



The COVID-19 pandemic and its impact on building system actors

SUMMARY REPORT | SEPTEMBER 2021





**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
HĪKINA WHAKATUTUKI

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Executive summary

This research provides findings from a deep dive on the impact of the COVID-19 pandemic on Businesses, Workers, and End-Users within the building system. The story uncovered was that:

The sector faced some challenges, including:



Rising costs of construction (in particular for products and freight).



Supply chain issues were widespread and effected both NZ-made and imported products; timber products were the worse effected.



Difficulty finding suitable staff to do the work.

These challenges were leading to:

Project management difficulties, and project completion delays for Businesses.



Behaviours such as stock-piling, not being able to follow COVID-19 health and safety protocols, and Workers completing tasks outside their skill set.



End-Users not being able to get quotes from tradespeople for the work and/or to do the work.



However, despite this, the sector has remained resilient.



Over half of Businesses did not use any form of financial support; and implemented fewer cost-cutting measures this year.



Business and Workers generally felt physically and emotionally safe, and were satisfied with their experience at work.



There was optimism for the future, particularly in relation to the "pipeline" of future work.

Background

2020 and 2021 have seen the world's social, cultural and economic systems come under significant stress due to the COVID-19 pandemic. In New Zealand, this has included periods of time in which businesses either did not operate at all, or could only operate under specific restrictions. Similar restrictions have also been applied to businesses in other countries by their respective governments, thereby reducing their production of products imported by New Zealand, as well as their demand for New Zealand's export products. Additionally, the significant reduction on cross-border travel between New Zealand and the rest of the world has had a negative impact on the flow of people and products between New Zealand and other countries. Therefore, the impact of the COVID-19 pandemic has been major.

Within this challenging environment, and since the arrival of the pandemic, a priority area for the Ministry of Business Innovation and Employment (MBIE) has been to ensure a strong recovery from the impact of the COVID-19 pandemic on New Zealand's economy.

One part of the New Zealand economy that has experienced challenges is the building and construction sector. The issues facing the sector have been widely reported (Braae, 2021), and there is much existing industry data and research available to confirm that there are issues (e.g., BDO New Zealand, 2020; Duncan Cotterill, 2020; KPMG, 2020; Ministry of Social Development, 2020; New Zealand Foreign Affairs & Trade, 2021; New Zealand Government, 2021a; New Zealand Infrastructure Commission (Te Waihanga), 2021; Plessis & Simpson, 2021; Statistics New Zealand, 2020, 2021a, 2021b). Notably, similar challenges faced by the sector in others countries had also been reported (Alsharif et al., 2021; Gamil & Alhagar, 2020; Majumder & Biswas, 2021).

Research purpose

While there is some understanding of the challenges facing the sector, information gaps still remained. For example, most existing research on the building and construction industry had not, until now, explored the potential impacts of the COVID-19 pandemic on the End-Users within the building system. A holistic approach to understanding the impact of the COVID-19 pandemic on the building system was also wanted.

The purpose of this research was, therefore, to provide insights to help the sector address the disruptions created by the COVID-19 pandemic. Specifically, MBIE wanted to understand the impacts across performance, people, processes and products (MBIE's '4Ps framework') and the resulting implications on social, environmental and economic well-being.

MBIE wanted to gain this understanding from the full range of building and construction system stakeholders (actors), defined as Businesses within the building sector, building system Workers, and private End-Users (such as current or would-be homeowners).

The research was therefore conducted to provide MBIE with statistically robust information about the extent and nature of the issues facing the building system as a result of the COVID-19 pandemic.

Methodology and construction

Stage 1 – Qualitative exploration

The **objective** of Stage 1 was to conduct a ‘sense-check’ of the issues at play. By qualitatively exploring the issues with a small but varied range of actors in the building system, the researchers were able to proceed to the quantitative phase with greater surety about asking the ‘right questions, in the right manner’.

- › **12 Construction-Sector Workers** from a wide range of sectors throughout New Zealand were interviewed via formal screening questionnaires and interviewed one-on-one via 1-hour interviews on MS Teams or Zoom, between 30 March and 22 April 2021.
- › **10 Residential End-Users** from throughout New Zealand were interviewed via two 90–120-minute MS Teams focus group discussions held on April 8 and 9 2021.

For both methodologies, **discussion guides** were used to guide but not control the discussion flow. These guides were structured around MBIE’s ‘4Ps framework’ (performance, people, processes and products).



Stage 2 – Quantitative survey

The **objective** of Stage 2 was to quantify the current and possible future impacts of the COVID-19 pandemic across the three actor groups (Businesses, Workers and End-Users). The **surveying method** was online, via a core questionnaire adjusted to suit each distinct sample group. The questionnaire took an average of 11 minutes to complete. Fieldwork was completed between 3 June to 9 July 2021.

Multiple **sample sources** and both online and hard-copy postal channels were used to maximise response rates, cost-effectiveness, sample diversity and sample robustness for each sample group. The survey sample groups and subgroups were as follows:

- › **Business:** The business group was represented by people who owned or managed a business or those who were a senior manager / key decision maker of a business in the building and construction sector at the time of the survey.
- › **Worker:** The worker group was defined as people who were employed in the commercial building and construction sector, but were not a senior manager, owner or decision maker at the time of the survey.
- › **End-user:** The end-user group was defined as people who were not professionally involved in the building and construction sector in any way at the time of the survey. The End-user group was further broken to the following sub-groups:
 - **Current/ Recent Builders:** People who chose the options 'I am currently having a new home built for me' or 'I built (or had built for me) a new home that was finished after the Level 4 lockdown in March-April 2020'.
 - **Build Delayers:** People who chose the option 'I had plans to build a new home last year or this year, but starting the work has been cancelled or delayed due to COVID-19'.
 - **Current/ Recent Renovators:** People who chose the options 'I have had some renovations completed on a home since the Level 4 lockdown in March-April 2020' or 'I have had some renovations started on a home since the Level 4 lockdown in March-April 2020'.
 - **Renovation Delayers:** People who chose the option 'I had plans to renovate sometime since last March, but starting the work has been cancelled or delayed due to COVID-19'.
 - **Build Planners:** People who chose the option 'I am planning to have a new home built in the next 18 months'.
 - **Renovation Planners:** People who chose the option 'I am planning to renovate a home in the next 18 months'.
 - **Homeowners:** People who chose the option 'I own a home but do not fit into any of the categories above'.

An overview of the achieved sample is outlined in Table 1.

Table 1: An overview of the achieved sample.

	Total	Business sample	Worker sample	End-User sample				
				Total	Homeowners	Current/ recent home builders/ renovators	Build/ Renovation delayers	Build/ Renovation planners
Number of respondents	3856	1118	1038	1700	500	500	200	500

Summary of Key Findings

1. Paperwork, Processes and Procedures

All aspects related to Paperwork, Processes and Procedures were significantly more likely to have become worse since the COVID-19 pandemic for Businesses, Workers and End-Users alike.

Key Qualitative Results¹

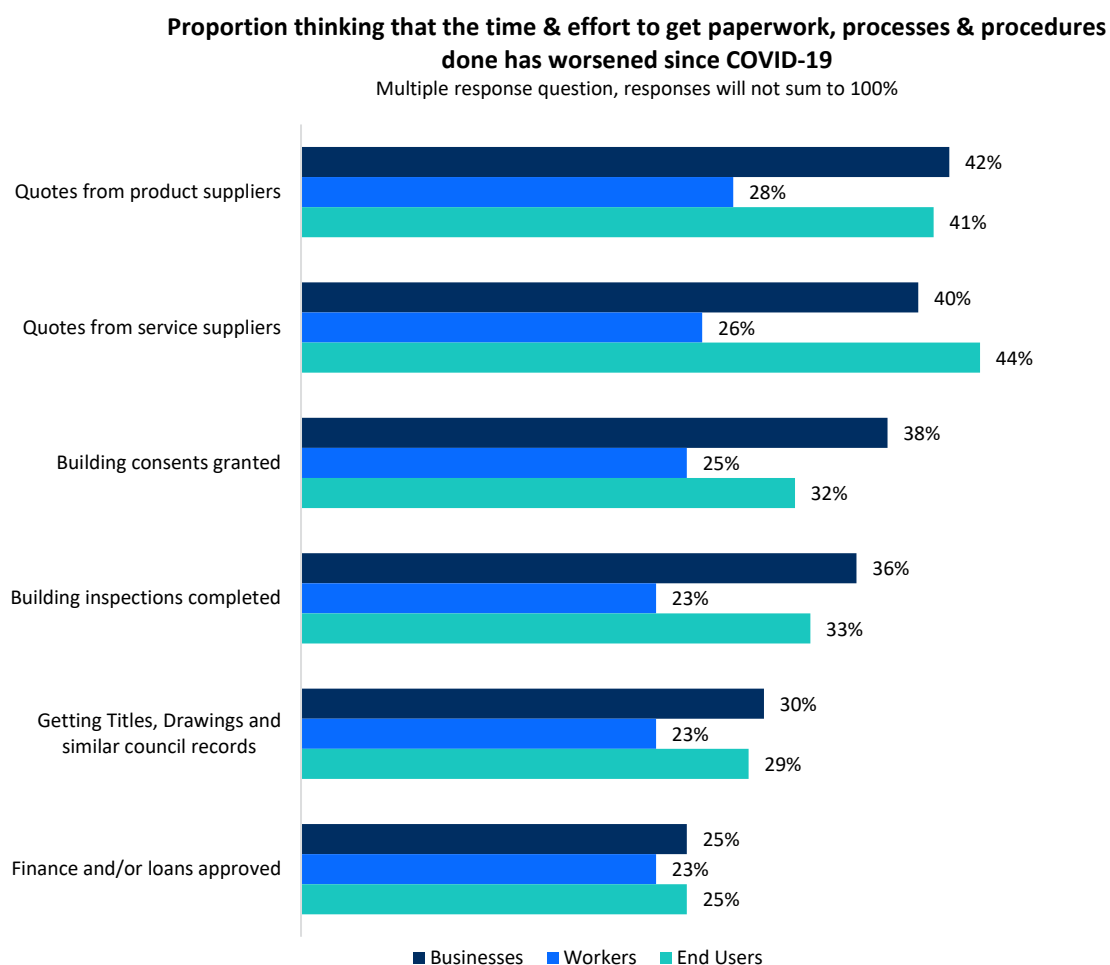
Businesses and **Workers** experienced an increased level of complexity in running their daily operations. All procedural aspects were reportedly harder to manage, particularly delays with council paperwork and difficulties in sourcing products, both of which had flow-on effects to most aspects of project and business management. As processes and project management got disrupted, it became harder to have the right people doing the right work at the right time, causing quality or process problems. **End-Users** were finding it harder to find tradespeople and to get quotes. Delays in building consents and inspections, and increased difficulties in getting loans were also reported.

