

Subjective Well-Being, Decent Work and Social Capital of the Informal Workers from Hooghly District of West Bengal

**Addendum to the Thesis submitted to Jadavpur University
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**Breeta Banerjee
Registration Number: AOOECO100115
(F.I. No. 208/15/Arts)**

Department of Economics
Jadavpur University
Kolkata-700032, India

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**Addendum for the thesis titled “Subjective Well-Being, Decent Work And Social Capital
Of The Informal Workers From Hooghly District Of West Bengal”
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In reference to the comments made in the detailed report by one of the examiners, this report addresses each of the comments and lists all the required modifications made in the updated thesis. Additionally, a few other modifications done in the updated thesis are listed afterwards.

Major observations

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| 1. | <p>An interesting finding of the thesis is, life satisfaction index and decent work index are negatively impacted by years of schooling. Some explanations have been offered to explain this. P. 63: "Our study finds small negative effects of years of schooling ... on LS. ...besides many benefits of formal education, more years of schooling not only increases income aspiration but also aspiration of white-collar jobs." P. 136: "higher years of schooling can reduce decent work achievements of informal workers, i.e. for the people who are likely to end up in unskilled and semiskilled employment sectors, the short-run cost of acquiring basic education exceeds its long-run benefits results". Let's assume these explanations are correct. But then people do try to get more education, as evidenced by the rising education levels over time, on an average. What explains this? Does the fall in LS (or DWI) due to more education gets compensated by the beneficial effect of some other variable which is impacted by more education? Similar is the case of the positive effect of rural residence on SWB (P. 64: "residing in rural area has a positive bias on subjective well-being of informal workers."). One is left wondering how does this square with evidence of rising urbanisation. Some discussion on this point seems to be pertinent.</p> |
| Ans. | <p>As discussed within the thesis, especially in the last chapter (conclusion), SWB, LS and DWI are few of the many dimensions of well-being which are mostly non-substitutable i.e. they truly capture different aspects of well-being. Education is also an important determinant of well-being which ensures access to other basic material requirements of human life (right to education is recognized as a fundamental human right). What these results suggest is for the present group of responders, education is likely to have a negative impact on two other measures of well-being. It neither suggests that people (historically) make their decision to get education keeping in mind these two particular aspects of well-being, nor does it advice to make decisions in that way. It merely shows the relations between these alternative measures and determinants of well-being for the present group of responders. These explanations are valid in case of residing in urban area as well. Although, unlike decision to get more education, decision of urbanisation is not taken at an individual or even community level, and the decision-making institutions may not put social well-being at all at the center of their decision-making. Differing impact of a factor/determinant on different measures of well-being is more evident in case of residing area, where residing in rural area has a positive impact on SWB but a negative impact on DWI for the present group of responders.</p> <p>Also, ‘rising education levels’ or ‘rising urbanisation’ essentially has a time component. The present study is based on a cross-sectional dataset, hence attempting to find explanation of a historical phenomenon based on the results of this study would have been far-fetched and misleading.</p> <p>Moreover, effect of education on SWB or DWI is not unanimous throughout literature and this study only finds evidence in support of one section of the literature. Same goes for effect of urban residence on SWB (as mentioned in the answer to comment 8 of minor observations).</p> |
| 2. | <p>When results of regressions have been discussed, there is seldom any comments on the magnitude of the regression coefficient (when statistical significance is present).</p> |
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Ans.	It is true that the magnitude of the regression coefficients have not been discussed largely in this thesis. To some extent this has been a deliberate decision given the type of research problems being addressed here. The thesis deals with self-constructed indices of subjective well-being, decent work and social capital. Almost all of these concepts are subjective in nature and the aim of their indexing is not to arrive at objective cardinal measures but to compare achievements of different individuals based on their index values. Therefore the index values do not really have any quantitative interpretation. Hence directions of change in index values have been given more priority over magnitudes of change for most of the cases in general to avoid ideas like x amount of additional income can get us y unit of additional happiness. Magnitude of the coefficients has been discussed in some cases for the main explanatory variables- income for SWB, and social capital for income (Chapter 6, P.58- “magnitude of household income on SWB is higher than that of individual income”, Chapter 8- magnitude of the impact of social capital on income has been discussed in section 8.6.2.). And for decent work, updated in Chapter 7, section 7.6.2. (P.88), “the results show more than 0.1 significant decrease in DWI score for an additional year of schooling in case of casual labours; the effects are smaller and inconsistent for the combined case and segregated cases of self-employed and wage earners”.
3.	P. 88 (and elsewhere): "Contrary to the literature (like Samans et al.,2017), property ownership is found to have a negative impact on decent work... " - this is valid not for all informal workers, but for the reference category respondents, viz., the self-employed workers (who are male, urban,...). Whether this conclusion is valid for other categories has to be ascertained by examining interaction terms and checking the statistical significance of combined coefficients. Similarly, "The most surprising finding of this study is the negative impact of basic education (years spent in formal schooling) on decent work index of informal workers." (P. 89) is valid for the reference category. Comment no. 12 of minor observations is relevant in this context.
Ans.	All the regression models of this thesis use a set of nominal variables which automatically fixes a complicated reference category. For instance, the reference category for the main regression model in chapter 6 (subjective well-being) is wage-earner, male, urban, Hindu, general caste, married, no property, no social security, not participated in religious activity over last one year. So, if we are considering a reference category responder (for whom all the dummies are zero), we are left with the intercept term and the coefficients of the quantitative variables. But the coefficient for a quantitative variable (which shows the change in dependent variable due to one additional unit of change in that quantitative variable) works similarly for every responder whether or not they belong to the reference category. Same goes for the coefficients for a qualitative variable. Because in every case we are considering a ceteris paribus change in the explanatory variable concerned. Hence, when we are considering the coefficient of asset holding, we are effectively considering two responders of exactly same attributes (age, years of schooling, demographic attributes) with only one difference- one owns asset, another one does not. Had we considered an interactive term of asset holding and another category (like interaction of asset holding and access to social security in chapter 6, equation 1), we could have checked the combined effect of two differences instead of one difference of attributes. A number of models with various combinations of explanatory variables and interactive terms were tried and the models reported in the thesis have been considered best fitted among them in terms of explanatory power, overall and partial significances. Regarding the impact of basic education, it is true that the negative effect of education is pronounced and significant for only one segregated analysis- the casual labour group. For the other groups (self-employed and wage-earner) and combined models, the impacts are smaller and inconsistent and therefore not focused upon. Hence the possible explanations and conclusions drawn upon the results are most applicable for the group of casual labour. This has been further

