



Self-Help Groups as Catalysts for Sustainable Community-Based Tourism Development in Jammu and Kashmir: A Structural Equation Modeling Perspective

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Abstract

This study explores the transformative role of self-help groups (SHGs) in fostering sustainable community-based tourism development in Jammu and Kashmir, employing a structural equation modeling (SEM) approach. Drawing on a stratified random sample of 150 SHGs across seven districts (Budgam, Srinagar, Pulwama, Kupwara, Baramulla, Samba, and Jammu), the research examines the mediating mechanisms through which community empowerment, financial inclusion, skill development, and social capital facilitate tourism engagement and generate sustainable livelihood outcomes. The proposed integrated model demonstrates that SHG-led tourism development operates through a hierarchical structure of first-order constructs (community empowerment, $\beta = 0.78$; financial inclusion, $\beta = 0.72$; skill development, $\beta = 0.65$; social capital, $\beta = 0.81$) converging into a second-order latent construct of SHG Tourism Development, which subsequently is associated with income generation ($\beta = 0.69$), women empowerment ($\beta = 0.73$), and sustainable development outcomes ($\beta = 0.68$). The structural model demonstrates adequate fit ($\chi^2 = 245.32$, $p > 0.05$; CFI = 0.94; RMSEA = 0.058) and explains 54% of the variance in sustainability outcomes. The findings suggest that SHGs may function as critical institutional mechanisms for

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democratizing tourism benefits, empowering marginalized rural women, and ensuring inclusive development aligned with the Sustainable Development Goals. The research contributes theoretically by advancing understanding of community-based tourism governance and practically by informing policy interventions for leveraging SHGs in tourism-led rural development within mountain destinations.

Keywords: Self-help groups, Community-Based Tourism, Women Empowerment, Sustainable Development, Structural equation modeling, Jammu and Kashmir

1. Introduction

The integration of self-help groups (SHGs) into tourism development frameworks represents an emerging paradigm in addressing the intertwined challenges of rural poverty, gender inequality, and unsustainable tourism growth in mountain economies (Bhandari & Devi, 2021). Jammu and Kashmir, with its exceptional natural and cultural assets spanning the Hindu Kush, Greater Himalayas, and Pir Panjal ranges, faces a critical imperative to transform tourism from an extractive sector dominated by external operators into an inclusive development mechanism benefiting resident communities (Sharma & Kumar, 2019). The region hosted 16.51 million tourist arrivals in the pre-pandemic period, contributing 7.2% to state GDP, yet the benefits have been concentrated among non-resident enterprises, with local communities experiencing tourism-induced inflation, environmental degradation, and cultural commodification without commensurate economic gains (Ministry of Tourism, 2023).

Self-help groups, operating as collectivized informal financial and social institutions, have emerged as viable mechanisms for redistributing tourism benefits toward rural women and marginalized households. As of February 2025, Jammu and Kashmir hosts 91,445 functional SHGs benefiting approximately 797,805 households under the Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM) and complementary state initiatives (Ministry of Rural Development, 2025). While existing research extensively documents SHG effectiveness in agricultural microfinance and conventional rural livelihoods, their strategic potential for catalyzing tourism-based entrepreneurship—particularly in hospitality, artisanal crafts, cultural guiding, and agritourism—remains substantially underexplored in academic literature (Grant Thornton Bharat, 2024).

The conceptual gap emerges from several research limitations. First, extant literature bifurcates SHG studies and tourism studies, with limited integration examining their convergence (Tata Trusts & MakeMyTrip Foundation, 2023). Second, dominant SHG research emphasizes financial outcomes with insufficient attention to sustainable development dimensions encompassing environmental stewardship, cultural preservation, and social cohesion (Pramana Research, 2023). Third, while single-variable investigations proliferate, systemic understanding of causal mechanisms through which SHG participation influences tourism engagement and multiplier effects remains limited, necessitating multivariate analytical approaches (Seočanac, 2024).

This investigation addresses these lacunae through an integrated structural equation modeling (SEM) framework operationalizing SHG-led tourism development as a second-order latent construct emerging from community empowerment, financial inclusion, skill development, and social capital as first-order dimensions. The dual-stage hierarchical model reflects theoretical advancement in capturing the complexity of community-based tourism systems while maintaining statistical parsimony (Hair et al., 2017).

This study makes a theoretical contribution by bridging the largely separate literatures on self-help groups and community-based tourism. It advances the literature by conceptualizing SHG Tourism Development as a second-order construct formed through empowerment, financial inclusion, skill development, and social capital. This model shows that SHG participation should be understood as an integrated development process rather than as isolated programme inputs. The study further extends prior work by linking SHG-based tourism not only to income generation, but also to women's empowerment and sustainable development outcomes.

1.1 Research Objectives

The principal research objectives are: (1) to specify and empirically validate a comprehensive structural model explicating the pathways through which SHG participation facilitates tourism-based livelihood advancement in Jammu and Kashmir; (2) to quantify the direct and indirect effects of community empowerment mechanisms on sustainable development outcomes; and (3) to provide evidence-based policy recommendations for leveraging SHGs as institutional infrastructure for inclusive, sustainable tourism development aligned with India's commitment to the Sustainable Development Goals, particularly Goal 5 (Gender Equality), Goal 8 (Decent Work and Economic Growth), Goal 10 (Reduced Inequalities), and Goal 17 (Partnerships for the Goals).

2. Literature Review and Theoretical Framework

2.1 Self-Help Groups in India's Rural Development Architecture

Self-help groups, defined as voluntary associations of economically weaker households (typically 8-10 members) organized for collective action in financial management and livelihood enhancement, constitute a foundational institutional pillar of India's rural development strategy (Ministry of Rural Development, 2025). The SHG model emerged from recognition that traditional credit markets fail to serve the poor due to collateral requirements, information asymmetries, and transaction costs that exclude those most in need (Yunus, 1997). Within the governance framework, SHGs aggregate demand and supply, generate social collateral through peer monitoring, facilitate skill development through collective learning, and create platforms for agency—particularly regarding women's participation in household and community decision-making.

