

HOW AI CAN CHANGE THE ECONOMICS OF WOMEN'S ENTREPRENEURSHIP

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ABSTRACT

Governments and development organizations invest heavily in programmes for women entrepreneurs, yet most report participation rather than business outcomes. This article examines whether generative AI can convert existing digital skills into measurable economic results for women-led firms. Drawing on international evidence and local microdata, it shows that Georgia has largely closed the digital access and basic skills gap between women and men. The binding constraint is specialist expertise, which small firms cannot afford to hire. Generative AI addresses this layer by reducing the time and cost of analysis, marketing and administration. The article presents a Mastercard-BTU pilot in Georgia that measured business results rather than attendance. Participants saved an average of 14 hours weekly, cut startup and operating costs by 22%, raised monthly revenue by 15 to 20% and generated about \$2.5 in economic value per \$1 invested. Because the evidence comes from a single cohort over four months, the findings are a first estimate. The article identifies conditions for replication (connectivity, cost, language coverage and oversight) and proposes four design principles: baseline measurement, function-specific training, a check of starting digital skills and safeguards with durability testing.

Keywords: generative AI; women's entrepreneurship; digital skills.

INTRODUCTION

Every year, governments, businesses and development organizations invest millions in programmes to help women start and grow businesses. Most of the report success the same way: women trained, workshops delivered, programmes completed. Very few report what those businesses earned, saved or grew, even though entrepreneurship remains one of the weakest areas of women's legal economic equality worldwide, according to the World Bank's *Women, Business and the Law 2026*.¹

Artificial intelligence is usually framed here as one more skill to teach. The more useful question is whether it can convert digital skills women already have into measurable business outcomes, provably rather than assumed.

From counting participants to counting value

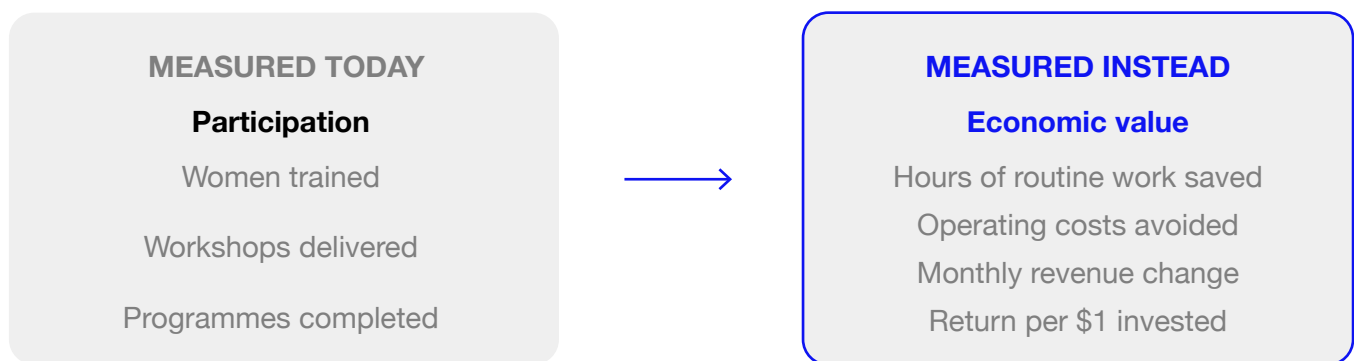


Figure 1. The measurement shift at the centre of this argument.

Three constraints that fall harder on women-led firms

The evidence that generative AI helps small firms is general rather than gendered: an OECD survey found 65% of SMEs using generative AI reported improved employee performance, 45% reported cost savings and 26% reported increased revenue.² These figures matter more for women-owned businesses because the constraints AI offsets fall disproportionately on them.

Time is the first: time poverty, unpaid care and gender norms limit how much of the day goes to growing a business rather than running it. Capital is the second: World Bank Enterprise Survey data for 2024 show women were about half as likely as men to report having borrowed from a bank to start, operate or expand a business.³ Expertise follows from both, since less capital means fewer specialists, so analysis, marketing copy and market research go undone or land on the founder's own evening.