Key Quantitative Results

The overall theme of this section is that while a third reported that aspects related to *Paperwork, Processes and Procedures* had not changed since the COVID-19 pandemic, those reporting change were considerably more likely to mention deterioration rather than improvement. Overall, the areas that experienced the greatest deterioration (according to Businesses, Workers, and End-Users) were:

- › getting quotes from product suppliers
- › getting quotes from service suppliers
- › getting building consents granted.

¹ Please note that the qualitative research was conducted to inform the development of the quantitative questionnaires, and does not have the quantitative robustness required for accurate extrapolation to the overall sector.

Figure 1: Paperwork, processes and procedures – Businesses, Workers and End-Users

Businesses were generally the most likely to report problems in general, being twice or more likely to report that a given factor had become worse.

Workers were the most likely to report delays *getting quotes from product suppliers*. However, they appeared to be less affected in general, as their perceptions of issues having got worse or better were roughly equally split.

End-Users were the most likely to report delays in *getting quotes from service suppliers*. Those reporting that things had got better were consistently outnumbered by those perceiving that they had got worse. The areas least affected were *getting titles, drawings and council records* and *getting finance and/or loans approved*.

2. Products and Materials

All construction products and materials had become more expensive and were much harder to find, order and receive on time, and this was worst for timber products. These problems were widespread and applied to both New Zealand-made and imported products. The 'good news' was that the quality of the products being supplied had changed little, although product substitutions were common and more likely to involve opting for lower-specification alternatives.

Key Qualitative Results

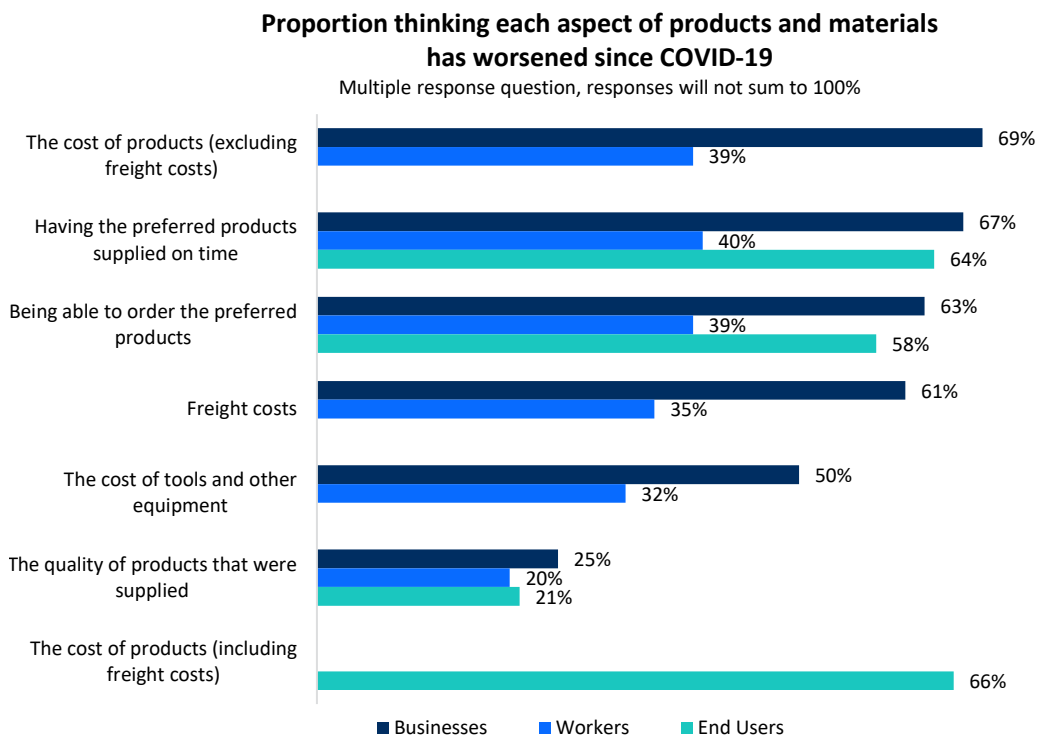
Businesses and **Workers** experienced widespread product shortages, price rises and delivery delays. **End-Users** also experienced these delays, shortages and price rises. Product swap-outs were commonly reported by all three groups in the face of unavailable or overly delayed products.

Key Quantitative Results

Products and materials had become a major issue in the New Zealand building and construction sector at the time of the survey. Around two-thirds of **Businesses** and two-thirds of **End-Users** reported:

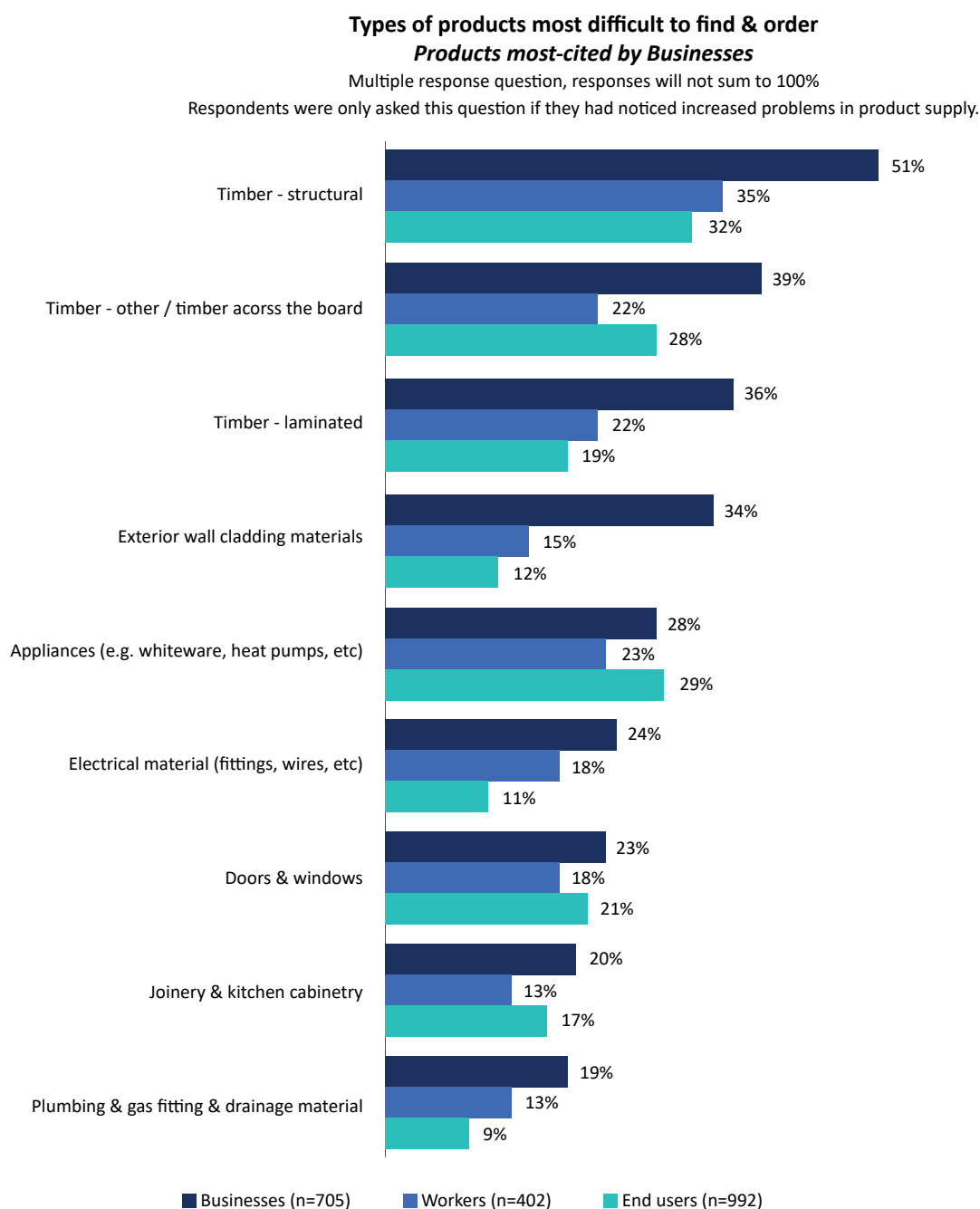
- › increased product costs (69 and 66 per cent of Businesses and End-Users respectively)
- › delays in having preferred products delivered on time (67 and 64 per cent of Businesses and End-Users respectively)
- › reduced ability to order preferred products (63 and 58 per cent of Businesses and End-Users respectively).

