



ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 5.2
IJAR 2015; 1(10): 08-14
www.allresearchjournal.com
Received: 06-07-2015
Accepted: 09-08-2015

Kannappan Devaki
Assistant Professor,
Dept. of Veterinary and
Animal Husbandry Extension
Education, Madras Veterinary
College, Chennai-600007,
India.

Perumal Mathialagan
Professor and Head,
Dept. of Veterinary and
Animal Husbandry Extension
Education, Madras Veterinary
College, Chennai-600007,
India.

VE Sabarathnam
Adjunct faculty,
Dept. of Veterinary and
Animal Husbandry Extension
Education, Madras Veterinary
College, Chennai-600007,
India.

Correspondence
Kannappan Devaki
Assistant Professor,
Dept. of Veterinary and
Animal Husbandry Extension
Education, Madras Veterinary
College, Chennai-600007,
India.

Developing a cumulative scale for measuring the performance of self-help groups in rural areas

Kannappan Devaki, Perumal Mathialagan, VE Sabarathnam

Abstract

Considering the growing significance of self-help groups for women empowerment, a scale was developed to measure the performance of self-help groups in rural areas by using Guttman scale method. The present study was conducted in five blocks of Kancheepuram district with a sample size of 100 women to measure their performance. For the purpose of this study, a variable was operationalized to measure the performance efficiency of SHG's in rural areas in varying degrees of favourableness or unfavourableness. A total number of 34 indicators were finally selected and arranged randomly under eight dimensions in the scale consisting of 3-5 indicators in each dimensions. A two point response of agree and disagree were used as response categories. The co-efficient of reproducibility for each dimension was worked and overall co-efficient of reproducibility was found to be 0.991. Hence it can be accepted as very good scalogram. The relationship between responses of members of SHG's and officials of SHG's were found to have a positive and significant correlation.

Keywords: Performance of Self-help Groups, Women Empowerment, Guttman scale.

Introduction

In a country like India where the population already exceeds one billion and in its rural areas where almost half of its residents live below the poverty line – the ideology of Self Help Group (SHG) bears enormous potentialities to offer some alternative and innovative ways for nation to get rid of the vicious cycle of rural poverty.

SHGs have emerged as the appropriate people's institution which provided poor women with the space and support necessary to take effective steps towards greater control of their personal and social life. It is not a static body; rather it grows in its resources and management skills of its members. Their increasing confidence has motivated them for enhanced involvement in public spheres and has provoked them to undertake common action programmes. These groups manage and lend their accumulated savings and externally leveraged funds to their members.

Self-help groups are voluntary small group structures for mutual aid in the accomplishment of a specific purpose. They are usually formed by peers who had come together for mutual assistance, in satisfying a common need, overcoming a common handicap or life-disrupting problem and bringing about desired change. The seven distinctive characteristics of self-help groups are, voluntary activity, members having shared problems, meetings for mutual benefit, sharing the role of helpers and the helped, constructive action towards shared goals, groups run by members and groups existing without outside funding. Lots of resources are spent on SHGs including finance. Various Government and Non – Government organisations are moving heaven to earth for developing the SHGs. However the performance of SHGs is a mysterious one. Working together through formation of SHGs, members become self-reliant, confident, and more empowered economically (Mok, 2001 and Nylund, 2000) ^[6, 7].

As per the recent microfinance report released by NABARD on March 2012, a total number of 79.6 lakh SHGs with active bank-linkages are operating in India which have been able to ensure involvement of around 9.7 crore people of this nation, with an aggregate bank balance of Rs. 6,551 crores; simultaneously latest statistics also indicate that over 90% of SHGs in India consist exclusively of women (Anupam Hazra, 2013) ^[2].

Self Help Groups is the talk of the day. Lots of resources are spent on SHGs including finance. Various Government and Non – Government organisations are moving heaven to

earth for developing the SHGs. However the performance of SHGs is a mysterious one. Ackerly (1995) [1] developed the tools of development: credit programmes, loan involvement, and women's empowerment. Johnson *et al.* (2005) [3] investigated a new measure of personal empowerment in women, the Personal Progress Scale-Revised (PPS-R). Although Meena *et al.*, (2008) [5] and Mary and Ravichandran (2014) developed a scale to measure the attitude of rural women towards self-help groups, no one has thought of developing an instrument for measuring the degree of performance of SHGs. Keeping this point in mind, a performance orientated scale was developed to measure the performance of self-help groups in rural areas by using Guttman scale method.

