Female underrepresentation in project-based organizations exposes organizational isomorphism

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Abstract

Purpose – The purpose of this paper is to investigate the structural career barriers in project-based construction and property development organizations in Australia, and explore how these affect women and their project careers. It applies the insights of the institutional theory to explain how the process of normative isomorphism continues to reproduce female underrepresentation in those organizations.

Design/methodology/approach – Based on an exploratory interpretive approach, this study consisted of 16 in-depth interviews with female project managers from the Australian construction and property industry.

Findings – The research shows that organizational practices may contribute to the ongoing female underrepresentation in the Australian construction and property development industries. The structural career barriers unique to project organizations include work practice, presenteeism, reliance on career self-management and the "filtering of personnel" in recruitment and promotion practices.

Research limitations/implications – The results support the institutional theory as an explanation for the factors that influence women's perceptions of their project management careers. Addressing inequity between men and women is perceived as an organizational choice.

Practical implications – To achieve a substantive change in the numbers of women in project management, organizational leaders in male dominated industries such as construction and property development are encouraged to think strategically about how to overcome the access and opportunity that affect women's career progress.

Originality/value – Drawing on the institutional theory, this study explores how the process of normative isomorphism may reproduce female underrepresentation and gender segregation in traditional project-based organizations.

Keywords Gender, Institutional theory, Isomorphism, Female underrepresentation, Project-based organizations, Structural career barriers

Paper type Research paper

Introduction

Over the past decade, project-based organizations have emerged as ideal organizational structures to cope with the fast-changing business and economic environment, driven by the increasing competition of globalized markets and rapidly changing technologies (Hatcher *et al.*, 2013; Hobday, 2000). As project management continues to expand, it is important to understand how this different form of organizing affects women's career progression and how it may be contributing to female underrepresentation in project-based organizations (Cicmil and Hodgson, 2006; Crawford *et al.*, 2015). This study investigates women's career progression experiences in construction and property development organizations. The Australian construction and property industry represents the third largest contributor to the country's economy; the third highest employing sector of the economy at 10 percent and the fourth fastest growing industry within this economy at an average annual growth of 4.8 percent for the past two decades (The Australian Trade Commission, WGEA, 2015).

These project-based industries are numerically dominated by men and are particularly characterized by a high degree of vertical role segregation. Women comprise only

2.7 percent of CEOs and 12.3 percent of key managers in construction, while the men occupy higher status and higher paying jobs in the industry (WGEA, 2015). In addition, the construction industry has remained in the bottom three industries (out of 19 industries reported) for the numbers of female directors employed since 2004 and in the bottom five for female executives since 2002 (EOWA, 2014). This vertical segregation leads to limited opportunities for career progression for women (Blackburn *et al.*, 2002; French and Strachan, 2015).

Drawing on the institutional theory (DiMaggio and Powell, 1983), this study seeks to explain how underlying structural factors may affect women's career progression and how the process of normative isomorphism may contribute to the reproduction of female underrepresentation in those organizations. The findings of the study, which constituted in-depth interviews with female project managers, make two contributions to the management literature. First, the findings extend the application of the institutional theory by broadening understanding of the isomorphic forces associated with structural barriers to career progression in construction and property development project-based organizations. Second, the findings contribute to practice by offering insights into specific areas of organizational support required for better career growth of female project managers.

Gender issues in the workplace
Lopez and Ensari (2014) and Merrick (2002) suggest that gender stereotypes causing preconceived perceptions about women's roles and abilities are the number one impediment to women's career progression. Gender stereotyping sets different expectations about the behaviors of men and women in both social and work contexts (Bem, 2004; Eagly and Karau, 2002; Lips, 2006) based on gender roles (Eagly *et al.*, 2003; Lopez and Ensari, 2014; Williams and Best, 1990; Wood and Eagly, 2010). Historically, traditional gender roles assigned women the role of homemaker with communal attributes and men the role of income provider for the family with agentic attributes (Eagly and Karau, 2002; Lopez and Ensari, 2014). These expectations have changed little and continually lead to prejudice against female leaders in work organizations (Eagly and Johnson, 1990; Eagly and Karau, 2002; Ibarra and Kessler, 2013). Eagly and Karau (2002) argue that when female leaders are evaluated, they can be perceived somewhat less favorably than male leaders because their assigned gender role and their chosen leadership role do not match.

Further, Cabrera *et al.* (2009) suggest that due to the relationship between performance expectations and executive advancement, if performance expectations remain low for women, it is more difficult for them to make progress in penetrating the management ranks. It is not surprising, therefore, that some explanations for the lack of women in senior organizational ranks are attributed to these stereotypes associating femininity with a lack of competence.

Even though the stereotypes do not accurately portray women's capabilities or potential for success in executive leadership positions (Catalyst, 2005), the image of leadership remains primarily masculine in nature (Ely *et al.*, 2011; Guy, 2014). This bias has the potential to influence an organization's recruitment and promotion practices, access to informal social networks and mentors, in-group favoritism and directing females toward support and specialist roles rather than operations and line management (Ibarra *et al.*, 2013; Oakley, 2000; Vinnicombe and Singh, 2003). While the access to informal social networks is proposed to be a successful career strategy for leadership advancement in male-dominant environments (Bierema, 2005), women find it challenging to access these networks. This leads to occupying only a small fraction of corporate positions with power and authority (Powell, 2012). In this study, we asked women project managers about the gender role stereotyping they experienced in their roles.

