

Measuring empowerment: choices, values and
norms

Abstract

In this paper, we present a novel, survey-based method to measure people's empowerment, across different domains of their lives. The method includes three elements: i) a direct measurement of decision-making, defined as the ability to make choices; ii) a measure of whether people have reasons to value those choices; and iii) a measure of the role that prevailing social norms play in determining people's ability to make strategic life choices. We build an Empowerment score that is computed using these three elements. In the second part of the paper we, first, evaluate the effectiveness of the tool, using original survey data from India. We show that using the Empowerment score makes a substantial difference compared to a simpler (and less theoretically rigorous) score based on direct measurement of decision-making only. Second, we apply the Alkire-Foster method to compute an Empowerment index that allows for comparisons of empowerment levels across locations, contexts, social groups and time. The Empowerment score has important policy applications. It can be used as a variable in policy and programme evaluations and to identify not only those who make or do not make a certain choice, but also individuals who do not value making those choices and if they might be conforming to social norms. In this way, the tool can assist in directing government attention to work with marginalised groups in making choices they want to make rather than pressing them into making choices that they do not value.

1 Introduction

Since the 1990s, and in particular after the publication of the 2001 World Development Report, the concept of empowerment has become a crucial element in the fight against poverty, oppression and gender discrimination. The inclusion of women's empowerment among the Millennium Development Goals in 2000 (MDGs) and, later, the Sustainable Development Goals (SDGs) in 2015, marks the recognition of the increasing importance that the concept has acquired in development debates. Not surprisingly, empowerment is often among the key objectives of social protection programmes around the world: over the last few decades, an 'empowerment lens' has been applied to innumerable social protection and poverty eradication programmes. This led to the proliferation of research that has tried to find ways to measure empowerment to assess the impact of development policies and programmes.

This paper contributes to this literature by providing a novel, multi-domain, survey-based measure of empowerment. Our method to measure empowerment has several advantages. It is adaptable to different contexts, but at the same time is comparable across cases; depending on the number of indicators used, it can be very quick and easy to implement; it covers different domains of empowerment; it takes into consideration not only the outcomes of the empowerment process, but also seeks to grasp the process elements that lead to these outcomes; and, finally, it incorporates a measurement of what is arguably one of the most important contextual factors that shape empowerment processes, namely, prevailing social norms in the respondents' reference community.

This paper is structured as follows: Section 2 reviews the concept of empowerment and discusses the strengths and limitations of previous attempts to measure it. Section 3 presents the methodology for measuring empowerment. Section 4 assesses the effectiveness of the tool using original survey data collected in rural India. Section 5 applies the Alkire-Foster (AF) method to assess empowerment levels and presents the results. Section 6 highlights some limitations of the method. Section 7 concludes the paper by identifying potential avenues where the empowerment tool can be used in the future.

2 Defining and measuring empowerment

A review of the literature on empowerment by Ibrahim and Alkire (2007) lists 32 different definitions of the concept, while Hennink et al. (2012) show the remarkable differences in the understanding of empowerment by different development agencies and organisations. Despite this abundance of definitions and approaches, we can delineate some important themes in this literature. Srilatha Batliwala provided one of the first detailed conceptualisations of empowerment (Batliwala, 1994), and defined it ‘as a process, and the results of a process, of transforming the relations of power between individuals and social groups’ (Batliwala, 2007, 560). Most importantly, she defines empowerment as a process that shifts social power in three critical ways: (a) by challenging the ideologies (such as gender and caste) that justify and sustain social inequalities; (b) by changing existing patterns of access and control over economic, natural and intellectual resources; and (c) by transforming institutional structures that reinforce and sustain existing power inequalities,

such as the family, state and the market, to cite a few (Batliwala, 2007, 560).

Batliwala's research coincides with Kabeer's work in 'Reversed Realities' (1994) and her conceptualisation of empowerment, which she defines as the 'expansion in people's ability to make strategic life choices in a context where this ability was previously denied to them' (Kabeer, 1999, 437), and suggests three interrelated components to this: access to resources, whereby if a woman's primary form of access to resources is as a dependent member of the family, her capacity to make strategic choices is likely to be limited; agency, which is the ability to make choices; and achievements, which refers to the extent to which people are able to realise their choices. It is important to identify the structural conditions under which individual choices are made (for a detailed review, see Thapar-Björkert et al. (2019)). This is in fact an important element in most definitions: the context in which women and marginalised groups make their strategic life choices, i.e., the degree to which the ability of a person to exercise their agency is constrained or enhanced by social, political and institutional factors (Narayan and Nankani, 2002; Laszlo et al., 2017; Nagar and Raju, 2003; Alsop and Heinsohn, 2005). Kabeer's work, along with many others, underscores the fact that empowerment is not a state of being, but is rather a process of change (Kabeer, 1999; Malhotra and Schuler, 2005; Carr, 2003). Others have added that empowerment can be seen both as a process as well as an outcome (Eerdewijk et al., 2017). As a process, it is dialectical and involves change, and as an outcome it embodies the degree of freedom people have to control and influence their lives and futures (Eerdewijk et al. (2017, 17); also see Duffo (2012)).

The tool presented in this paper, measures one element of empowerment,

agency. In fact agency is at the ‘heart of empowerment’ (Erdewijk et al., 2017, 14). This is also the approach adopted for the construction of the *Women’s Empowerment in Agriculture Index* (WEAI) (Alkire et al., 2013). Alkire et al’s choice is mainly driven by the fact that agency has been less studied than achievements and resources. Additionally, we suggest that measuring resources and achievements in empowering processes might be misleading and conceal more than it reveals. While access to resources and achievements can be effectively and easily measured, not all different modalities of accessing resources are an indicator of empowerment: inheriting a plot of land or purchasing it after years of savings are two quite different situations. Also, access to resources can be a driver of empowerment, as well as an outcome. The inherited plot of land can provide a woman some income security that decreases her dependency on her husband and allows her to get a divorce (if she so wishes); or it can free her from dependency on exploitative employers, thus expanding her ability to make choices according to her preferences. In these cases, access to resources is the starting point of a process of empowerment. Conversely, the legal ownership of an inherited plot of land could be the result of a struggle with male members of her family, indicating an ability to realise her choices (an achievement). In short, measuring access to resources and achievements, although relatively easy, can be misleading if additional qualitative research is not conducted or agency is not considered.

For the purpose of measurement, we believe that a narrower definition of empowerment which focuses on agency only is the most effective way of reducing the gap between our theoretical understanding of empowerment and the methods that are adopted to measure it. We thus focus on agency,

which Sen refers to as ‘what the person is free to do and achieve in pursuit of whatever goals and values he or she regards as important...[and his or her] conception of the good’ (Sen, 2006). Furthermore, in line with other authors, we also emphasise the importance of the context in which individuals exercise their agency. Laszlo et al. (2017), for instance, include in their working definition the constraints outside of women’s control that limit their ability to make choices and these include institutional as well as cultural factors (i.e., social norms), which Sen (1999) refers to as ‘unfreedoms that leave people with little choice’ (Sen, 1999, xii). Kabeer (2018a, 2) makes a similar point, and speaks of the need to ‘expand our theory of change to take account of the kinds of constraints that are likely to block or reduce women’s empowerment’.

We agree that constraints are to be included in a working definition of empowerment (or agency), but we suggest a narrower definition of constraints. This is because not all of them are within people’s reach or have the same effect on their empowerment (which is the focus of this paper). For instance, if a woman cannot inherit by law, there is very little she can do, at least in the short term, to change that situation. On the contrary, in some instances people can act to counter the disempowering effects of the context in which they live. For instance, women living in rural areas could decide to go to a nearby town on their own, despite the fact that this goes against established and generally adhered to social norms of women’s invisibility in the public domain. We are not suggesting that defying social norms is easy or without consequences (sometimes even fatal). What we are stressing is the fact that breaking social norms is within the possibility of what women (and marginalised groups) can do, whereas other types of constraints (e.g., na-

tional laws) are not. In fact, we see defying disempowering social norms as a crucial element of an empowerment process, which can trigger more profound (and collective) social change (Evans, 2018). Hence, we include the effect of social norms in our definition and measurement of empowerment, but we exclude other types of contextual constraining factors, such as national laws, as they would be constant for individuals residing in the same area and are in any case beyond their control. In other words, including constraints on which the individual can do little about or has control over is useful to measure empowerment at aggregate levels for comparing empowerment across countries. However, they are less useful to measure the empowerment of individuals.

Our definition of empowerment thus focuses on the individual's ability to make choices that one has reason to value, despite the existence of disempowering social norms. Central to our definition is the fact that empowerment is a multi-domain phenomenon that can occur at different degrees in different areas of one's life.

Multiple definitions of empowerment resulted in multiple attempts to measure it. Laszlo et al. (2017, 1) note that 'there are almost as many different instruments used to measure [economic empowerment] as there are research papers or development projects that utilize them.' Early attempts to measure empowerment relied mostly on proxy variables such as education or ownership of assets and equated them with empowerment (Malhotra et al., 2002). This often resulted in measurements that confused empowerment with its drivers, such as ownership of assets or education, or with its outcomes - such as access to paid employment. Furthermore, it is often difficult to distinguish between drivers and outcomes of empowerment: a woman, for

instance, could be empowered because she has an independent source of income, but access to that source of income could as well be the result of the empowerment process.

Having recognised the limits of using proxy variables to measure empowerment, more recent scholarship¹ has increasingly used direct measurements, focused primarily on decision-making power in various spheres of women and individual lives. However, most measurements (often designed ad hoc for evaluating specific projects) do not measure empowerment across different domains. This is important, as empowerment can occur in certain spheres and not in others. A lower caste man in India, for instance, might be empowered within his household in terms of being in charge of most decisions, but could be severely disempowered in terms of his relationship with his upper caste employers or in terms of his ability to speak at a village assembly. Similarly, a woman could be excluded from decision-making within her family, but could be recognised as a leader by other women in her community due to her ability to manage a self-help group.

