Study Report SR424 [2019]

Facilities management industry census 2018

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Preface

This piece of research is part of the BRANZ 'Eliminating quality issues' programme and looks into the facilities management industry in New Zealand and its potential contribution to building quality.

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This research was funded by the Building Research Levy and the Facilities Management Association of New Zealand.

The census itself draws upon the Facility Management Australia industry census.

We gratefully acknowledge the contribution from census respondents and those that participated in case studies.

Facilities management industry census 2018

BRANZ Study Report SR424

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Abstract

This project explores the facilities management (FM) industry from the perspectives of FM practitioners, their clients and their suppliers. This includes the demographic makeup of FM practitioners, the nature and quantum of facilities under management, relationships between practitioners, their clients and suppliers and strategic priorities for practitioners and their clients.

The FM industry has an established role in the operation of facilities in New Zealand. However, involving FM practitioners in the planning and development of new facilities is relatively uncommon. Early involvement can offer strong benefits as the operational experience of practitioners can inform design refinements that lead to better-quality buildings. Practitioners are well aware of these benefits, but their clients less so. There is a role for industry bodies to promote these benefits so FM involvement is considered in procurement of new facilities.

Currently, practitioners enter the industry through relevant experience. However, both industry practitioners and their clients agree that standards in the industry should be improved through a more formal career pathway, elevating the industry from an occupation to a profession.

Keywords

Facilities management, new buildings, quality.

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Executive summary

This research explores and describes the facilities management (FM) industry in New Zealand through a survey of practitioners, purchasers and suppliers, followed up by case studies. Respondents to the survey represented $20.7 billion worth of facilities – a good representation of the overall commercial property sector of $94 billion.

The survey noted a lack of diversity in the FM sector, much like the construction sector, with FM practitioners predominantly male and aged over 45.

Practitioners agreed that development of professionalism and recognition of FM should be a priority for the industry. As a relatively young profession, most practitioners entered the field through relevant experience. However, there is now a need to develop formalised career pathways whilst recognising the importance of experience. Purchasers of FM services also consider that improving consistency and standards of service delivery is important, so emphasis should be placed on professional development. Participation in professional development, particularly through the Facilities Management Association of New Zealand (FMANZ), is relatively high, although one-third of practitioners engage in such activities less than once per year.

Practitioners and purchasers generally agreed that an improved professional identity, formal career pathways and professional development should be a priority for the industry. They also agreed that the industry does well in improving and maintaining health and safety. Both groups are optimistic for the future. They see the industry making improvements in areas such as management of resources and making the most of potential opportunities or threats, such as technological or economic changes.

Analysis of survey data and case studies identified that early engagement of FM in facility planning and development has potential to add significant value. This is particularly in relation to building whole-of-life performance as well as whole-of-life costs. However, this is not currently occurring on a scale that realises that potential. This is an area where many practitioners believe they can offer more. Purchasers of FM services, conversely, are less aware or convinced of the value proposition on offer and less likely to involve practitioners in the planning processes. BRANZ, along with other leading building and construction organisations in New Zealand, can potentially support and enable the work of facilities managers in planning and development of new facilities in New Zealand. The result may well be that better quality new-build and retrofit buildings can occur. It may also mean existing buildings are better maintained.

1. Introduction

This research provides a greater understanding of facilities management (FM) professionals in New Zealand. It provides a snapshot of the industry as it operates today in New Zealand through the lens of both purchasers of FM services and the FM practitioners who deliver these services.

We compare the profession and how it works in New Zealand to the profession in Australia, as described in the facilities management industry census trends and insights report (FMA, 2017).

Our specific areas of enquiry include:

- analysis of where and how FM practitioners are working in New Zealand and what services they provide
- the magnitude and nature of facilities under management by FM practitioners in New Zealand
- what purchasers of FM services think about FM practitioners in terms of the value they offer and the impact they have on buildings
- how early FM engagement in the development of new facilities impacts building quality and how this can be further encouraged.

We analyse the data we gather in order to explore how an understanding of FM can contribute towards building quality in New Zealand through early involvement in new facility development.

Finally, we have developed a set of recommendations for how BRANZ can support any value offered by FMANZ in terms of eliminating quality issues in New Zealand buildings.

1.1 Context

In 2016, BRANZ embarked on an extensive research programme aimed at eliminating quality issues in the building and construction industry. This aimed to help eliminate quality issues by identifying the most common problems and the possible solutions to them. More importantly, it looks at why the industry is not currently making necessary changes and explores ways in which it could be encouraged to do so (BRANZ, 2018).

For the purpose of the BRANZ 'Eliminating quality issues' programme work, the following definition of quality is adopted (BRANZ, 2018):

> 'Quality' in buildings can be defined around three key parameters:
>
> 1. Functionality: The building meets all of the functional requirements set out in the building contract
> 2. Durability: The ability of building materials, components and construction methods to satisfy performance and functional requirements of the Building Code for the expected life of the building without a reconstruction or major renovation (or repair)
> 3. Performance: Defined through measurable aspects of the building's design - thermal, structural, seismic, acoustic etc. Performance, as built, must be verified during construction and upon completion of the building process

2. Literature review

A context for this research was established by reviewing existing literature on what is known about the FM profession and how it operates.

FM as a profession is relatively young, with origins in the competitive environment created through economic liberalisation in the 1980s (Maliene, Alexander & Lepkova, 2008). This period brought about greater recognition of the strategic value offered by FM as opposed to its precursor trade-based operation and maintenance. The same economic drivers of liberalisations hastened professionalisation as FM functions were increasingly outsourced (McDonagh & Hayward, 2000). FM as a profession in New Zealand is notably less mature than in Europe, with limited educational pathways compared to established professions such as engineering or accounting (Schutte, 2014). Coupled with a lack of agreed definition around FM, the profession struggles for recognition outside of the profession (Crutzen, Losekoot & Staal, 2015).

The value of a FM practitioner depends largely on their experience rather than a qualification (Crutzen et al., 2015). This has meant the typical entry path into the profession to date has been from 'hard' skills of managing physical facilities, drawing on experience in project management, building trades or property management. However, increasing demand for FM input into businesses' strategic planning requires FM practitioners to place emphasis on the needs of people and the business, with the physical facility a consequence of that (BRANZ, 2018).

FM practitioners are not generally involved in development of new facilities. If they are, this is typically at a strategic level – identifying high-level needs for the project brief of a new facility. However, there is growing emphasis on the value of FM in the design of a facility. It takes into account the operational requirements for maintenance, the needs of users and considerations around how the space is used. There is considerable effort in pushing this practice under the banner of 'soft landings' – FM practitioners are involved from design through to occupancy, ensuring a soft landing when buildings are first occupied. The premise of this approach includes reduced operational costs for facilities through a focus on whole-of-life costs (Wang et al., 2013).

Problems with building quality have long been documented in New Zealand and elsewhere (Farmer, 2016; Wilkinson et al., 2017), with industry practices and procurement processes identified as the main contributor. Early FM involvement may provide an avenue to positively influence building quality across its three parameters of functionality, durability and performance. In this definition, functionality means that features and requirements are as specified by the client. Durability means that building and components meet performance and functional requirements of the Building Code. Performance means that the building meets any performance criteria specified by the client. Clients need to drive quality through specification, so education of the client or an educated representative such as a FM practitioner could lead to better outcomes (Page & Gordon, 2017; Helm, 2018).

3. Methodology

The research methodology involved the use of an online survey followed by case studies focusing on early engagement of FM in new facilities.

3.1 Survey

The survey is based on the Facilities Management Australia industry census to ensure comparability of data for benchmarking of the New Zealand sector against the Australian sector (FMA, 2017).

The Australian survey shared similar goals to this project:

- Understanding the demographics and experience of practitioners.
- Priorities for professional development.
- The type and quantum of facilities under management.
- Relationships between practitioners, clients and suppliers.
- Strategic priorities for the sector.

Questions are substantially the same as the Australian survey, with modifications made to maintain relevancy to New Zealand. Although these variations are too numerous to list, one notable difference from the Australian survey is that practitioners are separated into internal or in-house practitioners and external or consultant practitioners. This was done because it was hypothesised that each group would have different client relationships and therefore should be targeted with different questions to maintain relevancy. Questions were also added to highlight issues for FMANZ and the FM sector in New Zealand, particularly the contribution of FM to quality of facilities through early engagement in new facility development. This area is explored further in section 5.

The survey was administered through an online vehicle in three streams with tailored questions for each stream of respondents:

- Internal FM practitioners – employed by the organisation responsible for the facilities.
- External FM practitioners – contracted to the organisation(s) responsible for the facilities.
- Purchasers of FM services – FM clients and/or building owners.
- Suppliers to FM practitioners.

The primary distribution method was email and social media invitations from industry organisations – FMANZ, Property Council New Zealand, New Zealand Green Building Council, Property Institute of New Zealand, Community Housing Aotearoa and BRANZ.

The secondary distribution method was snowball sampling. Recipients of the primary distribution method were encouraged to share the census within their industry networks. This secondary method was particularly important for FM purchasers and suppliers, as there was concern regarding our ability to reach these groups directly.

Survey respondents were presented with a clear statement informing that completion of the survey constitutes informed consent and that all responses will be confidential. This procedure was assessed by BRANZ's external ethics reviewer as meeting BRANZ's human ethics guidelines.

3.2 Case studies

Case studies were developed through interviews to provide further depth of understanding in the area of early FM engagement. The aim of the case studies was to investigate a facility that had been developed with early FM engagement, seeking the perspectives of a range of stakeholders – owner, facilities manager and occupant. However, it was not possible to obtain these perspectives for a single facility, so section 5 is a synthesis of these perspectives across several facilities.

Participants for the case studies were drawn from survey respondents who expressed a willingness to participate in follow-up interviews. Participants were also asked to suggest professional contacts who may be willing to participate – a snowball sampling approach. In total, one owner, three facilities managers and one occupant were interviewed.

4. Survey

4.1 Survey responses

A total of 255 responses were completed for the online survey. Respondents self-identified into the following categories:

- 168 (66%) were FM practitioners – 125 internal and 43 external.
- 32 (13%) were purchasers (FM clients and/or building owners).
- 55 (22%) were suppliers.

The most recent available comparator is from the 2013 Census, which indicates that there are 1,590 employees in the occupation of facilities manager. This indicates that the 168 practitioners responding to the survey represent 10.5% of all FM practitioners employed in New Zealand. The caveat is that the Census figure may be a slight underrepresentation due to FM practitioners using a title other than facilities manager.

4.2 Who are our facilities managers?

This section looks at FM practitioners' demographic characteristics, roles, organisations in which they operate and professional development activities and needs.

4.2.1 Demographics

External FM practitioners tended to be older than internal practitioners, as shown in Figure 1. Almost three-quarters (74%) of external FM practitioners were 45 years of age or older, compared to 63% for internal FM practitioners. The external FM practitioners may have been in the industry longer, which may well indicate they are more experienced. This is notably older than the construction industry, in which 44% of employees are over the age of 45.