clarified in the updated version of the thesis.

Regarding comment 12 of minor observations, the reference categories for the main regression models have been updated in the thesis for clearer understanding. For Chapter 6 (p.56, added) "The reference category of this model is hence a person who is a wage-earner residing in urban area, a married man belonging to Hindu general caste, and who does not own property or has social security and has not participated in religious activity over last one year." For Chapter 7, (P. 86, added) "The reference category of the first model (model A) is a person who is a self-employed worker residing in urban area and does not own property. The reference category for the second model (model B) is a man who is a self-employed worker and does not own any property." For Chapter 8, (P.107, added), "The reference category for this model is a self-employed worker who is a married man residing in urban area, belongs to Hindu general caste, and who does not own any property and/or earns income below his respective group-average."

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4. P. 104: "the responder is considered to be affluent if their household percapita income lies above the respective group average ... " - this could lead to reverse causality of income on affluence, and endogeneity issues. Even if we ignore the affluence variable, this concern about endogeneity can stem from a straightforward theoretical position, because it is plausible to argue that income level of an individual affects her Social capital (through, for example, "Been on a trip in last one year").

Ans. The problem of endogeneity is a limitation of the study which has been acknowledged in the last paragraph of the section 8.6.2. (discussion). And even if the endogeneity problem was tackled by using appropriate instruments for social capital and income, the problem of reverse causality would have remained because as income can be a dependent variable of social capital, social capital indeed can be a dependent variable of income. Addition of the variable for socioeconomic status has been an attempt to show how the impact of social capital on income changes with difference in socioeconomic status of the responder. Higher individual income increases respective household percapita income and likely to push it towards the better-off side of distribution. But one's individual income has no effect on others' individual or household income. Therefore one's individual income has minimal effect on determination of group-average of household percapita income or property ownership (more details in comment 10 of minor observations). Hence a joint cut-off combining these two attributes to create the variable for socioeconomic status is unlikely to be a major source of reverse causality. This is certainly not the best way to address the issue. But it still gives a better insight than the scenario of considering only social capital at the RHS (which gives a simple positive coefficient and does not reveal anything about the difference of impact across different socioeconomic status).

