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Fist-Bumps for Men and Not
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in Construction: An Aotearoa
New Zealand Case Study

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By Dylan Parkinson, Rashika Sharma and Lydia Kiroff

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Dylan Parkinson, Rashika Sharma and Lydia Kiroff

Abstract

Creating an inclusive workplace in construction is essential if gender diversity is to be achieved in the sector. Women continue to be underrepresented in the industry, and despite recent initiatives to increase their numbers, attracting and retaining women remains a constant challenge. The discriminatory work environment is the leading deterrent for women considering a career in construction. This research investigates existing barriers and enablers for women in the construction industry, and strategies that can contribute to creating inclusive environments. An explorative case study was conducted on a Tāmaki Makaurau Auckland-based construction company using in-depth semi-structured interviews and questionnaires with six female participants. Key barriers identified were women experiencing difficulty gaining respect from male colleagues, the expectation of physical strength for labour-intensive jobs, and social isolation for women on the job due to pre-existing informal male networks. Participants experienced unintentional or intentional everyday gestures at work that made them question their sense of belonging on construction sites and hindered workplace inclusivity. The findings suggest that a concerted effort must be made to shift the outdated mindset that construction is not a place for women. Furthermore, leaders should implement inclusivity initiatives and recognition for women when merited, and act as role models for others in the sector. Training modules and development programmes on equity and diversity need to be developed and promoted, and employee participation should be mandatory.

KEYWORDS

Women in construction, gender stereotyping, career dissatisfaction, sexism, inclusive workplace

Introduction

The construction industry in Aotearoa New Zealand makes a significant contribution to the national economy, adding approximately \$17.6 billion to the gross domestic product (GDP) in 2023. It also employs nearly 308,500 workers, utilising the services of 80,613 business enterprises, which is 13.3% of all businesses in the country (Ministry of Business, Innovation and Employment, 2023). Even though the construction industry remains one of the largest employers nationally, women continue to be underrepresented in the sector. Recently, however, there has been a marked increase in women working in construction, with a growth rate for women entering the industry of 157.1%, compared to a 75.3% growth rate for male workers, between 2013 and 2023 (Ministry of Business, Innovation and Employment, 2023). However, despite this promising growth, current research in Aotearoa showed that 18% of women with engineering qualifications chose to leave the industry within nine years of joining the sector. Gender stereotyping was reported by 92% of the women in the research, which compelled them to consider alternative employment options and ultimately led to career dissatisfaction (Davidson et al., 2021).

These statistics are concerning, and with labour shortages being an ongoing national issue, attracting and retaining women will be integral to increasing productivity. Therefore, it is essential to study women's lived experience in the country's construction industry to better understand the barriers and enablers, and create a more inclusive environment where women will have better job satisfaction and be retained as workers in greater numbers. More significant research is needed into women working in construction in Aotearoa, as their experiences with existing inclusivity and equity initiatives could help drive significant change in the industry. This study aimed to explore the inclusivity of a Tāmaki Makaurau Auckland-based commercial construction company, and how women experienced the organisation's work environment. The research sought to determine the primary barriers and enablers for creating inclusive work environments for women and to evaluate the inclusion initiatives implemented in the case-study workplace.

Literature review

To create inclusive environments for women, it is necessary to identify and analyse conditions that influence the attraction and retention of women in the construction workforce. Changing systemic barriers and behavioural patterns is essential for leading construction-sector change. Women make up 47.4% of the labour force in Aotearoa, with the construction sector comprising a disproportionate 16% of women (Ministry of Business, Innovation and Employment, 2023). To address this disparity, several factors were explored in the literature, including the image of women in the construction industry, opportunities for career progression, the role of leadership in creating inclusive work environments, and the importance of implementing mentorship and

inclusivity programmes.

To encourage more women to enter the construction sector, the industry must be portrayed as a more progressive workplace, which will require a shift in the industry's image. The construction industry is often perceived as a hostile environment due to high-stress workplaces, resulting from long-standing organisational practices such as irregular hours, increasing demand for shift work, strained project budgets and intense workloads leading to poor work-life balance and reduced wellbeing, particularly depression, in the sector (Sunindijo & Kamardeen, 2017; Powell & Sang, 2013). This hostile environment appears to be the biggest deterrent for women to enter the industry – women continue to encounter workplaces that do not prioritise their health and safety (Turner et al., 2021). There are further ethical dimensions to this disparity for women workers, such as discriminatory treatment, incidences of harassment and poor working relationships with leaders (Sunindijo & Kamardeen, 2017). Verbal aggression, significant discrimination and rejection by their male colleagues, sexual harassment, estrangement and antagonism are often experienced by women in the industry (Ibáñez, 2017), and this adds to the hostile environment in the male-dominated sector, often stemming from the hyper-masculine image portrayed by the industry.

Norberg and Johansson (2021) place the spotlight on the existence of a gender hierarchy in the sector, where masculine behaviours, both overt and covert, are associated with the notions of toughness and roughness. The industry is often portrayed as having a toxic masculine culture, where a macho, tough-guy image is promoted, and is less accepting of workers who do not display macho traits (Norberg & Johansson, 2021), which in turn creates a hostile environment. Women are often viewed as being too feminine to fit into construction workplaces, according to the masculinist culture rife in the sector. Changing the toxic masculine culture of the construction sector will be necessary if gender inclusivity is to become a reality. Masculinist cultures will be fostered if construction workplaces remain unregulated in this respect. Turner et al. (2021) recommend that construction industry leaders, who have tended to tolerate hostile sexist behaviour, be accountable for enacting greater gender inclusion.

