

Time Poverty and Women's Microenterprise Growth: Care-Load Fragmentation, Protected Business Time, and Enterprise Continuity

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Abstract

Women's microenterprises make significant contributions to household income, local commerce, self-employment, and livelihood diversification, yet business ownership frequently coexists with substantial responsibility for unpaid care and domestic work. Conventional assessments of entrepreneurial labor often measure weekly business hours without considering whether those hours are continuous, predictable, and sufficiently protected for activities such as procurement, customer follow-up, financial planning, marketing, inventory control, and business expansion.

This study examines time poverty as a multidimensional constraint on women's microenterprise growth, emphasizing care-related interruptions, protected business time, market accessibility, household support, and delegation capacity. Because no primary field dataset was provided, the article is explicitly designed as a simulation-based research study rather than as completed empirical research. A synthetic dataset representing 420 hypothetical women microenterprise owners was generated to demonstrate a reproducible analytical framework.

The simulated findings indicate a negative association between the time-poverty index and annual sales growth, with a correlation of approximately -0.528 . Mean sales growth declines from 27.89% in the lowest-time-poverty quartile to 24.69% in the highest, while protected business time falls from 6.53 to 4.78 hours per day. Customer-retention performance and market-access scores also deteriorate as time constraints intensify.

The study argues that the economic consequences of unpaid care may arise not only through fewer total working hours but also through fragmentation of entrepreneurial attention and loss of uninterrupted operating time. Policies intended to strengthen women-owned microenterprises should therefore complement finance and training with affordable care services, redistribution of household responsibilities, labor-saving infrastructure, delegation support, flexible program delivery, and mechanisms that increase women's control over productive time.

Keywords: time poverty, women microentrepreneurs, unpaid care work, business growth, entrepreneurial time, childcare, household labor, enterprise continuity

1. Introduction

Women's entrepreneurship is frequently promoted as a pathway toward income generation, employment creation, household resilience, and broader economic participation. Nevertheless, enterprise ownership does not occur independently of household organization. In many settings, women who operate businesses also retain primary responsibility for childcare, elder care, food preparation, cleaning, household management, and other unpaid activities. The International Labour Organization reported in 2018 that women performed 76.2% of total unpaid care-work hours globally and spent more than three times as much time on unpaid care work as men. This unequal temporal burden is closely connected with gender disparities in paid employment and economic opportunity.

The concept of time poverty provides an analytical framework for examining this constraint. A person can be economically active and still be time poor when the combined demands of paid work, self-employment, domestic work, caregiving, commuting, and essential personal activities leave insufficient discretionary time for rest or productive choice. Time poverty therefore differs from conventional income poverty. It concerns the scarcity and inflexibility of usable time rather than the scarcity of monetary income alone. Earlier World Bank work on gender, time use, and poverty emphasized that unequal workloads can constitute a distinct dimension of deprivation and can constrain women's engagement with markets even when their economic activity is substantial.

This issue is particularly relevant to microenterprise because business growth depends on more than keeping the enterprise technically open. Entrepreneurs must search for suppliers, compare prices, replenish inventory, cultivate customers, develop products, maintain records, identify market opportunities, participate in networks, negotiate with lenders, supervise workers, and respond to unexpected problems. The World Bank's *Profiting from Parity* analysis found that entrepreneurs in several African datasets worked long hours, yet men worked about 10% more hours per week on their businesses than women on average. The same report identified domestic chores and care responsibilities as important constraints on the time women could devote to enterprise activities.

Total business hours, however, may still understate the economic significance of time constraints. Five uninterrupted hours available for supplier visits, production planning, and customer acquisition may not be equivalent to five hours fragmented into short intervals by repeated care responsibilities. Delecourt and Fitzpatrick's study of Ugandan microentrepreneurs provides an important illustration: women who brought young children to work had substantially lower profits and were more likely to experience stockouts, although the authors appropriately cautioned that the relationship was observational rather than a clean causal estimate. Their findings point toward attention and operational continuity as potentially important mechanisms through which care responsibilities influence enterprise performance.

