

Greater Female Presence Means Better Corporate Performance

How Patents Reveal the Contribution of Diversity to Economic Value

May 25, 2017

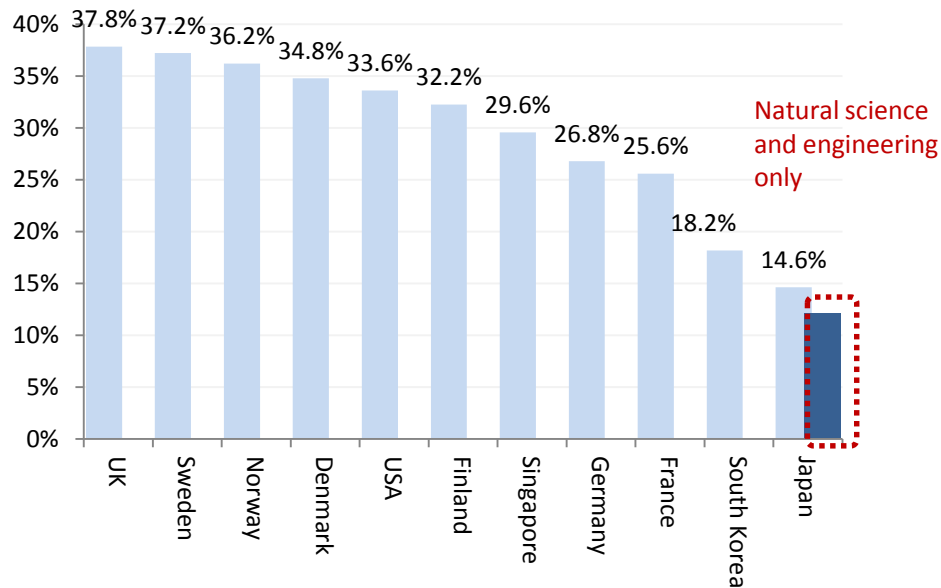


Yukari Mochi

Women's Participation in Research and Development

- Low birthrates and an aging society are shrinking the working population in Japan. It is a challenging environment in which to encourage women's participation in the workplace.
- Progress has been particularly slow in the fields of R&D.
- For more women to take an active part in R&D, we need to make workplace environments more conducive to innovation. This will also help to meet the growth in consumption by women.

Percentage of Female Researchers



The Female Presence in R&D

Background:

- Women's control over most consumption – a ratio set to grow in the future.
- The need for greater efficiency in R&D.

