

# Do Traditional Institutions Constrain Female Entrepreneurship? A Field Experiment on Business Training in India

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What constrains the entrepreneurial choices of poor women? Do traditional institutions pose unique barriers to business growth and profitability for female-run enterprises?

The explosion of microfinance programs, which typically target this group, has drawn attention to these questions. Indeed, one view is that inadequate access to credit prevents women from undertaking high-return business activities. However, the empirical evidence is mixed. For example, Suresh De Mel, David McKenzie and Christopher Woodruff (2008) find low returns to capital in female-run enterprises.

Thus, another view is that the main constraint is limited demand for rather than supply of credit, with poor women lacking high-return ways to expand their businesses. Here, a first possibility is lack of knowledge: Women might be relatively uninformed about investment opportunities and untrained in basic cost-benefit analysis that could improve their profitability.

A second possibility is that norms governing women's roles in society limit women's perceptions about what is achievable in the workplace.<sup>1</sup> Even the knowledge hypothesis given above might have as its root cause social norms about what girls and women are taught.

This paper explores how traditional religious

and caste institutions that constrain women's mobility and behavior influence their business activity.

Our analysis makes use of a field experiment in which a randomly selected sample of poor self-employed women were trained in basic financial literacy and business skills and encouraged to identify medium-term financial goals. The sample is relatively homogenous in terms of socioeconomic status (e.g., education). However, these women differ in religion and caste and, therefore, face very different traditional restrictions on mobility and social interactions. Muslim women face the most restrictions. Among Hindu women, upper castes (hereafter, UC) face significantly more restrictions than scheduled castes (hereafter, SC), the lowest group in the caste hierarchy.

In general, the returns to entrepreneurship should be highest for the women least fettered by conservative social norms. However, this need not be the case for an intervention that primarily influences women's knowledge of business practices and their aspirations. If traditional norms about gender roles can be challenged, or if they mainly work to limit women's exposure to and knowledge of business opportunities, then the returns from training may be higher for women from more restrictive social groups.

Our results provide some support for this thesis: Among Hindu women, training increased borrowing and business income for those facing more restrictions, i.e UC women. However, Muslim women failed to benefit from the training program. We interpret these patterns as suggestive of a non-monotonic relationship between social restrictions and the ability to benefit from business training. Consistent with this interpretation, we also observe a non-monotonic effect of restrictedness *within* the broad social groups.

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<sup>1</sup>Another possibility is that women are unable to pursue high-return activities because, low bargaining power vis-a-vis their husbands, limits their control over how their money is spent.

## I. Gender norms in India

The Hindu caste system developed as an extremely hierarchical social system. Its defining principles include the ideas of purity and pollution. UCs maintain purity by avoiding sexual relations, marriage and, in extreme cases, contact with lower castes (especially SCs). Premised on men being a source of pollution for women, restrictions are placed on women to limit their contact with men other than husbands. The requirements include that a married woman remain veiled, not interact with older men, have restricted mobility outside of her husband's house, and not remarry if widowed. One effect of these norms is that they significantly restrict female labor force participation.

Within the caste system, concerns of purity and pollution are less relevant for SCs, who rank low in the hierarchy. In addition, greater poverty implies increased reliance on female wage-earning (M. Acharya and L. Bennett 1983, Karin Kapadia 1997). As a result, SC women face fewer social restrictions and, by virtue of being independent earners, enjoy greater financial independence from their husbands and increased control over household financial decisions relative to UC women (Joan P. Mencher 1988). Notably, these restrictions on female autonomy among UCs are not limited to the wealthy (Mukesh Eswaran, Bharat Ramaswami and Wilima Wadhwa 2009).

Relative to Hindus, Muslims in India place more restrictions on women's contact with those outside the sphere of kinship. Because Muslim women are entitled to a share in the family real estate, controlling their relationships with males outside the family can be crucial to the maintenance of family property and prestige.

## II. Intervention and study design

We conducted a business training intervention in conjunction with SEWA Bank, which is based in the city of Ahmedabad in western India. Its 170,000 member-clients are primarily poor women who work in the informal sector (for example as incense-stick makers, tailors, and vegetable vendors). SEWA Bank offers these women a wide array of financial products. All clients are required to have a savings ac-

count, and roughly a quarter of clients have ever taken out a loan from SEWA Bank.

For several years, SEWA Bank has run a five-day training program on financial literacy. The curriculum, developed by Freedom from Hunger and used widely around the world, teaches basic accounting skills and about interest rates and life-cycle planning, among other topics. It emphasizes financial prudence and encourages women to avoid excess debt, save more and reduce "frivolous" spending (for example, on tea). More recently, SEWA Bank started a second five-day course that teaches business skills such as marketing, cost reduction, investment, and customer service.

In collaboration with SEWA Bank, we designed a streamlined two-day training module that combined elements of the existing financial literacy and business skills curricula, and added new material focused on aspirations. The aspirations component included a short film showcasing successful SEWA members who have used good financial practices to bring themselves out of poverty. As homework after the first day of training, the women had to fill out a worksheet identifying a financial goal they wanted to achieve over the next six months. The second day of training, the participants finished the worksheet, breaking down their goal into smaller short-run steps.