The present study therefore develops a fresh framework centered on care-load fragmentation and protected business time. It does not argue that unpaid care alone explains differences in women's enterprise growth. Capital access, sector, education, experience, household bargaining, market demand, infrastructure, social norms, business practices, and financial inclusion remain important. Experimental evidence from de Mel, McKenzie, and Woodruff also demonstrates that household resource allocation can shape women's microenterprise returns, reinforcing the importance of situating the business within

its household environment. The contribution of the present simulation is to specify how time poverty could affect business continuity through fragmented attention, reduced market access, weaker customer retention, and constrained opportunity for strategic growth.

2. Objectives of the Study

2.1 To Examine Care-Load Fragmentation and Protected Entrepreneurial Time

The first objective is to examine time poverty beyond the conventional measurement of total daily or weekly workload. The study distinguishes care-load fragmentation, defined as repeated interruptions generated by unpaid care and domestic responsibilities, from protected business time, defined as relatively uninterrupted periods in which the entrepreneur can concentrate on enterprise-specific activities. This distinction is important because fragmented work may reduce the effectiveness of nominal business hours even when the total recorded workload remains high.

The study therefore proposes that the economically relevant variable is not simply whether women work fewer hours, but whether they possess sufficient control over the timing, duration, and continuity of their entrepreneurial labor. The ILO's time-use research demonstrates substantial differences in unpaid-care workloads across gender, socioeconomic status, employment situation, marital status, and presence of children, providing a strong rationale for treating time allocation as a structured economic variable rather than an individual preference alone.

2.2 To Assess the Relationship Between Time Poverty and Enterprise Growth Continuity

The second objective is to evaluate whether higher time poverty would be expected to correspond with weaker business growth, reduced market accessibility, and lower customer-retention capacity. Growth continuity is defined as the owner's ability to maintain routine enterprise operations while also sustaining activities that support future revenue, rather than merely preventing temporary closure.

This objective also examines potential protective mechanisms. Household support may reduce the number of care interruptions, while delegation capacity may allow business activities to continue when the owner is temporarily unavailable. These mechanisms recognize that the appropriate response to time poverty is not necessarily to encourage women to work longer total hours. A more sustainable approach is to expand control over productive time and reduce the degree to which every business function depends on the owner's uninterrupted personal presence.

3. Review of Literature

3.1 Gendered Unpaid Care and the Economics of Time Poverty

Unpaid care work constitutes an essential component of household and social reproduction, yet its distribution is highly unequal. The ILO's global assessment of care work demonstrated that women undertake most unpaid care worldwide and connected this burden with persistent inequalities in labor-market participation and employment outcomes. Charmes' later ILO analysis of time-use data similarly documented substantial differences in unpaid care across gender and socioeconomic characteristics, reinforcing the importance of treating time availability as an economic resource.

Time poverty becomes especially important for self-employed women because entrepreneurship can appear to solve one labor-market constraint while reproducing another. Operating a business from or near the home can provide flexibility, but flexibility may also make women's enterprise time continuously interruptible. The ability to combine work and caregiving can therefore support labor-force participation while simultaneously limiting the intensity with which the enterprise can be developed.

This distinction is visible in broader evidence on women's economic activity. The ILO reported that hundreds of millions of women of working age identified care responsibilities as a reason for being outside employment, while its 2018 care-economy analysis linked unpaid-care responsibilities with restricted participation in remunerated work. These findings do not establish specific microenterprise growth effects, but they demonstrate that care is sufficiently large to influence the allocation of productive labor at population scale.

3.2 Household Responsibilities and Women's Microenterprise Performance

Research on women-owned enterprises has repeatedly shown that enterprise outcomes are influenced by factors operating beyond the business itself. De Mel, McKenzie, and Woodruff's randomized capital experiment found markedly different average returns to capital between male- and women-owned microenterprises in their study context and identified intrahousehold resource allocation as relevant to understanding these differences. The result cautions against assuming that capital entering a household necessarily remains fully available for business expansion.