Furthermore, empowerment measurements that use decision-making as their main variable do not take into account the preferences of the individual when it comes to making (or not making) a certain decision. If a woman, for instance, is not involved in decisions regarding household purchases, it is assumed that this is so because she is disempowered. The possibility that she does not care about making those decisions - in other words, that these are decisions that she has no reason to value - is usually not contemplated or

¹For a comprehensive review of recent methods to measure empowerment, see (Laszlo et al., 2020).

it is assumed that she has internalised patriarchal social norms that limit her ability to even conceive making that choice. This might obviously be true, but, from a theoretical point of view, it is not justifiable to assume that it is necessarily the case. Our measurement takes into account this possibility.

Finally, many measures of empowerment, including the indicators for the MDGs and the SDGs, are country-level aggregates. These measurements are useful to identify areas where women's empowerment is constrained and that need policy intervention - such as laws preventing women to inherit or low levels of representation of women or marginalised groups in parliament. But they can say little regarding empowerment processes occurring at the level of the individual.

Two recent proposals for empowerment indexes that use the individual as their unit of analysis are the WEAI (Alkire et al., 2013) and Oxfam's 'A How to guide' to measuring women's empowerment (Lombardini et al., 2017). The WEAI is a comprehensive, multi-domain attempt to measure empowerment, although it is designed to capture women empowerment in the agricultural sector only.² The WEAI has the unique feature of being based on interviews with wives and husbands within the same household, which allows for a rigorous measurement of empowerment gender gaps. Recently, Hazel Malapit and colleagues (Malapit et al., 2019) developed a new version of the index, specifically designed to assess the impact of agricultural development projects (the Pro-WEAI). Oxfam's proposal is also a multi-level attempt to measure empowerment, which recognises three levels of change: individual,

²For example, see Holland and Rammohan (2019) for an empirical application of the WEAI.

related to psychological changes (akin to what Rowlands (1997) called ‘power within’) and to enhancements in one’s autonomy (Rowland’s ‘power to’); relational, related to power relations with others (akin to Rowland’s ‘power with’ and ‘power over’); and environmental, related to broader contextual and institutional factors. Oxfam’s method thus relies on a broader definition of empowerment that is not only concerned with the ability of making choices, but more generally ‘as a process whereby the lives of women and girls are transformed from a situation where they have limited power to one where their power is enhanced’ (Lombardini et al., 2017).

In this paper, we propose a new, survey-based method of measuring empowerment that innovates on existing ones in several ways. First, it not only measures the individual’s abilities to make choices, but also investigates whether they have reasons to value making (or not making) those choices. Second, it takes into account the role of prevailing social norms in the person’s reference community. By taking into account both the reasons behind individual choices and the interaction between the individual decision-making process and social norms, we attempt to measure empowerment not simply as an outcome - the ability to make a choice - but also as a process - why and how these choices are taken (or not). Third, the tool, similar to WEAI, measures empowerment in multiple domains and shows how empowerment processes vary whereby a person can be empowered in some domains and not in others, or be more empowered in some and less in others. Fourth, our method allows to identify not only those who make or do not make a certain choice, but also the people who do not value making those choice and if they might be conforming to prevailing social norms. This provides useful

indications for policy and government interventions. Finally, the tool proposed in this paper can be used to measure empowerment at all three levels identified by Oxfam’s approach (Lombardini et al., 2017) as critical dimensions of empowerment, although with some limitations due to our definition of empowerment which focuses on an individual’s ability to make choices. First, it can measure empowerment at the individual level, limited to its ‘power to’ dimension, whereas it cannot be used to measure psychological elements of empowerment (‘power within’; for this see Klein (2014)). Second, the tool is apt to measure empowerment at the relational level, intended as a person’s ability to make certain choices that have repercussions on power relations with others (‘power with’, ‘power over’). Third, by incorporating a measure of the role of prevailing social norms, the tool measures a crucial environmental-level constraint (or enabler) of empowerment processes.

The next section provides a detailed explanation of the measurement tool.

3 Methodology

3.1 Domains and types of survey questions

We measure empowerment in four domains: household; community; market; and state. These coincide with Kabeer’s four key institutions of society. Grounded in structural feminist thinking, Kabeer argues that these institutions shape social relations, which in turn create and reproduce inequalities, based on differences such as gender, ethnicity, age, disability, class, etc. (see Kabeer (1994); Kabeer and Subrahmanian (1996)). These inequalities limit

the extent to which individuals are able to control their lives and make strategic life choices. Through this framework, we can analyse how empowerment processes vary between institutions as well as within a single institution. The approach shows how policies and practices at different institutional locations are not independent of each other but link to, reinforce and influence those of the others. For example, changes in government policy can impact on access to resources, benefits and claims, which may increase people's bargaining power with their employers (market) and which may have an impact on social relations within the family (household) as well as give people a heightened awareness to challenge the existing norms (community).

The four domains are broad categories, within which researchers should choose the indicators and questions that best capture context-specific empowerment processes. This is also Oxfam's approach, in recognition of the fact that empowerment is a context-specific process that might assume different meanings in different settings (Lombardini et al., 2017). In Section 4.1, we provide a list of indicators that we used to construct our survey, and in the appendix we provide our questionnaire. Both indicators and questions are illustrative, not recommendations. Researchers can draw on numerous resources to find tested and comparable questions and indicators. For instance, the University of California at San Diego built a useful question bank on empowerment, which also provides psychometric and statistical data.³ Yount et al. (2016) built indexes based on survey questions that are comparable across social groups and contexts (see Malapit et al. (2019) for a review of these indexes).

³It is available here: <http://emerge.ucsd.edu/>.

In other words, the tool presented here is a framework for designing survey questions (detailed in this section) and for scoring the answers (detailed in the next section). It thus differs from many existing tools in that it is neither a suggestion for a core set of indicators and questions that should be used across contexts (Ibrahim and Alkire, 2007), nor an in-depth module constructed to measure empowerment in a particular context, or in a particular economic sector (Alkire et al., 2013). Rather, the tool is a framework that can be used in both kinds of approaches.

As mentioned in the previous section, our definition of empowerment relies on three elements: i) the ability to make choices that ii) one has reason to value, iii) despite the existence of disempowering social norms. The first two elements - choices that one has reason to value - coincide with Amartya Sen's definition of agency. What we mean by 'social norms' needs some elaboration. We understand social norms as the 'grammar of society' (Bicchieri, 2005) that defines what is considered (non) acceptable behaviour and accompanying expectations in a given social group. In particular, we focus on 'individuals' norm perceptions': individuals' perceptions of attitudinal and behavioural norms in their societies (Evans, 2018). As Alice Evans (2018, 362) explains, 'through observation and interaction, we develop beliefs about which behaviours are widely supported in our social networks. If we observe widespread compliance, we infer that there is widespread support. We further anticipate that we will be liked, accepted and respected according to the extent to which we conform to these norm perceptions, and so moderate our conduct. So, even if we do not privately endorse these practices, we are nevertheless motivated to conform - because we do not wish to be reprimanded'.

manded, reproached or violently repressed.’ Therefore, patriarchal or other disempowering social norms like caste norms, in the context of India, are a potent constraint against social change and empowerment. Making choices that people have reason to value that defies what people perceive as generally adhered to social norms is thus an important sign of empowerment.

Understanding social norms as ‘norms perceptions’ has an additional advantage. As Kabeer (2018b) notes, norms are highly context dependent and even within the same country, they vary widely (also see LeRoux-Rutledge (2020)). Bina Agarwal, for instance, has documented how norms regarding village endogamy might be very different even across neighbouring Indian states (Agarwal, 1994). Therefore, asking the respondents directly about the common behaviour in their community allows for a context-specific measurement of social norms.

The questionnaire should be constructed in order to have a measure of each of these elements, for each of the indicators. In other words, for each indicator, the questionnaire should include: one question measuring the ability to make a choice (what we call the Choice question); one question assessing whether the person actually cared about making that choice (the Value question); and one question measuring whether making that choice would conform to established social norms within the person’s reference community (the Norms question).

An example will clarify the structure of the questionnaire. We will use a fairly standard indicator of decision-making power within the household as an illustration. The Choice question could be framed as follows: ‘who in your household takes decisions on major household purchases?’ Possible answers

can be a) you; b) you and someone else jointly (for example, your spouse); c) spouse; d) others; e) don't know/don't answer.

The Choice question is followed by the Value question that asks whether the respondent actually cared about making that particular choice. This question is asked only to respondents who had answered in a way that could be interpreted as not empowering.⁴ In the example, the Value question is asked only to those who do not have control over major household purchases, i.e., answer c) and d). The Value question can be framed as follows: Would you like to have more autonomy on decisions taken in your household regarding major household purchases? (with yes/no/don't know as possible answers).

The Norms question follows and looks at whether making that particular choice would be normal among men/women in the respondents' community. Using again the same example, the Norms question is framed as follows: Do you think that, generally speaking, women/men in your community are involved in decisions on major household purchases? Possible answers are a) yes; b) mostly yes; c) mostly no; d) no; e) don't know/no response. Table 2 summarises the three types of questions using the Decision-making power within the household indicator as an example.

⁴Please see Section 6 for a discussion on this point.

Table 1: Type of questions for Decision-making power within the household indicator

Domain	Indicator	Type of Question	Question
		CHOICE	When decisions are made regarding the major household purchases, who is normally taking the decisions? a. you b. you and someone else jointly (for example your spouse) c.spouse d.others e.Don't know/no response
Household	Decision-making power within the household	VALUE	Would you like to have more autonomy on decisions taken in your household regarding major household purchases? a.Yes b.No c.Don't know/no response
		NORMS	Do you think that, generally speaking, women/men in your community are involved in decisions on major household purchases? a.Yes b. mostly, yes c. mostly no d. no e. Don't know/no response

The tool thus measures each indicator through three questions: one Choice, one Value and one Norms question. For our survey, we had 10 indicators, for a total of 30 questions. Adding a few questions regarding the respondents' characteristics (for example, income, ownership of assets, ethnicity, education) our survey could be completed in about 20 minutes. Of course, adding more indicators would increase the time necessary to complete the survey.

3.2 Calculating the empowerment score

The answers to the survey (designed as per the previous section) are used to build an 'Empowerment score' for each respondent. In this section, we illustrate the scoring methodology in Figure 1 below.

