Pros and Cons of Women Empowerment Methodologies/Approaches: A Review

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ABSTRACT
As the concept of “empowerment” varies depending on the context or circumstances with different meanings and terminologies by different researchers the methods for systematically measuring empowerment differs. Multiple important instruments are constructed to monitor progress towards gender equality and women’s empowerment at a regional and global scale. The paper will highlight particularly on the approaches developed by UNDP like Gender-related Development Index (GDI), Women’s Empowerment Index (WEI) etc. with special focus on pros and cons of each methodology. Although many studies and discussions around empowerment are commonly limited to activities like “economic”, “social” and “political” forms of empowerment. Therefore it sometimes also requires interventions that are beyond survey and are more holistic that explores other dimensions that have practical implications for women’s empowerment. The paper also reflects on some different kinds of non-survey instruments that can be useful for measuring women’s empowerment with their pros and cons. Most of the non-survey instruments described in this paper can generate both quantitative and qualitative data and have many uses including the evaluation of a development programme. Like our survey questionnaires, we can also pretest our non-survey instruments extensively with people who are alike to respondents in our study, so that the logistic work could be easy to conduct and understandable by the researchers.

Key words: Empowerment, Indicators, Instrument, Non survey.

Empowerment: Concept and Measurement
Women empowerment is a crucial concept around the globe. It has social, personal and economical effect on women, as it is linked with women’s ability to control their decisions, freedom over economic resources, have power in their homes and have the right to learn and improve. The concept of empowerment is not a new in this 21st century. This term is referred long back in the 1960s, particularly in the Afro-American movement and in Paolo Freire’s theory based on the development of a critical conscience. The concept of Women Empowerment was introduced at the International Women Conference in 1985 at Nairobi, which is defined as redistribution of social power and control of resources in favor of women. (Mokta, 2014). At the level of development bodies, the concept of empowerment was adopted after the Beijing Conference (1995). Kabeer (1992) shows that while it is important to look at the quantitative aspect, for example the number of women holding a management position in a firm or a political mandate it is not enough. The notion on empowerment goes further, questioning the roles of different players, men and women, within development policies; that is allowing people to think about, conflicts, power and also on deep social structures. With getting deep into the measuring aspects of empowerment non-survey instruments can be useful in capturing the indicators and outcomes related to women empowerment which are bit difficult to measure. It could be helpful to measure indicators that people may not report honestly in a survey (e.g., discrimination, gender bias, or prejudice), or have aspects that people may not even be consciously aware of (e.g., subconscious or implicit gender bias). However, non-survey instruments are found to be more costly to implement than a set of survey questions or index because they require more time and labour to collect data and more in-depth and intensive training for interviewers/researchers. The methodologies are developed to track the change in women’s empowerment levels that occurs as a direct or indirect result of interventions under different development programmes organized by institutions/government. As meanings and terminologies associated with the concept vary the methods for systematically measuring and tracking changes in levels of empowerment also varies with its operationalization. Various studies have cited problems and challenges in measuring women’s empowerment (Mahajan 2012). Thus, this study provides various methodologies attempting to measure women’s empowerment and challenges that development researchers and policy makers face to understand the progress towards women’s empowerment.

Gender Related Development Index (GDI)
Gender Related Development Index (GDI) was introduced in 1995 with Gender Empowerment Measure (GEM) in the...
human development report written by the United Nations Development Program. The GDI is defined as a “distribution-sensitive measure that accounts for the human development impact of existing gender gaps in the three components of the HDI” Klasen (2006). Distribution sensitive means that the GDI takes into account not only the averaged or general level of well-being and wealth within a given country, but focuses also on how this wealth and well-being is distributed between different groups within society. It focuses more on inequality of achievements by men and women. There are four steps for calculating the GDI (Charmes and Wieringa 2003).

**Step 1.** Estimating the female and male earned incomes.

**Step 2.** Normalizing the indicators - For constructing the female and male HDI values, first the indicators, are transformed into indices which are in different units and then dimension indices for each sex are aggregated with the help of geometric mean. The indicators are transformed into indices. Having defined the minimum and maximum values, the subindices are calculated as follows:

\[ \text{Dimension index} = \frac{\text{actual value - minimum value}}{\text{maximum value - minimum value}} \]

**Step 3.** Followed by calculating the female and male Human Development Index values: The female and male HDI values are the geometric means of the three dimensional indices for each gender:

