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Uptake of Offsite Construction in NZ – A Non-Supplier viewpoint

Group 1



- Background
- Objective
- Research method
- Results
- Discussion
- Conclusion
- Q & A



- Prefabrication/offsite construction is an **innovative (alternate)** construction strategy.
- Enhance the supply of housing stock to increase **affordability**.
- Comparatively **sustainable** and **fast** pace construction.
- Potential value current residential prefabrication approx. **\$7.16bn** and non-residential prefabrication approx. **\$6.02bn**.
- Challenge of “**Stakeholders’ lack of awareness**” – Perceptions and attitudes of non-producer (non-suppliers) as designers and contractors has a significant role in the uptake of prefabrication.
- ***What is view point of non-suppliers towards offsite construction in NZ?
Benefits and challenges***



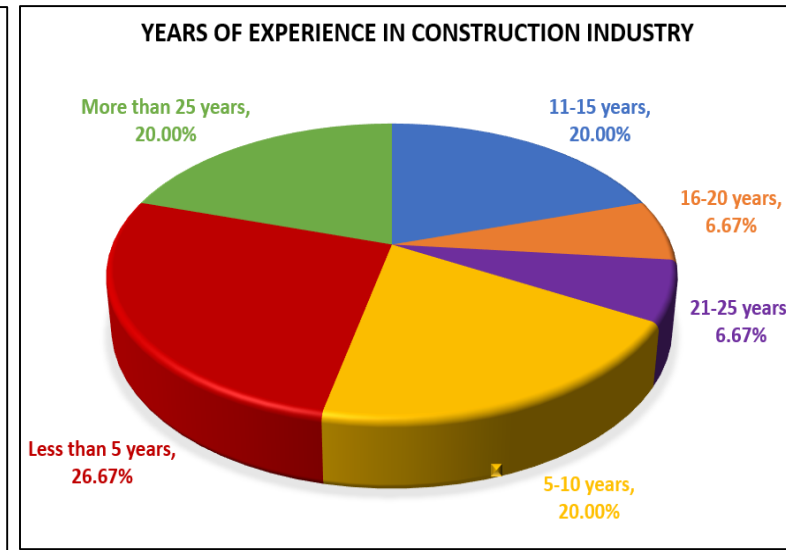
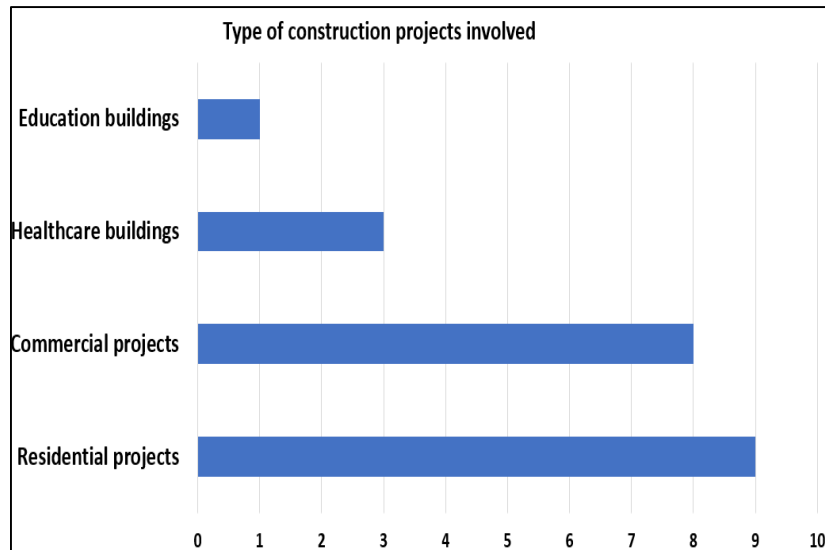
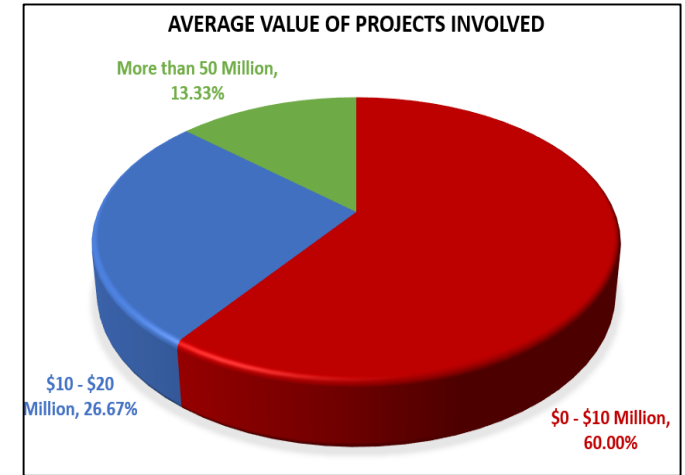
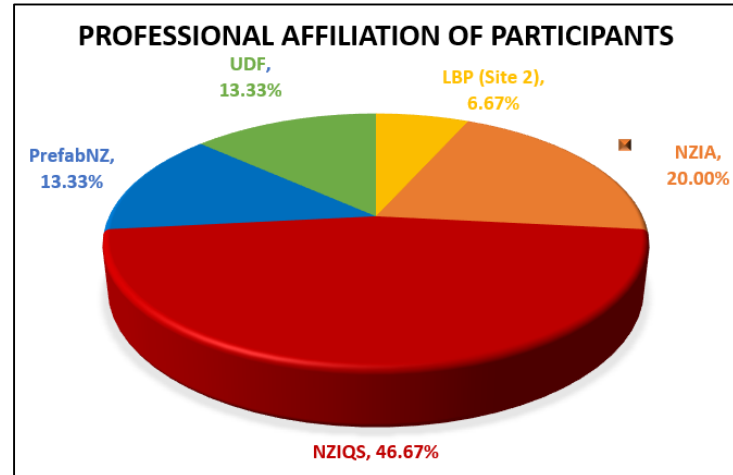
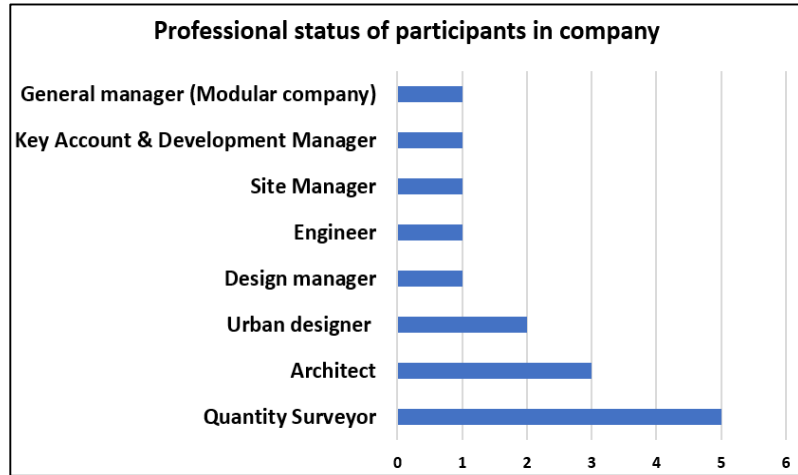
- Online questionnaire survey
- 1-5 Likert scale for level of agreement
- Questionnaire focus on:
 - current adoption level of off-site approach,
 - potential benefits of off-site prefabrication and
 - challenges in adopting off-site prefabrication
- Respondents selected based on active engagement in prefab projects



