

Presence of Women in Top Managerial Positions

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The presence of female top managers in the private sector signals the existence of high paying jobs for women and also serves as further encouragement for other women to seek better employment. This note looks at the proportion of female top managers in private firms in 86 developing countries and its relationship with factors including country income level, gender disparity in education, firm-size, etc. The average proportion of top female managers is quite low at about 19 percent. This appears to be driven in part by gender disparity in education level and the lack of female managers in relatively large firms.

Introduction

Gender disparity is now recognized as a pervasive phenomenon across the world (Hausman et al. 2006). A number of studies show that women lag behind men in areas such as education, health, political empowerment, wage rates and incomes, and labor force participation rates. Consequences of gender disparity do not stop with lower well-being of women relative to men but may extend to lower growth and lower economic development (see for example, Klasen 2002). As a response, a common policy pursuit is the alleviation of constraints that impede women's labor force participation. One concern with focusing on participation rates is that increased women's employment is often concentrated in low paying and vulnerable jobs. Hence, it is crucial to examine the presence of women in not only high paying jobs but in jobs with significant decision making responsibilities which are thus less vulnerable (Elson 1999).

This note looks at the presence of female top managers in private firms in 86 developing countries. The presence of female top managers signals the existence of high paying jobs for women and also encourages other women to seek better employment. For example, women in top managerial positions may serve as role models for other women to seek better employment and higher paying jobs. Also, in contrast to male managers, female managers are less likely to discriminate against other women (as reported in some of the studies) and therefore more likely to promote female workers to higher paying jobs (see for example, Altonji

and Blank 1999). This note aims to highlight patterns between female top managers in private firms in developing countries and various factors such as country income level, educational parity, political freedom and firm size. These relationships are important for the formulation of more informed and effective gender-based policies.

The presence of female managers in private firms is determined through the response of a survey question from the World Bank Enterprise Surveys—"Is the top manager female?" The Enterprise Surveys use standard survey instruments to collect firm-level data on a country's business environment from business owners and top managers. The survey is designed to be representative of a country's private non-agricultural economy. Sampling weights used are normalized so that each country has equal weight. The percentage of firms with a female top manager averaged across all surveyed countries seems low at about 19 percent; it ranges between a high of 39 percent (St. Vincent and the Grenadines) and a low of 0.1 percent (Yemen). The findings are as follows.

The presence of female managers increases with income level

Available evidence suggests that gender gaps in various dimensions, such as education level, health, political empowerment, labor force participation, etc., tend to decrease with income level. While this may come as no surprise, the strength of the relationship between gender disparity and income is not immediately obvious. Also, as

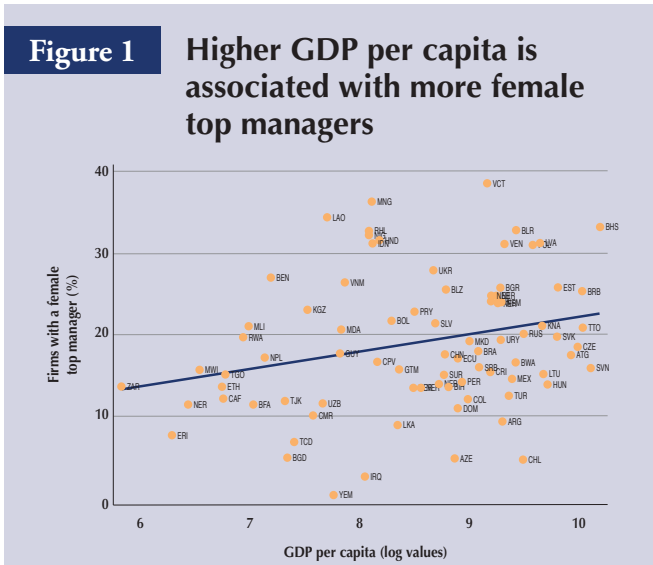
in the case of labor force participation rates, the relationship with income level is not always straightforward—increase in income is associated with lower women’s participation rates at low income levels and the relationship becomes positive only when income crosses a minimum threshold level. What do the data say about the participation of women in managerial positions and income level of the country?

