and come in under the $550,000 budget.

Mike gave me a typical example of this type of home. A section in Rolleston is approx $190,000. You then add a 213m² home for $339k and allow $20,000 for landscaping and driveways. Total investment: $549,000. Because Mike's company offered such great value they attracted a wide range of first home buyer clients.

They had one couple who had put down a $1,000 non-refundable deposit down with another company and still came to build with Mikes company as they offered much better value for the same price and they got a customised home as well. They also have another couple who did a complete custom build and personalised their home to exactly what they wanted (Mike has this home entered into the Master Builders House of the Year competition currently so it will be interesting to see how that goes). Mike discovered in new home building there are four factors that are really important to customers. These are the four basics if you like. They are speed, quality, service and price. Usually most building businesses get three of the four basics right. Mike said that Fortified Homes is consistently hitting all four of these basics and not just three of them.

Mike and his team have set the bar high which is stressful at times but worth it when they see how happy their clients are when they hand over a dream home at the end of the build. Mike has always had the approach that “we are just there to help the clients build their home, that’s it. If the client needs the time to digest what they are doing or get things to contract really fast, it doesn’t bother us because we are just there to help! That is our commitment to good service, just helping!”

They have really good subbies who do a fantastic job consistently. Mike sets his quality standards really high for his subbies and they know it. Mike and his wife always do the final touch up clean on properties before they do a handover with the clients. Mike knows that his wife has quite an eye for detail when it comes to making sure things are as they would want a house handed over to themselves.

Mike summarised his ‘brilliant on the basics’ philosophy like this: “We are a small family run business; we use good quality products and awesome subbies who give us a fair price. We run the business as lean as possible so that the clients get huge value for the price they pay.”

They also commit to building in six months and under (they average four and a half to five and a half months depending on the house size and specs.) They make sure that their clients get a tentative date at lock-up stage with that being confirmed a few weeks after that.

How do they do this? Mike explained: “Our builders are awesome and we run a tight ship when it comes to timelines and schedules, so we consider it a failure if we don’t hit target dates. (They are so well practised in this now that they rarely miss dates.) The fastest new home build they did was 14 weeks – They started at the end of August and had their clients into their new homes before Christmas.
One of the biggest business challenges for Mike has been this realisation: “We are running a business and we have to somehow get the message to people that we are here and not be the world’s best kept secret.”

At the end of 2019, Mike went through a dry spell with sales. He was doing the same things that used to work but it didn’t seem to make a difference. Mike had the realisation that without sales, there is no business.

Who was to blame for no sales? The salesperson. And who was that? Mike was! It was a hard pill to swallow that Mike was the weak link in the process, and he needed help! So he decided to get off the tools completely and concentrate solely on making sales and improving the business. And within a year of doing that it made a huge difference to their sales results. Now they are into a position where they have a great sales process so sales are easier to make and prospective clients are also a lot happier.

One year on from the build Mike and his team come back for an inspection on the house. Anything that needs fixing they will fix and they will do any settlement paint touch-ups around corners of windows and doors where you are likely to have the most movement. They find this service is great because it gives them a chance to catch up with their clients. It also gives their clients a chance to bring up any small things that they might be unsure of.

I asked Mike for any advice he would give other business people that would help them to do well in today's environment. “Cash is king,” Mike said. “So many tradies have terrible bookkeeping and invoicing, so they always seem to have cash issues. Get every invoice out the next day at the latest and have a minimum number of days for clients to pay. Find a good mentor to help with the business side of things. We are usually awesome builders when we start out but apprentice business people.”

I finished out interview by asking Mike what we he would do differently if he was starting his business again today. “I would bring in other mentors a lot earlier,” he said. “I would nail down the sales process earlier. Without sales, you have no business.”

4.2.2 Digitisation or uptake of technology

One of the few positive outcomes of the global COVID-19 pandemic is the impact it has had on businesses’ views of the vital importance of technology for business survival. It resulted in many industries being propelled into a digital future that would otherwise have taken decades to evolve (Smith, 2020).

In addition to the more observable or measurable impacts of technology highlighted below, the specific interest of the current research in increasing the uptake of technology among SME building contractors is the potential positive impact on the mental health and wellbeing of owner operators (Xero, 2020).

Many of the basic business requirements critical to the survival of an enterprise are available via digital cloud computing software and have been developed to cater for a range of unique user needs, providing access to ongoing support that previous generations could only dream of - including account and cash flow management services.