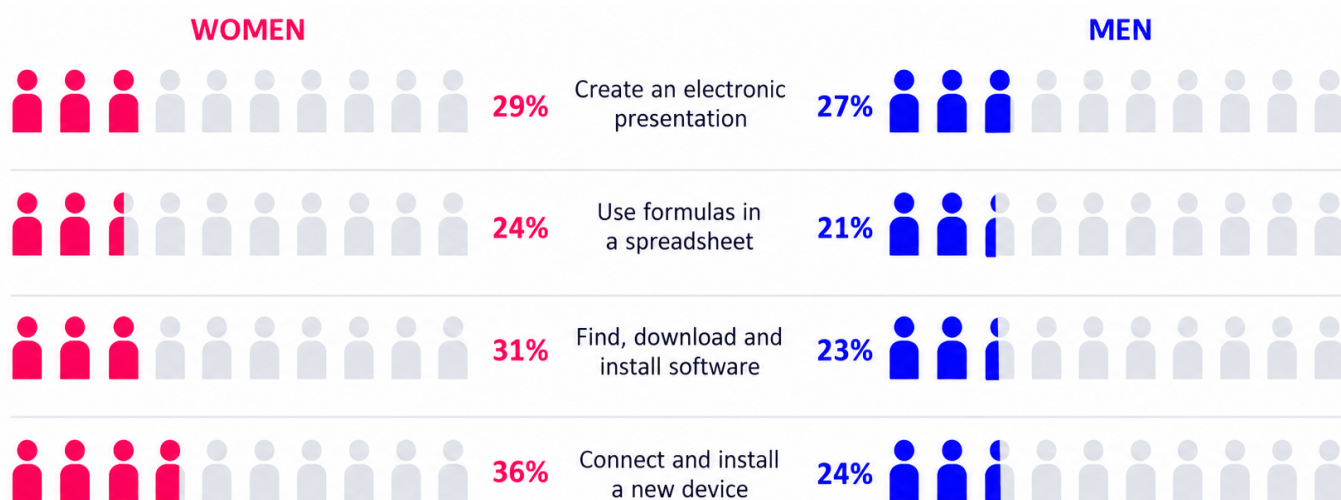
In Georgia the gap is not access, but specialist expertise

Georgia has already solved the problem most digital inclusion programmes are designed to solve. Household access reached 94% in 2026 and women use internet (90%) regularly as men. On the measures international inclusion targets track, Georgian women are already included.⁴

Look one layer up, at applied skills, and the striking finding is how even the picture is. Among Georgians aged 16 to 35 who use a computer or the internet, young women match young men on building presentations and using spreadsheet formulas and clearly outperform them on installing software and connecting new devices: 31% against 23% and 36% against 24%. Whatever is holding women-led businesses back, it is not a basic digital skills gap between women and men.⁵

Applied digital skills, ages 16-35

Young women in Georgia match or outperform young men on every applied skill measured.



Source: Geostat, ICT Usage in Households survey, 2025 microdata (author's calculations).

The constraint sits one level higher again, in specialist capability: the analyst, the developer, the market researcher a growing business would otherwise hire. That expertise is scarce and expensive everywhere and a small firm operating on thin margins is the least able to buy it in.⁶

That share is moving. Calculations on Geostat Labour Force Survey data show women's share of employment in pure ICT professions roughly doubled between 2022 and 2024, from about 15% to 29%. In a country where core ICT employment slightly exceeds 10k, an institution training women in the thousands is working at a scale that can move a national number.⁶

Why that expertise stays scarce for women has less to do with ability than with decisions taken long before anyone reaches the labour market. Relatively few girls choose to study ICT subjects and the resulting shortage of role models and professional networks both slows the careers of those already in the sector and discourages the next cohort from applying. Employer attitudes turn out to matter less than is usually assumed. The pattern is drawn from research inside Georgia, and it echoes UNESCO's broader finding that the same stereotype-driven subject choice shapes girls' and women's paths into STEM well beyond this one country. The imbalance is set earlier, in education, and it sustains itself.⁷

That history shows up in who does reach the sector. Just over half of the women in Georgia's ICT workforce hold degrees in ICT or closely related technical fields, while others arrive from other disciplines altogether; among men, the large majority came through a technical education. Women also tend to enter later, as experienced professionals rather than as recent graduates.⁷ A workforce that arrives mid-career and sideways is one for which tools that substitute for formal technical training are not a convenience. They are the main route in.

That scarce layer is exactly where generative AI operates, which is why it lands differently here than a coding course would. Teaching a marketing agency owner to code takes months she will probably never use. Giving her a tool that turns the digital fluency she already has into competitor analysis, campaign copy and client reporting takes days. AI does not close the specialist skills gap. It makes the gap matter less.

A loop that sustains itself — and where AI breaks into it

The mechanisms behind women's lower participation in ICT, and the point where AI intervenes.