Figure 1 shows that the percentage of female managers in a country increases with (log of) GDP per capita and this relationship is both statistically significant (at the 1 percent level) and also economically large. For example, moving from the country at the 25th percentile (Guyana) to the 75th percentile (Argentina) level of income in our sample is associated with an increase in firms with a female manager by 3.2 percentage points. This is a large increase given that the mean level of female-managed firms in our sample equals 19 percent. Interestingly, there is no evidence of any non-linearity in the stated relationship. This is not surprising since our sample derives from the formal or the registered sector and hence does not capture the broader structural features that tend to drive the non-linearity in women’s labor force participation mentioned above.

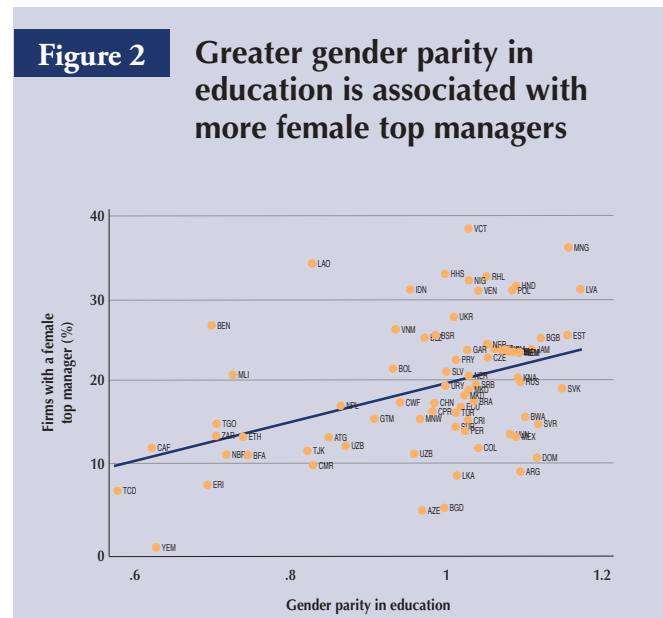
GDP per capita is a proxy for a large number of variables such as human capital, quality of infrastructure, governance and institutions, etc. As mentioned above, gender specific factors such as women’s to men’s education level is also positively correlated with GDP per capita. Hence, one might wonder if the positive relationship shown in figure 1 is driven by some specific covariate of GDP per capita. Below, we suggest that gender equality in education is the likely factor driving the positive relationship in the figure.

Greater gender equality in education is associated with a sharp increase in female managers

Greater gender disparity in education levels (favoring men over women) has been linked to slower overall economic growth rate, higher poverty and lower income levels for women relative to men. Managers in the organized private sector are likely to be highly educated individuals and hence it is natural to expect a higher proportion of female managers in countries where there is greater gender parity in education. The data do not reject this hypothesis. We use the average of the ratio of women’s to men’s gross enrollment rates in primary, secondary and tertiary education taken from United Nations (year 2005 values) as our measure of gender parity in education.¹ Figure 2 shows that there is a strong positive relationship between gender parity in education and the percentage of female-managed firms in a country. For example, moving from the 25th (Vietnam) to the 75th percentile (Dominica) value of gender parity in education is associated with an increase in the percentage of firms with a female top manager by 3.4 percentage points. The increase is statistically significant (at the 1 percent level). Interestingly, the positive correlation between GDP per capita and the percentage of firms with female managers (shown in figure 1) disappears completely and we get a near zero correlation between the two once we control for the gender parity in education. In other words, we cannot reject the hypothesis that the channel through which overall economic development benefits the cause of female managers is an improvement in education



Source: Enterprise Surveys (various years) and World Development Indicators, World Bank (various years).



Source: Enterprise Surveys (various years) and United Nations (2005 values).

Note: Gender parity in education is defined as the average of the ratio of female to male enrollment rates in primary, secondary and tertiary education. Due to data availability issues, year 2005 values are used for the gender parity in education measure.

for women relative to men. However, it is also possible that a high correlation between income and gender disparity in education does not allow for a proper identification of the true relationships. Deciphering the true relationship between income, education and female-managed firms is an important task for future research.