Leadership has been demonstrated to be highly influential toward achieving diversity goals. Executive leadership can foster site-level diversity through promoting active involvement in programmes that positively impact gender inclusion and improve organisational productivity (Husam et al., 2024). The presence of women in executive leadership teams can also drive change in the industry. Women hold less than 20% of leadership positions and only 10.5% of overall leadership roles in construction organisations (Hickey & Cui, 2020). A diverse leadership pool has several advantages, such as promoting greater diversity in staffing, and improving equity and inclusion outcomes within the sector (Karakhan et al., 2021). Furthermore, diversity in executive leadership can lead to increased productivity and a more positive organisational culture generally (Baker et al., 2021). According to Hickey and Cui (2020), organisations with a gender-balanced executive team tend to publicly commit to diversity initiatives.

Organisations with a higher proportion of women generally have more active programmes driving women's recruitment, inclusion and

retention, inspiring women to progress in their chosen careers and stay the course for long-term employment (Morello et al., 2018). Xalxo (2023) suggests the implementation of programmes to specifically aid the development of women's careers in the industry. By establishing support networks, mentorship is promoted, along with the encouragement and acknowledgement of women in the workplace, stimulating gender inclusivity (Perrenoud et al., 2020). Support networks encourage women to share concerning workplace behaviours and report inappropriate masculine behaviour. Turner et al. (2021) indicate that women need greater resilience, and a collective approach contributes to reducing workplace discrimination and creates a more inclusive workplace.

To create an inclusive environment in construction, the perceived accessibility of a natural upward career progression is essential. Perrenoud et al. (2020) note a significant difference between males and females in the perceived importance of non-monetary awards and recognition, women appreciating the acknowledgement of achievements far more than their male counterparts. Furthermore, Lu and Sexton (2010) contend that there has been no significant growth of numbers of women in construction due to a lack of acknowledgement that their career paths differ from men's typically linear career paths, and understanding why this is so. There is an inaccurate and unfair assumption that women prefer alternative career sequencing, devaluing women's workplace contributions (Lu & Sexton, 2010). Additionally, women are often encouraged to believe that onsite construction roles are unmanageable and inaccessible, so that their roles are limited to less skilled tasks, such as holding road signs or traffic management (Williams, 2020). Furthermore, work-life balance within construction is challenging because of existing industry practices and the dynamic nature of construction roles. Rigid or inflexible work schedules significantly impede women's integration and retention in construction, compounded by intolerance towards career breaks for parental leave and ongoing childcare responsibilities (Morello et al., 2018; Barreto et al., 2017).

The literature shows that there is growing acknowledgment that supporting career-path development for women is necessary for attracting and retaining women in the sector. Fostering an inclusive environment that encourages the long-term retention of women in the workplace can be achieved through support groups, mentorship programmes and networking opportunities with peers and inspirational women from the industry. Reducing work stressors, enhancing work-life balance, implementing support networks, and new work practices offering greater flexibility and accommodating non-linear career paths need to be explored if there is to be a gender-inclusive industry.

Research methodology

An explorative case-study methodology was used for this research. According to Yin (2014), a case-study methodology is most suitable when a

comprehensive empirical inquiry is chosen to study a phenomenon in its real-world setting. The selected case study was a large commercial construction company in Aotearoa New Zealand that has 27 projects operational in Tūranganui-a-Kiwa Gisborne, Te Tai Tokerau Northland, Tāmaki Makaurau Auckland and Te Moana a Toi Bay of Plenty. The company has several governmental and maintenance contracts and commercial fit-out projects underway, but primarily specialises in large-scale commercial projects and medium-density residential development in Tāmaki Makaurau. The company's wide-ranging project portfolio shows its prominence within the national construction sector. The study focused on the Tāmaki Makaurau branch, which has approximately 80 full-time staff. Fourteen of the full-time staff are women, comprising approximately 17.5% of the workforce in its Tāmaki Makaurau operation.

Using semi-structured interviews and questionnaires, data was obtained from six participants in the Tāmaki Makaurau branch. Five individuals participated in semi-structured interviews, and all six participants completed in-person questionnaires. The semi-structured interviews (see Appendix A) involved open-ended questions designed to obtain in-depth perspectives on the primary barriers and enablers faced by the participants in the case study. The questionnaire had closed questions focused mainly on obtaining statistical information on the participants' ages, years of work experience and education qualifications, and tick-box questions to identify the barriers and enablers they experienced in the industry. As this was a qualitative case study focusing on a single company, the data is not representative of all women's experiences in other construction companies, and expresses the viewpoints of women from the chosen case study only.

Findings

QUESTIONNAIRES

Five of the research participants were in the 25–34 age group, and one was in the 18–24 bracket. Four participants had worked in the construction industry for between one and three years, and two had worked for between four and six years. Two of the six participants had worked for the case-study company for between four and six years, and the company had employed three participants for between one and three years. Only one participant had been employed by the company for less than a year. One office and one site-based manager participated in the research; two participants worked as site-based labourers, and two had office-based administrative roles (see Figure 1).

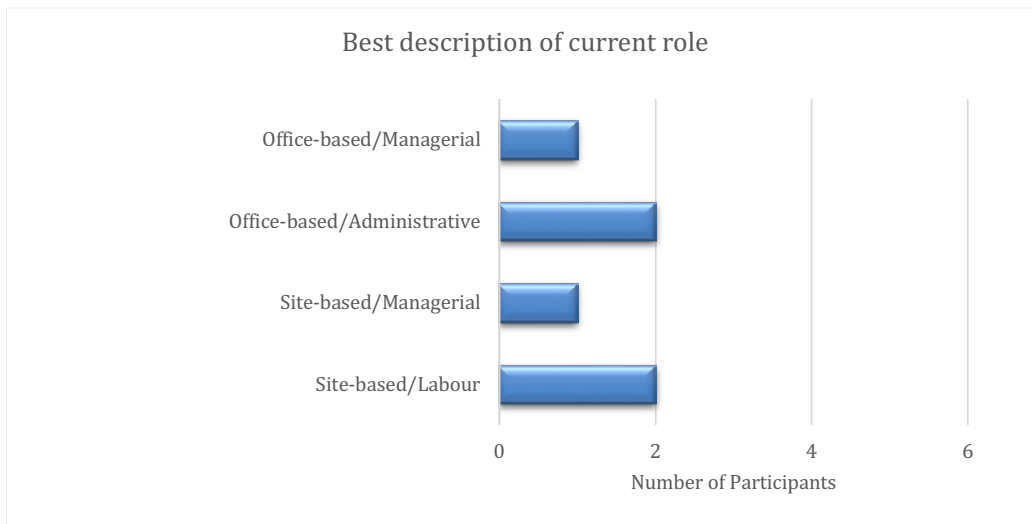


Figure 1. Description of the roles of research participants.

