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Social impact through Data

GROSS HAPPINESS INDEX (GHI) PAPER

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Exploring Variations in Subjective Well Being in India

1. Abstract

This paper seeks to establish a baseline for subjective well-being assessing the level of happiness, optimism and satisfaction among residents within two structurally varying urban contexts. Correlations have been drawn with demographical attributes and conventional socio-economic parameters such as income, religion and caste. The locations representing a metropolitan and a tier 2 level city were Gandhinagar and Mumbai respectively limiting its scope to an urban context.

The global happiness index that ranks India at the 117th level promotes a tainted picture of a subjective disposition such as happiness while omitting contextual variations which may be pertinent given the diversities within the country. A comparison has been drawn between the two cities to arrive at regional variations which is not visible at the macro level. This stage of research will therefore feed into the exploratory component to be able to capture the contextual nuances while departing from the prevalent discourse on happiness and extending the quantitative leg of the research across other sites to obtain happiness data at a very granular level.

2. Background

The correlation between human happiness and socio-economic factors has been long investigated by psychologists, economists, sociologists and political scientists. Economist Richard Easterlin, considered to be the founder of happiness studies, in 1974 examined the relationship between income and happiness, analyzing trends in the U.S context between 1946 to 1974. The study found no definite trend between a society's economic development and the average level of happiness, thus challenging the expected assumption of economists and politicians suggesting that there exists a direct and increasing relation. This phenomenon is called the Easterlin Paradox (Easterlin, 1974). Subsequent research at the national and city levels has also found economic growth to have little effect on long term happiness (Detels et.al, 2012)

Psychologists such as Michael Argyle at Oxford University have tried to broaden the understanding of subjective human well-being by focusing on optimism and satisfaction along

with happiness. Targeting perceived satisfaction and optimism to provide a more wholesome picture of well-being at the individual level, their Oxford Happiness questionnaire and inventory, for example, includes items such as “*I am not particularly optimistic about the future*”, “*I laugh a lot*”, and “*I feel I have a great deal of energy*”. On a macro-level too, indices such as The Gross National Happiness (GNH) created in Bhutan, the Happy Planet Index (HPI) constructed by the Centre of well-being at the New Economic foundation, the Better Life Index created by the OECD and the Gallup World Poll (used by the World Happiness Report) have tried to examine how material living factors such as income and wealth, jobs and earning, health, education, natural resources, social connections, and governance affect subjective well-being.

In 2016, the World Happiness Report ranked India at 118 (from a list of 156 countries), seven points below its 2014 position of 114. The report, which takes into account GDP per capita, life expectancy, social support and freedom to make life choices as indicators of happiness stated that India was among the group of 10 countries which witnessed the largest happiness decline. The current report placed special focus to the measurement and consequences of inequality in the distribution of well-being among countries and regions. The report stated that people are happier living in regions where there is more equality of opportunity and outcomes than just equality of income. It also reported significant differences in country rankings for equality of well-being, with India ranking 90th in terms of equality of well-being.

Inequality in employment and education in the Indian context, is largely influenced by social factors such as caste and religion. In their study examining caste as a measure of well-being among urban dwellers in India, Fontaine *et al* (2014) found that caste deeply affects well-being through its effects on socio-economic variables such as expenditure and education. The study also found that in the Indian context, between-caste comparisons have a stronger and negative impact on well-being than in-caste comparisons. Several other studies, such as those by Anderson (2006) Banerjee *et al.* (2009) show that caste has a cardinal impact on life in India. However, Kempen *et al.* (2010) differs in his opinion, stating, that caste affiliation did not have a predominant effect in explaining differences in subjective well-being in the context of rural India. The authors explain that this may be because the survey covered a fairly homogeneous group, namely individuals within the rural households living below the poverty line.

Majority of existing literature shows positive relation between happiness and religiosity in relatively peace prevailing contexts like USA and Europe and for majority religious groups (like Jews in Israel). Complementary to these studies, Migheli (2009) shows that specific affiliations to minority groups are a source of unhappiness. In the Indian context, he finds that unhappiness prevails for members of the minority group only in conflict-prone regions.

While these studies suggest that subjective well-being in India varies owing to social factors such as caste and religion, *contextual* variations in well-being remain unexplored in India. Using the Subjective Happiness Scale, the Life Orientation Test (Revised) and a Satisfaction Index, our study begins to address this gap by examining differences in subjective well-being between a metropolitan city and a tier two city, which are both urban and are located in the west of India. Although our findings provide a baseline description of these differences at the city level, our contribution is the identification of social factors driving subjective well-being in each context. Findings from this study can also inform the development of qualitative supplements to these indices, to contextually explore what constitutes or generates happiness.

