Diversity and team performance: A series of field experiments
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Citation for published version (APA):
Hoogendoorn, S. M. (2013). Diversity and team performance: A series of field experiments

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Chapter 6

Concluding remarks

This dissertation has studied the impact of diversity on team performance using a series of field experiments in which teams start up and manage real companies under identical circumstances. Exogenous variation in - otherwise random - team composition is imposed by assigning individuals to teams based on their gender, ethnicity or cognitive ability. The setting of these field experiments closely resembles that of (business) management practices in the longer run where tasks are diverse and involve complex decision-making. Evidence from this kind of experiments potentially contributes to the effective composition of teams in organizations. The results of this dissertation demonstrate that diversity in gender, ethnicity and cognitive ability has substantial and non-monotonic effects on the performance of teams. Various underlying mechanisms are explored to explain why teams of distinct degrees of diversity perform differently.

The first field experiment on the impact of gender diversity indicates that teams with an equal gender mix perform better than male-dominated teams. In addition, the results suggest that gender diverse teams perform no worse or even slightly better than teams with a majority of females. However, the sample did not include enough female-dominated teams to conclude firmly that these results are symmetric. None of the underlying mechanisms forthcoming from the literature, and insofar as these mechanisms could be tested, are found to explain this positive effect of gender diversity in teams on their performance.

The effect of ethnic diversity on team performance was investigated in the second field experiment. This experiment shows that the relationship between the performance of teams and ethnic diversity is flat or tends to decline down to a certain threshold level and starts increasing beyond this threshold level (at which at least about half of the team is ethnically diverse). Hence, the net effect of ethnic diversity in teams on their performance only turns out positive if ethnic diversity is sufficiently substantial. In line with theoretical predictions, ethnically diverse teams tend to be characterized
by a more diverse pool of relevant knowledge. Moreover, these teams experience more (mutual) learning which is probably facilitated by their more diverse pool of relevant knowledge. In sum, these findings suggest that complementarities in knowledge and more effective mutual learning are the underlying mechanisms that possibly explain superior performance of ethnically diverse teams. Unfortunately, the causality of the complementarities/learning-performance relationship cannot be established based on the research design that is employed in this dissertation.

The third field experiment has examined the impact of diversity in cognitive ability. It demonstrates that team performance exhibits an inverse u-shaped pattern with diversity in cognitive ability (controlling for the average cognitive ability of teams). This finding is consistent with the predictions of the proposed model in which diversity in cognitive ability has both beneficial and detrimental effects. In the model, greater diversity in cognitive ability generates greater knowledge for a team and, hence, more valuable team output. However, greater diversity in cognitive ability simultaneously reduces the effectiveness of monitoring to detect and punish shirking by team members. Monitoring of each others effort becomes more difficult to judge the more distinct team members are in terms of their cognitive ability. At sufficiently high degrees of diversity in cognitive ability, the probability of being caught and dismissed for shirking declines so much that shirking reduces the performance of teams. Hence, teams of moderate diversity in cognitive ability are associated with maximal performance. Teams with a moderate degree of diversity in cognitive ability also experience fewer dismissals, although this does not chiefly explain why those teams achieve better results.

The results of this dissertation may have implications for the optimal formation of teams in organizations (such as business, start-up and top management teams). Many decisions in organizations are nowadays assigned to teams, not to individuals. A better understanding of the determinants of the effectiveness of teams has therefore become increasingly relevant. One of the most salient determinants of the effectiveness of teams is their diversity. In addition, recent developments have strengthened the relevance of diversity for organizations: (i) the share of women in higher education and the labor force has increased, (ii) local populations have become more ethnically diverse in a globalized world and the share of ethnic minorities in Western populations is rising sharply, and (iii) performance increasingly depends on human capital and the accumulation of knowledge in information-based economies. The results of this dissertation indicate that diversity can be employed as an organizational tool to promote efficiency or profitability. Yet, evidence from this dissertation also shows that the precise impact of diversity in teams on their performance is subtle. As such, this dissertation demonstrates that diversity is indeed a valuable asset for organizations and a promising field of research for academics.
It is important to emphasize the role of the setting in which teams execute their tasks. Teams in the field experiments of this dissertation operate in an entrepreneurial setting that requires coordination on a broad array of complex decision-making tasks. This does not necessarily imply that the results based on this setting generalize to other sets of tasks with possibly different degrees of broadness and complexity. A similar reasoning applies to another potential determinant of team performance, namely the size of teams. The effects of diversity reported in this dissertation may not hold for teams of a different size. In addition, other dimensions of diversity that remained unexplored here (such as diversity in age, experience or personality) could reveal different effects on the performance of teams. This dissertation has also focused purposely on the separate and unconfounded impact of various dimensions of diversity in teams on their performance. Hence, the possible interplay between different dimensions of diversity was neglected. Until today, however, studies analyzing the causal effect of diversity on team performance in the longer run have been scarce. This dissertation has exploited the novel opportunity to conduct field experiments with stratified randomization that closely resemble the functioning of real-world teams and, hence, potentially improve our understanding of the impact of diversity on the performance of teams in public and private organizations.

A next step for future research would be to replicate experiments like in this dissertation, preferably in real organizations and on a larger scale. Follow-up studies may also direct their focus to the effects of diversity in teams of a different size or in other settings that involve, for example, unskilled work tasks or competitive sports. Moreover, future research could examine the impact of different dimensions of diversity (rather than diversity in gender, ethnicity or cognitive ability) and the interplay between distinct dimensions of diversity. Finally, experimental replication studies may analyze the effects of diversity in teams on other outcomes such as organizational identity, employee motivation or customer satisfaction.