Income Inequality and Consumption Pattern Among BOP Consumers in India

Sarath Sennimalai
PhD Scholar, Department of Agricultural and Rural Management,

S D Sivakumar

Director, Directorate of Agribusiness Development,
Tamil Nadu Agricultural University,
Coimbatore- 641 003.
Corresponding author mail id: sarAths1995@gmail.com

Keywords: Bottom of Pyramid consumers, Income Inequality, India's consumption pattern, income distribution

Income Inequality and Consumption Pattern Among BOP Consumers in India

Abstract

Marketing discipline has evolved through the context of the industrialized or developed world. However, the largest groups of consumers are also the poorest (Bottom of the Pyramid category) and economic inequality is still persisting among BOP consumers. Using the Gini co-efficient, economic inequality was measured with the help of World Bank report. The main aim of this paper is to know about the trends that took place in income inequality and consumption pattern among BOP consumers based on household surveys (from NSSO and World Bank). It shows that income inequality among BOP consumers has been increasing simultaneously with increase in consumption pattern among BOP consumers because income growth would leads to truly middle-class led one with growing of consumer spending from $1.5 trillion to $6 trillion by 2030. Further, income growth lifts 25 million households from poverty and in 2030 among that fewer than 5 per cent of households will be in below poverty.

Income Inequality and Consumption Pattern Among BOP Consumers in India

1. Introduction

Growing Indian economy with increasing GDP shows change in income and wealth. Evolving globalization leads to growing income inequality. Initially, poor countries like China, Korea and India have taken benefit from globalization and shows closer growth than wealthy countries with increasing income inequality (Bruton *et.al.,* 2013). Inequality is considered as political, intellectual issues and one of public concern of the day. This all finally directs it into increase in income gap (Solt, 2016).

However, poverty headcount ratio at $1.90 a day has been decreasing from 61.6% in 1977 to 21.2 % in 2011 due to various reforms that took take place across nation (Mohr *et al.,* 2012). Change in income inequality is measured through Gini global index shows long term rise in inequality. Industrial revolution in 1990 with rate of globalization increases income inequality with various incomes across countries like India and China. In same, consumption pattern among BOP consumers also changing with various trends (Azam and Vipul, 2017). Future spending in India is attached with growth of upper-middle income with change in income segments and reveals that growth in households by 2030 from one in four households to one in two households. Thus, India represents almost 10% of population possess share of national income and as well as wealth in contrast to income inequality**.**

The main aim of this study is to know about the recent trends and dimensions of income inequality in India and as well as changing of consumption pattern among BOP consumers mainly based on household surveys (from NSSO and World Bank).

2. Methodology

The most common measure of inequality is the Gini coefficient. Gini coefficient compares income and equality that residing among growing population.

In deem an economy made out of n people with y_i alluding to pay (or use) of the i^{th} individual with i = 1,2,..., n and let $\mu = (1/n)\ \sigma\ y_i$ allude to the mean pay in this economy in the n singular economy viable by masterminding people in an expanding request of their salary and afterward looking at two picked wages. Having n^2 potential sets of livelihoods and the normal estimation of the outright contrast between an arbitrary pair of earnings is given by

$$\overline{\mathbf{D}} = \frac{1}{\mathbf{N}^2} \sum_{\mathbf{i}=1}^{\mathbf{N}} \sum_{\mathbf{j}=1}^{\mathbf{N}} \left| \mathbf{y_i} - \mathbf{y_j} \right| \text{---------------I}$$

The relative Gini coefficient let's denote as *GR* - is defined as half of $\bar{d}$ normalized by the mean of the distribution, μ:

$$G = \frac{1}{2\mu} \overline{\mathbf{D}} \text{----------------II}$$

Further, a Gini coefficient can be disintegrated in two distinct manners. To start with, if the complete populace is separated into a couple of classes (by area, sex, occupation and so forth.), the Gini coefficient for the whole populace can be disintegrated into three segments as (a) an intra-class segment emerging from salary varieties inside each class (b) a between class part emerging from the discrepancies of mean wages among classes and (c) a covered segment emerging from the way that needy individuals in a high-pay class might be more terrible off than rich individuals in a low-pay class. This paper utilizes information from a family study in India by NSSO, the order of populace is first made by a provincial/metropolitan division. The provincial and metropolitan subpopulations are then ordered by area. Let g means the Gini coefficient for the whole populace viable. It very well may be disintegrated into 3 parts – intra-class, between class and covered as appeared in condition 3:

