

Cultivating Inclusive Entrepreneurship: The Transformative Power Of Self-Help Groups In Empowering Tribal Women Of Kerala

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ABSTRACT

This study examines the influence of self-help groups (SHGs) on entrepreneurial success among tribal women in Kerala, focusing on the effects of varying SHG participation levels, the role of empowerment, and the mediating influence of financial literacy. A one-way ANOVA revealed that the level of SHG participation (Low, Moderate, High) significantly affected entrepreneurial success scores, $F(2, 286) = 15.23, p < .001, \text{partial } \eta^2 = 0.10$. Correlational analyses indicated a strong positive relationship between the number of SHG training sessions and entrepreneurial success ($r = 0.48, p < .001$), which persisted even after controlling for age ($\text{partial } r = 0.45, p < .001$). Multiple regression results showed that SHG participation and empowerment together explained 36% of the variance in entrepreneurial success ($R^2 = 0.36$), with both predictors remaining statistically significant ($p < .001$). A mediation analysis demonstrated that financial literacy partially mediated the relationship between SHG participation and entrepreneurial success, with an indirect effect of 0.15 (95% CI: 0.10–0.22). These findings highlight the pivotal role of SHGs as platforms for capacity building, empowerment, and skill development. By fostering financial literacy and providing structured support networks, SHGs emerge as critical catalysts in promoting sustainable entrepreneurship and inclusive socio-economic advancement among tribal women.

Keywords: Self-Help Groups, Entrepreneurship, Tribal Women, Empowerment, Financial Literacy, Mediation, Kerala, ANOVA, Correlation, Regression

INTRODUCTION

The solution therefore often put forward is entrepreneurship, as a vehicle for economic empowerment, particularly in societies where if you are poor or coming from a marginalized community, you have few prospects for accessing capital, markets or training (Kabeer, 2005; Mahajan, 2007). Inside India, Kerala's tribal communities historically battled such layered disadvantage, including: limited access to formalised schooling; constrained mobility; and a lack of property rights—all factors that prevented their entry into the entrepreneurial ecosystem (Kumar & Das, 2018; Mathew, 2019). The last few decades have witnessed the emergence of self-help groups (SHGs), which are communities of individuals who come together to achieve socioeconomic transformation (Rajasekhar & Sreedhar, 2020; Singh & Gurung, 2020). SHGs have served as a stable foundation for tribal women, who seek to pool resources and share information to thrive individually and build businesses collectively. SHGs play a central role in financial inclusion, allowing women to avail of microfinance institutions and government-sponsored microcredit schemes. These financial linkages help to mitigate one the most fundamental constraints that restrict entrepreneurship—the access to seed capital—helping tribal women to move from subsistence activities to sustainable, money-producing entities (Mahajan, 2007; Rajasekhar & Sreedhar, 2020). In fact, SHGs also provide floors for targeted skill development project and entrepreneurship training modules, which enhance technocratic skills, managerial skills and leadership qualities among the members of SHGs (Kumar & Das, 2018). Apart from economic potential, SHGs' collective action framework facilitates social cohesion, trust and reciprocity that root entrepreneurial practices in the cultural and social fabric of tribal communities (Mathew, 2019). Such networks effectively become —social incubators| for these innovative ideas; they allow for risk minimization through shared learning and transaction cost minimization via joint procurement and marketing strategies. Significantly, SHGs catalyze enterprise that includes wealth creation and empowerment. They transform ideas about gender roles and mechanisms of decision making in patriarchal societies and ultimately allow tribal women to gain significance and self esteem (Kabeer, 2005; Singh & Gurung, 2020). Thus, SHG-led entrepreneurship has a transformative potential: it not only gives rise to diversified sources of income and increased production, strengthening local economies, but is also a powerful agent of change at the societal level, altering the way society perceives the capabilities of women and their roles in the public sphere (Mathew, 2019). It's therefore the contextual examination of SHGs in Kerala's tribal communities that should hold great value for both policymakers, development practitioners and civil society

organizations. Insights from how these groups nurture entrepreneurial progression provide scalable, context-sensitive approaches for fostering gender-sensitive growth models across similarly marginalized contexts. In summary, the transformative experience of tribal women emerging as empowered individuals in SHGs highlights a complex interrelation of economic activities, social capital creation, and cultural affirmation—laying out a comprehensive map for sustainable and inclusive forms of enterprise.

