

Impact of self-help groups, capacity building measures and perceived tension on women empowerment- an empirical study

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ABSTRACT

The current research seeks empirical insights into the women empowerment (WE) by focusing on the role of the self-help groups (SHG), capacity building (CB) measures and perceived individual tension (T). By applying multiple regression analysis on 351 survey responses in India, our findings suggest that WE emerges from two distinct attributes of the SHG members: surface-level (e.g., age, marital status, no. of children, income, whether spouse working, any other assistance) and deep-level (e.g., years of SHG membership, amount of loan availed, purpose of loan, educational level). Moreover, WE is a combination of five broad dimensions such as economic, political, social, legal and psychological empowerment. Further, a set of capacity building measures (i.e., training on governance, technology-driven livelihood support, promoting networking, social justice and harmony) helps to empower women. The study also explores four different categories of perceived individual tension (i.e., economic, social, legal, and technology-oriented learning) and their effects on WE. Finally, the perceived tension moderates the relationship between deep-level SHG attributes and WE.

Contribution/ Originality

The empirical study suggests that women empowerment emerges from two distinct attributes of the SHG members: surface-level and deep-level attributes. The study also explores a set of capacity building measures; different categories of perceived individual tension; and their effects on women empowerment in a non-Western context, i.e. India. The study has important managerial implications, and findings have the potential to direct private and public policy initiatives for empowering women.

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1. INTRODUCTION

Women empowerment (WE) is a core concept in emerging economies since from the 1990s and highlighted in the third Millennium Development Goal (Goldman and Little, 2015). The literature suggests various empowerment definitions like, control on decision making (Kabeer, 1999), ability to articulate strategic choices and control resources essential to reach the desired outcome and having the power capable of achieving expected outcomes (Laverack, 2006). The developing countries like India, Iran, and Turkey poses a unique scenario, women are educated and a pathway towards the empowerment (Kabeer, 2017). Still, empowerment is moderately less in both rural and urban areas in India even though the rise in economic growth from the past two decades (Lahoti and Swaminathan, 2016). India ranks 130 on 2018 Human Development Index (HDI). Poverty eradication is a vital issue due to gender inequality in economic growth. The effective way to fight for poverty is to encourage people in rural areas to join and avail the benefits from self-help groups (SHG) through microfinance.

The previous studies suggested that women are empowered by taking part in social activities (Poddar, 2013), encouraged them into entrepreneurship and income generating activities (Alemu *et al.*, 2018), entered into politics at state and local level (Kabeer, 2017), increased their self-confidence (Zimmerman, 2000) and familiar with legal aspects (Golub, 2003). The SHGs are mainly responsible for poverty eradication (Lavoori and Paramanik, 2014), and member utilized the SHG benefits around 85.58% of total SHGs (Kumar *et al.*, 2018). It is one of the largest microfinance programs in the world to reduce poverty in rural areas (Panda, 2009). SHGs members capable of starting a small business, drive to the economic growth of the country (Brouwer, 2002). Entrepreneurship acts as a catalyst for social and economic advancement to minimize poverty and generate job opportunities (Galindo and Méndez-Picazo, 2013).

The existing literature helps in identifying various attributes of SHG members that have a significant influence on WE such as age (Azra *et al.*, 2018), education (Nayak, 2010), marital status (Cherayi and Jose, 2016) and income and assets (Kabeer, 2001). The literature also suggests various solutions (i.e., in terms of capacity building measures) towards improving WE. The SHG members are capable of facing challenges and accomplishing opportunities, profiting both individuals and State (Shariff, 1999), linked with WE and economic growth (Kabeer, 2012). The capacity building occurs when a person achieves the wisdom of self-identity and confidence in explaining their views results in accomplishing a higher level of visibility in society (Coleman, 1988). If it happens, each will accomplish superior social status and resources (Bourdieu, 1984). The governance provides orientation, digital literacy, effectively interacting and awareness on legal aspects in gender equality results in poverty eradication.

The past works on WE to identify in recognizing a few important knowledge slits. First, many researchers of the field identified the SHGs help in achieving the goal of WE and in reducing poverty across the nations (Nair and Tankha, 2015; Basu and Srivastava, 2005). However, none of the studies have conceptualized all the dimensions of WE for empirical analysis. More specifically, very few studies have discussed how SHG leads to the legal and psychological empowerment, in addition to the economic, political and social empowerment (Eyben et al., 2008). Therefore, the primary motive of this paper is to understand how the different attributes of SHGs help the members in social, economic, political, legal and psychological empowerment. Second, although a majority of the studies have highlighted how micro-finance SHGs help in the overall well-being of women (Weber and Ahamad, 2014), very limited research has identified the failures and causes for low level and high-level empowerment, which may arise due to the perceived tension of individual SHG member. Therefore WE concept and it is linkages with various attributes of SHG members critically re-considered from the perspective of perceived tension or worries or stress in their life and family (Rocca et al., 2008). As pointed out clearly by Brody et al. (2015), there is a need for more rigorous research in order to examine probable factors that affect meditate and/or moderate the influence of SHGs on WE, to understand further the research directs through SHGs impact on empowerment

(Brody *et al.*, 2015). Additionally, the existing literature has also failed to conceptualize the various solutions (i.e., capacity building measures) that could help in improving WE. Thus, empirical studies on capacity building measures are also rare. *Finally*, there are several studies that have critically analyzed the process of WE and discussed its strategic implications, are primarily based on the field research (i.e., the researcher observes the day to day activities and ongoing behavior of SHGs member) (Bali and Wallentin, 2012; Basu and Srivastava, 2005). The field research such as direct observation and interviews are qualitative in nature. This discussion indicates that the empirical study based on a quantitative approach is also minimal.

Based on the above discussion, the objective of this study is to empirically examine the influence of the attributes of SHG members, capacity building measures and perceived individual tension on WE. The study argues that WE emerges from two distinct attributes of the SHG members, i.e. surface-level (such as age, marital status, no. of children, income, whether spouse working, any other assistance) and deep-level (such as years of SHG membership, amount of loan availed, purpose of loan, educational level). Accordingly, the five research questions are:

- 1. What role surface-level SHG attributes plays in WE?
- 2. What role deep-level SHG attributes plays in WE?
- 3. What effect capacity building measures has on WE?
- 4. What effect perceived individual tension has on WE?
- 5. Does perceived individual tension moderate the relationship between deep-level SHG attributes and WE?