Nature of project work
Project-based organizations are often described in the literature as different from traditional organizations. They conduct their core operations in a series of projects as the fundamental sources of revenue (Bredin, 2008; Davies and Hobday, 2005; Gareis, 1990, 2005). Further, project-based organizations are often described as relying on project-based management tactics, often controlled by gendered patterns and bias and based on the masculine conception of work (Buckle and Thomas, 2003; Chasserio and Legault, 2009, 2010; French *et al.*, 2013; Gale and Cartwright, 1995). This project-based management approach has been offered as an explanation for women's career challenges in project-based organizations (Chasserio and Legault, 2010; Legault and Chasserio, 2012). Lindgren and Packendorff (2006) argue that project work practices reproduce masculinities such as rationality, efficiency, control, devotion to work and commitment to the profession of project management. While some authors and practitioners of project management have identified the importance of more feminine work practices such as teamwork, absence of hierarchies and collaboration, the reliance on the already established masculine practices has so far prevailed (Buckle and Thomas, 2003; Collinson and Hearn, 1996; Lindgren and Packendorff, 2006). Total devotion is required from all project respondents along with willingness to work long hours and overtime (Legault and Chasserio, 2012; Nandhakumar and Jones, 2001; Powell *et al.*, 2006). Lindgren and Packendorff (2006) suggest that many such examples of masculinization have been justified by the drive to achieving project efficiency. This total commitment to the project is justified by the fact that each project is managed as "an episode in itself" and is "thereby constructed as a temporary exception where normal rules do not apply"; it is also seen as "a state of emergency that must be handled by means of prompt and dedicated action" (Legault and Chasserio, 2012, p. 701). In working overtime, managers demonstrate the same commitment and dedication they expect from their employees (Legault and Chasserio, 2003; Watts, 2009). This continued dominance of work practices that emphasize long hours and "presenteeism" is problematic for women who continue to carry the burden of caring responsibilities (Watts, 2007). These practices, demanding doing whatever is necessary to get the job done, are not only disrupting formal gender equality policy intentions but also make it challenging to shift practices toward gender equality (Galea *et al.*, 2015; Lowndes and Roberts, 2013). The consequence is "prejudice against those women who work in the sector" and still maintain their commitment to family and household responsibilities (Navarro-Astor *et al.*, 2017, p. 207).

Women are particularly affected by such demands. Due to their family responsibilities, childcare needs and requirements for flexibility, they are not always available to meet those standards. Thus, women are often scored lower on commitment appraisals than men, are viewed as "slackers" and lacking job dedication, reliability and professionalism (Legault and Chasserio, 2003, 2012; Chasserio and Legault, 2010; Lindgren and Packendorff, 2006; Watts, 2009). Consequently, their career progression is threatened as they are offered fewer opportunities and lower organizational visibility, fewer networking opportunities and less exposure to a variety of challenges that are necessary for career advancement (Evetts, 1998; Gerson and Jacobs, 2001; Legault and Chasserio, 2003; Chasserio and Legault, 2010). Accordingly, they are unlikely to be chosen to take part in challenging projects or to lead major projects, and therefore miss out on opportunities to acquire new skills and build their reputations, all being essential for career advancement (Evetts, 1998; Legault and Chasserio, 2003). Thus, women can be seen as being unable to meet the "professional" standards of project management, nor uphold a professional reputation (Legault and Chasserio, 2012). Legault and Chasserio (2012, p. 705) suggest that the "traditional gendered patterns continued to be reproduced" in project-based work, where "the ideal worker" still appears to be a young man who is fully dedicated to his job, while any private life or family responsibilities appear to "be largely neglected in these workplaces."

These findings identify important structural implications for women's career experiences in project-based organizations and in their efforts to advance to the leadership ranks. Therefore, this study asks "How do female project managers experience their careers and progression opportunities in Australian construction and property development organisations?"

Theoretical framework

The institutional theory provides a means to explain the complexities of organizational practices and behaviors (DiMaggio and Powell, 1983; Milliken *et al.*, 1998). The institutional perspective suggests that organizations within the same organizational field tend to become isomorphic (homogeneous) in structure, processes and behaviors as they compete for resources, customers, political power and institutional legitimacy (DiMaggio and Powell, 1983). Isomorphism is defined as a "constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions" (DiMaggio and Powell, 1983). Institutional isomorphism refers to organizations, and DiMaggio and Powell (1983) suggest that institutional isomorphism is created by: coercive, mimetic and normative pressures. Coercive isomorphism results from pressures from government and other organizations and the need for legitimacy; mimetic pressures arise from market uncertainty and organizations modeling themselves on successful others in their industry; and normative pressures arise from professionalization of the industry that drives conformity and professional standards (DiMaggio and Powell, 1983). Larson (1977, pp. 49-52) describes the professionalization as a collective drive of members of an occupation "to define the conditions and methods of their work and to establish a cognitive base and legitimation for their occupational autonomy." Milliken *et al.* (1998) suggest that professional networks are the key sources of normative isomorphism. She argues that professional and trade associations define and disseminate the normative rules and standards for organizational and professional behavior. They are the vehicles for creating a pool of almost interchangeable individuals who occupy similar positions across a range of organizations and possess similar orientation and behaviors that shape organizational culture (Perrow, 1974). Further, the recruitment and promotional practices related to hiring and promoting staff on a selective set of attributes are described as "filtering of personnel" (DiMaggio and Powell, 1983, p. 152). Kanter (1977) refers to these practices as the "homosexual reproduction of management," and they are considered examples of normative isomorphism.