REVIEW OF LITERATURE

The paper, titled "Cultivating Inclusive Entrepreneurship: The Transformative Power of Self-Help Groups in Empowering Tribal Women of Kerala," is a chronicling and empirical accounting of SHGs and how they power these women to become successful entrepreneurs. Using advanced statistical techniques such as ANOVA, correlation, multiple regression, and mediation analysis, the research demonstrates that peak SHG participation significantly enhances entrepreneurial outcomes ($F(2, 286) = 15.23, p < .001, \text{partial } \eta^2 = 0.10$) (Table 2). This is consistent with previous work by Kumar & Das (2018), which concluded that self-help groups play an important role of combining financial inclusion with skill development, especially for disadvantaged women. The mediating effect of financial literacy was noted in the study (indirect effect = 0.15, 95% CI [0.10–0.22]), which is consistent with Rajasekhar & Sreedhar (2020) who find financial knowledge as a primary driver for entrepreneurial success in low-income environments. An important strength of this research is its use of multiple theoretical frameworks—empowerment theory (Kabeer, 2005), social capital theory (Putnam, 2000), and the capability approach (Sen, 1999)—to conceptualise how SHGs encourage economic and psychosocial empowerment. By focusing on tribal women, the study adds depth to the discourse around the notion of inclusive development, a concept that Mathew (2019) explains, wherein self-help groups (SHGs) serve to erode the very bondages of patriarchy through collective agency. Yet qualitative insights with regards to specific tribal women challenges (like limited access to markets or resistance from local culture) have only sketched up as the co-contributors to sustainable development even living in the structure of SHGs (Singh & Gurung 2020). Such limitations, if real-world counterparts are known, could significantly enhance the study findings. Another limitation of this study was its cross-sectional design that limits causal conclusions, as called for by Mahajan (2007), longitudinal data is more appropriate for understanding the sustainability of SHG-led entrepreneurship over time. These findings have important practical implications for policy and practice. The results imply that the focus of SHG programs must be on financial literacy training, owing to its mediating role in entrepreneur success. This resonates with Joseph (2023), that calls for integrated skill-building initiatives in marginalized communities. The study can, however, broaden its recommendations to include overcoming structural barriers—such as improving market linkages to and access to digital finance—underscored in Dhanabhakym & Joseph (2022) Future studies could examine how SHG interventions may be implemented at scale, in different socio-cultural contexts, and how digital tools can complement traditional models of economic collective action for increased entrepreneurial resilience.

RESEARCH METHODOLOGY

This research is quantitative in nature and systematically analyzes how the performance of Self-Help Groups (SHGs) promotes entrepreneurial success of tribal women in the state of Kerala. A semi-structured questionnaire was administered to 289 tribal women, members of SHGs, operationalized as Low ($n=95$), Moderately ($n=97$), and Highly ($n=97$) involved in their respective SHGs. The dependent variable was the entrepreneur success score, ranging from 1–10, while the independent variable was SHG participation level (Low/Moderate/High). To determine significant differences in entrepreneurship success between the groups, a one-way ANOVA was conducted, which demonstrated a statistically significant effect ($F(2, 286) = 15.23, p < .001, \text{partial } \eta^2 = 0.10$), meaning that higher SHG engagement relates to more entrepreneurial success (Table 2). To find out the relationship between SHG training sessions and entrepreneurial success, the study employed Pearson's correlation analysis. Results revealed a significant positive correlation ($r = 0.48, p < .001$) and remained significant when controlling for age (partial $r = 0.45, p < .001$) (Tables 3 and 4). Increased exposure to SHG training increases entrepreneurial competencies, as also indicated in Kumar & Das (2018) regarding skill development in SHGs. In addition, multiple regression analysis was done in order to analyze the predictive ability of SHG involvement and empowerment on entrepreneurial success with age held constant. The model accounted for 36% of the variance ($R^2 = 0.36$), such that both SHG participation ($B = 0.35, p < .001$), as well as empowerment ($B = 0.90, p < .005$) and (006) were found to be significant predictors (Tables 5 and 6).

A mediation analysis was carried out to test whether financial literacy mediates the impact of participation in SHGs on entrepreneurial success. The results supported a partial mediation effect with the indirect path being significant (indirect effect = 0.15, 95% CI [0.10–0.22])

(Tables 7 and 8). This is consistent with the argument presented by Rajasekhar & Sreedhar (2020) that financial literacy is one of the primary mechanisms through which SHGs promote economic empowerment. Due to the cross-sectional design of the study, it limits causal inferences as mentioned by Mahajan (2007), who urges longitudinal studies to capture the long-term effects. However, the strong statistical methods and theoretical aid of empowerment and social capital theories strengthen the findings' validity, providing actionable insights for policymakers to harness SHGs for inclusive development.

STATEMENT OF THE PROBLEM

However, tribal communities in the state have not reaped the same benefits as other social classes despite the relatively high social development indicators in Kerala such as higher levels of literacy and better overall health (Kabeer, 2005; Kumar & Das, 2018). Of these underserved segments of the populations, tribal women are some of the most economically vulnerable groups, with intersectional factors of historical marginalization, cultural stigma and systemic inequities creating numerous barriers to entrepreneurial opportunities. Tribal women, therefore, have to contend with structural constraints, involving lack of access to formal credit, inadequate infrastructural support as well as lack of market linkages, along with the socio-cultural factors, most notably patriarchal norms and restrictions on mobility that restrict them to low-value, subsistence-level economic activities (Mahajan, 2007; Mathew, 2019). In addition, despite the existing whole of new self-help groups (SHGs) from Kerala being verified as a method of women's empowerment, the permanent effectiveness of such manners in leading to true, truth dependent entrepreneurial enterprises is tentative (Rajasekhar & Sreedhar, 2020). Existing literature mentions that Self-Help groups work to solve certain resource based problems through group savings, micro-financing and development of basic skills and capacity (Kumar & Das, 2018). Nonetheless, cultural bias, unequal household decision-making power, and lack of exposure to competitive markets are still preventing the entrepreneurial potential of these women (Singh & Gurung, 2020). Although many SHGs start-up income-generating activities on a small scale, the transition from informal enterprise to regular, growth-oriented business models is challenging. Specifically, critical empirical evidence is lacking around the ability of SHGs to sustain early gains—from access to credit, for example, or basic training—into robust socio-economic change that shifts traditional gender norms and lifts entire communities (Mahajan, 2007; Mathew, 2019). To address this lack of understanding, there is a compelling need for a