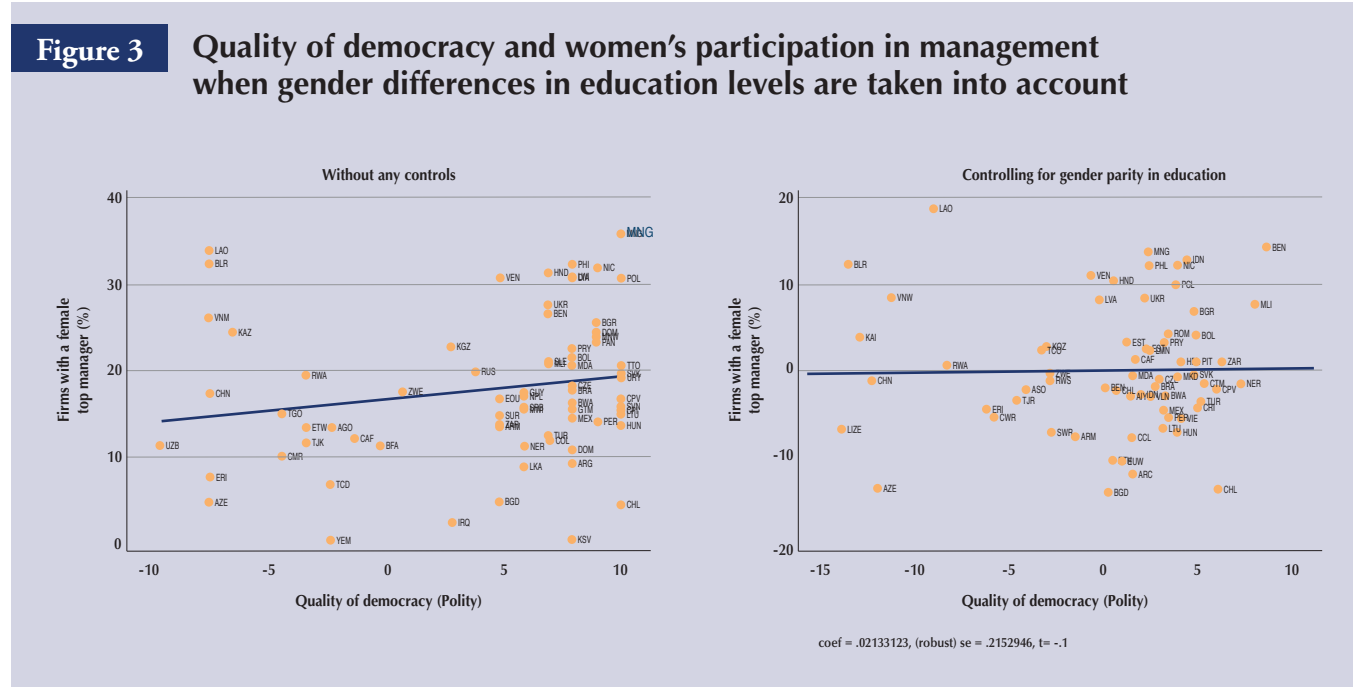
Culture and political freedom do not seem to matter for women’s participation in management once education disparities are accounted for

Evidence of the role of politics and culture in shaping gender related issues is mixed and far from conclusive. The quality of democracy, legal origin, and prevailing culture show strong associations with gender equality in some studies but not in others. The alleged role of socialism in promoting gender equality is likewise confirmed in some studies but rejected in others. This body of work motivated the analysis of the relationship between the percentage of female-managed firms in a country and the quality of democracy measured by the “Polity” variable from the Polity IV database as well as the legal origin of countries (English, French and Socialist). Some evidence was found of greater women’s participation in management in countries with better democracy and in Socialist countries versus the rest. However, these results are not robust and they disappear (become statistically weak) once differences in gender disparity in education level across countries are controlled for. Figure 3 illustrates the point for the democracy variable. One possibility here is that democracy

and legal origin matter but only through education level of men versus women. Another possibility is that democracy and legal origin do not matter for women’s participation in management and they spuriously pick up the effects of education. The third possibility is that controlling for education does not allow for the true effects of democracy and legal origin to play out. A rigorous analysis is required to determine which of these cases hold. Last, following the literature, we also looked at culture captured by the religious affiliation of countries and found the results for culture were similar to those reported for democracy and legal origin above.

