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# Group Dynamics Differences Between Women Self-Help Group Structures: Individual SHGs, Cluster Level Associations and Federation

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Abstract:- This study aimed to address the critical research gap in understanding self-help group dynamics in the Ethiopian context; whether there is a group difference between and among SHG structures in group dynamics effectiveness, and the extent to which group dynamics predicted the attitude of self-help group members. A correlational design was applied. A total of 372 participants were selected through simple random sampling. Oneway ANOVA and simple linear regression were the main data analysis methods. The one-way between-groups analysis of variance indicated statistically significant differences in group dynamics effectiveness among the three levels of self-help group structures (p<.001). A federation exhibited the highest level of group dynamics effectiveness (M=269), followed by cluster-level association (M=247), and then individual self-help groups (M=231). The effect size of Omega squared indicated that 25% of the variance in group dynamics effectiveness could be attributed to the differences between the three self-help structures, which could be taken as strong evidence that group dynamics has been impacted by the level of self-help structure. The finding also revealed a strong relationship between attitude and group dynamics effectiveness (r=.667, p<.001) and the regression for predicting attitude from group dynamics was moderately strong that 44.5% of the variance in attitude was predictable from group dynamics. The finding highlights the importance of promoting the formation of higherlevel self-help group structures to enhance the effectiveness in achieving their objectives. Exploring potential moderators that might influence the relationship between self-help group structure and group dynamics effectiveness could be a valuable next step.

Keywords: Attitude, Group Dynamics Effectiveness, Self-Help Group, Cluster-Level Association, Federation.

# 1. Introduction

Self Help Group (SHG) is a small voluntary mutual support group formed by people related by an affinity for a specific purpose who provide support for each other (1). It is characterized by voluntary membership and collective action that empower group members to address shared concerns and navigate a path towards improved well-being (2) that emphasizes self-reliance by mobilizing the internal resources of the group or the community (3). The SHG approach as a women's economic institution was introduced by Mohammed Yunus in 1975 (4;5). In Ethiopia, according to the Consortium of Self-Help Group Promoters (CoSAP), the SHG model was introduced in 2002 in Debre Birhan town by Non-Governmental Organizations (NGOs). Since then, many NGOs in Ethiopia have considered this approach the core part of their development programs (6). According to the 2022 annual report of CoSAP, the number of SHGs in the country is 15,171 SHGs, with 276,512 women members who accumulated over 5.3 million USD (291 million Ethiopian Birr) capital (7).

The SHG approach has three phases or structures, and it is based on the socio-psychological, economic, and political empowerment of people. In each phase the role and responsibility of SHGs are different and as moving

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up from one stage to the other stage, their capacity becomes stronger (2). The first level is the setting up of individual SHGs (the first level of the People's Institution) and the group size of individual SHGs in Ethiopia should be between 15-20 members (6;8). When SHG grows in number and begins to realize that there are problems they cannot solve without the help of other groups, eight to ten SHGs come together to form a Cluster Level Association (CLA). Finally, as the number of CLAs increases, eight to ten CLAs establish a Federation of SHGs to operate at a higher level, the third level. The Federation becomes an umbrella organization, which helps to strengthen CLAs (6;9).

Regardless of the SHG development phase or structure, the function of group dynamics is pertinent across all SHGs. The internal nature of the group and the significant forces that contribute to its performance can be studied by analyzing the dynamics of the group (10). Many previous studies have pointed out that the effectiveness of group dynamics contributes to the success of SHGs (4;5;11). Though there are limited theoretical frameworks on SHG dynamics, Social Identity Theory (SIT), by Tajfel and Turner, could be a valuable lens to explore and understand SHG group dynamics. This theory posits that individuals derive a part of their self-identity from their membership in social groups and strive to keep a positive social identity by associating with groups and influencing the group's characteristics (12). By viewing SHG membership as a source of social identity, it can influence individual behaviour within the group. Tuckman's Group Development Model is also another theory that describes five stages of group development; forming, storming, norming performing, and adjourning stage (13;14). This model can explain the group development of SHGs, as it is one form of group, to go through these stages. The GDE of SHGs across the stages could be determined by several factors including how members are interdependent, decision-making procedures, group norms, and communication, and how members understand and commit to the goal of the SHG, etc. The internal nature of the group dynamic forces interplay between the members of any SHG significantly contributes to its effectiveness; in other words, members' behaviour in a group directly or indirectly affects SHG's dynamic effectiveness (15).