Materials and Methods

In order to develop a standardized methodology for measuring the degree of performance of SHGs, a scale is attempted in this study. So far, no one has thought of developing an instrument for the purpose. Here a method called Cumulative scale is to be applied. This technique is specially used for developing a unidimensional scale.

Different dimensions of degree of SHGs performance were identified. For each dimension, indicators were identified which constituted the particular dimension. There were eight dimensions in the scale. It was standardised by working out the reliability and validity measures. Both test and retest method of reliability and split half method were used. In the case of validity, concurrent validity was estimated (Sabarathnam, 1987, 1989) [8,9].

Selection of Study Area

The exact study area was Kancheepuram district. Kancheepuram district is situated on the northern East Coast of Tamil Nadu and is adjacent by Bay of Bengal and Chennai city and is bounded in the west by Vellore and Thiruvannamalai district, in the north by Thiruvallur district and Chennai district, in the south by Villuppuram district and in the east by Bay of Bengal. It lies between 11° 00' to 12° 00' North latitudes and 77° 28' to 78° 50' East longitudes. The district has a total geographical area of 4393.37 Sq.Kms and coastline of 57 Kms.

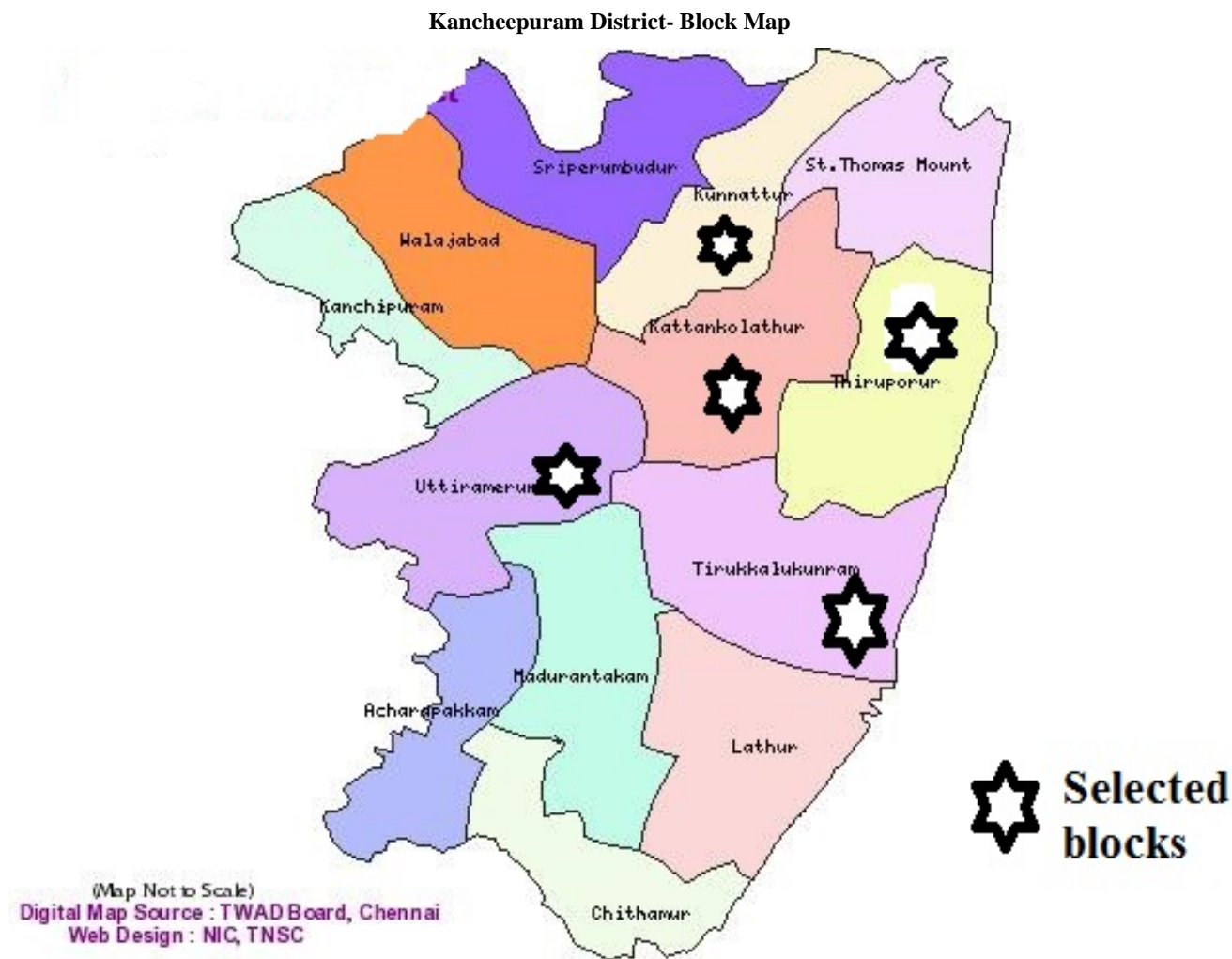


Fig1: Study Area

Sample Design

The study was taken up in the Kancheepuram district of Tamil Nadu after pretesting. Five villages viz., Ammanambakkam, Nariambakkam, Manappakkam,

Orakattupetta, and Polacheri were selected from five blocks (Kattangolathur, Kundrathur, Thirukazhukundram, Uttiramerur and Thiruporur block) respectively using stratified random sampling techniques. The scale can be used

by different agencies concerned with Self-Help Groups. A total number of 100 respondents from five villages were selected for the purpose of developing the scale. Data were also collected from 20 SHG officials from DRDA, *Magalirhittam*, Kancheepuram district, and SHG associates to study the relationship between responses given by them with that of the members of SHGs.

The list of indicators identified is given in the Table-1. These indicators could be considered in judging the performance efficiency of Self-Help Groups (SHGS). The indicators vary in degree of importance when the overall efficiency is concerned. The respondents were asked to rate each indicator in terms of you 'Agree' or 'Disagree' with that indicator in terms of measuring the performance efficiency of SHGS in Rural India.

Results and Discussion

Table 1: Indicators for Measuring the Performance Efficiency of SHGs in Rural India

S.No.	Indicators for SHGs	Agree	Disagree
A.	Financial Indicators		
1	Providing scope for poor-rural households to formal banking system		
2	Ensuring large economic benefits for low financial investment		
