Utrecht University Master Work and Organizational Psychology

THESIS

Feeling Like a Part of the Team: The Role of Perceived Inclusion and Diversity Beliefs in the Association Between Team Gender Diversity and Team Performance

> Thijs Bosselaar 3357775 August 2015 Word count excluding appendix: 7337 Word count including appendix: 8112

> Supervisor: Dr. Reine C. van der Wal

Second reader: Marieke Roskes

Summary

Women are more and more present in the work place, but a gender balanced situation is a long way ahead, especially in higher levels of organizations. Gender balanced teams and organizations, however, have shown to be more effective than homogeneous teams and organizations. This study aimed to confirm the positive relationship between team gender diversity and team performance and, additionally, to test which factors may influence this relationship. Perceived inclusion and diversity beliefs were included as possible moderating factors such that the positive relationship between team gender diversity and team performance is only positive when perceived inclusion and/or diversity beliefs are high. An online survey was conducted to test these hypotheses in 10 service sector organizations in The Netherlands among 111 employees working in teams. Results confirmed the positive relationship between team gender diversity and team performance. Perceived inclusion and diversity beliefs could not be confirmed as moderators. However, perceived inclusion did prove to work as a partial mediator for the positive relationship between team gender diversity and team performance. The importance of gender diversity in organizations is emphasized and the implementation of inclusion practices are recommended.

Keywords: gender diversity, team performance, inclusion, diversity beliefs

Samenvatting

Het aantal vrouwen in organisaties neemt gestaag toe. Echter, vooral in hogere niveaus van organisaties is een evenredige man-vrouw verdeling nog ver te zoeken. Geslachtsdiverse teams en organisaties zijn echter effectiever gebleken dan homogene teams en organisaties. Dit onderzoek richtte zich op het bevestigen van de positieve relatie tussen team geslachtsdiversiteit en teamprestaties en op het onderzoeken van factoren die deze relatie mogelijk beïnvloeden. Ervaren inclusie en diversiteitsovertuigingen zijn meegenomen in dit onderzoek als mogelijke moderatoren zodat de positieve relatie tussen team geslachtsdiversiteit en teamprestaties enkel positief is als ervaren inclusie en/of diversiteitsovertuigingen hoog zijn. Middels een online enquête zijn deze hypotheses getest bij 111 werknemers van teams van 10 organisaties die werkzaam zijn in de service sector in Nederland. De resultaten bevestigden de positieve relatie tussen team geslachtdiversiteit en teamprestaties. Ervaren inclusie en diversiteitsovertuigingen konden niet worden vastgesteld als moderatoren. Echter, ervaren inclusie bleek een gedeeltelijke mediatie te vervullen op de positieve relatie tussen team geslachtsdiversiteit en teamprestaties. Dit onderzoek heeft nogmaals het belang van geslachtsdiversiteit in organisaties benadrukt en doet daarbij de aanbeveling voor de implementatie van praktijken voor het verhogen van inclusie.

Kernwoorden: geslachtsdiversiteit, teamprestaties, inclusie, diversiteitsovertuigingen

Introduction

Having an equal number of men and women in the workplace is an often discussed topic in politics, media and businesses. Nowadays, in Western societies the percentage of women in senior management positions is on average only around 20% (Grant Thornton, 2014). This phenomenon illustrates the "Leaking Pipeline", which is seen as the percentage of women at entry level in organizations (around 50% in most sectors) and the percentage that remains when investigating several levels or even only one level higher (McKinsey & Company, 2013). The situation is a long way from reaching the so-called gender-balanced zone, which ranges from 40 to 60% women (or men) in any given group. Many initiatives have been set up all over the world to create more gender diverse organizations (Catalyst, 2014). These initiatives come from governments as well as organizations themselves and focus mostly on getting women in higher levels of organizations.

The diversity-performance relationship

Why is it important to aim for a more gender diverse organization? What are the benefits of having a gender-balanced organization or gender balanced teams? McKinsey and Company (2010) examined the difference in performance between organizations of the top quartile of gender diverse executive committees and organizations with zero women in their executive committee. Looking at 279 companies a difference of 41% in return on equity and 56% in operating results was found in favor of the gender diverse organizations. While this does not constitute a causal relationship, it emphasizes the importance of gender diverse teams. More evidence supporting gender diverse organizations is demonstrated by Hoogendoorn, Oosterbeek and Van Praag (2013). They studied a group of 550 students divided over 45 teams to test the difference in performance on sales and profits between teams that were considered gender diverse and teams that were male-dominated. The teams with an equal gender mix outperformed the male-dominated teams in this study. In a similar way, a positive relationship between gender diversity and office performance (in this case revenue) was found in a large international professional services company. Specifically, the results of this study revealed that going from an all-male or all-female office to a gender balanced office could be associated with a 41% revenue gain (Ellison & Mullin, 2014). Several studies have examined the relationship between gender diversity and performance in more detail to assess under which conditions this relationship is most salient. Examples of these conditions are the sector in which a team operates (Ali, Kulik, & Metz, 2011), group efficacy (Lee & Farh, 2004), task complexity and group size (Wegge, Roth, Neubach, Schmidt, & Kanfer, 2008) and a "critical mass" or "magical number"

(Joecks, Pull, & Vetter, 2013). In short, the findings summarized above suggest that the positive effect of gender diversity on performance is most salient for groups that are working in the service sector, have high group efficacy, high task complexity, a large group size, and/or consist of around 30% women.