In Jammu and Kashmir specifically, the trajectory of SHG mobilization reflects the region's singular socio-economic context. Following the 2003 conflict-induced crisis and subsequent phases of instability limiting agricultural productivity and formal employment, the state adopted decentralized SHG-centric approaches to rural livelihood stabilization (Ashok et al., 2021). By 2017, the Jammu region alone had established 670 registered SHGs under NRLM, with women comprising 100% of membership reflecting explicit gender empowerment mandates (Ashok et al., 2021). Kupwara District, a frontier zone with persistent underemployment, has mobilized 2,847 SHGs as of 2024, focusing on agricultural diversification and emerging service sectors (Ministry of Rural Development, 2025).

Research examining SHG impact on women's economic empowerment in J&K reveals substantive gains: income enhancement averaging 43-67% above baseline, household expenditure increases on education and health, reduced dependence on informal moneylenders, and modest improvements in household decision-making agency (Sharma & Kumar, 2019; Ashok et al., 2021). However, these studies predominantly assess agricultural activities, tailoring, and petty trade rather than higher-value service sectors such as tourism.

2.2 Community-Based Tourism: Theoretical Paradigms and Empirical Challenges

Community-based tourism (CBT) represents a development approach emphasizing local control, equitable benefit distribution, and

environmental sustainability (Salleh et al., 2019). Theoretical foundations span sustainable livelihoods framework (Chambers & Conway, 1991), community empowerment theory (Zimmerman, 2000), and social capital frameworks (Putnam, 1995). CBT scholarship increasingly recognizes that local communities, when adequately capacitated and organized, can manage tourism enterprises generating employment multipliers and preserving cultural and environmental assets (Budeanu et al., 2016).

In the Indian context, CBT initiatives have proliferated under the Government of India's "Incredible India" flagship and various state tourism missions. The Tata Trusts-supported Community Based Tourism project in the northwestern Himalayas demonstrates feasibility: 700 women from SHGs were mobilized to operate eco-lodges, cultural experiences, and hospitality enterprises, with income increases of Rs. 18,000-36,000 annually per household (Tata Trusts, 2023). Similarly, the UMEED JKRLM initiative launched in Jammu and Kashmir established 75 SHG-owned homestays, partnering with Oyo to reach global tourists while preserving domestic hospitality traditions (Kashmir Horizon, 2023).

Despite these successes, scholarly documentation remains limited. Extant literature emphasizes tourism's social impacts and community resilience (Eusébio & Carneiro, 2022; Dixit et al., 2022) but provides insufficient systematic analysis of the institutional and empowerment mechanisms enabling community participation. The mechanistic pathway from SHG participation to tourism engagement remains theoretically underdeveloped.

2.3 Community Empowerment as a Multidimensional Construct

Community empowerment operationalizes as a multi-level process through which individuals, groups, and communities acquire agency, resources, and capabilities for self-directed development (Zimmerman, 2000). In the SHG context, empowerment manifests across psychological (efficacy, confidence), structural (access to decision-making, leadership roles), and relational (social networks, cooperative institutions) dimensions.

Psychological empowerment within SHGs involves members' developing confidence in capability to manage financial decisions, participate in community initiatives, and advocate for collective interests—critical preconditions for entrepreneurship (Pitt & Khandker, 1998). Structural empowerment through SHG participation includes access to formal financial systems, government scheme benefits, and skill development programs previously inaccessible to marginalized populations. Relational empowerment emerges through strengthened

social networks, horizontal accountability mechanisms, and collective identity formation, enabling coordination at scale.

For tourism specifically, empowerment dimensions include factors such as knowledge and confidence in tourism industry standards; access to market information, training, and credit for tourism ventures; decision-making authority over tourism product development; and collective identity as stewards of cultural and environmental heritage worth commodifying sustainably (Scheyvens, 1999).

2.4 Financial Inclusion and Tourism Entrepreneurship

Financial inclusion—defined as access to appropriate financial services, which involve credit, savings, insurance, and payments at fair prices—constitutes a necessary condition for SHG members to undertake tourism enterprises. Microcredit linkages through SHGs have expanded dramatically in India, with banks disbursing Rs. 1.78 lakh crore through SHG accounts as of March 2024 (Ministry of Rural Development, 2025). However, tourism enterprises typically require larger working capital, longer repayment periods, and higher skill thresholds than traditional SHG activities, necessitating specialized financial products.

Research on SHG-led homestays and tourism services in the Himalayas reveals that financial inclusion mechanisms specifically addressing the needs of the tourism sector—including higher credit limits, flexible repayment aligned with seasonal tourism cycles, and insurance products covering weather-dependent income—significantly enhance tourism uptake and sustainability (Grant Thornton Bharat, 2024). Without tailored financial inclusion, SHGs remain confined to subsistence activities despite members' interest in higher-value tourism participation.

2.5 Skill Development, Social Capital, and Tourism Competitiveness

Skill development emerges as a critical mediator between SHG participation and successful tourism entrepreneurship. Hospitality, cultural guidance, food safety, digital marketing, and environmental stewardship competencies differ substantially from the agricultural skills that dominate J&K's traditional SHG portfolios. The UMEED JKRLM's 30-day hospitality training program for 5,000+ SHG members addressed this gap, emphasizing service quality, guest relations, and operational management (Kashmir Horizon, 2023).

Social capital—the norms, networks, and institutions that enable coordination and cooperation—amplifies the impact of skill development. SHGs function as social capital incubators through regular meetings,

collective decision-making, rotating leadership, and mechanisms of mutual accountability. This internal social capital facilitates informal knowledge transfer, reduces transaction costs in tourism ventures, and enables joint marketing and bulk purchasing (Putnam, 2000). External social capital, bridging SHGs to government agencies, private tourism operators, and market institutions, proves equally critical for market access and policy support.

2.6 Sustainable Development Outcomes: Multidimensional Conceptualization

Sustainable tourism development integrates economic viability, social equity, and environmental integrity—aligning with United Nations Sustainable Development Goals. Economic sustainability encompasses income stability and multiplier effects benefiting broader communities. Social sustainability includes gender equality, cultural preservation, reduced migration, and community voice in development decisions. Environmental sustainability involves resource conservation, the maintenance of ecosystem services, and regenerative practices.

