Jurnal Entrepreneur dan Entrepreneurship, Vol. 15, No. 2, September 2026, 93–108
ISSN 2302-1802 print / ISSN 2580-9393 online

Women-Led Enterprises in Indonesia: The Role of Care Burdens and Household Demographics

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Abstract

Women-led enterprises increase women's economic participation. However, little is known in Indonesia about how household care burdens and demographic roles influence women's participation in these women-led businesses. This study aims to explore the relationship between care burdens, domestic tasks, and women's participation in women-led businesses in Indonesia using cross-sectional microdata from the 2024 National Socioeconomic Survey (Susenas). The method uses logistic regression and average marginal effects to assess spatial heterogeneity across full, rural, and urban samples of 209,494 women. The results show that care responsibilities and household roles are central to women's participation in enterprises. The positive association between having children and women-led enterprises indicates that entrepreneurship can be a flexible work arrangement amid childcare constraints. Women are more likely to engage in enterprise activity, as household-head status predicts greater responsibility and decision-making authority. In urban areas, internet access is positively associated with participation, whereas higher education levels are negatively associated, suggesting that higher schooling may increase access to wage employment and raise opportunity costs for entrepreneurship. This study provides representative evidence on women-led enterprises by integrating care burdens, household roles, and rural-urban heterogeneity in Indonesia. The results underline the importance of policies that combine childcare support, digital inclusion, and targeted support for women with household responsibilities.

Keywords: care burdens, household demographics, rural-urban heterogeneity, women-led enterprises

INTRODUCTION

Women-led enterprises are increasingly recognized as a key engine for inclusive growth as they expand women's economic participation, support household welfare and create local jobs through micro and small-scale business activities. In emerging economies like Indonesia, women's enterprise activity is typically embedded in household production and informal markets, where entrepreneurship is often linked to livelihood sustenance during limited access to formal employment opportunities (Kevane, Ratan, & Dhar, 2024; Majeed & Rashid, 2023). However, women face an uneven playing field when starting businesses (Ghosh, 2025). Their business decisions are often negotiated with domestic responsibilities, caregiving demands and expectations of household roles which are structurally gendered and unevenly distributed across households and

Submitted: 17 March 2026, Revised: 04 June 2026, Accepted: 21 July 2026
DOI: https://doi.org/10.37715/jee.v15i2.6480
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places of residence (Banu, Baral & Kuschel, 2023; Kumar & Anand, 2025).

The care burden is a key mechanism connecting gender and participation in enterprise. Women taking on disproportionate childcare and domestic responsibilities (Dinella, Evans, Levinson, & Gagnon., 2023) means time is a significant constraint that affects labor supply decisions and feasibility of different types of work (Mussida & Patimo, 2020). Self-employment may offer the flexibility with hours and location that wage employment does not, especially for women with young children (Dinh et al., 2021). Entrepreneurship under care constraints, however, is likely to be a second-best option. It is often small-scale, concentrated in low-productivity activities and highly vulnerable to shocks. This is because care demands may limit the time available for skill development, market engagement or business growth. Therefore, understanding how care burdens affect enterprise participation is crucial for developing policies that move beyond generic entrepreneurship support and toward gender-responsive interventions.

The household demographic structure further conditions women's ability to engage in enterprise activities. Women's decision-making power, economic responsibility, and family support may be influenced by household size, marital status, and household-head status. Bigger households may increase work burdens within that household, but they may also provide informal support networks that alleviate the burden of care. Household headship may also increase responsibility and authority thus women are more likely to be involved in income generating activities. Previous research has shown that household features, family duties and decision-making authority are closely linked to women's economic activity and entrepreneurship (Muhammad, Ximei, Saqib & Beutell, 2021; Das, 2022). The findings suggest that women-led enterprises should be considered not only as individual economic choices, but also as outcomes that are influenced by household roles and constraints.