This section briefly considers the potential impact of increased technology uptake on construction sector productivity and income levels. It focuses on research conducted
by the New Zealand Institute for Economic Research (NZIER), IBM, the New Zealand Productivity Commission and others.

BRANZ researchers included ‘technology uptake or digitisation’ in its assessment of the survival needs for business (see Figure 9) as it is a vital business enabler and driver of productivity and downstream wellbeing. However, the overall impact of technology or digitisation on construction sector productivity (beyond business-as-usual improvements) is expected to be less when compared with other industries.

In a report prepared for the New Zealand Productivity Commission, David Skilling (2020) notes:

- policy can also support firms to move towards the frontier in domestic sectors. But firms in domestic sectors operate in a constrained environment that make strong, sustained productivity performance less likely. Moving productivity in sectors like construction towards the global frontier will be challenging in small economies like New Zealand. Of course, improvements can and should be made (e.g. modular construction, greater use of digital in the delivery of services), but the benefits will be limited by the small scale of the domestic market.

Notwithstanding this, the world is currently amid the fourth industrial revolution (World Economic Forum, 2020). Recent research by IBM (2020) shows that 97% of US executives say their organisation will be deploying more artificial intelligence (AI) tools in the next 2 years than they had prior to COVID-19, noting that:

the gap will only grow bigger if we don’t … empower SMEs to move beyond websites and e-commerce.

Driven by a wave of rapid technological advancements and automation, the way of working and doing business – the survival need that related to the ability to transact – is changing, and small businesses need to be able to keep up.

Digital technologies offer exciting opportunities to address the productivity problem in New Zealand, but it is critical that the small business sector does not get left behind (Skilling, 2020).

Potential impact of digitisation or technology uptake on the economy

In his report to the New Zealand Productivity Commission, Skilling (2020) makes the point that:

much of New Zealand’s GDP growth during the past 30 years has come mainly from a growth in hours worked, with low growth in labour productivity.

Independent economic modelling undertaken by NZIER (Bealing, Siddharth & Leroy de Morel, 2020) prior to COVID-19 on behalf of Xero found that a 20% uptake of cloud-based technology could hold significant benefits for the economy. According to the NZIER research, cloud computing accounted for $1 billion or 0.3% of New Zealand’s GDP in March 2019. The authors estimated that the economic impacts of an increase in multi-factor productivity flowing from a 20% uptake in the use of cloud computing across industries could result in annual real GDP increasing by between $3.5 billion and $6.2 billion.
Impact on construction sector output

The expected impact of technology such as cloud computing will vary across industries depending on the characteristics of specific sectors.

In a first-round effect, output increases in industries with higher multi-factor productivity as they benefit from cloud computing uptake. Output expands the most in industries with the highest rate of cloud computing services, such as property services (rental, hiring and real estate services), local and central government services, finance and insurance, and business services.

In a second-round effect, industries where households spend their income are also likely to be affected by increased income that comes through employment and real wages, and increased returns to capital. Such industries include other personal services, retail, sport and recreation services, or food and beverage services. Other industries also include property services (housing and real estate), which take a large share of households’ budgets. (Bealing et al., 2020)

It is therefore unsurprising that, as shown in Table 2, the expected increase in construction sector output that could result from an increase in the uptake of specifically cloud-based technology is limited in comparison to other sectors. The construction sector could expect to see an annual increase in output (based on multi-factor productivity) of between $62 million and $112 million.

Table 2. Annual changes in industry output from an increase in multi-factor productivity from 2019 baseline, in $ millions and percent.