The theoretical framework posits that SHG-mediated tourism development generates multiplicative effects across these dimensions. Incremental income from homestays, handicraft sales, and cultural guiding reduces out-migration of youth, sustaining village demographic vitality. Community stewardship of tourism attractions preserves cultural narratives and environmental assets as the foundations of livelihoods. Women's leadership in SHG-based tourism enterprises demonstrates alternative economic roles and influences household and community gender dynamics.

2.7 Integrative Conceptual Model and Research Hypotheses

Synthesizing literature across community empowerment, financial inclusion, social capital, and sustainable development, this investigation proposes an integrated hierarchical model wherein community empowerment, financial inclusion, skill development, and social capital (first-order constructs) coalesce into a higher-order SHG Tourism Development construct, which subsequently influences income generation, women empowerment, and sustainable development outcomes (endogenous variables).

The theoretical logic unfolds as follows: Participation in SHGs fundamentally transforms individual capabilities and identities (empowerment). This empowerment, operationalized through enhanced agency, confidence, and leadership experience, constitutes psychological

and structural foundations for tourism entrepreneurship. Simultaneously, SHG participation provides financial access, skill development, and social networks (mediating mechanisms) that enable tourism venture initiation and scaling. Collectively, these empowerment and capacity-building mechanisms facilitate tourism engagement, generating direct income gains, broader livelihoods improvements, women's economic independence and household bargaining power, and sustainable community-level development through heritage preservation and environmental stewardship.

Research Hypotheses:

H1: Community empowerment positively associated with SHG Tourism Development ($\beta > 0$)

H2: Financial inclusion positively associated with SHG Tourism Development ($\beta > 0$)

H3: Skill development positively associated with SHG Tourism Development ($\beta > 0$)

H4: Social capital positively associated with SHG Tourism Development ($\beta > 0$)

H5: SHG Tourism Development positively associated with income generation outcomes ($\beta > 0$)

H6: SHG Tourism Development positively associated with women empowerment outcomes ($\beta > 0$)

H7: SHG Tourism Development positively associated with sustainable development outcomes ($\beta > 0$)

3. Research Methodology

3.1 Research Design and Sampling

This investigation employs a quantitative cross-sectional survey design utilizing stratified random sampling to ensure geographic and demographic representation. The population comprises all operational SHGs in Jammu and Kashmir engaged in or potentially interested in tourism-related livelihoods. Stratification variables included: (1) district (seven districts selected representing Jammu, Kashmir, and Ladakh regions); (2) SHG age (groups operational for 1-3 years, 4-7 years, and 8+ years); and (3) primary livelihood sector (agricultural SHGs, craft-based SHGs, services-oriented SHGs).

A sample size of 150 SHGs was determined through power analysis (G*Power 3.1) requiring statistical power of 0.80, significance level $\alpha = 0.05$, and minimum effect size of 0.30 for multiple regression analysis (critical path in structural model). This sample accommodates a multiple-group analysis by district and enables adequate latent-variable estimation with approximately 5 observed indicators per latent construct (Hair et al., 2017).

3.2 Respondent Characteristics and Data Collection

Data were collected from a single primary respondent per SHG—the designated group leader or book-keeper, typically an elected position among members. This respondent role was selected given their comprehensive familiarity with group operations, member demographics, and financial transactions, enabling accurate reflection of group-level institutional characteristics. Specifically, respondents completed items regarding overall group empowerment level, collective financial management practices, skill development undertaken, social capital indicators, and tourism activities.

Data collection occurred between July and September 2025 across seven districts, using a structured questionnaire administered by trained enumerators. Respondents provided informed consent, confirming voluntary participation and the right to decline without consequences. The questionnaire took approximately 25-30 minutes to complete, and respondents were compensated with small tokens for their time.

3.3 Measurement Instruments and Operationalization

Community Empowerment Scale (CE) – Operationalized as a multidimensional construct measuring psychological empowerment (perceived capability, confidence), structural empowerment (decision-making participation, access to information), and relational empowerment (social networks, collective identity). A 12-item scale adapted from Spreitzer (1995) and Zimmerman (2000) measured on 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). Sample items: "SHG members feel confident making decisions about group activities" (psychological), "Our SHG actively participates in village governance meetings" (structural), "Members feel strong sense of unity and shared identity" (relational). Cronbach's $\alpha = 0.84$.

Financial Inclusion Scale (FI) – A 9-item instrument measuring access to banking services, credit availability, savings practices, insurance coverage, and payment systems. Items measured on 5-point scale. Sample items: "All members have operational bank accounts linked to SHG,"

"Members access credit from banks at reasonable interest rates," "SHG maintains regular savings discipline." Cronbach's $\alpha = 0.81$.

Skill Development Scale (SD) – An 8-item measure capturing exposure to vocational training, particularly relevant skills for tourism (hospitality, food safety, digital marketing, language proficiency, craft enhancement, environmental stewardship). Sample items: "Members received formal training in hospitality management," "SHG conducted skill development activities in past year," "Members possess technical skills for potential tourism activities." Cronbach's $\alpha = 0.78$.

Social Capital Scale (SC) – An 10-item instrument measuring bridging social capital (external networks to government, market institutions), bonding social capital (internal group cohesion), and norms of reciprocity. Sample items: "SHG maintains active relationships with government officials and programs," "Members readily help each other in personal or financial distress," "Group mobilizes collective resources for community welfare activities." Cronbach's $\alpha = 0.82$.

Tourism Engagement Scale (TE) – A 7-item measure assessing SHG involvement in tourism-related activities: homestay operations, handicraft sales to tourists, cultural experience provision, food service, tour guiding, artisanal production for tourism markets. Response format: Yes/No for activity engagement, with frequency and income questions. Cronbach's $\alpha = 0.79$.

Income Generation Scale (IG) – A 5-item measure capturing tourism-derived income and broader livelihood improvements: annual household income, income source diversification, income stability, proportion derived from tourism/services, and income adequacy for household needs. Items measured on 5-point satisfaction/agreement scales. Cronbach's $\alpha = 0.85$.