- Female HDI: \( \text{HDI}_f = (I_{\text{Health}}^f \cdot I_{\text{Education}}^f \cdot I_{\text{Income}}^f)^{1/2} \)
- Male HDI: \( \text{HDI}_m = (I_{\text{Health}}^m \cdot I_{\text{Education}}^m \cdot I_{\text{Income}}^m)^{1/2} \)

**Step 4.** At last calculating the Gender Development Index, which is the ratio of female HDI to male HDI:

\[ \text{GDI} = \frac{\text{HDI}_f}{\text{HDI}_m} \]

**Pros**
1. It provides a measure of overall welfare.
2. It is directly comparable with HDI.
3. Distribution sensitive means that the GDI takes into account not only the averaged or general level of well-being and wealth within a given country, but focuses also on how this wealth and well-being is distributed between different groups within society.
4. The HDI and the GDI (as well as the GEM) were created to rival the more traditional general income-based measures of development such as gross domestic product (GDP) and gross national product (GNP).

**Cons**
1. Penalties for gender inequalities in three indicators are accumulated, even if inequalities are in different directions gender differences in income dominates.
2. It can only be used in combination with the scores from the Human Development Index, but not on its own.
3. The data that is needed in order to calculate the GDI is not always readily available in many countries, making the measure very hard to calculate uniformly and internationally.

4. GDI has been criticized because it does not consider the value of care work as well as other work performed in the household (such as cleaning, cooking, housework and childcare).
5. The income-gap portion of the GDI is that it is heavily dependent on gross domestic product (GDP) and gross national product (GNP).

**Gender Inequality Index**
As GDI and GEM have been criticized for their conceptual and methodological limitations, their short comings have been widely acknowledged by (Bardhan and Klasen 1999, Dijkstra 2006; Schuler 2006). With numbers of limitations by GDI and GEM, it resulted into a plethora of gender-related wellbeing indices that has been introduced all around the globe. In turn, these alternative indices also suffer from some or the other shortcomings that limit somehow their usefulness and appropriateness as global gender inequality indices (Hawken and Munck 2009).

Some of the indices that were introduced for the gender-related wellbeing were as follows;

- Gender Equality Index.
- Gender Inequality Index.
- Relative Status of Women index.
- Standardized Index of Gender Equality.
- European Union Gender Equality Index.
- African Gender and Development Index.
- Social Institutions and Gender Index.
- Gender Equality in Education Index.
- Global Gender Gap Index.
- Multidimensional Gender Equality Index.
- Gender Relative Status and Women Disadvantage indices.
- European Gender Equality Index.
- Gender Gap Measure.

In an attempt to overcome some of the shortcomings identified by researchers during the past fifteen years, Gender Inequality Index (GII) has been designed and was introduced in 2010 as a part of 20th anniversary edition of United Nations Development Programme (UNDP), for the measurement of gender disparity. This new index has been designed as experimental measure to capture women’s disadvantage in three dimensions such as empowerment, economic activity and reproductive health.

The introduction of a new global index of gender inequality by UNDP was important for at least two reasons by Ferrant (2010).

1. Substituting a couple of indices that despite of their importance have been criticized.
2. Incorporating concepts and dimensions that had not been used before in that context at the global level.

There are five steps for computing the gender inequality Index.

**Step 1:** Treating zeros and extreme values: The maternal mortality rate is arranged systematically at minimum of 10 and maximum of 1,000.

**Step 2:** Using geometric means for aggregating across dimensions within each gender group.
Step 3: Aggregating across gender groups, using a harmonic mean.
Step 4: Followed by calculating the geometric mean of the arithmetic means for each indicator.
Step 5: Lastly, Calculating the Gender Inequality Index: To compute the GII we will have to compare the equally distributed gender index from Step 3 to the reference standard from Step 4.

Pros
1. GII is a composite new measuring index that reflects inequality in achievements between women and men.
2. It also provides empirical foundations for policy analysis and advocacy efforts.
3. Income levels as a component, which was one of the most controversial components of the GDI and GEM is not included in the GII.
4. The GII measures inequalities by addressing the problems of other measures through aggregate strategy using multiple correspondence analyses (MCA) in order to avoid aggregation problems.

Cons
1. The Gender Inequality Index faces the problem of data limitations, which constrained the choice of indicators.
2. GII also lacks the important dimensions, such as time use - As women have the additional burden of caring for all and housekeeping, which reduces their rest time and increase stress and exhaustion.
3. Areas like asset ownership, gender-based violence and participation in decision making are also not covered, mainly due to limited availability of data in these areas.
4. The GII is a complex indicator with many components that are difficult for some to interpret or calculate.

