SJIF Impact Factor (2026): 8.863| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 11 | Issue: 8 | August 2026 - Peer Reviewed Journal

EVALUATING THE DUAL OUTCOMES OF MICROFINANCE: WOMEN'S EMPOWERMENT AND POVERTY ALLEVIATION

Shaik Khwajabi[1], Dr. P.V Mohini[2], Prof. P. Arun Kumar[3]

[1]*Part Time Research Scholar, TDR-HUB2023S19, Department of Commerce and Management Studies, Andhra University, Visakhapatnam, Andhrapradesh,* *0009-0007-7607-0418*

[2]*Research Supervisor, TDR-HUB2023S19, Department Management Studies, Gayatri Vidya Parishad College for Degree and PG Courses (A), Rushikonda, Visakhapatnam, Andhrapradesh*
Vidwan ID: 599303

[3]*Professor, Department of Human Resource Management, Andhra University, Visakhapatnam, Andhrapradesh*

Article DOI: https://doi.org/10.36713/epra31130
DOI No: 10.36713/epra31130

ABSTRACT

Microfinance is expected to advance two connected development outcomes: women's empowerment and poverty alleviation. Yet access to a loan does not automatically create control over resources, and improvements in household income do not necessarily enlarge women's decision-making power. This article develops a sequential five-construct framework in which access to microcredit, savings participation, and financial and enterprise capability support predict women's economic empowerment, which in turn predicts household poverty alleviation. The supplied analytical summary reports excellent internal consistency for the five constructs (Cronbach's α = .914–.940; overall α = .955). Average variance extracted ranges from .711 to .745, while composite reliability ranges from .69 to .82; the final value is marginal and, because it is lower than its paired AVE, requires verification from the original factor loadings. The reported confirmatory factor model indicates acceptable fit (χ^2/df = 2.119, CFI = .938, TLI = .944, PNFI = .654, RMSEA = .063), and the structural model also shows acceptable fit (χ^2/df = 2.432, CFI = .942, TLI = .955, PNFI = .737, RMSEA = .067). All four framed relationships were reported as supported at p < .001. Because the attachment contains neither respondent-level observations nor coefficient output, effect sizes, explained variance, indirect effects, and causal claims cannot be independently established and are not fabricated. The paper contributes a theoretically integrated dual-outcome model, a complete 25-item questionnaire, and reproducible regression and SEM syntax for final estimation. The results support a programme logic in which financial access must be usable, controlled, and reinforced by savings and capability development before it can plausibly translate into durable reductions in multidimensional poverty.

KEYWORDS: *Microfinance; Women's Economic Empowerment; Poverty Alleviation; Microcredit; Savings; Financial Capability; Structural Equation Modelling; Financial Inclusion*

1. INTRODUCTION

Microfinance entered development policy with an ambitious promise: small-scale financial services could relax the constraints faced by poor households while strengthening the economic position of women. That promise joins two outcomes that are related but not interchangeable. Poverty alleviation concerns reductions in deprivation, vulnerability, and inability to meet basic needs. Women's empowerment concerns the expansion of meaningful choice, control over resources, voice in decisions, and capacity to act. A household may become less poor without redistributing authority to women, while a woman may gain greater decision-making power before measurable income or consumption changes appear. A credible evaluation must therefore distinguish the outcomes and examine how they are connected.

Financial inclusion has expanded, but access does not ensure use or control. The Global Findex 2025 reports that 73% of women in low- and middle-income economies held an account in 2024, while about 700 million women remained unbanked. Formal saving and digital payment use also increased, yet persistent gaps in connectivity, product usability, privacy, and financial resilience show why account ownership cannot be treated as a complete measure of welfare or agency (World Bank, 2025). The relevant question is not only whether a woman receives a financial service, but whether she can understand it, use it on acceptable terms, retain control over the proceeds, and convert it into valued household and livelihood outcomes.

Microfinance includes microcredit, voluntary and group-based savings, insurance, payments, financial education, enterprise mentoring, and links to markets or public services. Credit can finance inventory, livestock, tools, seasonal inputs, or consumption smoothing. Savings can create a buffer against shocks and reduce reliance on high-cost debt. Capability support can improve product

SJIF Impact Factor (2026): 8.863| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 11 | Issue: 8 | August 2026 - Peer Reviewed Journal

comprehension, record keeping, cash-flow planning, digital safety, and enterprise decisions. These mechanisms may increase women's independent income and bargaining position, which may then improve food security, essential expenditures, asset accumulation, education, health care, and resilience.

The empirical evidence is deliberately more cautious than the original promise. The randomized expansion of group lending in Hyderabad increased borrowing and selected business investments but did not generate broad average gains in consumption, health, education, or women's empowerment (Banerjee et al., 2015). A systematic review of reviews found that effects of financial inclusion on core poverty, society, and gender outcomes are generally small and inconsistent, with substantial variation across products and contexts (Duvendack & Mader, 2020). Recent synthesis likewise portrays microfinance and poverty reduction as a context-dependent relationship shaped by product design, financial literacy, gender norms, institutional quality, and mission drift (Lahnech & Chami, 2025). The appropriate inference is neither that microfinance always works nor that it never works, but that its causal chain must be unpacked.

This article develops a sequential dual-outcome model. Access to Microcredit, Savings Participation, and Financial and Enterprise Capability Support are treated as programme-related resources. Women's Economic Empowerment represents the agency outcome, expressed through control over income, participation in economic decisions, independent spending, asset influence, and livelihood choice. Household Poverty Alleviation represents the achievement outcome, expressed through improved ability to meet basic needs, manage shocks, invest in education or health, reduce harmful debt dependence, and accumulate productive assets. The model therefore connects resources to agency and agency to achievements rather than treating female loan receipt as empowerment or household income as a complete poverty measure.