Ethnic, linguistic and religious fractionalization do not show any robust relationship with the percentage of female-managed firms

One view in the literature is that greater ethnic, linguistic and religious fractionalization can lead to civil conflict and social exclusion, and that women tend to suffer disproportionately from such situations. However, this body of work is in its infancy and much more work is needed to better understand the forces, if any, at play. Using data from Alesina et al. (2001), we analyzed the relationship between fractionalization along ethnic, linguistic and religious lines and women’s participation in management. There is no evidence of any significant correlation between any of the fractionalization measures and the percentage of firms with female managers. For example, moving from the 25th to the 75th percentile value of ethnic fractionalization



Source: Enterprise Surveys (various years) and Polity IV database (various years).

Note: The graph is a partial scatter plot obtained of residuals obtained after controlling for the level of gender parity in education (taken from United Nations, 2005 values) as defined above.

is associated with a decrease in the female-managed firms by 1.9 percentage points, statistically insignificant at the 10 percent level. Controlling for income level, the corresponding change is actually an increase although of a mere .12 percentage points and statistically insignificant at the 10 percent level (figure 4).

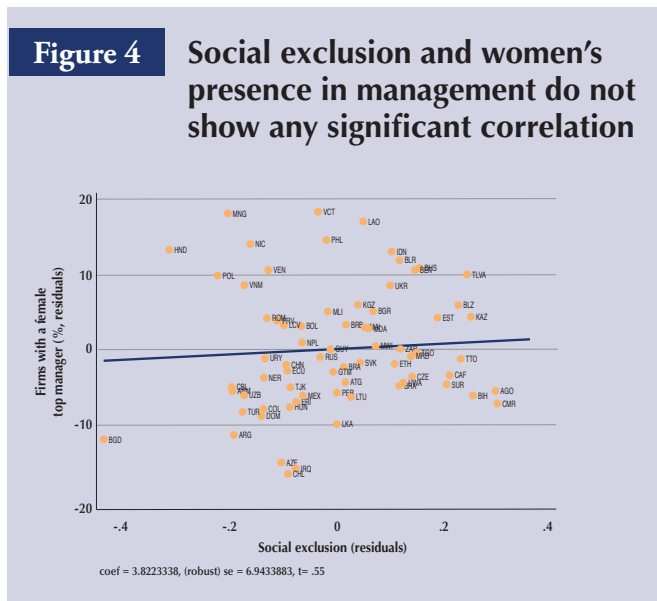
Percentage of firms with a female manager is higher in countries where firm-size is smaller

The relevance of firm-size for gender related issues is a relatively unexplored area. It is conceivable that women may face less discrimination in the relatively large firms as these firms are more visible to the public and the law and therefore more conscious of gender discrimination issues. However, it is also likely that competition for top managerial positions may be higher in the larger firms and this may put women at a disadvantage given they tend to lag behind men in education and experience. Hence, the issue of firm-size and gender is an empirical one. Here we focus on differences in firm-size across countries while within country differences are analyzed below. Firm-size is defined as the (log of) number of full-time permanent employees working at the firm at the end of the previous fiscal year. Cross-country data show two results. First, firm-size is positively correlated with income level and also with gender parity in education. Both these correlations imply that failure to control for income level and/or gender parity in education across countries would impart a positive bias to the relationship between

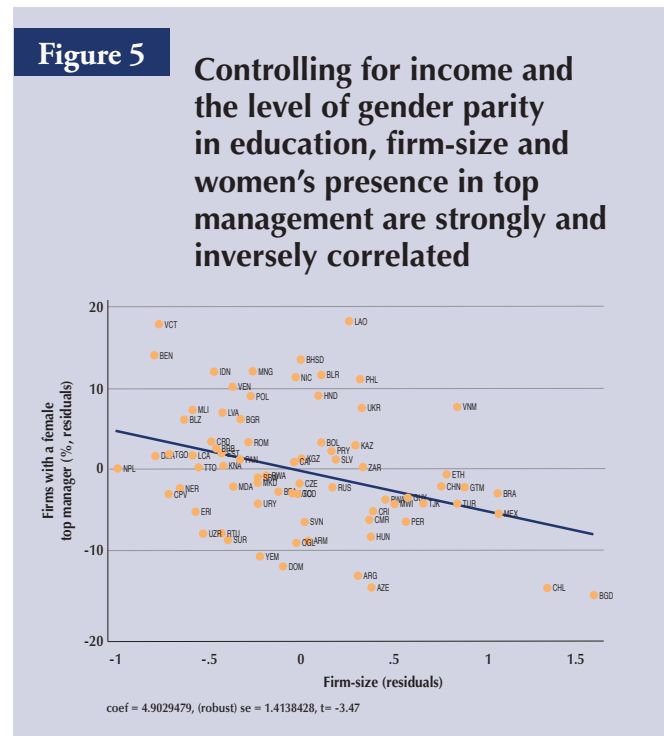
firm-size and the percentage of female managers (confirmed in the data). Second, without any controls, firm-size and the percentage of female-managed firms are inversely correlated but this correlation is quantitatively small and statistically insignificant at the 10 percent level. However, controlling for income level or gender parity in education, the negative correlation between firm-size and the percentage of female-managed firms becomes much more negative, economically large and statistically significant at the 10 percent level. To get a sense of the magnitude involved, controlling for income level and gender parity in education, a decrease in firm-size from the 75th to the 25th percentile value is associated with an increase in the percentage of firms with a female top manager by about 4 percentage points, statistically significant at the 1 percent level (figure 5).