For the experiment, 636 women were randomly drawn from the SEWA Bank customer database who met three criteria: actively saving or borrowing from SEWA Bank in the past two years, owns a business or is self-employed and is age 18 to 50. Two thirds of the women in this sample were then randomly assigned to the treatment group, in which case they were recruited for business training; the control group was not invited to attend training.<sup>2</sup>

Women in the treatment group were recruited to attend a particular training session at their nearest SEWA branch. Home visits were used to invite eight women per training session. For data collection and analysis purposes, women in the control group were also assigned but not recruited to a particular training session at their

<sup>2</sup>The randomization was stratified by whether the individual was part of the first or second phase of sampling and by SEWA branch.

nearest SEWA location, allowing us to cluster standard errors by training session.

Our analysis sample comprises the 597 women who were successfully surveyed at follow-up and could be categorized into sub-castes (based on their surname).<sup>3</sup>

We categorized women into three broad social groups: Muslim, Hindu SCs, and Hindu UCs (non-scheduled castes and other backward castes). In addition, we scored (from 1 to 4) how restrictive each Hindu and Muslim sub-caste was in regard to five norms governing women's behavior: ability to socialize alone, requirements to cover the face or wear a veil, ability to speak directly to elders, ability to leave the house or neighborhood alone, and ability to remarry. We created an index equal to the number of norms for which the sub-caste was highly restrictive (score of 4); thus, the index runs from 0 to 5.

Figure 1 shows the proportion of women subject to a highly restrictive norm about veiling. SC women face the least restrictions, followed by UCs and Muslim women. This pattern is true for all norms, apart from interaction with elders (where Muslims face less restrictions).

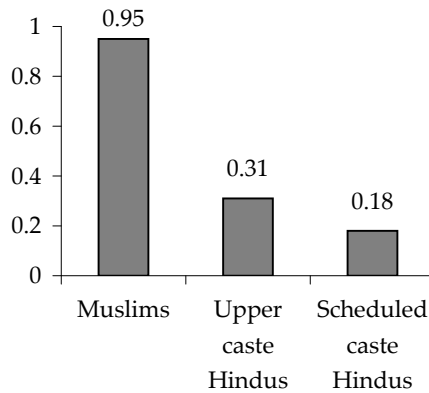


FIGURE 1. PROPORTION WITH VEILING AS THE SOCIAL NORM

The intervention trained 289 women in 57 two-day training sessions conducted from September 2006 to April 2007. Program take-up

<sup>3</sup>The survey attrition rate (32 of 604) is similar across treatment and control groups. We were unable to assign caste to seven cases.

was high, with over 70% of those invited choosing to attend. SCs, who face fewer restrictions than UC and Muslims, were nearly one third more likely to attend the training than Muslims and UCs. The results on take-up, which are also the first stage of our treatment-on-the-treated (TOT) results, are reported in the online appendix.

Baseline characteristics are balanced across the control and treatment groups (results reported in the online appendix). Table 1 compares baseline characteristics across social groups. Women in our sample are strikingly homogenous across social groups: Average education and family size are almost identical for Muslims, UCs and SCs, and SC women have higher household income and are slightly *more* likely to own a family business, though the differences are statistically insignificant. However, the groups show large differences in social restrictions. UCs are more restricted than SCs, and the difference for Muslim women is particularly striking—they are more than twice as likely to face severe restrictions as UCs and over three times as likely as SCs.

TABLE 1—BASELINE CHARACTERISTICS

	UC	SC	Muslim
Education	6.33	6.62	6.36
Income	4852.6	5694.6	5189.5
Household size	5.25	5.25	5.42
Owens business	0.27	0.31	0.26
Restricted	0.75	0.48	1.70***
N	346	70	181

Notes: Asterisks denote significant differences in means between the group and UCs. In all tables \* denotes significant at 5% level \*\* significant at 1% level \*\*\* significant at 0.1% level.

### III. Effects of business training

Our estimation strategy exploits the random assignment to treatment, i.e. to being invited to a training session. We examine the impact of attending the training program on economic outcomes, instrumenting for attendance with whether the participant was in the treatment

group. This IV specification provides TOT estimates. We separate out the differential effect of training by social group by interacting the training dummy with indicators for being a SC and a Muslim. Our outcome variables are from a survey conducted on a rolling basis four months after training.

The results in Table 2 reveal that the training led to a significant increase (13 percentage points) in the likelihood of taking out a loan one to four months after the training (*Borrowed*) among UCs, who are the omitted category. UCs who attended the training took out loans at nearly twice the rate as UCs in the control group. Meanwhile, we cannot reject that there was no effect of the training on borrowing among either SC or Muslim women.

When we estimate the training effect on the likelihood that a woman reported problems managing her debt, we find no overall effect and no differential effects across social groups (results not reported). Administrative bank data on loan default confirm this result. Thus, the training does not seem to have induced UC women to borrow beyond their means.