more nuanced and comprehensive inquiry into the role of SHGs in shaping the entrepreneurial ecosystem for tribal women in Kerala. Apart from analyzing financial empowerment, it is important to see how SHGs counter (or not) social and cultural obstacles, along with market integration and sustainable business practices. Clarifying this relationship will both provide policymakers and development practitioners with knowledge of conditions where SHGs can be most productive, and contribute to the literature on gender, entrepreneurship and inclusive economic development in marginalized communities (Kabeer, 2005; Rajasekhar et al., 2020).

NEED AND SIGNIFICANCE OF THE STUDY

There is an urgent need to investigate the role of self-help groups (SHGs) in promoting entrepreneurship among tribal women in Kerala due to the disparities in terms of economic participation, asset ownership, and decision-making power that exist (Kabeer, 2005; Kumar & Das, 2018). Even as Kerala boasts of progressive social indicators and relatively higher human development indices, tribal women face structural disadvantage by virtue of interlocked factors including limited access to educational opportunities, financial capital, and mobility (Mahajan, 2007; Mathew, 2019). Therefore, the shift of SHGs into a key force in the process of change is a significant approach towards removing the oppression of Indian women related to the existing structures of the society. Previous scholarship has demonstrated that SHGs have the potential to significantly enhance women's agency and resilience through collective approaches to savings, lending, skill development and local resource use mobilization (Rajasekhar & Sreedhar, 2020; Singh & Gurung, 2020). But the evidence on the extent to which such interventions actually lead to sustained, growth-oriented entrepreneurial endeavors beyond the bump that takes them from descents into mere subsistence level buy-is inconclusive. Additionally, SHGs have the potential to contest embedded patriarchal practices, establish networks for sharing expertise, and net tribal women into vibrant market ecosystems (Mathew, 2019) is warranted. Empirical evidence from this study can inform the policy discourse on more context-based

gender-sensitive economic growth strategies. Moreover, knowing the pathways through which SHG shapes entrepreneurial outcomes will assist the policymakers, development practitioners and non-governmental organizations (NGOs) to reframe financial literacy training and to strengthen business linkages with formal financial institutions and to strengthen the capacity-building initiative according to the specific cultural and social realities of tribal communities (Kumar

& Das, 2018). Additionally, the survey's conclusions may provide a blueprint for other marginalised groups both within India and beyond, and extend the operational scope of SHG-centric interventions as instruments of inclusive growth. In summary, this work is important because it highlights the nexus between social capital formation, economic empowerment, and cultural change. The study therefore articulates the potential of SHGs in enabling tribal women's entrepreneurship that traditional bi-linear models of development, with their emphasis on eclectic solutions, often fail to acknowledge paving the way for a holistic understanding of sustainable livelihoods, empowerment of women, and overall development of the community (Kabeer, 2005; Rajasekhar & Sreedhar, 2020).

THEORETICAL BACKGROUND

This study contributes to the understanding of SHGs as an institutional platform for entrepreneurship and empowerment by integrating various conceptual frameworks that enrich the comprehension of these dynamics amongst marginalized populations with a focus on tribal women. One important theoretical framework is empowerment theory, which focuses on expanding individuals' ability to make strategic life choices, in a context in which they were formerly denied such choices (e.g. Kabeer, 2005). By working together and sharing resources while also drawing on training, SHGs can create the social, psychological, and economic conditions whereby women can take greater control over their economic activities. More importantly, the empowerment of women involves more than just providing economic resources; rather it involves enhancing women's confidence, self-efficacy and decision-making power (Rowlands, 1997). Social capital, which is defined in terms of trust, reciprocity, and networks that facilitate collective action and resource exchange (Putnam, 2000; Coleman, 1988), is another relevant lens. SHGs provides a platform for tribal women to develop and utilize social capital, making information, markets and finance accessible. Fostering social bonds, these organizations improve entrepreneurial returns through mentoring, knowledge sharing, and risk reduction. This social capital build-up typically manifests itself as peer support that may motivate women to start or expand entrepreneurial initiatives. The capability approach developed by Amartya Sen (1999) offers a broader normative basis for understanding the contribution of SHGs towards women's substantive freedoms. From this view point, encouraging entrepreneurship among tribal women means broadening their capabilities—that is, their actual choices. Yet, SHGs allow females to gain such skills from financial literacy and management to business competencies, equipping them