Our prime contribution is three-fold. First, the current research is empirically designed to be the first to consider all the five dimensions (economic, political, social, legal and psychological) of WE into the analysis. The study considers different attributes (deep-level and surface-level) of SHGs members as key antecedents of WE. Second, the study explores possible factors (for example, perceived individual tension) that could moderate the impact of SHGs on WE. Finally, our results also contribute to an understanding of the role which capability building measures play in the process of improving WE.

2. CONCEPTUAL OUTLINE AND HYPOTHESES

In this research, WE include five aspects: Surface-level SHG attributes, Deep-level SHG attributes, Capacity Building Measures, Perceived Individual Tension, and dimensions of WE. In this article, both DL and SL attributes constitute an important driver to the WE. The researcher mentioned five demonstrative hypotheses and provided a brief rationale for them. Figure 1 illustrates our conceptual framework and provides exact information on these aspects inspected in this study.

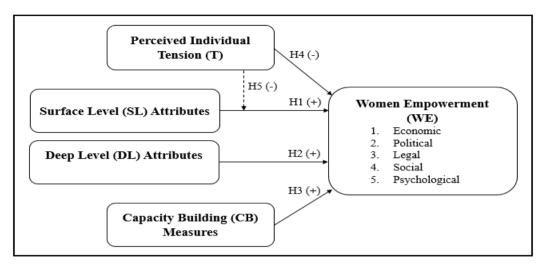


Figure 1: Conceptual model and hypotheses

2.1. Surface-level SHG attributes

Women empowerment and gender equality play a salient role in today's world. The determinants of WE categorized as an individual, household and socio-cultural (Parveen and Leonhauser, 2008). Considering these individual dimensions of WE, several researchers have suggested age as a significant and positive factor in the process of WE. Women enablement differs based on the lifespan of her rights and duties change with her age (Jejeebhoy, 2002). Looking at these determinant ,the National Institute of Population Research & Training, and Demography and Health Survey project in Bangladesh (BDHS), have collected data on 11440 women between the age group of 10-49 years, and framed the WE index comprises of economic decision making, household decision making, and physical mobility (Niport and Macro, 2005). The outcomes testify that women in the age group of 20 years are less empowered compared to women between the age group of 40-44 years. Hence, the increase in women age influences economic decision making (Khan and Maan, 2008).

In a similar vein, the study by Haque *et al.* (2011) revealed that empowerment and independence are related to three parameters such as household decision making, physical mobility, and economic decision making; further, signify that empowerment is higher in the older age groups. In emerging countries, the women age and family background are influential factors. The higher age enhances the maturity, experiences and deep understanding level, which further suggests that women can take a wise decision in families. Then women at work-place able to accomplish higher position lead to social, political, psychological and legal empowerment (Azra *et al.*, 2018). In Asian countries like India, the supremacy of women regarding cash earning leads to financial empowerment as the age level increases (Nayak, 2010). Likewise, in Bangladesh, the daughter-in-law is responsible for managing domestic work; mother-in-law is responsible for taking decisions in their families (Haque *et al.*, 2011). Therefore, one can conclude that age has a positive impact on WE.

Marital Status is another variable that could lead to WE. Marital status brings both positive and negative impacts on WE. In olden days, women poorly treated like violent behavior of mother-inlaw over daughter-in-law, discrimination of daughters, partner's less attention, and preferences are given to son in families. This scenario portraits the women marital status is lesser in society leads to the discernment of females in the country (Shaffer, 1998). However, marital status still has a positive impact on WE. The spouse can understand the present financial situation in the family and permit their spouse to go for work or join the self -help groups. Women get complete independence and power able to decide for the family, providing children education and nutritious food, family planning, increase in purchasing power, reduced poverty and more considerable freedom from domestic violence in the households (Kabeer, 1999). The marital status leads to WE, however, causes violence in situations where women have purchasing power, involve in buying assets, participate in political activities, and an increase in status in society perhaps lead to a situation where they start neglecting their husbands to the certain extent. Thus the marital status gives a mixed kind of impact on women life.

Further, the number of children has a limited influence on WE in the Indian context. SHGs members will take responsibility for progenies by providing nutrition, education and good health. Thus, the members able to manage all the duties including a decision on daughter marriage and they felt empowered (Lepine and Strobl, 2013).

The literature further suggests that an individual income has a significant impact on WE (Blumberg, 2005). The earnings play a self-motivated and robust role in WE. Income enhances bargaining power and active participation of members in household decision making. Then earnings increase the bargaining power of women in society (Khan and Awan, 2011). If a husband is not working in the family, the spouse permitted to join women in SHGs and to help their families to minimize poverty and domestic violence in their households result in the WE (Kabeer, 1999).

Any other form of assistance to SHG member could have a limited influence on WE. The members draw a financial benefit, healthcare benefits; in addition to that they get rewards for their performance in groups, based on their savings, attendance in regular meetings, timely loan repayment, ability to market their products and involvement in other societal activities (Poornima and Philip, 2017). Also, the regime provides tax exemption to market their products at the state and national level. Government has constructed shops and provided a vehicle for marketing their products at the village, taluk and district level. This kind of facilities encourages women into entrepreneurship in both micro and macro levels, the term is also known as women entrepreneurship or women social entrepreneurship (Gupta and Chatterjee, 2018).

Based on the above discussion, in our current study the surface-level SHG attributes refers to an assessment of a collection of demographic profile information about the respondent like time of life(age), marital status, number of children, income, whether husband working and any other assistance to achieve the common goal of empowering women in the deprived segment. Thus, it is proposed:

Hypothesis 1: Surface-level SHG attributes are positively associated with WE.

2.2. Deep-level SHG attributes

The existing literature suggests that member long time association with SHGs helps in empowering women across economic, social, political, legal and psychological dimensions of WE (Kabeer, 2011) to eradicate poverty and gender inequality.