$$\mathbf{G=G_W+G_B+G_O} \text{--------------III}$$

g_w is the intra-class component of g if there is no income inequality within each of the classes $g_w = 0$. g_b is the inter-class component of g. if the mean incomes of all classes are identical $g_b = 0$. G_o is the overlapped component of g if the richest person in any low income class i is not superior off than the deprived person in any high income class "j", $g_o = 0$. The relative contribution of g_b to g has important implications for inter-class income inequality.

3. Income Inequality

Income inequality in India has been still in rising trend and existing of large gap between bottom and top category of people. Income inequality in India might be at its most significant level since 1922 with the main 1 percent of workers building 22 percent of all pay — a proportion that has grown quickly in the course of the most recent thirty years (Chancel *et.al.,* 2019) *Fig.1* also indicates that mostly urban has the more income inequality than rural people. It clearly indicates that urban areas were lack in many social benefits. NSSO showed 28 per cent of wealth in country is occupied by a one per cent of Indians. However, in 1991 it was about only 11 per cent.

Gini coefficient shows that distribution of income in India rose from 45 in 1990 to 51.4 in 2016, shows wide gap between poor and rich. At same time China value also rose from 33 to 53 (NSSO report).

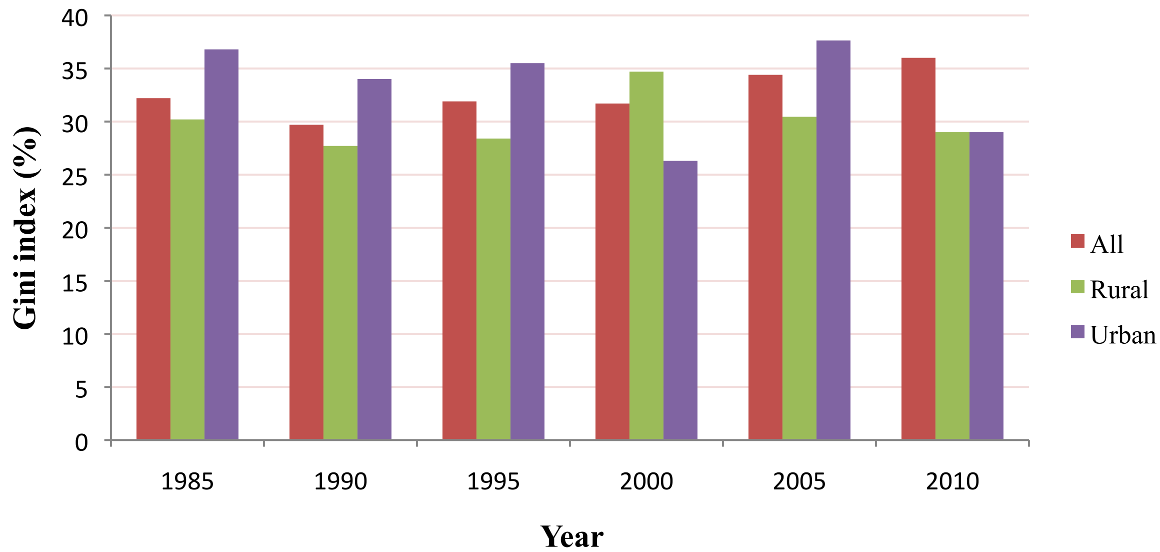
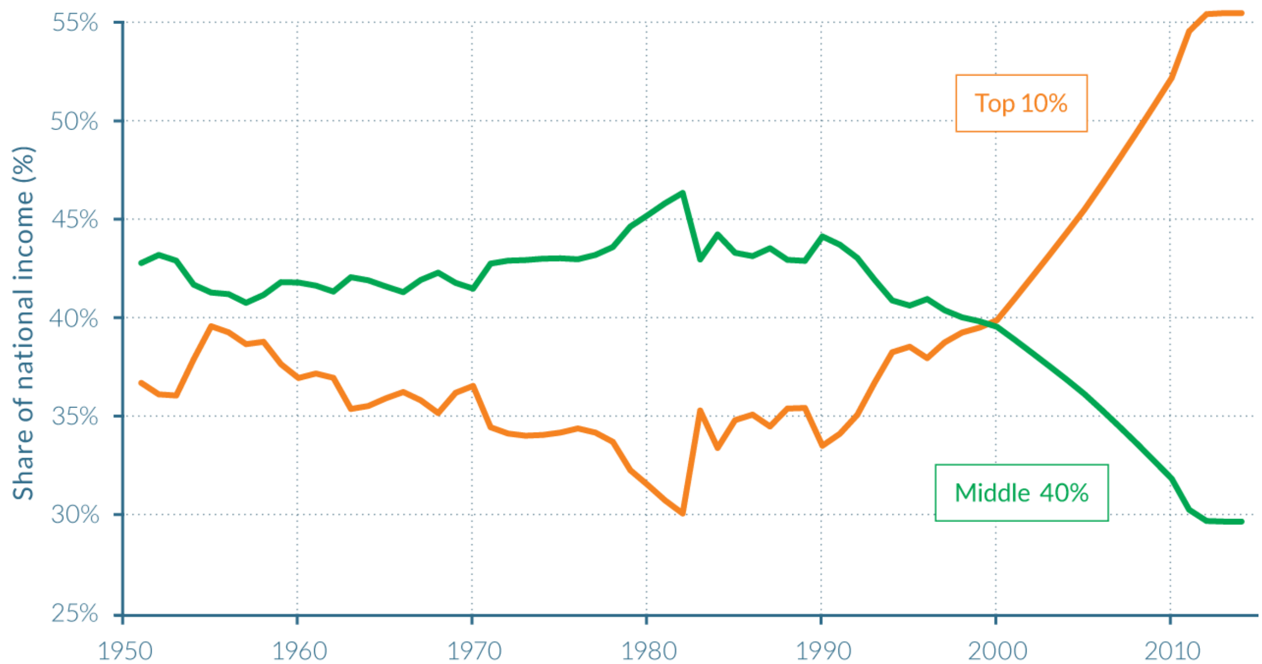