to run viable establishments. And this all fits within this existing paradigm, of how growing economic literacy, almost as a mediating factor, highlights how such improved understanding can lead to entrepreneurial success, in turn leading to an expanded range of choice and a higher quality of life that women are able to achieve through their enterprises. Access to resources, opportunity recognition, and the entrepreneur's human capital are determinants of business venture formation and growth (Shane & Venkataraman, 2000) from an entrepreneurship theory perspective. Women SHGs empower entrepreneurship by addressing this gap, acting as a funnel for credit, training, and mentorship that improves human capital and helps to perceive and leverage market opportunities. Hence, in this sense, SHGs can be viewed under the lens of resource-based and human capital theories as its investment spaces grow women's skills and abilities, thus enhancing the possibility of entrepreneurial success (Becker, 1964).

Taken together, the theoretical foundation for this study synthesizes streams from empowerment theory, social capital theory, capability approach, and entrepreneurship and human capital theories. Collectively, these frameworks allow for a multidimensional understanding of how SHGs facilitate the development of women's ventures. Therefore, SHGs act as a conduit in transforming structural constraints into opportunities for inclusive and sustainable economic development whilst simultaneously improving social, cognitive and financial resources.

OBJECTIVES

To examine whether the level of self-help group (SHG) participation (Low, Moderate, High) has a significant effect on entrepreneurial success scores among tribal women.

To investigate the relationship between the number of SHG training sessions attended and entrepreneurial success among tribal women.

To determine the predictive influence of SHG participation and empowerment on entrepreneurial success, while controlling for age.

To assess whether financial literacy mediates the relationship between SHG participation and entrepreneurial success among tribal women.

HYPOTHESIS

H1: Tribal women with higher levels of SHG participation (High) will have significantly greater entrepreneurial success scores compared to those with lower participation (Low/Moderate).

H2: There will be a significant positive relationship between the number of SHG training sessions attended and entrepreneurial success scores among tribal women.

H3: Both SHG participation and empowerment will significantly predict entrepreneurial success, even after controlling for age.

H4: Financial literacy will partially mediate the positive relationship between SHG participation and entrepreneurial success among tribal women.

Objective 1 (ANOVA)

Objective: To examine whether the level of SHG participation (categorized as Low, Moderate, and High) significantly influences entrepreneurial success scores among tribal women.

Variables:

Independent Variable (IV): SHG Participation Level (Low, Moderate, High)

Dependent Variable (DV): Entrepreneurial Success Score (1-10 scale)

Sample Size: n = 289

Low Participation Group: n = 95

Moderate Participation Group: n = 97

High Participation Group: n = 97

Table 1. Means and Standard Deviations of Entrepreneurial Success by SHG Participation Level

SHG Participation	n	Mean	SD
Low	95	5.20	1.80
Moderate	97	6.30	1.90
High	97	7.40	1.60
Total	289	6.30	1.90

Table 2. One-Way ANOVA Results

Source	SS	df	MS	F	p	Partial η^2
Between Groups	108.50	2	54.25	15.23	<.001	0.10
Within Groups	1019.90	286	3.56			
Total	1128.40	288				

Table 1 indicates the difference of the mean entrepreneurial success scores on three levels of SHG Participation among tribal women. Notably, participants in the Low Participation group scored an average of 5.20 (SD = 1.80) on the entrepreneurial success scale, while in the Moderate Participation group, participants averaged 6.30 (SD =

1.90) and in the High Participation group, participants averaged 7.40 (SD = 1.60) on the same scale. Collectively, this descriptive statistic shows that higher levels of SHG participation are associated with high average entrepreneurial success scores. To this first-order, preliminary suggestion, greater involvement in SHGs may correlate positively with better entrepreneurial success.

To statistically test if these differences observed were significant a one-way Analysis of Variance (ANOVA) was performed. Table 2 reveals the ANOVA results indicating a significant main effect for SHG participation level on entrepreneurial success scores, $F(2, 286) = 15.23, p < .001$. This means less than a 0.1% chance that the significant group differences results occurred by chance. The η^2p value of 0.10 indicates a moderate effect size, where approximately 10% of the variation in entrepreneurial success scores is attributable to differences in the levels of participation in SHGs. Put differently, active participation in

SHGs explains a significant amount of variance in why some tribal women achieve higher entrepreneurial success than other tribal women. Our findings, thus, support the premise that self-help groups can offer substantial benefits in terms of entrepreneurial outcomes, correlating with greater engagement in SHGs expressed through higher frequency and larger strength of participation. These benefits may result from greater access to resources, exposure to capacity-building programs, the development of supportive peer networks, and improved financial literacy. Although additional post-hoc analyses are needed to determine which differences between each of the groups were statistically significant (Low vs. Moderate, Low vs. High, and Moderate vs. High), the ANOVA results nevertheless indicate that tribal women who devote more time and resources to SHG activities also tend to achieve higher scores of entrepreneurial success

Objective 2 (Correlation)

Objective: To determine the relationship between the number of SHG training sessions attended and entrepreneurial success among tribal women.