Despite growing interest in women's entrepreneurship, there is limited evidence on the combined impact of care constraints and household demographics on women-led enterprise participation using large-scale, nationally representative microdata in Indonesia. Existing studies tend to use small surveys, specific localities or firm-level datasets that underrepresent micro and informal businesses where many women work (Ayinaddis, 2023; Gebrehiwot, 2022; Ranasinghe, 2024). Moreover, the Indonesian context has significant rural-urban disparities in labor markets, infrastructure, digital connectivity, and household production systems (Fahmi & Mendrofa, 2023; Savandha, 2024). Such spatial divides may lead to heterogeneous patterns: the same care burden may elicit different enterprise responses in rural (where home-based production and informal markets prevail) compared to urban settings (where wage employment opportunities and market access differ). A systematic assessment of such heterogeneity is therefore necessary to avoid one-size-fits-all conclusions.

This study fills these gaps by examining the determinants of women-led enterprises in Indonesia based on care constraints and household demographic structure, using cross-sectional microdata from the 2024 National Socioeconomic Survey (Susenas) (Badan Pusat Statistik, 2024). Women-led enterprises are proxied by women who declare self-employment (own-account work) or employer status in their main job. The study is guided by the following re-

search questions: (1) What is the effect of care burdens and household demographic roles on women's participation in women-led enterprises in Indonesia? (2) What is the relationship of education, digital access and social assistance to women-led enterprise participation after controlling for household constraints? (3) Are these relationships different in rural and urban areas?

This study proposes three hypotheses based on the theoretical discussion. The first expectation is that care burdens are positively associated with women-led enterprise participation. The argument for this expectation is that self-employment provides more flexibility for women with childcare responsibilities. Second, household demographic factors are expected to influence women-led enterprise participation, especially household-head status and household size, which can influence women's economic responsibility, decision-making, and access to family support. Third, we expect the relationship between care burdens, household demographic characteristics, digital access, education and social assistance with women-led enterprise participation to differ between rural and urban areas due to differences in labor market opportunities, infrastructure and household production systems across spatial contexts.

This study makes three contributions to the literature. It gives large-scale micro-evidence on women's participation in enterprise which explicitly includes care burdens and household role responsibility. Such mechanisms are frequently mentioned but not systematically operationalized in empirical research. It further unpacks the link between digital capability and human capital, and women's enterprise engagement under household constraints, providing insights relevant to both entrepreneurship and gender-inclusive digitalization agendas. Finally, by comparing rural and urban subsamples, it identifies context-specific determinants that can inform more targeted policy design, including childcare-sensitive entrepreneurship support, skills and digital access programs, and social protection linkages that consider the dual roles of women.

METHOD

This study employs a quantitative approach based on cross-sectional microdata from the 2024 National Socioeconomic Survey (Susenas) (Badan Pusat Statistik, 2024). Susenas provides nationally representative data on household socioeconomic status, demographic factors, social assistance beneficiaries, internet access, and employment-related variables, which are appropriate to analyze the participation in women-led businesses at the individual and the household levels. The analysis is on working-age female respondents and uses detailed information on their main employment status and household characteristics.

The sample was created in several steps. First, the analysis was limited to female respondents of working age. Second, respondents who reported valid information on main employment status, household demographic characteristics, internet access, marital status, education, and receipt of *Program Keluarga Harapan* (PKH) were kept. Third, observations with missing values in the dependent variable and key explanatory variables were excluded from the estimation sample to ensure consistency across model specifications. The final estimation sample consists of women with complete information on all variables used in the empirical model. To examine spatial heterogeneity, the sample is further divided into rural and urban subsamples

based on the official Susenas residential classification. The dependent variable captures participation in women-led enterprises, which are proxied by women who report being self-employed, own-account workers, or employers in their main job. The variable is coded 1 if the respondent meets this criterion and 0 otherwise. This operational definition follows the logic that own-account work and employer status represent women's direct engagement in enterprise activities, especially in household-based and micro-scale business contexts.

The key explanatory variables represent care constraints and household demographic roles. Care burden is measured by the presence of under-five children in the household. Household size and headship status of the household of the respondent capture the household demographic conditions. These variables capture the household environment in which women make decisions about labor and enterprise, including constraints on time, economic responsibility, and potential access to family support. Control variables are age and its quadratic term to capture life-course and non-linear patterns in enterprise participation, years of schooling as a proxy for human capital, internet access as a measure of digital connectivity, marital status, and PKH receipt as a proxy for exposure to poverty-targeted social assistance. Variable definitions and coding are detailed in Table 1.

