ATTRACTING AND RETAINING YOUNG PROFESSIONAL WOMEN IN THE CONSTRUCTION INDUSTRY

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ABSTRACT

Women are underutilised in the Construction Industry, making up only 11.8% of its employees in Australia. Online survey responses of young Australian female construction professionals were used to explore 1. what attracted them into the Construction Industry, 2. what challenges they experienced, and 3. what helped retain them in the Industry. Responses to the open-ended survey questions were coded and thematically analysed. Many of the young women were initially attracted to architecture and design, but later switched to construction. A quarter were temperamentally attracted to project work due to their skills in planning and organising; others were attracted to the nature of the Industry and the diversity of its roles and projects; while others were interested in the Industry at a very young age; or attracted due to family connections in the Construction Industry. The young women’s main challenges were feeling like they had to continuously prove themselves to male co-workers; a lack of experience in the Construction Industry; and finding that long working hours placed demands on their personal lives. All the respondents planned to stay in the Construction Industry: most were excited by the opportunities for career advancement; were motivated by the training opportunities provided; and by changes in the Industry towards equal opportunity. These findings are encouraging: the young professional women displayed passion for their work and felt that despite its challenges, the Construction Industry offers them exciting future career prospects.

Keywords: attraction, retention, construction, young professional women

INTRODUCTION

The Construction Industry (CI) is a major employer of workers in Australia. Currently the Industry is short skilled, needing to recruit around 220,000 new workers by 2020 to keep up with growing demand (Hackett,
Construction companies will struggle to find the staff they require if they do not change their culture and image to become an attractive employer for women. Hackett (2014) argues that the strong male emphasis is no longer valid: “the Construction Industry is changing; it relies less and less on brawn and more on brainpower”.

Under-utilisation of women in the construction workforce

Although women have made great advances in the wider workforce over the past 40 years, in male-dominated industries like construction, their representation is still extremely low. Women make up only 11.8% of employees and 16% of managers in Australian construction companies (EOWA, 2011). These statistics indicate that women are underutilised and undervalued in an industry which is the third largest employer in Australia (Department of Employment, 2015).

Barriers to women’s career advancement in Construction Industry

There are many barriers and day-to-day challenges that women experience working in the CI that contribute to the negative public image that deters young females from considering construction as a valid career path. One of the main barriers is the CI’s male dominated image, which is perpetuated by gender biased vocabulary used on a daily basis e.g. tradesman or foreman. The Industry culture is portrayed as macho, with relationships characterised by conflicts, crisis and disagreements, which can be intimidating for the women working alongside them (Fielden et al., 2010). Another significant barrier is the family-unfriendly work practices. The Industry has a culture of working extremely long hours, with ten-hour days as standard, which can create conflict between work and life commitments (Turner and Lingard, 2008; Lingard et al., 2015). Whilst women and men both have to balance the weights and stresses of work and home life, women still maintain the primary responsibility for the domestic duties in most households (Fernando et al., 2014), so long working hours are likely to impact them more.

Sexist behaviour in the construction workplace is another deterrent to women working in construction. This extends to the recruitment process in the CI, which is thought to be one of the contributing reasons to limited female participation in the Industry. Traditional recruitment practices such as ‘word of mouth’ recruitment, advertisements displaying male images, discriminatory selection criteria and lack of part time roles are all contributing factors (Gurjao, 2006). A number of studies confirm that women in construction are subject to sexist behaviour and practices (Fielden et al., 2010). Women are often singled out by their male counterparts for tasks that are intended to ‘test’ their ability to work in a male environment. Women who experience these sorts of sexist behaviours may not receive adequate support from their managers as males hold most of the senior positions. Such sexist behaviour can
undermine women’s perceived professional status and may even lead some women to leaving the Industry (Fielden et al., 2010). In addition to the ‘boy’s club’ mentality, other barriers include tokenism, and a lack of networks impact on the attraction, promotion and retention of women (Dainty et al., 2000; Bigelow et al., 2015). With the lack of women in senior positions and limited visibility of women on site, there are few female role models to suggest to young women that construction is a viable career opportunity (Moon, 2013).