Figure 2: Impact on products and materials used – Businesses and Workers



Timber products, especially structural and laminated timber, were the most problematic (in terms of supply, quality, and price) for all three main sample groups. End-Users were also highly likely to report problems finding and ordering appliances and whiteware. The supply issues were perceived to apply to both New Zealand-made and imported products.

Figure 3: Types of products most difficult to find and order



3. Changes in Building / Renovation Design Specifications

Home offices, multi-generational houses, and more flexible residential design options became more commonly specified as a result of the COVID-19 pandemic. Design specifications for less environmental impact; and the use of better heating and ventilation systems, insulation, and more energy-efficient appliances, systems, and designs were also reported.

Key Qualitative Results

Businesses and **Workers** reported some changes in building specifications as a result of workplace and lifestyle changes arising from the Level 4 Lockdown period in 2020. These changes were mainly shrinking office spaces and changing residential demands, such as more home offices and multi-generational living designs. In addition, some **End-Users** were re-evaluating their initial product specifications in light of their lockdown experiences, with some opting for higher-specified items (e.g., insulation and solar power). Others changed their options due to the extra time they had, due to the delays they faced, and/or because of product unavailability.

Key Quantitative Results

Business respondents indicated that all types of work had increased, especially residential new-builds and renovations, and infrastructure maintenance / expansion. Workers were more likely than Businesses to report increases in civil and commercial projects.

Since the COVID-19 pandemic had changed how people lived and worked, there had been increasing anecdotal evidence of changes in building specifications and use. This survey quantified these changes. In relation to the increased trend of working from home:

- › Businesses were seeing specifications for offices and commercial space becoming smaller (rather than larger).
- › Home offices and more flexible residential design options were becoming more commonly specified.

The issues with residential house affordability might have contributed to the following survey findings:

- › There was a large increase in *homes designed for multi-generational users / extended families*, which was also reported in the qualitative stage.
- › *Multi-level buildings* were becoming more common (although this trend pre-dated the COVID-19 pandemic).
- › Around 40 per cent of Businesses and Workers reported an increased interest in *cheaper design / product specifications and smaller home designs*.

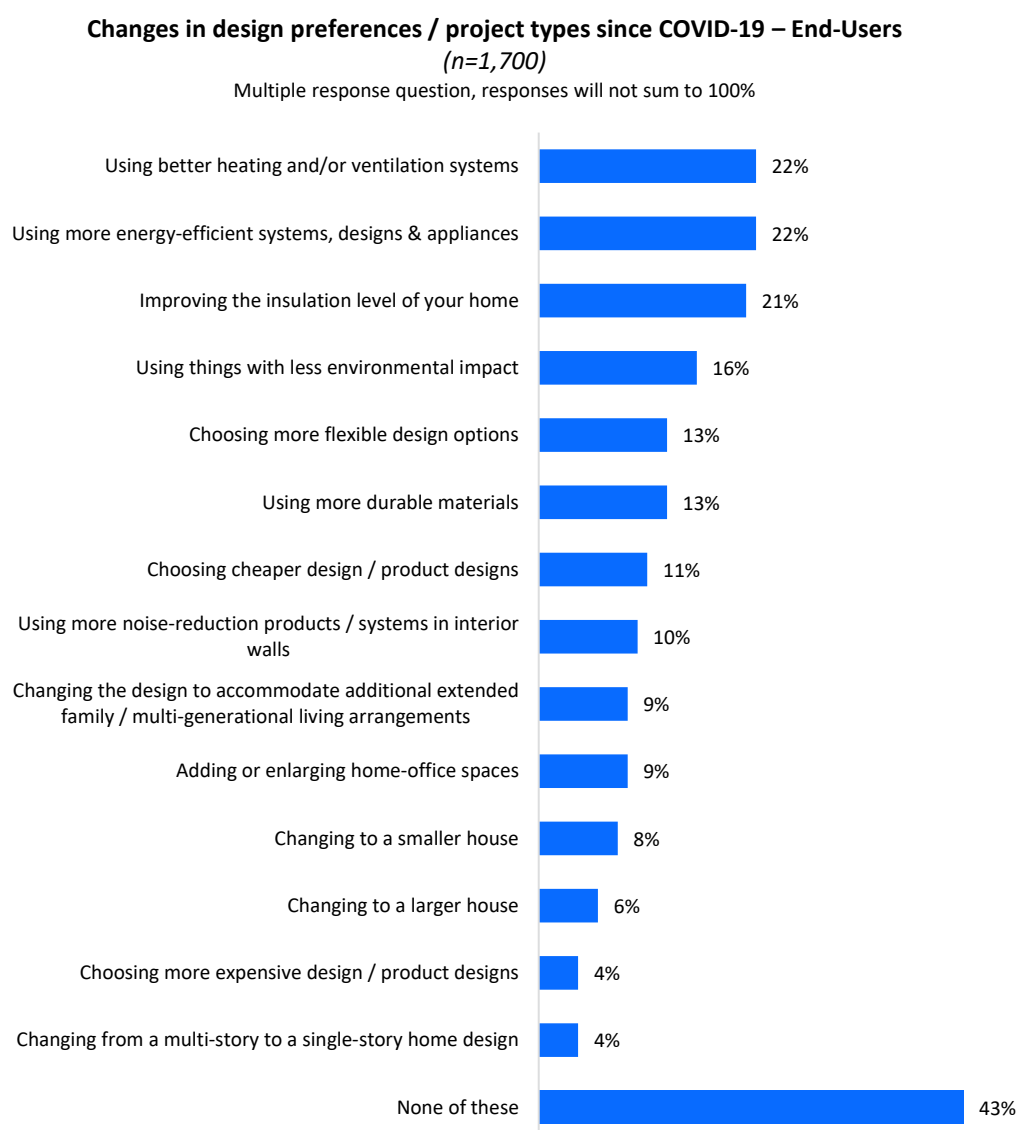
Conversely, the current housing market has rewarded existing homeowners with low mortgage interest rates and increasing home values. Hence, around one-third of Businesses and Workers reported an increase in larger houses and an increase in *more expensive design / product specifications*, plus an increase in residential building in general. The result was that both cheaper and more expensive designs and specifications were becoming more common.

The hypothesis that there would be an increased interest in better-quality design and products, as people were spending more time at home due to the COVID-19 pandemic, was supported in this survey:

- › Businesses and Workers reported increased interest in all aspects, especially:
 - better heating and/or ventilation systems (48 and 53 per of Businesses and Workers, respectively)
 - more energy-efficient appliances, systems and designs (50 and 53 per cent of Businesses and Workers, respectively)
 - better insulation (50 per cent each)
 - less environmental impact (42 and 46 per cent of Businesses and Workers respectively).

End-Users were also most likely to cite these areas as changes they had made since the COVID-19 pandemic.

Figure 4: Changes in design preferences / project types – End-Users



4. Financial, Staff and Management Impacts

The number of costly, problematic project completion delays; project management difficulties; rising product, freight, and compliance costs; and not having the staff to do the work were key issues for Businesses. The availability of tradespeople to provide quotes and complete the work were issues for End-Users. In contrast, Workers were generally more positive in their outlook across these issues.

Key Qualitative Results

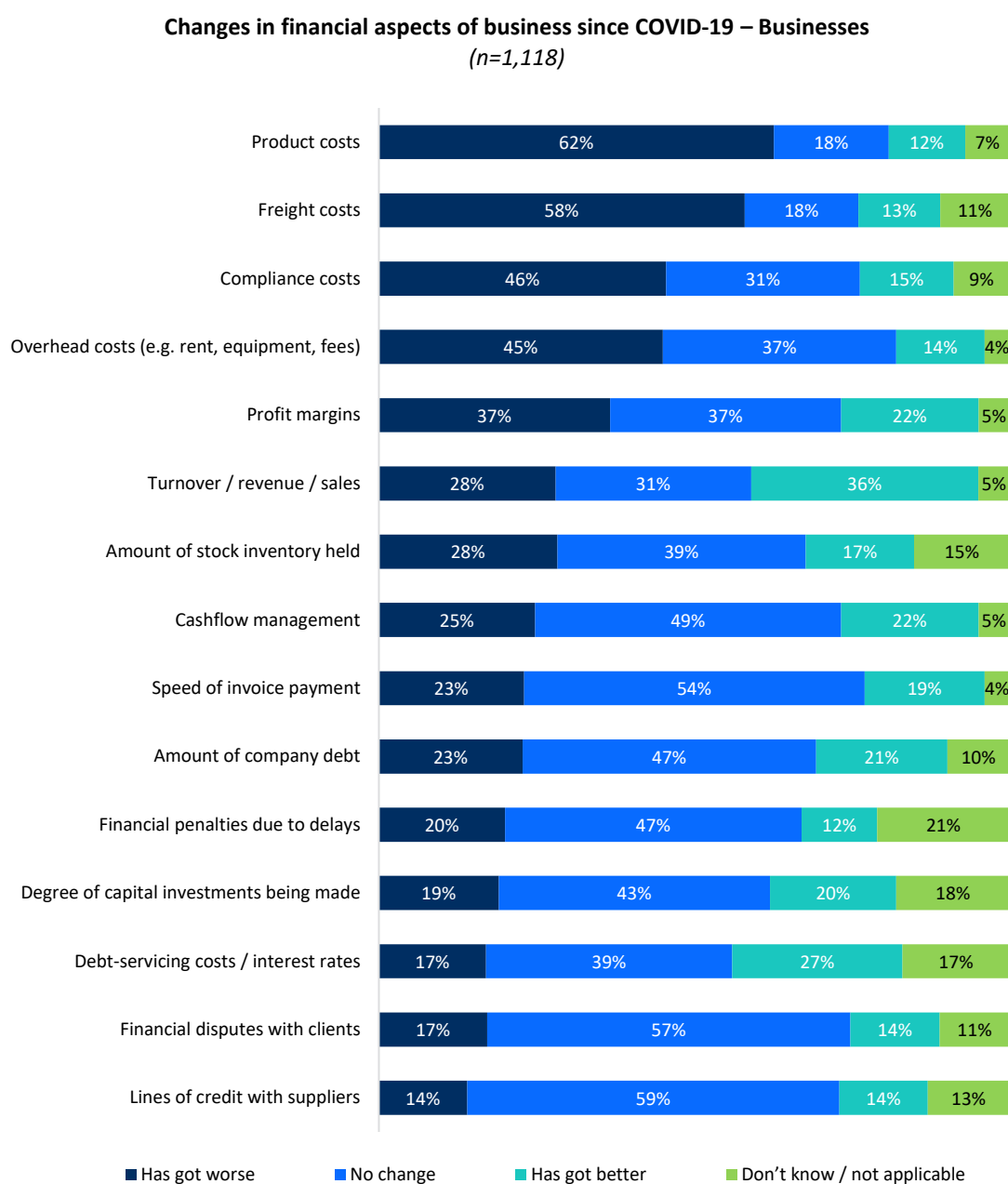
Businesses and **Workers** reported tougher financial challenges. Although increased product costs were generally passed on to clients, some overhead costs were harder to pass on. Additionally, there were often penalty costs charged when deadlines were missed, and so the widespread delays in product delivery were having flow-on cost implications for businesses caught out by insufficient products. The additional business management complexities were also found to be resulting in business managers having to work harder and longer for decreasing returns.