The participants were asked whether construction was their first choice as a career, and, interestingly, all six participants of the questionnaire survey revealed that they had not intended to enter the construction industry as their first choice for a job or as a step on a career path. The participants were also asked if they had undertaken any construction-related formal education. Two participants stated they had not studied a construction course or an equivalent, three indicated they had, with a further participant stating they had partly studied a construction-related course (Figure 2).

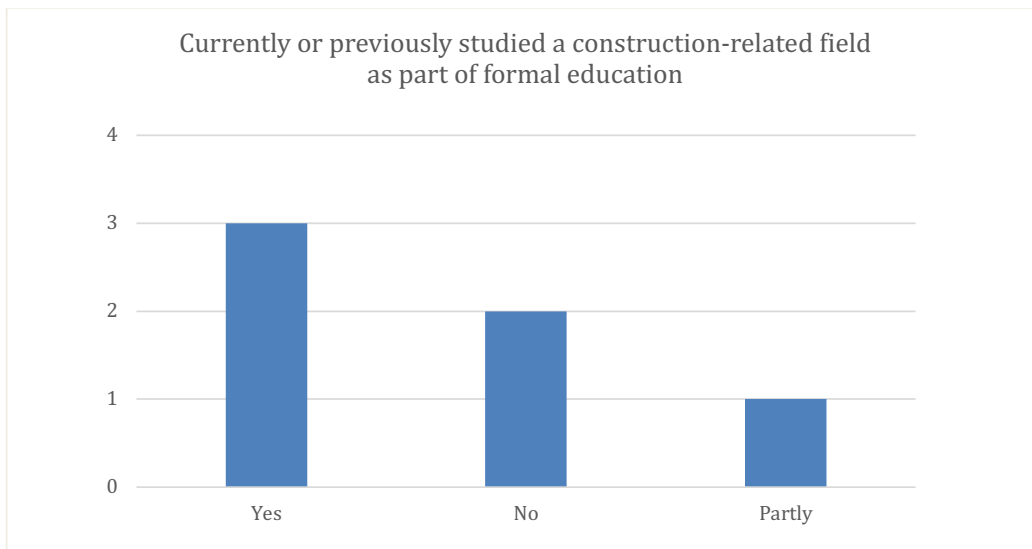


Figure 2. Formal qualification levels of participants.

Three participants reported that they were currently studying or had completed construction-related qualifications, all of whom were site-based employees; of these, two were currently studying to complete their apprenticeships, with the remaining participant having completed their study

and holding the highest qualification available: a certifier. The three participants with office-based roles had no construction-related education aside from an associated health and safety course that was not recognised in this survey.

When the participants were asked what they perceived to be the biggest challenges they faced in the construction industry, the most identified challenge was high levels of stress, with five out of the six participants having personally faced it (see Figure 3). The next most selected challenges were high levels of time pressure and poor work–life balance, which were chosen by four of the six participants. Three out of six participants indicated gender bias as a challenge, with two of the six participants citing a lack of mentoring and training, excessive workloads, gender segregation and discrimination/harassment as challenges they have faced in the construction industry. One respondent selected the physical demands of the job as a challenge faced, with none of the six respondents selecting challenges associated with career advancement.

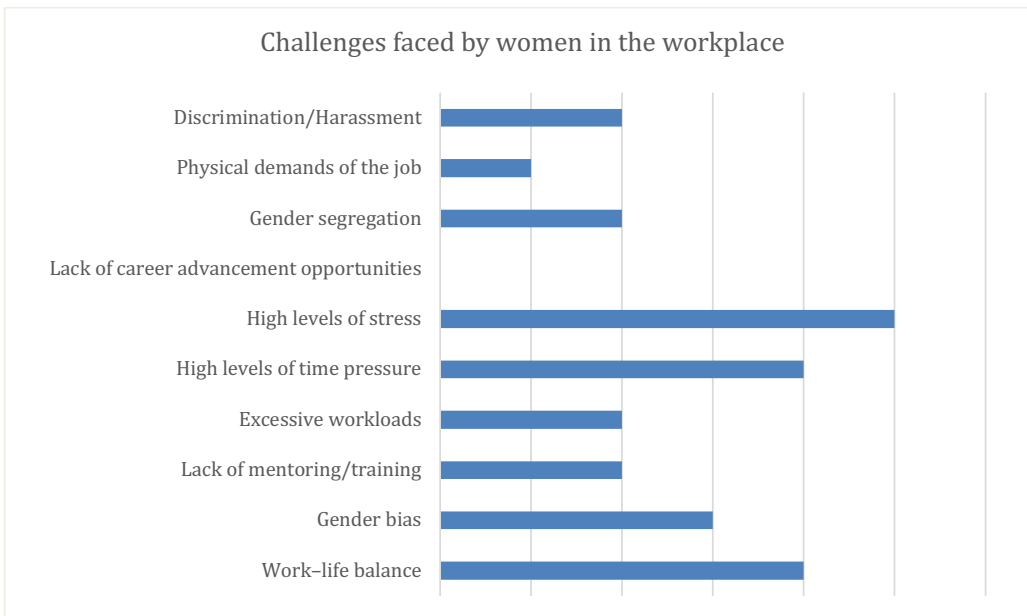


Figure 3. Challenges faced by women in an Aotearoa New Zealand-based commercial construction company.