1.1 Problem Statement

Three problems motivate the study. First, many evaluations use outreach and repayment as proxies for impact. These metrics reveal operational scale but do not show who controls a loan, whether savings are voluntary and accessible, or whether income gains improve basic living conditions. Second, empowerment and poverty alleviation are often collapsed into a single success claim even though they operate at different analytical levels. Empowerment is individual and relational; poverty is household-level and multidimensional. Third, significance-only reporting obscures direction, magnitude, uncertainty, explained variance, and the possibility that apparently positive outcomes are offset by repayment stress, over-indebtedness, or increased unpaid work.

The supplied skeleton intensifies the methodological problem. It reports five reliability coefficients, five paired AVE/CR values, model-fit indices, and four supported hypotheses, but it leaves construct labels and every narrative section blank. It also omits the sampling frame, sample size, response rate, item wording, loadings, construct correlations, structural coefficients, and original software output. The present manuscript therefore makes the reconstruction explicit: the labels and causal ordering are theoretically grounded, while all empirical quantities remain limited to those actually supplied.

1.2 Background and Motivation

Microfinance institutions, self-help-group federations, banks, livelihood missions, and non-governmental organizations must decide whether to prioritize loan growth or offer a broader bundle of savings, training, mentoring, consumer protection, and market links. A dual-outcome evaluation changes those decisions. It asks whether programmes expand women's authority as well as household welfare; whether poverty reductions arise through empowerment or merely through temporary liquidity; and whether benefits persist after repayment. The answers matter for product design, staff incentives, impact reporting, regulation, and funding.

Kabeer's resources–agency–achievements framework provides the central logic (Kabeer, 1999). Financial access and capability support are resources; empowerment is agency; and reduced deprivation is an achievement. The capability approach adds that resources become development only when people can convert them into substantive freedoms (Sen, 1999). Multidimensional poverty measurement further cautions that income alone does not capture deprivations in education, health, living standards, security, and resilience (Alkire & Foster, 2011). Together these perspectives justify a sequential rather than purely direct model.

2. THEORETICAL BACKGROUND

2.1 Resources–Agency–Achievements Framework

Kabeer (1999) conceptualizes empowerment as an expansion in the ability to make strategic life choices where that ability was previously denied. Resources include material, human, and social preconditions of choice. Agency includes decision-making, negotiation, bargaining, resistance, and purposeful action. Achievements are the realized outcomes of choice. Microfinance fits this framework only if loan receipt is treated as a resource rather than as empowerment itself. Whether the resource produces agency depends on control, knowledge, social norms, and the distribution of repayment responsibility.

The distinction also clarifies the link to poverty. Women's control over income and productive decisions can affect how resources are allocated across food, schooling, health care, enterprise reinvestment, and emergency preparation. However, empowerment is valuable in its own right and should not be judged only by household welfare. Conversely, household consumption may improve even

SJIF Impact Factor (2026): 8.863| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 11 | Issue: 8 | August 2026 - Peer Reviewed Journal

when a woman has little authority over the financial activity. The model therefore retains empowerment and poverty alleviation as distinct constructs linked by a theoretically meaningful path.

2.2 Capability and Substantive Freedom

The capability approach defines development in terms of the real freedoms people possess rather than the resources they formally hold (Sen, 1999). Equal loan amounts can yield unequal outcomes because borrowers differ in literacy, mobility, household authority, health, unpaid-care burdens, market access, digital connectivity, and exposure to violence. Financial and enterprise capability support is therefore not peripheral. Product comprehension, record keeping, cash-flow planning, digital safety, and market information are conversion factors that determine whether access becomes effective choice.

2.3 Intra-household Bargaining and Financial Control

Households are not unitary decision makers. Members may differ in preferences, information, bargaining power, and control over assets. A financial product can strengthen a woman's bargaining position when it increases independently controlled income, outside options, or asset ownership. It can also impose new obligations without new authority when a loan taken in her name is used by others. Garikipati (2008) describes this impact paradox: lending to women may reduce household vulnerability while leaving the borrower's control unchanged. Evidence that direct deposits and account-use training can increase financial autonomy similarly suggests that control, not nominal receipt, is the operative mechanism (Field et al., 2021).

2.4 Multidimensional Poverty and Household Resilience

Poverty is more than low current income. It includes insecure food consumption, inability to pay for health care or schooling, absence of productive assets, dependence on harmful debt, and limited capacity to absorb shocks. Alkire and Foster's (2011) multidimensional approach emphasizes that deprivation must be assessed across relevant domains rather than reduced to one monetary threshold. For programme evaluation, perceived improvements should be paired with objective indicators such as consumption, assets, debt service, school attendance, health expenditure, and shock coping whenever the data permit.

The poverty-alleviation construct in this reconstruction therefore reflects household-level improvement rather than an official poverty classification. It captures greater ability to meet essential needs, avoid distress borrowing or asset sales, invest in human capital, accumulate productive resources, and recover from shocks. The construct should be interpreted as self-reported household welfare change unless verified against longitudinal or administrative data.

3. LITERATURE REVIEW

3.1 Access to Microcredit and Women's Empowerment

Microcredit can ease liquidity and collateral constraints that prevent low-income women from investing in income-generating activities. Timely and adequately sized finance can support working capital, tools, livestock, inventory, or livelihood diversification. When the woman controls the financed activity and retains a meaningful share of the returns, her contribution to household resources may improve her bargaining position and influence over decisions. Qualitative evidence continues to identify pathways from microfinance to economic confidence and entrepreneurial development (Khursheed, 2022), while evidence from India's National Rural Livelihoods Project links financial access with women's role in selected household decisions (Kochar et al., 2022).

Credit is nevertheless not uniformly empowering. In Hyderabad, access increased borrowing and some business investment but did not improve women's empowerment on average (Banerjee et al., 2015). Loans may be redirected to relatives, invested in saturated low-return activities, or accompanied by rigid repayment demands. Credit access should therefore be measured through availability, adequacy, transparency, timeliness, and control over use rather than through borrower status alone.

3.2 Savings Participation

Savings can support empowerment through a different mechanism. A personally controlled reserve reduces dependence on emergency borrowing, enables planned expenditures, and may improve resilience to health, climate, or income shocks. Commitment savings in the Philippines increased savings and strengthened decision-making power for some women (Ashraf et al., 2010). A randomized evaluation across Ghana, Malawi, and Uganda found that village savings groups improved financial inclusion, business outcomes, and women's empowerment, although not every welfare indicator changed (Karlan et al., 2017).