<table>
<thead>
<tr>
<th>Top 20 industries to benefit</th>
<th>$ millions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Property services</td>
<td>$962</td>
<td>$1,349 $1,738</td>
</tr>
<tr>
<td>Education and health</td>
<td>$528</td>
<td>$742 $957</td>
</tr>
<tr>
<td>Local and central government</td>
<td>$308</td>
<td>$432 $556</td>
</tr>
<tr>
<td>Business services</td>
<td>$300</td>
<td>$422 $545</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>$249</td>
<td>$349 $450</td>
</tr>
<tr>
<td>Other personal services</td>
<td>$171</td>
<td>$241 $310</td>
</tr>
<tr>
<td>Electricity generation</td>
<td>$161</td>
<td>$226 $292</td>
</tr>
<tr>
<td>Dairy processing</td>
<td>$156</td>
<td>$218 $280</td>
</tr>
<tr>
<td>Sport and recreational services</td>
<td>$155</td>
<td>$218 $281</td>
</tr>
<tr>
<td>Retail, recreation and sport retail</td>
<td>$142</td>
<td>$199 $257</td>
</tr>
<tr>
<td>Petrol manufacturing</td>
<td>$88</td>
<td>$123 $158</td>
</tr>
<tr>
<td>Food and beverages</td>
<td>$76</td>
<td>$106 $136</td>
</tr>
<tr>
<td>Meat processing</td>
<td>$73</td>
<td>$101 $130</td>
</tr>
<tr>
<td>Wholesale</td>
<td>$70</td>
<td>$98 $125</td>
</tr>
<tr>
<td>Media and communication services</td>
<td>$67</td>
<td>$93 $120</td>
</tr>
<tr>
<td>Beverages and tobaccio</td>
<td>$64</td>
<td>$90 $116</td>
</tr>
<tr>
<td>Construction</td>
<td>$62</td>
<td>$87 $112</td>
</tr>
<tr>
<td>Fruit processing</td>
<td>$60</td>
<td>$84 $108</td>
</tr>
<tr>
<td>Architectural services</td>
<td>$56</td>
<td>$79 $102</td>
</tr>
<tr>
<td>Sheep and beef</td>
<td>$42</td>
<td>$59 $75</td>
</tr>
</tbody>
</table>

Source: Bealing et al., 2020.
Impact on national and construction sector wages

In terms of impact on real wages, the NZIER research found that construction sector wages could be expected to benefit significantly from an increase in the uptake of specifically cloud-based technology in comparison to other sectors.

This assumes that the national labour supply remains fixed in the long term.

As shown in Table 3, an increase in multi-factor productivity induced by a 20% uptake in cloud computing translates into an annual increase in real wages of between $104 million and $188 million in the construction sector.

As such, the construction sector is potentially the fifth-largest benefactor in terms of real wage increases associated with the increased uptake of cloud-based technology.

Table 3. Annual changes in industry wages from an increase in multi-factor productivity from 2019 baseline, in $ millions and percent.

<table>
<thead>
<tr>
<th>Top 20 industries to benefit</th>
<th>$ millions</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education and health</td>
<td>$467</td>
<td>$657</td>
</tr>
<tr>
<td>Local and central government</td>
<td>$186</td>
<td>$260</td>
</tr>
<tr>
<td>Retail</td>
<td>$113</td>
<td>$158</td>
</tr>
<tr>
<td>Business services</td>
<td>$104</td>
<td>$146</td>
</tr>
<tr>
<td>Construction</td>
<td>$104</td>
<td>$146</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>$99</td>
<td>$139</td>
</tr>
<tr>
<td>Other personal services</td>
<td>$73</td>
<td>$103</td>
</tr>
<tr>
<td>Wholesale</td>
<td>$62</td>
<td>$86</td>
</tr>
<tr>
<td>Food and beverages</td>
<td>$52</td>
<td>$73</td>
</tr>
<tr>
<td>Dairy processing</td>
<td>$42</td>
<td>$59</td>
</tr>
<tr>
<td>Sport and recreational services</td>
<td>$35</td>
<td>$49</td>
</tr>
<tr>
<td>Media and communication services</td>
<td>$28</td>
<td>$39</td>
</tr>
<tr>
<td>Meat processing</td>
<td>$27</td>
<td>$38</td>
</tr>
<tr>
<td>Fruit processing</td>
<td>$26</td>
<td>$36</td>
</tr>
<tr>
<td>Metals manufacturing</td>
<td>$25</td>
<td>$35</td>
</tr>
<tr>
<td>Road transport</td>
<td>$22</td>
<td>$31</td>
</tr>
<tr>
<td>Transport and storage</td>
<td>$21</td>
<td>$30</td>
</tr>
<tr>
<td>Dairy cattle</td>
<td>$19</td>
<td>$27</td>
</tr>
<tr>
<td>Air transport</td>
<td>$17</td>
<td>$24</td>
</tr>
<tr>
<td>Property services</td>
<td>$16</td>
<td>$23</td>
</tr>
</tbody>
</table>

Source: Bealing et al., 2020.

The variance across sectors reflects the importance of labour in each sector’s cost structure and the elasticity of demand to any price adjustments within each industry.

Real wages increase the most in industries with a higher share of cloud computing use and/or that are more labour intensive.

Case studies: Impact of technology uptake in construction SMEs

These case studies published by MBIE (n.d.) explore ways in which construction sector SMEs are using digital technology to manage their businesses.
Isaac Construction

Isaac Construction consists of over 200 specialists, delivering construction, surfacing, transport, quarrying and professional contract management services throughout Canterbury.

