

THE JOBS DEBATE rages on. Naysayers and the Delhi Leftist Economic Club claim increasing unemployment. The facts are that India recorded impressive growth between 2014-2019. Nominal GDP grew by an estimated ₹78 lakh crore—69.2% growth at a CAGR of 10.9%—implausible without a corresponding increase in employment.

Often-quoted surveys, like PLFS (Ministry of Labour) and Consumer Pyramids (CMIE), indicate a decline in employment. However, they survey merely 105,000 and 160,000 households, respectively; not statistically representative of 1.35 billion people since the context in which people work has fundamentally changed. Many scholars have also pointed out technical challenges in the surveys. Further, there is significant economic variance among states, and even within states, as shown in our previous article (<https://bit.ly/2lxxvjl>). India's economic composition has also changed dramatically in the last ten years, rendering some survey methodologies outdated. We need new data sampling methodologies, including employment databases, that account for these factors.

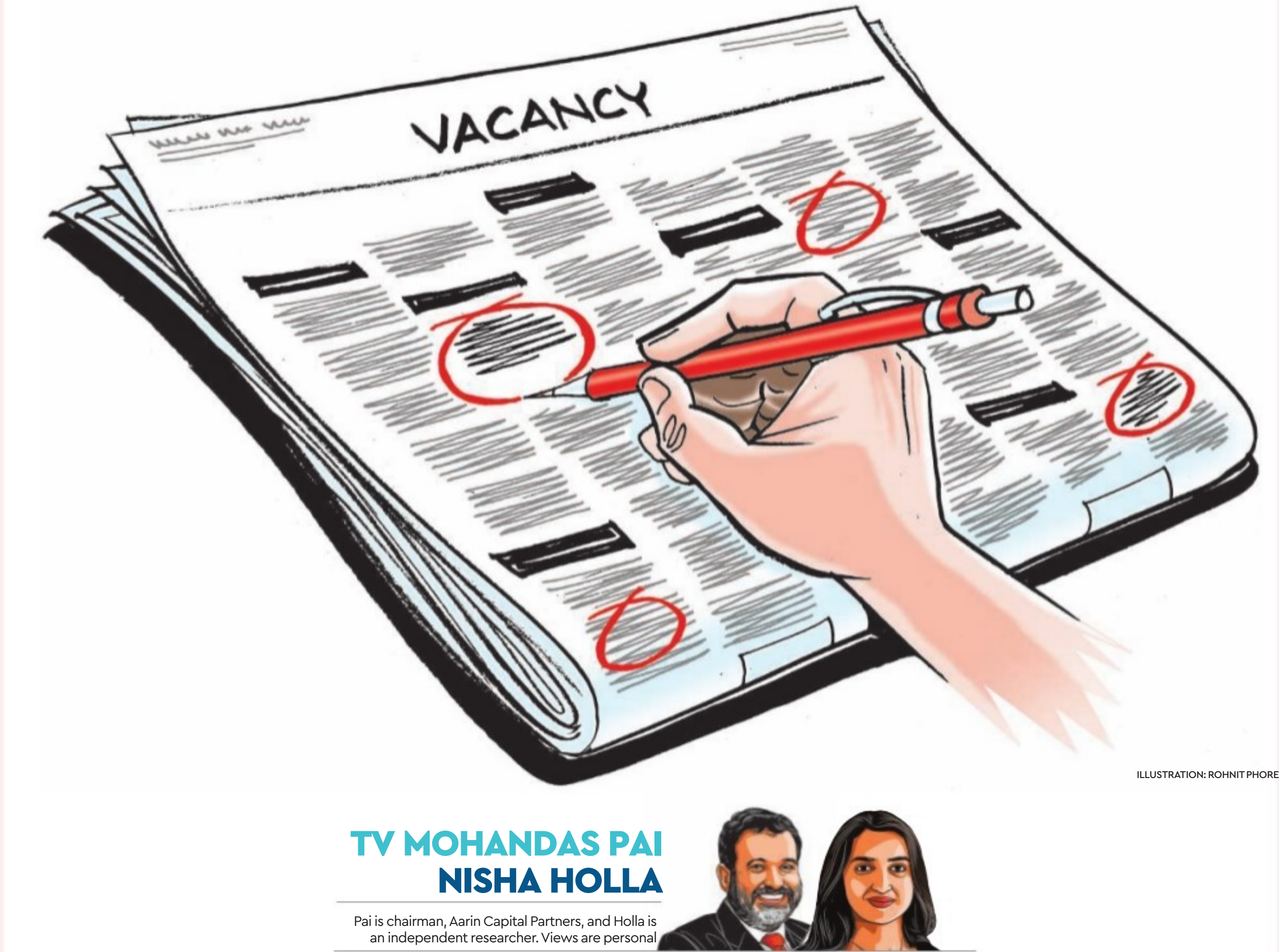
It is time policymakers and economy watchers analyse data from sources like EPFO (Employee Provident Fund Organization), ESI (Employee State Insurance), NPS (National Pension Scheme), IT returns, vehicle sales, Mudra scheme, and others. Steadily, these databases are linking subscribers to Aadhar and can be cross-mapped. EPFO, ESI and NPS publish monthly reports, with disaggregated data from September 2017, and serve as useful starting points.