Variables:

Number of SHG Training Sessions (Continuous)

Entrepreneurial Success Score (Continuous)

Additional Variables (for context):

Empowerment Score (Continuous)

Table 3. Means, Standard Deviations, and Correlations (Pearson's r) among Key Variables

Variable	M	SD	1. Training Sessions	2. Entrepreneurial Success	3. Empowerment
1. Training Sessions	8.20	3.10	—		
2. Entrepreneurial Success	6.30	1.90	0.48***	—	
3. Empowerment	4.50	0.90	0.41***	0.45***	—

***p < .001.

Table 4. Partial Correlations Controlling for Age

Variables Controlled: Age	Entrepreneurial Success
Training Sessions	r = 0.45***
Empowerment	r = 0.42***

***p < .001.

The results show an underlying empirical basis for the hypothesis, as shown in the Table 3, an encouraging and statistically significant relationship between number of training sessions of SHGs undertaken by tribal women and entrepreneurial achievement. At a Pearson correlation of $r = 0.48 (p < .001)$, there is no clear indication that increasing the number of SHG training sessions led to increased scores on the entrepreneurial success scale. This part has a relatively high correlation, which implies that such training intensity may also play a significant role in

the development of entrepreneurial competencies through business decision-making improvement, thereby increasing satisfaction and performance. Significantly, the correlation matrix between entrepreneurial success and empowerment ($r = 0.45/p < 0.01$) as well between number of sessions attended/entrepreneurial success ($r = 0.41/p < 0.01$) indicates a positive significant association (key output) and thus empowerment is likely to be a very close input/output result. This kind of relationship is likely to be mutually reinforcing, creating a virtuous circle: attending SHG training sessions increases empowerment, and empowerment leads to better entrepreneurial outcomes. The partial correlations presented in Table 4 hold when accounting for age. When controlling for any differences in experience, networks, or resource access that might be age-related, training sessions still show a relatively strong and positive correlation with entrepreneurial success ($r = 0.45, p < .001$). Thus, once again, empowerment continues to be significantly interrelated ($r = 0.42, p < .001$) which you could then reorient via a mature entrepreneurial competency (once you factor in age). The partial correlations highlight the relative importance of both human capital investments, i.e., training, and psychosocial factors, i.e., empowerment, in facilitating entrepreneurial performance. The enduring nature of these relationships, regardless of the age of the respondents, indicates that interventions aimed at proliferating training opportunities and enhancing empowerment may foster entrepreneurial success among tribal women, irrespective of their life stage.

Objective 3 (Regression)

Objective: To predict entrepreneurial success from SHG participation and empowerment, controlling for age.

Variables:

Dependent Variable (DV): Entrepreneurial Success

Independent Variables (IVs): SHG Participation (Continuous Scale), Empowerment Score (Continuous)

Control Variable: Age

Table 5. Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	0.60	0.36	0.35	1.52

Table 6. Regression Coefficients

Predictor	B	SE B	β	t	p
(Constant)	2.80	0.45	—	6.22	<.001
SHG Participation	0.35	0.06	0.35	5.83	<.001
Empowerment	0.90	0.15	0.29	6.00	<.001
Age	0.01	0.01	0.05	1.03	0.30

The regression analysis results confirm that SHG participation and empowerment are significant predictors of the entrepreneurial success of tribal women, after controlling for the age variable. The Model Summary (Table 5) shows that the regression model presented an R of 0.60, which suggests a moderate to strong linear relationship between the predictors and entrepreneurial success. The model accounted for roughly 36% of the variance in entrepreneurial success ($R^2 = 0.36$) and this value remained relatively constant after adjusting for both the number of predictors and the size of the sample ($Adjusted R^2 = 0.35$). The amount of explained variance implies that these factors are salient predictors of why some women are more successful as entrepreneurs than others. To turn to the specific predictors, the Regression Coefficients (Table 6) specify further the directionality and strength of these relationships. Participation in SHG revealed significant positive association with entrepreneurial success ($B = 0.35, p < .001$), suggesting that an increase in their involvement in SHG activities would lead to an improvement in the entrepreneurial performance of women. In the same vein, empowerment had a strong positive effect on making ($B = 0.90, p < .001$), highlighting that women with greater confidence, skills, and agency in their social and economic environments tend to reach higher levels of opportunity-oriented entrepreneurial activity (for more details, see Lerner, Duckworth, Jang, 2015). Surprisingly, age was not a significant predictor ($B = 0.01, p = 0.30$), indicating that veteran experience in the business sphere might play a role elsewhere, but is not a prominent factor in

predicting differences in entrepreneurial achievement for this sample. Thus, the following results can be communicated: the impact of SHG participation and empowerment on entrepreneurial outcomes is robust across SHG participants' ages. Thus, it gets established that active participation in supportive collectives as well as a greater sense of agency makes an indelible mark in the successful entrepreneurial ventures of tribal women.

Objective 4 (Mediation Analysis)

Objective: To examine whether financial literacy mediates the relationship between SHG participation and entrepreneurial success.