Fig.1: Graph showing the Gini index from 1985-2010

In some superior countries like India and China spatial disparities, in particular between rural and urban areas, explain much of the increase in the coefficient, a report by the IMF. Between 1951 and 1980 middle 40 per cent category laid better in national wealth, was reported in *Fig.2*.



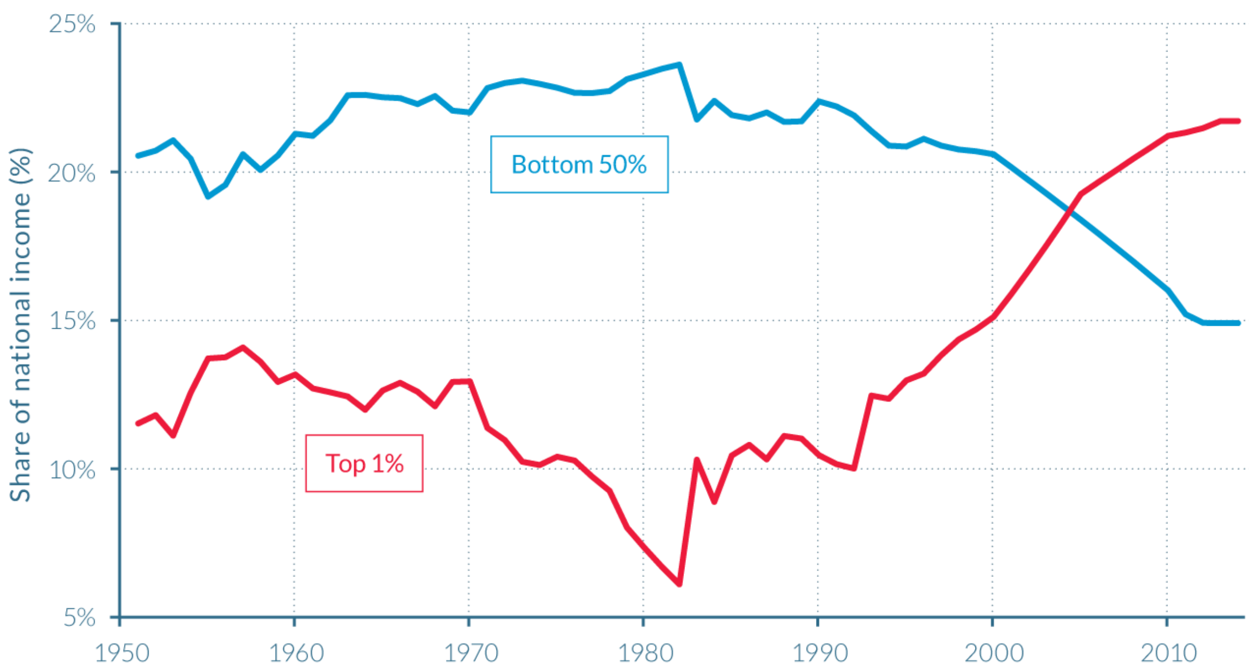
Source: World Inequality Lab

Fig.2: Top Ten Percent and Middle Forty Percent income shares in India, 1951–2014

Over past 30 years India has top one per cent income share (Chancel *et al.,* 2019). It shows that Government of India didn't pay attention towards wealthy people taxes or spending in basic social needs like education, hospitals to serve bottom category of people. Given economic thought as developing countries, such as India, should focus primarily on economic growth and worry about inequality at a later stage. According to the theories of Simon Kuznets, first published in the 1950s and 1960s, the forces of an open market in a developing economy will naturally first widen and then decrease wealth inequality and in same Nobel-winning economist Amartya Sen, holds that India has not done enough for its wide, deep base of poor people, and that its policies ought to focus more on human development than pure growth. Simultaneously, growing income inequality in India is a major problem and leads to lack of economic growth and development.

3.1 Income share of top and bottom category of people

The share of national income has been increased up to 40% for both top 10% and middle 40% whereas bottom 50 % has been declined around 20% was shown in *Fig.3.*



Source: World Inequality Lab

Fig.3: Top One Percent and Bottom Fifty Percent income shares in India, 1951–2014

These reforms happened mainly due to subsequent five year plans especially 10th five year plan in 2000. Some of notable things were price fixation of sugar, fertilizer and petrol prices were given to private players, instead of government, especially in agricultural sector too. These things finally leads to increase of inequality trends and between 2000 and 2014, 56% of national income was shared by richest ten percent of adult population and 32% of national income by middle 40% and 16% of national income by bottom 50%.

3.2 Total growth of Income

Between 50% and top 10% of population there was large gap prevails in China, France, US and comparatively with India. Existing data shows that top 1% income grew much than bottom 50% of population particularly after globalization. The share of national income among bottom 50% in 2014 was just 2/3rd of top one per cent shown in Table 1.