Further, the bank linkage programme of SHGs mainly focused on improving the overall wellbeing of women by reducing poverty (Lavoori and Paramanik, 2014). According to recent data, 6.76 million women's SHGs formed by this linkage programme. The SHG is one of the most extensive microfinance programmes that provides loans to women and reduce poverty in India. Conventionally, availing the loan in olden days, and the present scenario is entirely different. From the borrowers perspective few studies have highlighted some of the issues such as the fault in financial facilities such as group members irregular savings (Sriram and Parhi, 2006), availed lower amount of loan with higher interest (Karmakar, 2009), taking loans from either formal or informal sources other than SHGs (Guerin *et al.*, 2013) and low repayment bank loans. Due to financial performance women able to access the additional monetary benefits through their federations or cooperative societies (Vasimalai and Narender, 2007). However, toady's setup norms have been strengthened and the success of SHG members to achieve financial autonomy, regular savings, internal lending facilities, financial linkages, maintaining register without any support (Shetty, 2009).

The existing studies help us in understanding the purpose of loans and other credit facilities (Kumar *et al.*, 2018). Pitt and Khandekar (1998) mentioned in research in Bangladesh, that Grameen Bank helps the women by serving the purpose of money utilized for the workforce, educate their kids, household expenditures, providing health facilities to the deprived segment. There is a positive impact on the economic empowerment of women in Andhra Pradesh by the eradication of poverty by using this monetary benefits (Deshmukh, 2004) results in the WE, financial independence and social recognition (Bali and Wallentin, 2012). The members has undertaken the financial facilities and implemented innovative project 'Chetna' organic farming in Odisha, helping the poor women regarding improving their standard of living, reducing agriculture expenditures and therefore, less financial dependency in households (Altenbuchner *et al.*, 2017).

Education increase the employability opportunities - WE linked with education which provides selfconfidence, self-esteem, and self- awareness to women, able to make decision making on their own in the family (Azra *et al.*, 2018). Haque *et al.* (2011) mentioned the education leads to the highest level of WE in Bangladesh by considering their importance in economic and household decision making. Literacy helped the women not only in the eradication of poverty but also providing them with earnings and social recognition through empowerment (Chatterjee *et al.*, 2018).

Based on the above discussion, in our current study, the deep-level SHG attributes refers to an assessment of a collection of information about the number of years of SHG membership, the amount of loan availed, the purpose of the loan and the educational level of the member in empowering women in the deprived segment. Thus, it is proposed:

Hypothesis 2: Deep-level SHG attributes are positively associated with WE.

2.3. Capacity building measures

The capacity building measures refer to the improvement or betterment of SHGs members through enriching the activities related to WE. The extant literature suggests that training on governance is an important aspect of capacity building measures. Good governance, equality in gender and WE are necessary conditions to reduce poverty in emerging economies (Baden, 2000). Gender equality is the central pillar and enhances the excellent training on governance and poverty reduction for sustainability requires women involvement (Kabir *et al.*, 2018). SHGs are informal and formal organization, and they have weak governance. The capability of members in the governance is weak due to limited knowledge of political and legal norms, thus require strong governance to help poor women. Training on governance helps the women enter into politics at the local level and involves in discussion with regime officials. Thus, proper training on governance leads to social economic, political, psychological and legal empowerment of women such as their participation in election campaign, social and entrepreneurial activities, literacy training programmes, policies formulation and related activities to fight against superstitious beliefs and awareness of injustice in the society.

Technology-driven affordable livelihood support helps women to create more economic opportunities and minimizes poverty in developing countries. The usage of computers or the internet is limited in rural areas and deprived community segment, still rely on the traditional media (Munyua, 2000). Therefore, it is necessary to empower them with technology (Norrish, 1999). Moreover, digital literacy is vital for members regarding health care, family planning, education, marketing, legal awareness, and employment opportunities. In India, satisfactory efforts are taken to uplift the women by introducing technology such as RuPay cards to the deprived segment in rural areas (Singh and Naik, 2018).

Network building is an essential part of WE. In SHGs, networking is an essential factor for empowerment. The networking brings poor women together for common goals to achieve economic growth leads to the empowerment of women (Reddy and Manak, 2005). Women formed a group formally or informally as SHGs and saved the money for a small business (Datta and Gailey, 2012;

Reddy and Manak, 2005). Further, for promoting networking in SHGs, six elements have been identified such as effective networking, communication, knowledge, and information based discussion, periodic meetings, formulation of policies for SHGs, and organizing social events at local, state and national level (Datta and Gailey, 2012). The formulation of policies is important in order to save and secure the environment for women specifically women welfare (Fatima, 2017). With the help of social networking in the SHGs, members can take the right decisions in families, manage with the finances and take a decision on financial matters (Brody *et al.*, 2015). Therefore, networking helps in building the trust, harmony, and respect from the family and others.

Social justice and harmony is another important aspect of WE. Social justice refers to the moral and ethical conduct of the deprived segment in India. Several incidents have been noticed on SHGs resolving conflicts between the group members and the community. Thus social justice leads to women empowerment and achieved social harmony in society. There are several castes and religion in India. SHGs that are framed with mix caste model bring the harmony between the members and the communities, for the growth perspective and WE (Reddy and Manak, 2005). Social justice and harmony also help in eradicating the stigma of casteism and untouchability through SHGs.

In this current study, the capacity building measures comprise of four categories: training on governance; technology-driven livelihood support; promoting networking; and social justice and harmony. Therefore, based on the above discussion it is proposed:

Hypothesis 3: Capacity building measures have a positive impact on the WE.

2.4. Perceived individual tension

The Indian history tells us that women were ill-treated in society and ignored in various spheres of life, result in lack of empowerment in women. Women are restricted to travel, limited to education and job opportunities, and less involvement in social, political and economic activities (Kantor, 2003). The absence of empowerment results in the negative impact on women's life such as poor health, inequalities in the allocation of family resources, limited medical facilities and education (Moonzwe *et al.*, 2014). The gender disparity leads to the poor health of many women causes tension in their life (Patel *et al.*, 2006). Tenshun which derived from the English word 'tension' explained as health issues due to poverty, less education, too much work at households, husband addicted to alcohol, domestic violence and marital difficulties linked with less empowerment of women (Ramasubban and Rishyasringa, 2001).

Rocca *et al.* (2008) study further revealed that in South India, women are actively involved in SHGs, training on education, marketing, and other job opportunities, the coordination problem with the spouse turned into domestic violence in their families. This situation results in stress-related tension (Tuladhar *et al.*, 2013). Therefore, the high level of involvement in SHG activities causes perceived individual tension. Similar evidence is found in Bangladesh, where this situation rises conflict on properties and women earnings leads to stress in the family (Schuler *et al.*, 1998).