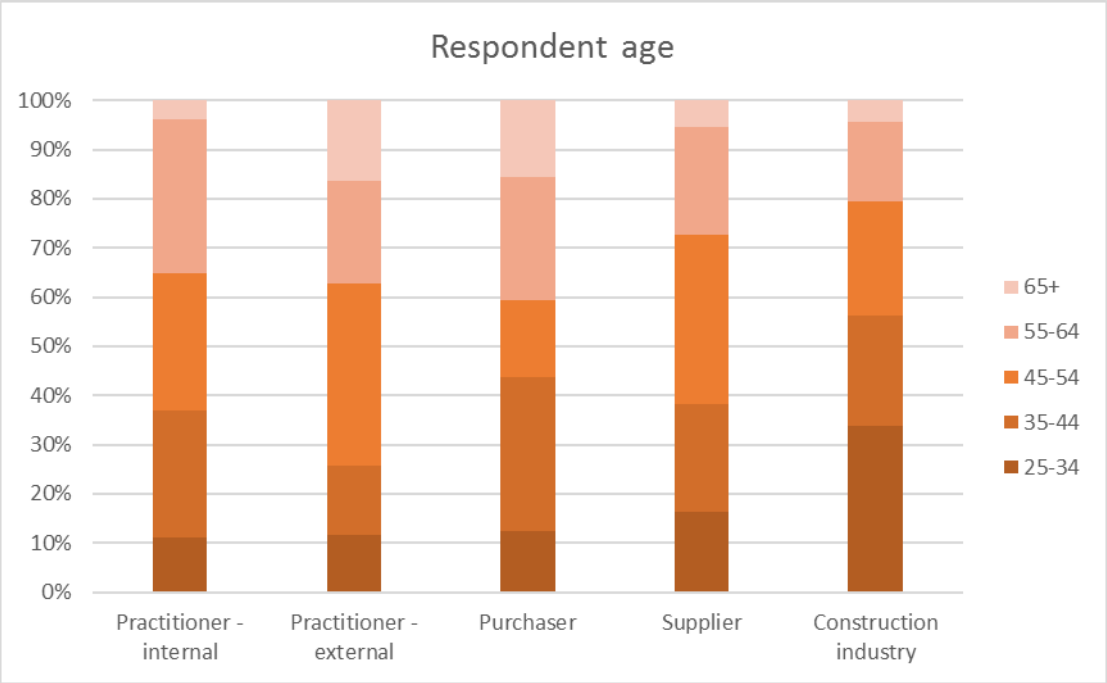

Figure 1. Age of respondents to the survey. Construction industry age from 2013 Census (Statistics New Zealand, 2014).

There was a notable gender gap across the facilities industry, where males significantly outnumbered females. Males made up 69% of internal practitioners, 86% of external practitioners, 65% of purchasers and 76% of suppliers.

This gap is narrower than that of the construction industry, in which 86% of employees are male (Statistics New Zealand, 2014).

4.2.2 Roles

The survey asked what types of roles FM practitioners worked in order to understand how different skills levels are used to deliver FM services.

Respondents were provided with a definition for each of the roles as part of the question, as shown in Table 1.

Table 1. Description of facilities management roles (FMA, 2017).

Role name	Role description
Facilities Director	Senior role that has full accountability and authority for the successful coordination, planning and performance of facilities management activities within their organisation or business unit, often including multiple sites, types of facilities and employees.
Facilities Manager	Organises, controls and coordinates the strategic and operational management of buildings and facilities in public and private organisations to ensure the proper and efficient operation of all physical aspects of a facility, to create and sustain safe and productive environments for occupants.
Facilities / Maintenance Coordinator	Responsible for coordinating the operational management of a building or facility, including budgeting, procurement negotiation, contract liaison and documentation, and staff supervision, to ensure the proper and efficient operation of all physical aspects, creating and sustaining safe and productive environments for occupants.
Facilities Officer	An entry-level role that provides administrative support and at times oversees maintenance tasks to ensure the day-to-day smooth operation of a building or a facility's infrastructure.
Facilities Administrator / Technician	An operational-level role that provides administrative support including budgeting, procurement negotiation, contract liaison and documentation, as well as coordination of staff and office equipment during relocation, and at times supervision and physical assistance with maintenance tasks, to ensure the day-to-day smooth operation of a building's infrastructure.

The prevalence of each type of role is contrasted between in-house and external FM practitioners (Figure 2).

Facilities managers were the most common type of practitioner, comprising 47% of internal practitioners and 43% of external practitioners.

Facilities directors were more likely to be in external roles, while facilities coordinators were more often internal.

There were very few facilities officers and facilities administrators across either category, indicating that the industry overwhelmingly delivers its services through higher-level roles.

Overall, there is a similar prevalence of roles between internal and external practitioners.

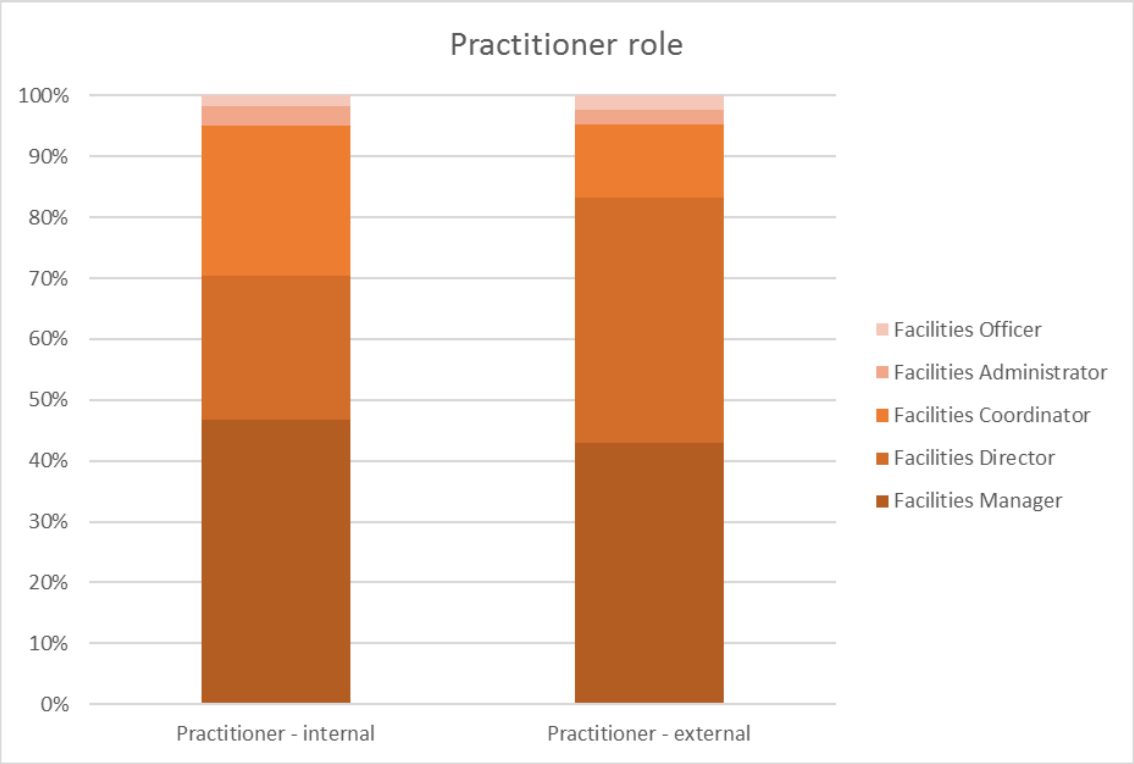

Figure 2. Practitioner role.

4.2.3 Organisations

Survey respondents were asked to indicate the scale and breadth of their organisation to understand the nature of businesses involved in FM and contrast the nature of practitioners, clients and suppliers.

The organisational scale question (Figure 3) revealed that external practitioners were more likely to work for a global or multinational corporations – 37% compared to 15% of internal practitioners. Internal practitioners tended to have more localised employers, with 46% working for a local or regional organisation.

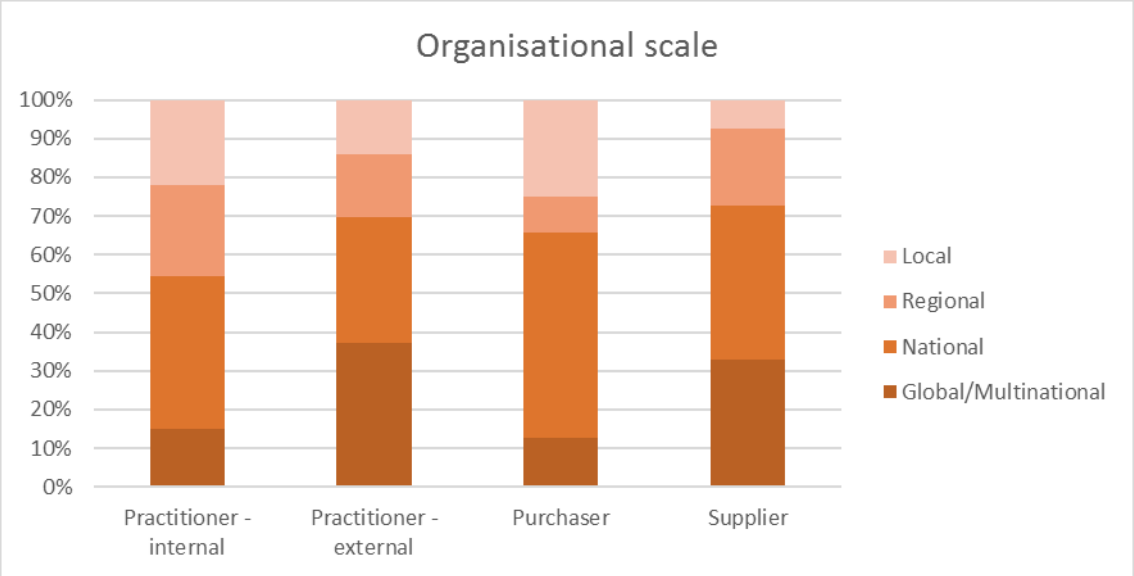

Figure 3. Practitioner organisational scale.

Survey respondents were asked to indicate the region out of which they predominantly operated (Figure 4). FM practitioners tended to operate in specific regions, with only 10% of internal practitioners and 33% of external practitioners operating a nationwide portfolio of facilities. Suppliers were predominantly national operations, with 51% operating at a nationwide scale.

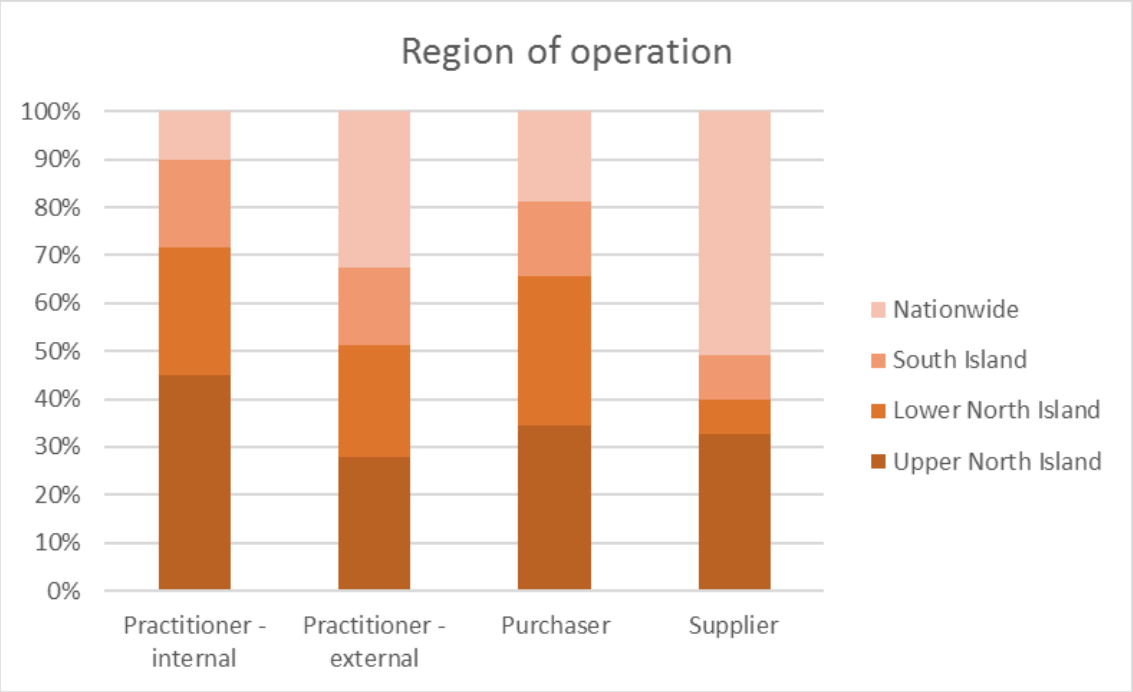

Figure 4. Practitioner region of operation.