Friedson-Ridenour and Pierotti's qualitative research on women microentrepreneurs in urban Ghana similarly emphasized the intertwined relationship between women's businesses and household priorities. Their analysis showed that business management and investment decisions were embedded within household relationships rather than functioning as autonomous firm-level choices. This insight is directly relevant to time allocation because households distribute not only money but also care responsibilities, mobility, and claims on women's attention.

The World Bank's *Profiting from Parity* report brings these strands together at a broader scale. Its analysis found that women entrepreneurs spent fewer hours on their businesses than men on average and explicitly identified domestic work as a limitation on business time. The report therefore provides a strong empirical basis for examining time as one mechanism through which household organization can influence enterprise growth.

3.3 Childcare, Work Fragmentation, and the Research Gap

Childcare provides one of the clearest settings in which unpaid care can directly interrupt business activity. Delecourt and Fitzpatrick found that 38% of women in their Ugandan microenterprise sample brought small children to work, compared with none of the men studied. Bringing a child to the business was associated with approximately 45% lower profits and greater likelihood of stockouts. The authors explicitly noted the absence of exogenous variation in bringing children to work, meaning the estimates should not be interpreted as definitive causal effects.

The mechanism suggested by stockouts is particularly important. Care constraints may reduce growth not only because women have fewer total working hours, but because interruptions occur

precisely when inventory should be checked, supplies replenished, customers served, or market opportunities pursued. This creates a distinction between chronological time and managerially usable time. Two business owners can each report forty hours of work per week while possessing very different levels of uninterrupted control over those hours.

The principal research gap is therefore methodological. Existing literature provides substantial evidence on unpaid care, women's labor participation, household-resource allocation, and gender differences in enterprise outcomes, but fewer studies explicitly operationalize the fragmentation of entrepreneurial time as an independent business constraint. The present study addresses this gap by constructing a model in which care interruptions affect protected business hours, market accessibility, customer retention, and sales growth simultaneously.

4. Research Methodology

4.1 Research Design and Conceptual Specification

The study adopts a quantitative simulation-based design. No original survey of women entrepreneurs was conducted, and none of the numerical results reported below should be represented as findings from actual respondents. The simulation is used to develop a transparent analytical structure that can subsequently be tested using longitudinal time-use diaries, enterprise records, or randomized childcare and household-support interventions.

A synthetic sample of 420 hypothetical women microenterprise owners was constructed. The model incorporates daily care interruptions, protected business hours, household support, delegation capacity, market access, a composite time-poverty index, annual sales growth, and customer-retention performance.

Table 1:L Proposed Measurement Framework

Construct	Operational Definition	Measurement	Analytical Role
Care-load fragmentation	Number of substantive unpaid-care or domestic interruptions affecting the working day	Interruptions/day	Primary exposure
Protected business time	Relatively uninterrupted time available for enterprise-specific tasks	Hours/day	Mediating variable
Household support	Extent to which unpaid domestic and care responsibilities are shared	1–5	Protective variable
Delegation support	Owner's ability to transfer routine business functions to another person	1–5	Protective business variable
Market access	Practical ability to visit suppliers, customers, markets, banks, and business networks	1–5	Intermediate outcome
Time-poverty index	Composite intensity of care interruptions and constraints on protected productive time	0–100	Primary explanatory variable
Annual sales growth	Modeled percentage change in business sales	Percentage	Primary outcome

Customer retention	Ability to maintain regular customer relationships and service continuity	0–100	Secondary outcome
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4.2 Proposed Questionnaire and Time-Use Measurement

A future empirical study should combine enterprise accounting data with time-use measurement. A conventional question such as “How many hours did you work last week?” may fail to distinguish uninterrupted business activity from work undertaken while simultaneously supervising children, preparing food, or responding repeatedly to household demands. Time diaries recorded in 30-minute intervals or short mobile-based activity prompts would provide stronger measurement.