At the same time, however, it should be noted that negative effects of gender diverse teams might also be expected, especially so when considering Tajfel's Social Identity Theory (Trepte, 2013). According to this theory, salient diversity characteristics, such as gender or race, can lead to positive behavior, like solidarity, towards people that are considered to be in the same group as ourselves. Conversely, people considered to be in the "out-group" are discriminated against. Using this theory, gender diversity in a group could have negative effects on performance due to, for example, conflict within the group (Pelled, 1996). Aside from this theoretical basis for a possible negative relationship between diversity and performance it has been empirically shown in several studies that report negative effects of diversity, mostly when looking at firm performance indicators like returns on equity or shares (Ahern & Ditmmar, 2012; Bohren & Strom, 2010). Last, a recent meta-analysis revealed positive relationships, negative relationships, or sometimes even no relationship at all between gender diversity and performance (Joecks et al., 2013).

Clearly, the relationship between gender diversity and team performance is a well-studied one and it seems that it may both help and hurt the organization, although generally speaking studies reporting a positive relationship dominate the field (Ali et al., 2011; Eagly et al., 2003; Ellison & Mullin, 2014; Hoogendoorn et al., 2013; Horwitz & Horwitz, 2007; Joecks et al., 2013; Lee & Farh, 2004; McKinsey & Company, 2010, 2013; Wegge et al., 2008). The present study aims to gain a better understanding of when and why this positive relationship is present. That is, perhaps the inconsistent findings may be due to a lack of knowledge about several factors that moderate the positive relationship. Specifically, the present study will focus on two potential moderators: perceived inclusion and diversity beliefs. Considering that previous research mostly found positive effects of team gender diversity on team outcomes (as opposed to organizational diversity on organizational outcomes), this study will focus on team gender diversity and team performance outcomes.

Perceived inclusion

Perceived inclusion is the first condition that may play a role in the relationship between team gender diversity and team performance. Research suggests that the quality of interaction among group members influences team performance in more diverse teams (Stewart & Johnson, 2009; Swann, Kwan, Polzer, & Milton, 2003). The feeling of being included is defined as "the individual's sense of being a part of the organizational system in both the formal processes [...] and the informal processes" (Mor Barak, 2008). That is, it refers to both the professional as the social side of being part of a team or organization. An important aspect is access to information and being included in decision-making through both formal and informal paths. This can apply both to a team as well as the entire organization. The concept of the inclusion-exclusion continuum is used as a basis for many HRM systems in order to facilitate diversity, which is considered to be highly related, but a separate construct (Farndale, Biron, Briscoe, & Raghuram, 2015). In a study among 3401 employees at a large high-tech company, Mor Barak and Levin (2002) showed that people who are a minority are more likely to feel excluded. This concerned ethnic minorities as well as gender minorities. They also found that high levels of perceived inclusion were positively related to work outcomes, of which job satisfaction was the most important one. Findler, Wind and Mor Barak (2007) demonstrated a positive relationship of inclusion factors such as decision-making influence and access to information networks on individual employee outcomes such as job satisfaction and organizational commitment. Furthermore, they presented results that indicate that perceived inclusion plays a central role in the relationship between diversity characteristics and employee outcomes. These results were replicated in a separate study with a distinct scale to measure inclusion as a construct (Cho & Mor Barak, 2008). Perceived inclusion also has been shown to function as a moderator for the effect of diversity practices on employee trust and engagement in health care employees (Downey, Van der Werff, Thomas, & Plaut, 2015). Specifically, diversity practices only had a positive effect on employee trust and engagement when perceived levels of inclusion were high. In addition, inclusion has been suggested to be a useful focus point in facilitating diversity in organizations (Roberson, 2006).

Based on the research summarized above, it can be assumed that perceived inclusion plays a role in the facilitation of team gender diversity and its effect on team performance. Any negative relationships found between diversity and performance might have been due to a lack of perceived inclusion. Examining the role of perceived inclusion could clarify when and how this relationship is indeed positive. Seeing how inclusion has played a central role in relationships between diversity and organizational outcomes and how it moderated the effect of diversity practices on employee engagement a moderating effect of perceived inclusion on the relationship between team gender diversity and team performance such that gender diversity only has a positive effect on performance when high levels of inclusion are perceived.

Diversity beliefs

A second factor possibly influencing the relationship between gender diversity and performance is a person's diversity beliefs. It is an accepted notion that diversity has a positive effect on performance when supported by positive diversity beliefs. However, this notion has hardly been tested (Van Knippenberg, Van Ginkel, & Homan, 2013). Diversity beliefs reflect a person's preference for a heterogeneous group or a homogeneous group (Van Knippenberg, Haslam, & Platow, 2007). These can be based on negative stereotypes towards certain ethnic, age or gender groups. They can also be based on positive expectations of diversity, for example, appreciation of the combination of different cognitive abilities.

Research has shown that diversity leads to higher team identification when team members believe in the value of diversity (Van Knippenberg et al., 2007). Similarly, Van Dick, Van Knippenberg, Hägele, Guillaume and Brodbeck (2008) tested a moderating effect of diversity beliefs on the positive relationship between team diversity and desire to stay on the team. The longitudinal study showed that team diversity lead to higher team identification and, in turn, to a higher intention to stay on the team only when diversity beliefs were high (i.e. prodiversity).

Following up on this, the present study aims to find out whether a similar effect of diversity beliefs can be found for the relationship between team gender diversity and team performance in such a way that team gender diversity is only positively related to team performance when diversity beliefs are pro-diversity. This essentially replicates previous findings, but with a different outcome variable: team performance.

