Work Team Performance: Role of Team Diversity

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Abstract
The paper deals with the topic of impact of team diversity on the team performance. A set of variables related to the team characteristics and team managers were used to evaluate their impact on the team performance measured as average country performance ranking of work teams from all the countries in scope. Country performance ranking was based on the achieved revenue of work teams from selling company products in certain country. The authors were able to collect data about 948 work teams from a global multinational enterprise (referred as MNE) from all around the Globe. The results of the linear regression show that the overall team performance was apart from the gender diversity of the team further determined by its national diversity, first language, structural stability and seniority score.

Keywords: work team diversity, work team performance, gender diversity

JEL Classification: J16, L25, M14

1. Introduction
With the increasing diversity of the workforce and the prevailing affirmation of the value of diversity in company performance, many organizations are changing their human resource strategy to achieve greater diversity among their employees (Kossek, Markel, & McHugh, 2003). A growing number of literature and studies are focusing on the relationship between diversity and performance. From the information/decision-making perspective, the academic literature has advocated positive effects of diversity on performance (Williams & O'Reilly, 1998). Competitive advantages can be obtained from the variation in knowledge and perspectives that result from diversity (Herring, 2009). Team members who share similar values communicate more frequently, helping to reduce conflict and increase the efficient use of knowledge (Mitchell, Nicholas, & Boyle, 2009). However, based on the similarity-attraction paradigm, other studies suggest that diversity may have trade-offs such as reduced and constrained communication and coordination (van Knippenberg, De Dreu, & Homan, 2004).

According to information processing theory, diversity can foster creativity, performance, and innovation, by providing informational cues and diverse cognitive resources. In contrast, self-categorization theory states that diversity creates social divisions and interpersonal conflicts that have negative effects on different outcome (Van der Vegt, 2002). Using these two different perspectives, previous studies have distinguished the roles of relational or social-category diversity from informational or task related diversity (Choi, 2007). However, there is not a clear pattern regarding the performance effects of diversity on various personal characteristics (Webber & Donahue, 2001). The potential reason could be that the typical social category variables such as gender and age also imply a diversity of information due to different experiences and perspectives (Ali, Kulik, & Metz, 2011). Considering this assumption, typical task-related variables such as functional background and length of service also activate social
categorization processes and stereotypes based on in-group and out-group perceptions (Van der Vegt, Vliert, & Oosterhof, 2003).

To social categorization and information processing functions of diversity, can be added also its status-related implications. The status characteristics theory (SCT) emphasizes the role of status differences between individuals, which often leads to lower performance (Berger, Fisek, Norman, & Zelditch, 1977). The process of social categorization can have a greater impact on individual behaviour when the social category clearly implies differentiated status. Diversity researchers have recently begun to adopt SCT as a central theoretical foundation that provides complementary explanations for diversity effects at the group level of analysis (Chatman & O'Reilly, 2004). The status-related process appears particularly critical at the organizational level, as it can set the general climate for employee interactions and provide an institutional signal regarding the social structure of the organization.

According to SCT different individual characteristics such as gender, age, ethnicity, education, and experience lead to different perceptions of job competence and execution expectations for others. Such expectations automatically shape the status structure in the workplace, leading to discrimination between higher and lower status members (Amoroso, Loyd, & Hoobler, 2010). Status differences lead to reduced communication and interpersonal undervaluation, which negatively impact creativity and performance (Harrison & Klein, 2007). Diversity in the hierarchical positions of organizational members should reduce both the qualitative and quantitative performance of working team by creating an institutional context that supports and strengthens divisive formal and informal organizational structures (Choi, Sung, & Zhang, 2017). On the other hand, diversity characteristics such as gender, age, and education, that are less related to status of team members, may not create significant social divisions between employees. Therefore, informational benefit is more likely to be achieved by employees of different age, gender, and education (Choi et al., 2017). Diversity in gender, age and education promotes the distribution of work among team member, which can be done more effectively because of the less significant impact of these characteristics on status and social differences between employees. Gender diversity is a source of intangible and socially complex resources that improve creativity, problem-solving, and overall team performance (Ali et al., 2011).