When asked if the identified challenges compelled them to consider an alternative job, only two out of the six respondents said yes, with four out of the six participants stating that the challenges they had faced had not deterred them from remaining in the industry (see Figure 4).

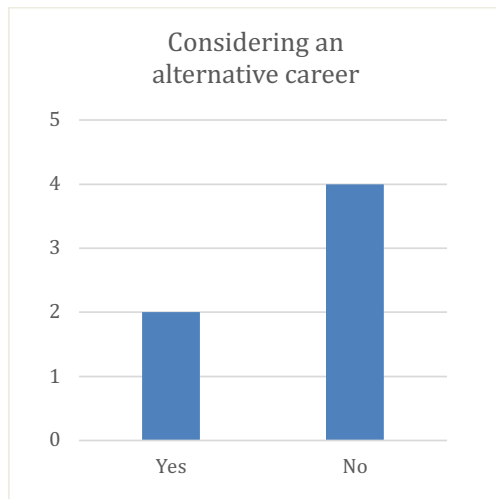


Figure 4. Participants' viewpoints on possibly leaving the construction sector.

Participants were then asked whether they felt there was any difference between the level of respect they received and that accorded to male workers from male colleagues in their own workplace; and if there was a difference in the way women and men were respected as workers by males from other companies. Figure 5 shows that four out of the six respondents felt they received the same level of respect from their coworkers as their male colleagues. In contrast, four of the six respondents felt they did not receive the same level of respect from male workers from other companies as their male colleagues (Figure 6).

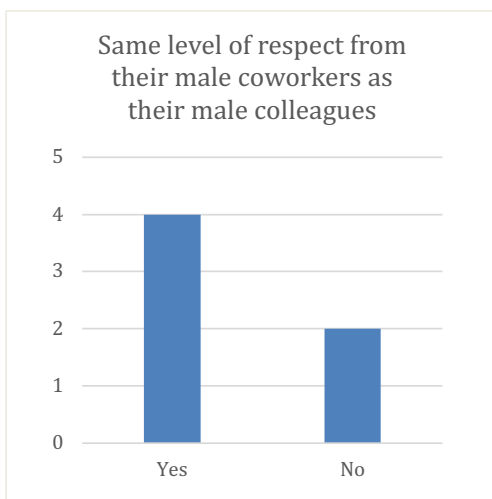


Figure 5. Participants' perception of receiving the same level of respect from their coworkers as their male colleagues.

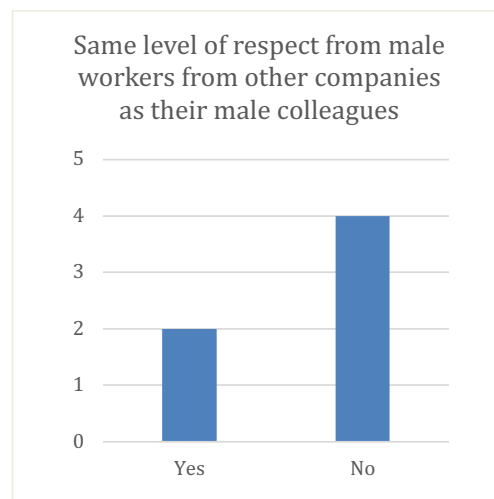


Figure 6. Participants' perception of receiving the same level of respect from males from other companies as their male colleagues.

Of the six respondents surveyed, four indicated that they would recommend construction as a career pathway to other women. Only one participant was unsure, and one gave a firm no as an answer (see Figure 7).

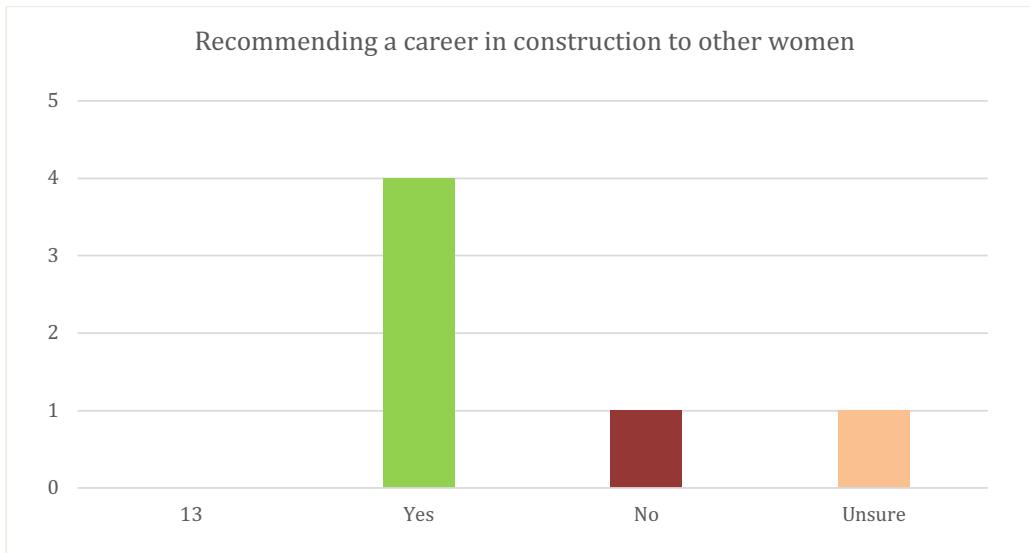


Figure 7. Participants' recommendations of construction career pathways to other women.