A model of team gender diversity, perceived inclusion, diversity beliefs and team performance

A model is proposed in which the relationship as described in the section above is visualized (Figure 1). Based on the evidence described above, the following hypotheses will be tested:

- Hypothesis 1: Team gender diversity is positively related to team performance (A)
- Hypothesis 2: The positive relationship between team gender diversity and team performance is moderated by perceived inclusion, such that team gender diversity and team performance are only positively related when perceived inclusion is high rather than low (B);

• Hypothesis 3: The positive relationship between team gender diversity and team performance is moderated by diversity beliefs, such that team gender diversity and team performance are only positively related when diversity beliefs are positive (i.e. pro-diversity), and not when they are negative (C).



Figure 1. The proposed model of the effect of team gender diversity on team performance and the moderating effects of perceived inclusion and diversity beliefs

These hypotheses will be tested in teams working in service sector organizations in The Netherlands since diversity has been shown to be positively related to performance mostly in this specific sector (Ali et al., 2011).

Explorative additions

Two variables will be added to this study for explorative purposes: subjective diversity and individual performance.

Subjective diversity

A distinction can be made between objective and subjective diversity. Objective diversity is based on salient diversity characteristics such as gender. Subjective diversity, or perceived diversity, can be reasonable to include when addressing perceptions of differences. It can have a more explanatory power than objective diversity because an individual's perceptions of their environment can be more directly related to their behavior than objective assessments of that environment (Harrison & Klein, 2007). In support of this, a study by Van Dick, Van Knippenberg, Hägele, Guillaume and Brodbeck (2008) documented different results for the relationship between objective diversity and group identification than subjective diversity revealed to have more salient relationships to all other variables in their analysis than objective diversity. The

concept is included in this study and will replace objective diversity with the same hypotheses as mentioned above. Based on results from previous research, it is expected that relationships in the model will be stronger for subjective diversity than for objective diversity.

Individual performance

The second explorative addition is individual performance as a dependent measure instead of team performance. This variable is simply included to check whether the possible effects found for team performance are also applicable on an individual level. Most research so far has been focused on team or organizational outcomes. Seeing how this study works with an individual perception of inclusion and individual diversity beliefs, individual performance may have the same relationships as team performance and perhaps even more salient ones.

Method

Design

This research consisted of four continuous variables. Team performance as the dependent variable, team gender diversity as the main independent variable, and perceived inclusion and diversity beliefs as two independent moderator variables. Two continuous variables were added as explorative measures; subjective diversity and individual performance. Considering the number of predictors (3) in this design the aim was to have a sample size of 100 participants.

Participants

The sample consisted of 111 professionals working in service sector organizations in the Netherlands. No participants were excluded due to incomplete surveys. However, 21 were excluded from the analysis due to being statistical outliers causing a remainder of 90 participants. Of the participants only 6 were non-Dutch. Forty-six percent of respondents were male (n = 90). All participants were employees working in teams. Participants worked in teams with an average size of 8.5 members, ranging from 4 to 30 members. Almost one-third of the participants (31.1%) worked at a starter level (n = 90), 43.3% at mid-career level and 21.1% at senior level.

Procedure

Professionals working in service sector organizations in The Netherlands were contacted through email and/or phone to participate. If contacted by phone a follow-up email was sent including a link to the questionnaire. The questionnaire included an opening statement explaining the purpose of the research, what would happen to their data and the confidential

nature of their answers. The questionnaire was completed online by the participants using LimeSurvey software (https://www.limesurvey.org/) and took them approximately 10 minutes to complete. After completing the questionnaire, participants received an extra explanation of the hypotheses of the research and they were offered a chance to sign up for a summary of the conclusions of this research along with practical implications to be used in their own organizations. Participants filled out the questionnaire voluntarily.

Measures

The different variables were measured in the following order: team performance, individual performance, inclusion, diversity beliefs, objective diversity, subjective diversity and general demographics.

Team performance

In order to evaluate team performance, participants were asked to rate their team's decision quality with four items, based on Janssen, Van de Vliert, and Veenstra (1999) (α = .80). An example item was 'Decisions in my team generally won golden opinions inside the organization'. Participants could give their answer using a 5-point Likert scale from 1 = completely disagree to 5 = completely agree.

Individual performance

Individual performance was added as an explorative addition as a second dependent variable. The items were based on Abramis (1994) ($\alpha = .80$) and concerned both performance in tasks as well as the degree to which the participants were able to get along with colleagues. The items included 'How well were you handling the responsibilities and daily demands of your work' and 'How well were you getting along with others at work'. Participants provided their answers on a 5-point scale ranging from 1 = very poorly to 5 = exceptionally well.

Inclusion

To assess participants' perceived feelings of inclusion, 9 items were adapted from Downey et al. (2015) to fit inclusion in a team. An example item was 'I believe that I play an important role in helping to shape the policies, procedures, and practices of my team'. Answers were given on a 5-point Likert scale from 1 = completely disagree to 5 = completely agree.

Diversity beliefs

Four items were included in the questionnaire to measure participants' diversity beliefs. An example item was 'A good mix of group members' gender helps doing the task well'. Participants were asked to indicate on a 5-point Likert scale to what extent they agreed with the statements from 1= *completely disagree* to 5= *completely agree*. The items, of which two were reverse coded, were based on Van Dick et al. (2008) ($\alpha = .75$) and adapted to be focused on gender diversity.

Objective diversity

Participants were asked to indicate the total number of members in their team and the number of males in their team. Blau's index of heterogeneity (1977) was used to measure the degree of diversity for each participant's team. Blau's index is a commonly used index to quantify diversity. The diversity score for each participant was calculated using the formula $1-\sum p_i^2$ where *p* is the proportion of group members in the *i*th category. By using two categories (i.e. male and female) the index had a range from 0 to 0.5 with a maximum level reached when the group members are spread equally over the categories (Solanas, Selvam, Navarro, & Leiva, 2012).