4.2.4 FM training and professional development

Given the FM industry has historically lacked formalised pathways, there is particular interest in uptake and delivery of professional development (PD) amongst existing practitioners and developing formalised pathways for industry entrants.

Survey respondents were asked about what qualification they considered was most appropriate for their current role as a FM practitioner.

The majority (48%) considered that a diploma level qualification was most appropriate, followed by bachelor's degree (34%), NCEA level 3 (9%) and master's degree (9%).

Respondents often commented that experience was the most important aspect of FM training – an important consideration in developing formalised pathways for the profession.

When asked about PD, a greater proportion of internal FM practitioners indicated they participated in PD at least annually (81% compared to external FM practitioners at 69%), shown in Figure 5.

A possible explanation could be that external FM practitioners who are older and potentially more experienced consider they have less need for PD than younger FM practitioners newer to the industry.

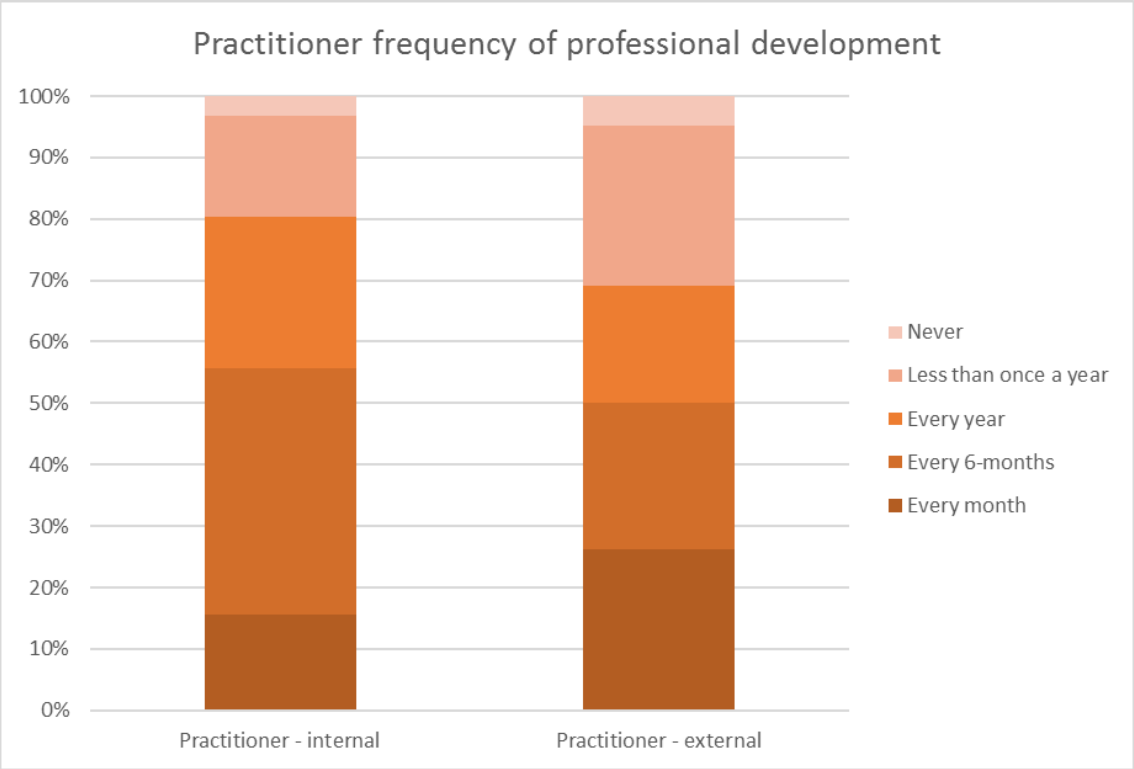

Figure 5. Practitioner frequency of PD.

Types of PD undertaken by FM practitioners over the past year were similar across internal and external practitioners (Figure 6). FMANZ events and workshops and other industry conferences and events were the most popular PD opportunities taken. This indicates the important role FMANZ plays in informing and developing the profession.

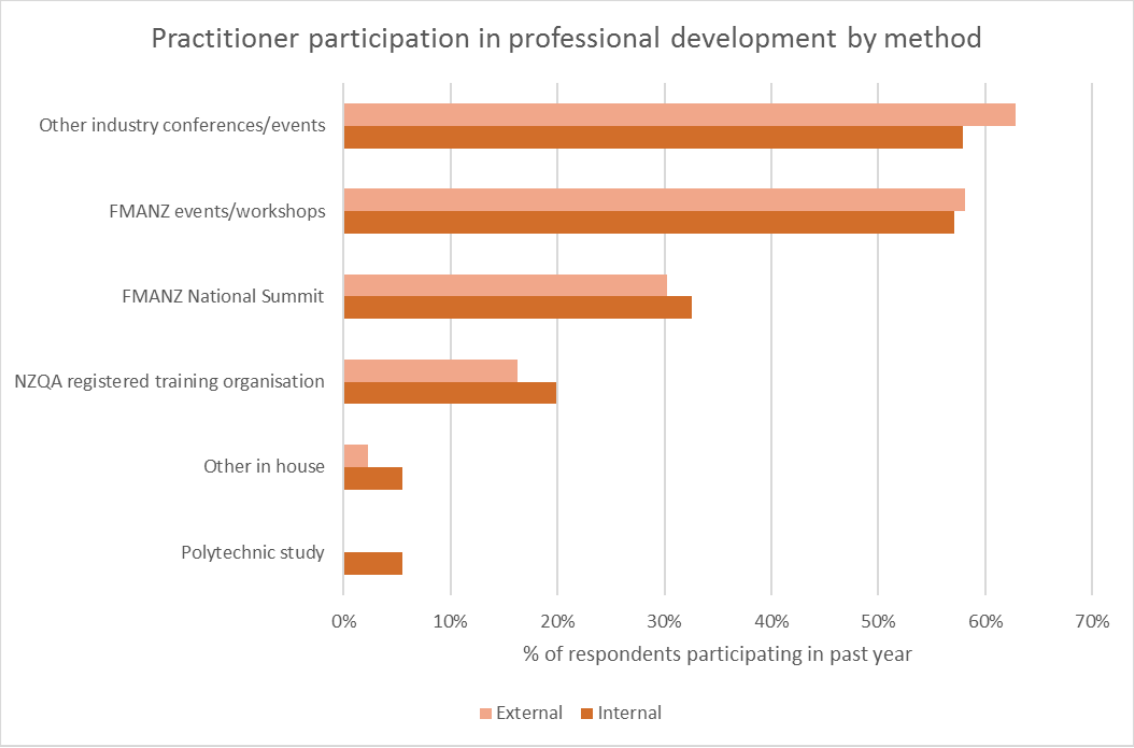

Figure 6. Practitioner participation in PD.

In order to understand the prevalence of professional body membership amongst practitioners, respondents were asked if they were members of FMANZ. Internal practitioners were slightly more likely to be FMANZ members, with 81% reporting they were members compared to 72% for external practitioners.

To guide future PD activities, survey respondents were asked which topics were of most interest to them for PD and their preferred methods of delivery (Table 2). Responses were varied, with asset management being of most interest to both internal (74%) and external (67%) FM practitioners. Strategic FM was next most interesting to external FM practitioners (63%), while 61% of internal FM practitioners were interested in sustainability. Preventative maintenance (planning and implementation) was of equal interest to both groups at 60%.

Table 2. Practitioner interest in PD topics.

Topic of interest	Percentage expressing interest	
	Internal practitioner	External practitioner
Asset management	74%	67%
Sustainability	61%	37%
Preventative maintenance (planning & implementation)	60%	60%
Workplace health and safety for FM	57%	37%
Life cycle analysis	55%	51%
Strategic FM	51%	63%
Changes to New Zealand Standards	48%	40%
Project management for life cycle works	47%	47%
Risk management	46%	37%
Disaster management	42%	33%
Procurement strategies and Contract models	37%	40%
Essential services compliance	37%	33%
BIM for FM	37%	30%
Industry benchmarking	35%	35%
Workplace management	33%	26%
Retrofitting	33%	21%
Reporting KPIs	32%	33%
Managing & retaining staff	24%	16%
Return on investment (ROI) modelling	22%	37%
Business consultancy / continuity planning	17%	30%
Customer service / effective communication	17%	28%

Survey respondents were then asked which types of training or seminars they'd be most interested in attending (Table 3). 75% of internal FM practitioners expressed interest in learning more about best practice. External FM practitioners were equally interested in upskilling in innovation/engineering technologies and industry research and trends (63% each). Least interest was shown in case studies, with 36% of internal and 33% of external FM practitioners nominating them as areas for further PD.

Overall, this shows that the preferences of internal and external practitioners are similar and can be addressed through the same PD opportunities.

Table 3. Practitioner interest in PD by type of training or seminar.

Type of training or seminar	Percentage expressing interest	
	Internal practitioner	External practitioner
Best Practice	75%	56%
Innovation / Engineering technologies	54%	63%
Industry research and trends	50%	63%
Skills development	58%	49%
Legislative / Standards	45%	33%
Case studies	36%	33%

4.3 What facilities are being managed?

Questions were asked around the nature and quantum of facilities under management. The aim was to appreciate the coverage of FM practitioners and understand the representativeness of the survey in relation to readily available statistics on facilities in New Zealand.

4.3.1 Sector

Survey responses indicated responsibility for facilities across a wide range of sectors, with a similar composition across the three groups – internal practitioners, external practitioners and purchasers (Figure 7). Approximately a quarter of respondents across all groups indicated responsibility for corporate offices. Roughly 15% were responsible for government or special purpose facilities and the same for retail, restaurant or food outlets.

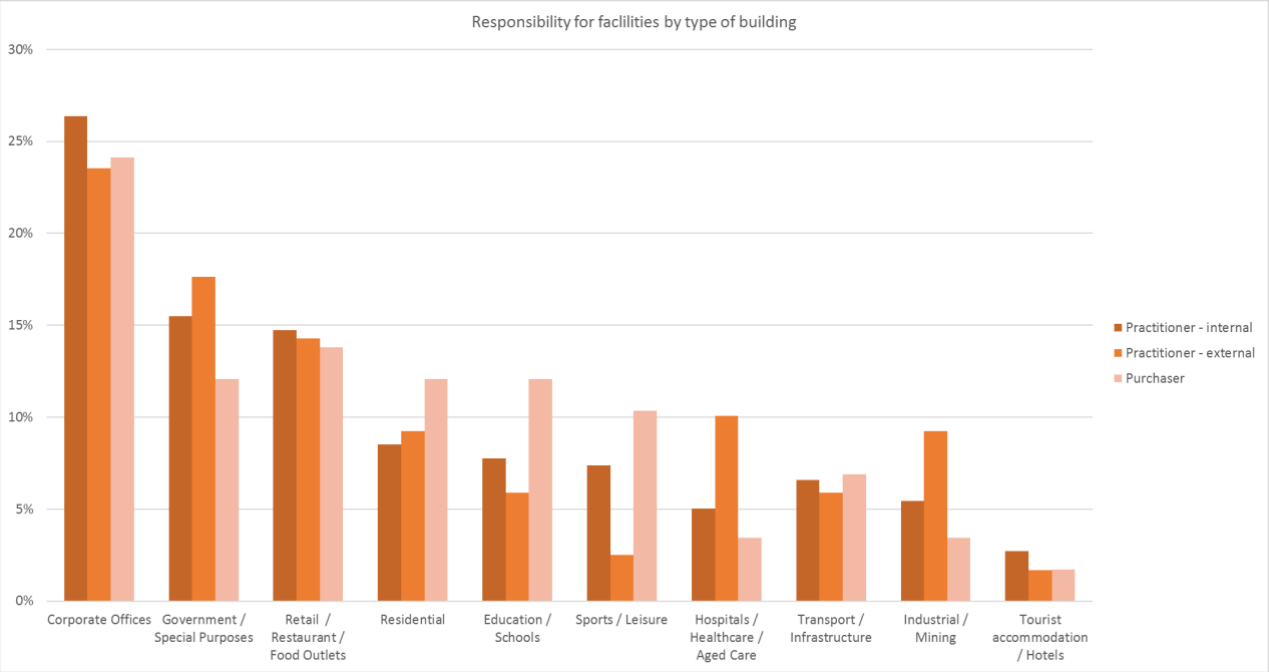

Figure 7. Practitioner responsibility for facilities by type of building.