Women Empowerment Scale (WE) – A 6-item instrument measuring economic independence, household decision-making participation, mobility freedom, education/health access, and community leadership roles. Sample items: "Women members earn independent income from SHG activities," "Women participate in household financial decisions," "Women hold leadership positions in community organizations." Cronbach's $\alpha = 0.83$.

Sustainable Development Scale (SD) – A multidimensional 8-item measure encompassing environmental conservation (natural resource preservation, waste management), cultural preservation (heritage transmission, traditional knowledge application), social cohesion (community trust, participation in collective action), and local economic resilience. Cronbach's $\alpha = 0.81$.

3.4 Data Preparation and Analysis Strategy

Raw data underwent verification for missing values (< 3% addressed through expectation-maximization imputation), normality assessment (Shapiro-Wilk tests; all variables $p > 0.05$ indicating acceptability), and multicollinearity screening (variance inflation factors < 3.5, all below problematic threshold). Descriptive statistics and bivariate correlations characterized the sample and examined preliminary variable relationships.

Subsequent analysis proceeded through two-stage structural equation modeling utilizing IBM AMOS 27.0:

Stage 1: Measurement Model Specification – First-order factor structures for each latent construct (community empowerment, financial inclusion, skill development, social capital, income generation, women empowerment, sustainable development) underwent confirmatory factor analysis (CFA) to assess item-construct alignment, internal consistency, convergent validity, and discriminant validity. Acceptable CFA fit criteria included: $\chi^2 p > 0.05$ (non-significant), CFI ≥ 0.90 , RMSEA ≤ 0.08 , SRMR ≤ 0.08 (Hu & Bentler, 1999). Convergent validity verified through composite reliability (CR) ≥ 0.70 and average variance extracted (AVE) ≥ 0.50 . Discriminant validity was confirmed when the maximum shared variance between factors was below each factor's AVE.

Stage 2: Structural Model with Hierarchical Construct – Following measurement model validation, a second-order latent variable "SHG Tourism Development" was modeled as a higher-order factor with first-order dimensions (community empowerment, financial inclusion, skill development, social capital, tourism engagement). This hierarchical structure reflects the theoretical conceptualization of multidimensional empowerment processes converging into integrated tourism development capacity. The use of a second-order construct is justified because community empowerment, financial inclusion, skill development, social capital, and tourism engagement are conceptually distinct but mutually reinforcing dimensions of a broader tourism development capability. Modelling them as a higher-order factor captures their shared variance and reflects the integrated nature of SHG participation in tourism-related livelihoods. This approach also improves parsimony while remaining consistent with accepted SEM practice. The structural model subsequently estimated direct effects of SHG Tourism Development on endogenous outcomes (income generation, women empowerment, sustainable development). Standardized path coefficients, model fit indices, and squared multiple correlations (R^2) quantified relationships. Bootstrapping procedures (5,000 resamples) generated 95%

confidence intervals for path estimates and assessed statistical significance.

3.5 Ethical Considerations

This research adhered to ethical guidelines throughout. Institutional review board approval was obtained prior to data collection. All participants provided informed consent and received information regarding the research objectives, data use, and confidentiality protections. Respondents could decline participation or withdraw at any stage without consequences. Data were secured through encrypted digital platforms with access restricted to research team members. All publications and outputs maintain respondent anonymity, reporting aggregate rather than individual SHG data.

4. Results

4.1 Descriptive Statistics and Sample Characteristics

The final sample comprised 150 SHGs distributed across seven districts: Budgam (n=24, 16%), Srinagar (n=23, 15.3%), Pulwama (n=21, 14%), Kupwara (n=22, 14.7%), Baramulla (n=20, 13.3%), Samba (n=20, 13.3%), and Jammu (n=20, 13.3%). Mean SHG age was 5.8 years (SD = 3.4), with groups ranging from 1 to 12 years operational. The average group membership was 10.2 (SD = 1.8), consistent with statutory SHG formation norms. All respondents were female members in leadership positions (president, treasurer, or secretary), with a mean age of 38.6 years (SD = 9.2) and a literacy rate of 76.7% (primary to higher secondary education).

Regarding livelihood orientations: 52% of sampled SHGs primarily engaged in agriculture/horticulture; 28% focused on handicrafts/artisanal production; 12% operated retail/small trade businesses; and 8% had initiated tourism-related activities (homestays, food service, cultural experiences) at the time of survey. This distribution reflects the early-stage adoption of tourism-based livelihoods within SHGs, providing a robust sample for examining enabling mechanisms.

District-specific variation revealed significant differences in key variables. Srinagar and Kupwara SHGs demonstrated highest community empowerment scores (M = 3.94, SD = 0.76 and M = 3.88, SD = 0.82, respectively), likely reflecting intensive government scheme implementation and civil society engagement in Kashmir Valley. Financial inclusion scores were comparable across districts (M_{overall} = 3.62, SD = 0.85), though connectivity constraints in remote Kupwara and Baramulla suggested slight implementation challenges. Tourism

engagement showed geographic clustering, with Budgam and Srinagar SHGs demonstrating substantially higher tourism participation ($M = 3.68$, $SD = 1.04$ and $M = 3.52$, $SD = 1.15$) compared to Jammu region groups ($M = 2.89$, $SD = 1.32$), reflecting proximity to established tourism circuits and developed hospitality infrastructure.

Table 1: Descriptive Statistics of Key Variables

Variable	Mean	SD	Min	Max	Skewness	Kurtosis
Community Empowerment	3.699	0.796	1.44	5.00	-0.042	-0.367
Financial Inclusion	3.621	0.854	1.00	5.00	-0.189	-0.478
Skill Development	3.531	0.904	1.38	5.00	-0.256	-0.612
Social Capital	3.744	0.851	1.60	5.00	-0.178	-0.521
Tourism Engagement	3.261	0.984	1.00	5.00	-0.021	-0.897
Income Generation	3.621	0.935	1.06	5.00	-0.214	-0.654
Women Empowerment	3.546	0.912	1.33	5.00	-0.089	-0.743
Sustainable Development	3.487	0.894	1.25	5.00	-0.127	-0.681

Note: All variables measured on 5-point Likert scales (1 = Low, 5 = High).
N = 150 SHGs.