Exactly five principal questionnaire items are proposed and have not been administered. Q1 would ask: “During a typical business day, how many times is your business activity interrupted by unpaid care or household responsibilities?” Q2 would ask: “How many hours per day can you usually work on your enterprise without substantial interruption?” Q3 would ask: “To what extent do other members of your household share care and domestic responsibilities?” Q4 would ask: “If you must leave the enterprise temporarily, how easily can another person continue routine business activities?” Q5 would ask: “Compared with the previous year, approximately how much have your business sales increased or decreased?”

Actual research should additionally measure sector, business age, capital stock, number of employees, number and age of dependents, access to childcare, location, household income, owner's education, financial access, digital technology, transport, marital status where analytically justified, and exposure to major shocks. These controls would help separate the effect of time poverty from correlated differences in business resources or market conditions.

4.3 Simulation and Analytical Procedure

The synthetic observations were generated using a fixed random seed for reproducibility. Daily care interruptions were modeled between approximately one and ten events. Protected business time was simulated on an effective range of 1.5–9 hours per day and was designed to decline as care fragmentation increased, while stronger household support partly protected available business time.

The composite time-poverty index increases with care interruptions and decreases with protected business time, household support, and delegation capacity. Annual sales growth was modeled to decline with time poverty but improve with protected business hours, market access, and delegation support. Random household and enterprise variation was incorporated to avoid deterministic relationships.

For interpretation, the 420 observations were divided into four equal quartiles based on the time-poverty index. Descriptive means were calculated for protected business time, sales growth, customer retention, market access, and care interruptions. Pearson correlation was used to summarize the association between time poverty and growth, while a scatter graph with a fitted trend line provides the article's single graphical analysis.

5. Analysis

5.1 Time Poverty and Protected Business Time

The simulated results show a systematic deterioration in protected entrepreneurial time as time poverty increases. Women in the lowest-time-poverty quartile possess an average of 6.53 protected business hours per day. The corresponding value falls to 5.72 hours in the second quartile, 5.33 hours in the third, and 4.78 hours among the highest-time-poverty group.

Care interruptions move in the opposite direction. The lowest-time-poverty group experiences an average of 3.59 modeled interruptions per day, whereas the highest group experiences 6.90. The result demonstrates the analytical difference between nominal availability and uninterrupted productive capacity: the owner may remain economically active throughout the day while losing substantial blocks of time suitable for strategic enterprise tasks.

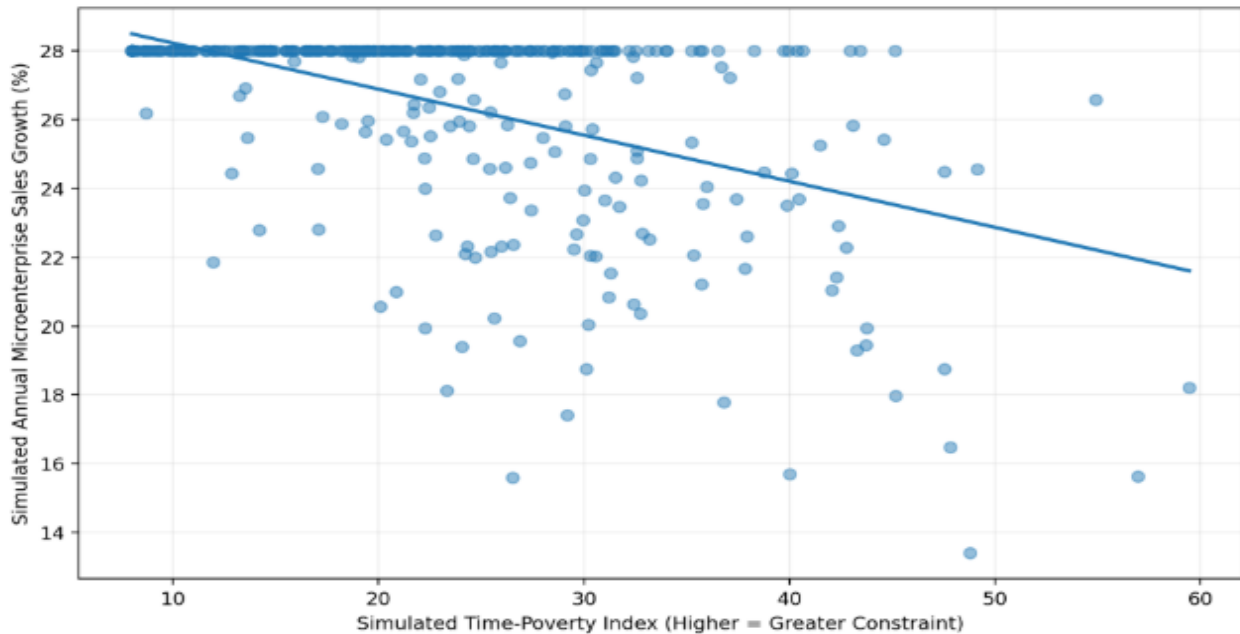
Table 2: Simulated Enterprise Outcomes Across Time-Poverty Quartiles