Studies also suggest that there is an increase in women financial contributions to the family without keeping any accountability, fulfill the basic needs of families, but gender inequality results into stress in family and community, eventually decreases the emotions of the overall wellbeing of women (De Hoop *et al.*, 2014). Another study by Goetz and Sen (1996) revealed that monetary benefits availed by the women do not know how to utilize the money. Majority of members are married but less educated, and there is no control over money and allows the stress on their households.

Therefore, the current study argues that perceived individual tension is comprised of four different types: economic, social, legal and technology-oriented learning. This, it is proposed:

Hypothesis 4: Perceived individual tension is negatively associated with WE.

2.5. Moderating effect of perceived individual tension

The past study revealed that long terms association of SHGs helps the members to expand their business rather than selling their products at subsistence marketplaces, able to market the products at taluk, district, and state level (Gupta and Chatterjee, 2018). Training in hygiene and wellness of health, mentoring other members, handling with segregation of widows, community leader, mobilization of members for societal works results in the women empowerment. Due to worries in the family, members feel low, not able to perform work properly with much insecurity, and less confidence leads to disempowerment (Ali and Hatta, 2012). In order to get long-term benefits of SHG membership, in general, members have too much of freedom, mobility, braveness, training on banking, self-confidence, active involvement in civic problems, participation in election campaign and taking a significant part in decisions without consulting husbands, earnings assets and spouse misuse financial sources from the wife arises conflict between them caused perceived tension in their households (Anderson and Baland, 2002).

The existing study affirmed that loan obtained from SHGs, women met their basic needs and increased their work efficacy, gained social visibility in the society (Kumar *et al.*, 2018; Bali and Wallentin, 2017).

The past research provided the information on the reason to avail loans are household expenses, animal husbandry and resolved the social crisis. Rajendran and Raya (2011) study revealed that the purpose of loan utilized for animal husbandry, small business, utility expenditures, agriculture and good food for their kids leads to fewer worries. Saikia and Patwari (2013) explained in the study that members in Arunachal Pradesh utilized the loan for children education, small business, providing medical treatments, agriculture, handloom, and handicrafts. The study found the members utilized the loan for social business, animal husbandry, immunity and good health, domestic consumption like buying groceries, education to their children and agriculture (Nalini *et al.*, 2014). Some studies identified that women availed the loan for domestic and children education purpose but the high risk involved due to husband physical abuse, harassment and discriminating wife for money causes tension in the family (Swope, 2010).

The extant literature revealed the education provides a positive role in WE and supported by many scholars (Mishra and Nayak, 2010). Literacy leads to higher WE (Kabeer, 2001). Sometimes women education, job opportunities and high-level empowerment caused worries in the family. The conflict affects the directly marital relationship between the husband and wife. The study found that in Bangladesh, women in rural areas accomplished mobility and financial independence. These caused domestic violence and resulted in worries in households (Schuler *et al.*, 1998). Hence, based on the above discussion, the study proposes:

Hypothesis 5: The relationship between deep-level SHG attributes and WE is negatively moderated by perceived individual tension.

3. DATA AND METHOD

3.1. Survey instrument

The survey research method is incorporated into the research. Since the prime objective of this study is to empirically examine the influence of the attributes of SHG members, capacity building measures, and perceived individual tension on WE, it gives itself to a quantitative study. The questionnaire was used for the survey. The items planned to evaluate the various dimensions of WE, problem and challenges (i.e. perceived tension which individual SHG member faces in the process of WE), and solutions to improve WE (i.e. capacity building measures of WE). The questionnaire was developed by using opinions from the 16 domain experts of the field as well as based on past studies. Accordingly, the questionnaire was structured and divided into five sections. All constructs were measured by using multiple items. Section A –demographic questions (known as surface-level SHG attributes) and section B –questions related to deep-level attributes of SHG members. An initial 42-

item scale was developed to measure various dimensions of WE (under section C), the 15-item scale for measuring perceived individual tension in the process of WE (section D), and 15-item scale for the capacity building measures (section E). All items were measured using a five-point Likert-type scale.

3.2. Data collection

An expert was appointed for the data collection in a state of Karnataka, India during the period between Dec 2017 and Aug 2018. The criteria for participants selection was based on demographic factors; no of SHG groups in the specific villages in districts; members affiliation in years; and taking into consideration of time frame of each SHG group when started. By considering all above criteria, around 362 completed responses were initially collected. However, eleven responses were incomplete and thus eliminated. Finally, 351 responses were found original, legitimate and reliable, considered for further analysis.

3.3. Data analysis

Data has been analyzed in two different steps. In the first step, an exploratory principal components factor analysis (PCA) (using SPSS software version 24) with varimax rotation and Kaiser Normalisation was accepted to recognize the factors that come on the women empowerment of the variables. PCA also allows the researcher to evaluate the convergent and discriminant validity of the construct measures (Churchill and Lacobucci, 2005). The factor loadings and the reliability of the constructs are reported in Appendix A, B, and C. Further, a confirmatory factor analysis (CFA) using AMOS Version 18, was used to confirm the factors in the study.

In the second step, various hypotheses are examined in the following system of equations:

$$WE = \alpha_2 + \beta_{21} (DL1) + \beta_{22} (DL2) + \beta_{23} (DL3) + \beta_{24} (DL4) + e_2 \qquad \dots \dots \dots (2)$$

$$WE = \alpha_3 + \beta_{31} (CB1) + \beta_{32} (CB2) + \beta_{33} (CB3) + \beta_{34} (CB4) + e_3 \qquad \dots \dots \dots (3)$$

$$WE = \alpha_4 + \beta_{41} (T1) + \beta_{42} (T2) + \beta_{43} (T3) + \beta_{44} (T4) + e_4 \qquad \dots \dots \dots (4)$$

$$WE = \alpha_5 + \beta_{51} (DL_i) + \beta_{52} (T_j) + \beta_{53} (DL_i x T_i) + \dots + e_5 \qquad (5)$$

WE is the women empowerment; DL is the deep-level SHG member attribute; SL is the surface-level SHG member attribute; CB is the capacity building measures; and T is the perceived individual tension.