We first score the Choice question, which is a direct measurement of decision-making in the sense that it asks whether the respondent made a

particular choice. We assign 1 point if the respondent exercises decision-making and -1 if s/he did not (answers c) and d) (respondent is not involved in decisions) to the Choice question will score -1; answers a) and b) (respondent is involved) will score +1).

We then score the Value question, which, as mentioned, is only asked to those who did not exercise decision-making as per the Choice question, i.e. those who scored -1. We assigned +1.5 points⁵ if the person who did not make that choice, did not care about making it; and 0 points otherwise. The rationale here is to compensate the negative scoring on the Choice question if the person did not want to exercise that choice, whatever the reason. Thus, a person who is not involved in decisions on major household purchases (answers c) and d) for the Choice question), but did not wish to have more autonomy on such decisions will score +1.5. There are a number of reasons why a person might not care about making that particular choice and not all of them are disempowering. For instance, a woman could be happy to leave these decisions to her husband because she trusts him or because he keeps her in the loop about financial expenditures. Incidentally, all these examples come from our interviews with women in rural India.

Of course, this could also mean that the woman has internalised patriarchal social norms and does not care about making certain choices because

⁵We tested assigning +1 point to the Value question, but this was not enough to give any significant weight to the Value component to the overall Empowerment Score. We also decided to assign 1.5 points and not 2 because, in the latter case, making a choice (+1 in the Choice question) and not making it (-1), but not caring about that (+2), would have resulted in the same overall score (+1). This is a normative position that we are not comfortable with, especially if applied to a question where exercising decision-making is undoubtedly empowering. We show how the proportion of disempowered people changes when we change the scoring system in the Appendix E.

‘that is the way it is’, as many women who we interviewed reported. This is why we adjust the score using the Norms question.

Finally, we score the Norms question. We assign 0 points for respondents who exercised decision-making (i.e. scored +1 in the Choice question) and think that their behaviour (making that choice) is normal for people in their community. For those who exercise decision-making (score +1 as per the Choice question), but think that their behaviour is not normal or common among their peers, we assign +0.5 points. The rationale here is to reward respondents who, according to their own perception, defy social norms that we, the researchers, evaluate as disempowering. In the example that we have used to illustrate the method, a person who is involved in decisions on major household purchases (+1 in the Choice question) will get 0 point if she thinks that it is a common thing in her community, and 0.5 points otherwise, as this would indicate that the empowering choice was made despite the presence of disempowering social norms.

For those who scored -1 in the Choice question (did not exercise decision-making) and scores +1.5 in the Value question (did not care about making that choice), we assign -0.5 points if they think that their behaviour is normal and 0 if they think it is not. In the Decision-making power indicator example, a person who is not involved in decisions on major household purchases and would not like to have more autonomy on such decisions, is assigned -0.5 points if she thinks that normally women in the community are not involved (as she is not), and 0 otherwise. The rationale here is to assign a measure of disempowerment (the -0.5 scoring) to those who do not make a particular choice, do not care about making it, but also believe that making that

choice would go against social norms. In this way, we take into account the possibility that this person has internalised disempowering social norms and this is a possible reason why she does not care about making that choice. In fact, disempowering social norms may lead people to accept the legitimacy of the unequal order (Sen, 1992) or to internalise their subordination (Kabeer, 2010), thus limiting their ability to perceive themselves as agents. The negative score reflects this possibility: that a person who does not care about making a certain choice has accepted that this choice is not for them to make. Figure 1 provides a schematic view of the scoring system using the Decision-making power indicator as an example.

The scoring system summarised in Figure 1 results in five different situations (corresponding to five respondents) that are marked A, B, C, D, and E. Table 3 spells out their empowerment scores for the Decision-making power indicator. Repeating the scoring system for each of the indicators results in an empowerment score for each respondent, obtained by summing up all the (weighted) indicators' scores. The higher their scores, the higher their empowerment is. Table 2 highlights the descriptive statistics of the Empowerment score (constructed using our survey data) broken down by sex.

Table 2: Descriptive Statistics of the Empowerment score

	Mean	Std Dev	Min	Max	N
Women	6.72	2.01	-0.5	11.5	483
Men	7.19	1.82	0	10.5	489
Total	6.95	1.93	-0.5	11.5	972

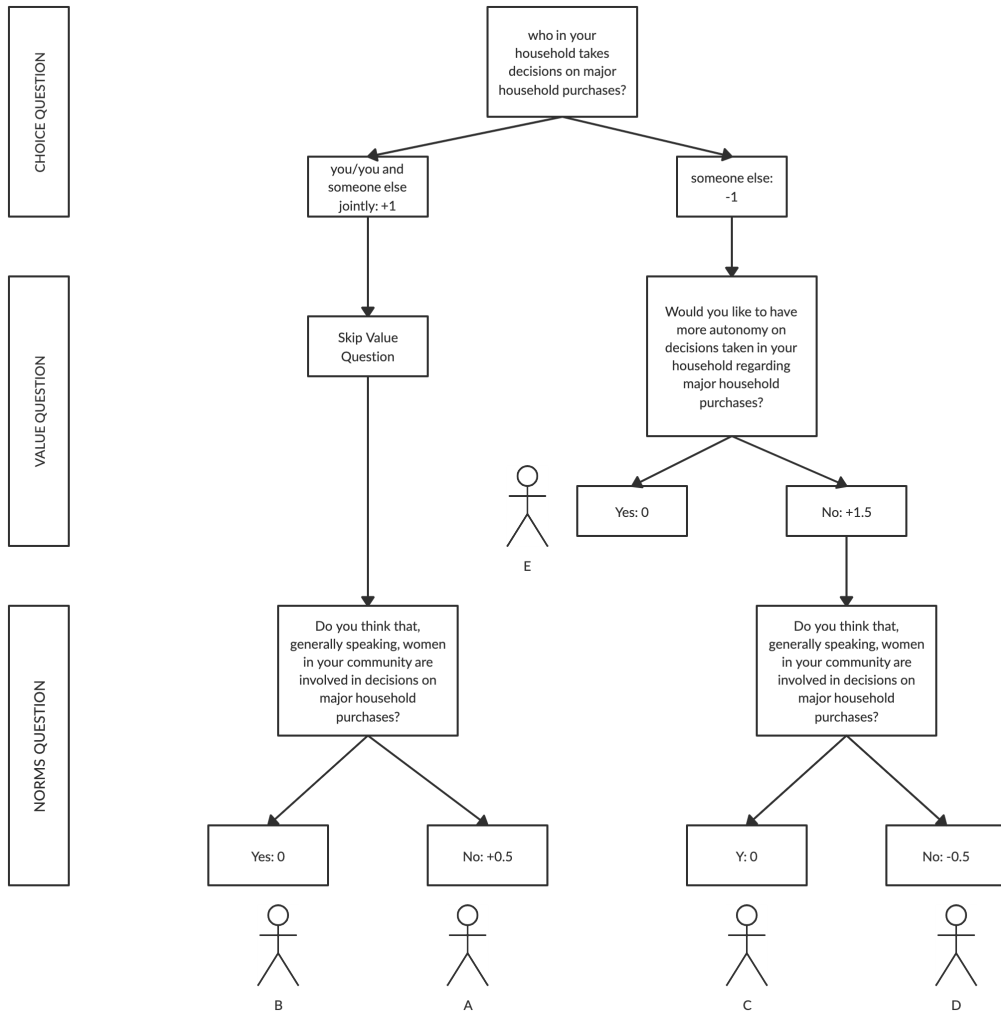


Figure 1: Illustration of the scoring system

Table 3: Possible outcomes of the empowerment score for the decision-making power on major household purchases indicator

Respondent	Answers	Score
A	Woman A is involved in decisions on major household purchases (+1 in Choice question); She thinks that this is not what women normally do in her community (+0.5 in Norms question)	1.5
B	Woman B is involved in decisions on major household purchases (+1 in Choice question); She thinks that this is what women usually do in her community (0 in Norms question)	1
C	Woman C is not involved in decisions on major household purchases (-1 in Choice question); she does not want to be (+1.5 in Value question); she thinks that women in her community are usually involved in such decisions (0 in Norms question)	0.5
D	Woman D is not involved in decisions on major households purchases (-1 in Choice question); she does not want to be (+1.5 in Value question); she thinks that it is normal for women in her community not to be involved in decisions on major household purchases (-0.5 in Norms question)	0
E	Woman E is not involved in decisions on major household purchases (-1 in Choice question); She would like to be (0 in Value question).	-1

4 Evaluating the effectiveness of the Empowerment score

The main contribution of the tool is to add the Value and the Norms components to the Choice questions, which are a measurement of decision-making. This must include also the reason why people make choices and the role of social norms in influencing decision-making. One important question to ask is: do these components make a difference? To answer this question, we use our survey data and, first, run simple correlations between an empowerment score built using only the Choice questions (a direct measure of decision-making, hereafter, the Choice-only score) and the Empowerment score built using the methodology just illustrated.⁶ Second, we regress the two scores on a range of observed variables. Before running these tests, in the next subsection, we provide details about our survey.

4.1 Survey Methodology

We selected ten indicators within the four domains discussed earlier (household, community, market, state). The four domains are broad enough to be usable in different contexts, whereas the choice of specific indicators should be adapted to the specificity of the local one. For instance, one of our indicators for the ‘state’ domain is ‘voting’ (the ability to vote for the village level elections). In an authoritarian context with no elections, this would of course make little sense. But the ‘state’ domain would still be an important domain to investigate empowerment, using context-specific indicators. The

⁶This is a similar test to what Peterman et al. (2015) did.

choice of our indicators and survey questions was based both on the literature - we used already tested questions and indicators for the household domain, adapted from those proposed by Ibrahim and Alkire (2007). For the remaining domains, we constructed our indicators on the basis of extensive qualitative fieldwork, during which we conducted 260 semi-structured interviews. Our questions on these domains are thus highly context-specific. Table 4 presents the indicators that we choose in each domain and the questionnaire can be found in the appendix. We give equal weight to each indicator in order to limit as far as possible arbitrary choices, as a case can be made to weigh differently, different combinations of indicators. The indicators and the questions are the same for both women and men.