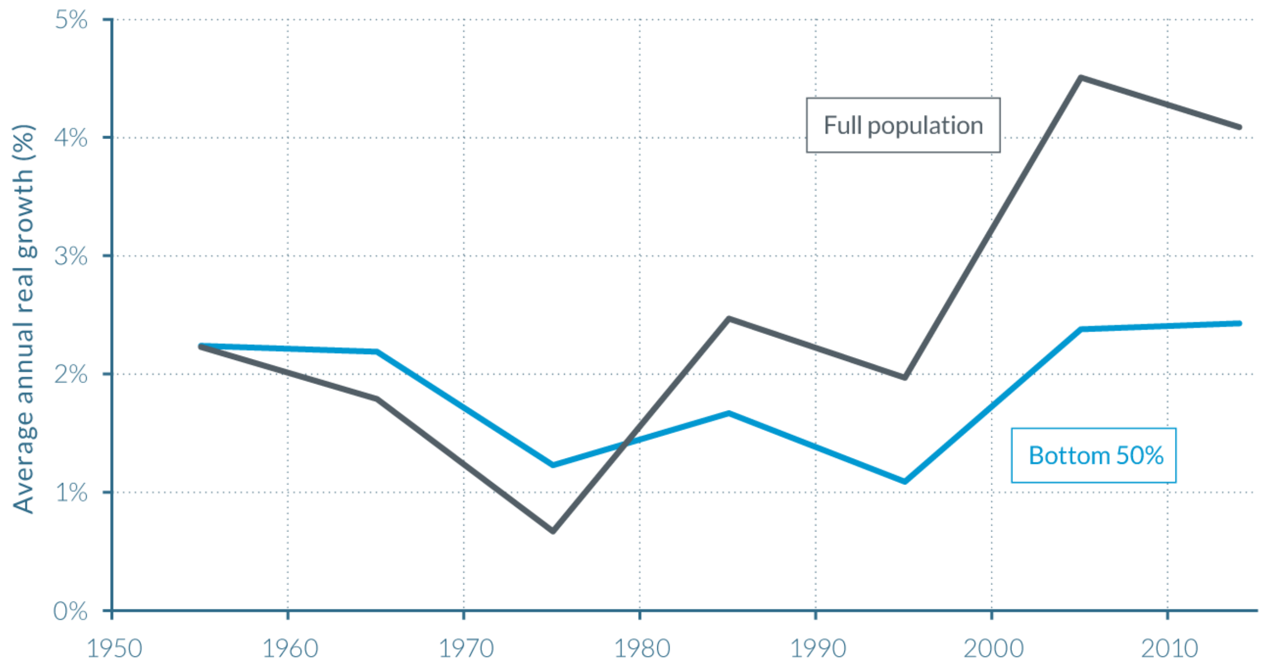
Table-1: Total growth of income (percentile in India, China, US and France from 1980 to 2014)

Income Set	India (%)	China (%)	France (%)	US (%)
All (Full) population	187	659	35	61
Bottom 50 Per cent	89	312	25	1
Middle 40 Per cent	93	615	32	42
Top 10 Per cent	394	1074	47	121
-Top one Per cent	750	1534	88	204

Source: Chancel et.al.,2019

3.3 India and its income growth from 1951 to 2014

As *Fig.4* shows, since 1950, there was varied average growth of real incomes between various groups of population. During 1960s and 1970s annual real income of bottom fifty per cent grew at quick rate mainly due to existing of socialist central planning directed Indian economy than those in the top ten per cent and also top one per cent of earners. Notwithstanding, this vibrant shifted significantly during the 1980s and has stayed as such from that point forward. The 1980s saw an a lot higher normal pay development rates than in the earlier decades, yet development was just imperceptibly more for the bottom ninety per cent of the population. High development was in truth focused among the top ten per cent. This circumstance was drawn out all through the 1980–2000s. During the 2000s, the yearly real annual income of the top one per cent was near 8.5 per cent, trailed by the top ten per cent at around seven per cent and the bottom fifty per cent at under 2.5 per cent. India's countrywide normal was 4.5 per cent throughout the decade.



Source: World Inequality Lab

Fig.4: Growth of income in India from 1951 to 2014 (All (Full) population vs. Bottom 50 per cent)

Table 2 shows that income group in India from 1980 to 2015 among yearly per adult income growth. In between these 35 years the annual per adult income growth of bottom 50 per cent of population and top 10% population vastly differs and it shows that annual per adult income growth in bottom 50% of population was low.

Table-2: Income growth in India-Yearly per adult (1980-2015)

Income group distribution of per-adult pre-tax national income	**Total real per adult income growth from 1980 to 2015 in %**
Full population	3.3
Bottom 50 per cent	1.9
Middle 40 per cent	2.0
Top 10 per cent	5.1
-Top 1 per cent	6.6

(Source: Chancel et.al., 2019)

3.4 Distribution of national income in India, 2014

Adult population for 2014 was enumerated among income levels and for income thresholds of different groups were shown in *Table 3*. The bottom 50% earned significantly less than the average income per adult, receiving less than 1/3rd of the nationwide mean income before tax, while the average income of the middle 40% was around 4/5th the national average. Those in the top 10% earned 5 times the national average, and when one examines further up the income distribution, the same exponential trend as seen in the growth statistics is obvious. The top 1% of earners, for example, received around Rs.1.17 Crores per year on average, while the top 0.1% receives approximately Rs.4.6 Crores, 22 and 86 times the average income for Indian adults, respectively.