Care burdens and household demographic conditions are important because women's enterprise participation is influenced by not only individual capability but also time constraints, mobility, and household bargaining dynamics (Vasudevan & Raghavendra, 2022). Unpaid care responsibilities are heightened by the presence of children under five, restricting women's access to fixed-hour wage jobs and making flexible self-employment a more viable option (Amolegbe, Mukaila, & Ojiri, 2025; Berga & Abdisa, 2022). Household size both reflects resource pressure and possible informal support networks that may exacerbate or alleviate care constraints (Dutta, 2023), and so must be explicitly modeled.

Demographic differences also reflect differences in life-course, and in capabilities. Age reflects experience and non-linear patterns in entrepreneurial entry (Costa, Xavier, Pita, & Guimarães., 2020), education proxies for human capital and managerial capacity (Jafari-Sadeghi, Kimiagari, & Biancone, 2019), and internet access signals digital connectivity that can reduce information costs and broaden market reach (Haini & Pang, 2022). Marital status reflects household role expectations and risk sharing arrangements that affect women's time allocation and work choices (Bjuggren & Henrekson, 2022). PKH receipt is a control for poverty-targeted households, capturing baseline vulnerability and policy exposure that may motivate necessity-based entrepreneurship.

Given the binary nature of the dependent variable, this study employs a binary logistic regression model. The model estimates the association between care burdens, household demographic characteristics, and the probability that a woman participates in a women-led enterprise. The empirical specification is written as follows:

$$logit(women_ent_i) = ln\left(\frac{women_ent_i}{1 - women_ent_i}\right) = \beta_0 + \beta_1 under_five_i + \beta_2 hh_size_i + \beta_3 hhhead_status_i + \beta_4 age_i + \beta_5 age2_i + \beta_6 education_i + \beta_7 internet_i + \beta_8 marital_i + \beta_9 pkh\ recipient_i + \epsilon_i$$

Where ($women_ent_i$) denotes the probability that woman (i) is engaged in a women-led enterprise, ($underfive_i$) captures the presence of under-five children in the household, (hh_size_i) denotes household size, ($hhhead_status_i$) indicates whether the respondent is the household head, (age_i) and (age_i^2) capture life-cycle effects, ($education_i$) measures years of schooling, ($internet_i$) captures internet access, ($marital_i$) denotes marital status, and ($pkh_recipient_i$) indicates receipt of PKH. The error term (ϵ_i) captures unobserved factors associated with women-led enterprise participation.

Table 1 Variables Definition

Variable Group	Variable	Operational Definition
Dependent variable	Women-led enterprise	A dummy variable indicating whether a female respondent is classified as self-employed (own-account worker) or an employer in her main job (1 = yes, 0 = no), serving as a proxy for women-led enterprises.
Care burdens	Under-five children in household (0–5)	A dummy variable indicating whether the respondent's household includes at least one child aged 0–5 years (1 = yes, 0 = no), reflecting childcare responsibilities and time constraints.
	Household size	A continuous variable measuring the total number of household members, capturing overall dependency pressures and potential care and resource demands within the household.
	Household-head status	A dummy variable indicating whether the female respondent is the household head (1 = yes, 0 = no), reflecting household role authority and decision-making responsibility.
Household demographics/ controls	Age	A continuous variable measuring the respondent's age in years, capturing life-cycle differences in women's entrepreneurship.
	Age squared	A derived continuous variable computed as age^2, allowing for a non-linear (life-cycle) relationship between age and entrepreneurship.
	Education (years of schooling)	A continuous variable measuring the respondent's completed years of schooling, reflecting human capital that may enable enterprise participation.
	Internet access/use	A dummy variable indicating whether the respondent uses/has access to the internet (1 = yes, 0 = no), reflecting digital access that can facilitate market information and business opportunities.
	Marital status	A dummy variable indicating whether the respondent is married (1 = yes, 0 = no), capturing household role expectations and potential constraints on women's economic activities.
	PKH recipient household	A dummy variable indicating whether the respondent's household receives *Program Keluarga Harapan* (PKH) social assistance (1 = yes, 0 = no), included as a control for poverty-targeted households and social protection coverage.
Heterogeneity	Rural vs urban residence	A residence-based subgroup specification where models are estimated separately for rural and urban respondents (rural-only vs urban-only), capturing heterogeneous constraints and opportunities across places of residence.

