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Gender and Rural Non-Farm Entrepreneurship

BOB RIJKERS and RITA COSTA *
The World Bank, Washington, DC, USA

Summary. — Using matched household-enterprise-community datasets from Bangladesh, Ethiopia, Indonesia and Sri Lanka, this paper analyzes gender differences in rural non-farm entrepreneurship. With the exception of Ethiopia, women are less likely to be non-farm entrepreneurs than men are. Women's non-farm entrepreneurship is neither strongly correlated with household composition nor with educational attainment. Female firms are smaller and less productive in all countries except Indonesia. Differences in output per worker are overwhelmingly accounted for by sorting by sector and size. They are not due to differences in capital intensity, increasing returns to scale, human capital, or local investment climate characteristics.

Key words — gender, entrepreneurship, rural, Indonesia, Bangladesh, Sri Lanka, Ethiopia

1. INTRODUCTION

The potentially deleterious effects of gender disparities on growth and poverty reduction have been receiving progressively more policy attention, reflected, for instance, in the inclusion of the promotion of gender parity among the Millennium Development Goals and the 2012 World Development Report on Gender Equity. Inequities in labor market opportunities are of particular concern since labor earnings are the most important source of income for the poor in the vast majority of developing countries (Lustig, 2000). Women's over-representation in poverty has been attributed to their lack of labor market opportunities (see e.g., Buvinić & Gupta, 1997). Moreover, labor market opportunities are an important determinant of women's bargaining power in household decision making, which has been shown to be positively correlated with household spending on goods that benefit children. [1]

In developed countries, documenting gender gaps in labor market participation, wage employment, and wages is a prominent way of measuring gender inequities in labor market outcomes. A voluminous body of literature has demonstrated that such gaps are substantial, even after controlling for women's lower average educational attainment and labor market experience (see e.g., Altonji & Blank, 1999, for a review of the literature). However, in developing countries, earnings in the paid labor force are not the dominant source of income, especially not in rural areas, where the vast majority of people are self-employed or working as "unpaid" workers in family enterprises. In these settings, gender gaps in wage employment and wages and glass ceilings in promotion prospects are less relevant (Mammen & Paxson, 2000).

While some studies have assessed gender differences in agricultural work (see e.g., Goldstein & Udry, 2008; Horrell & Krishnan, 2007; Jamison & Lau, 1982; Udry, 1996) and entrepreneurship in urban areas, gender-differences in off-farm entrepreneurship in rural areas have not received much attention. This neglect is due to data-limitations (FAO, IFAD, & ILO, 2011), but unfortunate because rural non-farm enterprises account for about 35 to –50% of rural income and roughly a third of rural employment in developing countries (Haggblade, Hazell, & Reardon, 2010) and because women account for an important share of such non-farm activity (FAO, IFAD & ILO, 2011). Moreover, the sector appears to be growing (Lanjouw & Lanjouw, 2001) and rural off-farm diversification is widely considered a potentially promising poverty alleviation strategy as the vast majority of poor people continue to live in rural areas (Chen & Ravallion, 2010; Dercon, 2009).

This paper draws on Rural Investment Climate Pilot Surveys from Bangladesh, Ethiopia, Sri Lanka, and Indonesia, unique matched household-enterprise-community datasets recently collected by the World Bank, to analyze gender differences in non-farm entrepreneurship rates as well as differences in entrepreneurial performance. More specifically, the paper addresses two questions:

(1) *Which income-earning activities do men and women engage in and what accounts for gender differences in activity portfolios*? In particular, how do human capital, household characteristics, domestic responsibilities such as childcare, and the investment climate [2] affect the decision to run a non-farm enterprise?

(2) *How and why does non-farm enterprise performance, in terms of productivity, vary by gender?* To what extent are gender differences in performance driven by (i) differences in endowments in (access to) factor inputs and human capital (ii) sorting into different activities and (iii) differences in returns, either due to gender differences in returns to human and physical capital, or differences in returns to scale and (iv) differences in constraints.

The remainder of this paper is organized as follows. Section 2 selectively reviews related literature and discusses the country context. Section 3 briefly describes the data and presents a bird's eye view of the rural non-farm sector. A more detailed explanation of how our key variables of interest are defined is provided in the online appendix. Section 4 examines gender differences in activity choice at the individual-level using multivariate probit models. Gender differences in productivity are analyzed in Section 5. A final section concludes and discusses policy implications.

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2. RELATED LITERATURE AND COUNTRY CONTEXT

(a) *Related literature*

At the individual-level, women's labor allocation is primarily determined by the opportunity cost of working relative to earnings in productive employment, "unearned" income, preferences for different types of employment (which may be dictated by cultural norms and religious beliefs[3]), as well as other household members' characteristics and labor allocation. The opportunity cost of working is inter alia determined by the presence of children in the household and returns to working, which in turn depend on women's human capital and the income-earnings opportunities available to them. Literature from developed countries furthermore suggests that entrepreneurship is often intergenerationally transmitted; children of entrepreneurs are significantly more likely to become entrepreneurs themselves (Parker, 2008, 2009).