Time-Poverty Group	Simulation	Mean Time-Poverty Index	Protected Business Hours/Day	Annual Sales Growth (%)	Customer-Retention Score	Market-Access Score	Care Interruptions/Day
Q1: Lowest	105	9.11	6.53	27.89	85.22	4.26	3.59
Q2: Low-Moderate	105	17.14	5.72	27.57	78.87	4.02	4.94
Q3: Moderate-High	105	24.47	5.33	26.53	73.80	3.75	5.61
Q4: Highest	105	35.71	4.78	24.69	66.99	3.46	6.90

5.2 Association Between Time Poverty and Microenterprise Growth

Across the synthetic dataset, the correlation between the time-poverty index and annual sales growth is approximately $r = -0.528$. The negative association indicates that stronger time constraints correspond with weaker modeled business growth, although considerable heterogeneity remains.

Graph 1: Simulated Association Between Time Poverty and Women's Microenterprise Growth



The fitted trend nevertheless shows a clear decline in average growth as time poverty rises. The modeled result is consistent with the broader evidence that household and care responsibilities constrain women's available business time. It should not, however, be interpreted as an empirical causal coefficient because the outcome was generated specifically for methodological demonstration.

5.3 Market Access and Customer Continuity

Market-access scores decline from 4.26 in the lowest-time-poverty quartile to 3.46 in the highest. This variable represents the entrepreneur's practical ability to travel to suppliers, investigate alternative markets, meet customers, interact with financial institutions, and participate in networks or training opportunities.

This mechanism deserves attention because some entrepreneurial tasks are spatially and temporally inflexible. A wholesale market may operate at a particular time, a supplier may require travel, and a customer may not be willing to wait until household responsibilities have been completed. Time poverty can therefore reduce opportunity even where the owner remains willing and capable of expanding the enterprise.

The corresponding decline in customer retention suggests that time fragmentation may also affect responsiveness. Repeated interruption can delay order fulfillment, reduce opening consistency, complicate follow-up, and make service quality less predictable. Delecourt and Fitzpatrick's association between childcare at work and stockouts provides a real-world reason to investigate these operational pathways more carefully in future field research.

6. Discussion

6.1 The Economic Difference Between Long Hours and Usable Hours

The first major implication is that researchers should distinguish hours worked from hours controlled. Women microentrepreneurs may report long working days while possessing only limited uninterrupted periods suitable for activities that require concentration, travel, negotiation, or planning. Conventional enterprise surveys can therefore underestimate the economic consequences of unpaid care when they record total working time without measuring interruptions.

The distinction helps reconcile two observations that otherwise appear contradictory. Women can be exceptionally hardworking while their firms remain smaller or grow more slowly. The issue need not involve entrepreneurial effort. It may instead involve the temporal architecture within which effort is deployed. The World Bank's evidence that women spend fewer hours on businesses while bearing heavier domestic responsibilities is consistent with this interpretation.