GDE of SHG is relatively well explored in Asian countries such as India, Pakistan, Bangladesh, etc., but these studies focused only on the relationship between GDE of SHGs with socioeconomic and sociopsychological characteristics of SHG members. Earlier research studies, (3;4;5;10;16;17), indicated that group dynamics effectiveness of SHGs had a positive relationship and was influenced by variables including socioeconomic status, extension contact, social participation, and attitude of SHG members. however, these and other studies focused on the GDE of SHGs in general, and the GDE of SHGs across the SHGs at different levels of group development or SHG structures hadn't been yet investigated. Similarly, while these past research findings indicated that attitude predicted GDE of SHGs, these studies again couldn't examine whether GDE also influences the attitude of SHG remembers. In Ethiopia, the available studies are qualitative in their approach and focused on describing the overall challenges of SHGs and there exists a critical research gap in understanding the GDE of SHGs. Moreover, to the best knowledge of the researcher, no research worldwide has investigated whether the GDE of SHGs varies depending on their specific structure (individual SHGs, CLAs, and Federation). Thus, conducting a study and addressing this research gap is imperative to provide insights into the understanding of SHG dynamics at different levels of the SHG structures.

In this study, GDE is conceptualized as the function, interaction, and interpersonal relationships between members of SHG as measured by the sum of scores of nine GDE sub-dimensions. Higher GDE scores imply more effective group dynamics, characterized by greater participation, teamwork, empathy, and interpersonal trust among members, a positive group atmosphere, adherence to norms, cohesiveness, open communication, and decision-making procedures that guide the group's functioning and effectiveness. Attitude is conceptualized as the degree of a woman's positive or negative evaluation of SHG and other members within the SHG. According to STI theory members with positive attitudes towards a group and its goals are more likely to identify strongly with the group and exhibit behaviour that contributes to its success (18). Studies indicated that the attitudes of SHG members towards SHG, and its members were positively and significantly related to GDE (4; 16;17;19) and had a direct positive effect on the GDE of SHGs (10). To that end, while studies pointed to the influence of attitude on GDE, a critical question remains as to what extent the GDE also influence the attitude of SHG members towards SHGs and its members.

# 2. Objectives

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As mentioned, while there are available study findings and literature on GDE in the Asian context, there are no research findings and literature on the GDE of SHGs in Ethiopia. More importantly, while previous studies focused on the overall group dynamics effectiveness of SHGs, there are no prior studies that specifically study self-help group dynamics differences within the SHG structures. Therefore, this study aimed to fill this critical research gap by exploring group-level differences in GDE between and among the three stages of SHG development (individual SHG, CLA and Federation) and the extent to which group dynamics predicted the attitude of SHG members. Having these objectives, this study was designed to answer the following research questions:

- 1. Is there a statistically significant difference among the different levels of WSHG structure (SHG, CLA and Federation) in terms of GDE?
- 2. How well do group dynamics predict the attitude of SHG members towards their SHG and its members?

### 3. Methods

# Research Design

The overall approach of this study was quantitative and correlational design. This design was preferred to other designs as it allowed the researcher to examine the group difference among the SHG structures on GDE and examine the extent to which GDE predicted the attitude of SHG members. As to Creswell, correlational design explains or clarifies the degree of association among variables (20).

# Population and Sampling Techniques of the Study

The study population was women SHG members in Debre Birhan town. The total number of SHG members in Debre Birhan was 2,000 or 100 SHGs (21). The sample size was determined using the formula developed by Krejcie and Morgan (22). Accordingly, a total of 372 SHG members participated in this study, which was more than the minimum sample size (323). Research participants were selected using stratified and simple random sampling. First, the SHGs were stratified based on the three structures of SHGs (individual SHGs that are not members of a CLA, SHGs members of a CLA, and CLAs formed Federation) and simple random sampling was employed to select a total of 60 SHGs (20 SHGs per SHG structure [SHG, CLA and Federation]). Second, after the sampled SHGs were identified from each structure, simple random sampling was used to select SHG members from each structure (124 women from each structure). Thus, a total of 372 SHG members participated in the study.