Interviews

PRIMARY BARRIERS

Difficulty gaining respect

A key theme that emerged when discussing primary barriers to inclusive environments for women in the construction industry was difficulty gaining the respect of fellow construction industry professionals. It was not always explicitly stated that it was a 'respect' issue, with some participants citing dismissive behaviour as an issue, which can be seen as a lack of respect. Participant 5 stated that it is particularly difficult to navigate a perceived lack of respect from workers from external companies:

"I'll go on to a site with an apprentice, a guy, and nine times out of ten, whoever is on site assumes that I'm the apprentice and the male is in charge."¹

Disrespect, too, seemed to be a common occurrence for Participant 1, who stated that they were "unsure of why that would be" and wondered if it could perhaps come from past gender inequalities.²

Participant 3 echoed an opinion shared by other participants by identifying the struggle to gain the same level of respect from males as a primary barrier. She stated,

"The way they [men] talk to each other, then the way they come and talk to you, they'll differentiate their behaviour."³

Other participants echoed this viewpoint and found gaining the same respect

1

Participant 5 was interviewed on 24 October 2024.

2

Participant 1 was interviewed on 4 October 2024.

from males challenging, Participant 1 stating,

“Male quantity surveyors from other clients, they have basically disregarded my opinion because they don’t think that it’s valid, because what do I know? I’m just a girl, you know.”

Participant 2 offered that “a lot of your confidence is gained by surroundings and how people make you feel”, explaining, with an example:

“Oh no, she can’t do the wheelbarrow ‘cause she’s a girl ... they automatically turn to like, Oh, she can’t do that ‘cause she’s a girl.”⁴

Participant 5 stated that they frequently faced discrimination on job sites, and they shared an experience of an interview on social media where someone said,

“Oh, we had a woman plumber come and put our tap in, and she couldn’t do it, so we had to get a male to do it.”

Participant 5 mentioned that inclusivity can be encouraged simply by identifying and discouraging unacceptable behaviour:

“I think that men need to call out other men when they hear them make sexist or rude [comments] towards women or anyone in general. That’s something that does not happen a lot, they’ll just stay quiet.”

The participant felt that when disrespectful behaviour is challenged early on, other men will be discouraged from repeating the behaviour, making it a crucial step in promoting inclusivity.

Physicality and strength required to perform labour tasks

A commonly shared viewpoint amongst the interviewees was that the physical demands and the physical requirements of construction industry roles pose a significant challenge for women. Participant 4 stated that one of the most challenging aspects of construction work is the physicality of the job. She also expressed that the strength required due to heavy lifting and other tasks of a similar nature was “something I struggled with when I first started and still struggle with to this day.”⁵ Participant 1 reiterated this, stating that they believed that strength onsite is one of the main challenges for women who work onsite every day. She said, “being able to do things that the guys can do” is a barrier that women face daily.

Participant 5 reported that the aspect of construction environments that is the hardest to navigate for women is the physicality of the work onsite, stating it was “the biggest thing that pops into my head.” Participant 2 expressed their disappointment about the unfair comparison between men’s and women’s strengths, stating,

“Make it equal and like give out equal roles and do equal things; but I also think there also needs to be a consideration of how women are different, and we all know that women are completely different to men, like their bodies.”

3

Participant 3 was interviewed on 30 September 2024.

4

Participant 2 was interviewed on 15 October 2024.

5

Participant 4 was interviewed on 22 October 2024.

Social isolation and differences in communication and behaviour

Participant 2 believed that the difference between how men in the construction industry interact with one another and how they interact with women in the industry is problematic. She mentioned that the dismissive nature of men towards women is an issue that creates social isolation – particularly when they form informal networks and participate in activities that exclude women – work golf days were used as an example. Participant 2 stated,

“Guys go for golf a lot, that I’m not into, or just link up with each other ... and do this blokey bloke thing because it’s just the standard, and then women never get invited ... that’s a thing that happens a lot.”

Participant 4 mentioned that the male-dominated culture makes it a daily struggle to create easy-going social relationships with their co-workers:

“I also find that the social aspect of the job is something that I struggle with, what with it being a man’s type of job it can be challenging to have those easy-going social relationships with your co-workers.”

Participant 5 stated that feeling included in the team was always a challenge:

“It’s not always, but you’re in a group of guys and everyone will fist bump each other and then they will just ignore you, or not want to shake your hand ... I don’t get included in like a lot of the yarns, I guess, for sure. And that used to bother me when I was an apprentice.”

Participant 3 shared an experience where a co-worker stated,

“Oh, you have to be in every group chat, and you always just make your way in ... I appreciate the help. But it’s just like, oh, you want to be added to the group chat, nah, that’s just the boys in the group chat.”

Participant 5 shared her experience of being blatantly ignored while her male co-workers greeted each other,

“or guys not want[ing] to shake your hand or something. It’s like, everyone just fist-bumped, but you didn’t fist-bump me.”

Participant 3 explained:

“It’s like a boy’s club. Sometimes it’s like you’re sitting at the table with the big boys, and you have to sink or swim with them.”

PRIMARY ENABLERS

Recruitment of women

Both Participants 4 and 5 said that they were unaware of policies that enabled inclusive environments. Participant 5 expressed her disappointment by stating,

“I can’t think of anything else special that’s been done for women,

and I'm not saying I think there needs to be either, but I just can't think of anything."

Participant 1 expressed the importance of growing the female staff within the company, and believed that the industry was becoming more inclusive. The company she works for currently employs three female tradespeople, which, to her, is a sizeable number compared to other companies:

"It is becoming more inclusive for women, like we've actually got three female tradespeople here, and all of the guys are very like respectful towards them."

Participant 3 also stated that the growing influence of social media plays a role in this, as it offers a platform to spread stories about women in construction that can inspire others:

"I know the industry is trying. You see it at awards nights; you see it on social media that they're trying to promote more women in construction. And you know, we've got people in the company who are women on the field, which is really good."

