# Direct and Indirect Effect between the Antecedent Characteristics of Women Self-help Groups of Gujarat and their Group Dynamics

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*Authors' contributions*

*This work was carried out in collaboration among all the authors. Author NDCP and designed the study, wrote the first draft of the manuscript. Author JKP performed the statistical analysis and wrote the protocol. Authors NKG, RDB and GM managed the analysis of the study and the literature searches. All authors read and approved the final manuscript.*

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## ABSTRACT

Self-help groups are informal associations of people who choose to come together to find ways to improve their living conditions. This paper presents the results of a study conducted in Ahmedabad district of Gujarat, India during the year 2018-19 to determine the direct and indirect effect between the members of women self-help groups and group dynamics effectiveness. The Direct and Indirect effect of antecedent characteristics of women Self-help groups and their group dynamics effectiveness was calculated with the help of path analysis. The path analysis of group dynamics effectiveness revealed that attitude towards SHG, annual income and market facility had exerted a positive and direct effect on group dynamics, while, mass media exposure, age and education had

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exerted maximum negative direct effect. Whereas economic motivation, social participation and market facility exerted maximum positive indirect effect and age, farm size and mass media exposure exerted an indirect negative effect. Attitude towards SHGs and economic motivation routed maximum times in the maximum substantial indirect effect.

## 1. INTRODUCTION

The concept of self-help groups (SHGs) emphasizes the principle of "for the people, by the people, and of the people". Self-help group is a small economically homogeneous and affinity group of rural poor women who voluntarily agree to contribute to a common fund to be provided to their members by the group's decision to work for group solidarity, self-awareness and group awareness, social and economic empowerment in a democratic way. Women's empowerment through self-help groups would bring benefits not only to individual groups of women and women, but also to the family and community as a whole through collective development action. These groups have a common perception of need and a collective action impulse. Empowering women is not only about meeting their economic needs but also about making social development more holistic.

The SHGs in our country have become a source of inspiration for women welfare. Now-a-days formation of SHGs is a viable alternative to achieve the objectives of rural development and to get community participation in rural development programmes [1-5]. SHGs are also a viable organized set up for disbursement of micro-credit to the rural women and encouraging them to enter into entrepreneurial activities. Group dynamics is concerned with the interaction of forces among group members in a social situation [6]. It is the internal nature of the group as to how they are formed, what their structures and processes are, how they function and affect individual members, other groups and the organization [7]. In the light of this, one domain is left largely uninvestigated i.e. the area of self-help group dynamics in which the exact motive behind SHG organization whether it is a temporary phenomenon or would continue on a sustainable basis, needs to be understood.

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. These dynamic forces interplay between the members of any working group and significantly contribute to productivity. It thus becomes very essential to study them. In light of this, a study was planned to identify the direct and indirect effect between the antecedent characteristics of women Self-help groups and their group dynamics effectiveness in Gujarat, India.

## 2. MATERIALS AND METHODS

The present study was conducted in Ahmedabad district of Gujarat state during the year 2018-19 to analyze the direct and indirect effect of antecedent characteristics of women self-help groups and their group dynamics effectiveness were calculated with the help of path analysis. The respondents were selected randomly from four talukas having a higher number of SHGs were selected and from each taluka, three SHGs were randomly selected, out of which ten members were randomly selected from each SHG, thus the total sample size constitutes 120.

To know the direct and indirect effect of independent factors on group dynamics effectiveness, the method of path co-efficient analysis [8] was employed. Path analysis is a form of statistical analysis of multiple regression that is used by analyzing the relationships between a dependent variable and two or more independent variables to test causal models. It also has a direction [9,10]. By using this approach, the magnitude and nature of causal relations between variables can be calculated. Study of the path is potentially useful because it requires us to define relationships among all independent variables, unlike other techniques. This results in a model showing causal mechanisms that generate direct and indirect effects on a dependent variable by independent variables.