Source: Badan Pusat Statistik (2024), modified by authors

The estimation is conducted in three stages. First, we estimate the baseline model using the full sample. Second, the model is re-estimated separately for rural and urban subsamples to examine whether the associations differ across spatial contexts. Third, we report average marginal effects to improve interpretation, as they express results as changes in predicted probabilities rather than log-odds. We evaluate statistical significance using conventional significance levels. Beyond reporting the logit coefficient estimates, this study also computes marginal effects for each explanatory variable to enhance interpretability and policy relevance. While logit coefficients indicate the direction and statistical significance of associations, AMEs translate these associations into changes in the probability of women-led enterprise participation. For binary explanatory variables, the AME indicates the discrete change in predicted probability when the variable changes from 0 to 1, holding other variables at their observed values. For continuous variables, it indicates the average change in predicted probability associated with a one-unit increase in the variable. This approach clarifies the practical policy implications of care responsibilities, domestic roles, and digital access.

RESULTS

Table 2 shows descriptive profile of working age women by enterprise status. The most noticeable difference is in household-head status. Women in the enterprise group are much more likely to be household heads than women in the non-enterprise group. This pattern implies that women's participation in enterprise is closely associated with household responsibility and decision-making power, which supports the study's focus on household roles as a key determinant of women-led enterprises.

Educational differences also show that women-led businesses are more concentrated in women with basic and secondary education. The non-enterprise group also has a higher proportion of women with tertiary education. This pattern suggests that a higher level of education may lead to greater access to wage employment and reduce the reliance on self-employment. Digital access shows a different pattern, with lower internet access for women in the enterprise group, indicating a potential digital gap, which may limit market reach and business upgrading. Marital status, PKH receipt, and rural–urban location are relatively similar across groups, while education and digital access than marital status or social assistance receipt, suggesting that the key descriptive differences are more about household role.

Logit Estimation Results

The logit estimation results shown in Table 3 suggest a good overall fit of the model. The LR chi-square statistic is highly significant (22,675.48; $p < 0.001$), suggesting that explanatory variables are jointly associated with women's likelihood of engaging in enterprise activities. Findings support the first hypothesis that women-led enterprise participation is positively associated with care burdens. However, household presence of an under-five child is significantly associated with higher probability of enterprise participation by about 5.3 percentage points. Household size is also positively correlated with participation in enterprise. However, the magnitude is relatively small, which suggests that larger households may be sources of economic pressure as well as potential informal support for women's enterprise activities.

Table 2 Descriptive Statistics

Variable	Female Enterprise (N = 77.796)		Non Enterprise (N = 131.698)	
	N	%	N	%
Under-five children in household				
Yes	15.327	19.70	26.687	20.26
No	62.469	80.30	105.011	79.74
Household head status				
Yes	18.459	23.73	10.447	7.93
No	59.337	76.27	121.251	92.07
Household-head education/ Year of schooling				
No schooling / Incomplete primary	12.527	16.10	16.360	12.42
Primary school	23.219	29.85	27.938	21.21
Junior secondary	15.539	19.97	21.269	16.15
Senior secondary	21.654	27.83	35.776	27.17
Diploma I / II	348	0.45	902	0.68
Diploma III	979	1.26	4.687	3.56
Diploma IV / Bachelor's Degree	3.444	4.43	23.104	17.54
Professional/ Master's Degree	83	0,11	1,564	1,19
Doctoral Degree	3	0,00	98	0,07
Internet access				
Yes	48,941	62,91	93,987	71,37
No	28,855	37,09	37,711	28,63
Marital status				
Married	56,375	72,47	93,884	71,29
Otherwise	21,421	27,53	37,814	28,71
PKH recipient				
Yes	13,967	17,95	22,084	16,77
No	63,829	82,05	109,614	83,23
Rural-urban				
Rural	45,584	58,59	75,359	57,22
Urban	32,212	41,41	56,339	42,78
Variables	**Mean**	**Std. Dev**	**Max**	**Min**
Household Size	3,90	1,62	22	1
Age	41,43	11,98	15	64