Savings agency depends on privacy, withdrawal rights, safety, and control. An account that is dormant, inaccessible, or monitored by others provides limited autonomy. For that reason, the construct captures regular participation, ability to set savings goals, access to emergency funds, and discretion over use rather than merely account possession.

3.3 Financial and Enterprise Capability Support

Finance can fail to produce value when participants lack information about pricing, interest, repayment, digital security, cash-flow management, or market strategy. Capability-building services aim to reduce this conversion gap. Field, Jayachandran, and Pande

SJIF Impact Factor (2026): 8.863| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 11 | Issue: 8 | August 2026 - Peer Reviewed Journal

(2010) showed through a field experiment in India that business training outcomes varied with social restrictions, demonstrating that skills interventions operate within gendered institutions. Training combined with direct payment and account-use support has also produced gains in financial autonomy and labour supply (Field et al., 2021). These findings support the view that complementary services can turn formal access into usable capability.

Training quality is crucial. Brief, generic classroom sessions may not change behaviour. More promising designs connect instruction to a specific financial goal, provide mentoring, enable peer participation, use local language, and address digital risks and household negotiation. Accordingly, the capability construct includes practical financial knowledge, record keeping, enterprise planning, product understanding, and confidence in using financial services.

3.4 Women's Empowerment and Poverty Alleviation

Empowerment can plausibly influence household poverty through several channels. Greater control over income may change expenditure priorities; authority over productive assets can support reinvestment; freedom of movement can expand access to markets and employment; and voice in household decisions can improve planning for education, health, and emergencies. Duflo (2012) emphasizes that empowerment and development may reinforce one another, but neither relationship is automatic. The direction and durability of the link depend on institutions, preferences, household bargaining, and the availability of productive opportunities.

The distinction between agency and achievement remains essential. A woman may use income for household welfare without gaining lasting authority, and measured decision participation may not reduce poverty if markets are weak or shocks are severe. The final path in the model therefore tests an association between women's economic empowerment and household poverty alleviation, not an assumption that empowerment mechanically produces income growth.

3.5 Mixed Evidence and the Need for a Sequential Model

The most defensible synthesis is that microfinance impacts are heterogeneous, usually modest, and strongly shaped by product characteristics, household control, complementary services, social norms, market conditions, and initial poverty. Duvendack and Mader (2020) find small and inconsistent average effects across core poverty and gender outcomes. Lahnech and Chami (2025) likewise identify financial inclusion, empowerment, literacy, institutional quality, and mission sustainability as intertwined determinants of poverty-related impact.

A sequential model improves interpretation. It separates the resource channels—credit, savings, and capability support—from the agency outcome and then tests whether agency is associated with reduced household deprivation. This ordering does not prove mediation from cross-sectional data, but it makes the theory explicit and provides a structure for future longitudinal and experimental evaluation.

4. RESEARCH GAP, OBJECTIVES, AND CONTRIBUTION

Three gaps motivate the study. First, much empirical work collapses microfinance participation into a borrower or member indicator, obscuring differences among credit access, savings use, and capability support. Second, studies frequently combine women's empowerment and poverty reduction in a single impact claim even though empowerment concerns agency and poverty alleviation concerns household welfare. Third, significance-only reporting makes it impossible to judge magnitude, uncertainty, explained variance, multicollinearity, and practical importance.

The first objective is to assess whether access to microcredit, savings participation, and financial and enterprise capability support are associated with women's economic empowerment. The second is to examine whether women's economic empowerment is associated with household poverty alleviation. The third is to evaluate a five-construct measurement and structural model. The fourth is to derive programme implications that distinguish formal access, effective use, individual control, and household achievement. The article contributes a coherent sequential model, a transparent reconstruction of the supplied statistics, and a reproducible regression and SEM protocol that prevents unsupported numerical claims.

5. CONCEPTUAL MODEL AND HYPOTHESES

Figure 1 presents the proposed sequential model. Three microfinance resource constructs—access to microcredit, savings participation, and financial and enterprise capability support—predict women's economic empowerment. Empowerment then predicts household poverty alleviation. Control variables such as age, education, household composition, baseline income or poverty status, marital status, programme duration, enterprise experience, and location should be included when they are available and theoretically justified.

SJIF Impact Factor (2026): 8.863| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 11 | Issue: 8 | August 2026 - Peer Reviewed Journal

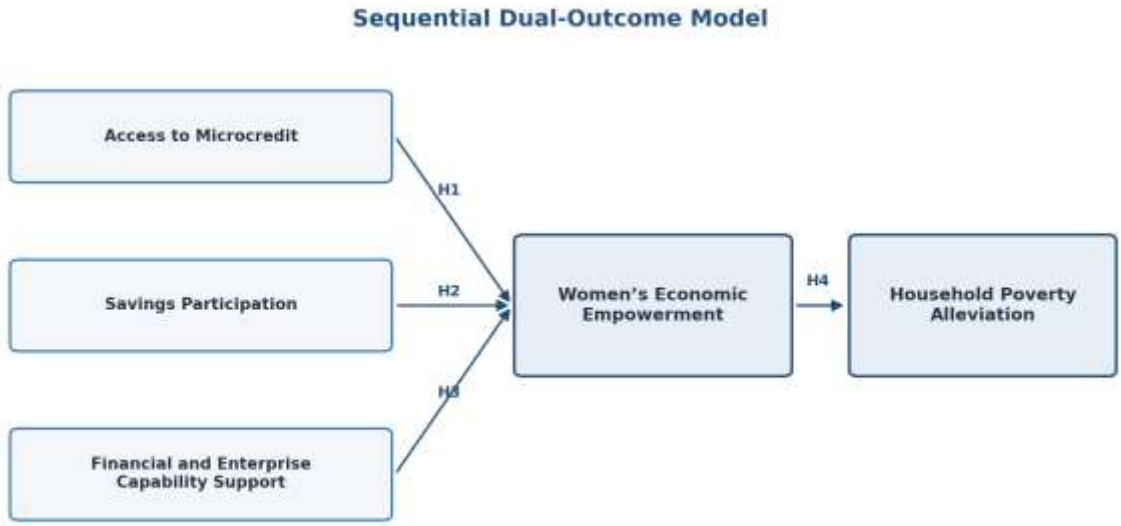

Figure 1. Sequential model linking microfinance resources to women's economic empowerment and household poverty alleviation.