## 3. RESULTS AND DISCUSSION

The thirteen independent variables were subjected to path analysis. The data thus, indicate that the observed relationship between the variables was only partially absolute and partially relative. Partially relationship was a contribution made by other variables exercising

**Table 1. Direct and indirect effect of personal, social and psychological characteristics of respondents on group dynamics effectiveness (n=120)**

| Sr. no. | Variables | Direct effect | Total indirect effect | Substantial indirect effect through | |
|---|---|---|---|---|---|
| | | | | **1** | **2** |
| 1 | $X_1$ Age | -0.0942 | -0.0998 | 0.0622 (X2) | 0.0271 (X13) |
| 2 | $X_2$ Education | -0.0642 | 0.0352 | 0.0424 (X1) | -0.0288 (X5) |
| 3 | $X_3$ Annual income | 0.2183 | 0.1707 | 0.0597 (X7) | 0.0580 (X11) |
| 4 | $X_4$ Farm size | 0.0334 | -0.0294 | 0.0072 (X12) | -0.0071 (X9) |
| 5 | $X_5$ Mass media exposure | -0.1183 | -0.0267 | -0.0531 (X2) | 0.0294 (X1) |
| 6 | $X_6$ Market facility | 0.1152 | 0.2058 | 0.0496 (X9) | 0.0338 (X7) |
| 7 | $X_7$ Social participation | 0.0146 | 0.2074 | 0.0043 (X6) | 0.0040 (X3) |
| 8 | $X_8$ Extension participation | -0.0429 | -0.0251 | -0.0079 (X4) | -0.0078 (X5) |
| 9 | $X_9$ Economic motivation | 0.0901 | 0.2419 | 0.0388 (X6) | 0.0349 (X13) |
| 10 | $X_{10}$ Market orientation | -0.0456 | 0.1906 | -0.0152 (X9) | -0.0104 (X13) |
| 11 | $X_{11}$ Cosmopliteness | 0.0164 | 0.1716 | 0.0044 (X3) | 0.0037 (X7) |
| 12 | $X_{12}$ Achievement motivation | 0.0771 | 0.1459 | 0.0171 (X13) | 0.0167 (X4) |
| 13 | $X_{13}$ Attitude towards SHG | 0.4543 | 0.1547 | 0.1761 (X9) | -0.1308 (X1) |

their influence jointly. It is, therefore, necessary to study the influence of one variable on other variable both directly as well as through other variables presented in the situation. The result of path analysis is presented in Table 1 and Fig 1.

## 3.1 Direct Effect

The data presented in Table 1 revealed that attitude towards SHG had exerted maximum direct positive effect (0.4543) followed by annual income (0.2183), market facility (0.1152), economic motivation (0.0901), achievement motivation (0.0771), farm size (0.0334), completeness (0.0164), social participation (0.0146). As far as negative direct effect is concerned mass media exposure (-0.1183) had exerted maximum direct negative effect followed by age (-0.0942), education (-0.0642), market orientation (-0.0456), extension participation (-0.0429) exerted a negative direct effect on group dynamics effectiveness of SHGs.

## 3.2 Total Indirect Effect

So far, the total indirect effect is concerned, nine variables had positive total indirect effect on GDE of SHGs. Further, it can be observed that economic motivation had maximum total indirect effect (0.2419) followed by social participation (0.2074), market facility (0.2058), market orientation (0.1906), completeness (0.1716),

annual income (0.1707), attitude towards SHG (0.1547), achievement motivation (0.1459) and education (0.0352). Only four variables viz. age (-0.0998), farm size (-0.0294), mass media exposure (-0.0267) and extension participation (-0.0251) had negative total indirect effect on the group dynamics effectiveness of the members of SHGs.

## 3.3 Substantial Indirect Effect

Data further revealed that out of 26 substantial indirect effects, four each routed through economic motivation and attitude towards SHG, three each routed through age and social participation. Two each routed through education, annual income, farm size, mass media exposure, market facility and one each through cosmopolites and achievement motivation.