Protected business time should therefore become a specific variable in women-entrepreneurship research. Future studies could measure not only how many hours owners spend at the enterprise but the average duration of uninterrupted work episodes and the proportion of strategic activities postponed because of care demands.

6.2 Household Organization as Part of the Enterprise Production System

The second implication is that the boundary between household and enterprise is economically porous. Microenterprises are often analyzed as independent production units, yet women's decisions concerning inventory, investment, travel, labor, and opening hours may depend strongly on household organization. Friedson-Ridenour and Pierotti's Ghana research emphasizes precisely this interdependence, showing that women's business decisions were embedded in household relationships and competing priorities.

Experimental evidence concerning capital returns provides a complementary lesson. De Mel, McKenzie, and Woodruff found that financial resources introduced into microenterprises did not generate uniform returns across male and female owners and that intrahousehold allocation was relevant to the observed differences. The broader implication is that enterprise inputs cannot always be isolated from household allocation processes. Time should be treated in the same way as capital: both are productive resources whose use is negotiated within broader household conditions.

This perspective also clarifies the role of delegation. Hiring a helper, training an employee, or sharing business functions with another family member can reduce owner dependence. Delegation may therefore be a growth input rather than merely an outcome of growth, especially where the owner's availability is structurally constrained.

6.3 Implications for Childcare and Gender-Responsive Enterprise Policy

Enterprise programs designed for women frequently emphasize finance, business knowledge, mentoring, and market access. These interventions remain important, but they can underperform when participants lack enough protected time to use them effectively. Training sessions scheduled without regard to care obligations may exclude precisely the entrepreneurs experiencing the strongest constraints.

The ILO's care-economy framework emphasizes recognition, reduction, and redistribution of unpaid care as essential to addressing gender inequality in the world of work. For microenterprise policy, this can translate into accessible childcare, community care infrastructure, improved water and energy services, flexible training schedules, locally delivered support, safer transport, and stronger social norms around household sharing of unpaid work.

Policy should nevertheless avoid framing childcare merely as an instrument for extracting more labor from women. The objective is greater control over time, not longer total workdays. Reducing time poverty should create space for enterprise management, rest, learning, social participation, and personal well-being. A growth strategy that simply converts all freed care time into additional labor would reproduce rather than resolve the underlying scarcity.

7. Conclusion

Time poverty is an economically important but incompletely measured constraint on women's microenterprise development. The central argument of this article is that the relevant issue extends beyond the total number of hours women spend working. Unpaid care can fragment entrepreneurial attention, shorten uninterrupted work episodes, reduce market accessibility, weaken customer continuity, and restrict the owner's ability to undertake activities associated with enterprise expansion.

The simulation-based analysis provides a transparent methodological illustration. Among 420 synthetic observations, protected business time falls from 6.53 hours per day in the lowest-time-poverty quartile to 4.78 hours in the highest. Mean sales growth declines from 27.89% to 24.69%, while customer-retention performance falls considerably more sharply. The modeled correlation between time poverty and annual sales growth is approximately -0.528 . These values are synthetic and must not be treated as empirical estimates for any real population.

Existing research nevertheless provides strong reasons to test the proposed mechanism. The ILO documents major gender inequality in unpaid care; World Bank evidence identifies household responsibilities as a limitation on women's business time; qualitative research demonstrates the importance of household relationships in women's microenterprise decisions; and observational childcare evidence connects simultaneous care responsibilities with lower profits and stock-management difficulties.

Future research should therefore combine enterprise-performance data with high-frequency time-use measurement. Randomized childcare interventions, household-work redistribution programs, delegation assistance, and labor-saving infrastructure could provide stronger causal evidence concerning whether increasing protected entrepreneurial time improves growth. The policy objective should ultimately be to expand women's control over productive time rather than merely increase the number of hours they work. Women's microenterprise growth is more likely to become sustainable when entrepreneurs possess not only capital and business capability but also sufficient uninterrupted time to use those resources strategically.

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