5.1 Access to Microcredit

Access to appropriately designed credit can ease liquidity constraints and enable investment, working capital, or livelihood diversification. When women control the financed activity and its returns, credit can strengthen their contribution to household resources and their capacity to influence economic decisions. The relationship is expected to be positive, while recognizing that loan diversion, over-indebtedness, or weak asset rights can reduce the effect.

H_1: *Access to microcredit is positively associated with women's economic empowerment.*

5.2 Savings Participation

Savings participation can create a personally controlled reserve, improve planning, and increase resilience to shocks. Compared with debt, savings may place less repayment pressure on participants and can support independent spending or enterprise investment. The agency effect should be stronger when women can deposit and withdraw securely and decide how savings are used.

H_2: *Savings participation is positively associated with women's economic empowerment.*

5.3 Financial and Enterprise Capability Support

Financial and enterprise capability support improves participants' ability to understand products, compare costs, maintain records, set goals, manage cash flow, use digital tools safely, and plan business activity. These capabilities improve the conversion of access into effective choice and reduce dependence on intermediaries.

H_3: *Financial and enterprise capability support is positively associated with women's economic empowerment.*

5.4 Women's Economic Empowerment and Household Poverty Alleviation

Economic empowerment can improve household welfare when greater control over income and productive decisions changes how resources are invested, spent, and protected. Empowered women may be better able to plan essential expenditures, preserve productive assets, reduce distress borrowing, and prepare for shocks. The path is expected to be positive, although cross-sectional data cannot establish that empowerment caused the reported household change.

H_4: *Women's economic empowerment is positively associated with household poverty alleviation.*

6. METHODOLOGY

6.1 Research Design and Unit of Analysis

The conceptual model is designed for a quantitative, cross-sectional survey of adult women with recent experience of a microfinance institution, self-help group, village savings and loan association, joint-liability group, or comparable financial-inclusion programme. The woman participant is the unit of analysis; household poverty alleviation is measured through her report of household

SJIF Impact Factor (2026): 8.863| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 11 | Issue: 8 | August 2026 - Peer Reviewed Journal

conditions. This distinction matters because the outcome is not an independently verified official poverty classification. A cross-sectional design can estimate associations among the constructs but cannot establish temporal order or causal impact.

6.2 Population, Setting, and Sampling Status

The source document did not specify the country or district, programme name, sampling frame, survey dates, eligible population, sample size, response rate, or recruitment procedure. Those facts are indispensable for a journal submission and must be supplied from the actual fieldwork record. They are not inferred from the title or fabricated here. A defensible final study should define eligibility—for example, women aged 18 years or older who have participated for at least six months—and use probability or carefully stratified sampling across programme branches and urban/rural locations where feasible.

Sample-size justification should be based on the intended analysis. For multiple regression, an a priori power analysis should specify the number of predictors, anticipated effect size, alpha level, and desired power. For covariance-based SEM, adequacy depends on model complexity, estimator, indicator reliability, missingness, non-normality, and parameter count; fixed 'ten cases per item's rules should not replace power and model-specific reasoning. The final manuscript should report both planned and achieved sample sizes.

6.3 Measurement Instrument

The questionnaire in Appendix A contains five reflective constructs measured on a five-point agreement scale from 1 = strongly disagree to 5 = strongly agree. Access to Microcredit captures availability, timeliness, affordability, adequacy, and discretion over loan use. Savings Participation captures regularity, goal setting, emergency access, security, and control. Financial and Enterprise Capability Support captures product knowledge, record keeping, enterprise planning, digital confidence, and perceived usefulness of training. Women's Economic Empowerment captures control over income, participation in major decisions, independent spending, influence over productive investment, and livelihood choice. Household Poverty Alleviation captures improvement in basic-needs security, emergency coping, education and health expenditure, productive assets, and financial vulnerability.

Items should be reviewed by experts in gender, microfinance, measurement, and the local context. Cognitive interviews should test whether respondents interpret 'control,' 'decision,' and 'independence' consistently. Translation should use forward translation, independent back translation, reconciliation, and pilot testing. Because agency questions may be sensitive, interviews should be conducted privately by trained enumerators using neutral wording and a clear voluntary-consent process.

Table 1. Constructs and operational domains

Code	Construct	Operational domain	Items
AMC	Access to Microcredit	Availability, adequacy, affordability, timeliness, and control over credit use	5
SP	Savings Participation	Regular saving, goal setting, emergency liquidity, security, and control	5
FCS	Financial and Enterprise Capability Support	Financial knowledge, records, planning, digital use, and training usefulness	5
WEE	Women's Economic Empowerment	Control over income, economic decisions, independent spending, investment influence, and choice	5
HPA	Household Poverty Alleviation	Basic needs, shock coping, human-capital spending, productive assets, and reduced vulnerability	5

6.4 Data Quality, Ethics, and Bias Controls

The final study should report institutional ethics approval or applicable exemption, voluntary informed consent, privacy protections, data retention, and referral procedures if interviews reveal financial coercion or violence. Enumerators should not be affiliated with loan collection, and respondents should be told that answers will not affect programme eligibility. These safeguards reduce both harm and courtesy bias.

Procedural controls for common-method bias include separating predictor and outcome blocks, assuring anonymity, using simple and non-leading wording, varying item order within constructs when appropriate, and avoiding repeated evaluative phrases. Statistical checks may include a marker variable, a theoretically justified latent method factor, or other diagnostics; Harman's single-factor test alone is insufficient. Missing data patterns, straight-lining, inconsistent responses, duplicate records, and outliers should be documented before analysis.