4.3.2 Value

Internal practitioners reported responsibility for a median portfolio of $200 million, with a total of $13.9 billion across all responses. External practitioners were responsible for a median portfolio of $60 million, with responses totalling $2.5 billion. Purchasers were each responsible for a median portfolio of $40 million to a total value of $4.3 billion across all responses. In total, survey respondents identified they were responsible for $20.7 billion worth of facilities. A large number of respondents chose not to disclose these values, so this greatly underestimates the value of facilities represented by survey responses. It should also be noted that some facilities may be represented twice where the FM practitioner and their purchaser have both completed the survey.

This compares favourably to the overall size of the property sector. The total stock of commercial buildings in New Zealand is estimated at $94 billion, most of which are likely to be managed by FM practitioners. The residential building stock in New Zealand is estimated to be worth $394 billion. However, this is primarily made up of owner-occupied and small-scale rental housing, which is unlikely to be managed by FM practitioners (Urban Economics, 2016).

4.3.3 Number of sites

Most practitioners were responsible for a small number of sites. 50% of internal practitioners were responsible for fewer than five sites, and 50% of external practitioners and purchasers were responsible for fewer than six sites.

Several respondents were responsible for large portfolios, meaning that the survey represented 8,500 sites managed by internal practitioners, 19,600 managed by external practitioners and 1,600 managed by purchasers. Suppliers reported servicing 25,000 sites in total, with an average of 15 each, and several responses servicing a large number of sites.

4.3.4 Average FM expense to site value ratio

Alongside the employee to contractor ratio, the FM expense to site value ratio provides an indication of how FM services are being delivered.

Internal practitioners reported mean annual expenditure on FM services that amounted to 1.9% of the facility value – lower than the 5.5% reported by external practitioners and 4.3% reported by FM purchasers. This may be due to the fact that internal FM practitioners reported greater use of employees to deliver FM services, which may not be readily accounted for.

4.3.5 Employee to contractor FM ratio

Internal practitioners reported seven subcontractors per internal FM employee on average, external practitioners reported 20 and FM purchasers reported four. This reflects that FM purchasers are likely to engage a small number of suppliers (such as external FM practitioners) who will in turn engage subcontractors for specific pieces of work. The low ratio for internal practitioners shows that their organisations make greater use employees for facilities services.

4.4 The FM sector

Both practitioners and clients were asked to assess the FM sector in order to understand alignment between to two groups and inform industry initiatives. This

included priorities for the sector, strengths and weaknesses, opportunities and threats and a special focus on early FM engagement in development of new facilities.

4.4.1 Priorities for the sector

Survey respondents were asked to select up to three priorities for the FM sector from a list of nine was based on the FMA Australian census (FMA, 2017). Three priorities emerged ahead of the rest (Figure 8). Increasing awareness of facilities management in the design and construction sector was the most popular priority area at 61%. Improving the professionalism and reputation of the industry was a priority for 50% of the sample, and 45% said that improving the consistency and standards of services industry wide should be prioritised.

Despite the lack of diversity noted earlier, increasing the diversity of the industry was a priority for the least number of respondents, supported by only 11% of FM practitioners surveyed.

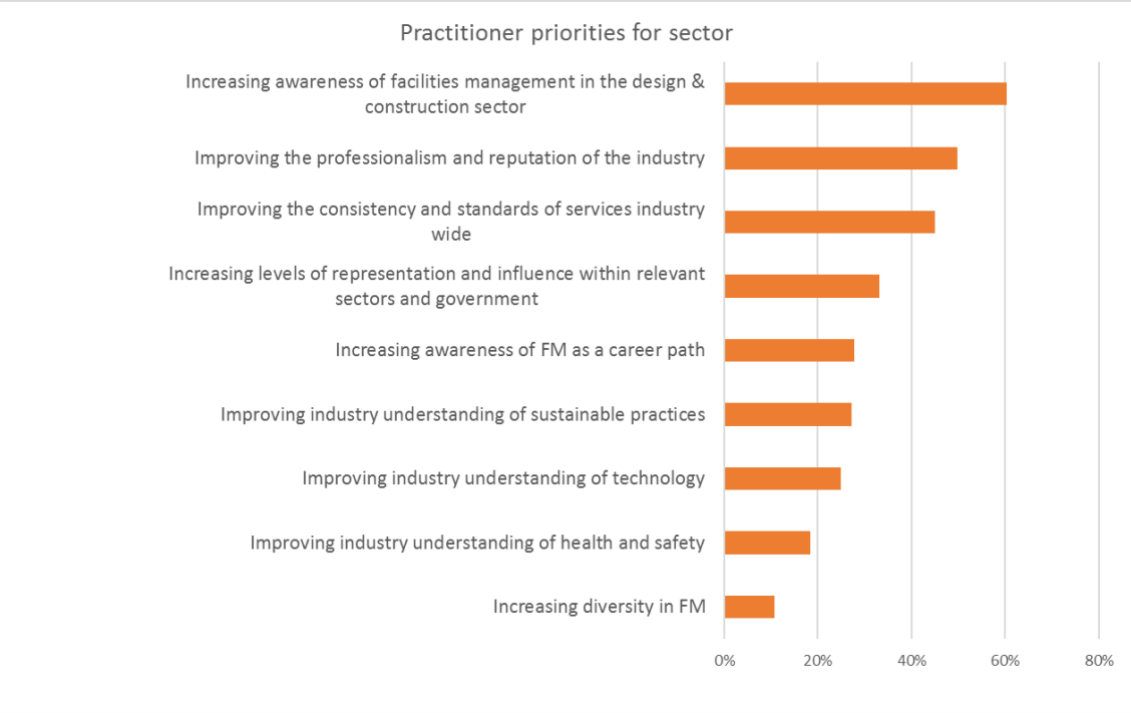

Figure 8. Practitioner priorities for sector.

Comments from practitioners and purchasers around priorities for the sector could also be provided in a free text format.

There were a total of 76 comments received from practitioners in response to the question regarding their top three priorities, with the most commonly identified priorities being as follows:

- 20% (15) related to the need for improved professional identity and a better understanding of what a FM practitioner is and does.
- 19% (14) related to the need for FM practitioners to be involved in design and build as well as whole-of-life building costs work. This includes sustainability issues.
- 28% (13) related to the need to attract and retain suitably qualified practitioners in the industry, including provision of training.

The other most commonly referred to themes were the improved use of technology for practitioners (9%), climate change (7%) and health and safety (5%).

The comments received from purchasers differed as follows:

- 21% (4) related to the need to attract and retain suitably qualified practitioners in the industry, including provision of training, improved education for FM practitioners and clients, standardisation of qualifications and regulation of practitioners to ensure high standards.
- 21% (4) related to the need for greater professionalisation, improved service delivery and relationships with clients.
- 16% (3) related to climate change

The other most commonly referred to themes were the improved use of technology (11%) and the need for improved professional identify and a better understanding of what FM is and does (11%).

Practitioners should be aware of these differing client perspectives and consider how they might be addressed.

Early FM engagement in design and construction is investigated further in section 4.4.4 and section 5.

4.4.2 Strengths/weaknesses

Survey respondents were asked to indicate whether they thought the FM industry was currently showing strength or weakness (or whether they were unsure) in a variety of areas. This is expressed using a net balance approach in Figure 9 and Figure 10 below, where 100% means all respondents thought an area was a strength and -100% means all respondents thought the area was a weakness.

The stand-out area of strength for the industry currently, according to survey respondents, is that of improving and maintaining health and safety (Figure 9). 77% of practitioners felt this area was a strength as did 54% of purchasers. The majority of other areas were perceived to be weaknesses for the industry at the moment. Most notably, 83% of FM purchasers reported water management as a current weakness, and 41% or practitioners agreed.

There is a clear difference of opinion between purchasers and practitioners around asset management. 50% of purchasers see this as an area of weakness for FM practitioners, while 17% of practitioners see it as a strength. There are a number of other areas where the perceptions of current performance differ between these two groups, always in the direction of purchasers erring on the side of weakness, which practitioners may seek to address.

These areas include:

- aligning FM services with the delivery of strategic outcomes/organisational needs
- building awareness and recognition
- improving standards and consistency of FM delivery
- water management
- reducing costs of FM
- energy management
- identifying and managing whole-of-life costs.

Figure 9. Purchaser and practitioner perception of industry areas of weakness and strength in current service delivery.

Survey respondents were also asked which areas they thought the FM industry might show strength or weakness in in the future, specifically in 3 years' time (Figure 10). Responses to this question were far more optimistic than those for the current performance question. With one exception, all areas were perceived to be areas of strength for the industry in the future by both purchasers and practitioners.

The only area where future weakness was predicted was encouraging social cohesion and connectivity, where 11% of purchasers reported it as a future weakness. 100% of purchasers and practitioners said that improving and maintaining health and safety would be a FM industry strength in the future.