End-Users were experiencing financial challenges in relation to their building projects, although many of these reflected broader issues such as: housing and rental shortages; increasing house, product and rent prices; and logistical difficulties arising from project completion delays.

Key Quantitative Results

Businesses generally experienced revenue and sales that were better than before the COVID-19 pandemic. However, this increased work and income was tempered by increased management complexity and higher product, freight, compliance and overhead costs; leading to reduced profit margins. This affirms findings from the qualitative stage, which suggested that businesses were having to work harder but for reduced margins.

Fortunately, the other macro indicators of financial issues in the industry were not overly evident, with quite low-level reporting of increased financial problems such as reduced credit, increasing financial disputes or rising debt-servicing costs. Those who reported increasing problems in such areas were generally balanced by similar numbers reporting improvements. These might reflect the low interest rates that the economy had experienced prior to and during the COVID-19 pandemic.

Figure 5: Changes in financial aspects of business – Businesses

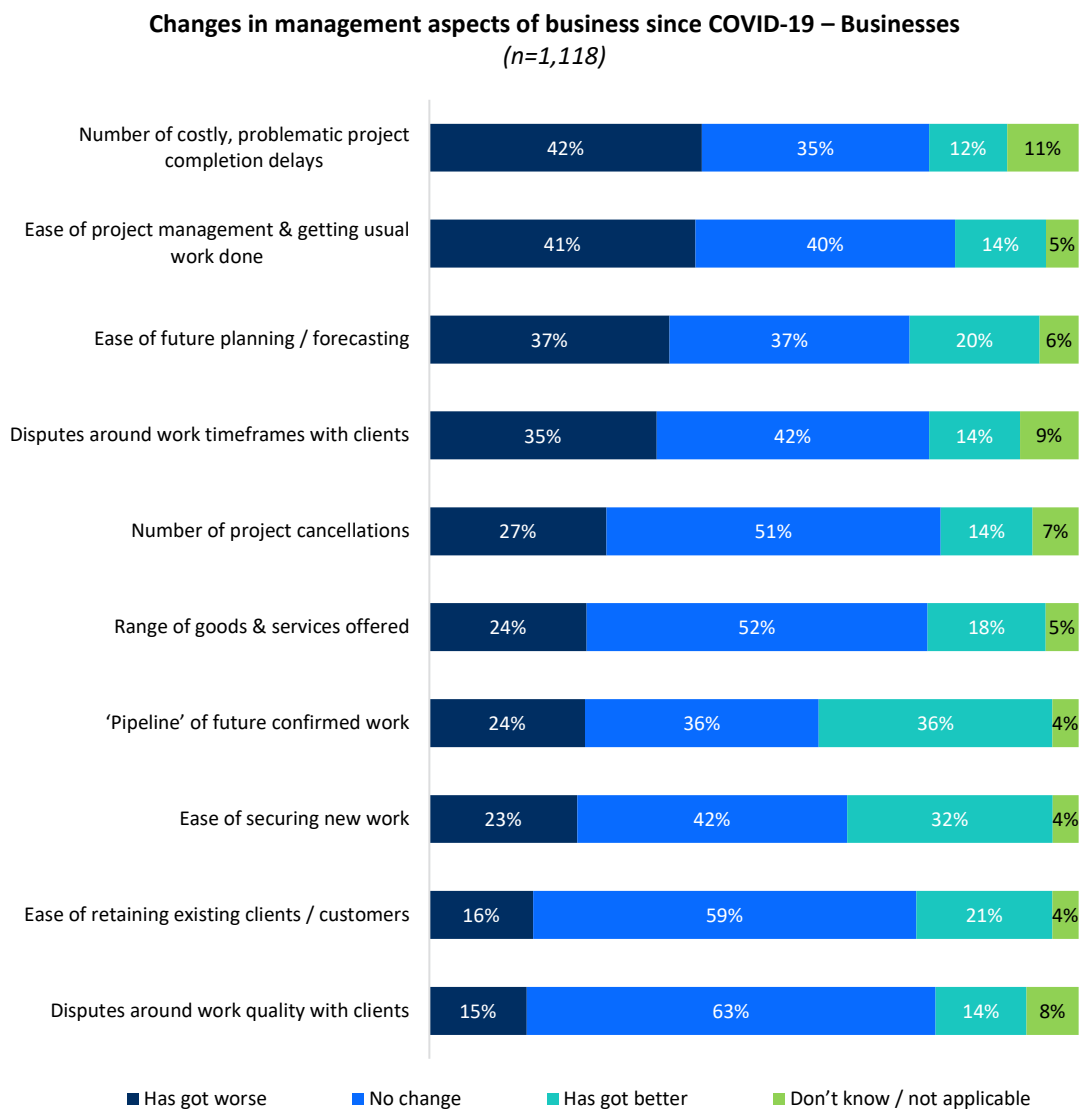
Unfortunately, the same positive results did not apply to the other managerial aspects of running a building or construction business, since the COVID-19 pandemic. The most commonly cited problems were the:

- › number of costly, problematic project completion delays (42 per cent)
- › ease of project management and getting usual work done (41 per cent)
- › ease of future planning / forecasting (37 per cent)
- › disputes around work timeframes with clients (35 per cent).

The increases in these issues were matched by increases in upcoming work in 'the pipeline' and the ease of securing more work in general – reinforcing the insight that Businesses might have been very busy but were having to work much harder than normal, due to the deteriorating logistics of project management, making efficient work practices harder to achieve.

Also of note was that larger Businesses (annual turnover of more than \$20 million) reported better conditions for business operation than smaller ones (annual turnover below \$1 million), which could be due to having better resources, funds and breadth of projects to work on.

Figure 6: Changes in management aspects of business – Businesses



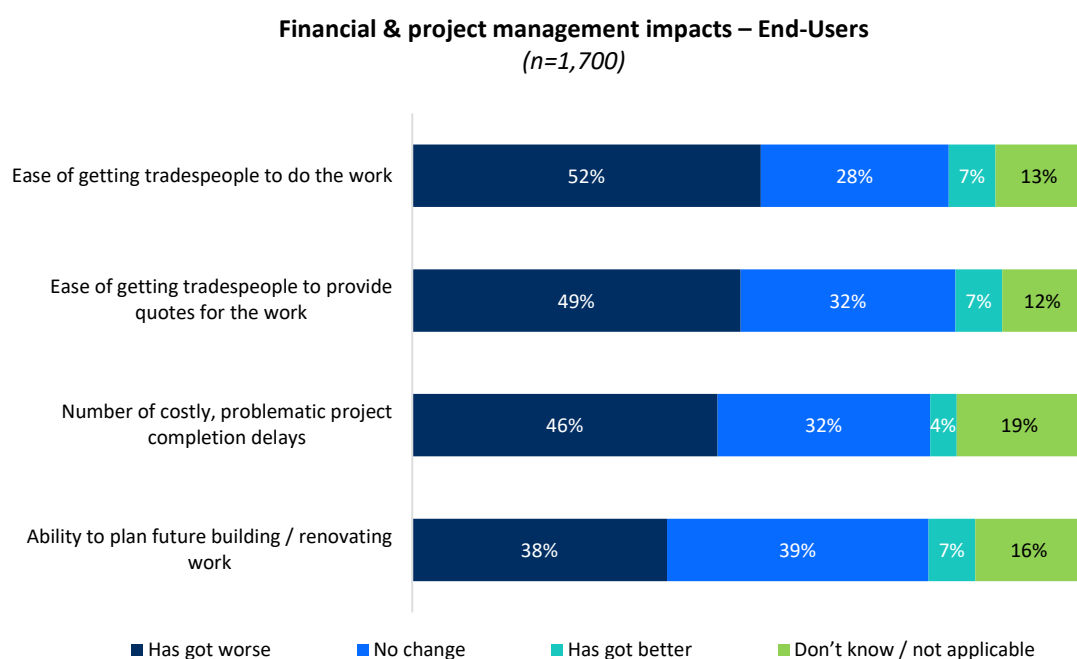
Workers were less likely to report the problems cited by their employers, and were more likely to report that things had got better rather than worse (especially in the area of well-being and overall work conditions where they were feeling that things had improved for them). This difference did not appear to be due to any related differences such as type of work. What this suggests is that business owners and senior management might be bearing the brunt of the increased stressors facing the sector, and not communicating this to their workers.