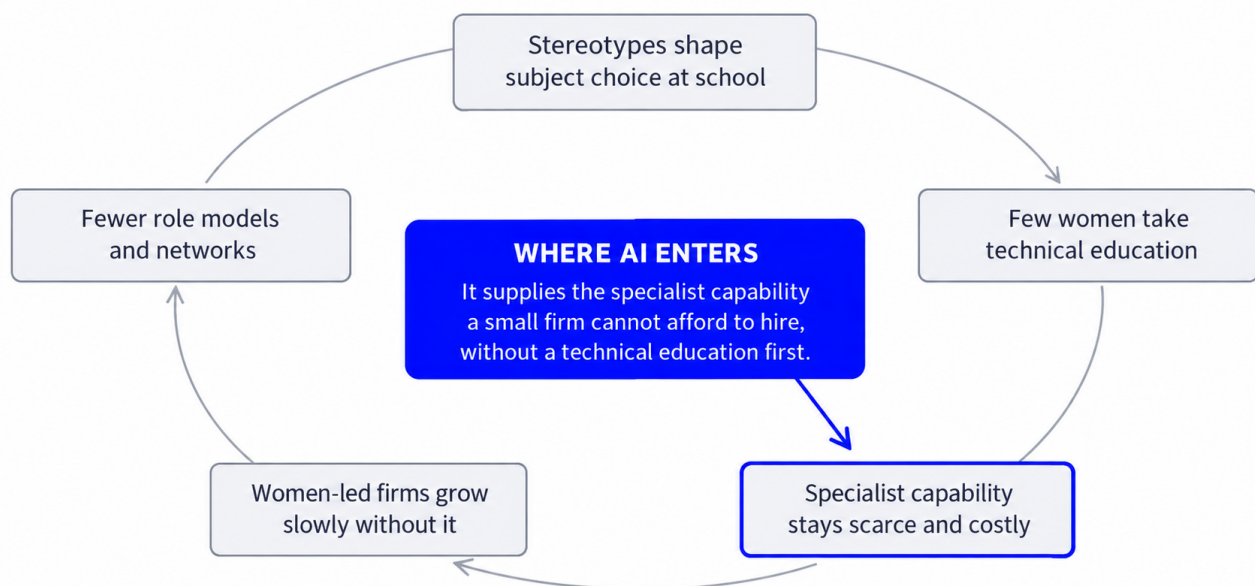


Figure 3. Where AI enters the loop that keeps specialist capability scarce.

A GEORGIA PILOT THAT MEASURED BUSINESS RESULTS, NOT ATTENDANCE

BTU had already trained more than 3,000 women in digital and tech skills since 2019, through a series of initiatives backed by different donors, including its Coding School for 1500 Women.⁸

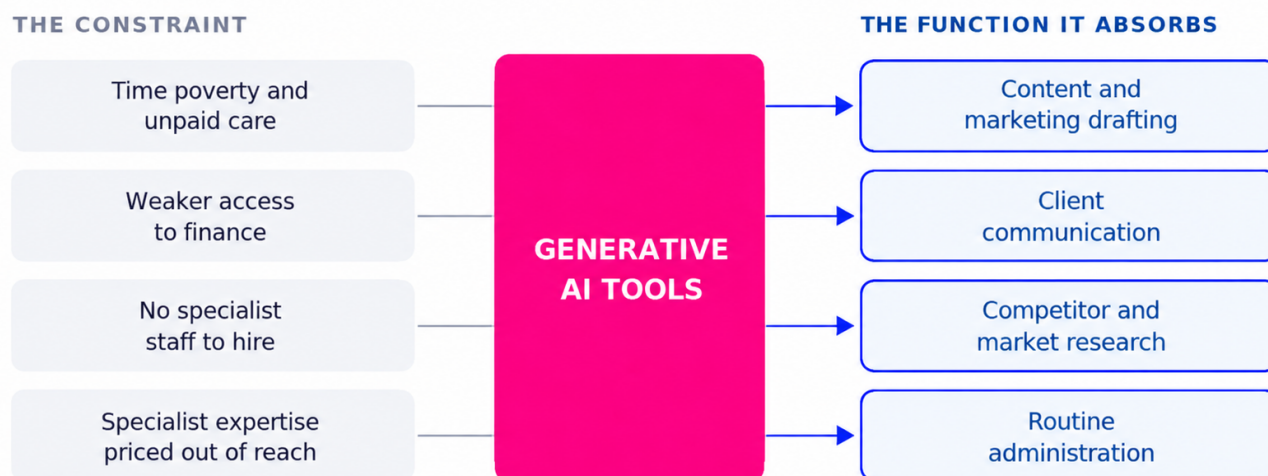
Following a discussion on women entrepreneurs in emerging markets at the World Economic Forum Annual Meeting in Davos, Mastercard's Center for Inclusive Growth partnered with BTU on something narrower: an AI training pilot built to measure business results, not attendance.