4. FINDINGS

4.1. Analytical approach

We used multiple regression analysis to examine hypotheses. Researchers checked for normality by testing a Kolmogorov-Smirnov test, leads to the univariate normality assumption. Further, the skewness and kurtosis of all the observations results are in the range of 2 x Standard Error, and Linearity was examined by scatterplots of pairs of variables (Bhattacharyya and Cummings, 2014).

Table 1: Descriptive statistics and correlations

	Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	SL1: Age	1.95	0.51																	
2	SL2: Marital status	2.00	0.18	0.090																
3	SL3: Number of children	1.75	0.77	0.425**	0.119**															
4	SL4: Income	2.08	0.65	0.343**	-0.047	0.189^{**}														
5	spouse working	0.98	0.18	-0.131*	-0.084	-0.010	_ 0.107**													
6	assistance	0.11	0.31	0.303**	0.147**	0.253**	0.069	-0.066												
7	DL1: No. of years of SHG membership	7.84	2.70	0.430**	0.006	0.271**	0.254**	-0.017	0.222**											
8	DL2: Amount of loan availed	2.39	1.16	0.222**	-0.055	0.221**	0.423**	0.019	0.144**	0.323**										
9	DL3: Purpose of loan	2.45	1.35	-0.010	-0.045	0.030	0.032	0.031	-0.036	-0.028	0.033									
1	° level	3.21	0.98	0.017	-0.094	-0.052	0.285**	- 0.154**	-0.010	0.008	0.191**	-0.061								
1	CB1: 1 Training on governance	1.35	0.44	0.021	-0.017	0.033	-0.054	0.021	0.017	0.056	-0.060	0.045	-0.093							
1	CB2: 2 Technology- driven support	1.16	0.36	-0.021	-0.000	-0.063	-0.076	-0.064	0.015	0.023	-0.043	-0.001	-0.079	0.280**						
1	3 CB3:	1.63	0.37	-	-0.095	-	-	-0.073	-0.087	-	-0.084	0.016	-0.024	-0.003	0.124**					

Promoting networking			0.206**		0.153**	0.169**			0.209**								
CB4: Social 14 justice and harmony	1.26	0.38	0.088	-0.013	0.029	0.083	-0.042	-0.019	0.107**	0.063	0.003	0.000	0.197**	0.334**	0.156**		
15 T1: Economic	4.59	0.52	-0.061	0.000	-0.021	-0.073	0.076	-0.015	-0.040	-0.005	0.069	0.076	-0.061	-0.088	0.126**	-0.089	
16 T2: Social	4.46	0.46	- 0.130**	-0.087	107*	-0.081	-0.041	-0.042	-0.024	-0.056	0.092	0.122*	0.045	0.073	0.117*	0.065	0.383**
17 T3: Legal	4.49	0.50	-0.072	-0.030	053	0.210**	0.015	-0.025	-0.010	-0.038	0.066	0.044	0.027	0.060	0.069	-0.013	0.266** 0.252**
T4: Tech. 18 oriented learning	4.35	0.53	-0.097	-0.058	022	-0.086	0.033	0.011	0.035	-0.072	0.110*	0.003	0.068	0.104	0.074	0.051	0.209** 0.392** 0.305

Notes: n = 351, Two-tailed tests. *p < 0.05; **p < 0.01; ***p < 0.001

4.2. Results

Table 1 gives information on descriptive statistics and zero-order correlations among the variables incorporated in the regression analyses. The average age of an SHG member is around 34 years. Mostly the members are married with 2 children. The average income of an individual is around USD 100 per month. Significant positive correlations existed between age and income (r = 0.343, p<0.01), age and number of years of SHG membership (r = 0.430, p<0.01), age and number of children (r = 0.425, p<0.01). On average, the respondent has seven or more years of SHG membership. All respondents have availed loan mostly for agriculture and education of their child. Mostly, the respondent has gone through secondary education. Moreover, all respondents have undergone a formal training program under the SHG schemes.

Table 2 depicts the results from our analysis. H1 suggests a positive relationship between SL attributes of SHG member and WE. The model depicting relationships between SL1 to SL6 and WE is found to be insignificant (model 1: $R^2 = 0.026$), not in support of H1 and suggests that none of the surface-level attributes facilitates WE. H2 suggests a positive relationship between DL attributes of SHG member and WE. The coefficient for DL1 and WE is positive and significant (model 2: R^2 =0.121, b = 0.049, p < 0.001), in strong support of H2 and suggests that several years of SHG membership lead to WE. Similarly, the coefficient for DL2 and WE is positive and significant (model 2: R^2 =0.121, b =0.051, p<0.05), DL3 and WE is positive and significant (model 2: R^2 =0.121, b =0.036, p<0.10), DL4 and WE is positive and significant (model 2: R^2 =0.121, b =0.106, p < 0.001). These findings suggest that the amount of loan availed, the purpose of the loan, and educational level of SHG member facilitate WE. H3 suggests a positive relationship between CB measures and WE. The coefficient for CB1 and WE is negative but significant (model 3: $R^2 = 0.050$, b = -.242, p < 0.001), partially in strong support of H3 and suggests that training on governance facilitates WE. Similarly, the coefficient for CB3 and WE is negative but significant (model 3: R^2 =0.050, b = -.228, p < 0.01), partially in strong support of H3 and suggests that promoting networking facilitates WE. However, the model (model 3) depicting relationships between CB2 and WE, and CB4 and WE is found to be insignificant. That means technology-driven livelihood support, and social justice and harmony don't help in building WE in our specific context. H4 suggests a negative relationship between perceived individual tension (T) and WE. However, the overall model depicting this relationship found to be insignificant (model 4).

Model of Women Er	Model of Women Empowerment (H1 to H4)									
Variables	Model 1	Model 2	Model 3	Model 4						
Main Effect										
Surface Level (SL) SHG Attributes										
SL1: Age	0.119^{+}									
SL2: Marital status	-0.077									
SL3: Number of children	-0.015									
SL4: Income	0.080									
SL5: Whether spouse working	-0.012									
SL6: Any other assistance	0.033									
Deep Level (DL) SHG Attributes										
DL1: No. of years of SHG membership		0.049^{***}								
DL2: Amount of loan availed		0.051^{*}								
DL3: Purpose of loan		0.036^{+}								
DL4: Educational level		0.106^{***}								
Capacity Building (CB) Measures										
CB1: Training on governance			-0.242***							
CB2: Technology-driven livelihood support			0.048							
CB3: Promoting networking			-0.228**							
CB4: Social justice and harmony			0.098							
Perceived Individual Tension (T)										

Table 2: Model of women empowerment

T1: Economic tension				-0.091+
T2: Social tension				-0.013
T3: Legal tension				0.058
T4: Technology-oriented learning				0.108^{+}
\mathbb{R}^2	0.026	0.121	0.050	0.016
Adjusted R ²	0.009	0.111	0.039	0.005
F(n = 351)	1.502	11.881^{***}	4.542***	1.403

Notes: aUnstandardized regression coefficients are reported.