Table-3: **Distribution of national income in India, 2014**

Income Set	No. of adults	Threshold Income (Rs)	Average income (Rs)	Comparison to average income (ratio)	Income share
All (Full) population	794306000	-	5.4 lakh	1	100%
Bottom 50%	397153000	-	1.6 lakh	0.3	15.3%
Middle 40%	317722000	2.7 lakh	4.1 lakh	0.8	30.5%
Top 10%	79431000	8 lakh	29.3 lakh	5	54.2%
-Top 1%	7943000	50.3 lakh	117.6 lakh	22	21.7%

(Source: Chancel et.al., 2017)

4. Consumption pattern among BOP consumers

Among the world India is one of biggest democracy with second most populous nation with around 130 crores. In 2017, India ranks as sixth largest economy and now steps into fifth rank. After US and China, India ranks third in Purchasing Power Parity (PPP). With fast growing economies, India going to be superpower in future due to its saving habit among people. India's households have sustained a high savings share of their income at 22% when compared to low personal saving rates in many developed countries in the west and east (6%-7% in the US, 9%-10% in Germany, 4% historically in UK, 2.5% in Japan). This is mainly due to consumption or lack of saving habits. As access to goods and essential services (e.g. healthcare) improves, these savings would continue to provide a buffer for further consumption. Using observed income-consumption profiles in IHDS data to reconstruct income profiles from NSSO consumption data. Estimation of income and consumption levels for each generalized percentile of the distribution of income and consumption given by IHDS data. Income consumption ratios for the different strategies are presented in *Fig.5*. World inequality report founds that these different strategies have no effect on the trends and a limited impact on top share estimates. The choice of these different strategies indeed impacts on the estimated share of total savings in the economy. In strategy A1 total savings are close to 0, which seems too low compared to the current rate of savings in India (about 30%). This figure is close to 5% in strategy A_0 and approximately 10% in strategy A_2.