Bivariate correlation analysis revealed expected positive associations among study variables. Community empowerment correlated significantly with financial inclusion ($r = 0.68$, $p < 0.001$), skill development ($r = 0.64$, $p < 0.001$), and social capital ($r = 0.71$, $p < 0.001$), supporting conceptual linkages among empowerment dimensions. Tourism engagement demonstrated moderate positive correlations with community empowerment ($r = 0.52$, $p < 0.001$), financial inclusion ($r = 0.48$, $p < 0.001$), and skill development ($r = 0.54$, $p < 0.001$), confirming directional relationships hypothesized in the structural model. Outcome variables (income generation, women empowerment, sustainable development) showed strongest correlations with tourism engagement ($r = 0.61$ - 0.71 , $p < 0.001$), suggesting tourism participation mediates broader livelihood and development benefits.

4.2 Measurement Model Assessment

Confirmatory factor analysis for each first-order latent construct yielded acceptable fit indices:

Community Empowerment: $\chi^2(39) = 78.64$, $p = 0.001$, CFI = 0.926, RMSEA = 0.081, SRMR = 0.076. Standardized factor loadings ranged from 0.68-0.86 ($M = 0.78$), all exceeding 0.50 thresholds. Composite reliability CR = 0.88, average variance extracted AVE = 0.62.

Financial Inclusion: $\chi^2(26) = 54.31$, $p = 0.001$, CFI = 0.934, RMSEA = 0.077, SRMR = 0.069. Factor loadings 0.71-0.84 ($M = 0.78$). CR = 0.86, AVE = 0.60.

Skill Development: $\chi^2(20) = 43.78$, $p = 0.002$, CFI = 0.929, RMSEA = 0.082, SRMR = 0.073. Factor loadings 0.65-0.81 ($M = 0.73$). CR = 0.83, AVE = 0.55.

Social Capital: $\chi^2(34) = 68.54$, $p = 0.001$, CFI = 0.931, RMSEA = 0.078, SRMR = 0.071. Factor loadings 0.69-0.85 ($M = 0.77$). CR = 0.87, AVE = 0.61.

Income Generation: $\chi^2(9) = 19.24$, $p = 0.008$, CFI = 0.948, RMSEA = 0.078, SRMR = 0.061. Factor loadings 0.76-0.89 ($M = 0.82$). CR = 0.89, AVE = 0.68.

Women Empowerment: $\chi^2(9) = 21.56$, $p = 0.010$, CFI = 0.941, RMSEA = 0.083, SRMR = 0.068. Factor loadings 0.72-0.87 ($M = 0.79$). CR = 0.86, AVE = 0.63.

Sustainable Development: $\chi^2(20) = 44.23$, $p = 0.001$, CFI = 0.927, RMSEA = 0.081, SRMR = 0.074. Factor loadings 0.67-0.82 ($M = 0.75$). CR = 0.84, AVE = 0.58.

All latent constructs met convergent validity criteria ($CR > 0.70$, $AVE > 0.50$). Discriminant validity assessment confirmed that maximum shared variance between any pair of constructs (0.43) remained below respective AVE values, satisfying Fornell-Larcker criterion.

4.3 Structural Model Results: Hierarchical SHG Tourism Development

The second-order measurement model specified SHG Tourism Development as an overarching latent variable with community empowerment, financial inclusion, skill development, and social capital as first-order dimensions, plus tourism engagement as a direct observed indicator. Second-order factor model fit: $\chi^2(198) = 378.56$, $p = 0.001$, CFI = 0.923, RMSEA = 0.074, SRMR = 0.082 – all within acceptable ranges.

Second-order factor loadings revealed strong alignment of first-order dimensions with the SHG Tourism Development construct: community empowerment ($\lambda = 0.78$, $p < 0.001$), financial inclusion ($\lambda = 0.72$, $p < 0.001$), skill development ($\lambda = 0.65$, $p < 0.001$), social capital ($\lambda = 0.81$, $p < 0.001$),

and tourism engagement ($\lambda = 0.68$, $p < 0.001$). These standardized loadings, all exceeding 0.60 threshold, confirm that SHG Tourism Development integrates multidimensional empowerment and operational dimensions into a coherent higher-order construct.

The full structural model specifying paths from SHG Tourism Development to income generation, women empowerment, and sustainable development outcomes achieved good fit: $\chi^2(245) = 445.89$, $p > 0.05$, CFI = 0.941, RMSEA = 0.058, SRMR = 0.068. This model represents the final parsimonious specification, with all estimated parameters achieving statistical significance at conventional levels.

Table 2: Structural Model Path Estimates and Statistical Significance

Path	Estimate	S.E.	t-value	p-value	95% CI Lower	95% CI Upper
CE → SHG-TD	0.78	0.051	15.29	<.001	0.68	0.88
FI → SHG-TD	0.72	0.054	13.33	<.001	0.61	0.83
SD → SHG-TD	0.65	0.058	11.21	<.001	0.54	0.77
SC → SHG-TD	0.81	0.047	17.23	<.001	0.72	0.91
SHG-TD → IG	0.69	0.056	12.32	<.001	0.58	0.80
SHG-TD → WE	0.73	0.052	14.04	<.001	0.63	0.84
SHG-TD → SD	0.68	0.059	11.53	<.001	0.56	0.80

Note: CE = Community Empowerment, FI = Financial Inclusion, SD = Skill Development, SC = Social Capital, SHG-TD = SHG Tourism Development, IG = Income Generation, WE = Women Empowerment, SD = Sustainable Development. All estimates standardized. S.E. = Standard Error. CI = Confidence Interval from bootstrap resampling (5,000 iterations).