Table 4: Empowerment Indicators and Domains

Domain	Indicator	Weight
Household	Control over Money	1/10
	Decision-making power	1/10
	Control over one's body	1/10
Community	Moving in the public domain	1/10
	Participation in community life	1/10
	Freedom to do certain things	1/10
Market	Labour relations	1/10
State	Voting	1/10
	Participation at village assembly	1/10
	Speaking in public	1/10

It should be noted that some of the questions might have a different meaning for women and men, as they do not face the same kind of (dis)empowering experiences. For instance, for the 'moving in the public domain' indicator, we asked about their ability to walk on their own through the upper caste dominated space of their village. For lower caste men, the inability to do so

(provided that they wish to in the first place) would reflect a disempowerment process stemming from caste discrimination and accompanying social norms. However, for a low caste woman, such inability would reflect both caste and gender discrimination, as social norms might lead their male relatives to prevent them from walking around unaccompanied and at the same time caste norms might prevent her to walk through the upper-caste dominated part of the village.

We conducted the survey in rural Andhra Pradesh (AP) and Uttar Pradesh (UP) in early 2018. We selected two districts in each state: Anantpur (Penukonda mandal) and Guntur (Bapatla mandal) in AP; and Fatehpur (Malwan block) and Jhansi (Babina block). The districts were chosen to reflect a broad spectrum of poor people's living conditions in general and Dalits in particular: Anantpur and Fatehpur have low Human Development Indicators (HDIs) and high levels of violence against Scheduled Castes (SCs); the opposite is true of Guntur and Jhansi. We also took into account district-level implementation quality. This was done to avoid surveying districts where implementation is nearly non-existent (as is the case in some districts of UP).

Within each district, we selected one block broadly reflecting the Human Development Index of the district (on the basis of Census 2011 data). We then randomly selected in each block a number of Gram Panchayats (GPs) sufficient to get approximately 1000 Dalit households who had worked in the last 5 years under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), a large scale public works programme. The total number of surveyed GPs is 25. We then calculated the total amount of

days that each household worked under the programme in the last 5 years. We then divided all the households into quartiles (according to their participation in the programme) and randomly selected 100 households for each quartile. This gave us a sample of 400 households per block, for a total of 1600 ‘eligible’ households across the four blocks in the two states. Then we randomly assigned half of the households to female enumerators and half to male enumerators, who interviewed one member of the households of their same gender. We could find and interview 1218 workers.⁷ We then looked at the number of days that the person who we interviewed had worked over the last five years. This is important as individuals, not households, are the unit of analysis.

4.2 Correlations between Choice-only and the Empowerment scores

In this subsection we evaluate the difference that adding the Value and Norms components to decision-making questions (what we call the Choice questions) make for the measurement of empowerment. We run a simple correlation between the Choice-only score and the Empowerment score. The correlation between the Empowerment score and the Choice-only score is 0.81. The high

⁷In the regression analysis, we present results with our $N = 970$. We first excluded those respondents whose MGNREGA job card number could not be identified in the official MGNREGA database. This was done to be sure that all of our respondents were ‘real persons’. We could not identify MGNREGA job card numbers for 82 respondents. Second, we exclude those respondents for whom we do not have complete answers for our questions. A further 164 respondents were dropped from our analysis. This second exclusion is more problematic if more disempowered people were to skip the survey or vice versa. We address these concerns in the Appendix D. Finally, we further drop 2 more respondents because their details on land ownership and religious identification were inaccurately recorded.

coefficient indicates that the Choice component is the most important element of the Empowerment score. There is, however, a substantial difference between the Choice-only score and the Empowerment score, as illustrated in the next sub-section.

4.3 Differences between the Choice-only and Empowerment scores

The main objective of this sub-section is to highlight the differences between the scores built using only the Choice questions (Choice-only) and one constructed using the method illustrated in section 3.2 (Empowerment score). We have two dependent variables reflecting the two versions of the score: Choice-only and the Empowerment score. To observe any differences across the two scores, we regress the two dependent variables on the following range of observed variables: Number of days that a person has worked in the MGNREGA over the last five years, sex, type of house where the respondent lives⁸, land ownership (in acres), education, religion and age. We use Ordinary Least Squares (OLS) regression strategy to model the relationship between the observed variables and our two dependent variables.⁹ Also, for ease of comparison and substantive interpretation of the results, we report standardized regression coefficients.¹⁰

⁸We have four categories: Pucca (Proper solid house), Pucca-Kutchra (Part solid, part mud house), Kutchra (mud house), Hut (makeshift house).

⁹Given the nature of our scoring system for our dependent variables-Choice-only and Empowerment score- we have replicated the OLS models using ordinal logistic regression strategy. The substantive results are robust to using either of the two. In the main text we report results from the OLS models. Ordinal Logistic Regressions are available upon requests.

¹⁰Unstandardized regression results are reported in Table A2 in the Appendix B.

Table 5: Differences across Choice-only and Empowerment Score

	<i>Dependent variable:</i>	
	Choice_only	Empowerment Score
	(1)	(2)
Number of days worked in MGNREGA	0.08*** (0.03)	0.08*** (0.03)
Women (ref: Men)	-0.53*** (0.06)	-0.24*** (0.07)
Pucca-Kutchha (ref: Pucca)	0.04 (0.07)	-0.06 (0.08)
Kutchha-Mud (ref: Pucca)	-0.17** (0.08)	-0.21** (0.08)
Hut (ref: Pucca)	-0.20 (0.15)	-0.21 (0.15)
Land	0.01 (0.03)	0.04 (0.03)
Can sign (ref: illiterate)	-0.06 (0.08)	-0.01 (0.08)
Up to class 5 (ref: illiterate)	-0.05 (0.10)	0.06 (0.10)
Up to class 9 (ref: illiterate)	-0.02 (0.12)	0.06 (0.14)
Over class 9 (ref: illiterate)	0.03 (0.12)	-0.06 (0.14)
Hindus (ref: Christians)	0.57*** (0.09)	0.36*** (0.09)
Age	0.05 (0.03)	0.06* (0.03)
Constant	-0.10 (0.10)	-0.09 (0.11)
Observations	970	970
R ²	0.167	0.070

Note:

*p<0.1; **p<0.05; ***p<0.01

The main differences between the two scores are reflected via the sex and religion variables.¹¹ Women are more disempowered in comparison to men for both the Choice-only score and the Empowerment score. However, the gap between women and men reduces using the Empowerment score, as signalled by the reduced negative coefficient for the Women variable in model 2. To understand the mechanisms through which this could happen, it is useful to refer back to Table 3 and Figure 1 (a modified version of the table appears below as Table 6). In the table and figure we classify respondents in five categories (A, B, C, D, E), according to their responses to the Choice, Value and Norms questions for a given indicator. The reduced gap between the scores of women and men that we observe when we use the Empowerment score as dependent variable (compared to the Choice-only score) can happen in three ways: first, a larger number of women (compared to men) make choices that defy social norms (woman A, in Table 3). These respondents will see their empowerment score increase by 0.5 points over the Choice-only score. Second, a larger number of women (compared to men) do not care about making choices that they do not make (woman C in Table 3). These respondents will see their scores increase by 1.5 points over the Choice-only score. Third, a larger number of women (compared to men) do not care about making choices that they do not make and think that their behaviour is normal in their reference community (Women D in Table 3).

¹¹We also see that the R^2 value decreases when the dependent variable is the Empowerment score as compared to Choice only score. This shows that the standard demographic independent variables explain less variation in the Empowerment score in comparison to the Choice only score. This might underscore the importance of the psychological or non-cognitive elements in measuring empowerment, once we account for the Value and Norms components. We elaborate on the importance of these elements in measuring empowerment in the Limitations section below.

These respondents will see their score increase by 1 point over the Choice-only score. In Table 6, we show the average proportion of female and male respondents who fall in each category (A, B, C, D, E), across all the ten indicators. In the appendix C we provide the same data, broken down by indicators.

Table 6 (which can be constructed for any variable of interest) provides useful information. First, it shows why the gap in the scores of women and men reduces when we add the Value and Norms components to the Choice-only score. In the case of our survey, this is due to all three factors mentioned above: more women than men make choices that defy social norms¹² (Category A); more women than men do not care about making choices that others normally make (Category C); and more women than men do not care about making choices which is normal in their community not to make (Category D). In our survey, respondents in Category C contributes the most in terms of reducing the gap between women and men.

Second, the table provides useful information in terms of potential policy interventions. A high proportion of respondents in categories A and B is certainly an encouraging result, as these are people who make choices. However, not surprisingly, the proportion of women who fall in these categories is

¹²Dalit and lower caste women face oppression at the level of a) caste, b) class and c) gender, that is, the triple burden of economic marginalisation (as low wage labourers for upper or upwardly mobile caste landowners, who own most of the land), caste discrimination, and gender subordination (Dalit women experience the brunt of patriarchal repression both by upper castes and Dalit men) (Arya and Rathore, 2020). Within this frame of “graded inequality” (Rege, 1998), women are disproportionately subject to greater social norms. Thus, any expression of agency by women is more likely to break some of these norms. For instance, it would be seen as normal behaviour for a man to be in charge of major household expenditures. But when a woman takes charge of this role, it can be perceived as transgressive.

Table 6: Proportion of female and male respondents by their increase in the Empowerment score

Respondent category	Description	Increase in score via the Value and Norms components	Proportion of females	Proportion of males
A	Respondent A makes a choice (+1 in Choice question); S/he thinks that this is not what women/men normally do in their community (+0.5 in Norms question)	+0.5	5.16	3.92
B	Respondent B makes a choice (+1 in Choice question); S/he thinks that this is what women/men usually do in their community (0 in Norms question)	0	61.5	70.37
C	Respondent C does not make a choice (-1 in Choice question); s/he does not want to (+1.5 in Value question); s/he thinks that women/men in their community usually make that choice (0 in Norms question)	+1.5	13.73	6.90
D	Respondent D does not make a choice (-1 in Choice question); s/he does not want to (+1.5 in Value question); s/he thinks that it is normal for women/men in their community not to make that choice (-0.5 in Norms question)	+0.5	10.33	9.45
E	Respondent E does not make a choice (-1 in Choice question); S/he would like to (0 in Value question).	0	9.28	9.35

significantly lower compared to men. At the opposite end, those in category E are the most disempowered, in the sense that they would like to make certain choices, but they are unable to. Presumably, this indicates that there are constraints to the expression of their decision-making. Thus, policies and programmes aiming at identifying and removing such constraints would be the most appropriate to target these respondents.