3. Methods

This study measures well-being using three validated instruments: the Subjective Happiness Score¹ and the Life Orientation Test-Revised², and the Satisfaction Index. Instrument items were integrated into cross-sectional surveys conducted in Mumbai (Maharashtra) a metropolitan and Gandhinagar (Gujarat) as a Tier 2 city. The survey instrument gathered information on socio-economic variables such as religion, caste, annual income and occupation and demographic variables such as age and gender, which were our independent variables, while the outcomes being (cumulative) happiness, optimism and satisfaction.

This study uses a single stage proportional allocation sample based on gender, caste and religion to recruit respondents. Individual sample weights were generated using population figures from Census 2011 and the final sample weight was calculated as the sum of the individual weights.

Cumulative well-being scores for each respondent were determined using the published guidelines to score respective indices. Weighted univariate and bivariate analyses were conducted using Mann Whitney tests to analyze differences between means for continuous variables and Kruskal Wallis tests for categorical variables.

4. Tool

The tool used for this study is segmented into four components of which the first section obtains the demographic attributes and socio-economic determinants of the respondents. The subsequent sections include standardized measures on happiness levels and subjective well-being. The tool is a standardized measure to assess the socio-economic and demographic differences in well-being, which doesn't explore the causal factors for happiness but makes projections on the correlates of happiness. The measure of subjective happiness scale, undertakes a subjectivist approach to assess happiness, with high internal consistency and stable across the test sample, while the life-orientation test assesses dispositional optimism.

These correlates may be causal factors at one point and consequences at the other. The assumption being purely utilitarian, that human elements are seen as maximizers. For the assessment one of the critical considerations may be to not derive a causal analysis, since predicted causes may also be consequences of happiness.

5. Results

5.1. Sample Population

	Gandhinagar (N=395)	Mumbai (N=433)
	Mean (SE)	Mean (SE)
Age**	35.11 (0.47)	34.15 (0.76)
Annual Income (in INR)**	1,33,127.6 (3701.2)	1,34,5340 (295030.2)
Gender	Weighted Frequency (%)	Weighted Frequency (%)
Male	53.2	55.4
Female	46.8	44.9
Religion		
Hindu	88.8	84.5

Jain	0.3	0.2
Muslim	10.9	11.6
Caste		
General	69.3	62.8
SC	9.8	33.6
ST	20.9	3.6

Table 1: Description of Survey Respondents

The survey was administered in Gandhinagar and Mumbai with response rates of 90% in both cities. The age range of respondents selected for this study was between 15-60 years with the mean age being 35 years in Gandhinagar and 34 years in Mumbai, with slightly more than half the sample being male in both cities. Respondents were predominantly Hindus and from the general caste category in both cities. The sample in Gandhinagar has a relatively higher proportion of the Scheduled Tribe category whereas Mumbai had a higher proportion of the Scheduled Caste category.

5.2. Within group differences (Table II)

Within each city, caste affiliations and gender profiles did not impact happiness, optimism and satisfaction.

The level of happiness differed significantly with respect to religion and income levels only in Mumbai, wherein, Hindus seemed to be the happiest, followed by Jains and Muslims. While Jains had the highest average satisfaction in Mumbai, optimism was highest among the Hindus. In Gandhinagar, none of the indices were significantly associated with the dependent variables. While Jains had the highest mean happiness, optimism and happiness were highest among Hindus in this city.

5.3 State-wise comparisons (Table II)

Across all social and economic categories, happiness, optimism and satisfaction were higher in Gandhinagar compared to Mumbai ($p < 0.0001$).

On an average, happiness and optimism appeared to be higher within the gender category in Gandhinagar whereas satisfaction levels were higher in Mumbai.

Hindus were significantly happier ($p < 0.0001$), significantly more optimistic ($p < 0.0001$) but less satisfied ($p < 0.0001$) in Gandhinagar compared to Mumbai. Similar trends were observed for Muslims, with happiness differing at $p = 0.0008$, satisfaction at $p = 0.009$ but no differences in optimism. For Jains too, while optimism didn't differ significantly between the two states, satisfaction was significantly higher in Gandhinagar ($p = 0.0021$) and so was happiness ($p = 0.0001$).

By caste, optimism was significantly higher in Gandhinagar ($p = 0.0001$) for those identifying as 'General', for ST ($p = 0.003$) and SC ($p = 0.0027$). Those identifying as 'General' and 'ST' were significantly more satisfied in Gandhinagar ($p = 0.0001$). All three categories were significantly happier in Gandhinagar at $p = 0.0001$ (General and ST) and $p = 0.0003$ (SC).