The Isaac team are in the process of implementing a few key digital initiatives. The team has most recently focussed on using technology to assist with improving processes and decision making, with the aim of increasing efficiency throughout the business. CEO Jeremy Dixon acknowledges that equipping staff with the right technology will help them do great work and ultimately result in productivity gains.

All the crews out in the field have iPads, so they have recently moved from using their previous paper forms to electronic. The team have chosen a cloud-based, off the shelf app for producing their online forms, with some customisation to ensure the functionality is fit for Isaac Construction’s purpose. In particular, the new online forms are being utilised for timesheeting and recording health and safety activities. There are forms for daily hazards and risks, site audits and incident reporting.

The new online forms are resulting in greater reporting and control, with fewer errors because of real time recording, availability and tracking of important health and safety data. In addition to their online forms, the team are about to launch a cloud-based competency management system. By logging into the new system via iPads, the foreman can: check that staff have appropriate licenses; review training records, and check qualifications and competencies. Until now, this process has been manual and took the foreman valuable time to complete.

The Isaac team continue to seek out further tech innovations, and will soon launch their IoT (“Internet of Things”) project. With the connection of machinery and network devices, valuable real-time company vehicle data will soon be made available via online dashboards, with embedded sensors and actuators (the component responsible for moving and controlling the machinery) located in the vehicles. The bespoke use of intelligently connected devices will result in being able to turn data into action to improve vehicle fleet efficiency and use.

Pro-Spec Electrical

Ten years ago, after becoming qualified as an electrician and made redundant in the same week, Steve Solley set out to build his own family-run electrical company, Pro-Spec Electrical. Over time, the business has grown steadily, and now employs 5 staff.

As the business expanded and jobs became bigger, so did the pile of paperwork. With priority being placed on getting the work done and quotes and sending out invoices to keep the business ticking over, Steve found he was neglecting his management of back costing and financial forecasting. This meant Steve had to wait until year end to figure out if the business was profitable. He knew there had to be a better way. Steve set out to find a purpose-built software solution that would remove as much of the manual paperwork as possible. Following some research, including joining an online industry forum, Steve found a well-reviewed fit for purpose software called Fergus that had been developed by a tradesperson.

Starting in 2015, Steve began a gradual transition to the new software from the old, paper reliant system. He understood that there would be an increase in the time he spent on admin and management before he would begin to experience true gains, as
using the software initially took more time than it saved while shifting records and becoming familiar with the new system. It took Steve approximately one year to fully migrate.

The productivity gains since then have proven transformational for Steve’s business. Back costing, which previously took four hours, is now produced at the click of a button. Quoting, managing accounts and forecasting, as well as tracking labour hours in real time, is also now made easier, needing only minimal interaction between Steve and his staff.

Staff enter their time on phone apps while on their jobs, which goes straight into the time sheeting software functionality. This allows Steve to identify where a job is progressing too slowly or may have been underpriced.

The Pro-Spec team continues to look for new ways to improve the business. They have recently implemented a code of compliance certificate module from Fergus, which has reduced the time it takes for staff to produce these certificates and means they can be stored in the cloud to meet regulatory requirements.

Other key digital innovations Steve and the team are making use of include a cloud-based platform for staff payroll and a shared cloud-based calendar, which enables the team to manage and share schedules easily while on the road.

Steve comments that, in addition to time-saving, use of the fit for purpose software solution has made running the business so much easier and less stressful, removing the worry that ‘you’re doing it wrong’.

4.2.3 Trades training and technology in the construction industry

A final related issue that researchers picked up on was the link (or lack thereof) between trades training and technology. In its recommendations to enhance the performance of small businesses in New Zealand, the Small Business Council stated:

> We believe the education system needs to be more responsive to the needs of the [SME] sector ... Small businesses need to be able to keep pace with change and we recommend several initiatives to enable the sector to prepare for the future. These include a technology credit as an incentive for greater adoption of technology by small businesses. (Small Business Council, 2019b)

A report by the New Zealand Productivity Commission (2020) supports this view and advocates making training more flexible and more accessible.

However, in its 2020 discussion paper, IBM New Zealand noted the following:

> To support New Zealanders who have lost their jobs as a result of Covid-19, the Government announced investment of $1.6 billion into a trades and apprenticeships training package in Budget 2020. This funding allows New Zealanders to receive free trades training, focussing on the industry skills needed in building and construction, agriculture and manufacturing. The package did not include a focus on digital skills, which are equally needed in a modern economy.