The increasing problems in project management reported by Businesses were noticed by **End-Users**, with around half reporting that:

- › it had become harder to get tradespeople to do work (52 per cent)
- › it had become harder to get tradespeople to provide quotes (49 per cent)
- › there had been an increase in costly, problematic project completion delays (46 per cent).

Understandably, End-Users were five times more likely to report that planning future building work had become harder rather than easier.

Figure 7: Financial and project management impacts – End-Users



5. Industry Observation / Compliance

There were non-complaint behaviours occurring in the sector, and while no such behaviour should be condoned, it reflected a sector that was under-staffed and very busy at the time the survey was conducted. Workers reported working long hours, sometimes doing work they were not skilled for, or doing it without following COVID-19 health and safety protocols. End-Users were noticing these issues too.

Key Qualitative Results

Businesses and **Workers** reported some reduced levels of work quality and increased incidence of non-compliant practices. These were attributed to logistical challenges leading to businesses having to 'make do' (e.g., due to staff shortages) rather than due to deliberate standards reduction. **End-Users'** main issue was builders' refusal to do work when their quotes were accepted, leading to them feeling let down or misled.

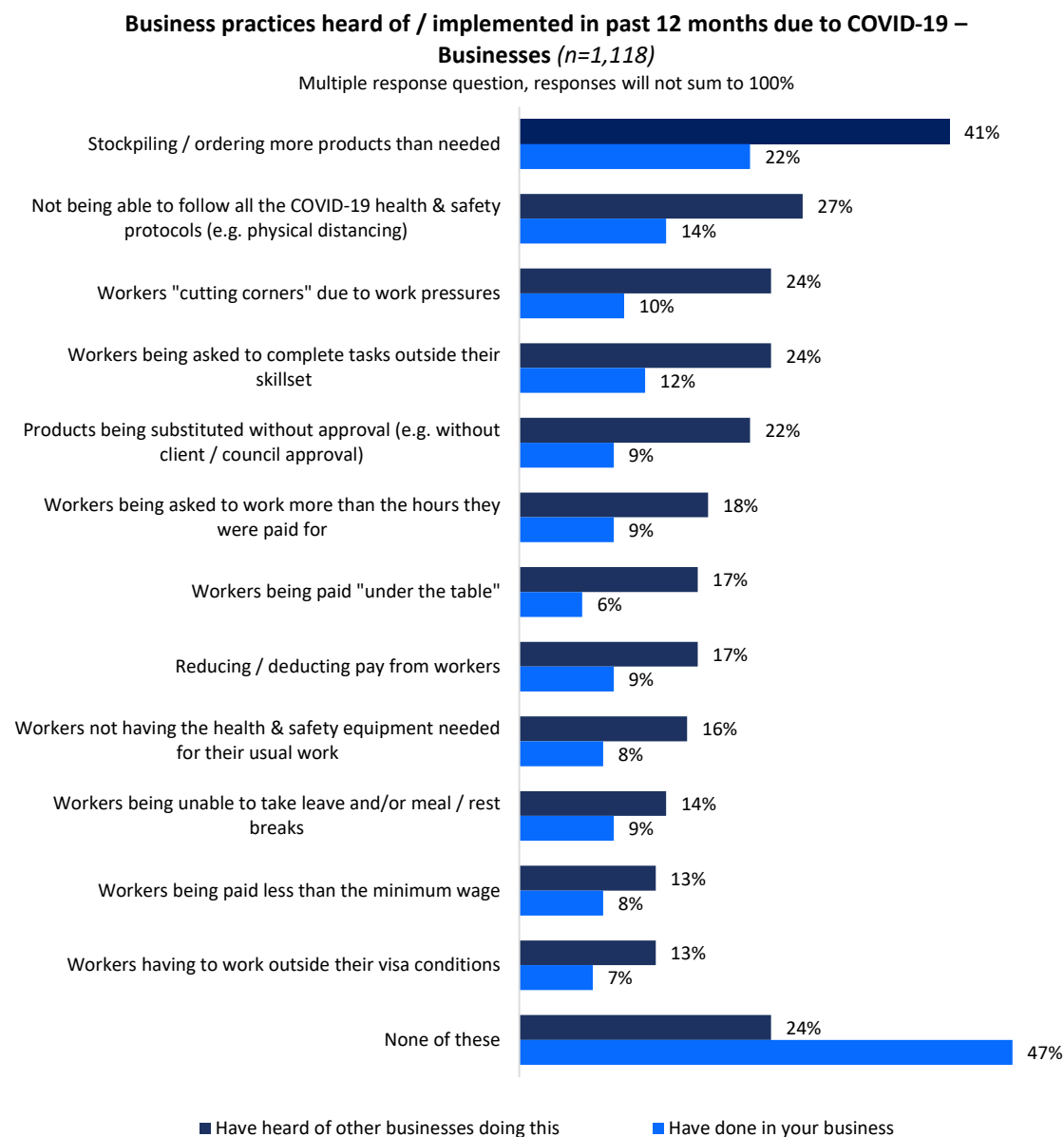
Key Quantitative Results

Businesses were more likely to report non-compliant practices being observed or heard about in other companies (76 per cent) rather than occurring in their own companies (53 per cent).

The most commonly cited 'atypical' behaviour was product stockpiling, which reflected the issue of product under-supply reported earlier, while also contributing to it through the purchase of products that might be more urgently required by other businesses. Larger Businesses were able to do more of this (i.e., reducing product supply problems for themselves while making it harder for other businesses less able to stockpile).

Amongst the more serious (non-compliant) behaviours, around a quarter had heard or observed other **Businesses**:

- › failing to comply with all the COVID-19 health and safety protocols (27 per cent)
- › "cutting corners" due to work pressure (24 per cent)
- › performing work tasks outside their skill set (24 per cent)
- › making unapproved product substitutions (22 per cent).

Figure 8: Business practices heard of or implemented in the past 12 months – Businesses

Additionally, **Businesses** reported that they themselves:

- › were not always able to follow all the COVID-19 health and safety protocols (14 per cent)
- › had asked their workers to complete tasks outside their skillset (12 per cent)
- › had asked their workers to “cut corners” due to work pressures (10 per cent).

When asked similar questions, **Workers** were more likely than Businesses to report that most of the problem behaviours covered were:

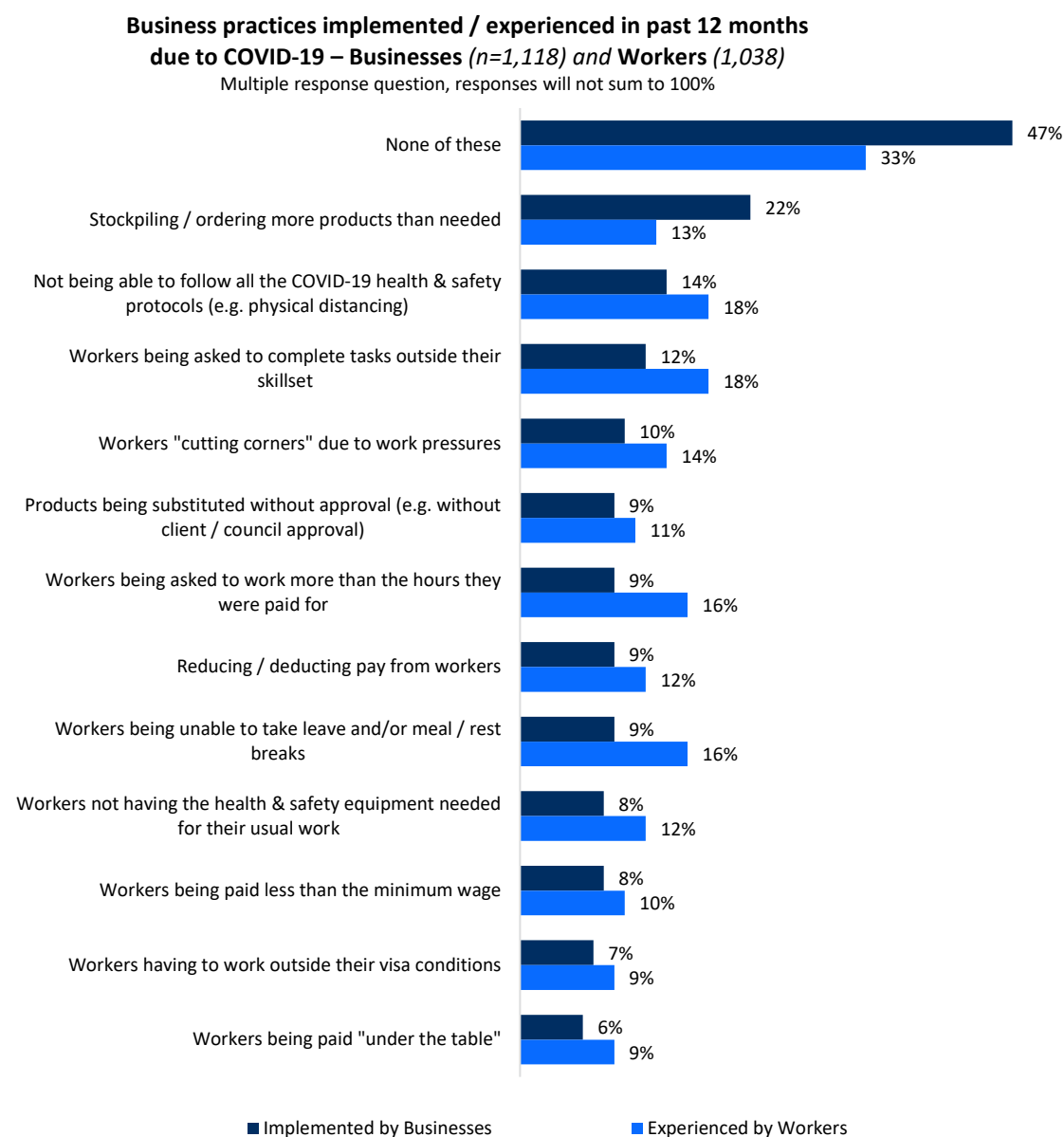
- › observed in others (78 per cent of Workers cf., 76 per cent of Businesses)
- › experienced themselves (67 per cent of Workers cf., 53 per cent of Businesses).