⁺p<0.10; *p<0.05; **p<0.01; ***p<0.001

H5 suggests that the relationship between DL attributes of SHG members and WE is negatively moderated by Perceived Individual Tension (T). Further, multiple regression analysis has been performed and results are reported in Table 3 below. Considering variables DL1 to DL4, and T1 to T4, total of 16 possible combinations are possible in order to verify the moderating effect of perceived tension in the relationship between DL attributes and WE. The results of theses 16 combinations are reported in the Model 5.1 to 5.16.

The finding indicates that the coefficient for DL1 and T1 is positive and significant (model 5.1: R^2 =0.080, b =.060, p<0.05), and suggests that economic tension positively moderate the relationship between number of years of SHG membership and WE. Similarly, the coefficient for DL1 and T2 is positive and significant (model 5.5: R^2 =0.080, b =.063, p<0.05), and suggests that social tension positively moderate the relationship between number of years of SHG membership and WE. Similarly, the coefficient for DL1 and T2 is positive moderate the relationship between number of years of SHG membership and WE. Further, the coefficient for DL2 and T3 is negative and significant (model 5.10: R^2 =0.055, b =-.056, p<0.10), in support of H5, and suggests that legal tension negatively moderate the relationship between the amount of loan availed and WE. Finally, the coefficient for DL3 and T4 is positive and significant (model 5.15: R^2 =0.022, b =.061, p<0.10), and suggests that technology-oriented learning tension positively moderate the relationship between the purpose of the loan and WE.

		36.3.3	0 337	-				
		Model o	f Womer	Empowe	erment (H5)			
Variables (including moderating items)	Model (5.1)	Model (5.2)	Model (5.3)	Model (5.4)	Model (5.5)	Model (5.6)	Model (5.7)	Model (5.8)
T1: Economic								
tension								
(DL1) x (T1)	0.060^{*}							
(DL2) x (T1)		0.018						
(DL3) x (T1)			-0.005					
(DL4) x (T1)				-0.001				
T2: Social								
tension								
(DL1) x (T2)					0.063^{*}			
(DL2) x (T2)						0.046		
(DL3) x (T3)							0.055^{+}	
(DL4) x (T4)								0.025
\mathbb{R}^2	0.080	0.047	0.008	0.042	0.080	0.049	0.014	0.040
Adjusted R ²	0.072	0.039	0.000	0.034	0.072	0.040	0.006	0.032
F(n = 351)	10.064^{***}	5.705^{***}	0.951	5.061**	10.077^{***}	5.905***	1.650	4.881^{**}
	Model	Model	Model	Model	Model	Model	Model	Model
	(5.9)	(5.10)	(5.11)	(5.12)	(5.13)	(5.14)	(5.15)	(5.16)
T3: Legal tension								

(DL1) x (T3)	0.000							
(DL2) x (T3)		-0.056^{+}						
(DL3) x (T3)			-0.003					
(DL4) x (T3)				-0.006				
T4:								
Technology-								
oriented								
learning								
(DL1) x (T4)					0.040			
(DL2) x (T4)						0.038		
(DL3) x (T4)							0.061^{+}	
(DL4) x (T4)								0.047
\mathbb{R}^2	0.071	0.055	0.008	0.040	0.080	0.058	0.022	0.053
Adjusted R ²	0.063	0.047	0.001	0.032	0.072	0.050	0.014	0.045
F(n = 351)	8.873***	6.793***	0.889	4.815**	10.024***	7.182***	2.602^{*}	6.461***

Notes: ^aUnstandardized regression coefficients are reported.

⁺p<0.10; *p<0.05; **p<0.01; ***p<0.001

5. DISCUSSION AND IMPLICATION

This study attempts to obtain a better understanding of the influence of the attributes of SHG members, capacity building measures and perceived individual tension on WE. We found partial support for the argument that WE emerge from two distinct attributes of the SHG members, i.e. surface-level and deep-level. The findings (on H1) suggest that the effects of surface-level SHG attributes on WE are insignificant. This result is contrary to the findings in the existing literature. For example, the age of the SHG member is negatively associated with WE. One possible reason could be as the age increases, then the benefits of SHGs is less because various schemes do not provide credit facilities to the member whose age is above 45 years. That means the SHG group doesn't not provide this money (i.e. loan amount) to associates due to their age factor and constrain about repayment. The marital status of the members has no significant impact on WE because the SHGs provide minimum credit amount. This benefit does satisfy one purpose, not too many. Further, a number of children doesn't help the SHG members in WE. This is because the majority of children depends on parents' earnings for their education, food, and shelter. Individual income doesn't give a significant effect on WE. Therefore, in villages, if the husband works, this could support the women in their households because they are all come from below poverty segment. Hence, the government has the mandate to provide monetary facilities to the aged people. Government has to come up with new social business framework/schemes to uplift women in all the groups irrespective of castes, and marital status. The government should also provide benefits to the old age SHG members providing medical facilities, eve operations at minimum cost, adult education and minimum requirements to them. The government must develop a social business model with NGOs, corporates to work for the welfare of women for long-term sustainability.

Further, the findings (on H2) confirm that deep-level SHG attributes are positively associated with WE. These findings are unique and by the existing literature. The long-term association with SHG group helps in building trust among the group members, leaders, and government, and supports societal development. The members avail the loan for specific purposes like children education, bangles selling, pickle and papad manufacturing, broomstick manufacturing, farming, and poultry leads to women entrepreneurship at the micro level. The present study revealed education as a deep-level attribute has a significant impact on WE. This finding is by the existing literature (Rahman *et al.*, 2009; Rahman and Naoroze, 2007). The job opportunities through various schemes help in improving the national economy, also support members to participate in the electoral process. The regime must facilitate more marketing opportunities for their products like free trade shows, effective mobilization, and tax exemption to certain level.