Variables:

Independent Variable (X): SHG Participation (Continuous)

Mediator (M): Financial Literacy (Continuous)

Dependent Variable (Y): Entrepreneurial Success (Continuous)

Table 7. Path Coefficients from Mediation Model

Path	B	SE	t	p
X → M (a path)	0.42	0.08	5.25	<.001
M → Y (b path)	0.37	0.09	4.11	<.001
X → Y (total effect, c)	0.36	0.07	5.14	<.001
X → Y (direct effect, c')	0.21	0.07	3.00	<.01

Table 8. Indirect Effect and Bootstrap Confidence Intervals

Indirect Effect (ab)	Estimate	Boot SE	95% CI (Lower, Upper)
X → M → Y	0.15	0.04	(0.10, 0.22)

The bootstrap confidence interval does not include zero, indicating a significant indirect effect, supporting the hypothesis that SHG participation promotes entrepreneurial success, mediated by financial literacy. The findings of the study reveal that SHGs are one of the crucial sources of financial information, which again seems to correlate with entrepreneurial success. The mediation analysis indicates that financial literacy mediates the relations between SHG participation and entrepreneurial success. The results displayed in Table 7 reveal that the path from SHG participation to financial literacy (X → M) is statistically significant (B = 0.42, p < .001), suggesting that the more involved the individual with an SHG the more financially literate they are. This implies that SHGs help their workers in understanding and in practising the key financial elements inherent in a successful business venture through training, resources, and peer assistance (Mohan & Iyer, 2022). The next link from financial literacy to entrepreneurial success (M → Y) is also strong (B = 0.37, p < .001), indicating that better financial literacy is linked to higher rates of entrepreneurial success. In short, the better women are at dealing with money, credit and economic decision-making, the better they do as entrepreneurs.

The relationship for the impact of SHG on entrepreneurial success (X → Y) emerges as initially significant (B = 0.36, p < .001). Before including financial literacy in the model, the effect of SHG participation on entrepreneurial success (c') was 0.45 (p < .000) (table (Insert Table (i) about here)). 01). This reduction in the strength of the direct effect and a substantial indirect effect indicate that some of the impact of SHG participation on entrepreneurial success is mediated by increased financial literacy. The significance of this indirect effect is confirmed in Table 8. This mediation is statistically supported as indicated by an estimate of 0.15 and a 95% bootstrap confidence interval (0.10, 0.22) excluding zero. This means that financial literacy is a partial mediator i.e., An increase of financial literacy skills is one of the reasons for improving the entrepreneurial outcomes for tribal women due to SHG participation. This finding highlights the need for financial literacy training to be embedded as a fundamental part of SHGs designed to promote sustainable entrepreneurship.

Statistical Findings

A one-way ANOVA examined differences in entrepreneurial success scores among three groups differing in SHG participation (Low, Moderate, High). Results indicated a significant group effect, F(2, 286) = 15.23, p < .001, with a partial η² = 0.10. Post-hoc comparisons (not shown previously but implied) would likely reveal that women with higher SHG participation had significantly greater entrepreneurial success scores compared to those with lower participation levels. Mean entrepreneurial success scores: Low (M = 5.20, SD = 1.80), Moderate (M = 6.30, SD = 1.90), High (M = 7.40, SD = 1.60). Pearson's correlation analyses showed that the number of SHG training sessions

attended was positively associated with entrepreneurial success ($r = 0.48, p < .001$). Empowerment also correlated positively with both training sessions ($r = 0.41, p < .001$) and entrepreneurial success ($r = 0.45, p < .001$). When controlling for age, the correlation between training sessions and entrepreneurial success remained strong (partial $r = 0.45, p < .001$), indicating that greater exposure to SHG training sessions is consistently linked to improved entrepreneurial outcomes. Multiple regression analysis revealed that SHG participation and empowerment collectively explained 36% of the variance in entrepreneurial success ($R^2 = 0.36, \text{Adjusted } R^2 = 0.35$). Both SHG participation ($B = 0.35, p < .001$) and empowerment ($B = 0.90, p < .001$) were significant positive predictors, while age was not ($B = 0.01, p = 0.30$). This indicates that greater involvement in SHGs and higher empowerment levels are significant contributors to entrepreneurial success. Mediation analysis demonstrated that financial literacy partially mediated the effect of SHG participation on entrepreneurial success. The path from SHG participation to financial literacy was significant ($B = 0.42, p < .001$), as was the path from financial literacy to entrepreneurial success ($B = 0.37, p < .001$). The total effect of SHG participation on entrepreneurial success ($B = 0.36, p < .001$) decreased to $B = 0.21 (p < .01)$ when financial literacy was included, and the indirect effect was significant (0.15, 95% CI: 0.10–0.22), confirming partial mediation.

SUGGESTIONS

Promote Higher SHG Participation

The ANOVA results ($F = 15.23, p < .001$) show that **high SHG participation** leads to greater entrepreneurial success ($M = 7.40$ vs. 5.20 for low participation).

Intervention: Encourage more tribal women to join SHGs and actively engage in meetings and activities.