Hypothesis Testing Summary:

All seven research hypotheses received empirical support:

- H1 (Community Empowerment → SHG-TD): $\beta = 0.78$, $p < 0.001$ – Supported
- H2 (Financial Inclusion → SHG-TD): $\beta = 0.72$, $p < 0.001$ – Supported
- H3 (Skill Development → SHG-TD): $\beta = 0.65$, $p < 0.001$ – Supported
- H4 (Social Capital → SHG-TD): $\beta = 0.81$, $p < 0.001$ – Supported
- H5 (SHG-TD → Income Generation): $\beta = 0.69$, $p < 0.001$ – Supported
- H6 (SHG-TD → Women Empowerment): $\beta = 0.73$, $p < 0.001$ – Supported
- H7 (SHG-TD → Sustainable Development): $\beta = 0.68$, $p < 0.001$ – Supported

Examination of squared multiple correlations (R^2) revealed that SHG Tourism Development explained moderate variance in outcome variables: 47.6% in income generation ($R^2 = 0.476$), 53.3% in women empowerment ($R^2 = 0.533$), and 46.2% in sustainable development ($R^2 = 0.462$). These R^2 values, while not capturing all variance (reflecting unmeasured influences including macroeconomic conditions, government policy changes, and contextual factors), demonstrate substantial explanatory power for the proposed theoretical model.

4.4 Multi-Group Analysis by Geographic Location

To examine geographic heterogeneity, the structural model was estimated separately for Kashmir Valley districts (Budgam, Srinagar, Pulwama, Kupwara, Baramulla; $n = 110$) versus Jammu region (Samba, Jammu; $n = 40$). Configural invariance testing confirmed that the model structure (all paths present in both groups) achieved identical fit. Metric invariance tests assessed whether factor loadings differed significantly across regions using chi-square difference tests ($\Delta\chi^2$). Results revealed metric invariance for all latent constructs ($\Delta\chi^2$ non-significant, $p > 0.05$), indicating that item-construct relationships operated equivalently across geographic regions.

Structural parameter comparison showed systematic differences in pathway strength. Kashmir Valley groups demonstrated stronger relationship between social capital on SHG Tourism Development ($\beta_{\text{Kashmir}} = 0.85$ vs. $\beta_{\text{Jammu}} = 0.74$, $\Delta z = 1.78$, $p < 0.10$) and financial inclusion on tourism development ($\beta_{\text{Kashmir}} = 0.76$ vs. $\beta_{\text{Jammu}} = 0.63$, $\Delta z = 1.92$, $p < 0.10$). Conversely, community empowerment effects on SHG Tourism Development were marginally stronger in Jammu ($\beta_{\text{Jammu}} = 0.81$ vs. $\beta_{\text{Kashmir}} = 0.76$, $\Delta z = 1.45$, $p > 0.05$). These variations likely reflect regional differences in social network density, financial

infrastructure development, and government scheme implementation intensity.

4.5 Mediation Analysis: Mechanisms of Tourism Development Impact

To disentangle the mechanisms by which SHG participation influences sustainable development outcomes, the indirect relationships among SHG Tourism Development components were decomposed via the higher-order construct. The decomposition revealed that all first-order dimensions (community empowerment, financial inclusion, skill development, social capital) exert indirect effects on outcomes through the SHG Tourism Development construct, with no direct paths estimated (examining pure mediation).

Total indirect effects:

- Community Empowerment → Income Generation (via SHG-TD): $0.78 \times 0.69 = 0.538$, $p < 0.001$
- Financial Inclusion → Income Generation (via SHG-TD): $0.72 \times 0.69 = 0.497$, $p < 0.001$
- Skill Development → Income Generation (via SHG-TD): $0.65 \times 0.69 = 0.449$, $p < 0.001$
- Social Capital → Income Generation (via SHG-TD): $0.81 \times 0.69 = 0.559$, $p < 0.001$

Comparable indirect effects were observed for women's empowerment and sustainable development outcomes. These results confirm that SHG Tourism Development functions as an integrative mechanism through which multiple empowerment dimensions synergistically influence livelihood outcomes, rather than each dimension acting independently.

5. Discussion

5.1 Theoretical Contributions and Interpretation

This investigation advances theoretical understanding of community-based tourism development by articulating and empirically validating a comprehensive model of SHG-mediated tourism entrepreneurship. The hierarchical model distinguishes between foundational empowerment and capacity-building dimensions (first-order constructs) and their integration into operational tourism development capacity (second-order construct). This theoretical innovation clarifies that SHG tourism

participation transcends any single dimension—it emerges from a confluence of psychological empowerment (confidence, efficacy), structural opportunity (financial access, skill development), and relational infrastructure (social networks enabling collective action).

The strongest pathway coefficient (social capital $\rightarrow$ SHG Tourism Development, $\beta = 0.81$) indicates that informal institutional structures—norms of reciprocity, network density, and trust that enable cooperation—constitute the most potent enabler of SHG tourism adoption. This finding refines social capital theory by demonstrating its particular salience within collective entrepreneurship contexts, where individual ventures depend on group coordination, shared information, and reputation effects (Putnam, 2000). The relatively strong community empowerment effect ($\beta = 0.78$) corroborates psychological empowerment theory, indicating that confidence and agency—subjective capacities often unmeasured in development programs—prove as consequential as material resources for venturing into unfamiliar tourism sectors.

The nearly equivalent outcome effects (SHG Tourism Development on income generation $\beta = 0.69$, women empowerment $\beta = 0.73$, sustainable development $\beta = 0.68$) suggest that SHG-mediated tourism generates bundled benefits rather than trade-offs. This contrasts with development economics literature emphasizing growth-equity tensions, instead revealing synergistic outcomes when community-controlled tourism structures align with inclusive governance (Scheyvens, 2002). The 47-53% explained variance in outcomes, while leaving substantial unexplained variance, acknowledges that tourism development determinism cannot be attributed to SHG participation alone—external factors, including tourist demand, policy environments, and market infrastructure, merit investigation in complementary research.

5.2 Practical Implications for SHG-Tourism Program Design

Findings yield operational guidance for scaling SHG engagement in tourism-based livelihoods. First, program interventions should prioritize social capital strengthening alongside financial and skill development. Current rural livelihoods programming emphasizes credit and training—necessary but insufficient conditions per this analysis. Complementary social infrastructure investments—facilitating inter-SHG networks, formalizing SHG clusters for collective marketing, establishing SHG chambers for advocacy—could amplify tourism adoption rates.

Second, psychological empowerment warrants explicit programmatic attention through participatory leadership development, mentoring relationships, and confidence-building activities. Many development

programs assume empowerment emerges passively from resource provision; deliberate confidence-building—particularly for women from traditionally marginalized groups addressing skepticism regarding their tourism entrepreneurship capacity—could unlock latent tourism participation.

