

Gender Diversity Impacts on Firm Performance in the Forest Sector



Kendall Conroy

Undergraduate Majoring in Renewable Materials Department of Wood Science and Engineering

Co-Authors:

Eric Hansen, Oregon State University, Lyndall Bull, Australian National University, Andreja Kutnar, University of Primorska, Rajat Panwar, University of British Columbia, Anne Toppinen, University of Helsinki

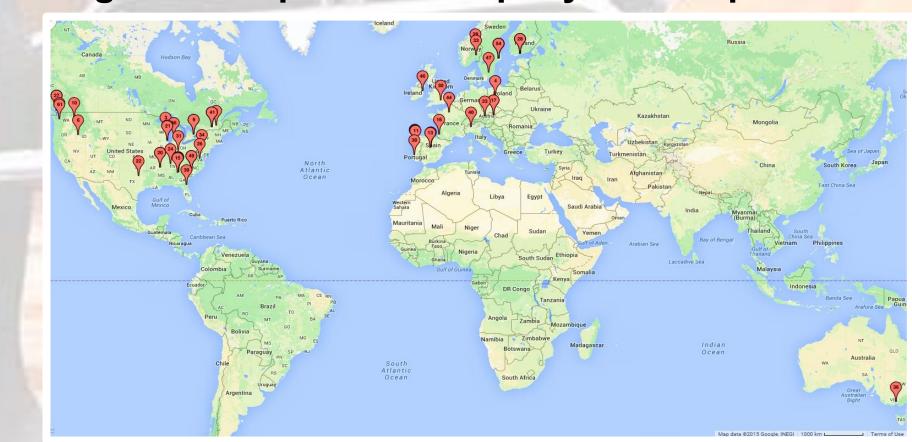
Abstract

The forest industry is predicted to lose a large percentage of its employees due to retirement in the coming decade. The industry also tends to lack diversity in its workforce, which makes this is an ideal time to move towards greater diversity. While many companies in the sector recognize the need for a more diverse workforce and have strategies in place to encourage diversity, there is little academic work evaluating the performance of such strategies. The existing research shows that greater diversity leads to increased creativity, openness to change, and innovation, all of which can contribute to increased financial performance. However, there is no information specific to forest sector firms. For that reason, we investigate the relationship between gender diversity and financial performance of large forest sector firms. We use the PricewaterhouseCoopers global 100 pulp, paper and packaging companies database and select those companies from Europe, North America and Oceania. Our data consists of the gender ratio of each of the 59 company's boards of directors and corporate executive teams. Preliminary regression analyses indicate a strong connection between greater female representation and firm performance. Consistent findings would provide further incentive for forest sector firms to strive for higher diversity in their workforces.

Introduction

- The forest industry is in a time of transition because of an aging workforce
- This opens up opportunity to recruit a workforce with greater diversity
- General literature suggests a positive relationship between gender diversity and: increased creativity³, openness to change³, and enhanced firm financial performance or value^{1,2}
- We find no literature specific to gender diversity and forest sector firms
- We investigate the relationship between gender diversity and financial performance of large forest sector firms

Figure 1. Map of All Company's Headquarters



Literature Cited:

- 1. Catalyst. 2004. The Bottom Line: Connecting Corporate Performance and Gender Diversity. Catalyst. New York, New York. 28 pp. 2. Giffi, C.A., and J. McNelly. 2013. Untapped Resource. How Manufacturers Can Attract, Retain, and Advance Talented Women. Deloitte
- Development 2. LLC. 14 pp. 3.Green, K.A., M. Lopez, A. Wysocki, and K. Kepner. 2008. Diversity in the Workplace: Benefits, Challenges, and the Required Managerial
- 4. University of Floriday, IFAS Extension HR022. 3 pp.
- 5. Joecks, J., K. Pull, and K. Vetter. 2013. Gender Diversity in the Boardroom and Firm Performance: What Exactly Constitutes a "Critical Mass?". Journal of Business Ethics. 61-72 pp.
- 6. EBITA stands for earnings before interest, taxes, depreciation, and amortization.

Background: Google Images

Methods

- Sample Frame: 2013 PricewaterhouseCoopers global 100 forest, paper and packaging industry companies headquartered in Europe, Oceania, and North America (Figure 1)
- Sample: 59 companies
- Data: company name, country, rank, EBITDA⁶, and gender makeup and position titles of members of each Board of Directors and Executive Teams
- Analysis: multiple regression (via Excel) with EBITDA⁶ as the dependent variable and proportion of females as two independent variables