Response to consumption by women

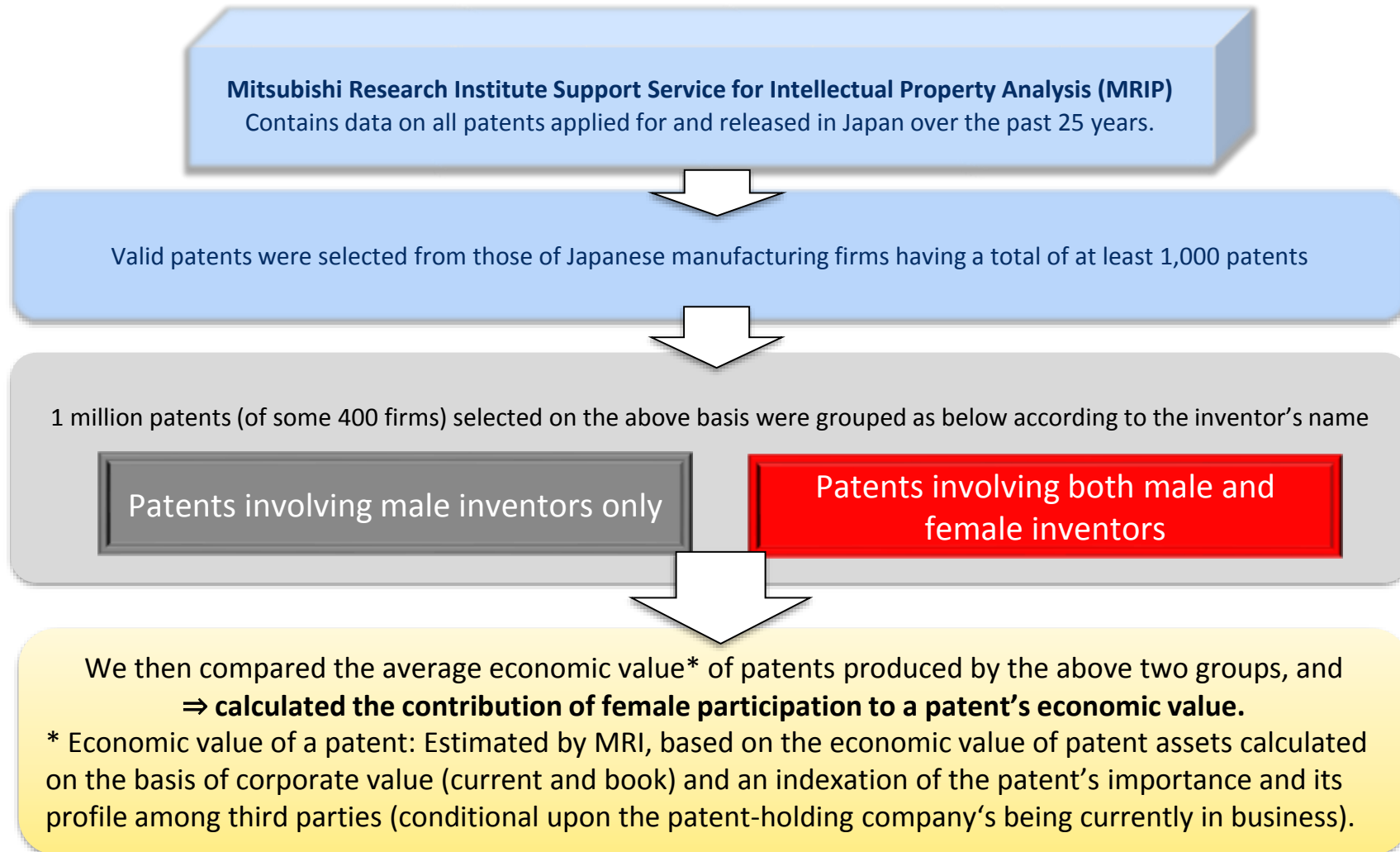
Boosting of innovation through greater diversity

Greater corporate value

Source:
 OECD "Main Science and Technology Indicators" and
 National Science Foundation "Science and Engineering Indicators 2014"

Prepared by DBJ.