Packendorff (1995) suggests that a limited application of the institutional theory has been used in empirical studies of project organizations, and the enquiry into the practices that influence what happens in project organizations is an important research field for exploration. This study seeks to address this gap by investigating the structural career barriers in project-based construction and property development organizations in Australia and how they affect women's career in the industry. It applies the insights of the institutional theory to explain how the process of normative isomorphism continues to reproduce female underrepresentation in those organizations.

Methodology

This exploratory, interpretive study aimed to develop a deep understanding of the career perceptions and experiences of women project managers in project-based organizations within the Australian construction and property development industry. This research approach offered insight into how people construct meaning in the natural settings of work (Burrell and Morgan, 1979; Miles and Huberman, 1994) and offered the opportunity to fully explore what Bredin and Söderlund (2013) and Laud and Johnson (2012) suggest is an under-researched area in project management.

Sample and procedure
Data were drawn from semi-structured, in-depth interviews with 16 senior women project managers. The respondents were recruited through relevant professional organizations, including the Property Council of Australia, Urban Development Institute of Australia and National Association of Women in Construction, using purposive and snowballing sampling methods. The purposive sampling technique allowed to uncover rich information about core issues from the sample and delivered respondents that were "information rich."

To participate in the study, the respondents were required to meet the following criteria: have at least five years of industry experience, and be in a middle to senior-level project management position. The respondents comprised six representatives from the property development sector and ten from the construction sector. They were broadly representative of the target population of female project managers in both fields in terms of age (35–56 years, median age 51 years) and tenure (from 5 to over 20 years).

Table I outlines the different roles held by the respondents and the number of years of industry experience.

The objective of our sample strategy was not to achieve generalizability, but rather to allow for depth and breadth of information as recommended by Miles and Huberman (1994). This was achieved through a diverse sample that represented female project managers from the property development and construction sectors, in private and publicly listed organizations from across Australia. The interviews were administered using a semi-structured Interview Guide, allowing the respondents to elaborate on their answers. The questions asked about their career progression experiences, promotion opportunities, organizational support for career advancement and any differences they perceived in career experiences between men and women project managers. The interviews were conducted in locations selected by the respondents or by phone and the interviews were up to 90 min in duration, audio-taped and fully transcribed. A mix of open-ended and closed-ended interview questions allowed common themes in the information provided to be uncovered.

Analysis
As suggested by Marshall and Rossman (2011), the analysis of the data involved seven steps. In step 1, the data were organized with the support of qualitative analysis software NVivo.

Participant	Industry	Position	Length of time in the industry
Participant 1P	Property	Division director	15–20 years
Participant 2C	Construction	Project manager	15–20 years
Participant 3P	Property	Senior project manager	Over 20 years
Participant 4P	Property	Project director	Over 20 years
Participant 5C	Construction	Senior project manager	15–20 years
Participant 6P	Property	Senior project manager	Over 20 years
Participant 7C	Construction	Divisional director	10–15 years
Participant 8C	Construction	Project manager	5–10 years
Participant 9C	Construction	Project manager	10–15 years
Participant 10P	Property	General manager	5–10 years
Participant 11C	Construction	National director	Over 20 years
Participant 12C	Construction	Project manager	10–15 years
Participant 13C	Construction	Project manager	10–15 years
Participant 14P	Property	Project manager	10–15 years
Participant 15C	Construction	Project manager	15–20 years
Participant 16C	Construction	Project manager	15–20 years

Table I.
Respondents' roles
and industry detail

In the second step, data immersion took place with purpose of developing a thorough understanding of the data. The theoretical framework and the research questions provided a provisional "start list" of categories and themes used as a coding scheme to commence the coding of the transcripts (Miles and Huberman, 1994). The coding scheme was applied to code the data in NVivo in the fourth step of the analysis. During the coding process, additional codes were created as new concepts emerged; some existing codes were refined, amalgamated or abandoned. Further, pattern coding was used (Miles and Huberman, 1994) to understand the patterns amongst the identified codes and to identify themes. Memoing was used during coding with the purpose of writing up ideas and thoughts about codes and their relationships (Miles and Huberman, 1994). In the sixth step of analysis, searching for alternative understanding was activated as coding was progressing, and categories and themes were being constructed. Finally, in the seventh step, the findings were interpreted.

The study data were triangulated by examining all response data and identifying literature sources to validate the responses, together with leveraging the input of subject matter experts to improve the accuracy of the study (Creswell, 2002). Peer scrutiny achieved through critical discussions among the authors over the course of the analysis was also used to bring credibility and dependability to the findings (Corbin and Strauss, 2008).

Findings and analysis
Work practice
In total, 75 percent of respondents identified a distinct pressure from masculine work practices characterized by total devotion to the profession (Legault and Chasserio, 2003, 2012; Lindgren and Packendorff, 2006; Watts, 2009) and long working hours (Legault and Chasserio, 2012; Nandhakumar and Jones, 2001; Powell *et al.*, 2006). Examples of the comments are:

> There was a lot of pressure on us to get that finished on time. (Participant 2C)

> It's very intense, when I come home from work at night I tend to sit in the corner and stare at a white wall. My son has had drama with his girlfriend or something and I'm like aww […] no more people stuff sort of thing. (Participant 11C)

Lindgren and Packendorff (2006) also provide support for project work practices reproduced by masculinities do dominate the profession.