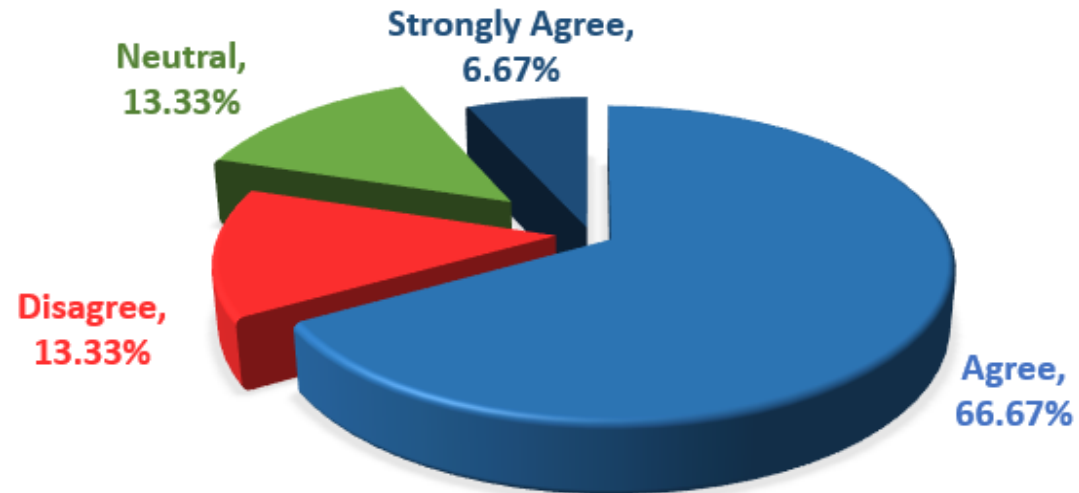
Results – Respondents



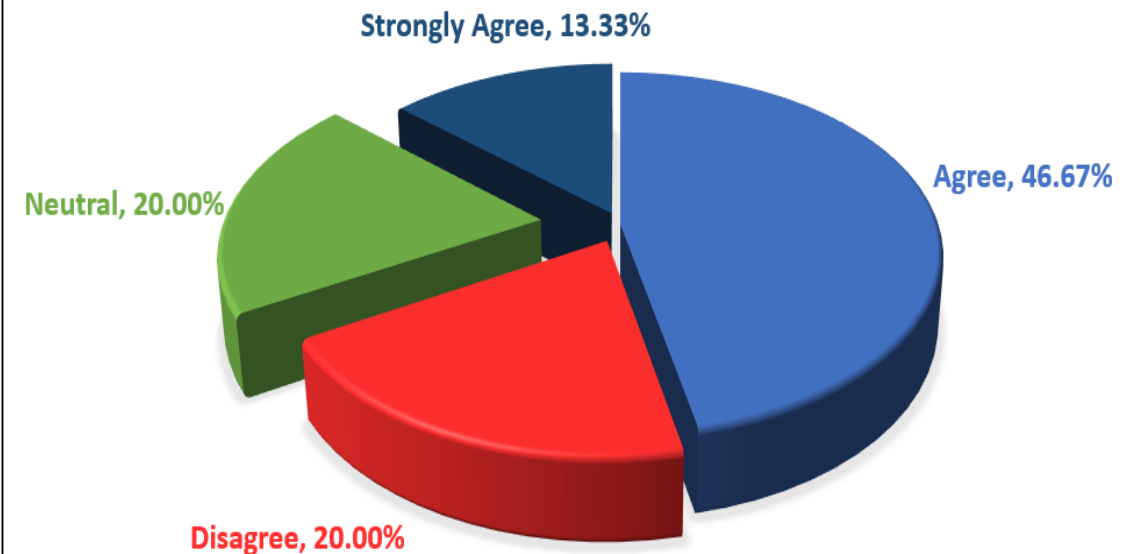
- 15 active prefab practitioners



THE CURRENT UPTAKE OF THE OFF-SITE PREFABRICATION APPROACH IN NEW ZEALAND IS INCREASING

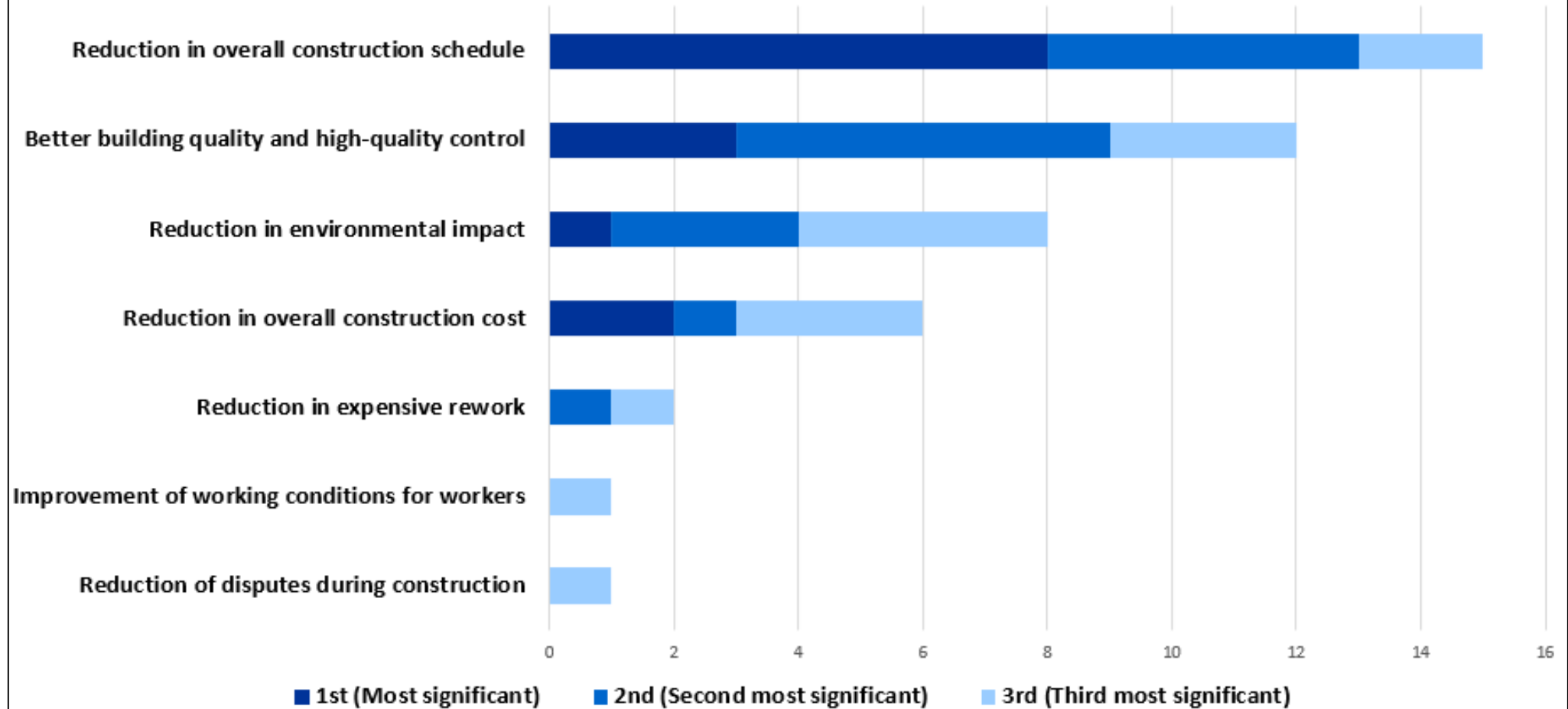


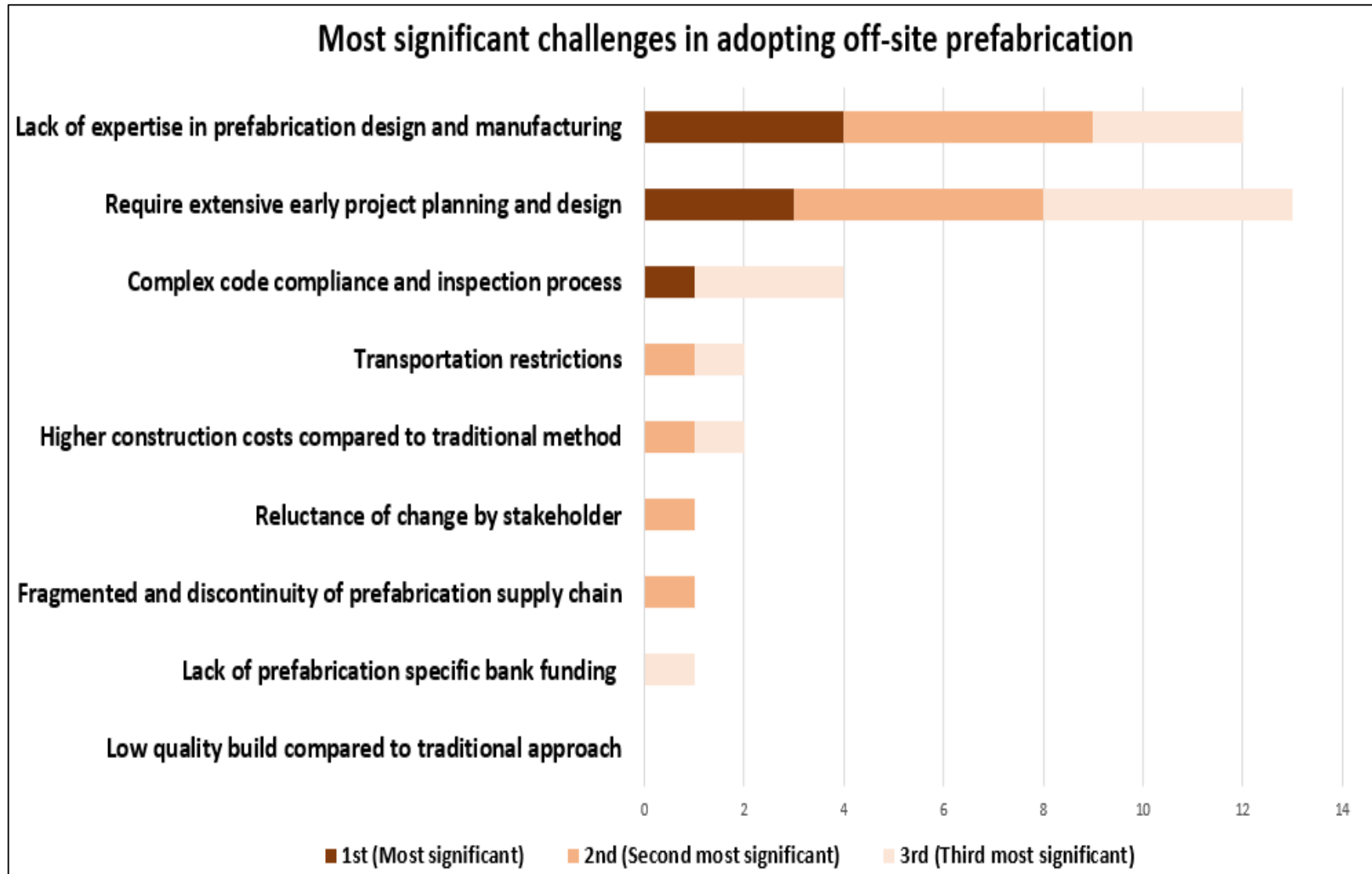
COMPONENT PREFABRICATION IS SUPERIOR TO OTHER PREFABRICATION TYPES AS IT PROVIDES MORE DESIGN FLEXIBILITY





Most significant benefits in adopting off-site prefabrication approach





- Current uptake increasing trend is aligned with recent report says 300% increase in prefabrication intensive building consent 2011-2021.
- Prefab components (framing) more popular as panelized and modular types are declined for residential construction.
- Main motivation of using prefab strategy is reduction in overall schedule. However, this is widely utilized for alternate housing as emergency, social or more. Product and process standardization helps in avoiding disputes which is not investigated yet.
- Lack of expertise is inherent due to diversification of technologies (by product and material). However, formal education is helpful to train new generation. Most benefit exploited only early prefab consideration for project.



- Capture and align the prefab uptake status.
- Industry focus on prefab type (where is the value).
- Consideration to benefits and challenges by industry.

Future work:

- *To what degree the findings are aligned with suppliers?*