When comparing the proportion of Businesses with Workers, Workers were more likely to report experiencing every factor. In addition, Workers were more likely to report:

- › working for more hours than they were paid for (16 per cent cf., 9 per cent of Businesses)
- › being unable to take leave or rest breaks that they were entitled to (16 per cent cf., 9 per cent of Businesses)
- › being asked to complete tasks outside their skill set (18 per cent cf., 12 per cent of Businesses).

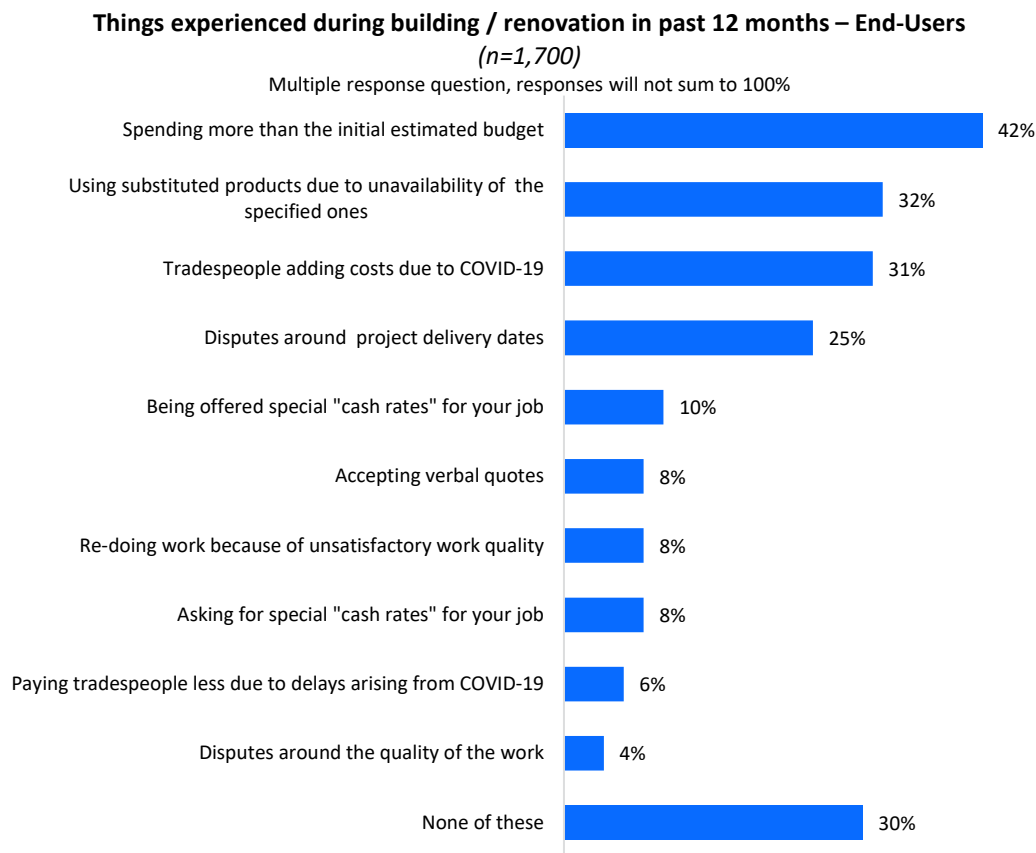
This reflects the results discussed earlier, in that Workers overall appeared to be enjoying good working conditions due, to some degree, to the reported staff shortage, but that this same shortage was leading to some overwork / underpay.



Figure 9: Business practices experienced or implemented in the past 12 months – Businesses and Workers

For **End-Users**, the most commonly cited issue by 42 per cent of respondents was the higher-than-estimated product costs. Other widespread issues reported were having to agree to substitute products, project delivery delays and general price rises (which were attributed to the COVID-19 pandemic). A third felt that *tradespeople* "cutting corners" to save time / money had increased since the pandemic, which probably reflects their experiences of projects taking longer and costing more.

It is noted though that some of the issues cited could have occurred to a similar degree prior to the COVID-19 pandemic, however, there is no research data available to support this hypothesis.

Figure 10: Things experienced during building / renovation in the past 12 months – End-Users

Forty-five per cent of End-Users agreed that *most tradespeople will comply with regulations and standards*. Three in ten believed that there had been an increase in tradespeople would “cut corners” to save time and money due to the COVID-19 pandemic.

6. Business Impacts

Rising business costs was a key concern for businesses, therefore, it was not surprising that Businesses wanted advice on how to reduce business costs, price jobs correctly, and adopt new technology. Advice on how to manage mental well-being (due to the stress caused by the COVID-19 pandemic) was also sought by Businesses.

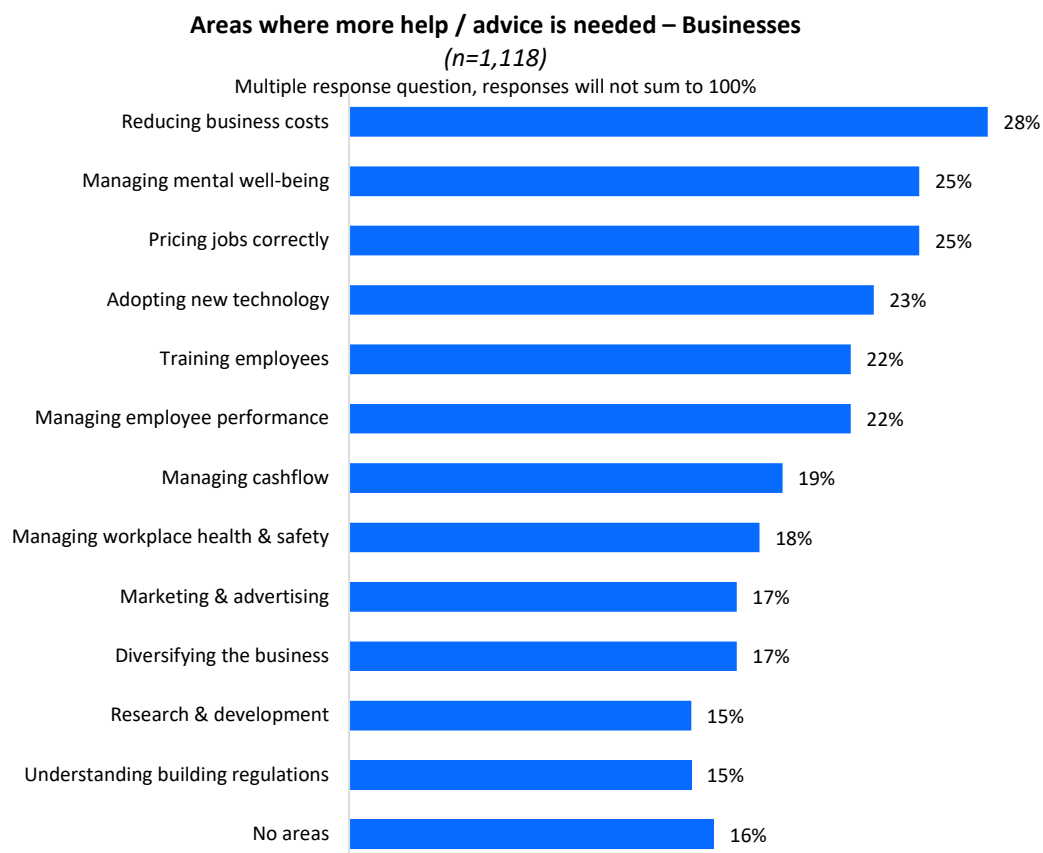
Key Qualitative Results

Businesses and **Workers** reported a higher degree of work complexity and time investment than what was normally required, due mainly to reduced product and staff availability and product delivery reliability. This meant that all aspects of project management had reportedly become harder, reducing cost effectiveness and extending timeframes. Hence, business profitability was down even though revenue was up.

Key Quantitative Results

Businesses reported that they were struggling to manage their operations in the face of an increasingly complicated operating environment. They would like more help / advice in the areas where they reported the most management problems. These mainly related to maintaining profit margins, coping with understaffing, and the stress of managing their business in the current environment.