Those in categories C and D are more ambiguous to interpret. Both types of respondents do not care about making choices that they do not make. However, category D respondents conform to what they think is common behaviour in their community. This suggests that an important reason why they do not care about making those choices is that they have internalised disempowering social norms. Hence, interventions at the community level which aim to change social norms can be the most appropriate.

The most problematic category from a normative point of view are respondents C. While they do not care about making choices that, normatively speaking, they should care about, they also think that people in their community usually do make those choices. Their behaviour - not making choices that they do not value - is thus presumably not due to the desire to conform to prevailing social norms. As researchers, we believe that we should trust that our respondents have reasons not to value making those choices. However, for instance, a large number of women not caring about making certain choices - regarding decisions on their own health, for instance - might be a cause for concern. Why do they not care? In these instances, further investigation (for example, through qualitative interviews) might shed more light and inform policy intervention.

Finally, the table above can be broken down by indicator (see appendix C), which allows for a more fine-grained analysis of what empowerment or disempowerment processes occur in different areas.

The second variable that shows a significant difference between the Choice-only score and the Empowerment score is religion. Specifically, Hindus are more empowered than Christians using both scores as dependent variables, but the gap reduces when we use the Empowerment score (as signalled by the positive and decreasing coefficient). While a similar proportion of Hindu and Christian respondents, on average, falls in category A (4.44 and 4.95 per cent, respectively), a larger proportion of Christians falls in categories C (12.19 per cent, as against 8.63 per cent for Hindus) and D (14.12 and 9.85 per cent), which increases their average score (compared to Hindus), thus reducing the empowerment gap.

Table 7: Proportion of female and male respondents by their increase in the Empowerment Score broken down by religion and selected indicators

		Control over Money		Control over Body		Participation in community life		Participation in village assembly		Speaking in Public	
		Hindus	Christians	Hindus	Christians	Hindus	Christians	Hindus	Christians	Hindus	Christians
Women	A	20	7	7	21	6	1	4	2	5	1
	B	63	54	88	45	56	24	72	59	50	21
	C	11	19	1	14	15	33	11	25	17	48
	D	2	9	00	7	6	23	6	4	8	10
	E	4	12	4	13	17	19	7	9	20	20
Men	A	7	7	6	11	1	11	1	1	11	4
	B	88	87	88	78	49	29	91	66	34	24
	C	1	-	1	4	4	21	5	26	34	45
	D	-	-	-	-	12	9	0	1	6	11
	E	4	6	5	6	34	29	3	6	15	16

Breaking down the results by indicator offers some insights to interpret these results. The differences in empowerment between Hindus and Christians is driven by five indicators: control over money; control over one's body; participation in community life; participation at village assembly; and speaking in public. The story is different for the first two of these indicators

vis-a-vis the latter three (Table 7). For the control over money and control over one's body indicators, the religion of the respondent is only part of the explanation. Hindu and Christian men have a similar ability to make choices in these aspects (as evidenced in the similar proportion of respondents in categories A and B), but Christian women are much less likely to be involved in these decisions than Hindu women. This might signal different customs and social norms regulating household life across the two religious communities. The striking differences between Hindu and Christian women in decision-making power in these spheres then translates in a much higher proportion of Christian women (compared to Hindu Women) who were asked the Value question, to which a significant proportion answered that they do not care about making these kind of choices (categories C and D). This increased their empowerment score, thus contributing significantly to the reduced empowerment gap between Hindus and Christians, when we use the Empowerment score as the dependent variable.

For the second set of indicators in Table 7 religion seems to be the central element of the puzzle. Christians (both men and women) participate less in community life, attend the Gram Sabha less and speak less in public (as reflected in the lowest proportion of Christian respondents in categories A and B). This in turn is reflected in the much higher figures for Christians in categories C and D, which, again, increases significantly their Empowerment score vis-a-vis Hindus. While we cannot offer any firm conclusion of why this is the case, it might be that their minority status make them less integrated into broader community networks. It might also be that people from their community are less likely to be represented in the village council or the local

bureaucracy, which could make participation in public life less appealing.

5 Assessing empowerment levels

In this section we use the Alkire-Foster (AF) method to construct an empowerment index, based on our survey data. The AF method is used to construct multi-dimensional indexes such as the Multidimensional Poverty Index as well as the WEAI. The AF method is a useful tool to a) measure poverty and well-being (including empowerment); b) identify who the poor (or, in our case, the disempowered) are; and c) assess poverty (or empowerment) levels across locations, social groups and time. While our discussion of the methodology will necessarily be limited, the detailed procedure is explained in Alkire et al. (2013).¹³

The first step is to see whether each respondent is empowered or not in each of the indicators. We consider a person to be empowered if her/his Empowerment score in that indicator is higher than 0 (calculated using the methodology explained in Section 3.2. In Figure 1 and Table 3 above, respondents A, B and C would be considered empowered in that indicator; respondents D and E would not. We code as 1 if the respondent is disempowered in that indicator, and 0 otherwise. This is what AF call a respondent inadequacy score for that indicator: a person that is not empowered in that indicator will have an inadequacy score of 1; a person who is empowered will have 0. We then code similarly all the 10 indicators, so that each respondent has an inadequacy score (either 1 or 0) for each of the indicators. Then, we

¹³A detailed description of the AF method, including its usefulness for policy-makers and organisations, is available here: <https://ophi.org.uk/policy/alkire-foster-methodology/>.

calculate the weighted sum of all the inadequacy scores. The total inadequacy score will assume a value between 0 (the respondent is empowered in all the indicators) and 1 (the respondent is disempowered in all the indicators). Since we have 10 indicators, all equally weighted, a total inadequacy score of, say, 0.3, would indicate that that person is disempowered in three indicators.

The next step in the AF method is to identify who are the disempowered people. We used a (somewhat arbitrary) cut off of 20 per cent (as Alkire et al 2013 also do): if a respondent is disempowered in more than two indicators out of ten (i.e., has a total inadequacy score higher than 0.2), then we consider that person as disempowered.

We then compute the index, which contains two important pieces of information: first, a disempowerment headcount ratio (i.e., the proportion of respondents who are identified as disempowered) and the intensity of their disempowerment (i.e., their average total inadequacy score). A disempowerment index is calculated multiplying these two elements. The empowerment index is then computed as 1- the disempowerment index. The results are presented in Table 8, where we also show the results of the same exercise but using the Choice-only score.

Table 8 provides useful (but unsurprising) information: a larger proportion of women are disempowered compared to men and the intensity of their disempowerment is higher. The table also shows that, when we compare the Empowerment score with the Choice-only score, the number of disempowered people (both men and women) drops dramatically. This, on the one hand, is consistent with our discussion in Section 4.3, where we saw that

Table 8: Empowerment Indices

Empowerment indices	Choice-only			Empowerment Score		
	F	M	T	F	M	T
Disempowerment headcount ratio	0.64	0.52	0.58	0.30	0.24	0.27
Intensity of Disempowerment	0.43	0.35	0.40	0.36	0.33	0.35
Empowerment Index	0.72	0.82	0.77	0.89	0.92	0.91
Observations	483	489	972	483	489	972

the empowerment gap between women and men is reduced when we use the Empowerment score as dependent variable as compared with the Choice-only score). On the other hand, the difference further underscores the importance of taking into account the reasons why a person does not make a certain choice (as the Value and Norms components do).

One of the important features of the AF method is that it allows us to decompose the index in a number of ways, including by sex, sub-national units and by indicators and to see what is their respective contribution to the overall disempowerment index. Figure 2 presents a breakdown by indicator and by sex of the respondent to the disempowerment index.

As is immediately evident, such a breakdown offers a comprehensive picture of the main sources of disempowerment that can be useful to present to policy-makers, donors and other interested parties. In our case, for instance, it is clear that factors such as labour relations (captured by our question on whether the respondent was able to choose their employers) are not important disempowering factors. This is in line with data showing the

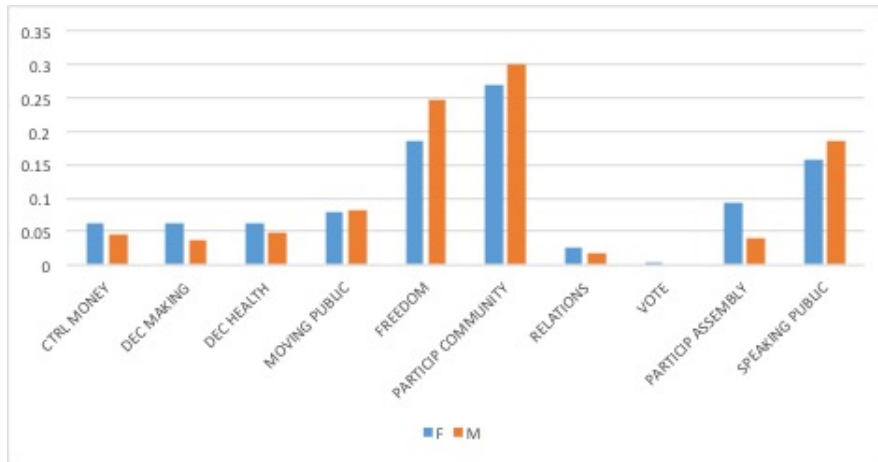


Figure 2: Indicators’ contribution to disempowerment, by sex

dramatic decline of bonded labour in India’s rural areas. Similarly, voting is not a contributing factor, which again is in line with turnout out rates at local elections. Household-related indicators contribute more to the disempowerment of women than men (expected), but they are dwarfed by the contribution of the community domain to overall disempowerment.

6 Limitations

While we believe that our tool significantly contributes to better measure empowerment processes - or at least its decision-making dimensions - it suffers from some limitations.

First, the tool relies on complete answers. If a respondent skips one question, then s/he has to be dropped from the analysis. This might introduce a self-selection bias that either underestimates or overestimates empowerment levels (as the bias could go in both directions). While there are ways to estimate how much of a problem this is (see appendix D), the risk of dropping

a significant number of respondents just because they skipped a single question, still remains. In our case, out of 164 respondents who were dropped because they had missing values, 141 of them had not answered one question only.