Subjective diversity

The construct of subjective diversity was added as an explorative measure and measured by two items based on Van Dick et al. (2008) ($\alpha = .75$) which measured general subjective diversity and in terms of gender composition. Items were answered on a 5-point scale ranging from 1 = not at all diverse to 5 = very diverse and included items such as 'How diverse do you think your team is in terms of gender composition'.

Data analysis

Data analysis was done using IBM SPSS Statistics. First, there were no missing data for any of the relevant variables. Next, descriptive statistics (means, standard deviations) and internal reliability and intercorrelations were computed for the main study variables (see Table 1). To enable testing of interaction effects, standardized scores for the three independent variables were calculated. All three hypotheses were tested using hierarchical multiple linear regression analyses working with a 95% Confidence Interval and an alpha of 5%. Mahalanobis' distance and Cook's distance provided by the multiple linear regression were used to identify outliers in the dataset. As mentioned, 21 participants were excluded from further analyses due to being statistical outliers.

Results

Descriptive statistics

Descriptive statistics of the main study variables are provided in Table 1.

,		,			2	
Variable	Mean	SD	1	2	3	4
Team gender diversity	0.40	.10				
Inclusion	3.88	.67	.34*	(.90)		
Diversity beliefs	4.31	.44	11	.14	(.35)	
Team performance	3.80	.71	.47*	.71*	.17	(.84)
<i>Notes:</i> Cronbach's alphas are displayed on the diagonal. $N = 90$. * $p < .01$.						

Table 1 Means, standard deviations, and intercorrelations of main study variables

Hypothesis testing

To test hypothesis 1, which stated that team gender diversity is positively related to perceived team performance, a linear regression analysis was conducted (Step 1 in Table 2). The model presented an adjusted R^2 of .22 (F(1, 88) = 25.40, p < .001) and a significant positive relationship between gender diversity and team performance, $\beta = .47$ (p < .001). Thus, hypothesis 1 was confirmed.

To test hypothesis 2, which stated that the positive relationship between team gender diversity and team performance is positively moderated by inclusion, two steps were added to the linear regression analysis from hypothesis 1 (Step 2 and 3 in Table 2). Simultaneously, hypothesis 3, which stated that the positive relationship between team gender diversity and team performance is positively moderated by diversity beliefs, was tested in the same steps. Adding inclusion and diversity beliefs to the model (Step 2 in Table 2) revealed an R^2 change of .34 (p < .001) resulting in a total adjusted R^2 of .55 (F(3, 86) = 37.22, p < .001). Inclusion showed to be positively related to team performance ($\beta = .61, p < .001$). Diversity beliefs, however, did not turn out to be related to team performance ($\beta = .06, p = .428$).

Including the moderating effects of inclusion (I) and diversity beliefs (DB) on the relationship between team gender diversity (GD) and team performance (Step 3 in Table 2) did not change the model significantly (R^2 change = .01, p = .306), and neither of the two moderating effects were significant (GD x I, β = .09, p = .246, GD x DB, β = -.11, p = .175). Testing for a three-way interaction between team gender diversity, inclusion, and diversity beliefs (Step 4 in Table 2) did not change the model significantly (R^2 change = .00, p = .894) either and showed no significant interaction effect (GD x I x DB, β = .01, p = .894). Hypotheses 2 and 3 were thus rejected.

Variable	В	SE(B)	β	ΔR^2
Step 1				.22**
Gender diversity (GD)	3.46	.67	.47**	
Step 2				.34**
Gender diversity (GD)	1.87	.55	.26*	
Inclusion (I)	.65	.08	.61**	
Diversity beliefs (DB)	.09	.12	.06	
Step 3				.01
Gender diversity (GD)	2.18	.59	.30**	
Inclusion (I)	.64	.08	.61**	
Diversity beliefs (DB)	.13	.12	.08	
GD x I	.11	.09	.09	
GD x DB	15	.11	11	
Step 4				.00
Gender diversity (GD)	2.16	.61	.30*	
Inclusion (I)	.64	.08	.61**	
Diversity beliefs (DB)	.12	.13	.08	
GD x I	.11	.09	.09	
GD x DB	15	.11	11	
GD x I x DB	.02	.13	.01	

Table 2Hierarchical regression of the relationship between team performance and team
gender diversity, inclusion and diversity beliefs and their interaction

Total F(6, 83) for Step 4 = 18.88**, Adjusted $R^2 = .55$. *p < .01, **p < .001 (two-tailed).

Mediation analysis

Since the addition of inclusion to the model (Step 2 in Table 2) decreased the effect of team gender diversity on team performance, it was tested whether inclusion may mediate the relationship between team gender diversity and team performance. Testing the effect of team gender diversity on inclusion (Step 1 in Table 3) using a linear regression analysis revealed a significant positive effect of team gender diversity, $\beta = .34$, p < .01 (F(1, 88) = 11.81, p < .01). Next, inclusion (Step 2 in Table 3) showed to have a positive effect on team performance when tested separately, $\beta = .71$, p < .001 (F(1, 88) = 88.69, p < .001). Controlling for the independent variable (Step 3 in Table 3), team gender diversity, the mediator inclusion was still significant, $\beta = .62$, p < .001. Controlling for the mediator (Step 3 in Table 3), team gender diversity, significantly associated with team performance, $\beta = .26$, p < .01. To check for a partial mediation effect, a Sobel's test was conducted and a partial mediation was confirmed in the model (z = 3.17, p = .002). Thus, both a direct and an

indirect positive relationship was found between team gender diversity and team performance, the indirect effect going through inclusion.