Studies of gender differences in entrepreneurship in developing countries are scarce. Existing studies are predominantly based on the World Bank's Enterprise Surveys and typically find that female entrepreneurship is inversely correlated with firm size;[4] firms run by female entrepreneurs are smaller in terms of employees, sales, and capital stock. However, gender differences in total factor productivity (TFP), profitability, and capital-intensity become insignificant once firm characteristics are controlled for (Bardasi and Sabarwal, 2009), except for the very smallest firms (Bruhm, 2009).[5] Thus, gender differences manifest themselves primarily in terms of scale, rather than differences in profitability, technology, or capital intensity. However, Hallward-Driemeier and Aterido (2009) point out that it matters how a female firm is defined; using definitions based on decision making authority, rather than (partial) participation in ownership as is done in the studies cited above, results in substantial gender differences, even after firm and manager characteristics have been controlled for.

The finding that women operate smaller scale firms begs the question why. One possible explanation is that they sort into industries which have a lower optimal scale, although this only pushes the question another step backward. Another salient explanation is that they lack access to finance. Evidence from developed countries on this issue is mixed.[6] Furthermore, cultural norms may militate against women being in power or engaging in certain activities. Alternatively, successful female firms, which tend to be larger, may be more likely to be "captured" by husbands. Women entrepreneurs could also face different constraints. However, using investment climate survey data from Africa Bardasi and Sabarwal (2009) find little evidence for differences in self-reported constraints once firm characteristics are conditioned on.

Since most of these studies are based on urban enterprises, it is not clear to what extent their conclusions generalize to rural areas, where firms tend to be smaller and firm performance is arguably more intimately intertwined with household- and farm events, and the investment climate is radically different (see Deininger, Jin, & Sur, 2007; Jin & Deininger, 2009; Rijkers, Soderbom, & Loening, 2010; World Bank, 2004). Despite their importance as a potential catalyst of growth and an absorber of growing rural labor supply, little is known about the determinants of the performance of non-farm firms and how these may vary with the gender of the manager. In addition, the existing evidence on gender differences in rural non-farm entrepreneurship is overwhelmingly based on household- and labor force surveys, which typically lack detailed information on firm characteristics and the investment climate.

(b) *Country context*

The countries in this study, Bangladesh, Sri Lanka, Ethiopia, and Indonesia, were selected to be part of the RICS pilot program because in all of them the non-farm economy is a potentially important catalyst of rural development. With the majority of the population residing in rural areas and a large share of the population employed in agriculture, these countries are arguably still in the relatively early stages of the structural transformation from agriculture to manufacturing and services that typically accompanies the development process. In addition, the rural non-farm economy can potentially play a pivotal role in reducing rural poverty, which is consistently higher than urban poverty in all the countries surveyed, in part because the contribution of agriculture of GDP falls far short of its contribution to employment. For these reasons, and because the importance of agriculture as an employer is likely to diminish while rural labor supply continues to grow, the creation of productive non-farm employment opportunities is a progressively pressing policy priority in all of the surveyed countries.

A comparison between the selected countries is of interest because they vary radically in terms of their levels of economic prosperity, human development, urbanization, culture, gender parity, and the nature of the non-farm sector, which helps us shed light on the determinants of gender-differences in non-farm entrepreneurship. With an annual income per capita of $200 and $475 at the time of the survey, respectively, Ethiopia and Bangladesh are the poorest countries in our sample, whereas Indonesia is the richest, with an income per capita of $1258. Although Sri Lanka has a lower average income per capita at $975, it outperforms Indonesia in terms of human development as measured by the Human Development Index, reflected, inter alia, in higher life expectancy and average educational attainment (as is documented in Table B1 in the online Appendix).

Although macro-studies have demonstrated a strong correlation between economic development and gender equality (see e.g. WDR, 2012 and the references therein) and religion undeniably has a strong impact on gender norms, income and religion are certainly not perfect predictors of gender parity as proxied by the OECD's Social Institutions and Gender Index (SIGI); of the countries considered in this study Sri Lanka, a predominantly Buddhist country, has the highest levels of gender parity according to this index, followed by the richest country in our sample Indonesia, which is predominantly Muslim. Ethiopia, the poorest country in our sample where Orthodox Christianity is the most common religion, ranks third, while Bangladesh has the lowest levels of gender parity. UNDP's Gender Inequality Index, which is not available for Ethiopia, exhibits a similar pattern (see Table B1 in the online appendix).

Yet, these aggregate indices hide substantial heterogeneity across different dimensions of gender parity. For example, in terms of gender equality in educational outcomes, Bangladesh outperforms Ethiopia, where gender education and literacy gaps are very large. In addition, consistent with a U-shaped relationship between female labor market participation and development (Mammen & Paxson, 2000) gender gaps in labor participation are lowest in the two poorest countries, Ethiopia and Bangladesh, which nonetheless score lower on the aggregate gender parity indexes. A potential explanation for these