The reliance on complete answers also generates another problem, which can be partly addressed at the survey design stage. One alternative would be to simply increase the numbers of interviews, anticipating that some respondents will not answer some of the questions. While this will not solve the potential self-selection bias, it will at least avoid having too few interviews than originally planned. This, of course, would imply higher costs.

Another alternative (that we adopted, see appendix B.1) at the survey-design stage is to include in the survey alternative Choice-Value-Norms questions to be asked to those for whom the original question does not apply. For instance, our question for the Labour market asked whether agricultural labourers were free to choose which landlord to work for. Of course, this question would not apply to those who do not work as agricultural labourers. In those cases, we asked an alternative question on land leasing and their ability to bargain the terms of the lease with the landlord. While this increases the number of responses, it has the obvious drawback that not all respondents will have answered exactly the same questions. In our case, we included alternative questions for two of our indicators.

A second limitation (common to most measurements of empowerment) is that the method requires the researchers to make normative assumptions on what constitutes an empowering choice. We tried to limit this problem by conducting a substantial number of semi-structured interviews before de-

signing the survey. But it remains that, to apply the scoring system, one needs to make normative judgements about what the empowering choices are (more on this below).

In fact, the scoring system assigns a positive score to those who make a certain choice, assuming that making that choice is empowering and constitutes an expression of agency. In many cases, this is not a severe problem, as making or not making a certain choice is unequivocally empowering/disempowering. For instance, a question on whether a woman is able to decide on her own health or contraceptive measures is rather straightforward. In these cases, the normative assumptions of the researchers are a limited preoccupation. However, some questions are more ambiguous. Consider, for instance, a question about decision-making power on everyday household purchases. Is a woman who exercises decision-making on this aspect more empowered than one who does not? Arguably, there is no straightforward answer. In these cases, assigning a positive score to those who exercise decision-making and a negative one to those who do not might be problematic (but our tool requires the researchers to take that call).

One solution could be to ask the Value question also to those who exercise decision-making (unlike what is proposed in this paper). In this way, a woman who, for instance, is involved in everyday expenses, but would prefer not to be, would see her score diminished by the Value question. However, this would lead to a series of problems. First, what happens when a woman makes an unequivocally empowering choice - e.g., is involved in decisions regarding contraceptive measures - but would prefer not to? Would penalising this woman's decision-making score be still compatible with the understand-

ing of empowerment that has emerged from decades of research?

Second, asking the Value question also to those who make a choice would complicate the scoring of the following Norms question and require further normative assumptions by the researchers. In our version of the scoring system, a choice that conforms to prevailing social norms is neither rewarded, nor penalised (0 scoring). But if the respondent would prefer *not* to make a choice that she did and also believes that making that choice conforms to social norms, then a dilemma arises: on the one hand, one might want to penalise the respondent with a negative scoring (because we might assume that she makes that choice despite not wanting to, in order to conform to disempowering social norms); on the other hand, one might equally reasonably not assign a negative scoring, if the social norms the respondent is conforming to is not seen as a disempowering one. Similarly, if the choice that the respondent makes but would prefer not to goes against social norms, then it is equally reasonable to assign a positive score (if the said norm is seen as empowering) or a neutral one (if the norm is seen as disempowering).

For these reasons, we decided not to ask the Value question to those who exercise decision-making as per the Choice question. This implies that the researchers must decide beforehand that a ‘yes’ to the Choice question is empowering. One should therefore carefully consider whether to include possibly ambiguous questions in the survey. Conducting qualitative fieldwork as a preliminary step for the design of the survey is thus strongly recommended.

A final limitation of the method is that it is not applicable if the definition of empowerment adopted is not centred around the ability to make choices. For instance, it is not applicable to the individual level of empow-

erment (or, to simplify a bit, its psychological dimension, or what Rowlands (1997) called ‘power within’). The problem here is that the method requires a Choice question as its starting point, whereas most of the questions used to measure empowerment at the individual level do not comprise a choice. Rather, they aim to assess changes in levels of confidence, self-worth, opinions, acceptance of gender-based violence, etc. However, the method can certainly be used to measure empowerment at the individual level intended as ‘power to’ (Rowlands 1997), or the ability to enhance one’s personal autonomy.

7 Conclusion

In this paper, we present a novel, survey-based, multi-dimensional method to measure empowerment, which not only includes a direct measurement of people’s decision-making, but also takes into account the reasons behind people’s choices and the role of social norms in shaping these choices. As such, it seeks to grasp the process elements of empowerment, not only its outcomes. Some existing methods do ask Value and Norms questions (e.g., the WEAI), but not for every single indicator. Our method, on the contrary, is specifically designed to capture these crucial determinants of empowerment in each indicator. We show that the Empowerment score yields significantly different results from a score constructed using only questions that are a direct measurement of decision-making (what we have called the Choice questions), when used as a variable in regression analysis.

The method consists of two main elements: first, a framework to structure

the survey so that, for each of the indicators chosen, three components are captured: one measuring the ability to make a choice; one investigating whether the respondent had reasons to make that choice; and one capturing what other individuals in the respondent's community normally do regarding that choice. The second element is the methodology to score the answers and construct a composite score (the Empowerment score), which can be used as a variable in policy/programmes evaluations and to assess empowerment levels across location, time, and social groups and so on, thus providing information on potential areas for intervention.

The method is applicable to both in-depth modules (like the WEAI) and 'core' modules, seeking to measure a core set of indicators. Probably the use of the latter is most promising, as the method relies on a somewhat narrow definition of empowerment centred upon the ability to make choices. As such, a core set of indicators which aim at capturing this element of empowerment can be complemented by other questions on other dimensions, such as psychological or non-cognitive (such as control, motivation, and self-confidence) elements. This might indeed be a promising avenue for future research. Adding questions which aim at capturing the psychological determinants of decision-making can shed light on empowerment processes and aid in interpreting survey results. For instance, why do many women not care about making certain choices? Using an instrument such as the Relative Autonomy Index (Seymour and Peterman, 2018), one could look at whether certain choices (or the decision not to make certain choices) are intrinsically or extrinsically motivated. Similarly, while our tool suggests the importance of social norms and the desire to conform to these norms, complementing

our tool with more specific questions on how important these norms are in influencing behaviour and decision-making could refine the analysis and open the ‘black box’ of empowerment mechanisms.¹⁴

Using the method within a ‘core’ approach would also be useful to ameliorate the measurement of empowerment in surveys not specifically designed to capture it. In disciplines such as economics and political science, empowerment is often measured with a single question (often on decision-making power within the household) which can neither capture the complexity of the process, nor be grounded on a sound theoretical understanding of empowerment. Using the method proposed in this paper can possibly solve both problems.

The Empowerment score is also useful to identify who the disempowered individuals are, and in what areas their disempowerment is more severe. This can be valuable for policy decisions. We show that this can be done in two ways. First, by constructing tables that categorise respondents according to their answers (what we labelled categories A, B, C, D and E). In this way, one can see the proportion of respondents who make choices (categories A and B); the proportion who do not make choices but do not care about these (either because they have their own reasons or because they conform to prevailing social norms: categories C and D); and the proportion of respondents that do not make choices, but would like to, signalling the presence of structural constraints in the exercise of their decision-making (category E). These tables can be constructed indicator by indicator, showing what different processes

¹⁴Donald et al. (2020) reviewed all existing methods to measure these dimensions of empowerment.

of empowerment occur in different spheres. This information is extremely valuable for policy-makers and organisations.

Second, the answers to our questions can be used to assess empowerment levels, applying the AF method and construct an Empowerment index that can be compared across locations, time and social groups. Additionally, the AF method allows for assessing which indicator, social group or location contributes in what proportion to the overall Empowerment index. Both these applications of the Empowerment score provide useful inputs for policy-makers and organisations.

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Appendices

A Descriptive Statistics

Table A1: Complete Descriptive Statistics

	Mean	Std Dev	Min	Max	N
Empowerment score	6.95	1.93	-0.5	11.5	972
Choice-only score	4.12	3.07	-6	10	972
Number of days worked for MGNREGA	81.72	85.34	0	557	972
Women	0.49	0.5	0	1	972
Type of house	1.85	0.96	1	4	972
Land	0.71	1.14	0	7.5	971
Education	1.91	1.22	1	5	972
Hindus	0.73	0.43	0	1	971
Age	45.19	10.69	20	75	972

*Women (1 = Women 0=men)

*Type of house (1 = Pucca, 2 = Pucca/Kutca

3 = Kutcha/Mud, 4 = Hut)

*Education (1 = illiterate, 2 = can sign, 3 = Up to class 5

4 = Up to class 9, 5 = Over class 9)

*Hindus (1 = Hindus, 0 = Christians)

B Unstandardized results

Table A2: Unstandardized results for Table 6

	<i>Dependent variable:</i>	
	Choice only	Empowerment score
	(1)	(2)
Number of days worked in MGNREGA	0.003*** (0.001)	0.002*** (0.001)
Women (ref: Men)	-1.646*** (0.193)	-0.459*** (0.130)
Pucca Kutcha (ref: Pucca)	0.115 (0.226)	-0.123 (0.155)
Kutcha/Mud (ref: Pucca)	-0.518** (0.239)	-0.417** (0.162)
Hut (ref: Pucca)	-0.623 (0.474)	-0.398 (0.289)
Land	0.024 (0.089)	0.076 (0.054)
Can sign (ref: illiterate)	-0.178 (0.240)	-0.001 (0.151)
Up to class 5 (ref: illiterate)	-0.147 (0.316)	0.122 (0.201)
Up to class 9 (ref: illiterate)	-0.075 (0.376)	0.113 (0.275)
Over class 9 (ref: illiterate)	0.098 (0.378)	-0.108 (0.278)
Hindus (ref: Christians)	1.758*** (0.275)	0.706*** (0.173)
Age	0.014 (0.010)	0.012* (0.006)
Constant	2.911*** (0.610)	6.066*** (0.403)
Observations	970	970
R ²	0.167	0.068

Note:

*p<0.1; **p<0.05; ***p<0.01

B.1 Questionnaire

Women's survey (men were asked the same questions).