Source: Badan Pusat Statistik (2024)

The strongest predictor is household-head status, which supports the second hypothesis. Women who are heads of household are significantly more likely to participate in women-led enterprises, with a marginal effect of about 29,5 percentage points. The finding suggests that women's enterprise participation is strongly related to household responsibility, decision-making power and the need to earn an income. The third hypothesis related to digital access is also confirmed by the results. Internet access has a positive association with women-led enterprise participation, increasing the likelihood of women-led enterprise by approximately 6,3 percentage points. The outcome indicates that digital connectivity reduces information barriers, expands market access and supports women's participation in entrepreneurial activities. Participation is also positively associated with marital status with a marginal effect of

Table 3 Logit Estimation

Variables	Coefficient	Marginal Effect (dy/dx)
Under-five children	0.2540***	0.0532***
	(0.0136)	(0.0028)
Household size	0.0099***	0.0020***
	(0.0035)	(0.0007)
Household-head status	1.4102***	0.2953***
	(0.0209)	(0.0042)
Age	0.1057***	0.0221***
	(0.0033)	(0.0007)
Age^2	-0.0009***	-0.0001***
	(0.00003)	(0.0000)
Education	-0.0601***	-0.0125***
	(0.0011)	(0.0002)
Internet access	0.2989***	0.0626***
	(0.0124)	(0.0026)
Marital status	0.4578***	0.0958***
	(0.0180)	(0.0037)
PKH recipient	0.0052	0.0010
	(0.0130)	(0.0027)
Constant	-3.537***	
	(0.0652)	
Observations	209.494	
LR chi^2	22675.48	
Prob > chi^2	0.0000	

Source: Badan Pusat Statistik (2024), calculated by authors.
Note: Standard errors reported in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

about 9,6 percentage points. This could be due to the household support, risk sharing, or resource pooling in married households.

Other individual characteristics display systematic trends. Age has an inverted-U effect, which means that women's enterprise participation grows with age and then decreases later in the life cycle. Education is negatively associated with participation in enterprises, indicating that higher education may increase access to wage employment and increase the opportunity cost of self-employment. Finally, the receipt of PKH is not statistically significant, which implies that, after controlling for other factors, there is no substantial difference in participation in women-led enterprises between beneficiary and non-beneficiary households.

Rural-Urban Heterogeneity Analysis

Table 4 presents rural and urban subsample analysis and directly addresses whether the determinants of women-led enterprise participation differ across spatial contexts. The findings show that the main patterns observed in the full sample remain consistent across rural and urban areas. Care responsibilities, household-head status, internet access, marital status, and age are positively associated with women-led enter-

Table 4 Subgroup Analysis by Rural-Urban

Variables	Rural		Urban	
	Coef.	dy/dx	Coef.	dy/dx
Under-five children	0.2335***	0.0487***	0.2721***	0.0555***
	(0.0176)	(0.0036)	(0.0216)	(0.0044)
Household size	0.0040	0.0008	0.0198***	0.0040***
	(0.0045)	(0.0009)	(0.0057)	(0.0011)
Household-head status	1.7917***	0.3738***	0.9305***	0.1900***
	(0.0288)	(0.0056)	(0.0316)	(0.0063)
Age	0.1090***	0.0227***	0.1079***	0.0220***
	(0.0043)	(0.0008)	(0.0054)	(0.0011)
Age^2	-0.0010***	-0.0002***	-0.0008***	-0.0001***
	(0.00005)	(0.00001)	(0.00006)	(0.00001)
Education	-0.0429***	-0.0089***	-0.0925***	-0.0188***
	(0.0015)	(0.0003)	(0.0019)	(0.0003)
Internet access	0.2908***	0.0606***	0.2140***	0.0437***
	(0.0154)	(0.0032)	(0.0227)	(0.0046)
Marital status	0.3279***	0.0684***	0.5998***	0.1225***
	(0.0244)	(0.0050)	(0.0274)	(0.0055)
PKH recipient	0.0202	0.0042	-0.0337	-0.0068
	(0.0158)	(0.0033)	(0.0232)	(0.0047)
Constant	-3.5512***		-3.3478***	
	(0.0839)		(0.1061)	
Observations	120.943		88.551	
LR chi2	13847.24		11157.42	
Prob > chi2	0.0000		0.0000	

Source: Badan Pusat Statistik (2024), calculated by authors
Note: Standard errors reported in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

prise participation in both subsamples, while education remains negatively associated. PKH receipt is not statistically significant in either context.