Table 3	Regression results testing the mediating effect of inclusion on the relationship
	between team gender diversity and team performance

Variable	В	SE (B)	β	Adj. R^2
Step 1: Dependent: Inclusion				.11*
Gender diversity (GD)	2.38	.69	.34*	
Step 2: Dependent: Team performance				.50**
Inclusion (I)	.75	.08	.71**	
Step 3: Dependent: Team performance				.55**
Gender diversity (GD)	1.90	.55	.26*	
Inclusion (I)	.65	.08	.62**	

Total F(2, 87) for Step 3 = 55.74**, Adjusted R^2 = .55. *p < .01, **p < .001 (two-tailed).

Explorative analyses

The explorative addition of individual performance as another dependent measure was tested identical to the tests run for the hypotheses about team performance. Results between the two did not differ from the results provided by the analysis above, such that team gender diversity and inclusion were both positively related to individual performance. Diversity beliefs did not turn out to be related to individual performance (See Table 4 in the Appendix). The fact that results did not differ were not surprising considering that team performance and individual performance were highly correlated, r = .67, p < .01. However, in contrast with the model with team performance as a dependent variable, one interaction effect was found with individual performance as dependent variable. The interaction variable of team gender diversity and inclusion yielded a significant effect on individual performance, $\beta = -.20$, p < .01. As can be seen in Figure 2, individuals experiencing low inclusion perform worse in teams with very little team gender diversity than individuals experiencing high inclusion in teams with low team gender diversity. It seems that this difference decreases as team gender diversity increases. Simple slope tests (Aiken & West, 1991) revealed that, when inclusion is low (-1 SD), team gender diversity was significantly associated with individual performance, $\beta = .40$, p < .001. However, when inclusion is high (+1 SD), team gender diversity was not associated with individual performance, $\beta = -.127$, p = .249. As with team performance, no other significant two- or three-way interactions were found.

Exploration of a possible different effect of subjective team diversity compared to objective team diversity revealed no significant differences in any of the effects in both direction and strength (See Table 5 in the Appendix). As was the case with the two types of performance, a high correlation between the two types of diversity was also found, r = .59, p < .01.



Figure 2. Interaction effect of team gender diversity and inclusion on individual performance

Discussion

This study examined whether team gender diversity and team performance are positively related for teams working in service sector organizations in The Netherlands. Furthermore, it was tested whether the assumed positive relationship between team gender diversity and team performance is moderated by the level of inclusion a team member perceives and their diversity beliefs. It was hypothesized that both inclusion and diversity beliefs would moderate the relationship such that the effect of team gender diversity on team performance is only positive when inclusion is high and / or diversity beliefs are high (i.e. pro diversity).

In line with earlier research (Ali, Kulik, & Metz, 2011; Ellison & Mullin, 2014; Hoogendoorn, Oosterbeek, & Van Praag, 2013; Horwitz & Horwitz, 2007), team gender diversity was positively related to team performance, such that having a team with a good mix in gender composition seems to be related with better decision quality. The hypothesized moderating effects of inclusion and diversity beliefs could not be confirmed. Contrary to results presented by Van Dick et al. (2008), no differences were found between objective and subjective diversity. The same applied to the difference between team performance and

individual performance as the outcome variable except for the presence of the moderating effect of inclusion on the positive relationship between team gender diversity and individual performance.

Inclusion turned out not to moderate the relationship between team gender diversity and team performance but in fact partially mediate it. A similar result has been found by Hwang and Hopkins (2015) who proposed a model in which diversity characteristics influenced inclusion and in turn inclusion would affect organizational outcomes. However, in their specific research only racial diversity turned out to be related to inclusion, as opposed to gender and age as the other two diversity characteristics. This relationship was negative such that minorities perceived lower levels of inclusion and had higher intentions to leave the organization (negative organizational outcome). Perhaps increasing diversity and thereby eliminating the presence of a minority, may have caused higher levels of inclusion. Inclusion appeared to have positive effects on different organizational outcomes and, combined with higher levels of diversity, findings of the present study would be consistent with theirs. A direct effect of inclusion on performance outcomes was also proposed by Ferdman, Avigdor, Braun, Konkin and Kuzmycz (2010) who actually included diversity as a moderator such that as diversity increases, the positive effect of inclusion on performance would be enhanced. Though the present study does not support the idea of diversity as a moderator it does confirm the direct positive relationship between inclusion and performance. The results in this study are therefore partially in line with previous research.

The fact that there was no relationship between diversity beliefs and team performance and no moderating effect is not in line with earlier research. Diversity beliefs have been shown to have an effect on work group outcomes and to serve as a moderator for the positive relationship between work group diversity and work group outcomes (Van Dick et al., 2008). Homan, Van Knippenberg, van Kleef and De Dreu (2007) found a moderating effect of diversity beliefs on the positive relationship between informational diversity and group performance such that heterogeneous groups with pro-diversity beliefs performed better than heterogeneous groups with pro-similarity beliefs.

Limitations and future research

This study had several limitations. First, there is no objective measure for performance used in this study. The measure used in this study is the perception of one team member on one specific aspect of the team, namely the quality of their decisions. Participants had to rate the quality of team decisions on their own without consulting supervisors or colleagues. Using an

objective measure of team performance would provide the study with more generalizability and power. For example, using team bonuses, turnover or supervisor ratings would help to draw more practical conclusions and might even provide an exact prediction of improved results from increasing diversity and inclusion. Future research should try to include an objective measure or something as close to it as possible (e.g. supervisor ratings).