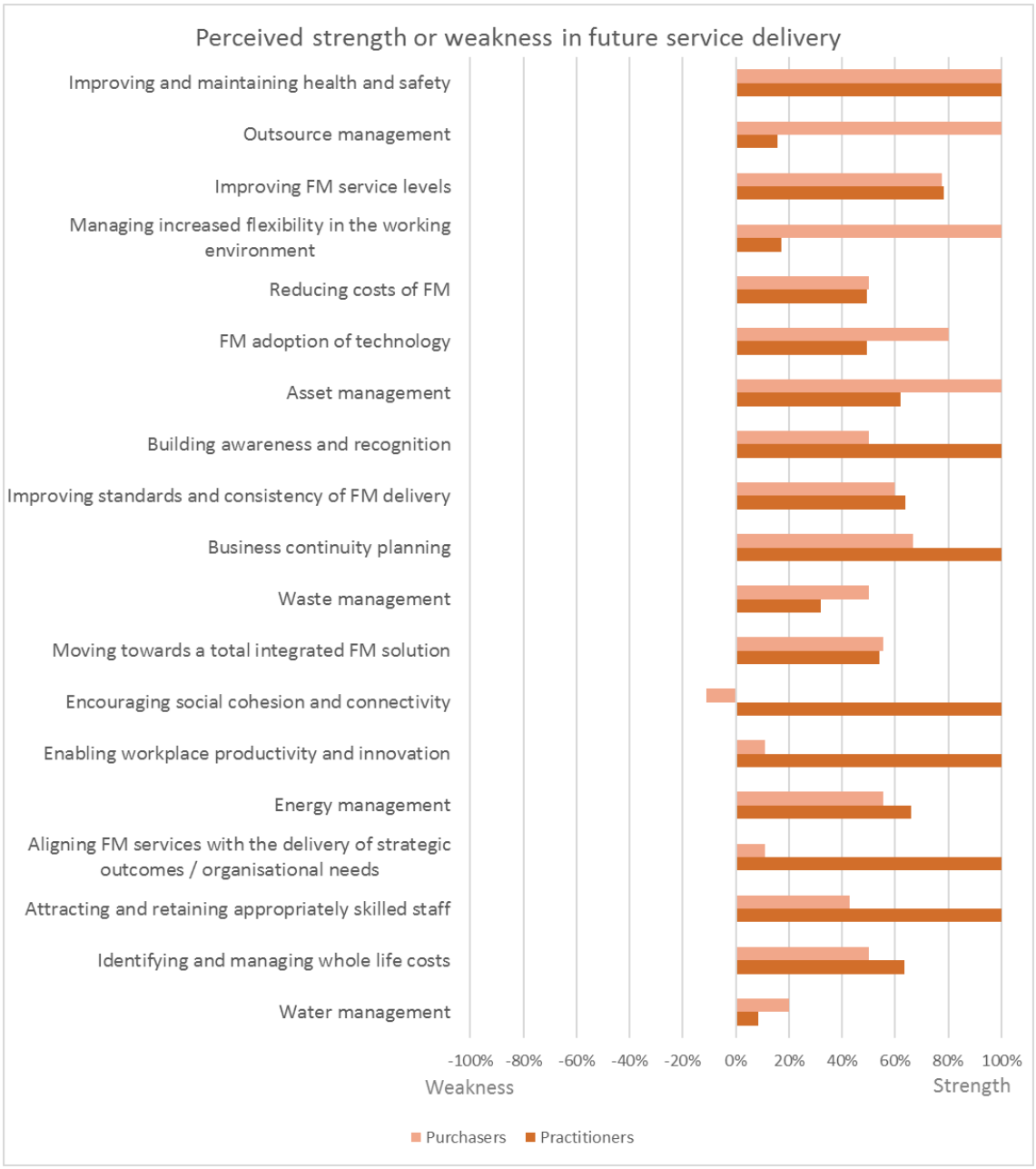

Figure 10. Purchaser and practitioner perception of industry areas of weakness and strength in future service delivery.

There were several areas in which FM purchasers and practitioners had differing perceptions of future strength, most notably:

- attracting and retaining appropriately skilled staff
- encouraging social cohesion and connectivity
- enabling workplace productivity and innovation
- aligning FM services with the delivery of strategic outcomes/organisational needs
- building awareness and recognition
- business continuity planning
- managing increased flexibility in the working environment
- asset management
- outsource management
- FM adoption of technology.

Overall, Figure 10 shows that the industry's outlook for the future appears positive, with both practitioners and purchasers identifying strength in all the areas suggested.

4.4.3 Opportunities/threats

To inform strategic priorities for the sector, respondents were asked whether they perceived various issues as an opportunity or threat to the FM industry, currently and in the future (Figure 11 and Figure 12). This is again expressed on a net balance approach, where 100% means all respondents thought an area was an opportunity and -100% means that all respondents thought the area was a threat.

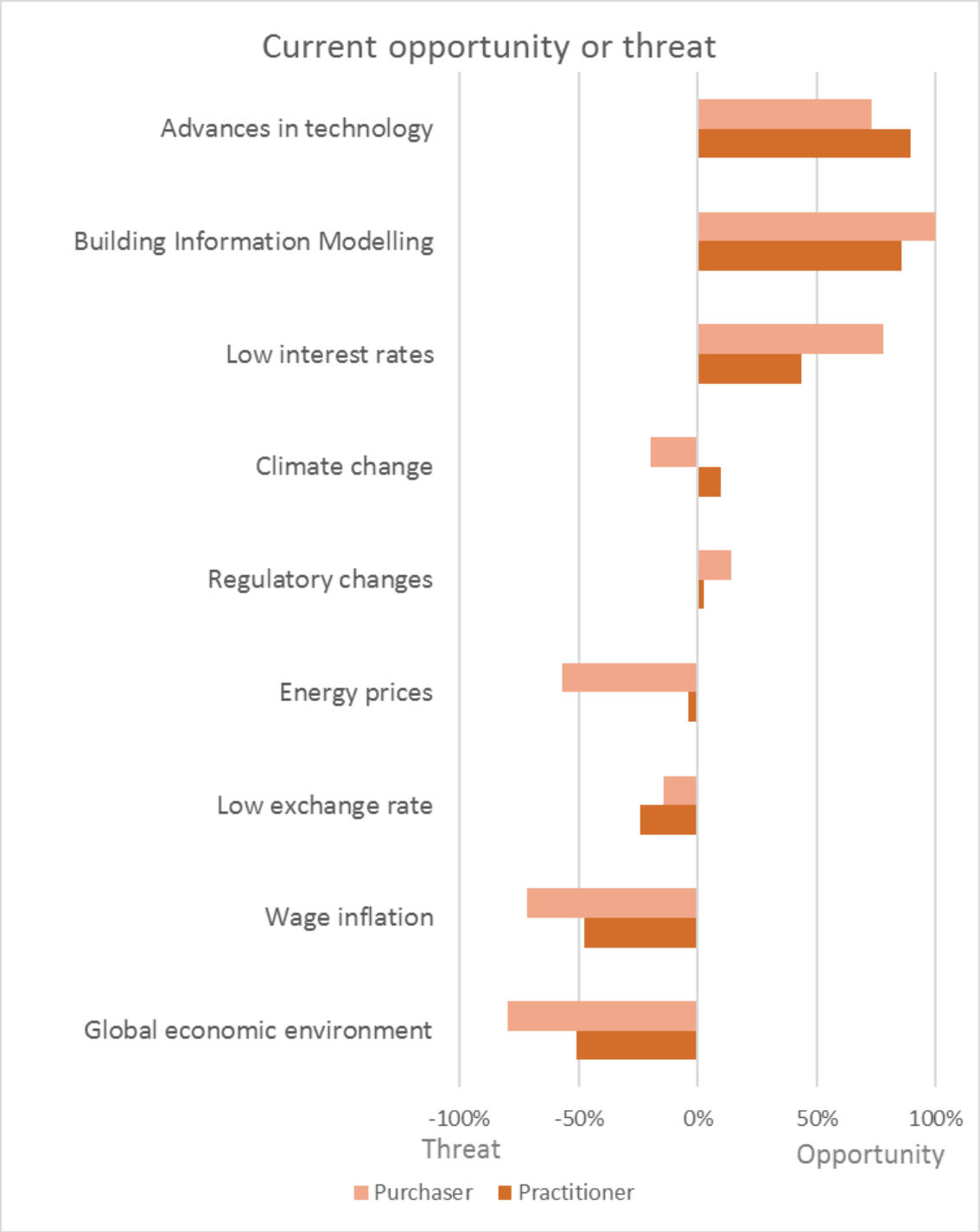

Figure 11. Current opportunities or threats for the FM industry.

The most frequently identified current threat was the global economic environment, with 80% of purchasers and 51% of practitioners identifying it. This was closely followed by wage inflation. Building information modelling (BIM) was the current opportunity recognised most often by 100% of FM purchasers and 86% of practitioners. Advances in technology were also identified by the majority of respondents as a current opportunity. Notably, 57% of purchasers considered energy prices to be a threat despite only 4% of practitioners considering it a threat.

Future opportunities and threats somewhat mirrored current ones (Figure 12).

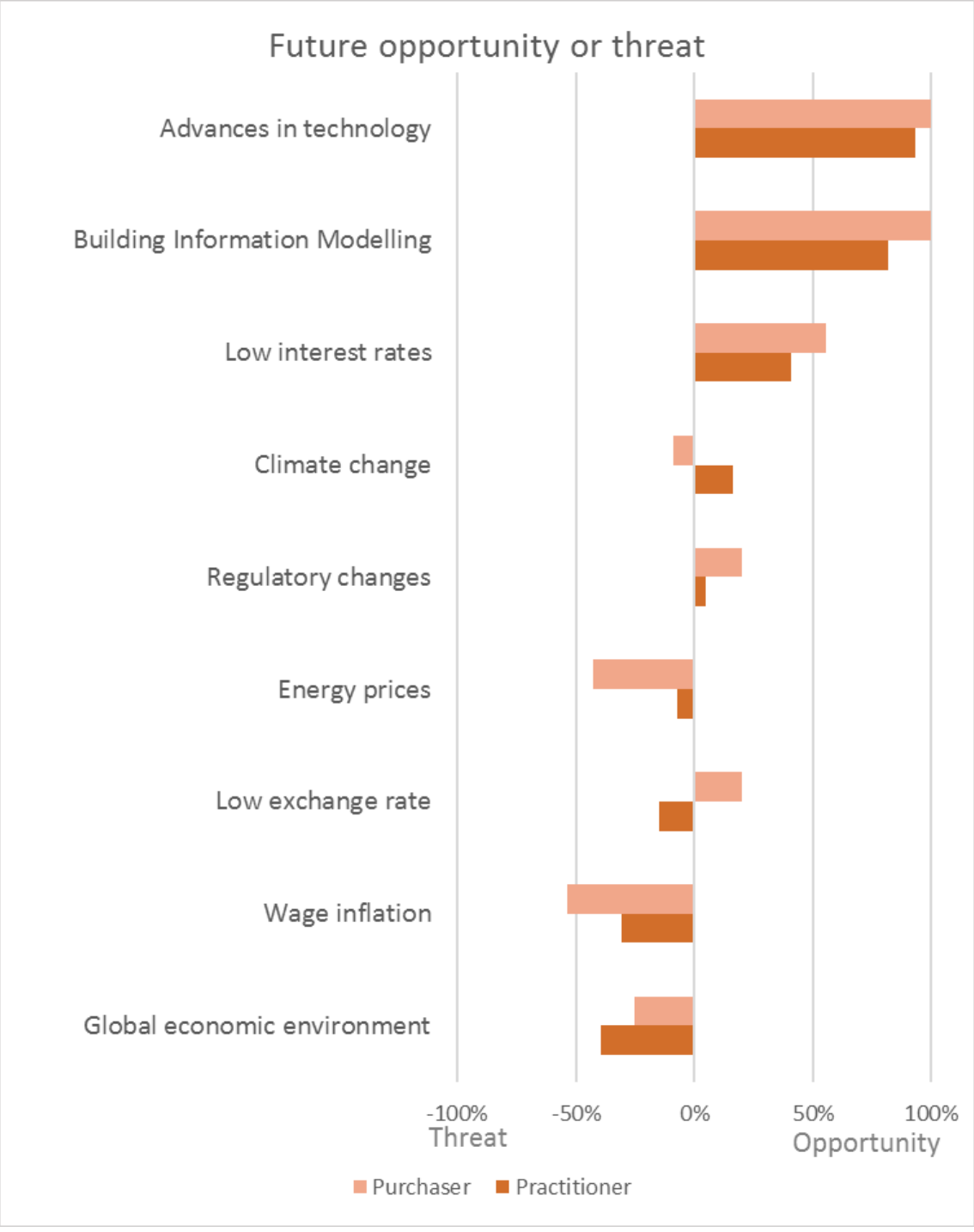

Figure 12. Future opportunities or threats for the FM industry.

Overall, practitioners appeared more pessimistic around threats in the future than at present. FM purchasers and practitioners identified the global economic environment as a future threat (25% and 80% respectively) closely followed by wage inflation (71% and 48% respectively) and energy prices (43% and 57% respectively). Building information modelling was recognised by 100% of FM purchasers and practitioners as a future opportunity. Advances in technology were perceived to be a future opportunity by the majority of FM purchasers and practitioners (100% and 73% respectively).