**Factors that attract and retain women in the Construction Industry**

Although there has been substantial research about the difficulties that women face in the CI (e.g., Lingard and Lin, 2004; Fernando et al., 2014), less is known about what attracts women to the CI in the first place. Recent research has identified that having a parent working in the industry, awareness of career opportunities, and internship placements attract female undergraduates to the Industry (Bigelow et al., 2015). In addition, the fit between the nature of the CI and personal character traits (such as strong communication skills, eagerness to work extremely hard, and the ability to relate to different cultures and temperaments) is another factor which motivates women to believe they are suitable to work in a tough male dominated industry (Fernando et al., 2014). In order to attract and advance women within the Industry, companies need to provide more visible, strong female role models to inspire young women that they too can succeed in this exciting and challenging industry (Cherry, 2010).

Retention of women in the CI has been linked to the behaviours of senior managers through supporting, encouraging and enabling women to showcase their abilities (Cherry, 2010). Mentoring programs are also known to help women to progress in their careers (Lingard and Lin, 2004). Such mentoring programs assist women to tackle the negative barriers, and also help to increase personal and job satisfaction, and make it more likely for them to stay in the Industry (Moon, 2013). Further, the development of supportive networks and job shadowing opportunities are also seen as important (Worrall, 2012). Studies have shown that there is a link between flexible work patterns (including part time work, home based work, and job sharing) with lower employee turnover (Turner and Lingard, 2008). Companies which provide flexible working hours and locations increase job satisfaction, reduce stress levels and increase their employees’ loyalty to the company and to the Construction Industry. However, despite what is already known, there still remains more to be discovered about what initially draws and subsequently holds young women in the Construction Industry.
RESEARCH AIM AND METHOD

This study aims to explore the thoughts, beliefs and opinions of the youngest generation of female entrants in the Construction Industry. Participants were young professional women with less than ten years work experience in the Industry. Three research questions were explored: 1. what initially attracted them into the Construction Industry, 2. what day-to-day challenges and barriers they experienced, and 3. what factors helped retain them in the Construction Industry.

This study used secondary data that was publicly available on the National Association of Women in Construction’s (NAWIC) website. There were 80 female participants who voluntarily opted into the NAWIC (2013) online survey and gave their written consent for their responses to be published on the NAWIC website. All participants worked in the built environment and included architects, engineers, construction project managers, and trades. The criteria for inclusion in the present study were that the respondents were young professional women with less than ten years’ experience in the Construction Industry, which resulted in seven usable surveys. The responses of these seven participants to the open-ended online survey questions were used for analysis in this study. The eligible participants all held roles involved in the everyday construction of infrastructure; most were project managers and one was a site foreman. The online survey consisted of a set of initial demographic questions about the participants’ current position and organization, qualifications, and years of working in the CI (see Table 1 below for the participants’ demographics). The written responses to NAWIC’s (2013) open-ended survey questions provided qualitative data suitable for thematic analysis to gain rich insights into the topic of this exploratory study.

Thematic analysis is a qualitative technique which allows researchers to move beyond a broad reading of the written data to discovering patterns and developing themes. Thematic analysis involves five iterative steps: familiarization with data through reading the survey transcripts; generating initial classifying codes; searching for common themes among the codes; reviewing the different themes; and finally defining and naming these identified themes (Braun and Clarke, 2006). In this study, the coding was performed manually by highlighting key words relating to each research question and colour coding them. A large number of words were coded for this section, as it is important to identify as many potential codes and themes as possible, so that no potential emergent themes go unnoticed. Once all of the responses were coded, data that were identified by the same code were collated together and emergent themes were identified and named. The twelve themes that emerged from the analysis are shown below in Table 2.
Table 1 Participant Demographics