### Instrument

A structured questionnaire was used to collect data. Group Dynamics Effectiveness Index (GDEI) was adopted with a reference to the GDEI developed by Purnima. The GDEI was reviewed by experts and further refined in the SHG context of Ethiopia. According to Creswell, one of the criteria in choosing an instrument is whether the instrument was widely cited by other authors as this may provide evidence of whether the items in the instrument provide good and consistent measures (20). Purnima's GDEI was developed in the context of SHGs and has been used by many researchers (4;5;11;23;24). The Group Attitude Scale (GAS) used in this study was developed by Evans & Jarvis (25), which is a 20-item self-report measure. Both the GDEI and GAS items were rated on a 5-point Likert scale with 68 and 20 items each, respectively.

### Procedures of Data Collection

The original GDEI and GAS instruments were in the English language. It later was translated into the local language (Amharic) by a language expert (PhD in Folklore). To ensure content validity, the Amharic version of the questionnaire was subjected to expert judgment (three Social Psychology academicians, one SHG practitioner, and a coordinator in CoSAP). A total of 10 data collectors took part with an educational background of a minimum of secondary school completion. Before data collection, these data collectors were trained in the data collection tool and research ethics and how their approach should be during the data collection process, and finally the data was collected through a face-to-face administration of the questionnaires.

### **Ethical Considerations**

Throughout the study process, all ethical considerations were strictly addressed. Before and during the data collection, each participant was informed about the purpose of the study and was asked for consent to take part in

the study including their right to participate, respond, and refuse to provide information. Therefore, fundamental ethical principles were strictly followed.

Data Analysis Techniques and Preliminary Assumption Testing

Data from the structured questionnaire was quantitatively analyzed through Statistical Package for Social Sciences (IBM SPSS) version 23. Descriptive statistics (percentage, frequencies, mean, and standard deviation), One-way ANOVA, and simple linear regression were used. A preliminary analysis was conducted to check the assumptions of ANOVA and regression. Accordingly, normality, outliers, and homogeneity of variance tests were performed, and all these assumptions were met. The homogeneity of variance assumption indicated the variances of the three groups were significantly different. Accordingly, the three groups were not significantly different (The F-value, F = 2.679, p > .05 since, p = .070).

# Reliability

This study used Cronbach's alpha as a measure to assess the reliability of the variables. The higher the reliability the higher the stability and internal consistency; the alpha values of the variables in this study ranged between .73 and 91 as shown in Table 1. According to DeVellis (26), comfort ranges for research scales, between .70 and .80, is respectable; between .80 and .90, very good; and much above .90.

**Table 1: Reliability Analysis** 

Variables	Number of items	Alpha value
Attitude	20	.73
Group Dynamics Effectiveness Index	68	.91

### 4. Result

In this section, an attempt was made to analyze and interpret the findings obtained from the data regarding the characteristics of participants, group dynamics effectiveness difference between and among SHG structures and how well GDE predicted the attitude of SHG members.

Demographic Characteristics of Study Participants

The Mean age of the women was 46 years with a standard deviation of 12.56. The majority (58.6 %) were in middle adulthood (36-60 years old), followed by early (25%) and late adulthood (17%). The educational status of the respondents showed that 67% of them attended formal education (primary and secondary education), very few of them (3%) had vocational training or completed secondary education, and the remaining 30% were either illiterate or functionally literate. In terms of occupation, most respondents (45%) engaged in a small petty business including selling Injera "Ethiopian thin pancake-like flatbread", vegetables, fruits, etc., 37% were housewives and 15% were casual or daily labourers. Besides, 32% of the respondents were not only SHG members, but also in charge of extra roles in the SHG including serving as chairperson, secretary, and/or bookkeeper of SHGs and/or committees.