Method of Verification

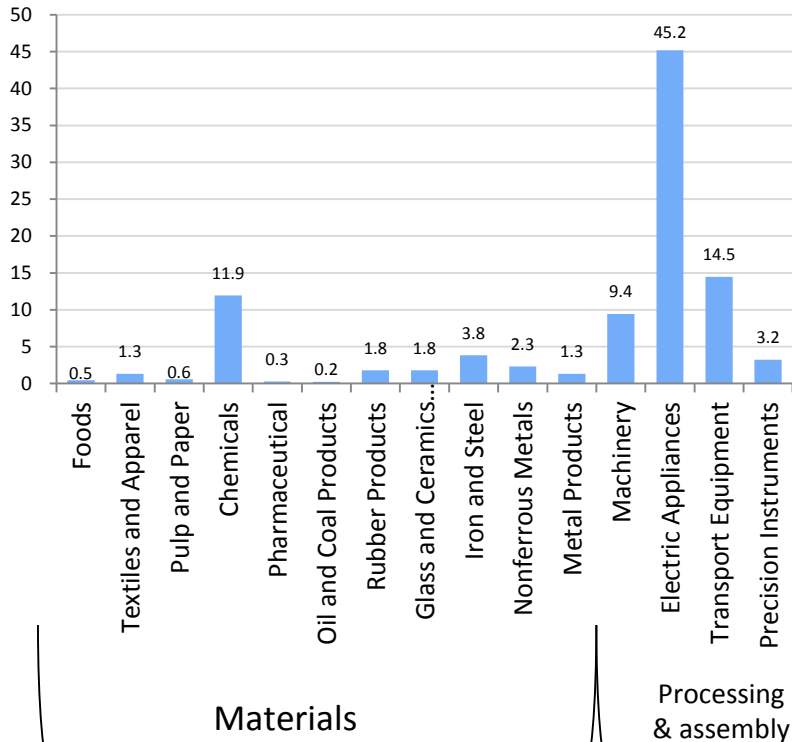


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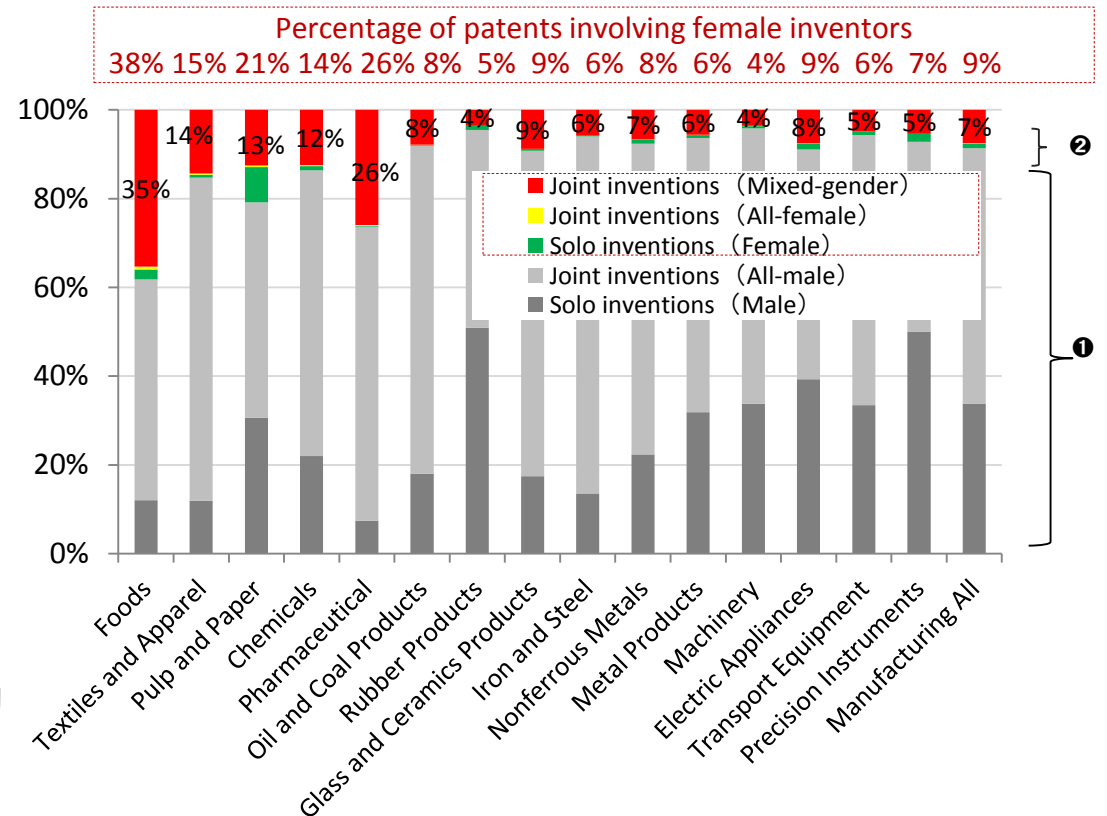
Patent Overview

- The greater part of patents were for electrical machinery and other processing and assembly industries. Chemicals accounted for a large share in the materials sector.
- The “percentage of patents involving at least one female inventor” (=rate of female participation) was higher in the materials sector while low, at 5 percent or so, in the processing and assembly industries.

