

Returns to Productive Assets for Workers: Evidence from a Mobility Experiment in an Indian Firm

Scooter subsidy boosts female gig workers' jobs completed and earnings, and boosts firm revenue through improved mobility

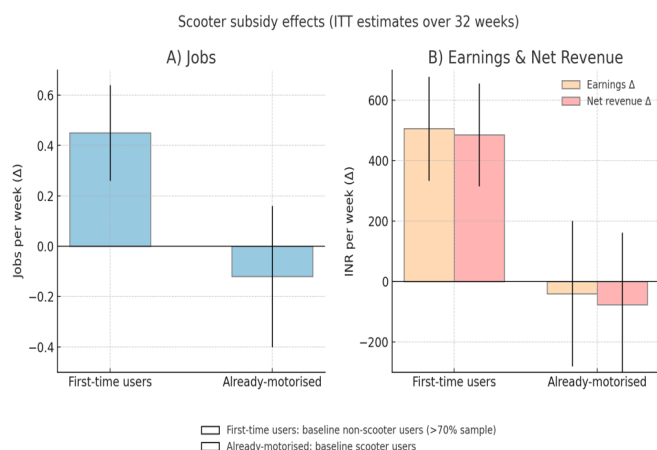
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Subsidizing private mobility for female gig workers boosts scooter purchases by 188 %, raises jobs and earnings, and lifts firm revenue.

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Topic at a Glance

In developed and developing economies, millions of workers must self-finance lumpy investment that makes their labour productive. When workers cannot afford productive assets key for their jobs, both aggregate output and earnings remain sub-optimal. I partner with a large platform firm in India to study how subsidizing productive capital for workers at a firm impacts worker productivity and firm output. Workers commute to customers' home locations to provide services, making access to efficient transport key for productivity. Both genders prefer scooters, yet ownership is nearly universal for men and just a quarter for women. I experimentally vary a subsidy of 10% of the cost of a scooter among female workers at this firm. The subsidy slashed the loan down-payment by 67 %. Take-up of the scooter loan went up by 48% in the treated group, 32 percentage points higher than control, leading to a 188% increase in demand. Weekly jobs increase by 9%, earnings by 13 %, firm revenue by 12 %. Mechanism experiment confirms that relaxing liquidity rather than price drives demand.



Caption: Bars show 32-week ITT effects: first-time users add 0.45 jobs, earn INR 506 and lift platform revenue INR 486 per week; already-motorized workers record no statistically different effects.

New Insights

1. Why does access to worker-owned capital matter

Across advanced and emerging economies, production increasingly relies on independent contractors or workers who must bring their assets: owner-operator truckers in the United States, IT freelancers worldwide, tailors, carpenters, etc. Platform work, where this model is most prevalent, is projected to double its workforce between 2021 and 2027 (ILO), with two-thirds of growth in the Global South. Asset gaps are often sharply gendered. In our study firm, the gap is stark: baseline data show scooter ownership at ≈ 90 % among male providers but only 26 % among female colleagues, even though both genders express equal interest in using a personal vehicle.

Often, under-investment persists even when workers are eligible for credit, indicating that liquidity hurdles at purchase or intra-household frictions that limit control over lump-sum cash, rather than loan-term constraints, block investment. These bottlenecks depress both wages and firm output, yet rigorous causal evidence on easing them remains scarce.

2. Experimental setting and intervention

Partnering with a major Indian home-services platform, I conducted a randomized controlled trial that offered a one-time grant of INR 10,000 to 350 female providers who had already been credit-approved for a standard scooter loan. The grant amounts to roughly 10 % of the vehicle's purchase price and, crucially, covers about two-thirds of the down payment normally required at the dealership. All other loan terms, such as interest rate, repayment tenor, and monthly instalments, remained identical for treatment and control groups. Because the platform records every task it assigns, I follow detailed administrative data on every job offer completion, ratings, and earnings for 7-8 months after the subsidy was offered.