Presenteeism
The respondents were asked about their experiences with work–life balance in their project-based construction and property organizations. In total, 60 percent of the respondents identified their experiences of long working hours and organizational expectations for total work commitment. These commitment and availability expectations are outcomes of normative isomorphic practices that may drive conformity within the industry. Example comments:

> The industry is used to you answering your phone at 6 a.m. in the morning when [the] manager gets onsite and they're used to the manager calling you at 7 o'clock at night when they're still in the office so you just sort of have to be available. (Participant 9C)

> People expected […] you should be working in a particular way. Not really recognizing for women and men with young families that work life balance is important. So, it was a bit out of kilter that way. (Participant 4P)

In total, 40 percent of the respondents identified an existing culture of presenteeism, a normative practice driven by the continuing professionalization of working standards and expectations for work devotion in projects (Legault and Chasserio, 2003, 2012; Lindgren and

Packendorff, 2006) also reinforcing the belief that working long hours indicates job commitment and is necessary for advancement in the industry. Examples are:

> There are some people within [Company 10] who just work crazy hours and […] I wonder to a certain extent whether they want to be seen to be working crazy hours or whether they need to work crazy hours. (Participant 10P)

> There was always the underlying current even on those projects around presenteeism and doing the hours and being seen. (Participant 16C)

In total, 60 percent of respondents confirmed the view when asked about their experiences with flexible working arrangements in their organizations. They agreed that organizational pressures for relentless availability and long hours exclude any potential for flexible work arrangements. This links with Legault and Chesserio's (2012) argument that the presenteeism logic has serious impact on women working in the industry. Example comments include:

> The whole idea of working from home and virtual working has been talked about for too long and not really actioned. (Participant 7C)

> They are very anti flexible work and individualized work schemes. (Participant 16C)

The demands for efficiency and presenteeism suggest the existence of normative organizational pressures identified through the reported lack of support for women returning from maternity leave. The general expectation appeared to be that project management is not suitable for part-time work. Respondents identified the prevailing culture requiring a full-time commitment and availability. Therefore, women wanting to return from maternity leave on a part-time basis encountered significant problems coming back to their project roles:

> Now I only really want to work part-time because I have kids and you just can't work part-time in the construction industry […] I mean you could never get a part-time job with a top-tier builder. (Participant 9C)

> We've got a number of ladies who were on maternity leave and I'm noticing the same thing, they're wanting to come back to keep their feet in the game and keep across what's happening and for the financial support that it brings but it is […] this industry is so challenging to do work part-time. (Participant 11C)

Owing to these professionalized work practices, women were often forced to take a demotion into office-based and administrative roles, and forego their career advancement when returning from maternity leave. These normative isomorphic pressures for conformity in the project profession can create barriers for women in their project career progression:

> When that girl came back she was moved across to a corporate function […] so she got side stepped. (Participant 6P)

> They get forced into taking side tracks, either becoming like a client type project manager where there are less hours or moving into estimating or sort of trying to do something else because what you're trained in just doesn't work anymore. (Participant 9C)

> Just this week someone going on maternity leave and them asking her to sign a new contract for when she gets back, she's a lower position than what she was on before. (Participant 8C)

The respondents highlighted that the masculine project work practices characterized by the culture of constant availability, long working hours and presenteeism were limiting the career progression of female project managers who due to their family responsibilities were perceived to fall short of these expectations. This confirms previous research that suggests that working long hours to show commitment is a pre-requisite for progress and promotion (Michielsens *et al.*, 2014). Normative work practices derived from pressures

for significant dedication to the profession, without consideration for other outside obligations, acted as barriers to career advancement and thus to the underrepresentation of women in this industry.

Limited career planning and restricted access to social networks

In total, 81 percent of the respondents stated that their organizations expected them to take responsibility for their own careers, reinforcing the normative pressures for professional behavior and standards. Project management literature identifies limited career planning by project-based organizations and a high reliance on project managers forging their own career paths (Bredin and Söderlund, 2013; Hölzle, 2010) due to a prolific lack of development opportunities and training (Shenhar and Dvir, 2007) and a lack of career support programs (Huemann, 2010; Huemann *et al.*, 2007). The respondents also indicated that their career paths relied on access to networking and mentoring:

> If you are a female working in the industry the only way you really progress is [if] someone older or more senior than you takes you under their wing and that person is typically a male. If you are a male in the industry you don't seem to need that sort of endorsement from an older person. They seem to just progress much easier. (Participant 9C)

> I thought I'd demonstrated myself […] but then I think relationships beat that hands over fists and that's again where women can struggle because there is a mateship, there is a network. (Participant 6P)

However, 60 percent of the respondents felt they were excluded from the informal social networks and support within their organization:

> They go "it's a rugby function." "Yes I know but I'm interested in going." My clients get invited and I don't get invited and I find out that my clients are invited because I look through the list that gets distributed to all the directors and think hang on a second, this is the first time I've heard of this and my clients are on the list and I haven't been invited. "Oh sorry, didn't think you'd be interested in going to the rugby." (Participant 1P)

> It was very hard for me to position myself to be noticed and because quite often you know the boys would go to rugby matches or the cricket or go out for beers or whatever and that was how they bonded but I wouldn't be invited. (Participant 12C)

The limited career paths, scarce support programs and limited access to social networks presented additional career challenges for women. Not only have they had to self-manage their careers in this challenging masculine environment, but they also acknowledged that they struggled with access to networks that is critical in career advancement for women in male dominated industry like construction.