The capacity building measures have a positive impact (i.e., H3) on WE is another unique findings. The government has provided training specifically on entrepreneurial skills, for digital transaction. Also provided frequent networking program at the local level. Moreover, organizing one national conference (yearly) helps in facilitating the group-based performance, and recognition with a cash prize on international women day. SHGs consist of mix caste model help in bringing social justice with harmony removing untouchability and bring more solidarity with them. Mahila Smakiya has to be more rigorous to work on legal awareness across the villages. The government should take the initiative on this program and work proactively with all parties associated with the program. Government and Department of Women and Child Development (DWCD) should provide an opportunity for the more number of rural women into politics at the district level. The telecom service providers (Jio, Airtel, Vodafone, and BSNL) should reach both rural and urban areas. Government and DWCD will have a tie-up with the telecom network and help to reach every woman with mobile sending the text and marketing the products. In this way, they can promote and sell their products using the digital platform with fewer problems.

Due to high-level empowerment like the involvement of societal activities, social networking, financial independence, consciousness about legal procures leads to tension in their households and not much time is given to a family in the Indian context. However, our findings (on H4) suggests that perceived individual tension has no significant effect on WE. As a suggestion, the government should initiate the counseling centers in the village and taluk level where women can take counseling from domain experts on how to balance work and family, will help in decreasing the perceived tension.

Finally, our findings suggest that the perceived individual tension moderates the relationship between deep-level SHG attributes and WE (i.e., H5). One of the unique findings of this study is that economic tension positively moderates the relationship between the number of years of SHG membership and WE. Tension arises mainly because of the increased decision making on the financial issues such as the decision on the expansion of business, buying new assets without consulting spouse and others leads to worries (i.e., economic tension) in their household. However, despite the presence of economic tension, SHG members feel more empowered because of their increased financial independence. The finding also suggests that social tension positively moderates the relationship between the number of years of SHG membership and WE. One possible reason for this could be that members are more empowered due to a long-term association with the SHGs and gained trust from the village leaders, government officials, and the public. Although the high involvement of public and social activities increases the social tension in their life, social visibility leads to high empowerment. Inconsistent with the findings from existing literature, this study finding suggests that the legal tension negatively moderates the relationship between the amount of loan availed and WE. Members obtained the loan from SHGs don't know the basic legal issues before starting a new business. Further, the awareness of legal knowledge is less between the members in a group increases worries in their household and group, leads to an increase in domestic violence, further harassment from a spouse, inability to develop a legal document for submission, results in low empowerment. Another unique finding suggests that technology-oriented learning tension positively moderates the relationship between the purpose of the loan and WE. Members availed loan and established their small business in rural areas, but lack of digital knowledge turned into stress. However, the government supports SHG members by providing training on technology-based learning to market their products at taluk, district, state and national level results the high level of WE. Therefore, lacking digital literacy and marketing skills create tension, but due to regime reinforcement on technology learning has increased the WE.

6. CONCLUSION

The purpose of this study is to bring significant empirical insights on WE by exploring the role of the SHGs, capacity building measures and perceived individual tension. By applying multiple regression analysis, we found limited support for our hypotheses. Deep-level SHG attributes

(e.g., years of SHG membership, amount of loan availed, purpose of loan, educational level) have a significant positive impact on WE, however, the impact of surface-level SHG attributes (e.g., age, marital status, no. of children, income, whether spouse working, any other assistance) is insignificant. Moreover, we found evidence on all five dimensions of WE, i.e. economic, political, social, legal and psychological empowerment. Further, a set of capacity building measures (i.e., training on governance, technology-driven livelihood support, promoting networking, social justice, and harmony) helps to empower women. The study also explores four different categories of perceived individual tension (i.e., economic, social, legal, and technology-oriented learning) and their effects on WE. Finally, researchers identified limited support for the moderating effect of perceived individual tension on the relationship between deep-level SHG attributes and WE. Overall, this study encourages domain experts and researchers to consider as a universal view toward WE. It provides government officials and business managers with a tool through which they can estimate the level of empowerment created across the five dimensions. This can help the researcher to recognize whether the particular program/initiative is reaching its objectives and whether the gap between potential level and realized the level of empowerment had been bridged through capability building measures (Brody et al., 2015).

The study provides some empirical evidence on WE. Our prime contribution is three-fold. First, the study is designed to be the first to consider all the five dimensions (economic, political, social, legal and psychological) of WE into the analysis. The study considers different attributes (deep-level and surface-level) of SHGs members as key antecedents of WE. Second, the study explores the possible factor that could moderate the impact of SHGs on WE. In this study, we introduce a novel construct (i.e., perceived individual tension) of SHG member and examine their role as a moderator. Finally, our results also contribute to an understanding of the role which capability building (CB) measures plays in the process of improving WE.

In spite of its various contributions, this paper does exhibit certain limitations. We highlight several limitations of this paper; some of them give information directions for future research. The limitation relates to the problem of generalizability. The research findings are restricted by its attention to the rural areas in India. Therefore, it is essential to examine whether the validity of the scale would hold for other rural contexts and in other settings/emerging/ emerged nations (Kumar and Dutta, 2017; Chauhan *et al.*, 2015). The second limitation of the research is by incorporating of quota sampling. The sample was collected at random and is likely to community bias as the preliminary respondents impact the final sample (Atkinson and Flint, 2004). An additional large-sample of data may effort to improve and validate relationships among several variables and formulate new ones (Kumar *et al.*, 2017a; Kumar and Kumar, 2018). Lastly, the current study has not considered all enablers that are critical for WE and acknowledges that the field is subject to significant underlying and dynamic trends. Hence, a replication of the same study in the future could generate new insights pertaining to the growth of the field (Snehvrat *et al.*, 2018).

This study has a plethora of opportunities to be explored further. We outline many but four such directions. First, we suggest scholars of the field relate our conceptualization of various constructs to the existing theories, frameworks, and perspectives related to WE (Chauhan and Kumar, 2013; Kumar *et al.*, 2017b; Prasad and Kumar, 2014; Puri and Kumar, 2015). Second, in this study, we haven't considered all enablers critical to WE. Further, future researcher can include more enablers and validate the various relationships. For example, further research could be on social innovation and how it influences WE through SHGs in emerging nations. Third, in the future study, longitudinal studies may be directed to examine whether and how transitions occur in the items related to various dimensions of WE (Brody *et al.*, 2015). Finally, future research could be on comparative analysis of the five dimensions of WE on the tribal community, NGOs, private enterprise and public enterprise of SHGs.