Numbers of Domestic Patents



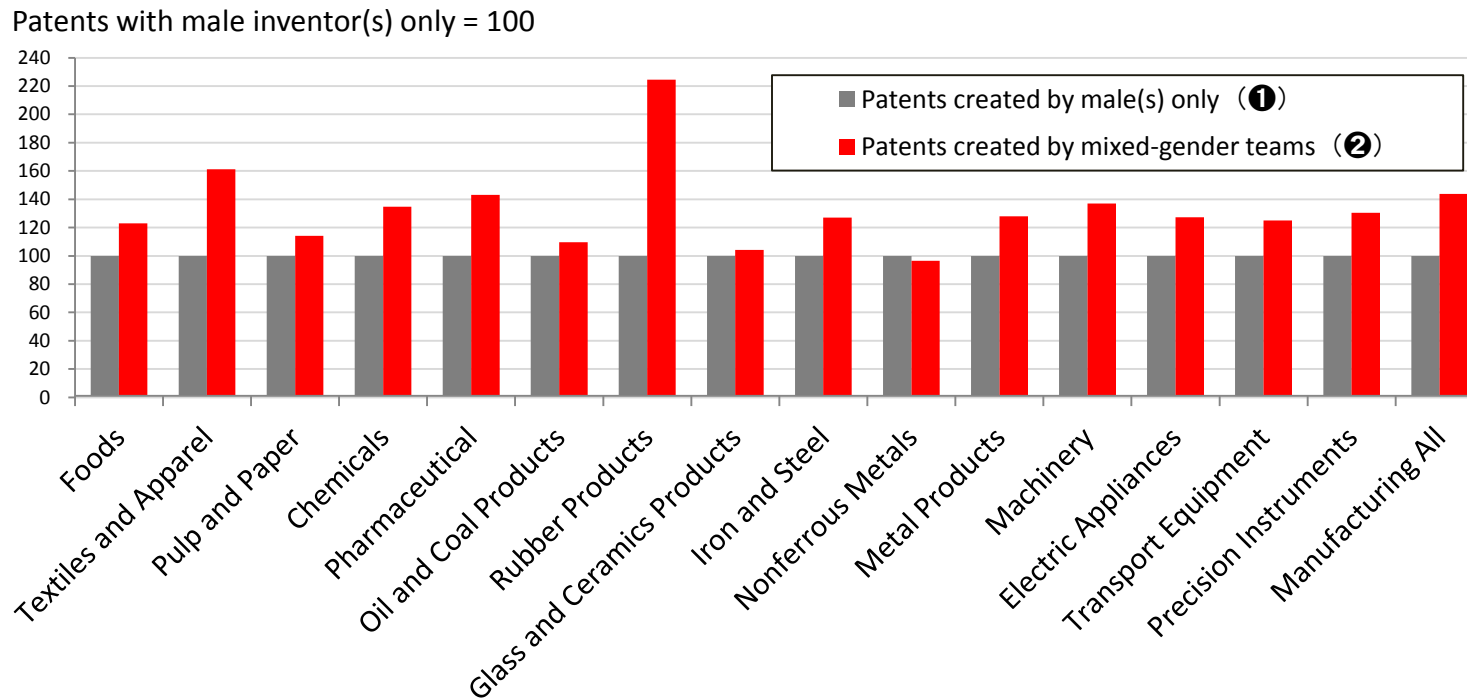
Patent Categories



The Result: Patents Created by Gender-diverse Teams Have Greater Economic Value

- Patents created by gender-diverse teams were shown to have greater economic value than those created by men only.
- In many industries the economic value was 1.2 times as great.

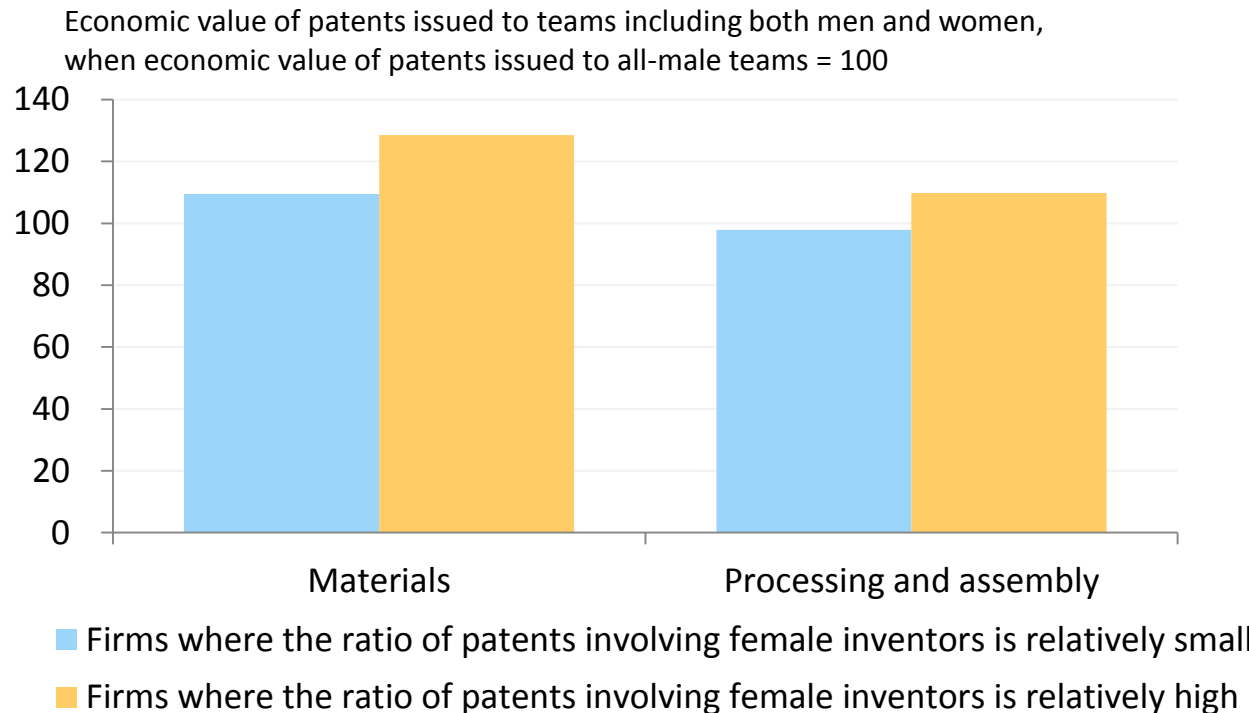
Comparison of Economic Value of Patents Involving Male Inventors Only and Those Also Involving Female Inventors