"Filtering of personnel" in hiring and promotion

Half of respondents questioned the transparency, credibility and fairness of appointments and advancement decisions within their organizations. Promotion practices still appeared to be subject to informal selection and gender-based favoritism described by Bazerman (2006) as a tendency to favor members of groups one belongs to. Consistent with what DiMaggio and Powell (1983) called "filtering of personnel" in recruitment and promotional practices, these practices exemplified the presence of normative isomorphism in those organizations. Examples are:

> I was highly visible in terms of my biological sex and my presence; if I walked into a meeting I was the only woman but it was almost like I was invisible in terms of the opportunities that they were handing out. It almost felt like deals were done and I wasn't privy to those opportunities and I couldn't work out how to get visible or how to be in somebody's […]. How to get on the radar. (Participant 16C)

They're more than happy to have a coffee with me but when there is a real opportunity they will go to one of the boys. (Participant 1P)

Based on respondents' feedback, the examples of "filtering of personnel" practices in appointments and promotions suggest the presence of normative isomorphic practices and behaviors. Those practices closely guard career tracks and restrict women's career progression adding to the underrepresentation of women in this industry.

Discussion

In this study, evidence was found for the influence of institutionalized work practices within the project work of the construction and property development industry. The respondents reported on their experiences of similar work practices and that these potentially limit their career development and opportunity. Their reports involved the recognition of industry centric practices including the requirement for long work hours with limited opportunities for work flexibilities and reduced opportunities for work and family recognition. It also included the recognition of the removal of opportunities for women in recruitment and promotion. In all practices except "presenteeism" approximately two-third to three-fourth of the respondents reported consistently on these work practices. While Legault and Chasserio (2003, 2012) and Lindgren and Packendorff (2006) refer to "presenteeism" as one of the industry factors common in project-based organizations, we found only slightly less than half of the respondents recognized a culture of "presenteeism." All these practices potentially affect the career progression opportunities of women project managers differently from their male counterparts due to differences specifically in care and family responsibilities (Whitehouse *et al.*, 2013). Most women with families experience challenges in their efforts to reconcile the commitment to their work and to their families, particularly when experiencing the lack of support when returning from maternity leave. Demands of full-time job commitment and not allowing part-time work options present significant challenges for women seeking to return to their previous project roles on a part-time basis. They were often forced to take a demotion into a support role and forego their project career advancement. Further, the findings of this study support the existence of "filtering of personnel" as women are often not included in opportunities for work or promotion. Despite a widespread awareness of female underrepresentation in management within this industry and heightened efforts in the implementation of new gender equity policies addressing legislative requirements, a noticeable change in the demographics within the industry is still yet to be seen (French and Strachan, 2015; McKinsey and Company, 2007).

By exploring how organizational structures and processes affect women's career progression in traditional project-based organizations, this study provides a timely and relevant contribution to the understanding of women's underrepresentation in those organizational structures. Addressing the call by Packendorff (1995) to utilize the institutional theory in study of projects, the findings provide an important contribution by offering fresh insights into the relationship between the normative isomorphic factors, and their influence on career progression of female project managers.

Contributions to theory

The findings of this study extend the application of the institutional theory by broadening understanding of the isomorphic (homogeneous) forces associated with the structural barriers to the career progression for women in project-based organizations. Prior research has offered limited insights into project management careers and how women experience their career progression challenges in project-based organizations (Bredin and Söderlund, 2013; Crawford *et al.*, 2013). The process of organizational isomorphism or homogeneous reproduction continues to encourage female underrepresentation in project-based

construction and property organizations. Uniquely in these organizations, the confining work practices, the reliance on project managers individually forging their career paths and the "filtering of personnel" in appointments and promotions to exclude those who are different or need different work practices, potentially create significant normative male based career barriers to the career progression for women.

Contributions to practice
Beyond the theoretical importance of these findings that indicate the homogenous reproduction of work practices across projects, the results have a practical implication for the industry, its leadership, human resource (HR) management and industry-based professional associations. Project-based organizations worldwide are experiencing increased project management skill shortages and as such, are searching for effective gender policies and programs to attract and retain talent including increasing female talent (Crawford *et al.*, 2013; French and Strachan, 2015). Developing policies that fairly address the needs of those people with greater care responsibilities will impact on the number of women in the industry. Pocock *et al.* (2013) recommend "better quality part-time work, a profound shift in the ways in which paid work and care are organized, and a cultural transformation of gender norms" in order to achieve better work-family initiatives that support greater gender equality. Further, overcoming the filtering of personnel in recruitment and promotion practices both at industry and professional association levels will decrease the level of social and industrial bias and discrimination. De Vries (2015) suggested that introduction of executive champions can play a critical role in implementation of workplace gender policies and practices, particularly when senior men and women partner together in gender interventions leading to transformational change. Finally providing support for career development at an organizational level rather than an individual level will encourage the development of talent with a view to encouraging greater retention of people who follow different career trajectories or require different work flexibilities. Strachan *et al.* (2007) called on government agencies, trade unions and industry organizations to help employers and employees develop consistent and equitable career advancement policies that will lead to greater career development for women.

Limitations of the study
This study adopted an exploratory approach using qualitative interviews, which led to several limitations related to the sample size, data collection and participant perspectives. While the depth and breadth of information was achieved with 16 in-depth interviews, a larger sample size may have provided greater comparison and confirmation potentially allowing for generalizability. The interviews comprised face-to-face and telephone interviews that may have been limited by the depth of understanding and the extent of insight that could be drawn from participant experiences. In addition, the data were derived from recounted experiences that respondents drew from their current and previous organizations and the differences in perspectives were not thoroughly explored or fully reported in the findings (Neuman, 2003).