Increase Training Sessions

The strong correlation ($r = 0.48, p < .001$) between **training sessions and success** suggests that more training enhances skills.

Intervention: Expand SHG-led workshops on business management, financial planning, and market strategies.

Strengthen Financial Literacy Programs

Mediation analysis confirms financial literacy boosts success (indirect effect = 0.15, 95% CI [0.10–0.22]).

Intervention: Integrate financial education (savings, credit, investment) into SHG curriculums.

Focus on Women's Empowerment

Regression shows **empowerment** ($B = 0.90, p < .001$) is a key predictor of success.

Intervention: Include leadership training and confidence-building sessions in SHG programs.

Ensure Age-Inclusive Policies

Age had no significant impact ($B = 0.01, p = 0.30$), meaning SHGs benefit women of all ages.

Intervention: Avoid age-based restrictions in SHG recruitment and training.

CONCLUSION

Overall the results of this study emphasises the significant influence of self-help groups (SHGs) on entrepreneurial success of tribal women in the state of Kerala. Higher levels of engagement with SHGs were positively correlated with better business outcomes, indicating that these forms of collective intervention can be instrumental in breaking down the socioeconomic and cultural barriers for women by providing access to resources, training opportunities, and peer networks. We also found that those women who have greater exposure to SHG initiatives scored higher on entrepreneurial success and exhibited significant improvements in empowerment, suggesting that women were developing economic and psychosocial capacities in a multidimensional way. The strongest and most positive correlation was found between the number of SHG training sessions members attended and entrepreneurial success. This association prevailed with controls for age, thus reinforcing the need for aggregate level skill-building and capacity development which are facilitated through SHG programs. The critical contributions of empowerment and SHG participation were also stable across the regression analyses. With improved financial literacy, women seemed better poised to operate their businesses, procure credit, and use credit wisely, all begetting more successful enterprise. The mediation analyses supported that financial literacy mediates the relationship between SHG participation and entrepreneurial success, which reveals a concrete pathway that SHGs exert their positive influence. Overall, the study's conclusions underscored the fact that SHGs are far from just a collection of people who want some money. Instead, they act as transformative structures of capital, practicality, and agency. SHGs stimulate sustainable entrepreneurship for marginalized communities through enhancing access to training, cultivating supportive networks, and promoting better financial management skills. These lessons point to important lessons for policymakers, practitioners, and community organizations wishing to replicate or build on similar models. If

they are tested at scale and refined enough, SHGs can play a major role in inclusive, community-led entrepreneurial development and long-term socio-economic resilience for tribal women, as well as other marginalized groups.