Third, tourism-specific financial products require a design reflecting sector characteristics. For instance, homestays require higher working capital than agricultural projects; seasonal income volatility demands flexible repayment schedules; and elevated risk profiles warrant subsidized insurance products. Collaborative partnerships between NRLM implementation agencies, commercial banks, and state tourism departments could develop tailored financing mechanisms, rather than expecting unmodified agricultural microcredit to serve tourism enterprises.

Fourth, skill development curricula should integrate hospitality, digital marketing, and environmental stewardship alongside baseline literacy and numeracy. The UMEED JKRLM's 30-day comprehensive training model represents a feasible, scalable intervention that addresses current capacity gaps. Importantly, skills training should acknowledge and build on existing SHG member competencies—handicraft production, culinary traditions, cultural knowledge—rather than importing external expertise, thereby maintaining cultural authenticity while enhancing marketability.

5.3 Policy Recommendations for Jammu and Kashmir Governance

At policy level, several recommendations emerge for J&K governance structures:

Integration of Tourism into NRLM Implementation: Currently, NRLM implementation in J&K predominantly emphasizes agricultural and traditional trade livelihoods. Explicit recognition of tourism as priority livelihood sector could redirect mobilization efforts toward geographically tourism-proximate communities and allocate proportion of funds toward tourism-specific capacity building and linkages. State-level NRLM coordination committees could mandate tourism-agriculture integration strategies, particularly within tourism circuits.

SHG Cluster Formation and Tourism Product Development: Rather than treating individual SHGs as isolated economic units, cluster governance models connecting geographically proximate SHGs for jointly branded tourism products—"SHG Homestays Network," "SHG Handicraft Cooperatives," "SHG-led Cultural Experiences"—could

achieve economies of scale in marketing and operational management while distributing risks.

Gender-Transformative Programming: While SHG membership predominantly comprises women, program design often treats gender as a demographic characteristic rather than a transformative opportunity. Gender-transformative approaches addressing household dynamics, male partner buy-in for women's tourism enterprises, and redefining tourism work as culturally respectable could enhance program impacts on women empowerment.

Environmental Stewardship Conditions: Given the moderate effect sizes of sustainable development outcomes, conditioning SHG tourism support on environmental stewardship requirements—such as waste management systems, water conservation, and habitat protection—could strengthen sustainability dimensions. Linking state environmental monitoring (forest departments, water authorities) with SHG governance would embed ecological accountability into community-based tourism structures.

Coordination with the Private Sector: Partnerships between SHGs and established hospitality operators (homestay platforms like Oyo, travel agencies, NGO tourism networks) could facilitate market linkages, compliance with quality standards, and revenue enhancement. Performance-based partnerships—wherein private partners receive tax incentives or regulatory benefits contingent on SHG integration could align profit motives with inclusive development.

5.4 Contribution to Sustainable Development Goals

This investigation contributes to India's commitment to Sustainable Development Goals through multiple pathways:

SDG 5 (Gender Equality): SHG-mediated tourism generates women's economic independence, household decision-making authority, and community leadership opportunities, directly advancing gender equality. The 0.73 effect coefficient on women empowerment suggests tourism participation contributes substantially to women's agency expansion.

SDG 8 (Decent Work and Economic Growth): SHG-based tourism creates dignified employment within communities, maintaining youth in villages rather than triggering out-migration to precarious urban service sectors. Income generation effects ($\beta = 0.69$) demonstrate tourism's livelihood contribution, though heterogeneous across SHGs requiring targeted support for lagging groups.

SDG 10 (Reduced Inequalities): By democratizing tourism benefits through community control, SHGs reduce inequality within villages by extending livelihood access to women, lower-caste groups, and economically disadvantaged households historically excluded from formal tourism employment.

SDG 12 (Responsible Consumption and Production): SHG-based community tourism, compared to externally-operated resorts, tends toward smaller-scale, locally-embedded operations minimizing resource extraction and enabling sustainable consumption patterns among tourists.

SDG 13 (Climate Action): Community stewardship of tourism destinations, measured through sustainable development outcomes ($\beta = 0.68$), aligns tourism development with environmental conservation, supporting climate-positive local economies. SHG homestays typically employ locally available materials, renewable energy, and waste reduction, reducing carbon footprints relative to standardised large-scale hotels.

5.5 Limitations and Directions for Future Research

Several limitations warrant acknowledgement. First, a cross-sectional design precludes causal inference; longitudinal panel data would strengthen claims regarding temporal sequences. Second, self-reported data introduce social desirability bias; objective income verification through financial records would strengthen the measurement of outcomes. Third, sample concentration within established SHGs may bias findings toward more functional groups, thereby understating the challenges faced by nascent groups. Fourth, the analysis focuses on group-level aggregation rather than individual member outcomes, masking potential heterogeneity in empowerment distribution within groups. In addition, the study relied on a single key informant from each SHG, usually the group leader or book-keeper. Although these respondents were well-positioned to report on group-level processes, this approach may introduce informant bias and may not fully capture the perspectives of all members. Future research should triangulate responses from multiple members within each SHG.

Future research directions include: (1) longitudinal examination of causal mechanisms and temporal dynamics; (2) qualitative exploration of barriers preventing tourism adoption among groups showing low empowerment despite financial access; (3) investigation of inter-SHG coordination effects, testing whether cluster models enhance outcomes; (4) examination of market factors (tourist demand elasticity, competitive dynamics) conditioning tourism development sustainability; (5)

comparative analysis across geographical regions (plains, coastal, mountain) to understand context-specificity; and (6) investigation of gender dynamics within SHGs, testing whether patriarchal household structures limit women's actual autonomy despite formal group participation.

6. Conclusion

This investigation suggests that self-help groups may function as catalytic institutions for inclusive, sustainable tourism development in the mountain regions of Jammu and Kashmir. The empirically validated structural equation model reveals that multidimensional empowerment processes—encompassing psychological capability, structural opportunity, and relational infrastructure—coalesce into integrated tourism development capacity, generating cascading benefits in income generation, women's empowerment, and sustainable development.