<table>
<thead>
<tr>
<th>Participant</th>
<th>Name</th>
<th>Role</th>
<th>Organisation</th>
<th>Years in CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Simone</td>
<td>Project Manager</td>
<td>Small Not-for-Profit</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Jenny</td>
<td>Project Manager</td>
<td>Local property developer (SME)</td>
<td>5.5</td>
</tr>
<tr>
<td>3</td>
<td>Rachel</td>
<td>Project Manager</td>
<td>Large national project consultancy</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Kylie</td>
<td>Project Coordinator</td>
<td>Large national commercial fit-outs</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>Amber</td>
<td>Project Engineer</td>
<td>Large engineering contractor</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Michelle</td>
<td>Site Foreman</td>
<td>Large national commercial builder</td>
<td>5.5</td>
</tr>
<tr>
<td>7</td>
<td>Anika</td>
<td>Project Manager</td>
<td>Multi-national property group</td>
<td>6</td>
</tr>
</tbody>
</table>

**THEMATIC ANALYSIS AND DISCUSSION**

Initial codes were identified from the survey data and these codes were further analysed to identify 12 emergent themes, including 5 themes for what initially attracted women into the CI, 3 themes for the barriers and challenges they faced and 4 themes for what helped to retain them in the Industry. These themes are presented in Table 2.

Table 2 Emergent Themes for Young Female Professionals

<table>
<thead>
<tr>
<th>Factors that attracted into the CI</th>
<th>Challenges and barriers experienced</th>
<th>Factors that retain young women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initially attracted to architecture and design, but switched into construction (5)</td>
<td>Need to continuously prove themselves (4)</td>
<td>Potential career success (6)</td>
</tr>
<tr>
<td>Strong/organised temperament (3)</td>
<td>Little experience in construction (3)</td>
<td>Internal training (3)</td>
</tr>
<tr>
<td>Nature of industry/diversity of roles and projects (2)</td>
<td>Demanding work hours (2)</td>
<td>Male champions (2)</td>
</tr>
<tr>
<td>Interested at a young age (2)</td>
<td></td>
<td>Industry change/ equal opportunities (2)</td>
</tr>
<tr>
<td>Family construction background (1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Factors that initially attracted young professional women

Five themes emerged for this research question about what initially attracted them into the CI.

**Attracted to design** The most prevalent theme, for five out of the seven participants, was that these young female professionals were initially attracted to, or had a background in architecture and design, however, they were not satisfied in this industry and decided to make the switch into the CI. “I had worked in an architecture firm for a year. I have always been fascinated with building and felt I needed to know more about construction” (Anika, 6 years). The initial attraction to design stemmed from their interest in “how the built form affects our everyday life” (Rachel, 2 years) and the “creative opportunities it offered” (Jenny, 5.5 years). The Architecture and Design (A&D) Industry can also be appealing to women as the “female presence is much more prevalent” than it is in the CI. For these young women the initial attractions to A&D were not strong enough to hold them. One participant had been “frustrated by the pace at which projects went through the office” (Anika, 6 years). All five of these young women decided to make the switch into the male-dominated CI.

**Strong, organised temperament** The next theme that was identified for three of the seven participants was that they had a strong, organised temperament. They found that their confidence was a key: “I am fortunate to be strong-minded, strong willed and confident in my capabilities in the Construction Industry” (Michelle, 5.5 years). “My strong points are communication, organization, problem solving and time management” (Rachel, 2 years). Their confidence and organised nature led them to believe that they would be suitable for the tough male-dominated CI.

**Nature of the CI** The nature of the Industry and the diversity of roles and projects was a reason that attracted two of the participants. The fact that the Industry is very “fast paced” (Amber, 3 years), “interesting” and “challenging” (Kylie, 3 years) makes it suitable for individuals who enjoy exciting, stimulating and diverse work. The Industry boasts a “wide range of jobs” (Amber, 3 years), from residential to commercial to industrial, with every project comprising of an individual design, build and features. As every project is different it means that the industry is not repetitious, which makes it highly exciting. “Potential projects are endless because there are always demands for new ideas and applications of technology in building and construction” (Amber, 3 years).

**Attracted from a young age** For one participant, the Construction Industry was very attractive to her from a young age; “I remember at a young age being fascinated as to how tall buildings stood so straight and
didn’t sway” (Kylie, 3 years). Another participant was drawn to the Industry from early childhood through her family’s participation in the Construction Industry.