TABLE 2—TREATMENT EFFECTS ON BORROWING AND SAVING.

	Borrowed	Savings
Trained	0.13*	-315.32
	(0.07)	(492.83)
Trained×SC	-0.16	444.71
	(0.14)	(540.02)
Trained×Muslim	-0.14	317.51
	(0.11)	(630.07)
SC	0.04	-298.12
	(0.10)	(301.87)
Muslim	0.04	-46.50
	(0.06)	(333.99)
Mean of dep. var.	0.17	277.59

Notes: Standard errors clustered by training session. Regressions include SEWA branch, treatment month, and sampling phase fixed effects. Mean of dependent variable is for UCs in the control group. N=597. See online appendix for further details. These notes also apply to Table 3.

There are no significant differences in savings during the past month (*Savings*), which is mea-

sured in rupees, across treatment and control for any of the groups, though the point estimates again go in opposite directions for UCs compared to SCs and Muslims, with UCs appearing to substitute away from saving. This pattern is consistent with their increased borrowing.

To more directly measure the effect of training on business activity, in Table 3 we examine the women's personal business income, both the total amount over the past week measured in rupees (*Income*) and an indicator of whether she reports any personal business income (*Any Income*). Although we sampled on being employed, many of the women do not report regular earnings; in the control group, only 80% of women report any earning in the past week.

We observe a positive and significant effect of the training on business income among UCs only, suggesting that the new loans were put toward business investments. The point estimates on business income suggest an increase of around 30%, but the results are too imprecise to draw conclusions. The estimated effect of training on earning any business income is highly significant among UCs, indicating a 25% increase in the likelihood that a woman engages in labor market activity. Together with the loan results, this pattern suggests that the training encouraged UCs to start or expand their microenterprises. Further supporting these results, we find that training led UCs but not other women to talk more frequently with family members about business plans (results not reported).

TABLE 3—TREATMENT EFFECTS ON INCOME.

	Income	Any Income
Trained	273.3	0.19**
	(228.0)	(0.09)
Trained×SC	-525.4	-0.37***
	(350.2)	(0.14)
Trained×Muslim	-545.2*	-0.22*
	(313.9)	(0.12)
SC	290.7	0.25***
	(183.9)	(0.08)
Muslim	109.2	0.09
	(170.8)	(0.07)
Mean of dep. var.	858.4	0.79

#### IV. Discussion

Given the similarity in household wealth and types of businesses across social groups, the difference across the groups in their response to business training is stark. It is made even more striking by the fact that data collected during the training reveal identical patterns of business and financial goals across social groups.

One possibility is that differences in treatment effects are driven by lower program take-up among UCs. The training may have attracted a highly selected sample of UCs who were especially responsive to training. While there is higher baseline business ownership among UC trainees relative to other trainees, the treatment differences persist even when we control for this (and/or other) observable characteristics. Thus, heterogeneity in take-up does *not* seem to explain the heterogeneous treatment effects (though we cannot rule out unobservable differences across groups).

If the explanation for UC women being especially responsive to training is that social restrictions created knowledge deficits or the training allowed them to challenge social norms that were distorting their business practices, then an important question is why Muslim women, who face the highest degree of restrictions, did not respond more to the training than SC women did. One possibility is that, although restrictions are greater for the average Muslim woman compared to the average SC woman in Ahmedabad, there is little difference in restrictions across Muslim and SC members of SEWA Bank. Unfortunately, without individual-level data on restrictedness, we cannot test this story. Another possibility is that Muslims in Ahmedabad, which has a history of religious tension, face considerable discrimination in the marketplace, which business training could not undo.

Bearing in mind these caveats, a *prima facie* explanation for our results is non-monotonicity in the effect of social restrictions: The training helped women whose businesses had been held down by social restrictions, but women subject to extreme restrictions had too little agency to easily change their aspirations or activities. Even with more knowledge or higher aspirations, the most restricted women might face too many social strictures to avail them-

selves of entrepreneurial opportunities. We find evidence consistent with restrictedness having a non-monotonic effect when we examine heterogeneous treatment effects by restrictedness *within* social groups (see the online appendix).

Our business counseling program significantly reduced the business income gap between social groups. Thus, another way of reading our results is that—in the absence of interventions that counteract traditional norms—modernization is likely to yield greater benefits for women lower in the caste hierarchy, a point also made by Kaivan Munshi and Mark R. Rosenzweig (2006). This view, however, assumes that social norms for lower castes continue to be less restrictive. If, instead, modernization heightens *sanskritization*—the desire of lower castes to emulate upper castes and move up the caste hierarchy—with SCs increasingly adopting the gender norms of UCs, then economic growth may fail to emancipate women to the same extent.

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**Online Appendix**

TABLE A.1—FIRST STAGE.

	Trained	Trained
Treated	0.696***	0.654***
	(0.0266)	(0.0368)
Treated×SC		0.180***
		(0.0603)
Treated×Muslim		0.0711
		(0.0608)
SC		-0.0199
		(0.0184)
Muslim		0.0466**
		(0.0229)
N	597	597