Irina Arghvliani's case shows how this works. She ran a Tbilisi marketing agency with no dedicated analyst, so content, client communication, competitor research and administration absorbed most of her week. Four months after building AI into those workflows, she had cut 15 to 16 hours of routine work weekly, reduced related costs by around 60% and expanded the agency's capacity past 35 client companies, without learning to code.

The mechanism is straightforward: time spent on routine work is capacity not spent on clients and AI moves hours from the first column to the second. Across participants, entrepreneurs saved an average of 14 hours per week, startup and operating costs fell 22%, average monthly revenue rose 15 to 20% and adoption of digital financial services increased by roughly a quarter, letting more of these businesses sell and get paid online.

What AI absorbs, and why it matters more here

The constraints on women-led firms map onto the functions generative AI handles most cheaply.



Capabilities that previously required extra staff, external expertise or additional capital.

Figure 4. The constraints on women-led firms map onto the functions generative AI handles most cheaply.

What the pilot produced

Measured business outcomes across participating entrepreneurs, not attendance.



Adoption of digital financial services also rose by roughly a quarter, letting more of these businesses sell and get paid online.
Source: Mastercard Center for Inclusive Growth and Business and Technology University pilot, Georgia.

Figure 5. Measured outcomes from the Mastercard-BTU pilot in Georgia.

It comes from a single cohort over four months, so it is a first estimate rather than a settled multiplier. But a programme that produces a figure which can be questioned and compared is already ahead of one that reports only attendance.

WHAT THE MODEL NEEDS TO TRAVEL: CONNECTIVITY, COST, LANGUAGE AND OVERSIGHT

The honest reading of this pilot is that it ran under favourable conditions and the conditions are the argument for caution.

Connectivity was not a constraint in Georgia; it is elsewhere. Among women entrepreneurs surveyed in low- and middle-income countries, 92% own a smartphone but 45% lack regular internet access, because of data costs and unreliable service.⁹ A model built on a stable connection works where Georgia already is, not where most potential users are.

Basic digital fluency was also unusually strong and evenly spread between women and men. Where that groundwork is thinner, AI training is a second step rather than a first and a programme that skips the first will only ever have attendance to report.

Three further limits apply everywhere, including Georgia. Free tiers let a business experiment without committing capital, but they come with usage caps and weaker capability, so any programme that scales should be clear about which tier produced its results. Model quality is also strongest in a handful of widely spoken languages and falls away in smaller ones, which matters directly for Georgian and still more for replication elsewhere. And small firms rarely have the data governance that larger organisations apply to customer information, something a short training programme is not going to fix.

There is also an awkward interaction at the centre of the case for AI: the businesses that gain most from automating analysis are the ones with no analyst on staff to catch it when the output is wrong.

NEXT STAGE: FROM AI SKILLS TO OPERATIONAL ONLINE BUSINESSES

None of those conditions are reasons to stop, and BTU and Mastercard's Center for Inclusive Growth are already taking the model a stage further. AI & Digital Commerce for Women takes the logic one step further along the value chain: rather than stopping at skills, it transforms early-stage business ideas into fully operational online ventures integrated with secure digital payment systems. The reasoning follows directly from the pilot. Time released by AI only becomes revenue if there is somewhere for that revenue to arrive and the pilot's sharpest secondary finding was the rise in digital financial services use. Building the commerce and payment layer alongside the AI skills closes that loop.

It also sets up the harder test. A programme that ends with a working online business and a payment system attached leaves behind something measurable long after the training finishes, which is the durability question the first pilot could not answer.

FOUR PRINCIPLES FOR DESIGNING THE NEXT PROGRAMME

AI will not replace entrepreneurs, mentors or investment in women-led businesses. Recent ILO research reviewing the empirical evidence finds generative AI is already producing real but uneven productivity gains.¹⁰ The task is translating those gains into business outcomes under realistic conditions. For any government or funder designing the next programme of this kind, four principles follow from how the Georgian work was built rather than from what it found.

- Establish baseline business measures before training begins, hours, operating costs, revenue, so a gain can be attributed rather than claimed.
- Target training at specific business functions, not general AI literacy. The gains came from content, client communication, competitor research and administration, not familiarity with tools in the abstract.
- Check the starting point first. Where basic digital skills are weak, AI training is the second intervention, not the first.
- Pair AI skills with safeguards and human verification and then test whether gains persist once the programme ends. A four-month result is a signal, not an outcome.

What AI absorbs, and why it matters more here

The constraints on women-led firms map onto the functions generative AI handles most cheaply.



The useful lesson from Georgia is not that women learned to use AI. It is that a programme was designed so its economic effect could be measured and contested. If that design holds under harder conditions than the ones it was tested in, AI's contribution to inclusive growth will have less to do with automation than with making high-impact support cheap enough to test, measure and repeat.

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