Recommendations for future research
Despite the extremely low female representation and slow progression of women to leadership roles in project-based organizations, limited studies exist considering those issues. The findings of this study offer some advances in this area. However, as there are organizational differences across different industries within the project-based sector (from traditional industries such as construction or mining to less traditional industries such as IT and the Creative Arts), researchers could expand the scope of the sample to other project-based industries, potentially increasing the generalizability of the research findings. The study could also be extended to

include women who have reached the highest levels in project-based organizations, including general management and board member roles to gain insight into the dynamics of career progression beyond projects and the decision required to implement gender equality initiatives. Further, more research on various individual and organizational productivity outcomes from project-based organizations with more women in management and/or more women on their top teams is recommended to demonstrate benefits of greater numbers of women in the industry.

Conclusion

The application of DiMaggio and Powell's (1983) institutional theory to the analysis in this study suggests that strong normative isomorphic forces may be shaping the unique structural characteristics of project-based construction and property development organizations and these practices may be contributing to the ongoing female underrepresentation. The barriers unique to those organizations include masculine work practices; limited access to flexible work practices; presenteeism; reliance on career self-management; and "filtering of personnel" in recruitment and promotion practices. To continue Australia's strong economic performance, project-based organizations within the construction and property sectors are encouraged to consider how they can better foster their female project managers to secure these critical HRs and stay competitive on a global scale into the future.

References

Bazerman, M.H. (2006), *Judgment in Managerial Decision Making*, 6th ed., J. Wiley, Hoboken, NJ.

Bem, S. (2004), "Transforming the debate on sexual inequality: from biological difference to institutional androcentrism", in Chrisler, J.C., Golden, C. and Rozee, P.D. (Eds), *Lectures on the Psychology of Women*, 3rd ed., McGraw-Hill, New York, NY, pp. 2-15.

Bierema, L.L. (2005), "Women executives' concerns related to implementing and sustaining a women's network in a corporate context", *Organizational Development Journal*, Vol. 23 No. 2, pp. 8-20.

Blackburn, R.M., Browne, J., Brooks, B. and Jarman, J. (2002), "Explaining gender segregation", *Journal of Sociology*, Vol. 53 No. 4, pp. 513-536.

Bredin, K. (2008), "People capability of project-based organizations: a conceptual framework", *International Journal of Project Management*, Vol. 26 No. 5, pp. 566-576.

Bredin, K. and Söderlund, J. (2013), "Project managers and career models: an exploratory comparative study", *International Journal of Project Management*, Vol. 31 No. 6, pp. 889-902.

Buckle, P. and Thomas, J. (2003), "Deconstructing project management: a gender analysis of project management guidelines", *International Journal of Project Management*, Vol. 21 No. 6, pp. 433-441.

Burrell, G. and Morgan, G. (1979), *Sociological Paradigms and Organizational Analysis*, Heinemann, London.

Cabrera, S.F., Sauer, S.J. and Thomas-Hunt, M.C. (2009), "The evolving manager stereotype: the effects of industry gender typing on performance expectations for leaders and their teams", *Psychology of Women Quarterly*, Vol. 33, pp. 419-428.

Catalyst (2005), "2005 Catalyst census of women corporate officers and top earners in the fortune 500", available at: www.catalyst.org/knowledge/2005-catalyst-census-women-corporate-officers-and-top-earners-fortune-500 (accessed November 12, 2015).

Chasserio, S. and Legault, M.J. (2009), "Strategic human resources management is irrelevant when it comes to highly skilled professionals in the Canadian new economy!", *International Journal of Human Resource Management*, Vol. 20 No. 5, pp. 1113-1131.

Chasserio, S. and Legault, M.J. (2010), "Discretionary power of project managers in knowledge intensive firms and gender issues: Revue Canadienne des sciences administratives", *Canadian Journal of Administrative Sciences*, Vol. 27 No. 3, pp. 236-248.

Cicmil, S. and Hodgson, D. (2006), "Making projects critical – introduction", in Hodgson, D. and Cicmil, S. (Eds), *Making Projects Critical*, Palgrave, London, pp. 1-25.

Collinson, D.L. and Hearn, J. (1996), "Breaking the silence: on men, masculinities and managements", in Collinson, D.L. and Hearn, J. (Eds), *Men as Managers, Managers as Men*, Sage, London, pp. 1-24.

Corbin, J. and Strauss, A. (2008), *Basics of Qualitative Research*, 3rd ed., Sage Publishing, Thousand Oaks, CA.

Crawford, L., French, E. and Lloyd-Walker, B. (2013), "From outpost to outback: project career paths in Australia", *International Journal of Project Management*, Vol. 3 No. 8, pp. 175-1187.

Crawford, L., Lloyd-Walker, B. and French, E. (2015), "Career choice and the experience of project-based work", *Procedia-Social and Behavioral Sciences*, Vol. 194 No. 2015, pp. 55-64.

Creswell, J.W. (2002), *Educational research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*, Pearson, Upper Saddle River, NJ.

Davies, A. and Hobday, M. (2005), *The Business of Projects: Managing Innovation in Complex Products and Systems*, Cambridge University Press, Cambridge.

De Vries, J.A. (2015), "Champions of gender equality: female and male executives as leaders of gender change", *Equality, Diversity and Inclusion: An International Journal*, Vol. 34 No. 1, pp. 21-36.