**Table 2: Demographic Characteristics of Respondents (N=372)** 

Demographic	c characteristics	Frequency	Per cent	
	26-35	92	25%	
<b>A</b> 000	36-50	153	41%	
Age	51-60	65	17%	
	61-71	62	17%	
Education	Illiterate	62	17%	
Education	Functional literate or read and write	50	13%	

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	- Grade 1-6	99	27%
	Grade 7-8	58	16%
	Grade 9-12	91	24%
	Vocational/12+	12	3%
	Housewife	139	37%
Occupation	Casual/daily labor	56	15%
Occupation	Small or petty business	168	45%
	Employee (gov't/private)	9	2%
	Single	45	12%
Marital	Married	154	41%
Status	Divorced	73	20%
	Widowed	100	27%

Furthermore, as indicated in Table 3, in both variables (attitude and GDE), the Mean score of the Federation was the highest of CLA and individual SHGs while the lowest Mean score was observed in both variables under individual SHGs.

Table 3: Mean and SD score of SHG structures on GDE and other variables (N372)

			Women	Self-Hel	p Group St	ructures		
Variables	SHG		CLA		Federation			
	Mean	SD	Mean	SD	Mean	SD	Overall Mean and SD	
GDE	213.3	29.7	245.5	26.2	269.9	25.5	M=249.6, SD=31.4	
Attitude	78.1	5.9	81.0	6.7	83.8	5.7	M=80.9, SD=6.5	

Self-Help Group Difference in Group Dynamics Effectiveness

To examine if there was a significant difference between the three SHG structures or groups on GDE score as measured by the GDE index, a one-way between-groups analysis of variance was conducted. Participants were drawn from the three SHG structures (SHG, CLA, and Federation).

As indicated in the ANOVA table below, F(2, 369) = 62.84, p < .001, the three-group means were not equal, and there was a significant difference among the mean scores on GDE for the three groups that indicated a statistically significant result somewhere between the groups.

Table 4: ANOVA summary table

GDE	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	93029.699	2	46514.849	62.839	.000
Within Groups	273144.226	369	740.228		
Total	366173.925	371			

Since ANOVA shows only the overall group difference and doesn't tell which group was different from the other groups and as a significant difference was obtained on the overall ANOVA, a post hoc mean comparison was made. Accordingly, the post hoc mean comparisons under Table 5 revealed a significant difference between and among groups (P<.001).

Table 5: Multiple comparisons of SHG structures on GDE

(I) Women Self-Help Group Structures	(J) Women Self-Help Group Structures	Mean Difference (I-J)	Std. Error	Sig.
	CLA	-16.12903*	3.45531	.000
SHG	Federation	-38.56452*	3.45531	.000
CLA	Federation	-22.43548*	3.45531	.000

<sup>\*.</sup> The mean difference is significant at the 0.05 level.

The effect size, calculated using Omega squared, which is a lesser biased alternative to eta squared, was 0.25. This indicates that 25% of the variance in the GDE is explained by the group difference. Post-hoc comparisons using the Tukey HSD test indicated that the Mean GDE scores for each SHG structure were significantly different from each other. There was a statistically significant difference in the GDE scores between the SHG and the CLA, as well as between the SHG and Federation. Similarly, there was a statistical difference in GDE scores between the CLA and Federation. Taken together, as shown in Table 1, these results suggest that the GDE score of the Federation (M= 269, SD= 25) was the highest of CLA (M= 247, SD=26) and SHG (M= 231, SD= 29). Thus, the result revealed that there was a significant difference between and among groups of the SHG structure on GDE.

### The Prediction of GDE to the Attitude of SHG Members

The relationship between the attitude and group dynamics effectiveness (as measured by the GDEI Scale) was investigated. The analysis revealed that attitude has a statistically significant and strong positive correlation with GDE, r = .667 (p < .001). Hence, a simple linear regression was conducted to examine how well GDE could predict the level of attitude of SHG members towards their SHG and its members. Accordingly, the regression for predicting attitude from GDE was .445; 44.5% of the variance in attitude was predictable from GDE.

Table 6: Summary of Regression Model b

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.667ª	.445	.444	4.87174	1.798

a. Predictors: (Constant), GDE.

b. Dependent Variable: Attitude

The researcher further analyzed the data to determine the statistical significance of the amount of variations in the dependent variable explained by the effect of the GDE. In other words, the analysis focused on testing whether the regression model has correctly predicted the outcome variable in the population from the independent variable using one-way ANOVA. Table 7 presents the summary of the analysis.