6.5 Analytical Strategy

Analysis should proceed in six stages. First, screen the data for range errors, missingness, response patterns, and distributional anomalies. Second, report respondent characteristics and construct descriptives. Third, assess internal consistency using Cronbach's alpha and preferably omega. Fourth, test the five-factor measurement model using CFA, reporting standardized loadings, composite

SJIF Impact Factor (2026): 8.863| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 11 | Issue: 8 | August 2026 - Peer Reviewed Journal

reliability, average variance extracted, fit indices, and discriminant validity. Fifth, estimate two linked score-based regressions as a transparent robustness analysis. Sixth, estimate the full latent structural model and compare its path pattern with the regressions.

Regression assumptions should be evaluated rather than asserted. Linearity can be inspected through partial-residual plots; independence depends on the sampling design; homoskedasticity can be assessed from residual plots and tests; residual distribution should be described; influential observations can be examined using leverage and Cook's distance; and multicollinearity should be assessed using tolerance, VIF, and the predictor-correlation matrix. O'Brien (2007) cautions against mechanical VIF cutoffs, so values must be interpreted alongside sample size, coefficient uncertainty, and theoretical overlap.

$$WEE_i = \beta_0 + \beta_1 AMC_i + \beta_2 SP_i + \beta_3 FCS_i + \gamma' Controls_i + \varepsilon_i$$

$$HPA_i = \alpha_0 + \alpha_1 WEE_i + \delta' Controls_i + \upsilon_i$$

WEE is women's economic empowerment, HPA is household poverty alleviation, AMC is access to microcredit, SP is savings participation, FCS is financial and enterprise capability support, and Controls represents verified covariates. The score-based regressions offer an interpretable robustness check, while SEM is preferred for the complete model because it estimates measurement error and both structural stages simultaneously. Indirect effects such as AMC → WEE → HPA should be estimated with bootstrap confidence intervals only when respondent-level data are available; no mediation estimate is supplied in the source.

7. RESULTS

7.1 Reliability Analysis

The supplied output reports Cronbach's alpha values between .914 and .940 for the five substantive constructs and .955 for the combined item set. These values indicate strong internal consistency in the source analysis. Very high alpha values should not be treated as automatically superior: the overall value may also reflect overlapping item content. Item-total correlations, inter-item correlations, omega coefficients, and content coverage should be examined before deleting or retaining items. Reliability is a property of scores in a specific sample and must be reported together with the sample and administration details (Cronbach, 1951).

Table 2. Internal consistency reliability reported in the source document

Code	Construct	Cronbach's α	Interpretation
V1 / AMC	Access to Microcredit	.924	Excellent internal consistency
V2 / SP	Savings Participation	.934	Excellent internal consistency
V3 / FCS	Financial and Enterprise Capability Support	.914	Excellent internal consistency
V4 / WEE	Women's Economic Empowerment	.940	Excellent; check item redundancy
V5 / HPA	Household Poverty Alleviation	.917	Excellent internal consistency
V6	Overall item set	.955	Excellent; unusually high

7.2 Convergent Validity

The source reports AVE values of .711, .721, .745, .739, and .743, paired with CR values of .81, .79, .75, .82, and .69. The first four CR values are at or above common guidelines and every reported AVE exceeds .50, providing preliminary evidence of convergent validity (Fornell & Larcker, 1981). The HPA CR of .69 is marginal. More importantly, the HPA pairing of CR = .69 and AVE = .743 is numerically unusual for a conventional positively loading reflective scale because CR normally exceeds AVE. The source values are therefore reproduced without alteration, but the item loadings and original calculation must be checked before publication.

Table 3. Average variance extracted and composite reliability as supplied

Code	Construct	AVE	CR	Assessment
AMC	Access to Microcredit	.711	.81	Acceptable as reported
SP	Savings Participation	.721	.79	Acceptable as reported
FCS	Financial and Enterprise Capability Support	.745	.75	Acceptable as reported
WEE	Women's Economic Empowerment	.739	.82	Acceptable as reported
HPA	Household Poverty Alleviation	.743	.69	Marginal CR; verify pair

7.3 Confirmatory Factor Analysis

The source labels the first fit statistic as 'CMIN,' but a value of 2.119 is most plausibly the normed chi-square (χ^2/df or CMIN/DF), not the chi-square statistic itself. On that interpretation, the measurement model demonstrates acceptable fit: χ^2/df = 2.119, CFI = .938, TLI = .944, PNFI = .654, and RMSEA = .063. CFI and TLI exceed .90, RMSEA is below .08, and PNFI exceeds .50. These are guides rather than mechanical pass/fail rules. The final paper should also report χ^2, degrees of freedom, the RMSEA confidence interval, SRMR, estimator, and treatment of non-normality (Hu & Bentler, 1999; Kline, 2016).

SJIF Impact Factor (2026): 8.863| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 11 | Issue: 8 | August 2026 - Peer Reviewed Journal

Table 4. Reported CFA and structural-model fit

Fit statistic	Measurement model	Structural model	Interpretive guide
χ^2/df (CMIN/DF)	2.119	2.432	Values near or below 3 commonly indicate acceptable fit
CFI	.938	.942	≥ .90 acceptable; closer to .95 preferred
TLI	.944	.955	≥ .90 acceptable; closer to .95 preferred
PNFI	.654	.737	> .50 indicates reasonable parsimony
RMSEA	.063	.067	< .08 acceptable; report 90% CI

7.4 Structural Equation Model

The supplied structural-model fit statistics—χ^2/df = 2.432, CFI = .942, TLI = .955, PNFI = .737, and RMSEA = .067—indicate acceptable global fit under conventional guidelines. CFI and TLI are strong, PNFI indicates reasonable parsimony, and RMSEA remains within the commonly used acceptable range. Global fit does not establish that each path is substantively important. Standardized and unstandardized coefficients, critical ratios, standard errors, confidence intervals, residuals, endogenous R^2, and any bootstrapped indirect effects are still required for complete reporting.