4.4.4 Involvement of FM in design/build

Survey respondents were asked how often they were engaged in the various stages of construction of new facilities. Responses revealed FM practitioners are often not consulted during the design and construction phases of new builds. This highlights the need for increasing the awareness of FM in the design and construction sector and explains why FM practitioners identified this as the top priority for the FM industry. Early engagement would allow for FM considerations to be made early on, improving the overall functionality of the buildings once complete. Comments from FM practitioners described a lack of involvement as a "missed opportunity" and stated the mantra of "the earlier the better" with regards to FM involvement in new facilities. Several comments identified that the detailed operational understanding of FM fills a gap in experience of designers, leading to buildings with fewer operational issues that require remediation post-occupancy. Respondents that were regularly engaged in early stages of new facility development noted this was commonplace when FM were engaged in a strategic advisor capacity within their organisations.

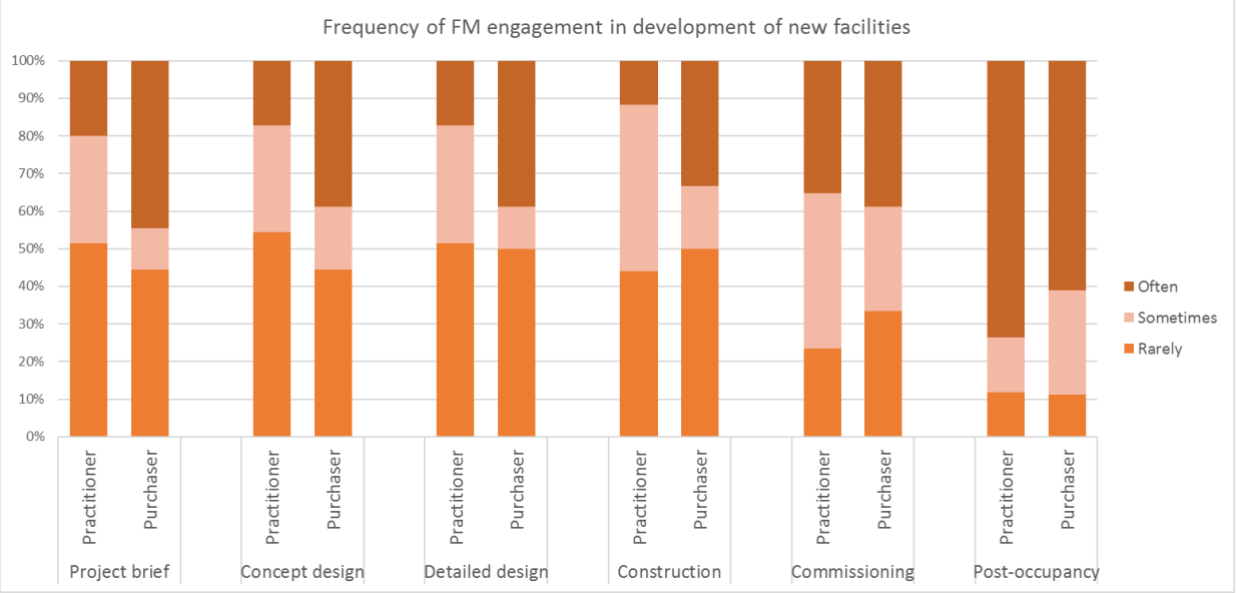

Figure 13. Frequency of engaging FM in development of new facilities.

4.5 Supplier and subcontractor relationships

To understand the breadth and nature of relationships between practitioners and suppliers or clients, respondents were asked how they engage with subcontractors.

4.5.1 Engagement of subcontractors

Construction, design, and project management were most frequently contracted out by FM practitioners and purchasers (Figure 14). Purchasers were more likely to

subcontract than practitioners across all the areas, reflecting the fact that they are FM service consumers, not providers.

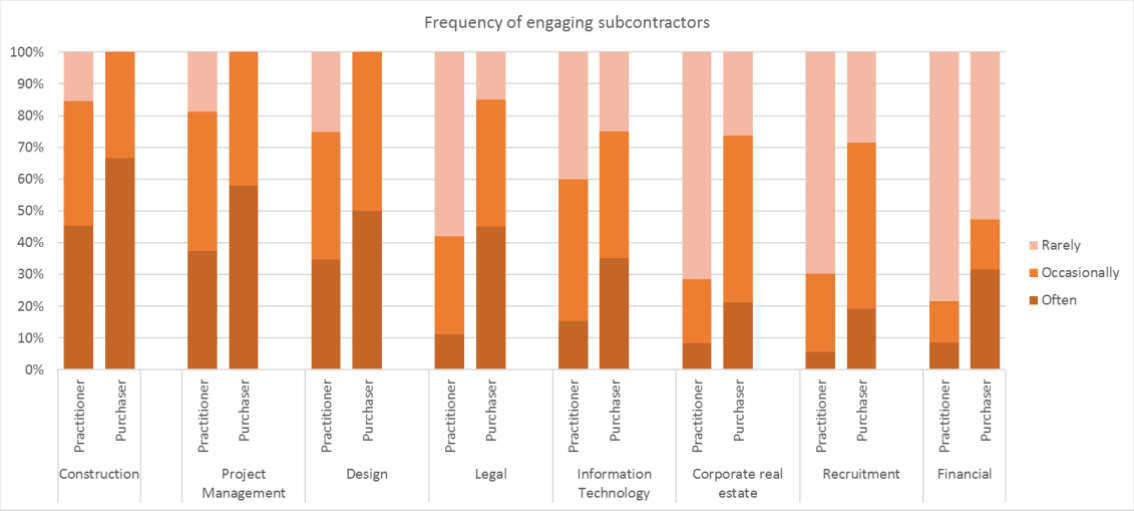

Figure 14. Frequency of engaging subcontractors.

To appreciate the motivations for utilising subcontractors, respondents were asked to rate the importance of various benefits of subcontracting specific FM services. Both practitioners and purchasers rated the benefit of access to best practice higher than reduced costs (Figure 15).

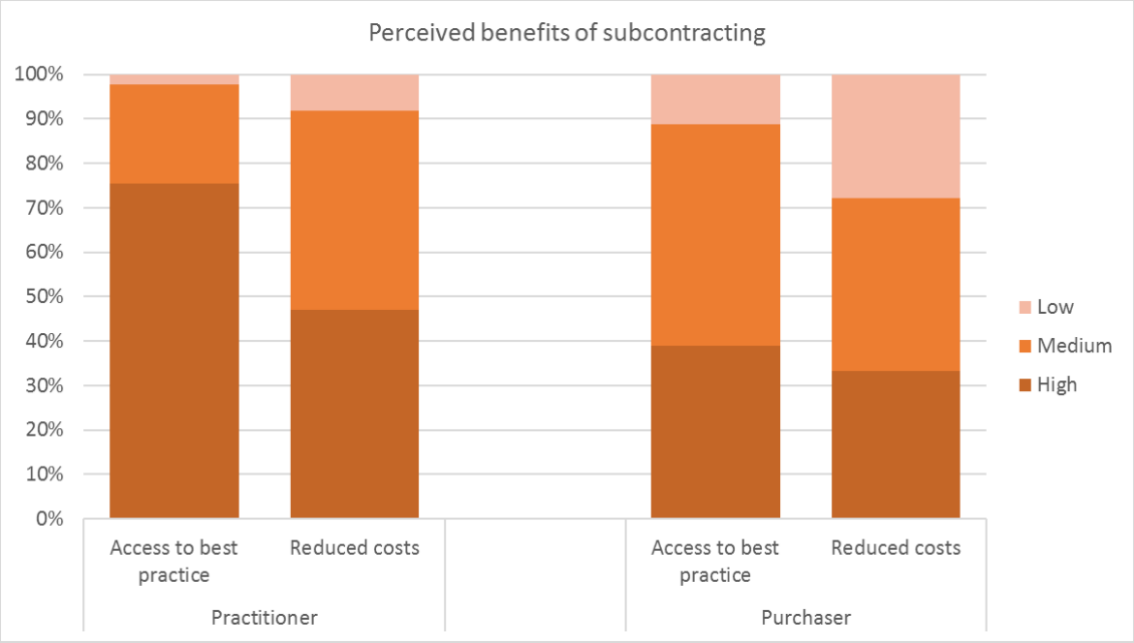

Figure 15. Perceived benefits of subcontracting.

To understand how subcontractors were selected, respondents were asked which criteria were most important when selecting a subcontractor, finding team competence and skill base were the priority for respondents (Figure 16). The majority of practitioners and purchasers rated this criteria as highly important (86% and 89% respectively). Subcontractors offering services tailored to the FM practitioner's needs was the next most important criteria, with 79% and 78% of practitioners and purchasers rating it as highly important. Least important was a recommendation from

colleagues, indicating that word of mouth may not be heavily relied upon by FM practitioners in selection of subcontractors.

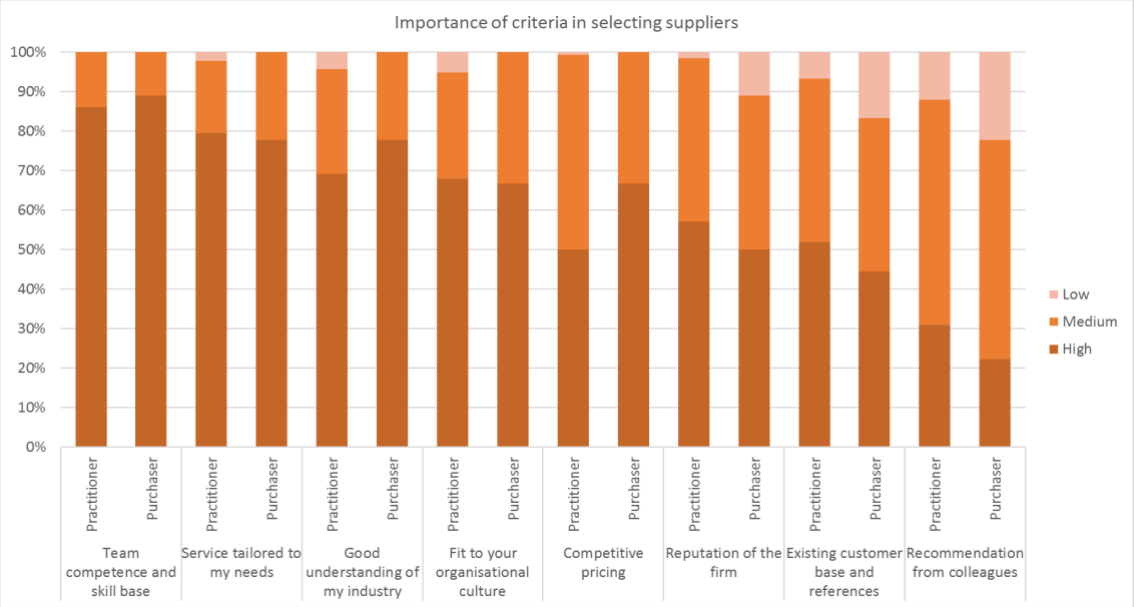

Figure 16. Importance of criteria in selecting subcontractors.

3-year contracts were most commonly reported by FM practitioners, representing 39% of contracts (Figure 17). Purchasers had more variation in the contract lengths they engaged in, with 25% each reporting 3-year, 5-year and more than 5-year contracts. It is noteworthy that no one from either group selected 6-monthly contracts, indicating the New Zealand FM market prefers longer-term arrangements.