3	Encouraging smooth credit flow in remote areas of Rural India		
4	Creating alternative source of income for members and people at large		
5	Promoting thrift activities		
B.	SHG- Bank Linkage		
1	Pressurizing SHG members (mutually) for repayment of bank loan repayment		
2	Sustaining efforts to create empathy among bank staff of rural banks so as to make them provide fund even for loan defaulters among SHG members		
3	Promoting saving habits among members		
C.	Social Justice		
1	Building integrity among members of the same socio-economic back ground		
2	Strengthening voices of economically vulnerable sections of society		
3	As a monitor in social auditing of rural development institutes		
4	Acting as a pressure group for ensuring proper functioning of Gram Panchayat		
5	As a propagandist for proper use of community resources so as to create new livelihood opportunities		
D.	Social Upliftment		
1	Advocating modern technologies among members and others to protect families from various vulnerabilities.		
2	Promoting microenterprises among members and others		
3	Promotion of Agriculture, animal husbandry and allied activities		
4	Organising suitable capacity building activities for others before taking up any activity		
E	Internal Cohesion		
1	Promoting internal health of SHGs		
2	Engaging in activities for sustainability of SHGS		
3	Existence of self-monitoring mechanism		
4	Having a patch up committee within SHGS		
F	Self-Development Of SHGs		
1	Having tie-up with NGOs		
2	Having regular activities of capacity building for members		
3	Promoting media contact among members		
4	Having rapport with development departments		
5	Maintenance of records for all activities carried		
G	Gender Equality		
1	Advocating for equal rights for women in village activities		
2	Popularising ill-effects of dowry systems		
3	Promoting women leadership		
4	Protesting against ill-practices which prevents gender equality		

S.No.	Indicators for SHGS	Agree	Disagree
H	Social Mobility		
1	Promoting exposure to outside the village for input purchase and marketing the produces		
2	Strengthening the linkage with Government and Non-government agencies		
3	Promoting participation in nation building activity		
4	Field tour to various organization for knowledge gain among members		

Financial Indicators

It was observed that the total score for the individual five indicators under the dimension "Financial Indicators" was found to be 100. This showed that the response of SHG members were favourable towards the above said indicators. The Co-efficient of reproducibility was calculated for the above dimension using the formula

$$C_R = 1 - \frac{\text{Total number of errors}}{\text{Number of items} \times \text{Number of persons}}$$

The Co-efficient of reproducibility (CR) was found to be 1, which indicate that the dimension 'Financial indicators' is a perfect scalogram.