Minor observations

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1. P. 17-19: Some citations would be helpful, for example in "A glimpse of such future can...".

Ans. My understanding of 'Great Resignation' was mostly from news articles and some first-hand accounts of people in USA who resorted to social media and narrated their reasons of quitting (which prompted me to find the news articles). Now we have a Wikipedia entry for this phenomenon, at https://en.wikipedia.org/wiki/Great_Resignation.

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2. P. 21: "The expansion of informal economy posed a challenge to the contemporary neoclassical economic theory... " - not clear why.

Ans. Mainstream classical, neoclassical and industrial economic theories contemporary to post-WWII era assumed that modernization, development and economic growth will create a shift of labour towards more skilled capital-intensive activities, production will move from micro and small units into bigger firms and traditional or informal sectors will be transformed into formal industrial sectors. But instead, traditional or informal economy expanded in many developing and underdeveloped countries in this period and posed a challenge towards such predictions (Chen et. al, 2004)

3.	P. 41: 60.3% of the sample is general. caste. This seems an over-representation. In Table 9 gives the distribution of SC and OBC. First, this is an important information and should have appeared in P. 41. Second, OBC representation is very low.
Ans.	The sampling method has been discussed in details in section 5.1.1. of Chapter 5 (Methodology). Sample selection was done using quota sampling method and the quotas were decided on the basis of occupational share ("the chosen parameter is the responder's profession or the particular informal activity they are engaged in." P.39). Since responder's profession was the only chosen parameter, it leaves the chance of every other attribute being over or under-represented in the sample. And that is probably what has happened here. Majority of the responders are Hindu general caste men. The distribution shares of SC and OBC and Muslim have been added in P.41.
4.	P. 42: Table 4: among females the wage earners constitute a very high share. What explains this?
Ans.	There are certain professions categorized as regular wage-earner jobs which are historically women-dominated, like housemaid, aya or caregiver, anganwadi workers. And in the survey regions a large number of the women responders are engaged in these professions, resulting in a high share of regular wage earners among women workers.
5.	P. 44: " ... k-th dimension gets the weight $(1/Kn_k)$ " - the formula seems to be incorrect. May the correct form is, $\frac{1}{\sum_{i=0}^k n_i}$? Please check.
Ans.	"In figure 1, each dimension gets the weight $1/K$ and each indicator under k-th dimension gets the weight $(1/Kn_k)$." (P.44)- the said figure 1 presents the general scheme adapted to construct a composite index in this thesis. A composite index (for subjective well-being, decent work or social capital) has been created by selecting certain broad dimensions and then selecting some indicators under every dimension, and then following a two-step aggregation-first, aggregating the indicators under every dimension, and second, aggregating the dimensions. Rule of aggregation-"In every step of aggregation equal weight has been given to the dimensions (and sub-dimensions) rather than all the individual indicators."(P.44). So, if we are talking about K total number of dimensions where k-th dimension has n_k number of indicators, each indicator gets $(1/n_k)$ weight at the first aggregation, and the dimension gets $(1/K)$ weight at the second step of aggregation. Hence each indicator of k-th dimension gets the final weight of $\left(\frac{1}{K}\right) * \left(\frac{1}{n_k}\right)$ or $(1/Kn_k)$.
6.	P 52: Table 8: The intervals, less than 2.9, less than 3.1, etc. - how were the interval limits determined?
Ans.	The intervals were determined a-priori through trial and error, to get some idea about the values and the distribution of SWB.
7.	P. 52-53: Figure 2, Figure 3: The gap between Q3 and the maximum value seems to have vanished. What explains this?
Ans.	This has happened for the box plots for PWB. For PWB, Q3 and maximum value happen to coincide. (For example, considering this imaginary distribution: 1 1 1 2 2 2 3 3 3 4 4 4 4 5 5 5 5 5 5 5 5 . Minimum=1, first quartile=2, median=4, third quartile=maximum=5.)
8.	P. 54: Section 6.4.2: Could have commented on the explanatory variables in some detail: their justification, expected signs, the interaction terms.
Ans.	Updated in the thesis (P.55): "Impacts of these demographic factors on subjective well-being are not unanimous in literature. For instance, Sørensen, (2013) has found a significantly higher level of life satisfaction among rural dwellers than their urban counterparts across three European Union country clusters. But Easterlin et al. (2011) has found a higher level of life satisfaction in urban areas using 2005-2008 Gallup poll data."
9.	P. 55: Table 9: Problems with the formatting (mean age 2595.456)? Please check.
Ans	This is caused by a typographical errors where the row for household percapita income