Women’s presence as top managers is higher among the relatively smaller firms within countries

Eliminating cross-country differences in firm-size by controlling for country fixed effects, the probability that a firm has a female top manager decreases sharply and significantly with firm-size. For example, for a typical country in our sample, the percentage of female-managed



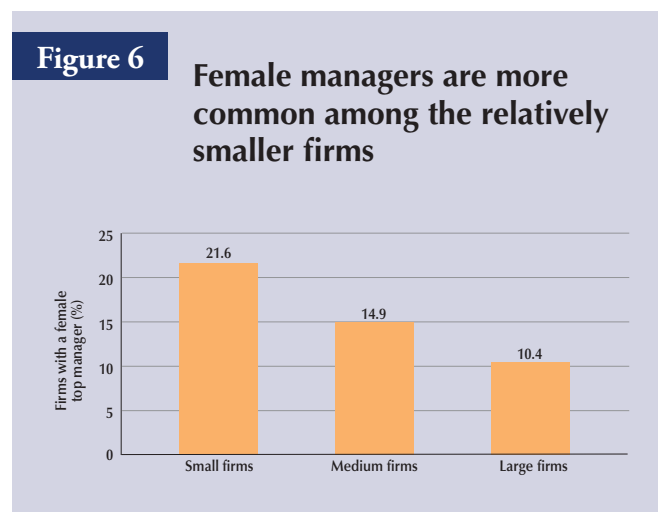
Source: Enterprise Surveys (various years), World Development Indicators (various years) and Alesina et al. (2001).
 Note: The figure is a partial scatter plot of residuals obtained after controlling for (log of) GDP per capita (PPP adjusted and at constant 2005 International Dollars). “Social exclusion” variable is defined as the average of ethnic, linguistic and religious fractionalization as reported in Alesina et al. (2001). The positive relationship shown in the figure is statistically insignificant at the 10 percent level.



Source: Enterprise Surveys (various years), United Nations (2005) and World Development Indicators, World Bank (various years).
 Note: The figure is a partial scatter plot of residuals of firm-size (log of number of permanent full-time employees at the firm at the end of the previous fiscal year; average values at the country level) and the residuals of the percentage of firms in the country with a female top manager. The residuals are obtained by controlling for GDP per capita (PPP adjusted and at constant 2005 International Dollars) and the gender parity in education as defined above. The relationship shown in the figure is statistically significant at the 1 percent level.

firms in the sample of small firms (less than 20 employees) is higher than the same for the sample of medium firms (20 to 100 employees) by 6.7 percentage points and by 11.2 percentage points compared with the large firms (more than 100 employees) (figure 6).

Gender issues are now coming to the forefront in development debates. While providing more employment opportunities to women is essential, it is also important that women do not get concentrated in low paying and vulnerable jobs. This note looks at the proportion of top managers in the private firms of developing countries who are women and how this proportion is related to income level of counties, gender disparity in education, firm-size, etc. Currently, this proportion is low—about 19 percent of managers are women. More work is needed to better understand what drives women’s participation in management and its consequences so that appropriate policies can be designed.



Source: Enterprise Surveys (various years).

Note: Small firms are those with less than 20 employees. Medium firms have between 20 and 100 employees and large firms have more than 100 employees.

Notes

1. Results do not change much if we lag the education variable here by 15-20 years to account for the long drawn out education process prevalent in most countries.

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