Figure 11: Areas where more help / advice is needed – Businesses



In summary, Businesses needed most help in these six areas:

- › reducing business costs (28 per cent)
- › managing mental well-being (25 per cent)
- › pricing jobs correctly (25 per cent)
- › adopting new technology (23 per cent)
- › training employees (22 per cent)
- › managing employee performance (22 per cent).

The desire for new technology might reflect the increased complexities of project management arising from the issues cited so far in this report. Product delays, rising prices and staff shortages were all making business management more difficult.

Looking forward over the next two years, the issues most likely to be cited as having the greatest negative impact on Businesses were:

- › freight and product costs (31 and 29 per cent respectively)
- › being able to order and have the preferred products delivered on time (22 and 29 per cent, respectively)
- › ease of finding suitable staff in New Zealand (22 per cent).



7. Personal Impacts

The majority of Businesses and Workers reported having supportive, safe working environments despite the challenges they were facing.

Key Qualitative Results

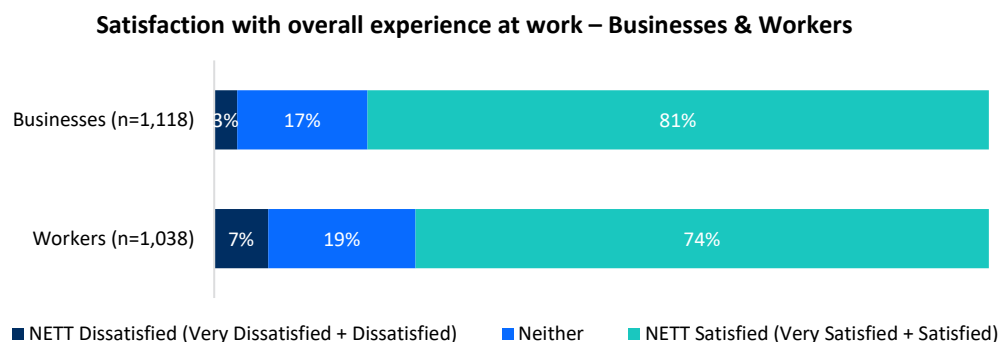
Businesses reported higher degrees of stress amongst senior managers, business owners and owner-operators, arising from the increased complexities of running their operations. **End-Users** were generally resigned to the 'new normal', with most appreciating the attempts made to manage the COVID-19 virus in New Zealand, albeit with an ever-present concern about 'what might happen in the future'. Many reported re-evaluating their home environment, adapting for more time at home and / or working from home.

Key Quantitative Results

Workers and **Businesses** were generally happy with their workplace experiences, with around two-thirds agreeing with each of the positive descriptors about their workplace, namely:

- › feeling physically safe (71 and 64 per cent of Businesses and Workers, respectively)
- › being able to care for their own well-being at work (64 and 65 per cent of Businesses and Workers, respectively)
- › feeling emotionally safe at work (65 and 63 per cent of Businesses and Workers, respectively).

Figure 12: Satisfaction with overall experience at work – Businesses and Workers



Most **End-Users** reported no change in their well-being. For those who experienced a worsening well-being, the most problematic areas, reported by almost one-third, was their financial situation and mental well-being. Of note was that End-Users whose building plans were delayed, due to the COVID-19 pandemic, were significantly more likely to report that their well-being was worse, especially mental well-being (46 per cent) and their financial situation (40 per cent).

8. Future Expectations

Businesses generally believed that the next two years would see little to no change in most aspects of their business operations and were, on balance, more optimistic than pessimistic. Workers were more positive in their outlook, particularly in relation to their career prospects. End-Users had the most pessimistic outlook with many anticipating increased product costs.

Key Results from the Qualitative Stage

Businesses were not expecting the issues cited to get substantially better in the next few years, and were finding it difficult to plan due to the unpredictable nature of the COVID-19 pandemic. Despite the 'busyness' of the sector, some believed that smaller businesses were likely to struggle or fail, as the product supply problems could lead to an inability to meet deadlines and cashflow requirements. Larger businesses, with deeper reserves and a better ability to stockpile products, could be in a better position to survive.

Key Quantitative Results

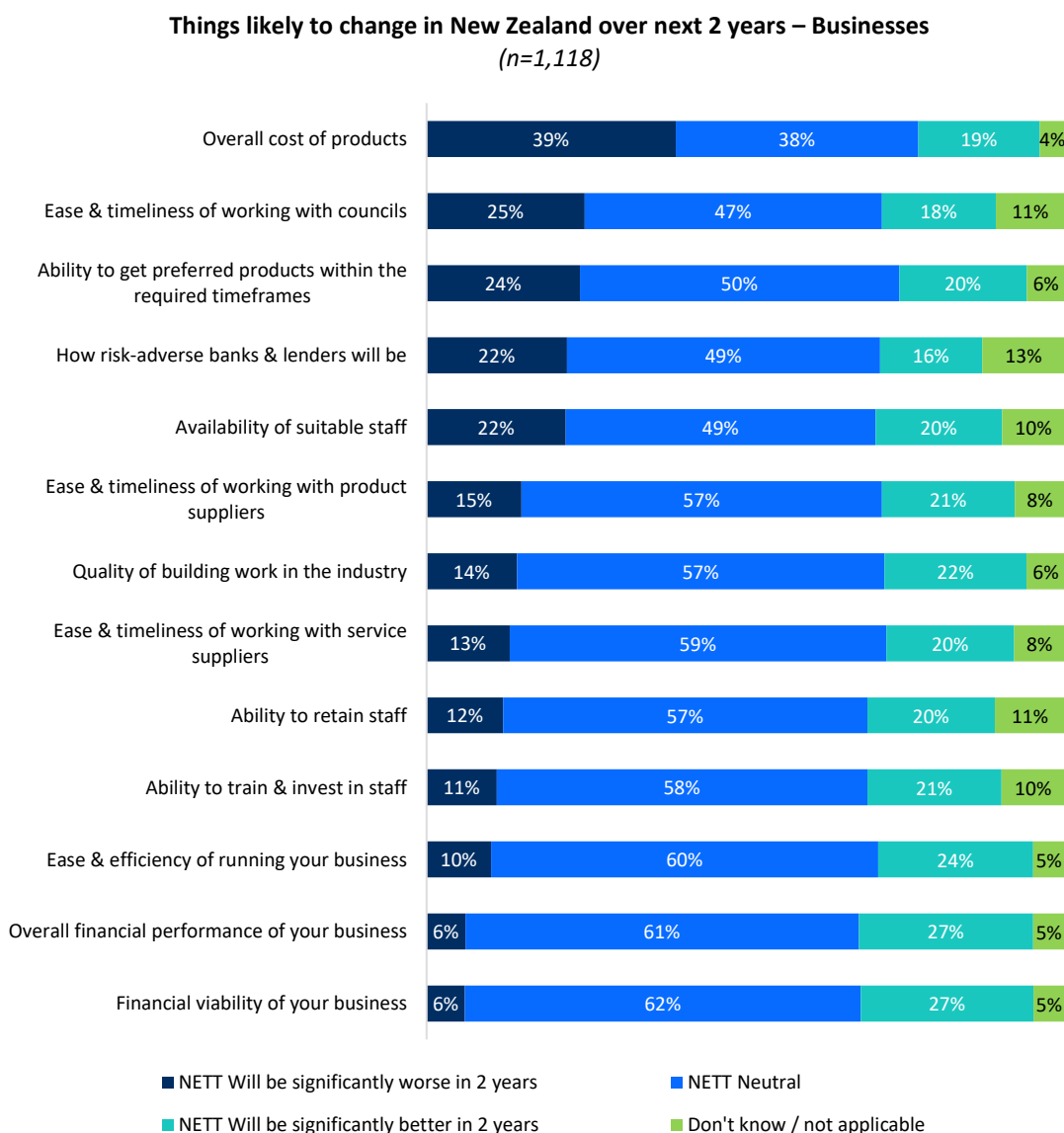
Around half of **Businesses** generally believed that the next two years would see little to no change in most aspects of their business operations. On balance, Businesses were generally more optimistic than pessimistic.

The business management aspects that were expected to significantly get better in the next two years were the:

- › financial viability of the business (27 per cent)
- › overall financial performance of their business (27 per cent)
- › ease and efficiency of running their business (24 per cent).

Conversely, aspects expected to get significantly worse were:

- › overall cost of products (39 per cent)
- › ease and timeliness of working with councils (25 per cent)
- › ability to get preferred products when required (24 per cent).