Control over money

- **Choice:** When decisions are made regarding major household purchases, who is normally taking the decisions? 1 you; 2 you and someone else jointly (for example your spouse); 3 spouse; 4 other; 99 dont know/not responding/Not applicable.
- **Value:** Would you like to have more autonomy on decisions taken in your household regarding major household purchases? 1 yes; 2 no; 99 no response.
- **Norms:** Do you think that, generally speaking, women in your community are involved in decisions with respect to major household purchases? 1 yes; 2 mostly yes; 3 mostly no; 4 no; 99 no response.

Decision-making power

- **Choice:** When decisions are made regarding your children's education, who is normally taking the decisions? 1 you; 2 you and someone else jointly (for example your spouse); 3 spouse; 4 other; 99 dont know/not responding/Not applicable.
- **Value:** Would you like to have more autonomy on decisions taken in your household regarding your children's education? 1 yes; 2 no; 99 no response.

- **Norms:** Do you think that, generally speaking, women in your community are involved in decisions with respect to their children's education? 1 yes; 2 mostly yes; 3 mostly no; 4 no; 99 no response.

Control over Body

- **Choice:** If you have a serious but non-threatening health issue such as severe stomach-ache or high fever, who takes decisions on where to go to get treatment and how to for you to recover? 1 you; 2 you and someone else jointly (for example your spouse); 3 spouse; 4 other; 99 dont know/not responding/Not applicable.
- **Value:** Would you like to have more autonomy on decisions taken in your household regarding how to take care of your health? 1 yes; 2 no; 99 no response.
- **Norms:** Do you think that, generally speaking, women in your community have autonomy to decide how to take care of their health? 1 yes; 2 mostly yes; 3 mostly no; 4 no; 99 no response.

Moving/Presence in the Public Domain

- **Choice:** Did you visit the part of the village where upper caste and/or OBCs live unaccompanied by any male member of your family since last Holi? (Holi had happened about one year before) 1 yes; 2 No; 99 no response.
- **Value:** would you have liked to go to the part of the village where uppercaste and/or OBCs live on your own? 1 yes; 2 No; 99 no response.

- **Norms:** Do you think that, generally speaking, women in your community visit the part of the village where upper caste and/or OBCs live on their own? 1 yes; 2 mostly yes; 3 mostly no; 4 no; 99 no response.

Freedom to do things

- **Choice:** Have you, since last Holi, refused to give way to an upper caste person? 1 yes; 2 No; 99 no response.
- **Value:** How important do you think it is that people like you were free to refuse to give way to an upper caste person? 1 not important at all; 2 not very important; 3 important; 4 very important; 99) no response.
- **Norms:** Do you think that, generally speaking, it is normal for people in your community to refuse to give way to an upper caste person? 1 Yes; 2 No; 99) No response/not applicable.

Participation in Community Life

For this indicator, we have two alternative questions, aiming at capturing the same type of choice. As pointed out in the paper, our tool relies on having complete answers to all the questions. Obviously, if someone had not heard of any protest (67.7 per cent of the respondents), s/he could not choose to attend or not (regardless of their preferences).

- **Preliminary Question:** Have you heard of any protest/collective action/dharna during the last few years happening nearby? 1 Yes; 2 No; 99 No response/not applicable If yes: proceed to Choice 1. If no, proceed to Choice 2.

- **Choice 1:** Did you, over the last few years, participate in a protest/dharna/collective/action/? 1 Yes; 2 No; 99 No response/not applicable.
- **Value 1:** I am going to read you some statements and I would like you to give me if you agree with those statements or not. You can answer that you strongly disagree; that you disagree; that you agree; and that you strongly agree.
Among the protests/dharnas that I heard of, no one interested me 1 strongly disagree; 2 disagree; 3; agree; 4 strongly agree; 99 no response.
- **Norms 1:** 27.3 Do you think that, generally speaking, women in your community go to protests/dharnas? 1 Yes; 2 No; 99 No response/not applicable.

To be asked to those who responded 'No' to the preliminary question

- **Choice 2:** Have you talked about matters concerning your village or your community with other people during the last few years? 1 Yes; 2 No; 99 No response/not applicable.
- **Value2:** how important do you think is for people like yourself to discuss matters concerning your village or your community? 1 not important at all; 2 not very important; 3 important; 4 very important; 99) no response.
- **Norms 2:** Do you think that, generally speaking, women in your community discuss matters concerning your village or your community? 1 Yes; 2 No; 99 No response/not applicable.

Labour Market

For this indicator, we have three alternative questions, aiming at capturing the same type of choice. As pointed out in the paper, our tool relies on having complete answers to all the questions. Obviously, if someone does not work as agricultural labourer, the first choice question will not apply (8.76 per cent). In those cases, we asked the second choice question. If that did not apply either (90.2 per cent), we asked the third choice question.

- **Preliminary question:** Do you work as an agricultural labourer (coolie)? 1 Yes; 2 No; 99 No response/not applicable.
If yes: proceed to Choice 1. If no, proceed to Preliminary question 2
- **Choice 1:** Are you free to choose for which landlord to work? 1 Yes; 2 No; 99 No response/not applicable.
- **Value 1:** would you prefer to choose to work for a different landowner(s)? 1 Yes; 2 No; 99 No response/not applicable.
- **Norms 1:** Do you think that, generally speaking, women in your community choose the landowners for whom they work? 1 yes; 2 mostly yes; 3 mostly no; 4 no; 99 no response.

To be asked to those who responded 'No' to the preliminary question.

- **Preliminary question 2:** Do you usually take land for lease? 1 Yes; 2 No; 99 No response/not applicable
If yes: proceed to Choice 2. If no, proceed to Preliminary question 3.

- **Choice 2:** What influence did you have in the terms of the lease?
 - 1 Almost no influence: the landowner decided the terms.
 - 2 Almost no influence: my husband or some other males in my family took care of this.
 - 3 Some influence: the landowner and myself both decided on the term.
 - 4 Almost complete influence: I decided the terms and the landowner accepted.

99 No response.
- **Value 2:** Would you have liked to have more autonomy with the terms of the lease? 1 yes; 2 no; 99 no response.
- **Norms 2:** Do you think that, generally speaking, women in your community negotiate the terms of the lease with the landowners? 1 yes 2 no 99 no response.

To be asked to those who responded 'No' to both the preliminary question.

- **Preliminary question:** Do you work in the non-agricultural sector? 1 yes 2 No 99 no response.
- **Choice 3:** do you usually bargain with your employer to get a higher wage?
- **Value 3:** would you like to have more autonomy in negotiating your wage? 1 yes 2 No 99 no response.
- **Norms 3:** Do you think that women from your community who work in the non-agricultural sector usually bargain for a higher wage? 1 yes; 2 mostly yes; 3 mostly no; 4 no; 99 no response.

Voting

- **Choice:** Did you vote at the last sarpanch elections? 1 yes 2 No 99 no response.
- **Value:** You did not vote because (please answer agree or disagree or don't know) at the following statements: I do not care about voting 1 agree 2 disagree 3 don't know/no answer.
- **Norms:** Do you think that, generally speaking, women in your community vote for the sarpanch elections? 1 yes; 2 mostly yes; 3 mostly no; 4 no; 99 no response.

B.1.1 Participation at Village Assembly

- **Choice:** Have you participated at the Gram Sabha in the last few years?
- **Value:** You did not attend the Gram Sabha because...(please answer agree or disagree or don't know) I was not interested in going 1 agree 2 disagree 3 don't know/no answer.
- **Norms:** Do you think that women from your community usually participate in the Gram Sabha?

Speaking in Public

- **Choice:** Have you, in the last few years, spoken in public at the Gram Sabha regarding a problem or an issue that you or your community had? 1 yes 2 no 99 no response.

- **Value:** I am going to read you some statements and I would like you to tell me if you agree with those statements or not. You can answer that you strongly disagree; that you disagree; that you agree; and that you strongly agree. I have not spoken out in public in the last few years because I had nothing to say 1 strongly disagree; 2 disagree; 3; agree; 4 strongly agree; 99 no response.
- **Norms:** Do you think that, generally speaking, women from your community speak at the Gram Sabha? 1 yes; 2 mostly yes; 3 mostly no; 4 no; 99 no response.

C Descriptive statistics from Table 7 broken down by indicators

Table A3: Household domain

	Control over Money (%)		Descision-making power (%)		Control over Body (%)	
	Women	Men	Women	Men	Women	Men
A	16.36	6.75	6.42	5.93	11.18	6.95
B	60.04	88.14	72.05	86.91	75.57	86.09
C	13.66	0.41	12.63	3.27	4.35	2.04
D	3.93	0.00	2.07	0.20	2.28	0.00
E	6.00	4.70	6.83	3.68	6.63	4.91

Table A4: Community domain

	Moving in Public (%)		Participation in community (%)		Freedom to do certain things (%)	
	Women	Men	Women	Men	Women	Men
A	4.35	4.50%	4.35	3.48	3.73	2.04
B	42.24	84.46	47.00	44.17	6.21	5.93
C	42.24	3.27	20.29	7.98	7.66	5.11
D	8.70	3.68	10.77	11.45	62.94	74.23
E	2.48	4.09	17.60	32.92	19.46	12.68

Table A5: Market and State domain

	Labour relations (%)		Voting (%)		Participation in village assembly (%)		Speaking in public (%)	
	Women	Men	Women	Men	Women	Men	Women	Men
A	1.04	0.82	0.83	0.82	3.73	0.61	4.14	9.20
B	95.03	95.91	98.76	99.18	68.32	85.28	41.41	31.70
C	0.62	0.61	0.00	0.00	15.11	9.82	25.88	36.81
D	0.83	0.00	0.00	0.00	5.38	0.41	8.28	6.95
E	2.48	2.66	0.41	0.00	7.45	3.89	20.29	15.34

D Missing Values

In the main text we mention that we could find and interview 1218 respondents. Out of the 1218, we exclude respondents whose MGNREGA job card number we could not identify in the official MGNREGA database. As mentioned above, this was done to make sure that all of our respondents were ‘real persons’. We could not identify MGNREGA job card number for 82 respondents. This leaves us with 1136 respondents. We further exclude 164 respondents because they skipped at least one question. This was done because, as mentioned in the text, our method relies on complete answers. 141 respondents were excluded because they skipped a single question. A further 16 respondents were excluded because they missed two questions; 4 respondents were excluded because they missed three questions, and 3 respondents were excluded because they missed 4 questions. As shown in Table A8, there are differences in the response rates across the indicators with the majority

of the missing cases is the Labour relations indicator (Market domain) (106 missing cases). We know that respondents were not able to complete the answers for this indicator because they were not able to identify an employer. In other words, our question simply did not apply to them.