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Appendix

Appendix A: Factor loadings of women empowerment

Women Empowerment	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Economic Empowerment (Cronbach's Alpha: .855)					
WE3: Over the time my income has been steadily increased.	0.69				
WE4: I have enough access to assets, services and needed support to advance economically.	0.734				
WE5: My decision-making authority in different					
spheres, including household finances has been increased.	0.665				
WE6: I strongly believe that Stree Shakthi					
programme has access to opportunities and life chances: skills development or job openings.	0.707				
WE7: I believe that through Stree Shakthi programme poverty can be eradicated.	0.81				
WE8: Now I am more equipped with modern gadgets at home due to Stree Shakthi programme.	0.66				
WE9: There is increase in the livestock due to Stree Shakthi programme.	0.706				
Political Empowerment (Cronbach's Alpha: .803)					
WE16: Stree Shakthi programme has empowered		0.628			
with me political leadership.		0.020			
WE17: Stree Shakthi programme has made me to					
participate in various political activities at my village/city level.		0.634			
WE18: Political parties duly recognize my status in the village.		0.583			
WE20: I have the opportunity to present my					
opinion in Ward Meeting, Gram Sabha or		0.642			
Panchayat Meeting.					
WE21: My status in the society will improve if I					
am elected as a Member of Panchayat or other		0.794			
government bodies.					
WE22: I have the ability to interact effectively in		0.726			
the public sphere.					
Social Empowerment (Cronbach's Alpha: .735)					
WE23: Stree Shakthi programme has increased my			0.552		
social status.					
WE24: Stree Shakthi programme has made me			0.682		
popular in my community.					

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WE25: My community people respect me after	0.615		
becoming member of the Stree Shakthi programme.	0.015		
WE29: Stree Shakthi programme increased			
community participation in planning and	0.547		
implementation of development programmes.			
WE30: Stree Shakthi programme has strengthened			
bond between members for cooperation and	0.616		
community development.			
Legal Empowerment (Cronbach's Alpha: .865)			
WE31: My knowledge on women rights has been			
increased after I became member of the Stree		0.807	
Shakthi programme.			
WE32: I have clearly understood the concept of		0.829	
gender equality.		0.02)	
WE33: I can advise other women on 'Balanced		0.71	
workloads for women'.		0.71	
WE35: Being a member, it helps tackle the causes		0.757	
of poverty, not only its symptoms.		0.757	
WE36: Stree Shakthi programme helps to			
overcome the legal and governance-related		0.813	
constraints that undermine poverty reduction		0.015	
efforts.			
Psychological Empowerment (Cronbach's Alpha:			
.806)			
WE39: I am became more optimist due to Stree			0.734
Shakthi programme.			0.751
WE40: I feel that I'm a person of worth, at least on			0.815
an equal plane with others.			0.015
WE41: After becoming member of Stree Shakthi			0.802
programme I take a positive attitude toward myself.			0.002
WE42: After becoming member of Stree Shakthi			0.578
programme I became more assertive.			0.570

Appendix B: Factor loadings of the perceived individual tension

Perceived Individual Tension	Factor 1	Factor 2	Factor 3	Factor 4
Economic Tension (Cronbach's Alpha: .841)				
T1: Lack of necessary resources and proper training lead to ineffective implementation of Stree Shakthi programme.	0.693			
T2: Increased revenues of businesses and related income cause men in family to assume control of business and/or its finances.	0.695			
T3: Failure of targeted businesses to increase revenues and related income causes tension (or violence) within the	0.808			
household due to raised expectations.				
T4: Increased revenues of businesses and related income cause tension (or violence) within the household.	0.801			
T5: There will be tension with local community members due to increased financial independence.	0.769			
Social Tension (Cronbach's Alpha: .870)				
T6: Increased income has created tension around marriage, education and career aspirations (children and younger one's).		0.796		
T7: Due to increased involvement in community activities my work burden has increased.		0.751		
T11: Unequal employment opportunities and the marginalization of women in the formal sector.		0.635		
T12: Non-cooperation by the government officials, private		0.862		

enterprises and NGOs in availing benefits of Stree Shakthi			
programme.			
T13: Discrimination against women, in spite of the equality	0.814		
provisions of the Constitution.	0.814		
Legal Tension (Cronbach's Alpha: .792)			
T9: Unequal access to resources in society for power and		0.815	
decision-making.		0.815	
T10: Limitations on rights and freedoms which are not imposed		0.905	
on men, particularly the marriage institutions.		0.905	
Technology-oriented Learning Tension (Cronbach's Alpha:			
.852)			
T14: Lack of career and technical opportunities because of			0.822
perceived gender gap.			0.822
T15: Low management skills within small rural women's			0.854
groups.			0.634

Appendix C: Factor loadings of the capacity building measures

Capacity Building Measures	Factor	Factor	Factor	Factor
	1	2	3	4
Training on Governance (Cronbach's Alpha: .719)				
CB1: Political parties must promote greater participation of	0.886			
women in politics.	0.880			
CB2: Civic and political participation of women (human rights	0.853			
perspective) should be encouraged.	0.055			
Technology-driven Livelihood Support (Cronbach's Alpha:				
.825)				
CB8: Teaching job skills, soft skills to deal effectively in the		0.805		
work environment.		0.005		
CB9: Self-esteem and confidence has to strengthen among		0.833		
women by providing digital literacy.		0.055		
Promoting Networking (Cronbach's Alpha: .658)				
CB10: Among women decision making power has to be			0.566	
boosted in an interconnected framework.			0.200	
CB11: Effective networking at different levels among women			0.899	
may strengthen their ties.			0.077	
CB12: Adopting integrated system and measures to improve			0.781	
women's ability to earn income beyond traditional occupations.			01/01	
Social Justice and Harmony (Cronbach's Alpha: .806)				
CB13: Ensuring women's equal access to the labour market and				0.829
social security systems.				0.02)
CB14: Gender sensitization programme has to be conducted for				0.855
spouses of Stree Shakthi programme members.				
CB15: Domestic violence of any sort should be controlled.				0.773