7.5 Hypothesis Testing

The source hypothesis table reports p = 0.00 and 'supported' for H1 through H4. Those values are restated as p < .001, which is the appropriate convention. The decisions indicate statistical support in the supplied analysis, but the source does not provide path direction or coefficient magnitude. Therefore, the results support the existence of statistically significant relationships as reported; they do not establish which microfinance dimension is the strongest predictor or whether the effects are practically large.

Table 5. Hypothesis decisions reconstructed from the supplied summary

Hypothesis	Proposed relationship	Reported p	Decision
H_1	Access to Microcredit → Women's Economic Empowerment	p < .001	Supported
H_2	Savings Participation → Women's Economic Empowerment	p < .001	Supported
H_3	Financial and Enterprise Capability Support → Women's Economic Empowerment	p < .001	Supported
H_4	Women's Economic Empowerment → Household Poverty Alleviation	p < .001	Supported

8. DISCUSSION

The reported support for all four hypotheses is consistent with a sequential resource–agency–achievements interpretation of microfinance. Credit, savings, and capability support represent distinct resources associated with women's economic empowerment; empowerment is then associated with household poverty alleviation. This ordering prevents loan receipt from being labelled empowerment and prevents household welfare improvement from being treated as proof that women gained control. Because the supplied evidence is significance-only, the discussion interprets theoretical plausibility rather than effect magnitude.

8.1 Access to Microcredit

The reported significance of H1 is theoretically plausible. Credit can enable productive investment and can increase women's contribution to household resources. The finding is compatible with qualitative evidence that microfinance supports entrepreneurial development and with programme evidence linking financial access to household decision participation. Yet Banerjee et al. (2015) show that average microcredit effects are heterogeneous, and Garikipati (2008) demonstrates that household benefit can coexist with limited borrower empowerment. H1 therefore depends on the missing coefficient and on whether AMC captures women's control rather than nominal access.

8.2 Savings Participation

Support for H2 fits evidence that savings-led models can strengthen financial inclusion, business activity, resilience, and selected empowerment outcomes (Karlan et al., 2017). Savings can create an individually accessible reserve and may avoid the pressure associated with fixed repayments. It may also be a more continuous indicator of active financial behaviour than loan receipt. Programme evaluation should distinguish voluntary saving and control from compulsory deposits that merely function as loan collateral.

SJIF Impact Factor (2026): 8.863| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 11 | Issue: 8 | August 2026 - Peer Reviewed Journal

8.3 Capability Support

Support for H3 reinforces the distinction between access and effective use. Financial and enterprise capability can improve product comprehension, cash-flow management, record keeping, goal setting, digital safety, and negotiation. Experimental evidence from India indicates that training effects interact with social restrictions and peer support (Field et al., 2010), while account-use training combined with direct control over earnings can increase autonomy and labour supply (Field et al., 2021). The implication is not that every short training course works; it is that practical, goal-linked support can strengthen the conversion of finance into agency.

8.4 Empowerment and Household Poverty Alleviation

Support for H4 is consistent with the proposition that greater economic voice and control can improve resource allocation, productive investment, essential expenditure, and shock preparation. It also reflects Duflo's (2012) argument that empowerment and development can reinforce one another. The result must not be overextended: HPA is self-reported, the structural coefficient is missing, and a cross-sectional association cannot establish a poverty exit. Objective consumption, debt, assets, food security, schooling, health, and longitudinal indicators are needed to test the welfare channel rigorously.

8.5 Interpreting the Model as a Whole

Taken together, the model suggests a portfolio and pathway approach. Credit provides capital, savings provides liquidity and resilience, and capability support improves the conversion of access into informed action. Women's economic empowerment represents the agency through which these resources may translate into reduced deprivation. The model implies three potential indirect effects—AMC → WEE → HPA, SP → WEE → HPA, and FCS → WEE → HPA—but none can be quantified from the supplied summary. Bootstrapped indirect effects and longitudinal ordering are required before making a mediation claim.

9. IMPLICATIONS

9.1 Managerial Implications for Microfinance Institutions

Microfinance institutions should evaluate success beyond outreach and repayment. A balanced performance dashboard should include active product use, participant control over funds, savings regularity, capability, economic decision-making, food and basic-needs security, education and health expenditure, productive assets, shock coping, complaints, and over-indebtedness. Indicators should be disaggregated by relevant demographic and programme characteristics to identify unequal benefit.

Product design should offer flexible and transparent services rather than a credit-only package. Loan terms should match cash-flow cycles; savings should be safe, accessible, and voluntary; pricing should be comprehensible; and digital interfaces should account for shared-phone use and privacy. Training should be practical, local-language, goal-based, and linked to records, markets, and digital security. Staff incentives should not reward disbursement and repayment at the expense of client protection.

Delivery arrangements should protect voice and dignity. Meeting schedules must recognize women's time burdens, facilitation should prevent domination by a few members, and grievance channels should be independent of collection staff. Institutions can use peer mentoring, market-information sessions, and referrals to legal or social services while monitoring whether new financial responsibilities produce stress or backlash.

9.2 Policy Implications

Policymakers should distinguish ownership, usage, control, and benefit in financial-inclusion statistics. Account-opening campaigns are valuable but incomplete when accounts remain inactive or when women cannot use them independently. Public programmes can improve agency by depositing benefits or wages into accounts women control, providing account-use support, enforcing consumer protection, improving identification and mobile access, and connecting financial services to skills, markets, childcare, transport, and asset rights.

Regulation should monitor effective interest costs, multiple borrowing, coercive collection, data privacy, algorithmic exclusion, and gendered digital risks. Sex-disaggregated data should be combined with qualitative research on control and experience. Procurement and funding criteria for livelihood programmes can require outcome measurement on agency and resilience rather than relying solely on credit volume.

9.3 Theoretical Implications

The study reinforces a non-linear understanding of development impact. Finance is an enabling resource, empowerment is agency, and poverty alleviation is an achievement. Capability support is a conversion mechanism that can determine whether nominal access becomes substantive freedom. The model therefore bridges the resources–agency–achievements framework, the capability approach, intra-household bargaining, and multidimensional poverty analysis.