The results, however, reveal meaningful differences in effect magnitude. Household-head status is the strongest correlate in both rural and urban areas, but its association is substantially larger in rural areas. This suggests that women's household responsibility and decision-making role may be more strongly linked to enterprise participation in rural settings, where self-employment and household-based economic activities are more common. In contrast, marital status matters more in urban areas, possibly reflecting the importance of household support, risk sharing, and resource pooling in contexts where market participation may require greater financial and time flexibility.

Human capital and digital access also vary by place of residence. The negative association between education and women-led enterprise participation is stronger in urban areas, suggesting that educated women in urban settings may have better access to wage employment, thereby increasing the opportunity cost of self-employment. Meanwhile, internet access remains positively associated in both contexts,

with a stronger association in rural areas. This implies that digital connectivity may be particularly important for women in rural areas by reducing information barriers and expanding access to markets beyond local communities.

The rural–urban heterogeneity analysis supports the third hypothesis that the relationship between household constraints, enabling resources, and women-led enterprise participation differs across spatial contexts. These findings suggest that policies supporting women-led enterprises should not take a uniform approach. Rural areas may require stronger digital infrastructure and support for household-based enterprises. In contrast, urban areas may benefit from policies that improve the quality and productivity of women's enterprise activities alongside access to formal employment opportunities.

DISCUSSION

Care Constraints and Flexible Enterprise Participation

The results suggest that the interaction between care responsibilities, household roles, demographic characteristics, and access to enabling resources affects women-led enterprise participation in Indonesia. The findings indicate a complex pattern rather than a singular route into entrepreneurship whereby women-led businesses could be both a mirror of flexible economic agency and of survival-oriented livelihood strategies. These associations differ by rural and urban areas suggesting that the women's enterprise participation is shaped by place-specific labor market conditions and household production systems. From a care-constraint perspective, the positive association between the presence of under-five children and women-led enterprise participation supports the argument that women's occupational choices are closely associated with childcare responsibilities.

As childcare needs increase, fixed-hour wage work may become less feasible, and self-employment or microenterprise activity may be more compatible. This is consistent with Connelly (1992) who finds that the presence of young children increases significantly the probability that women will choose self-employment to reduce childcare costs and accommodate caregiving responsibilities. This is also consistent with Conroy (2018), who notes that women tend to opt for self-employment and flexible sectors rather than private wage jobs, so they can better cope with the responsibilities of child-rearing. In both rural and urban settings, the study observes the care-related mechanism, which suggests that enterprise participation may be an adaptive response to childcare constraints, not just opportunity-driven entrepreneurship.

Household Roles, Responsibility, and Necessity Entrepreneurship

The demographic structure of the household also affects women's participation in entrepreneurship. Women-led enterprises are positively related to household size, but the effect is small and more prominent in urban locations. This pattern could reflect the dual role of bigger households: they could increase economic pressure, but they could also provide informal support for domestic tasks. Household size appears to matter less for enterprise participation in rural areas where extended family systems and home production may be more common. Household head status is the stron-

gest correlate of women-led enterprise participation, suggesting that economic responsibility and decision-making authority are important household-level mechanisms. Women as heads of households may be more likely to undertake enterprise activity because they bear the major responsibility for generating an income, particularly where opportunities for formal wage employment are scarce. However, this association should not be interpreted only as empowerment. Female headship may also reflect vulnerability, such as single parenthood, spousal absence, or limited access to stable employment.