Women’s Empowerment Index (WEI)
To measure progress in the multi-dimensional aspects of women’s empowerment a composite index was designed i.e. Women’s Empowerment Index (WEI). It overviews empowerment as factor of both women’s achievement as well as gender parity with men. WEI measures progress on women’s empowerment by aggregating results across five domains. All five domains are comprised of a series of metrics which provides details of measure. The index is developed by Hunger Project’s Monitoring and Evaluation (M&E) department based on extensive external research and internal testing. The Women’s Empowerment Index (WEI) is composed of two parts: the women’s achievement ratio (WAR) and the gender parity ratio (GPR). The index is comprised of five equally weighted domains i.e (agency, income, leadership, resources and time). The higher value of WEI reflects greater empowerment for women in that community.

Pros of WEI
1. It measures progress in the multi-dimensional aspects of women empowerment.
2. In WEI empowerment factor of both women’s achievement as well as of gender parity with men both are considered.
3. WEI scores critically analyze the performance of programs to empower women.
4. By the use of WEI we can identify which practices and interventions offer the highest return on investment for women and their futures.

Cons of WEI
1. It provides aggregate community score rather than individual household score.
2. It has no special sector focus.
3. The initial correlation analysis of WEI suggests a rigorous and well-designed tool, more research and data points are required to validate its design.
4. The structure and content of WEI depend heavily on Women’s Empowerment in Agriculture Index (WEAI).

Women’s Empowerment in Agriculture Index (WEAI)
Women’s Empowerment in Agriculture Index (WEAI) is a first comprehensive survey-based innovative measuring tool for, evaluating and learning about women’s empowerment and inclusion in the agriculture sector. It is introduced by International Food Policy Research Institute (IFPRI), Oxford Poverty and Human Development Initiative (OPHI) and USAID’s feed the Future in February 2012.

To access the key role of women in growing and producing the world’s food, the formulation of this index was an important step. It helps in quantitatively demonstrating women’s empowerment. The WEAI is comprised of two sub-indices: one measuring the empowerment of women along five indicators (5DE) and the second measuring the gender parity of empowerment within the household (GPI). The individual households are scored based on exhibited levels of “empowerment.” Programs seeking to demonstrate impact should show more households demonstrating empowered women over time through their score. Thus, five domains (5DE) posses’ five key areas of woman’s life in agriculture: decisions about agricultural production, access to and decision-making power over productive resources, control over use of income, leadership in the community and time allocation. GPI estimates the empowerment achievements of men and women in the same household using the same five domains.

Finally, the overall WEAI is constructed by calculating the weighted average of the 5DE and GPI as follows:

\[ \text{WEAI} = (0.90 \times 5DE) + (0.10 \times GPI) \]

Pros of WEAI
1. The WEAI is specifically useful in analyzing areas where programs or activities have been successful in bringing changes and areas where women’s autonomy still lags behind.
2. In the WEAI model, if women’s achieve scores 80 percent or higher in the five domains or has gender parity with the primary male in her household they are seen as empowered.
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3. The proposed new index measure can be adapted for any agricultural market systems development program.
4. WEAI is also used as a diagnostic tool to identify geographic areas where women and men are disempowered and to focus policy and programming in those particular areas.

Cons of WEAI
1. Only women’s engaged in non-agriculture decisions may appear as less empowered or dis-empowered.
2. Fine differences behind domains is not fully captured.
3. WEAI focus in agriculture may not capture other domains of empowerment that may be more relevant to specific desired outcomes.

With developing time there is a consequent change in the empowerment measuring tools. There are some different kinds of non-survey instruments and survey methods that are also used widely for measuring women’s empowerment. Hence, focusing into it we will be discussing some of the methodologies with its respective pros and cons.

Implicit association tests (IATs)

Psychologists designed IATs as a tool to measure how strongly people connect two concepts with one another. In an IAT, a respondent is shown a word or picture on a screen and asked to quickly sort it into one of two groups. The hypothesis is that respondents who pair a set of concepts more quickly during the test associate those concepts more strongly. IATs have therefore been used as a way to quantify implicit biases or stereotypes that people may not be willing to talk about openly with an interviewer, or may not even know they hold, including implicit gender biases.

Pros

IAT is a unique measurement tool that can help to reveal subconscious biases, which traditional self-reported survey questions cannot typically pick up.