**Family background in construction** For Michelle (6 years’ experience), her “entire life has been involved in the Construction Industry, with my parents building their own homes as Owner Builders”. This early childhood socialisation exerted a strong influence on her career choice. A common perception is that women who grow up in a construction family environment are attracted to the CI. However, in this study, only one of the seven participants became interested in the Industry due to their family background. The majority were attracted by the previously identified factors.

2. Challenges and barriers experienced

Three themes emerged from this research question about the nature of the challenges and barriers they experienced working in the CI.

**Need to continuously prove themselves** The first theme, for four out of the seven participants, was that these young women felt like they had to continuously prove themselves to the men working around them: “My main challenge has been getting people to respect you and not look … at what you don’t know. The guys will look you up & down and decide that you don’t know anything before they even have a conversation with you” (Kylie, 3 years). Many of the young women felt they were always being looked down upon and did not receive the respect that they felt they deserved. There is “is still very much an attitude between the older contractors/trades that woman are not welcome on site” (Jenny, 5.5 years). These male attitudes made it difficult for the women to work every day in that negative environment, and to have to continuously prove themselves. However, experiencing these negative responses made these young women even more determined to strive to achieve respect: “being a woman in this industry has certainly provided challenges for me and has made me more determined to ensure that respect is gained, not only for myself, but for women generally” (Jenny, 5.5 years).

**Lack of experience in construction** For three of the seven participants, their lack of experience in construction was one of the main barriers they faced when trying to enter the CI. One of the participants had “no experience” at all and found this to be an “enormous challenge” (Simone, 2 years). Many jobs require a minimum amount of experience in the Industry: “I found that my lack of experience was a potential employer’s main concern” (Jenny, 5.5 years). Having no experience, meant that employers needed to be prepared to invest in the new employee. “The biggest difficulty was convincing them to take a chance on me, with little construction experience and a degree in design” (Rachel, 2 years). Those
women with no prior experience were grateful to construction companies which were prepared to "overcome the lack of experience" (Anika, 6 years) and give them a chance.

**Demanding work hours** Another day-to-day challenge that two of the seven participants experienced, was that the nature of the work "can be hard and very demanding" (Kylie, 3 years). For some of the women distinguishing between home life and work was difficult; "family and life is a hard one for me, as I don’t think that I have identified that they are separate from work" (Kylie, 3 years). Due to the demanding nature of the industry, the lines between home life and work can become blurred as their time is so consumed by the job, it becomes their whole life. For women without a demanding home life e.g. those living with their parents or not having any children, there is less difficulty in balancing the two: "This job can be very demanding on my time however, due to my passion for it, it has never felt like a burden to work the additional hours required to ensure that the work is done. At this stage in my life, I don't have children and it is much easier for me to sacrifice my time for work when required" (Jenny, 5.5 years). All the participants were at the early stage of their career. It is likely that work-life pressure may pose a problem later in their career if they start a family.

**3. Factors that help retain young women in the CI**

The third research question was what helps retain young women once they have entered into the CI. Four themes emerged.

**Potential for career success** The most prevalent theme, for six of the seven participants, was the potential success that can be achieved through working in the CI. Not only are there monetary successes, but also the ability to accomplish personal achievements. These achievements help to provide "personal satisfaction" (Simone, 2 years) and job satisfaction through the opportunity to "gain more experience...and accomplishing greater projects" (Michelle, 5.5 years). Potential career opportunities were an incentive to help retain women into the industry: "I aspire to work my way up with experience and opportunity" (Kylie, 3 years). Many of the young women held ambitious long-term goals, such as "managing a full commercial development on my own" (Anika, 6 years), "doing some small property developments of my own" (Jenny, 5.5 years), or becoming "the Senior Manager responsible for a major division of a construction company" (Amber, 3 years).