The More that Women Take Part, the Greater the Effect of Gender Diversity on Patents

- Gender diversity exerted its best effects in the group of companies where female participation was high.
- For gender diversity to make a greater impact on the economic value of patents in the R&D sector, we need a workplace environment in which at least some women participate actively.

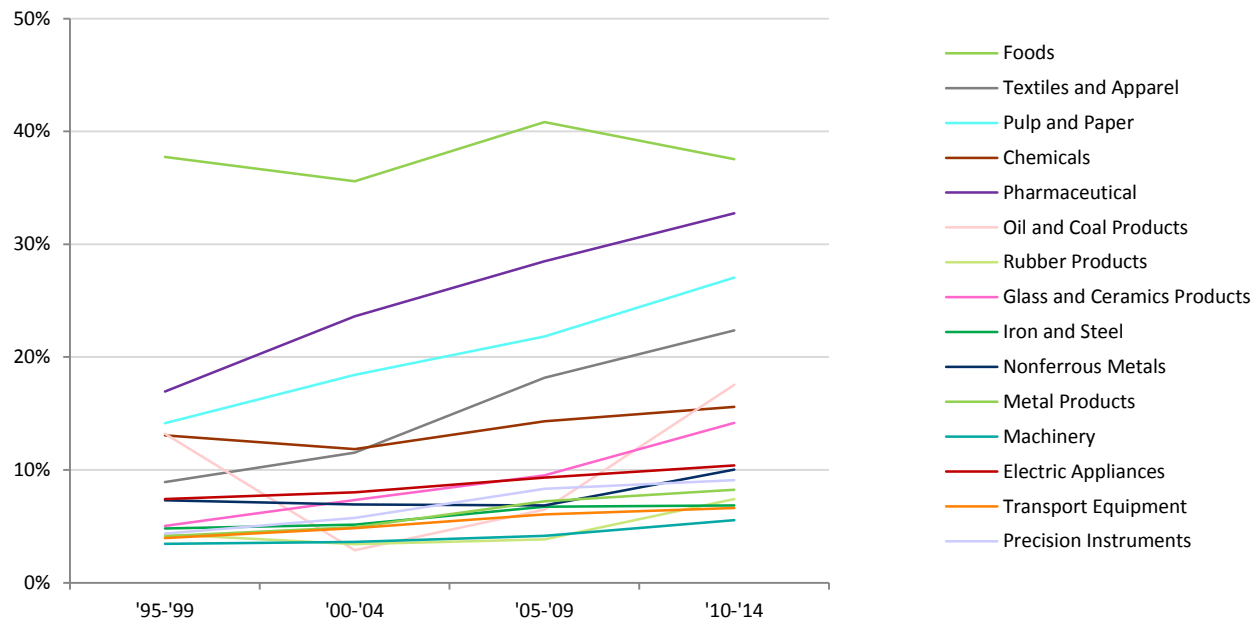
Contribution of Female Participation and Gender Diversity to Patents' Economic Value (Classified by Firms with High and Low Female Participation)



Conclusion

- In many industries the percentage of patents involving females (≡rate of female participation) is rising. In the processing and assembly sector it remains low.
- Patents have greater value when women play an active role in the workplace. The greater the progress in female participation, the greater the benefits of gender diversity. Thus, companies will benefit from making the most of their women employees.

Ratio of Patents Involving Female Inventors to Total Number of Patents



Thank you.

NEXT: **“Women’s Contribution to Area-Based Collaborative Research”**
Ms. Silaporn Buasai,