Second, the use of individual diversity beliefs on a team outcome might have limited the results of this study. Ideally, all the members of a team would answer the items concerning diversity beliefs and a team level diversity beliefs outcome could be generated. This could more easily be related to a team outcome like team decision quality or any other team performance measure. Previous research aggregated individuals' scores to the group level because each individual's answer is most likely not independent from the ones from their colleagues (Homan et al., 2007). This might be an explanation for the absence of any significant effect of diversity beliefs in this study. Aggregating the individual scores does require participation of all team members of every participating team, but it will be likely to improve the results.

Third, the diversity beliefs scale yielded a very low internal reliability. Contrary to results achieved by other researchers who used a similar scale (e.g. Meyer & Schermuly, 2012; Van Dick et al. 2008). Translating the items from English to Dutch might have influenced the comprehensibility of some of the items, specifically the reverse scored ones.

Fourth, considering that this is a cross-sectional study, no causal conclusions can be drawn. Longitudinal research would be necessary to see whether team gender diversity actually causes better team performance or if high performance teams are just more diverse for some other reason. Not much longitudinal research has been done, but diversity has been demonstrated to lead to higher group identification as a positive outcome when accompanied with positive diversity beliefs (Van Dick et al., 2008). Execution of more longitudinal research of the diversity-performance relationship and its influencing factors is necessary to have more robust conclusions.

Finally, this research was aimed at organizations working in the service sector, thus limiting any generalization to other sectors. However, previous research showed that diversity has the most positive effect on performance in that specific sector, so it would make sense to always start testing that specific type of organization. Reasons suggested for this are that in the service sector there is much inter-employee interaction and much employee-client interaction compared to for example manufacturing sector organizations (Ali, Kulik, & Metz, 2011).

Aside from the limitations mentioned above and the ways of overcoming those in future research, another possibility for further exploring the diversity-performance relationship would

be to include inclusion practices in the analysis. In the current study, team gender diversity was positively related to inclusion. However, it would make sense to explore why this was the case. Could it be that organizations with highly diverse teams pay more attention to inclusion? And if so, is it merely the presence of inclusion practices combined with diversity, or are there more factors that play a role in this relationship? Nishii (2013) developed a scale to measure climate for inclusion. This scale includes both the feeling of inclusion and the presence of inclusion practices in organizations in one score. In her research, Nishii presented an interaction effect between inclusion and gender diversity on outcome variables such as unit conflict and unit satisfaction. Including the inclusion practices that are implemented by an organization might result in more results like these. However, separating inclusion practices and perceived inclusion might provide more practical conclusions since it will not only present the level of inclusion, but also the effect of the inclusion practices that are in place.

Another possible explanation for the role of inclusion in the diversity-performance relationship might be found in leadership behaviors exhibited by men and women and their relation to a healthy organization. That is, women turn out to demonstrate much more behavior supporting organizational health than men do (McKinsey & Company, 2013). This finding is supported by a meta-analysis by Eagly, Johannesen-Schmidt and Van Engen (2003) examining 45 studies on different leadership styles. Women typically showed leadership behaviors that were related to higher effectiveness (i.e. leading an effective group or getting others to do more than expected) whereas the behaviors shown by men did not have any relation to effectiveness. So leadership behaviors might be a reason for the positive relationship between diversity and performance. Furthermore, an example of behaviors more shown by women is participative decision-making which is an important part of inclusion. Thus, these behaviors of organizational health with the diversity-performance relationship and inclusion would be a very interesting area for future research.

Practical implications

This research provided support for the idea that creating diverse teams regarding gender composition improves performance of those teams and thus consequently the organization. In other words, organizations should aim to achieve gender balanced teams, which should be possible considering the percentage of women entering the job market at entry level every year, which was 52% in 2012 (McKinsey & Company, 2013).

Given the finding that the effect of team gender diversity on team performance partially works through inclusion also reveals a clue of what organizations should do to benefit from diverse teams. Actively working towards a climate of inclusion facilitates diversity to reach its potential. Many of such practices are in place in organizations, but when they are not, diversity might have adverse effects.

Conclusion

In summary, team gender diversity is positively related to team performance when it comes to team decision quality in organizations working in the service sector. This once again emphasizes the importance of having an equal number of men and women in the workplace. The relationship works both directly and indirectly through inclusion. Inclusion is positively affected by team gender diversity and in itself positively related to team performance. There is room for further exploration as to why this is the case, but having a diverse workforce in combination with good inclusion practices is, at least based on the present findings, highly recommended.

Acknowledgement

The author is grateful to Reine van der Wal for her support and critical feedback throughout the entire development of this research paper.

References

Abramis, D. J. (1994). Relationship of job stressors to job performance: Linear or an inverted-U?. *Psychological Reports*, 75, 547-558.

Ahern, K. R., & Ditmmar, A. K. (2012). The changing of the boards: The impact on firm valuation of mandated female board representation. *The Quarterly Journal of Economics*, 127, 137-197.

Aiken, L. S., & West, S. G. (1991) *Multiple regression: Testing and interpreting interactions*. Newbury Park, Calif.: Sage Publications.

Ali, M., Kulik, C. T., & Metz, I. (2011). The gender diversity-performance relationship in services and manufacturing organizations. *The International Journal of Human Resource Management*, 22(7), 1464-1485.

Bohren, Ø., & Strom, R. Ø. (2010). Governance and politics: Regulating independence and diversity in the board room. *Journal of Business, Finance & Accounting*, 37(9), 1281-1308.

Catalyst. (2014, August). *Legislative board diversity*. Retrieved November 24, 2014 from http://www.catalyst.org/legislative-board-diversity.