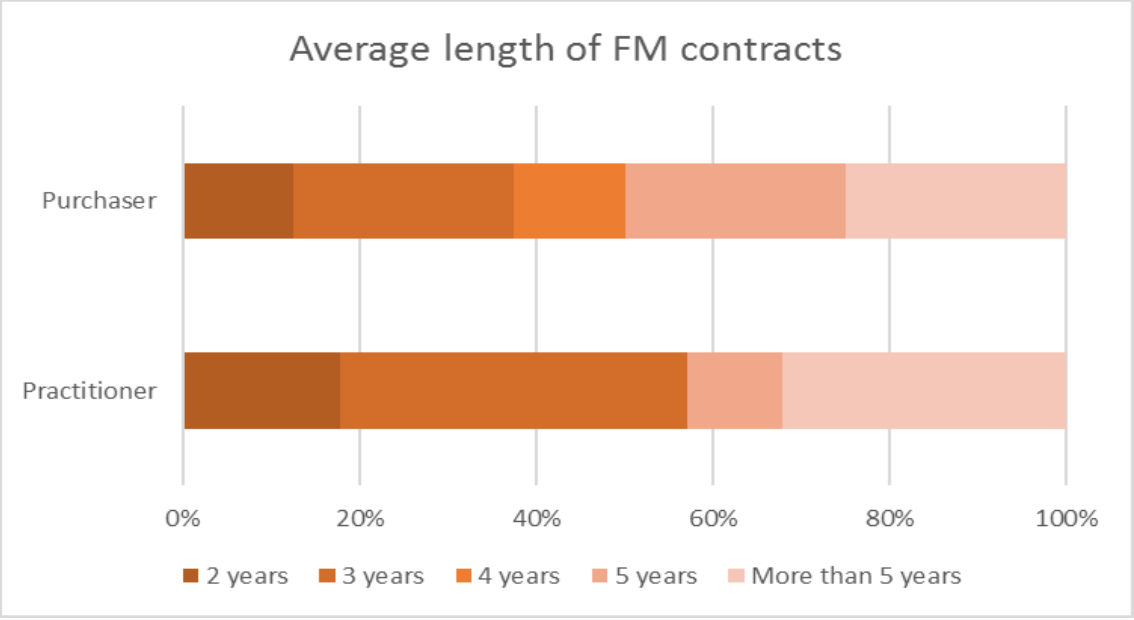

Figure 17. Average length of FM contracts.

Survey respondents were asked which type of contract they typically engage in. Most popular was the reimbursable model where allowable and reasonable costs incurred by a service provider in the performance of a contract are reimbursed directly from the purchaser (Figure 18). 61% of purchasers and 41% of practitioners selected this type

of contract. The gain share model, where the parties share the risks and rewards of a business relationship over the long term, was the least common contract type, representing only 6% for both groups.

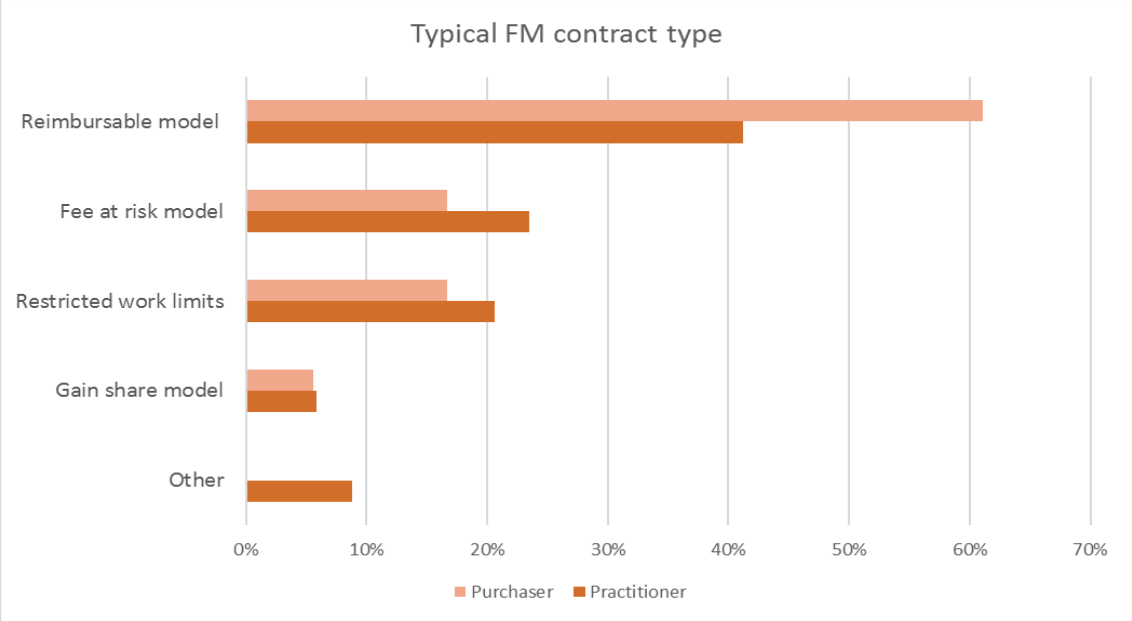

Figure 18. Typical FM contract type.

FM purchasers were asked what they intended to do at the end of their current contract for FM services. Responses to this question revealed a level of uncertainty for FM contractors (Figure 19). Purchasers most commonly (41%) said they didn't know or hadn't decided what to do at the end of the current contract term, with a further 29% stating they would retender their contracts with revised scope.

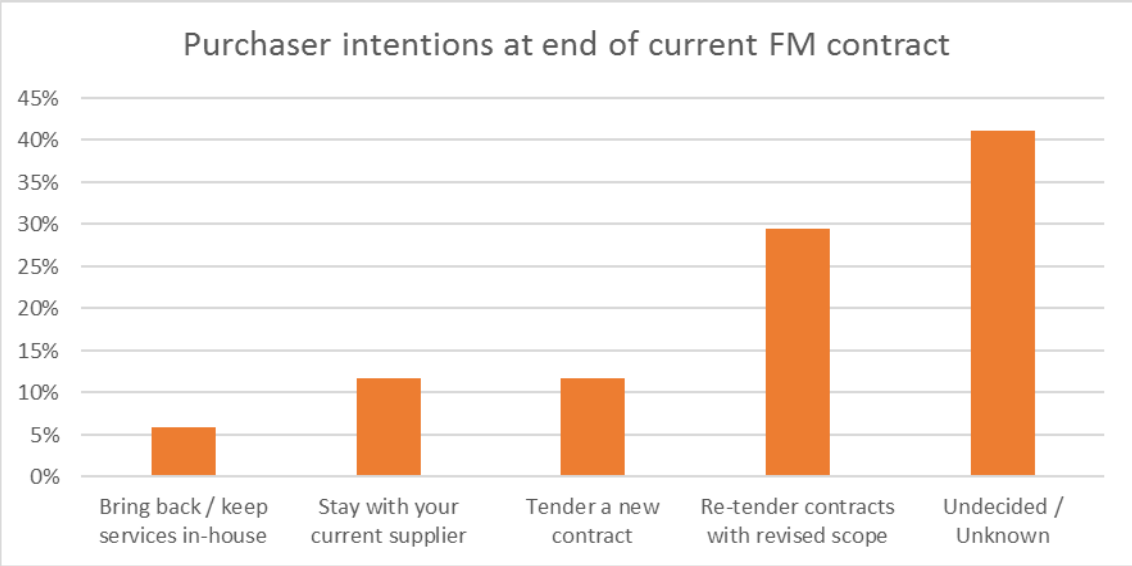

Figure 19. Purchaser intentions at end of current FM contract.

To gauge the extent of relationships between purchasers and practitioners, external FM practitioners were asked how often they held meetings with purchaser (Figure 20). Monthly meetings were most common at 40%, followed by weekly (32%) and fortnightly (12%). It is clear from responses to this question that FM practitioners

maintain relatively regular communication with purchasers. It should be noted this question asked about meetings specifically and does not account for telephone or email communications. It could be assumed communication with purchasers occurs more regularly than responses to this survey question suggest.

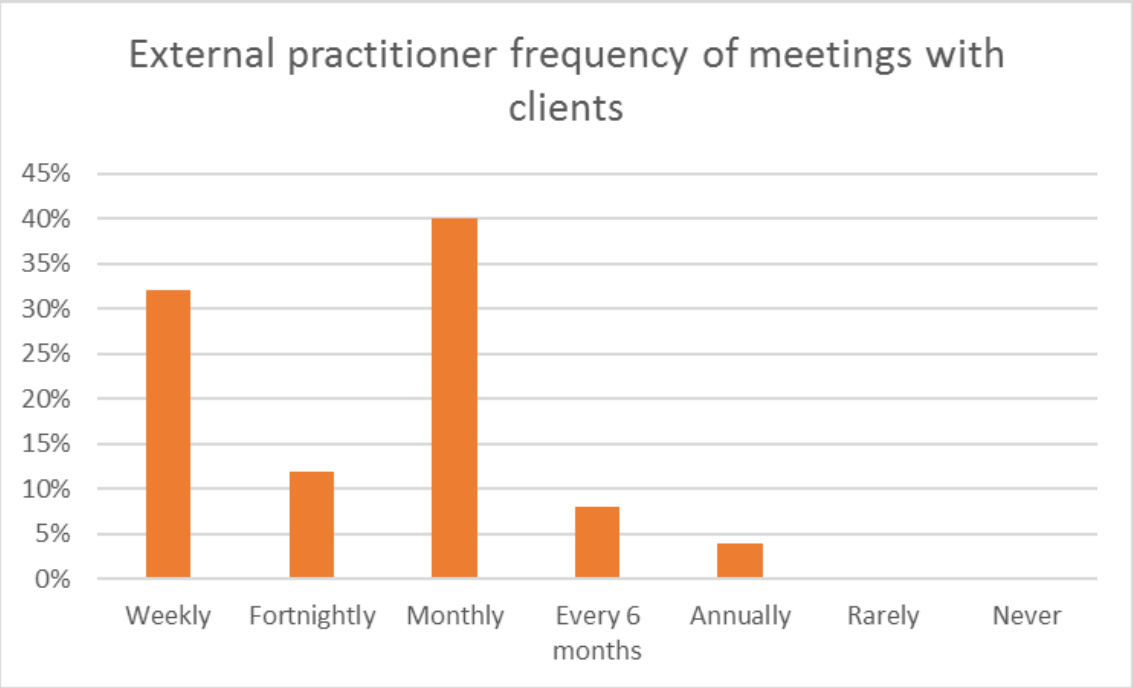

Figure 20. Frequency of external FM practitioner meetings with purchasers.

FM practitioners and their purchasers (clients) were asked about how FM services are perceived. Practitioners were asked how they believed their purchasers perceived FM services, while purchasers were asked how they thought FM services were perceived in their organisation. Both groups reported that FM services were most commonly perceived as an operational expense (Figure 21). 53% of purchasers and 51% of practitioners said that was the perception of FM services. Only 6% of purchasers and 14% of practitioners said purchasers perceived FM services as adding value. These perceptions might reflect an undervaluing of FM services generally and may highlight a need to increase purchaser awareness of the benefits of FM services to a business.