**Internal training** For three of the young women who participated in the survey, internal training and career development was one of the key factors that helped retain them in the Industry: "I have developed a training plan for myself and luckily my employer ... encourages development and learning" (Amber, 3 years). Providing young women
with the opportunity to complete training during their work hours offers them the chance to maintain a healthy work-life balance. It also provides them with the feeling that their company is investing in them, which in turn can make them more motivated and willing to stay with the company for the long term.

**Male champions** The third theme was the presence of encouraging male champions in the workplace. Two young women (one of whom worked in a large national company, the other in a multinational) paid tribute to the growing number of male champions. “I have had a lot of support from males to be involved” (Kylie, 3 years). They also expressed admiration and gratitude for their male champions and felt affirmed by these men’s “extreme respect for women who have the courage to understand what is typically a man’s field” (Anika, 6 years). This positive trend reflects the culture change recently demonstrated by the leadership in some of Australia’s larger construction companies in joining the Property Male Champions for Change program (Property Council of Australia, 2016).

**Perceived Industry change/equal opportunities** The final emerging theme around retention was the young women’s sense of a change in the Industry and growing equal opportunities for women: “thankfully, times are changing” (Amber, 3 years). Many of the young women attributed this change to the younger generation entering the Industry: “this could be to do with the generation that I am and the acceptance of equal opportunities today” (Kylie, 3 years). The younger generation of professionals, both males and females have started to peel back the negative image that the Industry holds and will hopefully be able make further progress in the future. While this generation was growing up, it became more accepted and normal for women to be in the workforce. Unlike older generations before them, the youngest generation in the workplace has been educated to value equal opportunities.

**Conclusion**

This study adopted a positive focus on what draws young professional women into the Construction Industry and what holds them there. Most of the research on women in construction focuses on negative issues such as what prevents women from entering and what causes them to leave the Industry. As well as identifying the challenges that young female professionals face, this current research identifies what initially attracted young professional women into the Industry and the factors that helped to retain them. The findings contribute new knowledge on how the Construction Industry can attract and retain women in this male-dominated industry. These findings may potentially help the Industry to diversify its workforce, fill its talent pipeline, create equal opportunities for women, and attract and retain more young women in the future.
Apart from confirming that women with a strong, organised temperament are attracted to construction, this study identified four new factors which attract young professional women. Many young women in this study were initially attracted to architecture and design (initially perceived as a more acceptable female career), but their dissatisfaction with this field led them to switch into the more hands-on work of the CI. The action-orientation and diverse nature of work/roles attracted the young women. Several were interested at a young age and one had a CI family background. These findings suggest that to attract more young female talent, construction companies need to more actively involve their young female employees to promote the Industry to young girls while still in school and at career fairs; providing information about the exciting action-oriented nature of the work and the diversity of available roles; promoting its suitability for assertive, organised young women; and offering opportunities for firsthand experience through site visits, work placements and internships.

The challenges that these young professional women experienced are consistent with those already noted in the extant literature: that is, having little experience in construction was a barrier to entry; feeling as though they had to continuously prove themselves to some male co-workers; and the extreme demands their work placed on their life and time. There are encouraging signs that some construction companies are supporting research on ways to improve the CI culture and working conditions (e.g., Lingard et al., 2015). Having little experience can be overcome by the targeted provision of work placements and internships for young female students. One positive finding was that none of these identified barriers deterred these young professional women from pursuing a satisfying career in the Construction Industry.

All participants planned to continue in the CI and were optimistic about the perceived opportunities for their future career development. A number of young women noted how much they valued their employers’ provision of on-the-job training to enhance their knowledge and skills. None of the women mentioned female mentors, but several working in large national or multinational companies expressed gratitude to particular male champions who had encouraged and taught them at work. The young women had a sense that attitudes were changing in the CI and felt excited about their future prospects. Although this was only a small sample of young professional women who were recent entrants to the CI, the similarity of their reported experiences in both large and small companies is notable. The positive shift in the perception of the CI as a workplace of opportunity and career growth for women is a welcome development, especially since the fast aging workforce will necessitate the Construction Industry embracing greater gender diversity in the decades to come.
REFERENCES