Figure 2. Breakdown of All Female Executive Team

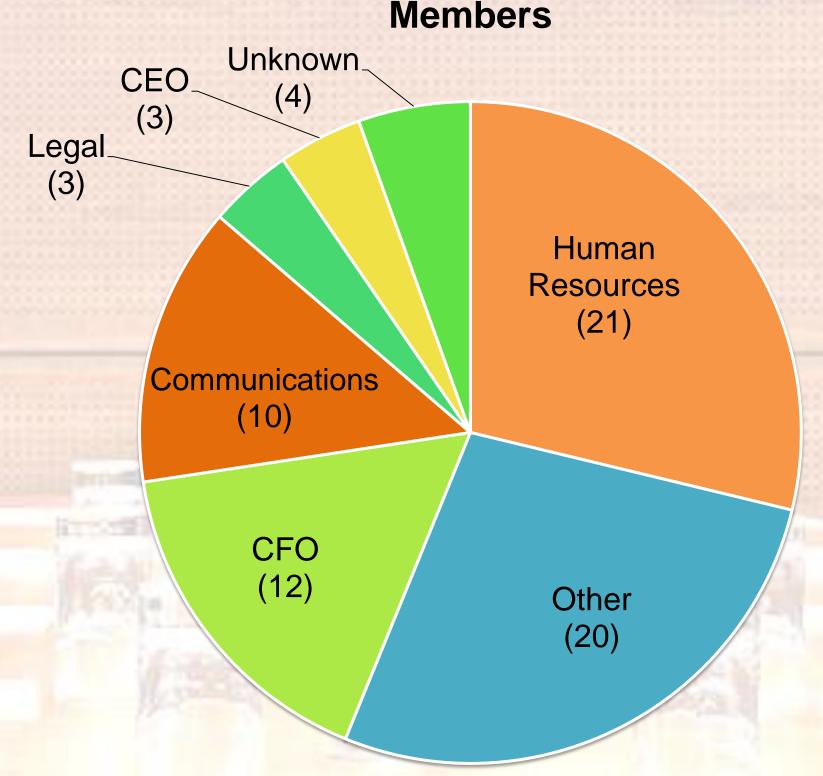
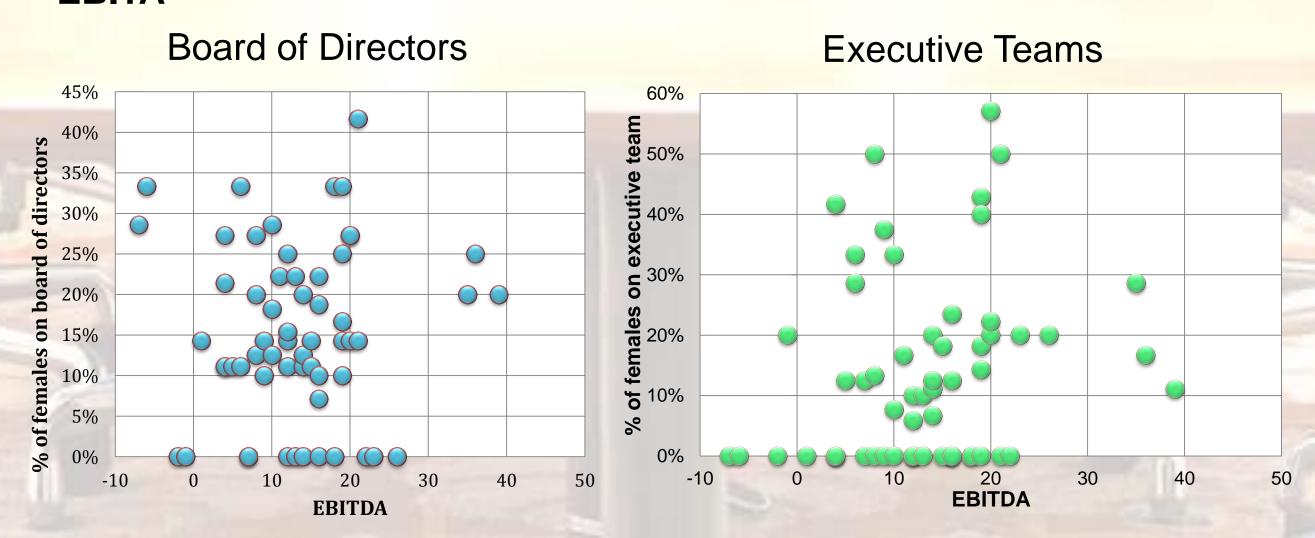
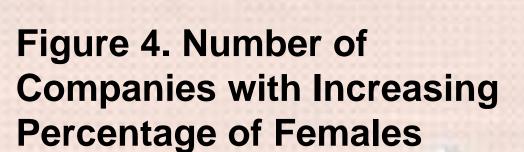


Figure 3: Scatter Plots of Percentage Female Members and Company **EBITA**



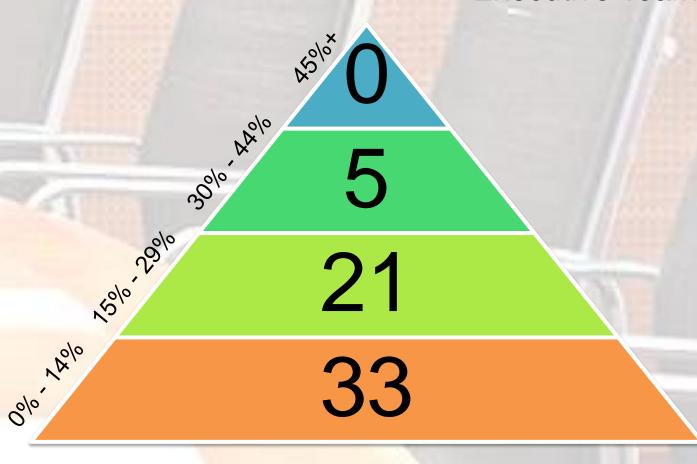
Results

- Board of Directors size ranged from 3 to 16 members, while the number of females ranged from 0 to 5. The highest percentage of female board members was 42 (Figure 2)
- Executive team size ranged from 2 to 20 members, while the number of females ranged from 0 to 6. The highest percentage was 57 (Figure 2)
- Nearly half of female executives work in human resources and communications (Figure 1)
- No relationship between female representation and financial performance (Figure 3)





Executive Teams



Boards of Directors

Discussion

Despite previous research results indicating a strong connection between percentage of corporate female leadership and firm financial performance, we find no relationship in large forest sector firms. We speculate that there may be two contributing factors, first past research shows that the impact of females takes place when there are three or more on the team⁵. In this sample, only 14% of boards and 19% of executive teams had three or more female members. This small number of firms in our sample may be insufficient to create a statistical difference. Second, most of the female executive team members were responsible for either human resources or communications. In these positions they may have limited influence on their firm's strategic decision-making. Looking forward, additional research should be done to investigate how female leaders with various corporate responsibilities impact firm performance.