Gender diversity of work teams has positive impact on the performance because of complementarity between men and women in terms of skills and abilities (Ali et al., 2011). Similarly, work teams may be more effective and productive when consisting of employees of different age, because of the potential complementarity and distribution of work between younger and older team members based on their social experiences, skills, and different backgrounds (Bantel & Jackson, 1989). In addition, age diversity of work teams also decreases interpersonal tension and redundant competition. This is because employees at the same stages of life and career tend to seek the same resources and positions in organizations, leading to potential tension and destructive competitive behaviour (Choi, 2007). Companies consciously diversify the age structure of their workforce in order to maintain long-term continuity with a corresponding transfer of knowledge from the older to the younger generation of employees (Choi et al., 2017).

Diversity of workforce from the perspective of different educational qualifications can also improve the distribution of work by bringing heterogeneous skills and experiences to work teams. Companies require employees for a range of different functions with different levels of complexity and skill requirements (Nagel & Bhargava, 1994). In this respect, it is important to have employees with different skills and levels of education in order to avoid underutilizing high-skilled employees on routine tasks or assigning low-skilled team members with
complicated problems (Peri & Sparber, 2009). The relatively small impact of gender and education on status increases the potential performance gain from gender and education diversity. This is caused by distribution of work and specific tasks based on these criteria, which helps companies to solve even complex problems more creatively and to use internal resources more efficiently (Choi et al., 2017).

Considering this background, the main goal of this paper is to analyse the impact of team diversity on the team performance. A set of variables related to the team characteristics and team managers are used to evaluate their impact on the team performance as well. The presented study is performed on the sample of 948 work teams from a global multinational enterprise from all around the Globe.

2. Data and Methods

For the purpose of this research were used two main sources of data. First set of data was internal global employee headcount report of analysed MNE. Based on this dataset it was possible to identify following team diversity characteristics, whose impact on team performance was subsequently measured. Gender Diversity variable on a scale 0% to 100% measures percentage of female team members. Gender of Team Manger provides information if team manager is male or female. Nationality Diversity on a scale 0% to 100% measures different nationalities represented within the work team. Number of different mother languages of team members is represented by variable First Language. Seniority Score measures average work experience of team members. Score 1 within this variable is assigned to employees being on entry level position within the company with the lowest required qualification for the job. Score 10 is the highest possible career level team member can achieve as individual contributor within the company hierarchy (i.e., not being on manager position). Working Area is quantifying different job specialization areas of team members. Team Size quantifies number of team members, considering that for the purpose of this research were selected only work teams with at least 5 team members. Team Structure Stability variable measures how many years on average are employees part of their current work team. Time in Management Level quantifies how many years is current team manager on people managerial position in the company.

Second main source of data was internal sales performance report of analysed MNE. As performance indicator from this report was used achieved revenue on work team level during calendar year 2020. Based on the achieved revenue of work teams in particular country, the country performance ranking of work teams was constructed. The final performance ranking of all 948 sales work teams in scope was calculated as the average performance ranking of work teams from all 39 countries in scope.
Table 1: Variables explained

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measurement</th>
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<tbody>
<tr>
<td>Gender Diversity</td>
<td>1=0% (no female team members); 2=1%-20%; 3=21%-40%; 4=41%-60%; 5=61%-100%</td>
</tr>
<tr>
<td>Gender of Team Manger</td>
<td>1=female; 2=male</td>
</tr>
<tr>
<td>Nationality Diversity</td>
<td>1=0% (all team members have the same nationality); 2=1%-20%; 3=21%-40%; 4=41%-60%; 61%-100% (each team member has different nationality)</td>
</tr>
<tr>
<td>First Language</td>
<td>1=1 language; 2=2 languages; 3=3 languages; 4=4 and more languages</td>
</tr>
<tr>
<td>Seniority Score</td>
<td>1=up to 6 (incl.); 2=6 to 7 (incl.); 3=over 7</td>
</tr>
<tr>
<td>Working Area</td>
<td>1=1 working area; 2=2 working areas; 3=3 and more working areas</td>
</tr>
<tr>
<td>Team Size</td>
<td>1=5 to 7; 2=8 to 9; 3=10 to 11; 4=12 and more team members</td>
</tr>
<tr>
<td>Team Structure Stability</td>
<td>1=up to 2 years (incl.); 2=2 to 3 years (incl.); 3=3 to 4 years (incl.); 4=over 4 years</td>
</tr>
<tr>
<td>Time in Management Level</td>
<td>1=up to 2 years (incl.); 2=2 to 3 years (incl.); 3=3 to 4 years (incl.); 4=more than 4 years</td>
</tr>
</tbody>
</table>