Research in Ethiopia indicates that female heads of households are frequently exposed to livelihood insecurity because of lower levels of education and restricted access to formal employment opportunities (Wondimu, Delelegn, & Dejene, 2022). Similarly, Peng & Adjasi (2022) find that access to formal credit has a positive effect on labor productivity in male-headed enterprises but not in female-headed ones. This finding suggests that gender differences in skills, networks or resource endowments might limit the impact of financial access for women. The findings reinforce the interpretation that women-led enterprises could be driven by both opportunity and necessity. Married women are also more likely to participate in women-led enterprises, particularly in urban areas. This may be due to intra-household support, risk sharing or resource pooling which facilitates entry into enterprise activities. At the same time, marriage may also increase domestic responsibilities, making the positive association context dependent. This interpretation is consistent with da Fonseca & Berubé (2023), who show that spouses can reduce the costs of entrepreneurship through intra-household risk-sharing and labor supply adjustments.

Human Capital, Digital Access, and Occupational Sorting

The negative relationship between education and women's enterprise participation indicates occupational sorting. Higher schooling may increase access to formal wage employment and raise the opportunity cost of self-employment, especially in urban areas where formal jobs are more prevalent. This may lead women with lower education levels to be more inclined to engage in microenterprise activities as a livelihood strategy (Khanie, 2019). Thus, education acts not as a barrier to women's economic involvement, but rather as a mechanism that reshapes the nature of their employment. Age exhibits an inverted-U pattern indicating that life-cycle dynamics relate to enterprise participation. Experience, social networks, and self-confidence seem to increase the likelihood that women will engage in enterprise activity, before decreasing at older ages because of changing household responsibilities or diminished capacity. Coduras, Velilla, & Ortega (2018) also demonstrates that this non-linear relationship is present across different levels of economic development, indicating that entrepreneurial activity is generally highest in middle age and subsequently decreases in different development contexts.

Digital connectivity becomes a key enabling resource. The positive association between access to the internet and women-led enterprise participation suggests that digital resources reduce information barriers, extend access to customers and improve market reach. Gochhait, Lenka, & Salamzadeh (2025) also

state that access to technology can enhance women's participation in social entrepreneurship by providing access to digital resources, funding platforms, and professional networks. Furthermore, it supports the findings of Pergelova, Manolova, Simeonova-Ganeva, & Yordanova (2019) who demonstrated that digital technologies facilitate the internationalization of female-owned firms through market intelligence, and Gharagozloo et al. (2023) who showed that digital readiness is associated with higher female participation in opportunity-based entrepreneurship. The stronger association in rural areas indicates that digital access may be particularly important where geographic isolation and limited local markets restrict women's enterprise opportunities.

Policy Relevance and Contextual Interpretation

The non-significant relationship between PKH receipt and women's participation in enterprise activity indicates that, holding constant care constraints, household roles, and individual characteristics, poverty-targeted social assistance is not directly associated with women's likelihood of engaging in enterprise activity. This is not to deny the irrelevance of PKH for women's welfare. Rather, it suggests that social assistance may operate more as a background control of vulnerability than a direct path to entrepreneurship. The findings show that the participation of women-led enterprise in Indonesia is determined by household responsibilities, access to digital resources, and spatially differentiated labor markets. Because this study used cross-sectional data, the results should be interpreted as associations and not as causal effects. The policy implication is that support for women's entrepreneurship should not be limited to credit or business training alone. It should also address childcare constraints, improve digital inclusion, and account for rural–urban differences in labor market opportunities and household production systems.

CONCLUSION

This study shows that women's enterprise participation is governed by household structures, caregiving demands, digital connectivity, and spatial contexts, with under-five children, household-head status, and internet access positively influencing engagement, whereas higher education shows a negative association, particularly in urban settings. These empirical findings underscore that female entrepreneurship is driven by both individual capability and structural constraints, necessitating targeted policy interventions: integrating childcare-sensitive infrastructure, expanding rural digital inclusion and market linkages, and providing dedicated financial and mentoring resources for female household heads. Future research should utilize longitudinal data to establish causal pathways, differentiate between necessity-driven and opportunity-driven ventures, and incorporate intra-household bargaining and time-use dynamics to evaluate longitudinal enterprise performance outcomes such as productivity, growth, and survival.

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