Cho, S., & Mor Barak, M. E. (2008). Understanding of diversity and inclusion in a perceived homogeneous culture: a study of organizational commitment and job performance among Korean employees. *Administration in Social Work*, 32(4), 100-126.

Downey, S. N., Van der Werff, L., Thomas, K. M., & Plaut, V. C. (2015). The role of diversity practices and inclusion in promoting trust and employee engagement. *Journal of Applied Social Psychology*, 45, 35-44.

Eagly, A. H., Johannesen-Schmidt, M. C., & Van Engen, M. L. (2003). Transformational, transactional, and laissez-faire leadership styles: a meta-analysis comparing women and men. *Psychological Bulletin*, 129(4), 569-591.

Ellison, S. F. & Mullin, W. P. (2014). Diversity, social goods provision, and performance in the firm. *Journal of Economics & Management Strategy*, 23(2), 465-481.

Farndale, E., Biron, M., Briscoe, D. R., & Raghuram, S. (2015). A global perspective on diversity and inclusion in work organisations. *The International Journal of Human Resource Management*, 26(6), 677-687.

Ferdman, B. M., Avigdor, A., Braun, D., Konkin, J., & Kuzmycz, D. (2010). Collective experience of inclusion, diversity, and performance in work groups. *Ram Revista de Administraçao Mackenzie*, 11(3), 6-26.

Findler, L., Wind, L. H., & Mor Barak, M. E. (2007). The challenge of workforce management in a global society. *Administration in Social Work*, 31(3), 63-94.

Grant Thornton. (2014, March). Women in business: From classroom to boardroom. Grant Thornton International Business Report.

Harrison, D. A., & Klein, K. J. (2007). What's the difference? Diversity constructs as separation, variety, or disparity in organizations. *Academy of Management Review*, 32(4), 1199-1228.

Homan, A. C., Van Knippenberg, D., van Kleef, G. A., & De Dreu, C. K. W. (2007). Bridging faultlines by valuing diversity: Diversity beliefs, information elaboration, and performance in diverse work groups. *Journal of Applied Psychology*, 92(5), 1189-1199.

Hoogendoorn, S., Oosterbeek, H., & Van Praag, M. (2013). The impact of gender diversity on the performance of business teams: evidence from a field experiment. *Management Science*, 59(7), 1514-1528.

Horwitz, S. K. & Horwitz, I. B. (2007) The effects of team diversity on team outcomes: a meta-analytic review of team demography. *Journal of Management*, 33(6), 987-1015.

Hwang, J., & Hopkins, K. M. (2015). A structural equation model of the effects of diversity characteristics and inclusion on how organizational outcomes in the child welfare workforce. *Children and Youth Services Review*, 50, 44-52.

Janssen, O., Van de Vliert, E., & Veenstra, C. (1999). How task and person conflict shape the role of positive interdependence in management teams. *Journal of Management*, 25(2), 117-142.

Joecks, J., Pull, K., & Vetter, K. (2013). Gender diversity in the boardroom and firm performance: what exactly constitutes a "critical mass"? *Journal of Business Ethics*, 118, 61-72.

Lee, C. & Farh, J. L. (2004). Joint effects of group efficacy and gender diversity on group cohesion and performance. *Applied Psychology: An International Review*, 53(1), 136-154.

McKinsey & Company. (2010). Women at the top of corporations: Making it happen. *Women matter*.

McKinsey & Company. (2013) Gender diversity in top management: moving corporate culture, moving boundaries. *Women Matter*.

Meyer, B., & Schermuly, C. C. (2012). When beliefs are not enough: Examining the interaction of diversity faultlines, task motivation, and diversity beliefs on team performance. *European Journal of Work and Organizational Psychology*, 21(3), 456-487.

Mor Barak, M. E. (2008) Social psychological perspectives of workforce diversity and inclusion in national and global contexts. In R. Patti (Ed.) *Handbook of human service management* (pp. 239-254). Thousand Oaks, CA: Sage Publications.

Mor Barak, M. E., & Levin, A. (2002). Outside of the corporate mainstream and excluded from the work community: a study of diversity, job satisfaction and well-being. *Community, Work & Family*, 5(2), 133-157.

Nishii, L. H. (2013). The benefits of climate for inclusion for gender-diverse groups. *Academy of Management Journal*, 56(6), 1754-1774.

Pelled, L. H. (1996). Demographic diversity, conflict, and work group outcomes: an intervening process theory. *Organization Science*, 7(6), 615-631.

Roberson, Q. M. (2006). Disentangling the meanings of diversity and inclusion in organizations. *Group & Organization Management*, 31(2), 212-236.

Solanas, A., Selvam, R. M., Navarro, J., & Leiva, D. (2012). Some common indices of group diversity: upper boundaries. *Psychological Reports: Human Resources & Marketing*, 111(3), 777-796.

Stewart, M. M., & Johnson, O. E. (2009). Leader-member exchange as a moderator of the relationship between work group diversity and team performance. *Group & Organization Management*, 35(5), 507-535.

Swann, W. B., Kwan, V. S. Y., Polzer, J. T., & Milton, L. P. (2003). Fostering group identification and creativity in diverse groups: The role of individuation and self-verification. *Personality and Social Psychology Bulletin*, 29(11), 1396-1406.

Trepte, S. (2013) Social identity theory. In J. Bryant & P. Vorderer, *Psychology of Entertainment* (pp. 255-271). London, Routledge.

Van Dick, R., Van Knippenberg, D., Hägele, S., Guillaume, Y. R. F., & Brodbeck, F. C. (2008). Group diversity and group identification: The moderating role of diversity beliefs. *Human Relations*, 61(10), 1463-1492.