The two-stage model also separates individual and household levels. If the final coefficients and indirect effects support the proposed sequence, household welfare improvement may operate partly through women's control and choice. If the WEE–HPA path

SJIF Impact Factor (2026): 8.863| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 11 | Issue: 8 | August 2026 - Peer Reviewed Journal

weakens with baseline poverty, household shocks, or objective controls, that would reveal a more contingent mechanism. Either result is more informative than a binary borrower comparison.

9.4 Practical Implications for Participants and Community Organizations

Community organizations can strengthen participant outcomes by supporting comparisons of loan costs, household financial planning, documentation of ownership, savings goals, peer mentoring, and market access. They can also help women identify whether borrowing is appropriate for a specific cash flow rather than treating credit as the default solution. Where control over funds is contested, private counselling and referral mechanisms may be necessary. Empowerment-oriented practice should reduce financial stress and expand choice, not transfer repayment risk to women without corresponding authority.

10. LIMITATIONS AND RESEARCH-INTEGRITY BOUNDARY

The most important limitation is the absence of respondent-level data and original software output. The supplied document provides reliability values, paired CR/AVE numbers, five fit indices for two models, and four p-value decisions. It does not provide N, setting, demographics, item responses, loadings, correlations, discriminant validity, model coefficients, residuals, or regression diagnostics. Accordingly, this manuscript cannot verify the reported p-values or computing regression estimates. The results section is a transparent reconstruction, not an independent reanalysis.

A second limitation is the cross-sectional design implied by the template. Even with complete data, regression and SEM associations would not demonstrate temporal order or rule out selection. Women with greater initial empowerment may be more likely to save, attend training, or obtain credit, while less-poor households may enable greater agency. Reverse causality and unobserved confounding are plausible.

Third, common-source self-report data can inflate associations, and a participant's report of household change cannot establish an official poverty exit. Fourth, the questionable HPA pairing of CR = .69 and AVE = .743, together with the ambiguous 'CMIN' label, shows why original output, loadings, and syntax must be archived. Fifth, the high overall alpha may indicate item redundancy. Finally, discriminant validity cannot be evaluated without constructing correlations, cross-loadings, or HTMT statistics (Henseler et al., 2015).

11. CONCLUSION

This article reframes microfinance, women's economic empowerment, and poverty alleviation as a sequential set of distinct but connected pathways. Credit can expand productive options, savings can strengthen control and resilience, and capability support can make services usable. Empowerment can then serve as an agency pathway to improved household security. The supplied summary reports high internal consistency, broadly acceptable CFA and SEM fit, and support for all four relationships, while the HPA CR–AVE pair requires verification.

The statistical conclusion must remain bound by the evidence. Without the dataset and coefficient output, it is impossible to determine effect magnitude, predictor ranking, explained variance, regression assumptions, or indirect effects. The article therefore supplies a complete conceptual, measurement, regression, SEM, discussion, and reporting framework without fabricating empirical values. Once respondent-level data are supplied, Appendix B can generate the missing coefficient tables, diagnostics, R^2 values, and bootstrapped indirect effects.

Women-centred microfinance should be judged by both meaningful agency and credible household welfare improvement. Programmes are most defensible when finance is usable, controlled by the woman, supported by practical capabilities, and evaluated with multidimensional and longitudinal evidence.

12. FURTHER RESEARCH DIRECTIONS

Future research should collect baseline and follow-up data so that changes in agency can be separated from pre-existing differences. Randomized encouragement, phased rollouts, matching combined with sensitivity analysis, or instrumental-variable strategies may strengthen causal identification where random assignment is infeasible. Repeated measures can also examine whether early gains persist after repayment or programme exit.

The model can be extended by estimating indirect paths from microcredit, savings, and capability support through WEE to HPA. Control over loan use may strengthen AMC–WEE; household gender norms may condition WEE–HPA; and baseline poverty, digital access, asset ownership, marital status, social identity, and rural–urban context may moderate the sequence. Multi-group or longitudinal models could test whether mechanisms differ across participants and settings.

Future instruments should combine self-report with objective indicators: account activity, savings balances, consumption, debt service, enterprise records, assets, food security, school participation, health expenditure, mobility, and decision participation. Qualitative interviews can reveal whether apparent control is negotiated, temporary, or constrained. Researchers should also measure repayment stress, coercion, over-indebtedness, privacy loss, backlash, and increased unpaid work.

SJIF Impact Factor (2026): 8.863| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 11 | Issue: 8 | August 2026 - Peer Reviewed Journal