Table 7. ANOVA<sup>a</sup> Summary Table

M	odel	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7042.944	1	7042.944	296.747	.000b
	Residual	8781.507	370	23.734		
	Total	15824.452	371			

a. Dependent Variable: Attitude

b. Predictors: (Constant), GDE

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The ANOVA reveals that the GDE has made a statistically significant prediction of attitude. The prediction is beyond the chance factor and the independent variable truly predicts the outcome variable - attitude.

### 5. Discussion

Self-Help Group Difference in Group Dynamics

The research finding points towards a positive and statistically significant relationship between the structure of SHGs and their GDE. The ANOVA and post-hoc Tukey HSD test indicated statistically significant differences in GDE scores among the three levels of SHG structures. The mean GDE scores showed a pattern of improvement as SHGs progressed to higher-level structures; the GDE scores increased from SHG (M= 231) to CLA (M= 247) and finally to the federation (M= 269). This means that as SHGs progress through their three phases, their GDE score tends to increase and the federation, composed of multiple CLAs, exhibited the highest level of GDE, followed by CLAs, and then individual SHGs. This suggests that as SHGs come together to form higher-level structures, their capacity to effectively manage group dynamics improves. Moreover, the difference in GDE score between structures is smaller between CLA and federation compared to SHG and CLA. This could indicate a gradual increase in GDE rather than a sudden jump. Each group establishes specific dynamics that may vary depending on size, individual skills and capabilities, social relations between group members, and more (27;28).

Federation, at the highest-level structures, have more developed and dedicated leadership structures and governance systems, and established coordination mechanisms promoting efficient decision-making, conflict resolution, and collaboration (2), contributing to higher GDE. The federation is likely to gain greater recognition and legitimacy from external stakeholders, including government agencies and NGOs. This can facilitate access to funding, broader networks, and training that improve GDE for member SHGs and other resources, further enhancing their GDE. In a study conducted by Reddy and Manak, federations are a key interface with the SHG movement because of their formal registration and recognition from external stakeholders (29). The federation can help SHGs' sustainability and effective and efficient mobilization (30). It is the highest structure in the SHG approach at the town/city level. Their agenda is society-level issues that are beyond the CLAs which include: addressing community needs (establishing community-managed resource center and creating access to knowledge and information, environmental protection, etc.), working as an extension arm of the government for literacy, immunization, mass awareness, etc.); and organizing rallies, lobby and advocacy for policy changes and protection of rights (2;6). Similarly, the CLA, bringing together multiple SHGs fosters knowledge sharing and resource pooling (9). This collaborative environment could promote problem-solving, mutual support, and a sense of community, contributing to a higher GDE score compared to individual SHGs. On the other hand, while forming the foundation, individual SHGs may face limitations in resources, experience, and scope of action. This can hinder their ability to address challenges, potentially leading to a lower GDE score compared to federations and

The individual SHGs can be seen as at the initial forming stage, building relationships, establishing roles, and defining goals. At this stage, the focus is on building trust and establishing roles within the group (Vipinkumar, 2001). As SHGs grow and encounter challenges, as they navigate power dynamics, communication styles, and differing perspectives, they cannot solve alone, they move into the formation of CLAs, where different SHGs come together to address common issues (CoSAP 2013;2015). This transition phase may refer to Tukman's "storming" stage. The transition to the "norming" stage may occur as CLAs mature and establish norms and procedures for collaboration, which increase cohesion and cooperation among member groups as they work towards shared goals. Finally, the higher GDE scores of federations suggest they might have reached a "performing" stage, where members work effectively towards shared goals, leveraging their collective strengths at their highest level of effectiveness. A federation serves as an umbrella organization that provides support and resources to CLAs, facilitating efficient and coordinated action to achieve collective objectives (CoSAP, 2016). According to Vipinkumar, at this stage SHG members show a high level of support for each other, personal

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relationships are based on personal knowledge and trust, and procedures and decision-making processes are effective (31).