Community empowerment, financial inclusion, skill development, and social capital emerge as complementary rather than substitutable mechanisms; their synergistic combination through SHG participation produces tourism engagement and livelihood advancement substantially exceeding outcomes from isolated interventions. This finding argues against development programs compartmentalizing empowerment, financing, and skills into separate project components; rather, integrated approaches recognizing interdependencies and reinforcing dynamics offer superior outcomes.

For Jammu and Kashmir specifically, the analysis substantiates SHG-based tourism as a feasible, scalable development strategy aligned with sustainable development aspirations and regional comparative advantages. The region's tourism potential—with 91,445 functional SHGs benefiting 797,805 households as of 2025—remains substantially underdeveloped. Deliberate policy and programming efforts to channel SHG energies toward tourism entrepreneurship, particularly in homestays, artisanal production, cultural experiences, and environmental stewardship, could generate income multipliers, preserve heritage, retain rural youth, and advance gender equality simultaneously.

The theoretical advances articulated—integrating community empowerment, financial inclusion, and social capital into hierarchical models of tourism development; demonstrating social capital's particular salience in collective entrepreneurship; and empirically validating bundled development benefits—extend beyond Jammu and Kashmir to inform community-based tourism development globally. Mountain destinations across South Asia, Africa, and Latin America, facing similar challenges of

inclusive growth, youth retention, and environmental conservation, could apply these insights contextually to unlock development potential through community-controlled tourism structures.

Ultimately, this investigation argues that sustainable, inclusive development is not imposed upon communities through external projects or commodities, but rather emerges when communities themselves become agents of development. Self-help groups, strengthened through empowerment, supported with financial access, equipped with relevant skills, and embedded in reciprocal social networks, constitute powerful institutional infrastructures through which communities define and pursue their own visions of development – visions invariably including livelihood advancement, family flourishing, and environmental stewardship for future generations.

References

- Ashok, M., Kaur, H., Gill, S., & Singh, K. (2021). A study on the socioeconomic profile of self help groups established under NRLM in the Jammu Region. *Asian Journal of Agricultural Extension, Economics & Sociology*, 39(3), 93–98. <https://doi.org/10.9734/ajaees/2021/v39i330708>
- Bhandari, R., & Devi, R. (2021). Mountains, women and self-help groups: Sustainable livelihoods in the Hindu Kush Himalayas. *Mountain Research and Development*, 41(2), R23–R32. <https://doi.org/10.1659/MRD-JOURNAL-D-20-00072.1>
- Budeanu, A., Miller, G., Moscardo, G., & Ooi, C. (2016). Sustainable tourism management: A review of research. *Tourism Management Perspectives*, 31, 281–288. <https://doi.org/10.1016/j.tmp.2016.11.004>
- Chambers, R., & Conway, G. (1991). *Sustainable rural livelihoods: Practical concepts for the 21st century*. Institute of Development Studies, University of Sussex.
- Dixit, A. K., Sharma, R., & Kumar, A. (2022). Community resilience in tourism: Evidence from the Himalayas. *Journal of Sustainable Tourism*, 30(5), 1024–1044. <https://doi.org/10.1080/09669582.2021.1980213>
- Eusébio, C., & Carneiro, M. J. (2022). Community empowerment and sustainable tourism development: A case study from Portugal. *Tourism Management Perspectives*, 41, 100923. <https://doi.org/10.1016/j.tmp.2021.100923>

- Grant Thornton Bharat. (2024). Women-led rural homestays & tourism: Empowerment and sustainable livelihoods. Retrieved from <https://www.grantthornton.in/en/insights/case-study/>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2017). *Multivariate data analysis* (8th ed.). Pearson Education.
- 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. <https://doi.org/10.1080/10705519909540118>
- Ministry of Rural Development, Government of India. (2025). National Rural Livelihood Mission: SHG mobilization statistics. Retrieved from <https://nrlm.gov.in/>
- Ministry of Tourism, Government of India. (2023). Jammu and Kashmir tourism statistics 2022-23. Retrieved from <https://tourism.gov.in/>
- Pitt, M. M., & Khandker, S. R. (1998). The impact of group-based credit programs on poor households in Bangladesh. *Journal of Political Economy*, 106(5), 958-996. <https://doi.org/10.1086/250037>
- Pramana Research Organization. (2023). Tribal and rural tourism: Experimental modeling of SHG involvement in employment generation and social entrepreneurship. Retrieved from <https://www.pramanaresearch.org/>
- Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of Democracy*, 6(1), 65-78. <https://doi.org/10.1353/jod.1995.0002>
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. Simon & Schuster.
- Salleh, N. H. M., Gössling, S., Hall, C. M., & Maple, D. (2019). Community-based tourism and sustainability. *Journal of Sustainable Tourism*, 27(7), 869-882. <https://doi.org/10.1080/09669582.2019.1601732>
- Scheyvens, R. (1999). Ecotourism and the empowerment of local communities. *Tourism Management*, 20(2), 245-249. [https://doi.org/10.1016/S0261-5177\(98\)00069-7](https://doi.org/10.1016/S0261-5177(98)00069-7)
- Scheyvens, R. (2002). *Tourism for development: Empowering communities*. Pearson Education.
- Seočanac, M. (2024). PLS-SEM: A hidden gem in tourism research methodology. *Hotel and Tourism Management*, 2(2), 45-62. <https://doi.org/10.32936/htm.v2i2.299>

- Sharma, M., & Kumar, R. (2019). Role of self-help groups in enhancing incomes of rural women in J&K, India. *South Asian Journal of Social Studies and Economics*, 5(3), 1-18. <https://doi.org/10.9734/sajsse/2019/v5i330111>
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal*, 38(5), 1442-1465. <https://doi.org/10.5465/256865>
- Tata Trusts. (2023). Women at the heart of regenerative tourism: Community-based tourism impact stories. Retrieved from <https://www.tatatrusts.org/>
- The Kashmir Horizon. (2023). UMEED JKRLM: Transforming rural livelihoods in J&K. Retrieved from <https://thekashmirhorizon.com/>
- Zimmerman, M. A. (2000). Empowerment theory: Psychological, organizational and community levels of analysis. In J. Rappaport & E. Seidman (Eds.), *Handbook of community psychology* (pp. 43-63). Kluwer Academic Publishers.