Cons

IATs measures only one specific approximation of implicit bias at a particular point in time.
Do not speak about how people act based on their subconscious stereotypes in real life.

Arbitrary/ Randomization List

Randomization can be used to quantify the presence of a sensitive or socially undesirable behavior. When measuring women’s empowerment in some contexts, for example, we may want to determine the women’s control over decisions about contraceptive use. In measuring the differences using list randomization, it involves giving half of the randomly assigned study participants a short list of activities, including the sensitive behaviors being traced and asking them how many activities they have engaged in without asking them directly. The other half of the study participants receive the same list without the sensitive behaviors being tracked and also respond how many activities they have engaged in. The average of the two groups can be taken by researchers; the prevalence of the sensitive behaviors will be indicated by the difference in the averages.

Pros

It enables researchers to measure behaviors that individuals might not typically self-report.

Cons

The technique does not provide individual-level information on a behavior, only aggregate-level estimates can be done.
In addition, the technique requires participants to count or add as part of the response, which could introduce noise in the data if people accidentally miscount.
Moreover, for the participants who engage in all the behaviors in the list including the sensitive one, list randomization does not make their answers private so they may still feel uncomfortable answering honestly.

Participatory research

A participatory research method includes discussions and interactive sessions with groups of community members to understand local needs and opportunities from their perspectives. There are many forms of this methodology with slight changes depending on focus area, including participatory resource appraisal, rapid resource appraisal, rapid rural appraisal, participatory learning and action, among others.

Discussing and asking some members collectively provide information on a topic that sometimes yield better information than simply surveying individuals. This is particularly useful when each individual know some of the information regarding each other. For example, the Participatory Resource Appraisal (PRA) approach can be used to understand and map the resources availability in a community and their interaction with gender.

Pros

Participatory methods can generate richer and more accurate data than surveying individuals for some kind of information regarding the evaluation of empowerment program.
They can also create space for people participating in our study to contribute ideas to the diagnosis of the problem, the design of the program.

Cons

The presence of the community elite, in conversation may alter the content.
People may find it difficult or inappropriate to admit or contradict what another person says.

Experiment in India – Use of PRA

In India, Chattopadhyay and Duflo (2004) used PRA to assess how quotas for women in local politics affected the supply of public goods like water supply. In this particular test, they first assessed to what extent the number and quality of wells differed in communities where the village council head position was reserved for a woman. Hence in order to find out about the history of wells and related development of water sources in each community, the
researchers gathered groups of people in a discussion using the PRA approach. The PRA methods that were used include drawing maps of the community. That locates the wells, different water sources and discussing when the wells were built and repaired. Different individuals volunteered and contributed to provide different pieces of information, which generated a clear and complete history of the wells. In addition, the researchers also selected some of the community members to go on a walk around the community and double-check the accuracy of the maps.

Biomarkers

Biomarkers offers an accurate data to researchers since it cannot be manipulated or changed by the respondent, they offer an objective method for measuring many health outcomes. It can be used to measure direct result of any development programmes. Biomarkers that might be relevant in programs measuring women’s empowerment include STI and HIV tests, height, weight, BMI, stress hormone and diagnostic tests for illnesses. Some elements of biomarker like cortisol can potentially serve as proxy measures for women’s empowerment.

Pros

➢ Biomarkers are less biased than other self-accessed measures and helps in objectively measure many important indicators related to health and well-being.
➢ It also helps in triangulate outcomes that we are measuring with survey questionnaires.

Cons

➢ Collecting biomarkers often requires more in-depth training for field research staff to obtain accurate outcome.
➢ It can also be very expensive to collect information. For example, diagnostic tests that have to be processed in a lab tend to be more expensive than biomarkers that can be measured during a survey.

CONCLUSION

Empowering women and reducing gender inequalities are important components of the any development objectives. Women empowerment can be developed, through creating a supportive environment that enriches women and provides a surrounding that engages them with their families, societies and economies. The researchers have found that women empowerment can be measured by different indicators like decision making ability, economic participation, education rights, freedom rights, political participation, self-development and gender equality. From this point of view, the paper has suggested a practical and survey empowerment measurement methodologies, which depends on some behavior that people are not consciously aware of. We should consider different strategies for empowering women by targeting and strengthening their asset base. The various methodological issues revolve around the selection of indicators of empowerment including whether or not to measure aspects that are context specific or universal; individual or collective; whether to include psychological determinants or not; the appropriate unit of analysis; and whether to collect quantitative or qualitative data (Ibrahim and Alkire 2007).

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