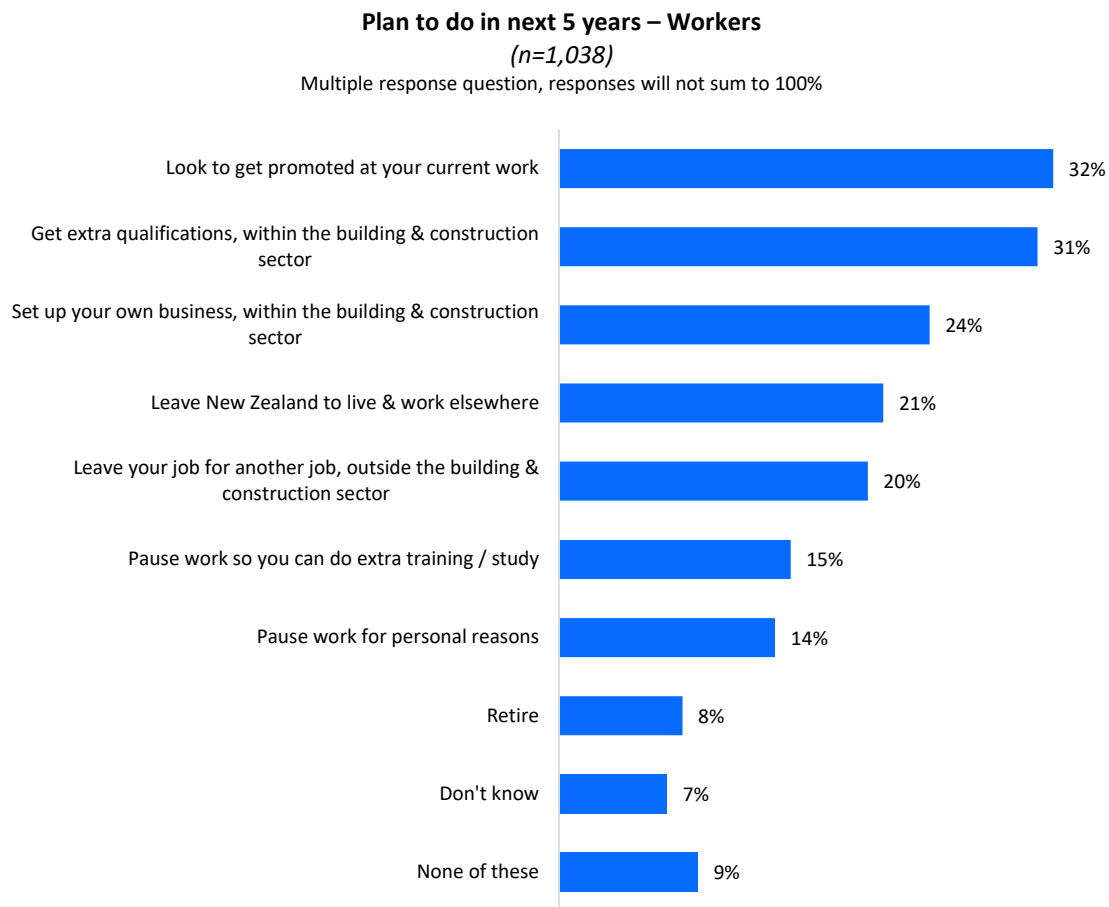
Figure 13: Things likely to change in New Zealand over the next two years – Businesses

Workers were even more positive than Businesses, with over one-third expecting that the next two years would bring improvements in pay, job security, work-life balance, and overall working conditions. These improvements could be assumed to arise from an expected continuation of a worker shortage, enabling Workers to demand better conditions. Many Workers were also looking to improve their own skill set, with around one-third anticipating promotions and getting extra qualifications.

However, there were also indications of potential issues over the next five years:

- › 21 per cent were planning to leave New Zealand
- › 20 per cent were planning to leave the sector
- › 15 per cent were planning to pause work to do extra training/study
- › 14 per cent were planning to pause work for personal reasons.

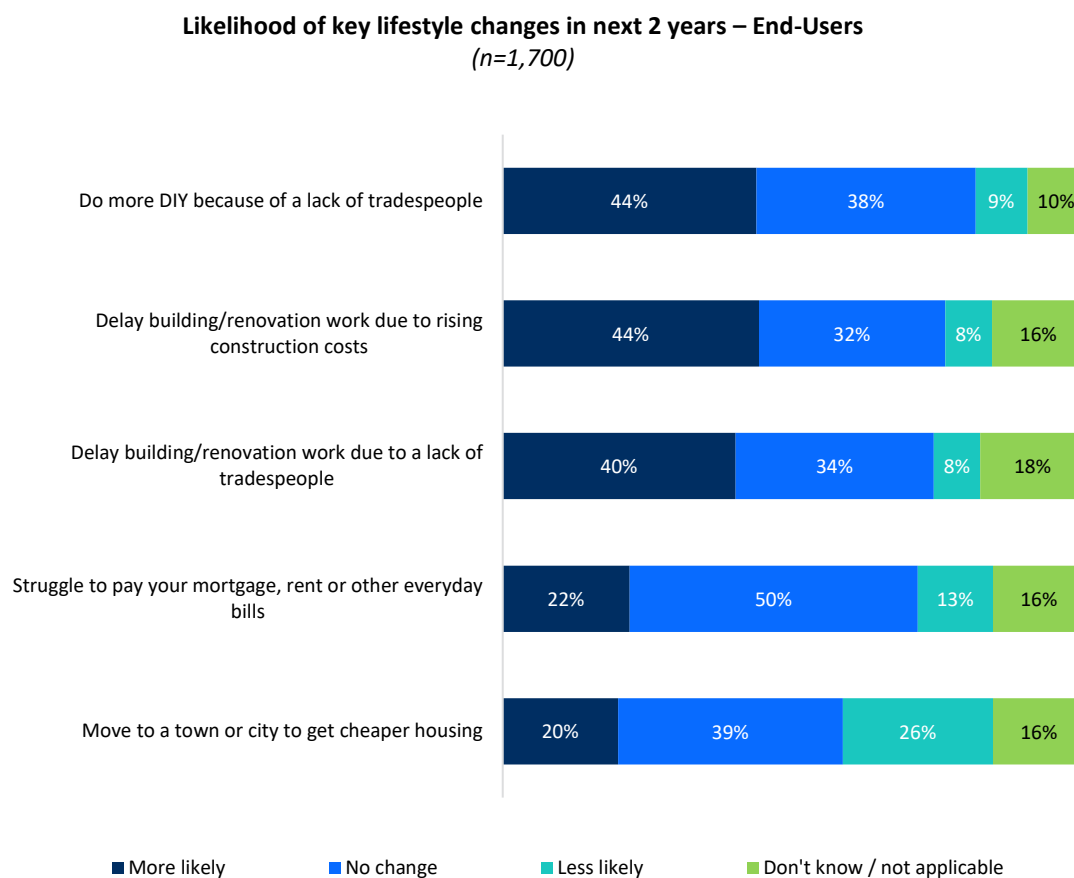
Although apprenticeships in the sector had increased since the COVID-19 pandemic, there may be a decrease in experienced Workers developing over the next few years.

Figure 14: Plan to do in the next five years – Workers

End-Users had the most pessimistic outlook, whereby, the proportion of those expecting things to worsen in the next two years were generally double that of those expecting improvements. The aspects anticipated to worsen were the:

- › overall cost of products (70 per cent)
- › ability to get preferred products when required (56 per cent)
- › availability of suitable tradespeople (50 per cent).

As a result of these expectations, 44 per cent of End-Users expected to do more DIY over the next two years due to a lack of tradespeople, and the same proportion anticipated delaying building/ renovation work due to rising construction costs. Four in ten reported that they would delay building/renovation work due to a lack of tradespeople.

Figure 15: Plan to do in the next two years – End Users

Conclusion

This research has provided insights on the impact of the COVID-19 pandemic on the building and construction sector, and in particular, on Businesses, Workers, and End-Users within the building system.

The research found that the sector had faced challenges in the past year, and that the effects of the pandemic were still being felt. However, in spite of these some challenges, the sector remained resilient. On balance, there was more optimism (than pessimism) for the future, particularly in relation to the “pipeline” of future work.



Appendix A

Key Dates: COVID-19 Alert Levels and the timeline of this research

Below is an outline of how the COVID-19 Alert Levels impacted on building and construction activity:

- › **Alert Level 4** - no building and construction work could be conducted unless deemed essential.
- › **Alert Level 3** - building and construction work could be conducted with the necessary social distancing and location tracking, and hygiene requirements were mandatory. Inter-regional travel was limited.
- › **Alert Level 2** - building and construction work could be conducted with the necessary social distancing, location tracking, and hygiene requirements were recommended although not mandatory. There were limits on the number of staff allowed on location. Inter-regional travel was allowed.
- › **Alert Level 1** - building and construction work could be conducted with the necessary social distancing, location tracking, and hygiene requirements were recommended but were not mandatory. Inter-regional travel was allowed.

Key changes in Alert Level (New Zealand Government, 2021b) that impacted the building and construction sector prior to, and during this research, are outlined below in Table 2.

Table 2: COVID-19 Alert Levels and the timeline of this research

Key dates	Key Alert Level changes and the project milestones
23 March 2020	New Zealand moved to Alert Level 3
25 March 2020	New Zealand moved to Alert Level 4
27 April 2020	New Zealand moved to Alert Level 3
13 May 2020	New Zealand moved to Alert Level 2
8 June 2020	New Zealand moved to Alert Level 1
12 August 2020	Auckland moved to Alert Level 3. The rest of NZ moved Alert Level 2
30 August 2020	Auckland moved to Alert Level 2
21 September 2020	All regions except Auckland moved to Alert Level 1
7 October 2020	Auckland moved to Alert Level 1
14 February 2021	Auckland moved to Alert Level 3. The rest of NZ moved to Alert Level 2
17 February 2021	Auckland moved to Alert Level 2. The rest of NZ moved to Alert Level 1
22 February 2021	Auckland moved to Alert Level 1
28 February 2021	Auckland moved to Alert Level 3. The rest of NZ moved to Alert Level 2

7 March 2021	Auckland moved to Alert Level 2. The rest of NZ moved to Alert Level 1
12 March 2021	Auckland moved to Alert Level 1. All of NZ now at Alert Level 1
30 March 2021	Qualitative fieldwork started
22 April 2021	Qualitative fieldwork completed
3 June 2021	Quantitative survey fieldwork started
23 June 2021	Wellington moved to Alert Level 2. The rest of NZ remained at Alert Level 1
29 June 2021	Wellington moved to Alert Level 1, along with rest of NZ
9 July 2021	Quantitative survey fieldwork completed

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