	mistakenly labeled as age. Corrected and updated in the thesis.
10.	P. 56: Table 9: 90.77% of the sample owns assets -- is a high number. Does the family own the assets, or the respondent?
Ans.	The responders were asked whether they leave in their own house and whether they have any land of their own. The responder has been considered to own asset if they say 'yes' to any of these questions. These questions were not followed up with question on whose name is on the legal paper of house/land ownership. Hence for many respondents within this 90.77%, the asset is owned by family. Since focus of this question was mainly to capture the subjective impact of property ownership (i.e. sense of security, lack of uncertainty and vulnerability) and not exactly constructing a wealth profile of the respondents, the first question has been considered sufficient enough. And this is also the reason why the property ownership variable can be considered an indicator of socioeconomic status as well- living as a tenant vs living as owners (or having a possibility of living as owner in future), or working in own land vs working in other's land.
11.	P. 59, Table 11: For casual labour, individual PCI column is absent. No reasons offered.
Ans.	The reason is mentioned as a note to Table 11 in a separate row right below the row for F-statistic values (P.60), "The individual income model for casual labours is not shown due to insignificant F."
12.	P. 60 and elsewhere. Econometric model: the reference category needs to be mentioned. In this case it's perhaps male, wage-earner, general caste, Hindu,...
Ans.	Addressed in comment 2 of major observations.
13.	P. 63: "In the present study, self-employed, and casual and piece-rate worker, both groups are worse off than regular wage-earners in terms of SWB." - but Table 7 (P. 52) presents the data that wage-earners have the lowest SWB.
Ans.	It was indeed unexpected after Table 7 (summary statistics of SWB) and Table 8 (distribution of SWB scores across work-categories and residing areas in percentage). But Table 7 shows that wage-earner group records lowest 'average' SWB and Table 8 shows frequency of index values over four a-priori intervals in percentage. They are not enough to statistically compare two distributions (which can be understood from the box plot diagrams in figure 2 where there is no visible difference across work-categories).
14.	P. 75: the formula of normalised index value suggests that these values lie between 1 and 0. But, Table 17 shows that the employment security index values exceed 1. Not clear why. Are these not normalised? Same case in Table 19.
Ans.	These tables are made with the actual index values. Normalized sub-index values have been used to calculate the final composite index.
15.	Many tables have the note "Source: calculated by authors". Why authors?
Ans.	Because table source is required to be mentioned for journal publications and the said tables have data calculated from primary data by the author.
16.	P. 96: the indicators of cognitive social capital are actually opinions on the law and order conditions. Some elaboration is required why these are considered as indicators of social capital.
Ans.	According to the conceptual framework used in this study, the definition used for cognitive social capital is "the shared language, codes and narratives, value, cultural and social norms" (P.95). Respondents' opinions or perception of their community and law and order condition are often used as indicators of social capital in the sense that they are a reflection of the shared values and cultural and social norms. Intuitively, a general perception of cooperation, safety and trust prevailing within a community contributes in smooth economic operation as well as overall well-being of the society, thus qualifies as social capital indicators. The concept of social capital suffers from a great number of fundamental theoretical conflicts which inevitably reflect into empirical conflicts, as discussed in the first part of literature review of Chapter 8 (section 8.2.1.). Hence almost every measure of social capital can be (and should be) questioned to clarify what they exactly mean and what they are trying to capture. The thesis

has tried to clarify about the used definitions and indicators as much as possible but a lot have been left out from its limited scope.