With regards to substantial indirect effect, the first substantial negative indirect effect on GDE was put forth by attitude towards SHG (-0.1308) through age followed by mass media exposure (-0.0531) through education, market orientation (-0.0152) through economic motivation, However, first substantial positive indirect effect on GDE was put forth by attitude towards SHG (0.1761) of members of SHGs through economic motivation recognitions received.
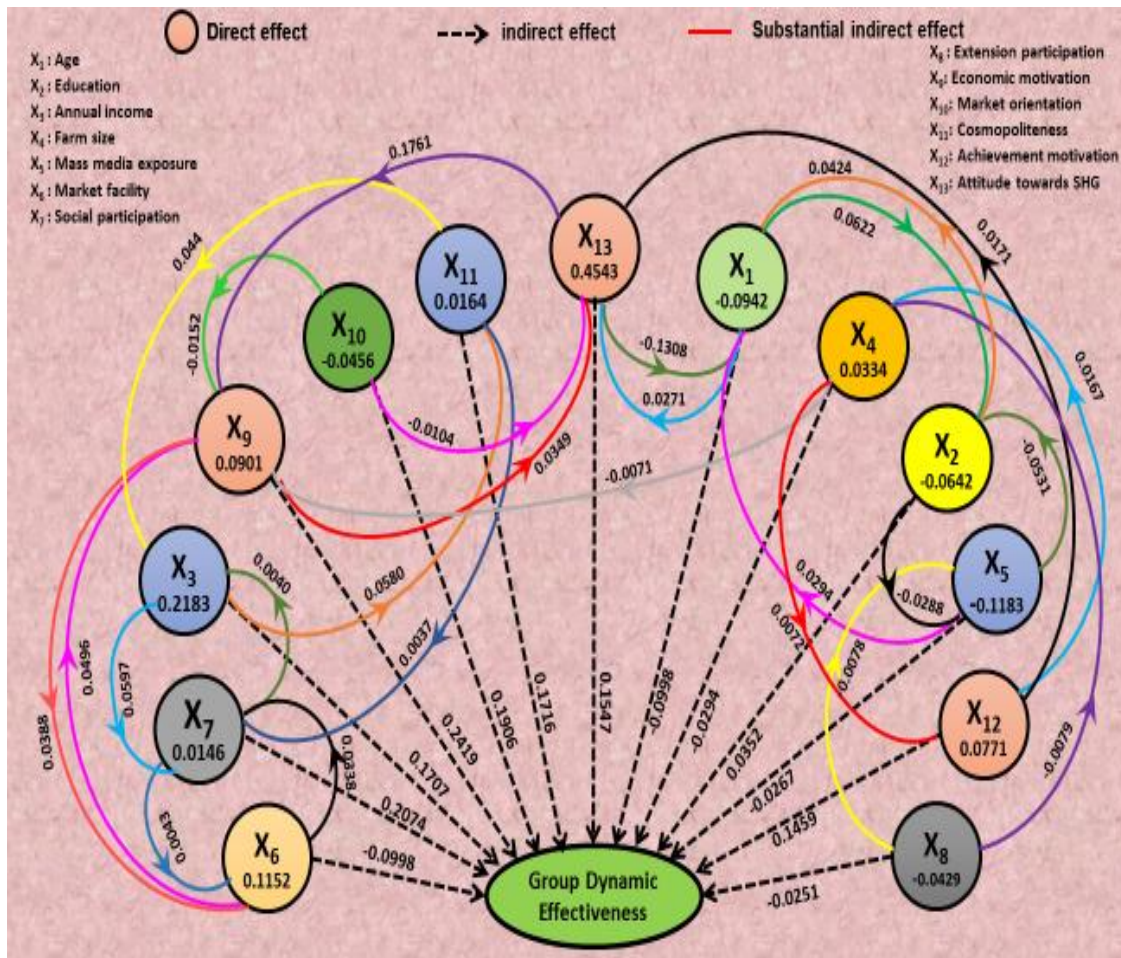
**Fig. 1. Showing direct and indirect effect of personal, social and psychological characteristics of members of SHG on group dynamics effectiveness**

## 4. CONCLUSION

The path analysis of group dynamics effectiveness showed that attitude towards SHG and economic motivation of the respondents were the key variables in exerting considerable direct, indirect and substantial effect on group dynamics effectiveness of SHGs. The higher effect of these variables with the group dynamics effectiveness indicates that the women self-help group members with favourable attitude towards SHG and high economic motivation were likely to influence the group dynamics effectiveness to a great extent. Suitable effective strategies may be adopted in case these attributes for an increased level of group dynamics effectiveness of members of self-help groups like financing bodies, extension personnel.

## CONSENT

As per international standard, Respondents' written consent has been collected and preserved by the author(s).

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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