Participant 4 thought that people in leadership positions who held old-fashioned mindsets were an issue, specifically resistance to hiring women for roles other than desk jobs:

"I think it mainly comes down to the mindset of people in higher-up positions being unable to let go of old-fashioned thinking and refusing to hire women for anything more than a desk job, creating a cycle of women not trying to get in knowing how hard it can [or] will be so not trying to enter the trade industry."

To her, the flip side of this is that there have been positive shifts in the mindsets of construction industry leaders and business owners, and that providing women an opportunity, particularly in labour roles, is a primary enabler of workplace inclusivity.

Influence of people in leadership roles

A frequently mentioned enabler was the influence (and responsibility) of people in leadership roles who must foster inclusivity within their organisation and its teams. Participant 2 stated that it is important for leaders to set a precedent, using an example of a female worker on site who had experienced harassment from a worker from a different company. The male site supervisor immediately went to the site foreman and submitted a formal complaint, and the person was given a verbal warning.

"She was getting harassed on site by a man, another worker from another company, another trade ... this guy just won't stop ... she complained to the [supervisor] ... and then he automatically went up to him and gave him a warning. It was like you got to cut this out like now like don't do that."

Participant 3 suggested that, due to the level of respect and trust that males command in the construction industry, it is critical that men ensure that they

speak up when they witness inappropriate behaviour and comments:

“If you can get a male who is willing to support and speak on behalf of the minorities that struggle, which are females in the industry ... they’ll create such a well-running machine.”

Both Participants 1 and 4 believe leaders within a company play a significant role in fostering gender equality and diversity. Participant 1 said that leaders setting a good example were a big part of creating inclusive environments and “what happens at the top will flow down.” Participant 4 echoed Participant 1’s opinion by stating “monkey see, monkey do” when referring to a leader’s role in creating inclusive environments, elaborating that “higher-ups should hold themselves and others accountable for any comments or actions.” Participant 2 gave an example of a female manager who had an excellent command of her work:

“She’s the one telling people how it is, how it’s done. She’s showing a lot of authority. The guys are thinking ‘woah, don’t mess with her.’ It’s like they’re not looking at her as a gender, they’re looking at her as a person that knows her stuff and knows how to manage her role well.”

Participant 3 reflected,

“I do think women leaders help bring a softer side, and not in a bad way, not in a way that men are weak and not in a way that women are weak, but in a way that, like we bring in nurturing nature to the environment.”

Recognition of women’s skills and work

Participant 1 provided insight into whether there was enough recognition in the construction industry of women’s skills and work by saying she didn’t think so, but that it was getting better. Participant 3 agreed that women deserve more recognition, and gave a specific example: they had been working on a training programme designed to enhance the skills of new workers, and the programme performed so well that the company was awarded ‘trainer of the year’; however, it was a male who was there to accept the award. Although Participant 3 was not thanked at the time, they were later thanked at a separate awards night. This experience led them to state,

“It’s difficult to inspire women when you have to put a master plumber’s name on it, who is male, when you’re the one running the programme.”

In contrast to Participant 3’s and 1’s opinions, Participant 5 reflected that they did not agree that “pushing the ‘women-in-trades’ narrative” is a good thing; recognition premised on gender is condescending and should be given on merit alone. She stated that recognition of skills and work should be awarded regardless of gender, and if more recognition eventuates for women based on those criteria, this is the best outcome:

“Just recognise people, nothing to do with gender, basically just

remove it from the equation altogether. So, if you're a good plumber, or a good tradie, it shouldn't matter what your genitals are, basically, is what I think."

Participant 2 agreed that "creating more recognition for successful women within the industry" was important.

STRATEGIES FOR CREATING INCLUSIVE ENVIRONMENTS

Flexible working arrangements

The participants expressed the need for women to be afforded more flexible working arrangements to accommodate women's health issues, including the demands of menstrual cycles. Participant 2 mentioned,

"I also think there also needs to be a consideration of how women are different ... we all know that women are completely different to men, like their bodies ... their cycles and everything completely different, their moods."

It was also mentioned by Participant 3 that it appears to be a preconceived expectation that women will provide the caring duties for young children and families when required:

"You're the person who has to carry a child, then take time off the child is sick, that's just like a preconceived like expectation."

Participant 2 stated that they were aware of a current employee who had been allowed flexible working hours whilst maintaining their role in the company. However, women, she stated,

"have children [and] do need more flexible hours with, you know, like, women's health. Women's health is so undermined and not taken care of at all."

Participant 5 stated flexible working arrangements are necessary and reflected on their career choice to be in a labour-based role:

"Not that I'm pregnant or anything, but I think heaps and heaps about what I'm going to do [when I get pregnant] and I have no idea. I think I've kind of wrecked it for myself."

Participant 3 stated that if flexible working policies and arrangements were offered to them, they would love it:

"I would if that was offered to me. I would love it as someone who likes to fiercely work and doesn't even like taking normal time off and when I do, I'm still on my phone."

Knowing that women are supported in their careers to tend to their home duties would be a huge step, not only for women currently in the industry but also for those looking to enter the industry.

Support networks, mentorship programmes and training

Participant 2, when asked about diversity or inclusion systems that could be implemented, stated that something like the Mates in Construction

programme, where women can come together and provide support for one another, would be a good start:

“Yeah, they could do like a woman one where like it’s women like um and touching on like how to navigate things in day-to-day life on site specifically for women.”

Participant 3 highlighted the need to shift the mentality of people within the industry towards mental health awareness as well as providing gender-bias diversity training:

“They need to shift it to more like mental health aspects and more like shifting the mentality, like growing these boys into men, not just on the tools, but mentally as people and as leaders. This includes teaching them how to be inclusive.”