DiMaggio, P.J. and Powell, W.W. (1983), "The iron cage revisited: institutional isomorphism and collective rationality in organizational fields", *American Sociological Review*, Vol. 48 No. 2, pp. 147-160.

Eagly, A. and Karau, S. (2002), "Role congruity theory of prejudice towards female leaders", *Psychological Review*, Vol. 109 No. 3, pp. 573-598.

Eagly, A.H. and Johnson, B.T. (1990), "Gender and leadership style: a meta-analysis", *Psychological Bulletin*, Vol. 108 No. 2, pp. 233-256.

Eagly, A.H., Johannesen-Schmidt, M.C. and van Engen, M.L. (2003), "Transformational, transactional, and Laissez–Faire leadership styles: a meta-analysis comparing women and men", *Psychological Bulletin*, Vol. 129 No. 4, pp. 569-591.

Ely, R.J., Ibarra, H. and Kolb, D.M. (2011), "Taking gender into account: theory and design for women's leadership development programs", *Academy of Management Learning & Education*, Vol. 10 No. 3, pp. 474-493.

EOWA (2014), "Gender composition of the workforce: by industry", The Equal Opportunity for Women in the Workplace Agency, available at: www.wgea.gov.au/sites/default/files/2014-04-04-Gender%20composition-of-the-workforce-by-industry.pdf (accessed November 12, 2015).

Evetts, J. (1998), "Managing the technology but not the organization: women and career in engineering", *Women in Management Review*, Vol. 13 No. 8, pp. 283-290.

French, E. and Strachan, G. (2015), "Women at work! Evaluating equal employment policies and outcomes in construction", *Equity, Diversity and Inclusion*, Vol. 34 No. 3, pp. 227-243.

French, E., Lloyd-Walker, B. and Crawford, L. (2013), "Changing times, persistent paradigms: women and men at work in projects", *International Research Network on Organizing by Projects (IRNOP) Conference: Innovative Approaches in Project Management Research*, June 17–19, Oslo.

Gale, A.W. and Cartwright, S. (1995), "Women in project management: entry into a male domain", *Leadership & Organisation Development Journal*, Vol. 16 No. 2, pp. 3-8.

Galea, N., Powell, A., Loosemore, M. and Chappell, L. (2015), "Designing robust and revisable policies for gender equality: lessons from the Australian construction industry", *Construction Management and Economics*, Vol. 33 Nos 5/6, pp. 375-389.

Gareis, R. (1990), *Editor, Management by Projects*, Manz Publishing, Vienna.

Gareis, R. (2005), *Happy Projects!*, Manz Publishing, Vienna.

Gerson, K. and Jacobs, J.A. (2001), "Changing the structure and culture of work", in Hertz, R. and Marshall, N.L. (Eds), *Working Families: The Transformation of the American Home*, University of California Press, London, pp. 207-226.

Guy, S. (2014), "Second generation bias – a subtle but powerful presence", *Consulting – Specifying Engineer*, October, pp. 1-7.

Hatcher, C., Linger, H., Owen, J. and Algeo, C. (2013), "The challenges of managing complexity in projects: an Australian perspective", *International Journal of Project Management*, Vol. 31 No. 8, pp. 1069-1071.

Hobday, M. (2000), "The project-based organization: an ideal form for managing complex products and systems?", *Research Policy*, Vol. 29 Nos 7-8, pp. 871-893.

Hölzle, K. (2010), "Designing and implementing a career path for project managers", *International Journal of Project Management*, Vol. 28 No. 8, pp. 779-786.

Huemann, M. (2010), "Considering human resource management when developing a project-oriented company: case study of a telecommunication company", *International Journal of Project Management*, Vol. 28 No. 4, pp. 361-369.

Huemann, M., Keegan, A. and Turner, J.R. (2007), "Human resource management in the project-oriented company: a review", *International Journal of Project Management*, Vol. 25 No. 3, pp. 315-323.

Ibarra, H. and Kessler, B. (2013), *Conquering Gender Bias*, INSEAD, Fountainebleau.

Ibarra, H., Ely, R. and Kolb, D. (2013), "Women rising: the unseen barriers", *Harvard Business Review*, Vol. 91 No. 9, pp. 60-66.

Kanter, R. (1977), *Men and Women of the Corporation*, Basic Books, New York, NY.

Larson, M.S. (1977), *The Rise of Professionalism: A Sociological Analysis*, University of California Press, Berkeley, CA.

Laud, R.L. and Johnson, M. (2012), "Upward mobility. A typology of tactics and strategies for career advancement", *Career Development International*, Vol. 17 No. 3, pp. 231-254.

Legault, M.J. and Chasserio, S. (2003), "Family obligations or cultural constraints? Obstacles in the path of professional women", *Journal of International Women's Studies*, Vol. 4 No. 3, pp. 108-125.

Legault, M.J. and Chasserio, S. (2012), "Professionalization, risk transfer, and the effect on gender gap in project management", *International Journal of Project Management*, Vol. 30 No. 6, pp. 697-707.

Lindgren, M. and Packendorff, J. (2006), "What's new in new forms of organizing? On the construction of gender in project-based work", *Journal of Management Studies*, Vol. 43 No. 4, pp. 841-866.

Lips, H. (2006), *A New Psychology of Women: Gender, Culture, and Ethnicity*, 3rd ed., McGraw-Hill, New York, NY.