Van Knippenberg, D., Haslam, S. A., & Platow, M. J. (2007). Unity through diversity: Value-in-diversity beliefs, work group diversity, and group identification. *Group Dynamics: Theory, Research, and Practice*, 11(3), 207-222.

Van Knippenberg, D., Van Ginkel, W. P., & Homan, A. C. (2013). Diversity mindsets and the performance of diverse teams. *Organizational Behavior and Human Decision Processes*, 121, 183-193.

Wegge, J., Roth, C., Neubach, B., Schmidt, K. H., & Kanfer, R. (2008). Age and gender diversity as determinants of performance and health in a public organization: The role of task complexity and group size. *Journal of Applied Psychology*, 93(6), 1301-1313.

Appendix

Table 4Hierarchical regression of the relationship between individual performance and
team gender diversity, inclusion and diversity beliefs and their interaction

Variable	В	SE (B)	β	ΔR^2
Step 1				.16***
Gender diversity (GD)	2.19	.53	.40***	
Step 2				.44***
Gender diversity (GD)	.86	.39	.26*	
Inclusion (I)	.54	.06	.69***	
Diversity beliefs (DB)	.10	.08	.08	
Step 3				.06**
Gender diversity (GD)	.853	.39	.16*	
Inclusion (I)	.55	.05	.71***	
Diversity beliefs (DB)	.16	.08	.13	
GD x I	17	.06	20**	
GD x DB	10	.07	10	
Step 4				.02
Gender diversity (GD)	.65	.39	.12	
Inclusion (I)	.54	.05	.69***	
Diversity beliefs (DB)	.11	.08	.09	
GD x I	18	.06	21**	
GD x DB	12	.07	12	
GD x I x DB	.18	.09	.15	

Total F(6, 83) for Step 4 = 29.13***, Adjusted R^2 = .65. *p < .05, **p < .01, ***p < .001 (two-tailed).

Variable	В	SE (B)	β	ΔR^2
Step 1				.18***
Subjective diversity (SD)	.30	.07	.42***	
Step 2				.33***
Subjective diversity (SD)	.04	.06	.06	
Inclusion (I)	.71	.09	.67***	
Diversity beliefs (DB)	.11	.12	.07	
Step 3				.01
Subjective diversity (SD)	.04	.07	.05	
Inclusion (I)	.65	.11	.62***	
Diversity beliefs (DB)	.13	.13	.08	
SD x I	08	.07	11	
SD x DB	.04	.08	.05	
Step 4				.04
Subjective diversity (SD)	.01	.07	.01	
Inclusion (I)	.63	.10	.60***	
Diversity beliefs (DB)	.03	.13	.02	
SD x I	10	.06	14	
SD x DB	01	.08	01	
SD x I x DB	.22	.08	.23	

Table 5Hierarchical regression of the relationship between team performance and
subjective team diversity, inclusion and diversity beliefs and their interaction

Total F(6, 83) for Step 4 = 17.44***, Adjusted R^2 = .53. *p < .05, **p < .01, ***p < .001 (two-tailed).

Questionnaire

Team performance (decision quality)

Based on Janssen, Van De Vliert and Veenstra (1999)

Answer on a 5-point Likert scale (1 = *completely disagree*, 5 = *completely agree*).

Decisions taken by my team:

- generally were of lower quality than decisions taken by other teams within our organization (reversed).
- generally won golden opinions inside the organization.
- appeared to be well implementable.
- had a positive effect on the performance of our organization.

Individual performance

Based on Abramis (1994).

Answer on a 5-point Likert scale (1 = very poorly, 5 = exceptionally well).

While working in your team, how well were you...

- handling the responsibilities and daily demands of your work?
- making the right decisions?
- performing without mistakes?
- getting things done on time?
- getting along with others at work?
- avoiding arguing with others?
- handling disagreements by compromising and meeting other people half-way?

Inclusion

Based on Downey, Van der Werff, Thomas, and Plaut (2015).

Answer on a 5-point Likert scale (1 = *completely disagree*, 5 = *completely agree*).

- I believe that I play an important role in helping to shape the policies, procedures, and practices of my team.
- All viewpoints, including those that differ from the majority opinion, are considered before decisions are made by my team.
- My co-workers show their appreciation for the contributions I make to our team.
- In my team everyone works closely together to accomplish our goals and those of the organization.

- Everyone in my team, regardless of background and perspective, is encouraged to share their ideas openly.
- There is zero-tolerance for any form of harassment in my team.
- I do not have to compromise my values and beliefs to be accepted by my team members.
- In my team, people are accepted for who they are.
- Differences are valued and appreciated in my team.

Diversity Beliefs

Based on Van Dick, Van Knippenberg, Hägele, Guillaume, and Brodbeck (2008).

Answer on a 5-point Likert scale (1 = *completely disagree*, 5 = *completely agree*).

- I think that teams benefit from the involvement of people from both genders.
- Creating teams that contain people from both genders can be a recipe for trouble. (reversed)
- I think that teams should contain people from one gender. (reversed)
- A good mix of group members' gender helps doing the task well.

Objective diversity

Calculated using Blau's index (1977) (Solanas, Selvam, Navarro, & Leiva, 2012).

- Of how many members does your team consist?
- How many members of your team are male?

Subjective diversity

Based on Van Dick, Van Knippenberg, Hägele, Guillaume, and Brodbeck (2008).

Answer on a 5-point Likert scale (1 = *not at all diverse*, 5 = *very diverse*).

- How diverse do you think your team is in general?
- How diverse do you think your team is in terms of gender composition?

General questions

- What is your gender?
- What is your nationality?
- What is your age?
- What is your job level?