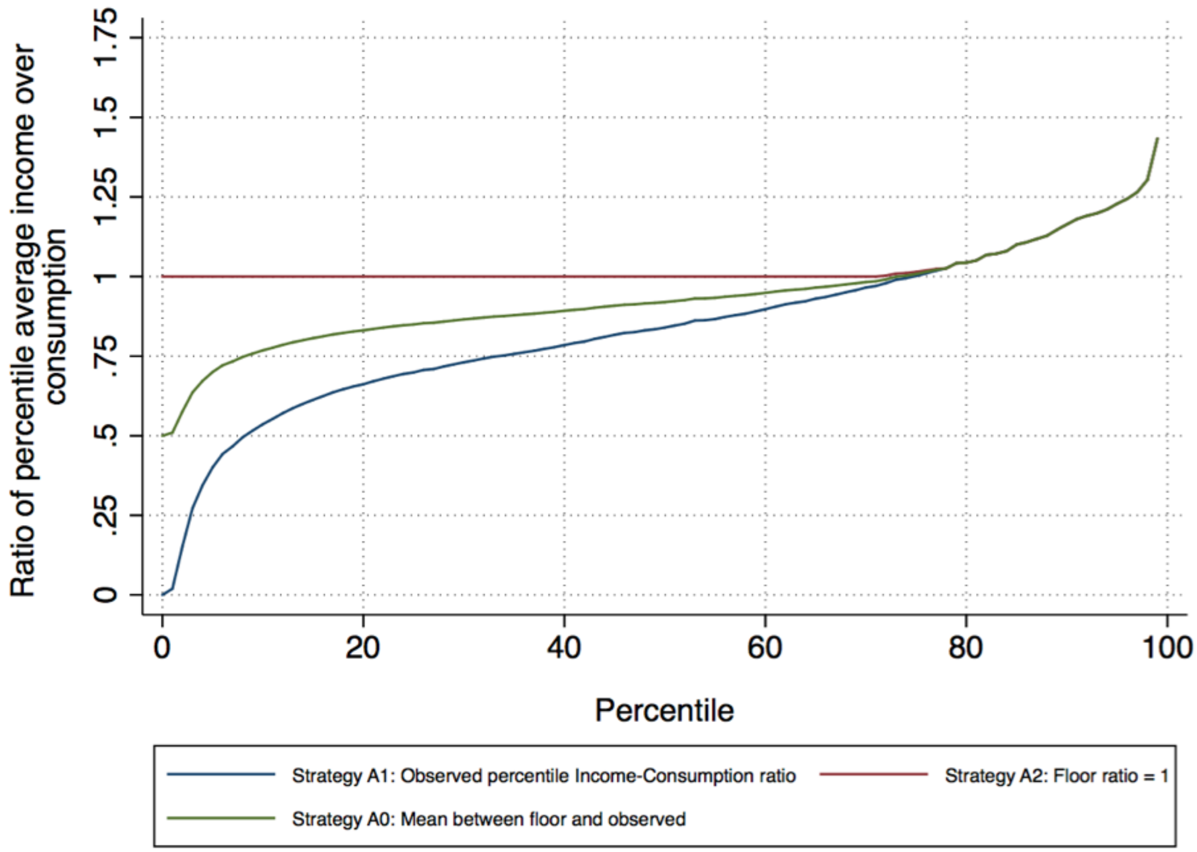


Fig.5: Income-consumption profiles (percentile) (Source:IHDS data)

WEF reports that income growth will have a much more certain viewpoint – India will lift almost 25 million households from destitution; under five per cent of families will be in beneath the poverty line by 2030 down from 15% today and rural per capita utilization will develop to 4.3 occasions by 2030 contrasted with 3.5 occasions in urban India. With earnings in developed country towns previously imitating those in poor communities and more noteworthy web related narrowing computerized things, the recent metropolitan provincial worldview may never again be the most precise focal point to study yearnings and inclinations across India. Despite the fact that the thing is narrowing, open doors for created local buyers will be really opened uniquely by handling head-on, the issues of helpless framework (streets, power, and web), admittance to sort out retail and money related incorporation. India will include around 140 million middle income and 21 million high-salary households in 2030 and large almost multiplying the complete portion of these sections to 51%. Some proof proposing an ascent in salary disparity in India after revolve of the century can anyway be found in NSSO reviews and in straightforwardly accessible information sources. *Fig.6* shows that the portion of all out utilization owing to the top twenty per cent of buyers. There are significant abnormalities with the information; however the generally speaking ‘U-shape’ pattern appears to be moderately reliable.