Table 2: Happiness, Optimism and Satisfaction in Gandhinagar and Mumbai

	Gandhinagar (N=395)			Mumbai (N=433)		
	Mean (Standard Error)			Mean (Standard Error)		
	Happiness	Optimism	Satisfaction	Happiness	Optimism	Satisfaction
Overall*	6.06 (0.02)	16.12 (0.09)	3.40 (0.02)	4.83 (0.07)	14.46 (0.26)	3.93 (0.04)
Gender						
Male*	6.08 (0.03)	16.13 (0.13)	3.4 (0.03)	4.75 (0.07)	14.32 (0.25)	4.01 (0.05)
Female*	6.06 (0.03)	16.11 (0.14)	3.4 (0.02)	4.94 (0.11)	14.50 (0.41)	3.86 (0.07)
Religion						
Hindu*	6.05 (0.03)	16.19 (0.09)	3.41 (0.02)	4.90 (0.07)	14.33 (0.25)	3.96 (0.05)

Muslim#	6.18 (0.05)	15.58 (0.42)	3.32 (0.12)	4.38 (0.14)	14.23 (0.58)	3.76 (0.09)
Jain#	6.20 (0.05)	15.30 (0.56)	3.08 (0.03)	4.61 (0.22)	14.61 (0.43)	3.81 (0.16)
Caste						
General/O BC*	6.04 (0.03)	16.09 (0.10)	3.41 (0.02)	4.87 (0.06)	14.58 (0.21)	3.96 (0.04)
SC*	6.12 (0.05)	16.24 (0.31)	3.42 (0.06)	4.79 (0.15)	14.22 (0.54)	3.56 (0.24)
ST*	6.13 (0.06)	16.17 (0.27)	3.37 (0.04)	4.66 (0.38)	12.82 (0.90)	3.96 (0.08)
Income						
<=5000	5.69 (0.34)	15.68 (0.34)	3.31 (0.10)	4.63 (0.39)	14.21 (1.39)	3.76 (0.23)
5-10,000	6.11 (0.02)	16.15 (0.11)	3.40 (0.02)	4.83 (0.31)	13.81 (0.85)	3.63 (0.14)
10-20,000	6.06 (0.04)	16.06 (0.22)	3.40 (0.04)	4.74 (0.24)	13.63 (0.76)	3.52 (0.10)
20-30,000	5.77 (0.31)	16.47 (0.41)	3.58 (0.08)	4.83 (0.28)	15.78 (0.78)	4.19 (0.12)
30-50,000	6.09 (0.05)	16.41 (0.73)	3.35 (0.05)	5 (0.18)	14.49 (0.92)	4.04 (0.06)
50-70,000				4.87 (0.14)	15.67 (0.59)	3.99 (0.90)
>70,000				4.80 (0.09)	14.26 (0.34)	4.00 (0.05)

* Indicates significant differences between groups in happiness, optimism and satisfaction, between Gandhinagar and Mumbai #Indicates significant differences between groups in happiness and satisfaction only, between Gandhinagar and Mumbai; cells colored red indicate within group differences in categories in the respective city

6. Discussion

Conclusively, our study found that subjective well-being, as measured by happiness, optimism and satisfaction, differs by city and the levels of happiness and optimism are significantly higher in Gandhinagar.

Consistent with existing literature, we found caste, religion, gender and income to be significantly correlated with subjective well-being. Interestingly, very few differences exist by these factors within each city.

The contribution that this study makes to the literature is that it establishes a baseline of subjective well-being in both Mumbai and Gandhinagar, but more importantly, shows that

significant differences exist in subjective well-being (on at least two out of its three measures) by caste, religion, gender and income.

The history of happiness literature dates back to the ancient Greek philosophy, appraised with the utilitarian school of thought and its scope in the current context takes into account the concept of subjective well-being and optimism; departing from Kahneman's school of thought which explains that the assessment of happiness can be obtained objectively by averaging out multiple assessments of people's moods over a period of time. This way, a happiness assessment would not need to be tied to memory and retrospective accounts.

7. Critical considerations and the scope of the research

The study assumes a subjectivist approach and cannot control for the cyclical aspect of happiness that is generally followed by a period of unhappiness, as explained by the zero-sum theory.

This is an attempt to establish a baseline for triangulating the primary findings with the existing literature. Based on the reflexive assessment through this pilot an exploratory study will be conceptualized to seek an understanding of the contextuality of the finding. Moreover, this study has a longitudinal scope, and is to be scaled up to cover other cities in the next round.

While sample weights were used to correct for differences in sampling across categories, we still undersampled Muslims, SCs and STs in both cities. Our findings may be influenced by these discrepancies in sample size and should be interpreted with caution. Additionally, although these instruments are not correlated, differences in scales of scoring between optimism (ranging from 0-24), and happiness & satisfaction (1-7) might have influenced results.

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