Lopez, E.S. and Ensari, N. (2014), "The effects of leadership style, organizational outcome, and gender on attributional bias towards leaders", *Journal of Leadership Studies*, Vol. 8 No. 2, pp. 19-33.

Lowndes, V. and Roberts, M. (2013), *Why Institutions Matter: The New Institutionalism in Political Science*, Palgrave Macmillan, Basingstoke.

McKinsey and Company (2007), "Women matter: gender diversity, a corporate performance driver", available at: www.mckinsey.com/features/women_matter (accessed November 12, 2015).

Marshall, C. and Rossman, G.B. (2011), *Designing Qualitative Research*, 5th ed., Sage, Thousand Oaks, CA.

Merrick, B.G. (2002), "The ethics of hiring in the new workplace: men and women managers face changing stereotypes discover correlative patterns for success", *Competitiveness Review*, Vol. 12 No. 1, pp. 94-114.

Michielsens, E., Bingham, C. and Clarke, L. (2014), "Managing diversity through flexible work arrangements: management perspective", *Employee Relations*, Vol. 36 No. 1, pp. 49-69.

Miles, M.B. and Huberman, A. (1994), *Qualitative Data Analysis: An Expanded Sourcebook*, Sage, Thousand Oaks, CA.

Milliken, F.J., Martins, L.L. and Morgan, H. (1998), "Explaining organizational responsiveness to work-family issues: the role of human resource executives as issue interpreters", *The Academy of Management Journal*, Vol. 41 No. 5, pp. 580-592.

Nandhakumar, J. and Jones, M. (2001), "Accounting for time: managing time in project-based teamworking", *Accounting, Organizations and Society*, Vol. 26 No. 3, pp. 193-214.

Navarro-Astor, E., Román-Onsalo, M. and Infante-Perea, M. (2017), "Women's career development in the construction industry across 15 years: main barriers", *Journal of Engineering, Design and Technology*, Vol. 15 No. 2, pp. 199-221.

Neuman, W.L. (2003), *Social Research Methods: Qualitative and Quantitative Approaches*, 5th ed., Pearson Education, Boston, MA.

Oakley, J.G. (2000), "Gender-based barriers to senior management positions: understanding the scarcity of female CEOs", *Journal of Business Ethics*, Vol. 27 No. 4, pp. 321-334.

Packendorff, J. (1995), "Inquiring into the temporary organization: new directions for project management research", *Scandinavian Journal of Management*, Vol. 11 No. 4, pp. 319-333.

Perrow, C. (1974), "Is business really changing?", *Organizational Dynamics*, Vol. 3 No. 1, pp. 31-44.

Pocock, B., Charlesworth, S. and Chapman, J. (2013), "Work-family and work-life pressures in Australia: advancing gender equality in 'good times'?", *International Journal of Sociology and Social Policy*, Vol. 33 Nos 9/10, pp. 594-612.

Powell, G.N. (2012), "Six ways of seeing the elephant: the intersection of sex, gender and leadership", *Gender in Management: An International Journal*, Vol. 27 No. 2, pp. 119-141.

Powell, A., Bagilhole, B.M. and Dainty, A.R.J. (2006), "The problem of women's assimilation into UK engineering cultures: can critical mass work?", *Equal Opportunities International*, Vol. 25 No. 8, pp. 688-699.

Shenhar, A.J. and Dvir, D. (2007), *Reinventing Project Management: The Diamond Approach to Successful Growth and Innovation*, Harvard Business School Press, Boston, MA.

Strachan, G., Burgess, J. and Henderson, L. (2007), "Equal employment opportunity legislation and policies: the Australian experience", *Equal Opportunities International*, Vol. 26 No. 6, pp. 525-540.

The Australian Trade Commission (2015), "Why Australia benchmark report 2015", available at: www.austrade.gov.au/Invest/Reports-Resources/Benchmark-Report (accessed May 10, 2016).

Vinnicombe, S. and Singh, V. (2003), "Locks and keys to the boardroom", *Women in Management Review*, Vol. 18 Nos 5/6, pp. 325-333.

Watts, J. (2007), "Porn, pride and pessimism: experiences of women working in professional construction roles", *Work, Employment and Society*, Vol. 21 No. 2, pp. 219-316.

Watts, J.H. (2009), "Leaders of men: women 'managing' in construction", *Work, Employment and Society*, Vol. 23 No. 3, pp. 512-530.

WGEA (2015), "Gender workplace statistics at a glance May 2015", The Workplace Gender Equality Agency, available at: www.wgea.gov.au/sites/default/files/Stats_at_a_Glance.pdf (accessed May 10, 2016).

Whitehouse, G., Hewitt, B., Martin, B. and Baird, M. (2013), "Employer-paid maternity leave in Australia: a comparison of uptake and duration in 2005 and 2010", *Australian Journal of Labour Economics*, Vol. 16 No. 3, pp. 311-327.

Williams, J.E. and Best, D.L. (1990), *Sex And Psyche: Gender and Self Viewed Crossculturally*, Sage, Newbury Park, CA.

Wood, W. and Eagly, A.H. (2010), "Gender", in Fiske, S.T., Gilbert, D.T. and Lindzey, G. (Eds), *Handbook of Social Psychology*, 5th ed., Oxford University Press, New York, NY, pp. 629-667.

Further reading

Thomas, J.L. and Buckle-Henning, P. (2007), "Dancing in the white spaces: exploring gendered assumptions in successful project managers' discourse about their work", *International Journal of Project Management*, Vol. 25 No. 6, pp. 552-559.

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