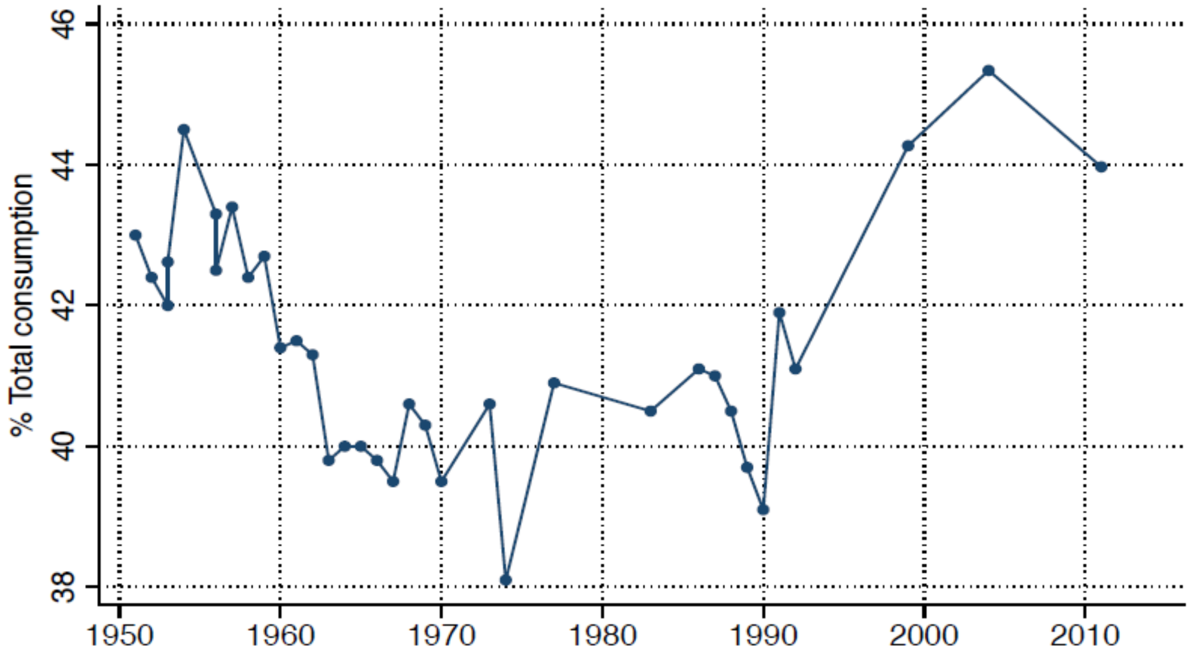


Fig .6: Top twenty per cent total consumption share reported in household surveys (Source: NSSO data report)

4.1 Consumption level of poor dreamers Vs poor users

Poor Dreamers	**Poor Rural**
8% share of total consumption takes place with offline purchase mode and relatively uneducated	11% share of total consumption
Constrained by their income	Lowest stated improvement in income and assets
60-80% gave preference to rich brands over low ones but they spend on less towards aspirational brands in reality	Mostly, their spending nature prevails with food, some durables and relies on friends and family and seeks peace mind with good health

Source: WEF report

Conclusions

Prevailing of income inequality shows the realm position of bottom of the pyramid consumers. The measure of inequality along with Gini index shows that existing of inequality among rural and urban people. However, urban people inequality was more among rural people. In terms of poverty headcount ratio at $1.90 per day based on 2011 PPP was 21.2% and shows that decline of percentage of population. In same, globalization in Indian economy was a major factor for increasing inequality, increasing urbanization and with high skilled. Still, the top 10% and middle 40% had raised its share of national income to forty per cent, while the share of the bottom fifty per cent of population fallen to around twenty per cent.

In same bottom 50% posses less than average income per adult having less than 1/3rd of nationwide income (income before tax) whereas average income for middle forty per cent was about 4/5th of national average. Existing study also shows that top 10% of population earned 5 times the national average among other income distribution viz., middle 40% and bottom 10% of population. Simultaneously, in 2030 consumption pattern towards rural per capita consumption will raise to 4.3 times than 3.5 times in urban India.

Due to accessibility of internet in developed rural towns and also in smaller towns paves the way for shift in urban-rural prototype and also leads to various consumption behavior through online buying and social media platforms. BOP consumers and their growth in income would renovate India from a BOP economy to a truly middle-class led one with consumer spending growing from $1.5 trillion today to nearly $6 trillion by 2030.

Bibliography and References

Azam, M., & Bhatt, V. (2016). Spatial Income Inequality in India, 1993-2011: A District Level Decomposition. *Available at SSRN 2761578*.

Bruton, G. D., Ketchen Jr, D. J., & Ireland, R. D. (2013). Entrepreneurship as a solution to poverty. *Journal of Business Venturing*, *28*(6), 683-689. https://doi.org/10.1016/j.jbusvent.2013.05.002

Chancel, L., & Piketty, T. (2019). Indian Income Inequality, 1922-2015: From British Raj to Billionaire Raj?. *Review of Income and Wealth*, *65*, S33-S62. https://doi.org/10.1111/roiw.12439

Mohr, J. J., Sengupta, S., & Slater, S. F. (2012). Serving base-of-the-pyramid markets: meeting real needs through a customized approach. *Journal of Business Strategy*.

NSS report on poverty, Accesed, 2019. https://wid.world/

Solt, F. (2016). The standardized world income inequality database. *Social science quarterly*, *97*(5), 1267-1281.

World Economic Forum report, 2019. Accessed, 2019. https://www.weforum.org/reports/