SHGs appear most effective when trust and solidarity are built among group members which is developed when groups meet at frequent and consistent intervals and are highly institutionalized with clear and consistent structures for meeting, and leadership and a sense of shared identity (32). As SHGs progress to higher-level structures like CLAs and federations, members might develop a shared social identity as part of the broader group, which influences their behaviour and interactions. This shared identity might foster feelings of solidarity, and a sense of common purpose, leading to stronger group cohesion, and effectiveness. Federations, with their larger size and diverse perspectives, might have a stronger sense of collective identity and purpose, empowering them to tackle complex challenges, and contributing to their higher GDE compared to individual SHGs. Furthermore, taking the effect size of Omega squared ( $\omega^2$ ) of 0.25, 25% of the variance in GDE scores can be attributed to the differences between the three SHG structures. In other words, the structure of the SHG plays a substantial role in explaining how effective they are in terms of group dynamics. This also aligns with the overall finding that GDE scores increased significantly as SHGs progressed through their three-phase structure. It further strengthens the claim that the observed differences are not merely due to chance but reflect a meaningful relationship between structure and GDE. Thus, the medium effect size could be taken as evidence that the SHG structure has a significant impact on GDE.

Overall, the significant differences observed between individual SHGs, and higher-level structures (CLA and Federation) underscore the importance of collective action and collaboration among groups. It indicates that when SHGs join forces to address common challenges and goals, they become more effective in managing group dynamics. The highest GDE scores observed in the federation suggest that establishing a federation as an umbrella organization can significantly enhance the effectiveness of SHGs. Federations play a crucial role in providing support, coordination, and resources to lower-level structures, thereby strengthening the overall capacity of the SHG movement. According to some literature, as smaller SHGs became successful, larger umbrella organizations emerged to harness the energy of smaller groups and advocate for the rights of group members on the higher stage (1).

### Group Dynamics Predicted the Attitude of Self-Help Group Members

Regarding the relationship between GDE and attitude, SHG members with positive attitudes towards the group and its goals are more likely to actively participate, contribute valuable insights, and support other members and the group's goal. This study also found a strong positive relationship between the attitude of SHG members with GDE. Previous studies revealed that attitude had a positive relationship with GDE (4;5;16;17;38) and secured a first rank among the total indirect effect of variables on GDE, while it was second rank in its direct effect on GDE (33). Similarly, attitude towards SHG was the key variable in exerting considerable direct, indirect, and substantial effects on the GDE of SHGs (5). The higher effect of attitude with the GDE indicates that SHG members with favorable attitudes towards SHG were likely to influence the GDE to a great extent (10). Attitude towards SHG would certainly have inter-personal interaction and effective group dynamics and similarity in social background characteristics of SHG members leads to better interactions and effective group dynamics (5). According to SIT, individuals derive their self-concept not only from personal attributes but also from their membership in social groups. Positive attitudes toward their group are likely to enhance group cohesion and cooperation. Positive attitudes towards the SHG can strengthen social identity and ingroup solidarity. This, in turn, can motivate members to contribute to the group's success, fostering effective dynamics (34). Positive attitudes towards the group foster trust, cooperation, and open communication, leading to more effective decision-making. This, in turn, can reinforce positive attitudes, creating a virtuous cycle that enhances overall group dynamics (35). Given the strong correlation coefficient between attitude and GDE, the simple linear regression of the present study indicated that GDE also significantly predicted attitude. Hence, taking this and the previous studies in Asian countries, it could be concluded that there is a bidirectional influence between attitude and GDE of SHGs. Some researchers claim that group is extremely important in the development of attitudes and behaviors of individuals (36). In a similar study by Kidwell and Valentine, it has been proved that groups have positive characteristics such as developing the attitude of helping each other, providing cohesion and support between individuals, and facilitating interaction between individuals (37).

In conclusion, the research findings indicated a significant positive association between the structure of SHGs and GDE. A federation, composed of multiple CLAs, exhibited the highest level of GDE, followed by CLAs, and then individual SHGs. Further research can explore the causal mechanisms and contextual factors influencing this relationship to inform strategies for strengthening SHGs at all levels. The finding will play a pivotal role for SHG-promoting organizations to consider group dynamics and attitude in the formation and development of SHGs and their development of SHG manuals, guidelines, and capacity development training. The findings of this study have important implications for policymakers, practitioners, and stakeholders involved in the promotion and support of SHGs. The finding implies the importance of promoting the formation and strengthening of higher-level structures such as CLAs and Federations to enhance the effectiveness of SHGs in achieving their objectives. Exploring potential moderators that might influence the relationship between SHG structure and GDE could be a valuable next step. For example, are there specific characteristics of CLA or federation that are particularly linked to high GDE scores?

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