Table A6: Respondents missing

	One question	Two questions	Three Questions	Four Questions	Total
Respondents missing	141	16	4	3	164

As mentioned above in Section 6, excluding respondents because they do not complete all the questions is more problematic and could be symptomatic of a self-selection bias. As a first test, we see if there are any systematic differences between those respondents which have complete answers for all the indicators (i.e. 972 respondents) and those which we exclude (i.e. 164 respondents).¹⁵ In Table A7, the dependent variable assumes the value of 1 for respondents which have complete answers and 0 for those excluded. While there are no systematic differences with reference to the number of days worked for MGNREGA, Women, education, religion, and age, respondents with Pucca-Kutchha houses were less likely to complete all the answers in comparison to those respondents which have Pucca houses (reference category).¹⁶ By contrast, respondents who owned more land were less likely to complete all the answers as opposed to those who owned less land. The opposing associations between completing all the answers and the type of house, on the one hand, and the amount of land owned, on other hand, shows that there

¹⁵In the regression analysis we further drop a respondent for whom the amount of land owned was inaccurately recorded.

¹⁶Pucca houses are solid houses whereas Pucca-Kutchha houses are part solid part mud houses

is no specific trend in favour of more resourceful respondents completing all answers.

To further probe if these systematic differences remain when we break the story indicator-by-indicator, we perform a series of balance tests. In Table A9, we perform balance tests across a range of observables to test if there is a systematic pattern for not completing the answers. The dependent variables are all the ten indicators where 1 = providing a completing response for the questions in the specific indicator, and 0 = skipping a question in the specific indicator. The results show that for six indicators (Control over Money-model 1, Control over Body-model 3, Moving in the Public domain-model 4, Participation in community life-model 5, Voting-model 8, and Participation in village assembly-model 9) there are no differences between those who answer all the questions and those who do not. For others we do find some differences between those who provide answers and those who skip a question on some covariates. However, what is important to note is that there is no specific trend in either direction that could be a cause for concern. For instance, for some indicators, like the Decision-making power-model 2, we see that living in a Hut is negatively associated with completing all the answers in comparison to living in a Pucca house, whereas for another indicator like Speaking in Public-model 10, we see that living in a Kutcha/Mud house is positively associated with completing all the answers. One indicator primarily driving the results is the Labour relations indicator in the Market domain. Respondents living in Pucca-Kutca houses were less likely to complete all the answers for this specific indicator as opposed to respondents living in Pucca houses. In addition, respondents owning more land were

less likely to complete all answers in comparison to respondents owning less land. As mentioned in the Limitations section, our question for this indicator asked about the relation with an employer/landlord. This question then excluded the self employed. Therefore, these results should be interpreted as self-employed more likely to live in Kutca-Pucca houses in comparison to Pucca houses and own more land in comparison to labourers.

Table A7: Participation in Total Empowerment Score

	<i>Dependent variable:</i>
	Complete answers
Number of days worked in MGNREGA	-0.0002 (0.0001)
Women (ref: Men)	0.020 (0.023)
Pucca-Kutchha (ref: Pucca)	-0.080*** (0.028)
Kutchha/Mud (ref: Pucca)	0.023 (0.027)
Hut (ref: Pucca)	-0.068 (0.045)
Land	-0.025** (0.011)
Can sign (ref: illiterate)	0.030 (0.027)
Up to class 5 (ref: illiterate)	0.012 (0.037)
Up to class 9 (ref: illiterate)	0.016 (0.046)
Over class 9 (ref: illiterate)	0.008 (0.046)
Hindus (ref: Christians)	0.007 (0.027)
Age	0.001 (0.001)
Constant	0.830*** (0.071)
Observations	1,133
R ²	0.026

Note:

*p<0.1; **p<0.05; ***p<0.01

Table A8: Missing respondents Domain-wise

	Complete answers	Missing
Control over Money (HH1)	1126	10
Decision-making power (HH2)	1085	51
Control over one's body (HH3)	1131	5
Moving in the public domain (CC1)	1135	1
Participation in community life (CC2)	1132	4
Freedom to do certain things (CC3)	1130	6
Labour relations (M)	1130	106
Voting (S1)	1134	2
Participation at village assembly (S2)	1134	2
Speaking in public (S3)	1126	10

E Sensitivity tests for different scoring systems

The scores assigned to the Choice, Value and Norms questions are somewhat arbitrary. We conducted a simple sensitivity test to different scoring systems, whose results are presented here. We tried three versions of the Empowerment Score (see Table A10). The first version (Emp Score–) assigns +1/0 to the Value question and +0.5/-0.5 to the Norms question. The second version is our Empowerment Score as detailed in the main text; the third version (Emp Score +) assigns +1.5/0 to the Value question and +1/-1 to the Norms question. We then calculated the proportion of disempowered people for each of these scores and the choice-only score. We use the AF method (as explained in the text) to identify the disempowered people. The results are presented in Table A10. The Emp Score – is equivalent to the Choice-only score. In other words, in this version of the score, adding the Value and Norms component does not make a difference (which is also re-

Table A9: Participation indicator by indicator, DV: Complete answers =1 and skipped = 0

	<i>Dependent variable:</i>									
	Control over Money	Decision-make power	Control over body	Moving in Public	Particip in community	Freedom to do certain things	Labour relations	Voting	Particip in assembly	Speaking in Public
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
No. of days MGNREGA	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000* (0.000)	0.000 (0.000)	-0.000 (0.000)	0.000* (0.000)
Women (ref: Men)	-0.005 (0.006)	0.003 (0.014)	-0.002 (0.004)	0.002 (0.002)	0.003 (0.003)	0.010 (0.006)	-0.005 (0.002)	0.002 (0.002)	0.001 (0.002)	0.016* (0.008)
Pucca-Kutchha (ref: Pucca)	0.002 (0.006)	-0.025 (0.015)	-0.002 (0.006)	0.002 (0.002)	0.001 (0.004)	0.010** (0.005)	-0.073*** (0.025)	-0.000 (0.002)	0.002 (0.002)	0.005 (0.008)
Kutchha/Mud (ref: Pucca)	0.003 (0.007)	0.006 (0.015)	0.003 (0.002)	0.001 (0.001)	0.004 (0.003)	0.005 (0.007)	0.005 (0.023)	0.000 (0.002)	0.001 (0.001)	0.017** (0.007)
Hut (ref: Pucca)	-0.014 (0.017)	-0.069** (0.034)	0.002 (0.004)	0.000 (0.000)	0.001 (0.001)	0.002 (0.003)	0.018 (0.028)	-0.011 (0.011)	-0.011 (0.011)	-0.019 (0.018)
Land	0.002 (0.001)	-0.005 (0.006)	-0.005 (0.003)	-0.000 (0.000)	-0.001 (0.003)	-0.003 (0.002)	-0.021** (0.009)	0.000 (0.000)	-0.000 (0.001)	0.001 (0.002)
Can sign (illiterate)	0.002 (0.006)	0.021 (0.014)	-0.002 (0.006)	-0.004 (0.004)	-0.000 (0.004)	0.004 (0.004)	0.020 (0.023)	-0.003 (0.003)	-0.001 (0.004)	-0.008 (0.007)
Up to class 5	-0.002 (0.009)	0.012 (0.021)	0.004 (0.003)	-0.001 (0.001)	0.004 (0.003)	-0.000 (0.010)	-0.007 (0.032)	0.001 (0.001)	0.003 (0.002)	0.011** (0.005)
Up to class 9	-0.023 (0.020)	0.010 (0.025)	-0.010 (0.014)	-0.001 (0.001)	0.004 (0.004)	-0.002 (0.016)	0.024 (0.037)	0.000 (0.001)	0.002 (0.002)	0.000 (0.015)
Over class 9	-0.007 (0.013)	0.018 (0.025)	0.003 (0.004)	-0.002 (0.002)	0.005 (0.004)	0.012 (0.008)	-0.023 (0.041)	0.0004 (0.001)	0.002 (0.002)	-0.005 (0.018)
Hindus (ref: Christians)	0.001 (0.006)	-0.006 (0.014)	0.0005 (0.005)	-0.003 (0.003)	-0.002 (0.002)	-0.002 (0.003)	0.023 (0.024)	0.000 (0.001)	0.000 (0.001)	-0.010* (0.006)
Age	-0.000 (0.000)	-0.001 (0.001)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.001 (0.001)	0.001 (0.001)	-0.000 (0.000)	0.000 (0.000)	0.001 (0.001)
Constant	1.001*** (0.018)	0.989*** (0.037)	0.997*** (0.014)	1.010*** (0.010)	0.992*** (0.006)	0.949*** (0.041)	0.887*** (0.065)	1.003*** (0.003)	0.998*** (0.005)	0.938*** (0.043)
Observations	1.133	1.133	1.133	1.133	1.133	1.133	1.133	1.133	1.133	1.133
R ²	0.008	0.014	0.012	0.015	0.004	0.038	0.033	0.016	0.006	0.032

*p<0.1; **p<0.05; ***p<0.01

Note:

flected in the extremely high correlation (0.94) between the two scores). The Empowerment score and the Emp Score + are also equivalent.

Table A10: Sensitivity tests for different scoring systems

	EMP SCORE-	EMP SCORE	EMP SCORE+
CHOICE SCORES	1/-1	1/-1	1/-1
VALUE SCORES	1/0	1.5/0	1.5/0
NORMS SCORES	0.5/-0.5	0.5/-0.5	1/-1
% Disempowered Choice only	0.58	0.58	0.58
% empowered Emp score	0.58	0.27	0.27
% Female Disemp Choice only	0.64	0.64	0.64
% Female Disemp Emp Score	0.64	0.30	0.30
% Male disemp choice only	0.52	0.52	0.52
% Male disemp emp score	0.52	0.24	0.24