Participant 4 expressed a desire to see more secure support systems put in place, particularly in their own company, so people can voice their concerns. She stated,

“I think that having a secure support system in the company where people can take their concerns without feeling judged would be hugely beneficial to one’s mental health and wellbeing.”

She also said that an anonymous suggestion box would be beneficial, and that such initiatives would positively affect women’s mental health and wellbeing.

Discussion

INCREASING RESPECT AND DECREASING SOCIAL ISOLATION

Gaining the respect of fellow construction industry professionals was a core issue for women interviewed in the research. Respect appeared to be foundational for creating inclusive environments for women, and disrespectful behaviour has been an ongoing issue in the sector, negatively impacting women’s workplace experiences (Navarro-Astor et al., 2017; Holdsworth et al., 2023). This research also identified respect for women workers as lacking in the industry. American research by Hegewisch and Mefferd (2021) similarly demonstrated that disrespect, intense discrimination and ongoing harassment were the main reasons for 47.2% of women participants considering leaving the industry. This study confirms that disrespectful and dismissive behaviour towards women was commonly experienced by the women interviewed. Participant 2 stated that “a lot of your confidence is gained by surroundings and how people make you feel” and, hence, with respect comes inclusion.

Social isolation appeared to be deeply concerning for women in this research. The participants felt that there were differences in interactions between men and women in the industry, with males having a dismissive nature towards women, and this resulting in social isolation. This was visible through the existing all-male informal networks that habitually exclude women.

The male-dominated culture was a daily struggle for participants, who found it difficult to create social relationships with their co-workers. All research participants had some experience with social isolation or exclusion from male co-workers' social groups. This exclusion from informal networks often leads to repercussions in women's career pathways. Lu and Sexton (2010) affirm that leadership opportunities generally stem from informal networks and mentoring, and if women are excluded from these networks, their career progression is hindered. Due to male domination in the construction industry, women are obliged to either show greater masculinity or forfeit any ambitions of pursuing leadership roles in the sector (Azhar & Griffin, 2014). Participant 5 shared her experience of being blatantly ignored while her male co-workers greeted each other, effectively excluding her.

The ongoing lack of respect and acceptance of women in the workplace has impacted their career progression, with many employers refraining from putting women in leadership roles where they may be giving directions to men (Holdsworth et al., 2023). This research highlights several other negative attributes being accorded to women, such as their perceived inability to do labour-intensive tasks, resulting in an inequitable allocation of work tasks. These actions can be considered a form of covert sexism, which may appear supportive on the surface but eventually reinforces the perception that women are less competent than men in the same role (Norberg & Johansson 2021). Such actions subtly undermine women's capability and belonging in the industry, and lay the foundations for social isolation.

BEYOND PHYSICAL STRENGTH: RECOGNITION OF WOMEN'S SKILLS

The construction industry's requirement for physical strength in workers, to undertake heavy lifting and operate machinery, has proved challenging for the research participants, and remains as a common barrier for women in construction site-based roles. Ibáñez (2017) states that valuing physical strength is a characteristic of the male-dominated culture prevalent in the construction industry, and expectations of similar strength in women significantly hinder their career advancement in the sector. This research echoes the findings of Holdsworth et al. (2023), that men commonly perceive women as incapable or 'unfit' for the industry in that they lack the physicality or emotional ability to carry out labour-intensive positions in the sector.

According to Smith and Gayles (2018), even though women lack the physical strength to perform the jobs, they display a more strategic and methodical approach to construction work, utilising a planned approach that results in less stressful impacts on their physical form and posture. It follows that if working methods in construction differ between males and females, women need to be supported to create new working methods to sustain their physical and mental wellbeing. This was echoed by Participant 3, who believed that women deserve more recognition for their effort and time in changing ways of working in the industry, and for the effort they put into changing long-standing industry practices. As already mentioned, she cited the example of the new employee training programme she had developed for her company that proved to be highly successful and eventually won her company a prestigious annual award. However, she was not acknowledged for

her work in the first instance; instead, her male colleague was nominated to accept the award, an occurrence she found demoralising and demotivating.

Naoum et al. (2020) established that women and men show equal potential at the beginning of their careers. However, women start questioning their self-worth as their career progresses, suggesting an unsupportive culture in the sector. Toxic work cultures and behaviours create uncomfortable work environments where women feel their actions are closely judged or scrutinised (Ibáñez, 2017). However, according to Participant 5, “recognition should be given on merit alone, and recognition premised on gender is contemptuous.” She noted that recognising success and achievement on the same level as men is essential for women if creating inclusive environments and improved retention are the long-term goals.

Indeed, research has shown that there is a comparable difference between the preferences of men and women when it comes to rewards, incentives and recognition, with women appreciating non-monetary awards and acknowledgement for their accomplishments much more than their male counterparts (Perrenoud et al., 2020). Furthermore, for greater inclusivity, in addition to recognition and acknowledgment, there should also be parity in the remuneration packages between men and women in the industry. Fair remuneration is a vital driver for retention of women workers in the sector, and equity in both compensation and career advancement opportunities is a significant contributor to women’s job satisfaction (Morello et al., 2018).

OVERCOMING CHALLENGES TO GENDER INCLUSIVITY

A stressful work environment appears to be a global challenge for women in the construction industry. This research confirmed that the participants perceived high stress levels as the primary challenge they faced in their workplace (Figure 2). These findings reflect the outcomes of other research, which reports construction professionals experiencing higher levels of anxiety, acute stress and depression due to standard industry norms and conditions (Powell & Sang, 2013; Sunindijo & Kamardeen, 2017). Regardless of gender, high work stress is an omnipresent issue in construction. Acute time pressure and poor work–life balance were the other challenges most highly rated by four of the six participants.