17. P. 102: Table 35: If a correlation matrix were constructed the level of statistical significance could be checked. Table 45 has a correlation matrix, but statistical significance is not mentioned.

Ans. Table 35 and table 45 have been updated with the tables below:

Table 35: covariance matrix for the three sub-indices

	Structural SCI	Relational SCI	Cognitive SCI
Structural SCI	1.0000		
Relational SCI	0.3984*** (0.0000)	1.0000	
Cognitive SCI	0.2047*** (0.0000)	0.1030** (0.0164)	1.0000

p-value in parentheses; * p<0.10, ** p<0.05, *** p<0.01

Table 45: Correlation among the three indices

	SWB_gm	DWI4	SCI_1
SWB_gm	1.0000		
DWI4	0.0216 (0.6158)	1.0000	
SCI_1	0.0255 (0.5538)	0.4390*** (0.0000)	1.0000

p-values in parentheses;
* p<0.10, ** p<0.05, *** p<0.01

18. P. 139: "because of their subjective nature, they are particularly sensitive to social conditioning to fulfill particular political agenda" - it is not clear how this conclusion is drawn from the present study.

Ans. This is not exactly a conclusion drawn from the present study. This is an intuitive remark, which is also an widespread criticism of subjective measures of well-being, additional to the two conclusions drawn from the study ("Firstly, well-being is multi-dimensional and different concepts of well-being capture different non-substitutable constructs of well-being. Secondly, subjective measures of well-being do not exist in isolation and they interact with all the objective aspects of well-being." P.139).

Additional modification done in Chapter 7 (Decent Work Index) due to a typographical mistake in interpreting Table 28 in section 7.6.

P. 84 Added: "These factors can have complex effect on the decent work condition. Ownership of property (house or land) improves one's wealth endowment and can provide additional stream of income, reducing financial vulnerability. But at the same time, the workers may become reluctant to utilise that regarding better work condition due to reduced financial vulnerability and dependency on present job. The effect of reduced of financial vulnerability resulting from property ownership can further be countered by additional debt-burden to acquire the asset. On the other hand, a high dependency ratio reduces the ability of worker to bargain over the 'quality' of job, like work condition, job satisfaction, working excessive hours. But it can also make it impossible for the worker to compromise in certain dimension of quality, like income, leaves."

P. 87-88 Modified section after Table 28: "When the combined effect of years of schooling and

residing area is considered, rural workers are better off for the combined model as well as for self-employed and wage-earner groups. Therefore the results suggest that overall rural informal workers have lower decent work index than urban informal workers though higher years of schooling in rural area results in higher decent work index than urban area (model 4A, 5A-1 and model 5A-2). When the combined effect of work-category is considered with residing area, rural workers are worse off for both wage-earners and casual labours though the effect is significant only for casual labours. Hence the advantage of wage-earner and casual labour over self-employed is outweighed by the impact of residing in rural area. ~~Therefore the results suggest that overall rural informal workers have lower decent work index than urban informal workers though higher years of schooling in rural area results in higher decent work index than urban area (model 1A and model 5A-2).~~ Coefficient of asset_holding is significant and ~~negative~~ positive in model ~~4B~~ 4A, ~~model 5A-1 and 5B-1,~~ indicating a ~~negative~~ positive impact of owning property on DWI for this study. Coefficient of dependency ratio is positive and significant for self-employed group (model 5A-1 and 5B-1) and negative and significant for casual labour group (model 5B-3). Hence it does not show any consistent effect.

For the present group of responders, gender ~~and dependency ratio~~ does not have any statistically significant impact on DWI.”

- P. 89 Modified section: “~~Contrary to~~ Consistent with the literature (like Samans et al.,2017), property ownership is found to have a ~~negative~~ positive impact on decent work. The impact of dependency ratio is not consistent for the present study. ~~Though asset holding increases bargaining power of workers, the workers may become reluctant to utilise that regarding better work condition due to reduced financial vulnerability and dependency on present job.~~ The effect of reduced of financial vulnerability resulting from property ownership can further be countered by additional debt burden to acquire the asset.”
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