Table 2: Financial Indicators

S.No.	Indicators for SHGS	Total score	CR Value
A.	Financial Indicators		
1	Providing scope for poor-rural households to formal banking system	100	1.00
2	Ensuring large economic benefits for low financial investment	100	
3	Encouraging smooth credit flow in remote areas of Rural India	100	
4	Creating alternative source of income for members and people at large	100	
5	Promoting thrift activities	100	

SHG-Bank Linkage

From the Table-3, it was found that the indicator 1 and 3 were accepted by all the members and that for the indicator 2, the favourable responses given by the members were found to be only 88. The unfavourable responses were given by 12 SHG members. Hence, for the indicator 2, the cutting point was found to minimize the error and that the errors in this indicator was found and Co-efficient of reproducibility was worked out. The Co-efficient of reproducibility was found to be 0.990. Hence this dimension ‘SHG - Bank linkage’ can be accepted as an acceptable scalogram.

Table 3: SHG -Bank linkage

S.No.	Indicators for SHGS	Total score	Cr Value
B.	SHG- Bank Linkage		
1	Pressurizing SHG members (mutually) for repayment of bank loan repayment	100	0.990
2	Sustaining efforts to create empathy among bank staff of rural banks so as to make them provide fund even for loan defaulters among SHG members	88	
3	Promoting saving habits among members	100	

Social Justice

In this dimension, ‘Social Justice’, the total score for all the indicators were found to be 100. This indicates that all the five indicators in this dimension were agreed by the SHG members. There is no error in this dimension. Hence the Co-efficient of reproducibility was found to be 1 and that this dimension is a perfect scalogram.

Table 4: Social Justice

S.No.	Indicators for SHGS	Total score	CR Value
C.	Social Justice		
1	Building integrity among members of the same socio-economic back ground	100	1.00
2	Strengthening voices of economically vulnerable sections of society	100	
3	As a monitor in social auditing of rural development institutes	100	
4	Acting as a pressure group for ensuring proper functioning of Gram Panchayat	100	
5	As a propagandist for proper use of community resources so as to create new livelihood opportunities	100	

Social Upliftment

From the Table-5, in the dimension ‘Social Upliftment’, the SHGs agreed the first 3 indicators and the total score was found to be 100 for each indicator. But for the indicator 4, it was found that there were some unfavourable responses from the SHG members. Hence, the cutting point was drawn for this indicator 4 to find the error. The Co-efficient of reproducibility was found to be 0.98. Hence this dimension can be accepted as an acceptable scalogram.

Table 5: Social Upliftment

S.No.	Indicators for SHGS	Total score	CR Value
D.	Social Upliftment		
1	Advocating modern technologies among members and others to protect families from various vulnerabilities.	100	0.98
2	Promoting microenterprises among members and others	100	
3	Promotion of Agriculture, Animal husbandry and allied activities	100	
4	Organising suitable capacity building activities for others before taking up any activity	96	

Internal Cohesion

For this dimension ‘Internal cohesion’, from the Table-6, it is noted that all the indicators were agreed by the SHG members. Hence, this dimension does not have an error and that the Co-efficient of reproducibility was found to be 1. Therefore this dimension can be considered as a perfect scalogram.

Table 6: Internal Cohesion

S.No.	Indicators for SHGS	Total score	CR Value
E.	Internal Cohesion		
1	Promoting internal health of SHGs	100	1.00
2	Engaging in activities for sustainability of SHGS	100	
3	Existence of self-monitoring mechanism	100	
4	Having a patch up committee within SHGS	100	

Self-Development of SHG’s

It was found from the Table-7, that the members of SHGs were favourable towards all the indicators in this dimension ‘Self Development of SHGs’. Hence, this dimension does not have an error and that the Co-efficient of reproducibility was found to be 1. Therefore this dimension can be considered as a perfect scalogram.