3. Key results

3.1 Adoption: Access to subsidy increases scooter take-up from 15 % to 48 % (an increase of 33 pp; +220 %). One of the largest demand responses recorded in field experimental settings.

3.2 Labor supply & earnings: First-time owners complete 0.45 extra jobs per week (+9 %) and earn ₹507 more (+13 %); gains persist uniformly across all 32 weeks (ITT effects). Treatment on the treated (TOT) estimates indicate that the women who purchased increased jobs by nearly 16% and earnings by 22%.

3.3 Firm performance: Weekly net platform revenue rises 12 % per treated worker.

3.4 Reliability, reach, and quality: Absenteeism falls 11 %, treated women accept more distant and surge-priced jobs, revealing an enlarged spatial-temporal opportunity set, and a meaningful increase in weekly average ratings is observed.

3.5 Spillovers: Importantly, all productivity effects are concentrated only on the women who, at baseline, report not using their scooter for work and relying on other modes of transport. The already motorized women experience no gains on the platform. Yet their households' earnings, excluding the worker herself, still rise, pointing to family-level mobility spillovers.

4. Mechanism evidence

To see whether women were reacting to the total cost of a scooter or to the lump-sum cash they had to put down, I ran a separate, incentive-compatible discrete-choice experiment. Each respondent compared four purchase contracts that independently varied (i) the lifetime price of the scooter and (ii) the size of the up-front down-payment while holding all other loan terms fixed. When the down-payment dropped from INR 15,000 to INR 5,000, stated willingness to buy jumped sharply, yielding a high “liquidity elasticity”. By contrast, an equivalent 10 % cut in the list price, with the same large down-payment still due, produced a much smaller change in demand. The evidence suggests that immediate cash availability, rather than the sticker price spread over 26 installments, is the binding constraint. This pattern is observed almost exclusively among women who did not already own a scooter.

Consistent with this, the RCT shows no productivity gains for women who already owned scooters and the largest effects for those in the poorest wealth quintile—both facts pointing to day-one liquidity relief as the key lever for unlocking investment and productivity among non-motorised female workers.

Policy Recommendations

1. Targeting liquidity when subsidizing productive assets: The RCT and choice experiment show that an INR 10,000 grant covering two-thirds of the down-payment unleashes demand. Public programs and platform-led initiatives could prioritize down-payment assistance or short-term bridge loans rather than blanket price cuts or lower interest rates.

2. Prioritize first-time female adopters and poorer households: Gains in jobs, earnings, and firm revenue are concentrated among women who lacked their scooter and in the bottom wealth quintile. Designing eligibility around gender and baseline asset ownership maximizes productivity impact and ensures

subsidies reach those facing the highest mobility constraints.

3. Structure cost-recovery through platform commissions: A 12 % increase in weekly platform revenue offsets the INR 10,000 subsidy in roughly five months, suggesting that well-designed cost-recovery mechanisms could make the program self-financing; organizations could explore fee structures or other approaches that minimize ongoing fiscal support.

Limitations

1. Gender-specific sample: Our experiment focuses on female providers because they face the steepest mobility gap on the platform. While nothing in the design precludes male workers, testing the subsidy among mixed-gender or male-only samples, and in other sectors, would strengthen external validity.

2. Applicant pool only: All participants had already applied for the scooter loan, so they revealed demand *ex ante*. This selection does not bias internal causal estimates, but means take-up elasticities might be smaller in a population that includes workers with zero initial interest.

3. Baseline driving proficiency: Nearly all treated women reported knowing how to ride a scooter before the subsidy. Results for absolute beginners could differ, underscoring the value of pairing subsidy with rider-training support.

4. Long-run repayment still to be tracked: We observe positive cash-flow effects over seven months, but final loan repayment and maintenance costs will be known only after the 26-month loan cycle. Ongoing monitoring will reveal whether the self-financing promise holds through maturity.

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