Source: MNE’s documentation

Linear regression was used to verify the impact of selected variables on work team performance. The dependent variable was the performance of the team. The independent variables were the team gender diversity, the gender of the team manager, nationality diversity, first language, work experience, seniority score, team working area, team size, team structure stability and team manager’s time in management level.

3. Results and Discussion

Results show that not all the variables examined had a statistically significant effect on the performance of the work teams in the evaluated organization (Table 2). Gender of team manager, size of the team and the working area seem to be without a significant effect on the work team performance. On the other hand, team gender diversity, team nationality diversity, first language used in team, seniority score and team structure stability seem to improve the work team performance.

Table 2: Linear Regression Results

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>St. Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>549.847</td>
<td>68.505</td>
<td>8.026</td>
<td>0.000</td>
</tr>
<tr>
<td>Gender Diversity</td>
<td>36.385</td>
<td>8.379</td>
<td>0.146</td>
<td>4.342</td>
</tr>
<tr>
<td>Gender of Team Manager</td>
<td>-36.136</td>
<td>22.019</td>
<td>-0.053</td>
<td>-1.641</td>
</tr>
<tr>
<td>Nationality Diversity</td>
<td>44.837</td>
<td>15.888</td>
<td>0.193</td>
<td>2.822</td>
</tr>
<tr>
<td>First Language</td>
<td>-75.539</td>
<td>20.707</td>
<td>-0.250</td>
<td>-3.648</td>
</tr>
<tr>
<td>Seniority Score</td>
<td>-50.709</td>
<td>13.699</td>
<td>-0.127</td>
<td>-3.702</td>
</tr>
<tr>
<td>Working Area</td>
<td>-8.972</td>
<td>14.059</td>
<td>-0.021</td>
<td>-0.638</td>
</tr>
<tr>
<td>Team Size</td>
<td>7.831</td>
<td>8.375</td>
<td>0.031</td>
<td>0.935</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Team Structure Stability</th>
<th>27.279</th>
<th>10.241</th>
<th>0.096</th>
<th>2.664</th>
<th>0.008**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time in Management Level</td>
<td>-14.252</td>
<td>10.333</td>
<td>0.043</td>
<td>-1.379</td>
<td>0.168</td>
</tr>
</tbody>
</table>

Note: $R^2=0.176$; ***$p < 0.001$; **$p < 0.01$; *$p < 0.05$.

Source: authors’ calculations

Our study confirmed the important role of gender and nationality diversity of the work teams when the work team performance’s considered. Similar results were confirmed by several previous studies (Gomez & Bernet, 2019; Fine, Sojo, & Lawford-Smith, 2020).

The results are also in line with those of Bell, Brown, Colaneri, and Outland (2018) and Greer de Jong, Schouten, and Dannals (1999) who both in their studies also confirmed the team hierarchy and team structure stability contribute to its improved performance.

4. Conclusion

Based on the results we conclude the gender diversity of the work team indeed impacts its performance. With higher share of women in the work team structure the performance improved. However, further significant determinants of the work team performance were its structure stability and seniority score. Therefore, the results should be approached with due caution since there are several factors accounting for the improved work team performance and, in this context, the sole role of the gender diversity calls for further evaluation and more in-depth research. There are also other limitations to our research. Above all the work team performance was evaluated in one global enterprise and the results might be different in other type of firm.

Acknowledgements

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