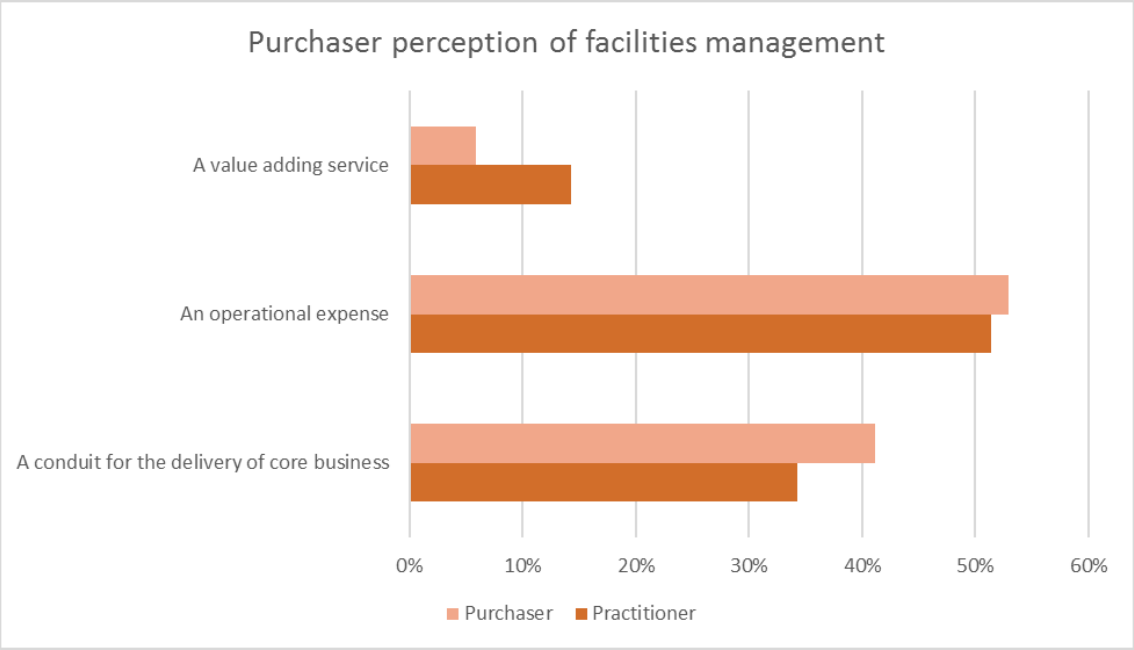

Figure 21. Purchaser perception of FM.

FM purchasers were asked how often FM is discussed at executive level in their organisation. 35% of purchasers said it was discussed often, 41% said it was discussed sometimes and 24% said it was rarely discussed.

FM purchasers were also asked how they would prioritise FM services against other business expenses. This question further highlighted the importance of FM to the running of a business, with 29% of respondents reporting it as a first priority expense. 38% said it was a second priority, and 19% selected it as a third priority expense.

FM suppliers were asked which standards they complied with. All FM suppliers said they complied with a standard other than those listed (Figure 22). The majority of those who selected 'other' said they complied with the New Zealand Building Code and referenced specific standards. This is unsurprising as a third of FM suppliers in this survey offer construction and maintenance services. The second-largest group of respondents (28%) complied with ISO 9001 Quality Management. Two thirds of FM suppliers said they were unsure what standards they complied with, which may signal that this is an area that some suppliers may need some upskilling in.

Figure 22. Supplier standards compliance.

When FM suppliers were asked which kinds of promotional activities they used to promote their businesses, networking events was the only activity selected. None said they engaged in any other forms of advertising or promotion of their business.

5. Case studies

5.1 Drivers

Most participants identified that early involvement of FM in design and construction, sometimes under the banner of 'soft landings', was relatively uncommon within New Zealand. Several participants identified that typical building procurement practice effectively prevented such an approach, as upfront costs were overemphasised in tendering processes to the detriment of building quality and operational expenditure. When FM practitioners were engaged early, it was the result of specific circumstances, generally strong economic drivers that took account of whole-of-life costs and quality. This was often a public-private Partnership in which the private organisation responsible for delivering the facility was also responsible for operation. In some cases, these private organisations were responsible for handing over the building free of defects at the end of their contract term, typically 25 years. Participants noted that, compared to traditional procurement, this creates strong incentive for specifying more durable materials such as claddings. Other circumstances leading to FM involvement included long-term building occupiers with a financial stake in the building or fitout.

5.2 Involvement

The FM practitioners interviewed had been involved in various stages of development prior to occupancy. Their initial input was into the design brief, using their understanding of building occupants to inform technical requirements for the building. This includes mode of working, habits, density, electrical loading and operational needs such as cleaning cupboards or loading docks.

Several participants identified that, in cases where FM practitioners are engaged early in facility development, the practitioner plays an intermediary role between design team and occupants. This is a bidirectional function, turning occupant behaviours and expressed desires into technical requirements and communicating the functional design elements to occupants to set appropriate expectations of the new facility. This was identified as being effective in improving quality by reducing need for post-occupancy adjustments or retrofit. These are common in new facilities due to designers misunderstanding occupant requirements or occupants misunderstanding the design.

In the detailed design stage, FM practitioners provided input into product choices with particular consideration of:

- how occupants will use the space and features
- maintenance and renewal activities required and how they will be performed
- how products will perform with respect to durability and energy efficiency.

There was a strong theme of embedding maintenance into the design to reduce operational costs and give effect to safety in design principles. It was noted that, as designers are now required to give effect to safety in design principles, they are starting to seek the operational expertise of FM practitioners. Specific examples of changes suggested by FM practitioners include the following:

- Moving heavy heating and cooling plant from the rooftop of an auditorium to ground level alongside. This meant that monthly servicing would be cheaper as it did not require installation of a catwalk, and eventual replacement of the plant would not require a large crane or helicopter.

- Specifying lighting towers with an integrated pivoting base and winch. This meant that bulb changes and other servicing could be achieved safely at ground level without the expense of an elevated work platform.
- Seeking input from abseiling window cleaners to ensure a complicated façade was feasible to clean with abseil access as opposed to more expensive elevated work platforms.
- Specifying cleaners' cupboards with sink facilities on each floor of an office building and an enlarged loading dock to enable smooth daily operations of the facility.
- Specifying features and developing a practical operational plan to achieve resource efficiency requirements of green building certification.

Practitioners had relatively little involvement in the construction phase. Although one had a general contract supervisory role, this reflected their prior construction experience more than their FM experience.

5.3 Impact

Involvement of FM practitioners in the design process has a long-lasting impact on a facility. Some participants considered that early FM involvement led to similar upfront cost, with savings through removal of unnecessary features offset by slightly higher investment in serviceability, performance and durability of building elements. Other participants considered the upfront cost was considerably higher, due to an emphasis to reduce operational costs through significant investment in serviceability, performance and durability. All participants noted that FM practitioner involvement led to reduced whole-of-life cost – any increase in capital expenditure was targeted to improve value and reduce operational expenditure. In one case, the practitioner had a role in construction supervision, but there was not enough information to qualify the impact of this.

One occupant of an established building with early FM engagement noted enhanced durability of internal building elements but still raised concerns around heating and acoustics. Early FM practitioner involvement does not lead to a perfect outcome but enables a feedback loop between occupancy and operations into new facilities.

5.4 Future of early engagement

The procurement approach for new facilities is a key determinant of early FM involvement, and challenges around construction industry procurement were well noted by participants. Several participants noted that the prevalence of tendering based on upfront price instead of whole-of-life costs was a significant barrier. Increasing alternatives of design and build and early contractor involvement tend to also neglect whole-of-life costs.

Several FM practitioners noted that, even when they were involved in the design stage, they felt that any input they provided needed greater qualification due to the relative infancy of FM as a profession. They considered that more established professions such as architecture and engineering did not need to provide as much qualification for their professional input. Nonetheless, several participants considered that the operational expertise of FM practitioners in design was complementary to the expertise of designers. One participant noted that, to effectively provide FM input into the design process, FM practitioners do need some experience or understanding of the design process. They noted that this is a difficult combination of skills to foster, generally coming from experience in FM and construction.

6. Summary of findings

This research traversed the FM industry and its relationship with clients and suppliers and explored the current and potential role of FM practitioners in development of new facilities.

There is a lack of diversity in the FM industry – an issue shared with the construction industry. FM practitioners are predominantly male and over the age of 45.

Practitioners and purchasers in New Zealand agreed that development of professionalism and recognition in FM should be a priority for the sector. Purchasers also considered that improving service delivery consistency and standards was important. FM as a profession is relatively young, with entry historically based on relevant experience. The current challenge for the FM industry is to develop formal career pathways for new practitioners while recognising the experience of existing practitioners and improving professionalism through continuing professional development. Current practitioners consider that a diploma with an element of relevant experience is the most appropriate qualification for new entrants. The majority of FM practitioners regularly engage in professional development. However, one-third of external practitioners engaged in such activities less than once per year. In light of comments from purchasers around improving industry professionalism and consistency of service, this may be an impactful area to focus on. There is a high level of participation in FMANZ and other industry events, providing a good platform for future activities. Practitioners were most interested in best-practice type seminars, mostly in the topics of asset management, strategic FM, sustainability and preventative maintenance. Most expressed interest in delivery of professional development through best-practice examples.

Respondents to the survey represented $20.7 billion worth of facilities, which indicates good representation of the overall commercial property sector of $94 billion. These respondents typically managed fewer than six sites, with internal practitioners managing a median portfolio of $200 million and external practitioners $60 million. Corporate offices, government facilities and retail or food outlets are the most common facilities under management.

Practitioners and purchasers are most commonly engaging subcontractors in the fields of construction, project management and design. Both groups place greater emphasis on access to best practice as a benefit to subcontracting, rather than reduced costs. This is reflected in the criteria used to select subcontractors, where team competence and skill base rank highly, followed by a tailored service offering. Suppliers in New Zealand were notably absent in their compliance with quality assurance standards, which may be an area where efforts by FM practitioners can lead to improvements throughout the supply chain.

In considering priorities for the sector overall, practitioners most strongly identified with the need to increase awareness of FM in the design and construction sector. Many FM practitioners and purchasers agreed that improved professional identity, professionalism, formal career pathways and professional development were a high priority for the sector. Purchasers and practitioners agree that the FM industry is particularly strong in the area of improving and maintaining health and safety. Both groups consider the industry is showing weakness in other areas such as managing resources (energy, water and waste) at present. However, they expect this to be a strength of the industry in future. This may suggest that efforts are being made to

improve. Looking at opportunities and threats, both practitioners and purchasers are optimistic, considering that the industry is well placed to take advantage of economic and technological changes.

Early engagement of FM practitioners in new facility development was a key focus of the census. Practitioners and purchasers both recognised that early pre-occupancy engagement of FM practitioners in new facilities was relatively uncommon compared to post-occupancy engagement. Practitioners felt that the general lack of early engagement was a "missed opportunity", and many identified benefits included that the operational skills of a FM practitioner being highly complementary to those of designers. Purchasers were less aware of this offering but were interested in whole-of-life costs, which was identified as a common element of early FM engagement.

Case studies identified that FM practitioner input into the design stage of new facilities supported implementation of safety in design principles, an understanding of the whole-of-life costs of a facility and greater building quality both in the short and long term. FM practitioners use their operational knowledge to ensure buildings are designed in a way that can be sustainably and safely managed. Whole-of-life costs are a strong feature of early FM engagement, in which maintenance and operational costs are accurately understood and traded off against the upfront capital cost. Case study participants noted that this often leads to more durable materials being specified, which, despite a slightly higher upfront cost, leads to an improved whole-of-life cost. Early FM practitioner engagement contributes towards the three realms of building quality – functionality, durability and performance. FM practitioners use their operational knowledge to ensure purchasers' needs are accurately represented in project briefs and that building specifications will meet those needs as the purchaser expects. Through the detailed design stage, FM input ensures that durability and performance requirements can be feasibly met and supported through maintenance. As new facilities progress into occupancy, FM practitioners in their traditional operational role manage the performance and durability into the long term.

Greater implementation of early FM engagement could be achieved through:

- greater professionalism of the industry
- greater awareness of its value amongst purchasers
- adoption of advanced procurement models that recognise whole-of-life costs.

Procurement models with a heavy focus on upfront cost are a strong barrier at present, but this is being investigated by the Industry Transformation Agenda and the BRANZ quality research programme.

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