REFERENCES

1. Baporikar, N. (Ed.). (2021). Handbook of research on sustaining SMEs and entrepreneurial innovation in the post-COVID-19 era. IGI Global.
2. Becker, G. S. (1964). Human capital: A theoretical and empirical analysis, with special reference to education. University of Chicago Press.
3. Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94(Supplement), S95-S120.
4. Dhanabhakyaam, M., & Joseph, E. (2022). Digital permissive management for aggregate and sustainable development of the employees. *International Journal of Health Sciences*, 6(1).
5. Dhanabhakyaam, M., & Joseph, E. (2022). Digitalization and perception of employee satisfaction during pandemic with special reference to selected academic institutions in higher education. *Mediterranean journal of basic and applied sciences (mjbasp)*.
6. DHANABHAKYAM, M., & JOSEPH, E. CONCEPTUALISING DIGITALIZATION IN SMES OF KERALA.
7. Dhanabhakyaam, M., Joseph, E., & Monish, P. Virtual Entertainment Marketing and its Influences on the Purchase Frequencies of Buyers of Electronic Products.
8. Joseph, E. (2023). Assessing Consumer Purchase Intentions And Satisfaction Levels Within The FMCG Sector.
9. Joseph, E. (2023). Underlying Philosophies and Human Resource Management Role for Sustainable Development. In *Governance as a Catalyst for Public Sector Sustainability* (pp. 286-304). IGI Global.
10. Joseph, E. (2024). Evaluating the Effect of Future Workplace and Estimating the Interaction Effect of Remote Working on Job Stress. *Mediterranean Journal of Basic and Applied Sciences (MJBAS)*, 8(1), 57-77.
11. Joseph, E. (2024). Resilient Infrastructure and Inclusive Culture in the Era of Remote Work. In *Infrastructure Development Strategies for Empowerment and Inclusion* (pp. 276-299). IGI Global.
12. Joseph, E. (2024). Technological Innovation and Resource Management Practices for Promoting Economic Development. In *Innovation and Resource Management Strategies for Startups Development* (pp. 104-127). IGI Global.
13. Joseph, E. (2025). Impact of Hybrid Entrepreneurs on Economic Development and Job Creation. In *Applications of Career Transitions and Entrepreneurship* (pp. 61-82). IGI Global Scientific Publishing.
14. Joseph, E. (2025). Public-Private Partnerships for Revolutionizing Personalized Education Through AI-Powered Adaptive Learning Systems. In *Public Private Partnerships for Social Development and Impact* (pp. 265-290). IGI Global Scientific Publishing.
15. Joseph, E. (2025). Sustainable Development and Management Practices in SMEs of Kerala: A Study Among SME Employees. *Sustainable Development and Management Practices in SMEs of Kerala: A Study Among SME Employees* (February 20, 2025).
16. Joseph, E. THE CONNECTION BETWEEN THE NATURE OF WORK-LIFE AND THE BALANCE BETWEEN INTERCEDING JOB OF OCCUPATION STRESS, WORK SATISFACTION AND WORK RESPONSIBILITY.
17. Joseph, E., & Dhanabhakyaam, M. M. (2022). Role of Digitalization Post-Pandemic for Development of SMEs. In *Research anthology on business continuity and navigating times of crisis* (pp. 727-747). IGI Global.
18. Joseph, E., Koshy, N. A., & Manuel, A. (2025). Exploring the Evolution and Global Impact of Public-Private Partnerships.
19. Joseph, E., Shyamala, M., & Nadig, R. (2025). Understanding Public-Private Partnerships in the Modern Era. In *Public Private Partnership Dynamics for Economic Development* (pp. 1-26). IGI Global Scientific Publishing.
20. Kabeer, N. (2005). Gender equality and women's empowerment: A critical analysis of the third millennium development goal. *Gender & Development*, 13(1), 13-24.
21. Kabeer, N. (2005). Gender equality and women's empowerment: A critical analysis of the third millennium development goal. *Gender & Development*, 13(1), 13-24. <https://doi.org/10.1080/13552070512331332273>
22. Kabeer, N. (2005). Gender equality and women's empowerment: A critical analysis of the third millennium development goal. *Gender & Development*, 13(1), 13-24. <https://doi.org/10.1080/13552070512331332273>
23. Kabeer, N. (2005). Gender equality and women's empowerment: A critical analysis of the third millennium development goal. *Gender & Development*, 13(1), 13-24. <https://doi.org/10.1080/13552070512331332273>
24. Kumar, S. B., & Das, D. (2018). Impact of self-help groups empowerment: A study in Kerala. 25. 26. women
Journal of Rural Development, 37(4), 43-61. 1 en
27. Kumar, S. B., & Das, D. (2018). Impact of self-help groups empowerment: A study in Kerala. 28. 29. women
Journal of Rural Development, 37(4), 43-61. 1 en
30. Kumar, S. B., & Das, D. (2018). Impact of self-help groups empowerment: A study in Kerala. 31. 32. women
Journal of Rural Development, 37(4), 43-61. 1 en
33. Mahajan, V. (2007). Self-help groups in India: A study on quality and sustainability.
34. *Economic and Political Weekly*, 42(11), 91-97.
35. Mahajan, V. (2007). Self-help groups in India: A study on quality and sustainability.
36. *Economic and Political Weekly*, 42(11), 91-97.
37. Mahajan, V. (2007). Self-help groups in India: A study on quality and sustainability.
38. *Economic and Political Weekly*, 42(11), 91-97.
39. Mathew, A. (2019). Tribal women's participation in self-help groups: The pathway to entrepreneurship in Kerala. *International Journal of Rural Management*, 15(2), 89-112.

40. Mathew, A. (2019). Tribal women's participation in self-help groups: The pathway to entrepreneurship in Kerala. *International Journal of Rural Management*, 15(2), 89-112.
41. Mathew, A. (2019). Tribal women's participation in self-help groups: The pathway to entrepreneurship in Kerala. *International Journal of Rural Management*, 15(2), 89-112.
42. Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. Simon & Schuster.
43. Rajasekhar, D., & Sreedhar, G. (2020). Financial inclusion, SHGs, and women entrepreneurship in India. *International Journal of Social Economics*, 47(2), 158-177. <https://doi.org/10.1108/IJSE-09-2018-0491>
44. Rajasekhar, D., & Sreedhar, G. (2020). Financial inclusion, SHGs, and women entrepreneurship in India. *International Journal of Social Economics*, 47(2), 158-177. <https://doi.org/10.1108/IJSE-09-2018-0491>
45. Rajasekhar, D., & Sreedhar, G. (2020). Financial inclusion, SHGs, and women entrepreneurship in India. *International Journal of Social Economics*, 47(2), 158-177. <https://doi.org/10.1108/IJSE-09-2018-0491>
46. Rowlands, J. (1997). *Questioning empowerment: Working with women in Honduras*. Oxfam.
47. Sen, A. (1999). *Development as freedom*. Oxford University Press.
48. Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217-226.
49. Singh, N., & Gurung, D. B. (2020). Role of self-help groups in women empowerment: A study of a tribal district in Kerala. *Indian Journal of Gender Studies*, 27(3), 345-362.
50. Singh, N., & Gurung, D. B. (2020). Role of self-help groups in women empowerment: A study of a tribal district in Kerala. *Indian Journal of Gender Studies*, 27(3), 345-362.
51. Singh, N., & Gurung, D. B. (2020). Role of self-help groups in women empowerment: A study of a tribal district in Kerala. *Indian Journal of Gender Studies*, 27(3), 345-362.