Table 7: Self Development of SHG

S.No.	Indicators for SHGs	Total score	CR Value
F.	Self-Development Of SHGs		
1	Having tie-up with NGOs	100	1.00
2	Having regular activities of capacity building for members	100	
3	Promoting media contact among members	100	
4	Having rapport with development departments	100	
5	Maintenance of records for all activities carried	100	

Gender Equality

In the dimension Gender Equality, it was found from the Table-8 that only towards the first indicator, the SHG members have shown favourable responses. Besides the favourable response of the SHG members towards indicator 2 was 89 and that the responses for indicators 3 and 4 were found to be 99. The cutting point was drawn individually for each indicators 2, 3 and 4. The error was calculated and the co-efficient of reproducibility was found to be 0.977. Hence this dimension can be accepted as an acceptable scalogram.

Table 8: Gender Equality

S.No.	Indicators for SHGS	Total score	CR Value
G	Gender Equality		
1	Advocating for equal rights for women in village activities	100	0.977
2	Popularising ill-effects of dowry systems	89	
3	Promoting women leadership	99	
4	Protesting against ill-practices which prevents gender equality	99	

Social Mobility

In the dimension Social Mobility with respect to SHG members, it was found from the table-9 that the SHG members were favourable towards the indicators 1 and 3. There were some unfavourable responses noticed towards the indicators 2 and 4. Hence the cutting points were found for the indicators 2 and 4 separately and error was calculated for each indicator. The co-efficient of reproducibility was found to be 0.975. Hence this dimension can be accepted as an acceptable scalogram.

Table 9: Social Mobility

S.No.	Indicators for SHGS	Total score	CR Value
H	Social Mobility		
1	Promoting exposure to outside the village for input purchase and marketing the produces	100	0.975
2	Strengthening the linkage with Government and Non-government agencies	99	
3	Promoting participation in nation building activity	100	
4	Field tour to various organization for knowledge gain among members	93	

An overall Co-efficient of reproducibility for all the eight dimensions in the Guttman scale construction was found to be 0.991. Hence the above scale constituted for measuring the performance of SHGs in rural areas is considered to be a very good scalogram.

Opinion of the Officials

In the dimension 'Financial indicators', the 20 selected SHG officials were found to be favourable towards all the indicators. This showed that all the SHG officials have agreed to the indicators, indicated in this dimension. Hence, there occurred no error. The Co-efficient of reproducibility was found to be 1. Therefore this dimension can be considered as a perfect scalogram.

Table 10: SHG-Bank Linkage (Officials Opinion)

S.No.	Indicators for SHGs	Total score	CR Value
B.	SHG- Bank Linkage		
1	Pressurizing SHG members (mutually) for repayment of bank loan repayment	20	0.93
2	Sustaining efforts to create empathy among bank staff of rural banks so as to make them provide fund even for loan defaulters among SHG members	5	
3	Promoting saving habits among members	20	

In this dimension 'SHG – Bank linkage', from the table-10, it is noted that the SHG officials showed favourable response towards the indicators 1 and 3. It was found that one-fourth of the selected officials had given favourable response towards the indicator 2. The cutting point was drawn for this indicator 2 to measure the error. The co-efficient of reproducibility was found to be 0.930. Hence this dimension can be accepted as an acceptable scalogram.

Table 11: Social Justice (Officials Opinion)

S.No.	Indicators for SHGs	Total score	CR Value
C.	Social Justice		
1	Building integrity among members of the same socio-economic back ground	20	0.96
2	Strengthening voices of economically vulnerable sections of society	20	
3	As a monitor in social auditing of rural development institutes	17	
4	Acting as a pressure group for ensuring proper functioning of Gram Panchayat	20	
5	As a propagandist for proper use of community resources so as to create new livelihood opportunities	20	

In this dimension 'Social Justice', it was observed from the Table-11 that all the SHG officials have agreed and given favourable responses towards the indicator 1, 2, 4 and 5. Few SHG officials have recorded their resent towards the indicator 3 in this dimension. Hence the cutting point was drawn for this indicator to find out the error. The co-efficient of reproducibility was found to be 0.960. Hence this dimension can be accepted as an acceptable scalogram.