For women, achieving a work–life balance in the industry is problematic, with family life and care for children often taking priority over work commitments (Barreto et al., 2017). Gender bias was another challenge women frequently identified in this research, with three out of six participants selecting this option. Holdsworth et al. (2023) identified gender biases as being based in “sexist attitudes, behaviours and perceptions, negative perceptions of women’s capabilities, an expectation to mimic masculine behaviour, a lack of role models and mentors, family/work–life balance issues, slow/limited career progression, stress, being undervalued, and institutionalised discrimination” (p. 3).

However, a positive outcome was that none of these challenges deterred the six participants from remaining in the industry. Even though the women interviewed in this research faced multiple barriers in the workplace, participants had no hesitation in recommending the industry as a potential

employer to other women (Figure 6). We consider this is a positive outcome for the industry; however, embracing women's skills and improving the inclusion and respect they deserve is essential if greater inclusivity is to be achieved. In the questionnaire, three of the six respondents felt there was a lack of available support systems for women in construction.

Similarly, in the interviews, participants indicated that diversity or inclusion systems ought to be implemented. The research participants believe that having women in some leadership capacities is essential to form pathways for creating support networks and promoting training and mentorship programmes for other women in the sector. According to Baker et al. (2021), female leaders are considered highly influential in shaping gender diversity and inclusion programmes. According to Lekchiri and Kamm (2020), several actions are needed to foster gender diversity in the sector: implementing support programmes, increasing opportunities for mentoring and networking initiatives, targeting recruitment methods to employ more women, and the committed support of construction leadership. This research affirms that small, calculated steps can make a marked difference for social inclusion in the sector.

LEADERSHIP MATTERS

The influence of leaders was identified by research participants as the most potent enabler for fostering inclusivity within their organisation and, they believed, in the wider industry. All research participants believed that decisions and examples set at the top tier of a company eventually filtered down to the bottom tiers of the organisation. According to Participant 2, leaders should act as exemplars for others, using an example of a site-based female worker who had experienced harassment from a site visitor from another company. The site supervisor noticed this behaviour and immediately submitted a formal complaint to the site foreman, leading to the offending person being given a verbal warning. Participant 3 believed that managers are responsible for calling out inappropriate behaviour towards others.

A positive organisational culture is crucial for implementing change to gender inequity in the workplace. Participant 3 indicated that the leaders play a key role in increasing inclusivity, and referred to

“two personal experiences with two operation managers, both males, one who has always been welcoming, always from day dot, been on my side, always supported my help, always appreciated my help, and always helped me grow, and has always welcomed me into their team.”

Smith and Gayles (2018) state that executive leadership within engineering organisations should actively review their inclusion policies and initiatives, seeking assistance from external consultants where necessary.

Inclusion policies and initiatives should be socialised in the organisation and included in employment induction programmes, as suggested by the research participants. Training modules and development programmes around equity and diversity build awareness and understanding of the company's expectations and consequences regarding breaches of gender diversity policies (Smith & Gayles, 2018). Furthermore, workforce diversity and

corporate leadership opportunities for women positively correlate with an organisation's profitability and success (Noland et al., 2016). Gender inclusivity leads to healthier employees, as "workplace happiness is a direct outcome of workplace justice, open communication policy, and an inclusive work culture" (Mousa, 2021, p. 12). Hence, it is undeniable that a more substantial female presence in the sector will lead to gender equity, positive work cultures, equitable work policies, and a working environment free from discrimination, all of which lead to safer work practices and higher productivity.

Conclusion

This Tāmaki Makaurau case study investigated primary barriers, enablers and strategies for the inclusion of women in the construction industry in Aotearoa by closely studying the experiences of female employees in one company. The research confirmed that women faced difficulties gaining the respect of male colleagues, and the physical demands of their trades often impacted perception of their performance. Furthermore, the dismissive nature of men in the workplace towards the women created social isolation, and men usually excluded women from informal networks. The research also confirms that people in leadership play pivotal roles in ensuring inclusive work environments by implementing fair work policies and processes, and acting as role models and constructive authority figures for those they manage. Effective strategies such as support networks and mentoring programmes should be implemented to help strengthen women workers. Upskilling seminar programmes focusing on gender diversity and inclusivity should be mandatory for professional development in construction workplaces. Leadership teams in construction organisations ought to visibly and proactively support inclusivity initiatives, such as implementing mentoring and support networks, and publicly acknowledge women's success. Upskilling opportunities and a well-defined career pathway that offers progression into leadership roles should be readily available to women. Future research could explore existing mentoring programmes within construction organisations and the effectiveness of support networks for women working in construction.

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Appendix A: Interview schedule

PRIMARY BARRIERS

1. In your opinion, what aspects of the day-to-day construction work environments are most difficult for women to navigate and why?
2. What do you perceive as the primary barriers to creating inclusive environments for women in the construction industry in New Zealand?
3. A commonly identified barrier to inclusive environments is the male domination of the industry. In what ways do you think the male-dominated culture affects the inclusion of women in the industry?
4. Gender bias is an issue that relates to the preferential treatment of one gender over the other. A form of this can be the willingness to accept one person's mistakes more readily than others. How do you think gender bias affects women's working experiences?
5. What are your thoughts on the preconceived ideas and expectations placed on women working in the construction industry?

PRIMARY ENABLERS

1. How do you think the mindset of the New Zealand construction industry is shifting (or not shifting) to become more inclusive for women?
2. How do you think the success of fellow women in the industry contributes to creating inclusive environments industry-wide?
3. In your opinion, what kind of systems could be introduced to create more inclusiveness within the industry (or within your company/job sites)?
4. How would you describe the importance of male construction industry workers and the role they have in creating inclusive environments for women?

INDUSTRY INITIATIVES

1. What are some initiatives or actions you have seen your company implement that show a more inclusive environment for women?
2. In your opinion, how does a team leader/supervisor/mentor affect inclusivity within the workplace?
3. What role do women in leadership positions play in shaping a more inclusive workplace in your organisation?

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