REFERENCES

1. *Alkire, S., & Foster, J. (2011). Counting and multidimensional poverty measurement. Journal of Public Economics, 95(7–8), 476–487. doi:10.1016/j.jpubeco.2010.11.006*
2. *Ashraf, N., Karlan, D., & Yin, W. (2010). Female empowerment: Impact of a commitment savings product in the Philippines. World Development, 38(3), 333–344. doi:10.1016/j.worlddev.2009.05.010*
3. *Banerjee, A., Duflo, E., Glennerster, R., & Kinnan, C. (2015). The miracle of microfinance? Evidence from a randomized evaluation. American Economic Journal: Applied Economics, 7(1), 22–53. doi:10.1257/app.20130533*
4. *Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16, 297–334. doi:10.1007/BF02310555*
5. *Duflo, E. (2012). Women empowerment and economic development. Journal of Economic Literature, 50(4), 1051–1079. doi:10.1257/jel.50.4.1051*
6. *Duvendack, M., & Mader, P. (2020). Impact of financial inclusion in low- and middle-income countries: A systematic review of reviews. Journal of Economic Surveys, 34(3), 594–629. doi:10.1111/joes.12367*
7. *Field, E., Jayachandran, S., & Pande, R. (2010). Do traditional institutions constrain female entrepreneurship? A field experiment on business training in India. American Economic Review, 100(2), 125–129. doi:10.1257/aer.100.2.125*
8. *Field, E., Pande, R., Rigol, N., Schaner, S., & Troyer Moore, C. (2021). On her own account: How strengthening women's financial control impacts labor supply and gender norms. American Economic Review, 111(7), 2342–2375. doi:10.1257/aer.20200705*
9. *Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39–50. doi:10.1177/002224378101800104*
10. *Garikipati, S. (2008). The impact of lending to women on household vulnerability and women's empowerment: Evidence from India. World Development, 36(12), 2620–2642. doi:10.1016/j.worlddev.2007.11.008*
11. *Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science, 43(1), 115–135. doi:10.1007/s11747-014-0403-8*
12. *Hu, L.-T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling, 6(1), 1–55. doi:10.1080/10705519909540118*
13. *Kabeer, N. (1999). Resources, agency, achievements: Reflections on the measurement of women's empowerment. Development and Change, 30(3), 435–464. doi:10.1111/1467-7660.00125*
14. *Karlan, D., Savonitto, B., Thuysbaert, B., & Udry, C. (2017). Impact of savings groups on the lives of the poor. Proceedings of the National Academy of Sciences, 114(12), 3079–3084. doi:10.1073/pnas.1611520114*
15. *Khursheed, A. (2022). Exploring the role of microfinance in women's empowerment and entrepreneurial development: A qualitative study. Future Business Journal, 8, Article 57. doi:10.1186/s43093-022-00172-2*
16. *Kline, R. B. (2016). Principles and practice of structural equation modeling (4th ed.). Guilford Press.*
17. *Kochar, A., Nagabhushana, C., Sarkar, R., Shah, R., & Singh, G. (2022). Financial access and women's role in household decisions: Empirical evidence from India's National Rural Livelihoods project. Journal of Development Economics, 155, Article 102821. doi:10.1016/j.jdeveco.2022.102821*
18. *Lahnech, M., & Chami, M. (2025). Exploring the synergy between microfinance and poverty: A bibliometric and systematic review. SAGE Open, 15. doi:10.1177/21582440251340771*
19. *O'Brien, R. M. (2007). A caution regarding rules of thumb for variance inflation factors. Quality & Quantity, 41(5), 673–690. doi:10.1007/s11135-006-9018-6*
20. *Sen, A. (1999). Development as freedom. Oxford University Press.*
21. *World Bank. (2025). The Global Findex Database 2025. Source*

SJIF Impact Factor (2026): 8.863| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 11 | Issue: 8 | August 2026 - Peer Reviewed Journal

APPENDIX A. QUESTIONNAIRE

Purpose: To measure women's experience of microfinance resources, women's economic empowerment, and perceived household poverty alleviation. Eligibility and ethical information must be adapted to the actual study setting. Respondents should answer each statement using the following scale: 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, and 5 = Strongly agree.

A1. Background Information

Table A1. Background variables

Field	Response specification
Age	Completed years
Education	Highest level completed
Marital status	Current status
Household size	Number of usual household members
Primary livelihood	Main paid or income-generating activity
Enterprise experience	Years operating an enterprise, if applicable
Microfinance duration	Months/years participating in the programme
Products used	Credit, savings, insurance, payments, training, or other
Location	Village/town and programme branch code

A2. Access to Microcredit (AMC)

Table 7. Access to Microcredit (AMC)

Code	Statement	Response
AMC1	I can access a microloan when I have a genuine productive or household need.	1 2 3 4 5
AMC2	The amount of credit available to me is adequate for the purpose for which I borrow.	1 2 3 4 5
AMC3	Loan costs and repayment terms are explained to me clearly before I borrow.	1 2 3 4 5
AMC4	Credit is provided at the time when it is most useful for my activity.	1 2 3 4 5
AMC5	I have a meaningful say in deciding how a loan taken in my name is used.	1 2 3 4 5

A3. Savings Participation (SP)

Table 8. Savings Participation (SP)

Code	Statement	Response
SP1	I save money regularly through a group, institution, or account.	1 2 3 4 5
SP2	I set specific savings goals for household, enterprise, or personal needs.	1 2 3 4 5
SP3	My savings help me manage emergencies without depending entirely on new debt.	1 2 3 4 5
SP4	I can access my savings safely when I need them.	1 2 3 4 5
SP5	I have a meaningful say in deciding how my savings are used.	1 2 3 4 5

A4. Financial and Enterprise Capability Support (FCS)

Table 9. Financial and Enterprise Capability Support (FCS)

Code	Statement	Response
FCS1	I understand the interest, fees, and repayment obligations of financial products I use.	1 2 3 4 5
FCS2	I can maintain simple records of income, expenses, savings, and debt.	1 2 3 4 5
FCS3	I can plan cash flow and set realistic financial goals for my household or enterprise.	1 2 3 4 5
FCS4	I feel confident using the financial or digital services available through the programme.	1 2 3 4 5
FCS5	Training or mentoring from the programme helps me make better economic decisions.	1 2 3 4 5

SJIF Impact Factor (2026): 8.863| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 11 | Issue: 8 | August 2026 - Peer Reviewed Journal

A5. Women's Economic Empowerment (WEE)

Table 10. Women's Economic Empowerment (WEE)

Code	Statement	Response
WEE1	I have meaningful control over income that I earn or receive.	1 2 3 4 5
WEE2	My views influence major household economic decisions.	1 2 3 4 5
WEE3	I can make necessary purchases within an agreed amount without seeking permission each time.	1 2 3 4 5
WEE4	I influence decisions about productive investments, assets, or enterprise activities.	1 2 3 4 5
WEE5	I feel able to pursue a livelihood or financial opportunity that I consider valuable.	1 2 3 4 5

A6. Household Poverty Alleviation (HPA)

Table 11. Household Poverty Alleviation (HPA)

Code	Statement	Response
HPA1	My household is better able to meet food and other basic needs than before I joined the programme.	1 2 3 4 5
HPA2	My household can manage emergencies with less distress borrowing or sale of essential assets.	1 2 3 4 5
HPA3	My household is better able to afford necessary education and health expenses.	1 2 3 4 5
HPA4	My household has improved its ability to acquire or maintain productive assets.	1 2 3 4 5
HPA5	My household is less financially vulnerable than before I joined the programme.	1 2 3 4 5