Budget 2020 did establish a $10 million fund to provide incentives and grants to encourage the uptake of e-commerce, train more digital advisors and provide
information and support for SMEs wanting to incorporate digital into their business models (Smith, 2020). Of concern, however, is the weighting placed on digitisation.

Without sufficient focus on providing New Zealanders with digital skills, the country risks excluding some people from the employment market. IBM (2020) highlights this need and suggest that government prioritise digital upskilling as a critical element of New Zealand's recovery from COVID-19. This could include funding providers to provide free digital upskilling, increasing emphasis of digital skills in secondary schools and increased targeting of digital training to people on the margins of the employment market.
5. Areas for further research

Several considerations touched on in this study report but that fell outside the scope of the current research parameters would warrant further exploration.

Motivational factors underpinning the decision to become a SME operating in the construction industry and associated impact on SME performance

During the consideration of the theoretical aspects underpinning business management and social science, the observation was made that, in theory, it is possible for SME builders to gain the (albeit temporary) benefits of human self-actualisation by being in control of their professional destiny as owner/operators while, from a business management perspective, not having some of the vital components underpinning a firm’s survival needs.

White and White (2015) state:

Contrary to Maslow’s theory, often the first act of becoming self-actualized is to throw away safety and financial security with both hands. Entrepreneurs quit their well-paying jobs, mortgage their houses and max out credit cards in their attempts to turn their dreams into reality. Rather than demand security before being able to think about higher-level motivations, entrepreneurs tend to lay it all on the line in risky start-up ventures. They seem to believe that the failure statistics just don’t apply to them and their ideas.

Fowle (2019) echoes these findings and makes a sobering observation:

Entrepreneurs become voluntarily blind to alternative courses and opportunity costs. They create their own purpose and commit to it wholeheartedly, taking them to the higher reaches of Maslow’s hierarchy … For the majority of entrepreneurs, their current project will bring failure, not freedom.

In terms of the other motivational factors underpinning the decision to start your own business, Watson, Gatewood and Lewis (2014) state that:

the literature draws a clear distinction between “necessity”, “opportunity” and “lifestyle” entrepreneurs … [and] highlights a fourth group of entrepreneurs; those driven to start a new venture to achieve “personal fulfilment” (to “make a difference”). This suggests that we could view the goals for entrepreneurship as lying on some form of continuum, akin to Maslow’s (1943) hierarchy of needs. At one end we have the “necessity” entrepreneurs who are trying to satisfy basic “physiological” needs, such as providing food and shelter for their families. At the other end of the scale we have individuals who enter entrepreneurship to satisfy much higher level needs; for example, to make a difference to society (to achieve “self-actualisation”). “Lifestyle” and “opportunity” driven entrepreneurs would fall somewhere between these two ends of the continuum. “Lifestyle” entrepreneurs who are trying to achieve a balance between work and family may represent Maslow’s “love/affection/belongingness” needs, while “opportunity” driven entrepreneurs may be motivated by the need to demonstrate
strength, competence, mastery, self-confidence, independence, self-respect and freedom; which Maslow categorized as “self-esteem” needs.

Fowle (2019) also points out that:

Entrepreneurs are drawn to “being independent and one’s own boss” (Blanchflower & Oswald, 1998). Not only are they attracted by independence but “the self-employed report higher levels of job and life satisfaction than employees” (ibid), a finding echoed by Andersson (2008), Hessels, Arampatzi, Van der Zwan, and Burger (2018) and Taggar and Kay (2018).

Technology (i.e. cloud computing) uptake potential in construction SMEs

An exploration could be conducted into the potential system-wide impact of technology among SMEs in the construction industry.

In-depth exploration of the business operations of SMEs in the construction industry.

In many respects, the current BRANZ research barely scratched the surface in exploring the real-world challenges facing SMEs in the construction industry. As such, thought ought to be given to exploring collaborative research opportunities to fill some of the knowledge gaps identified in this research.
References


Productspec. (2020). *COVID comments.* Retrieved from https://productspec.co.nz/en/articles/covid-comments/?clidee=a2F0aHloQH8hY21mZWNvbi5jby5ueg%3d%3d&recipientid=c2t2e3b3944668f7e811a997000d3a81e2e0-d297b361f5c8457d995ab614977e58ea&esid=f62e9d08-c35e-ea11-a811-000d3a8543fd