In all the other dimensions viz., the indicators scored full response towards the favourableness i.e. all these indicators were agreed by the SHG officials. Hence there occurred no error. The Co-efficient of reproducibility was found to be 1 for all the above five dimensions. Therefore these dimensions can be considered as a perfect scalogram. The overall co-efficient of reproducibility was found to be above 0.9 and hence the scale with above dimensions (along with indicators) was found to be a very good scalogram, as given by the Guttman, who devised the scale.

Hence using the above cumulative scale, it is possible to measure the performance of SHGs in rural areas. It acts as a scientific tool to measure the SHG performance activities, which can be used as a scale for awards etc. Besides, the relationship between the responses given by the members of SHGs and that of officials of SHGs were found by Spearman rank correlation co-efficient (r_s).

$$r_s = 1 - \frac{6 \sum d^2}{n(n^2 - 1)}$$

In this method, the scores for the 20 SHG members and 20 officials of SHGs for each indicator under various dimension of the constructed scale were compared by using the Spearman rank correlation co-efficient formula. It was found from the Table-12 that they

Table 12: Relationship between the responses given by the members and officials of SHGs

S.No.	Indicators	SHG Members Score	Rank Score	SHG Officials score	Rank score	d	d ²	Spearman rank correlation (r _s)
A. Financial Indicators								
1	1	20	3	20	3	0	0	1.000 **
2	2	20	3	20	3	0	0	
3	3	20	3	20	3	0	0	
4	4	20	3	20	3	0	0	
5	5	20	3	20	3	0	0	
B. SHG- Bank Linkage								
6	1	20	1.5	20	1.5	0	0	1.000 **
7	2	12	3	5	3	0	0	
8	3	20	1.5	20	1.5	0	0	
C. Social Justice								
9	1	20	3	20	2.5	0.5	0.25	0.750 **
10	2	20	3	20	2.5	0.5	0.25	
11	3	20	3	17	5	-2.0	4.00	
12	4	20	3	20	2.5	0.5	0.25	
13	5	20	3	20	2.5	0.5	0.25	
D. Social Upliftment								
14	1	20	2	20	2.5	-0.5	0.25	0.700 **
15	2	20	2	20	2.5	-0.5	0.25	
16	3	20	2	20	2.5	-0.5	0.25	
17	4	16	4	20	2.5	1.5	2.25	
E. Internal Cohesion								
18	1	20	2.5	20	2.5	0	0	1.000 **
19	2	20	2.5	20	2.5	0	0	
20	3	20	2.5	20	2.5	0	0	
21	4	20	2.5	20	2.5	0	0	
F. Self-Development of SHGs								
22	1	20	3	20	3	0	0	1.000 **
23	2	20	3	20	3	0	0	
24	3	20	3	20	3	0	0	
25	4	20	3	20	3	0	0	
26	5	20	3	20	3	0	0	
G. Gender Equality								
27	1	20	2.5	20	2.5	0	0	1.000 **
28	2	20	2.5	20	2.5	0	0	
29	3	20	2.5	20	2.5	0	0	
30	4	20	2.5	20	2.5	0	0	
H. Social Mobility								
31	1	20	2.5	20	2.5	0	0	1.000 **
32	2	20	2.5	20	2.5	0	0	
33	3	20	2.5	20	2.5	0	0	
34	4	20	2.5	20	2.5	0	0	

** Significant at 1 % level

Were significant at 1% level. Hence, there is a significant positive correlation between the responses given by the SHG officials and SHG members. Therefore it can be concluded, that both the groups have considered all the indicators as a positive indicators for measuring the performance of the SHGs.

Conclusion

A detailed analysis of finding out indicators for different dimension (8) was done by reviewing literature, discussion with the experts and guide and it was found that there could

be eight dimensions with a total of 34 indicators (with varying number of 3 to 5 indicators for different dimensions). A scientific analysis was done using scalogram technique.

Each dimension was considered as a scalogram. Surprisingly all the dimensions had an acceptable co-efficient of reproducibility of above 0.9. In some cases, it was one. Hence, this scalogram of eight dimensions can be used for measuring the performance of SHGs. It can be used for measuring the performance in any state or country which meets the need of the hour.

Acknowledgement

The authors are highly thankful to Tamil Nadu veterinary and Animal Sciences University for extending valuable cooperation in carrying out this research study.

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