EPFO applies to entities with 20+ employees across 190 industry classifications. EPFO records new subscribers every month upon payment of contribution and classifies them by age group, industry, and state. The latest June 2019 payroll report shows gross number of new EPF subscribers in FY19 is 1.39 crore (see graphic). Accounting for people who joined and then exited, and in some cases rejoined in the same FY, net number of new subscribers is 1.12 crore—representing the net number of people who got a new job during the year.

An applicable entity, on crossing the 20-employee mark, is inducted into EPFO. One criticism is that EPFO does not indicate new jobs but only formalisation, because existing employees are inducted in this manner. This criticism doesn't hold because we can easily account for this. 60,884 establishments remitted their first electronic challan (ECR) in 2018-19; factoring this by 20 gives us 12.17 lakh new subscribers, which are existing employees getting formalised. Subtracting 12.17 lakh from the net number yields just over 1 crore new jobs (see graphic). Further, new employees over the 20-employee minimum of existing entities count as new jobs.

EPFO's methodology was recently updated. In the old MOSPI format, the subtraction of exiting employees included those that had joined before the FY started instead of only those who had registered in the FY. Methodology was revised to count the number of exits, as well as those who rejoined in the same FY, correctly. If a person quits and joins a new job, the record must reflect in both columns. With the correction, the net new subscribers excluding formalisation are at 1.003 crore.

Of the 1.12 crore (see graphic), the highest number is 28.6 lakh, in the age bracket of 22-25 years. A very close second is 27.8 lakh in the 18-21 year bracket. In the below-18-years group, the record is 1.01 lakh. The sum of net new subscribers in these three groups, till age 25, is 57.4 lakh. Census data shows that over the last 30 years, 2.5 crore babies were born every year, on average. With approximately 2.5 crore people attaining the age of 21 every year, of which, let us assume, 60% look for employment, across levels of education—we arrive at 1.5 crore need-



Where are the jobs?

Often-quoted surveys, like PLFS and CMIE, indicating decline in employment are misleading as they contain methodological flaws, and are not statistically representative of India's population. More nuanced analysis paints a brighter picture of the status of employment in the country.

ing jobs incrementally every year. With a total of 56.4 lakh new subscribers in the 18-25 year age bracket, we must look at higher education data to correlate the number of college graduates who enter the job market. A majority in the 18-25 years category could have either graduated from high school or progressed substantially in higher education. The 26-28 year age bracket recorded 13.9 lakh new subscribers, who could either have post-graduate degrees or maybe took a break and started a second job.

The accompanying graphic shows the 2018-19 EPFO data, disaggregated by state and age group, correlating with 2017-18 AISHE graduation data. This is the old MOSPI format, with new subscribers totaling 61.1 lakh. Applying the corrected methodology across state data might reveal new patterns. India's GER in 2017-18 was 25.8, and 89.6 lakh students graduated in total. These are people who completed college and may be seeking formal employment. The coverage ratio of new jobs in the 18-28 age bracket in 2018-19 to graduates in 2017-18 is also presented.

In the representative states in the North-Central-East zones, total new subscribers in the 18-28 age bracket were 7.3 lakh while the number of college pass-outs was nearly 40 lakh. Uttar Pradesh is a significant contributor here—it has an impressive GER of 25.9 and 17 lakh graduates—but the coverage ratio is only 11.4%. States like Bihar,

Table 1: Net number of new subscribers recorded by EPFO in FY18-19, by age group

Age	Net new EPF subscribers	Total
<18	1,01,851	1,12,50,214
18-21	27,77,760	Exc. formalisation
22-25	28,63,278	1,00,32,534
26-28	13,86,142	Old MOSPI format total
29-35	19,99,329	
35+	21,21,854	61,12,223

Table 2: Net new subscribers by age group for representative states in each zone recorded in EPFO in the old MOSPI format, AISHE data from MHRD*

Zones	EPFO 2018-19					AISHE 2017-18		Coverage ratio of Age 18-28 jobs to pass-outs%
	Age 18-21	Age 22-25	Age 26-28	Age 18-28	Total (all ages)	GER	College Pass-out	
NORTH-CENTRAL	Uttar Pradesh	1,03,205	68,444	21,601	1,93,250	25.9	17,01,557	11.4%
	Rajasthan	66,163	44,997	12,502	1,23,662	21.7	6,86,995	18.0%
	Madhya Pradesh	49,644	38,571	16,030	1,04,245	21.2	4,63,449	22.5%
	Jharkhand	15,760	14,737	8,008	38,505	18.0	1,51,724	25.4%
EAST	Odisha	17,882	16,129	4,289	38,300	22.0	2,14,911	17.8%
	Bihar	13,167	12,143	12,143	88,293	13.0	3,76,973	11.2%
	West Bengal	73,101	79,502	36,094	1,88,697	18.7	3,85,507	48.9%
SOUTH	Tamil Nadu	2,60,699	1,26,990	26,479	4,14,168	48.6	8,77,008	47.2%
	Andhra Pradesh	45,100	36,978	17,495	99,573	30.9	3,85,572	25.8%
	Telangana	1,28,393	1,23,214	42,274	2,93,881	35.7	3,19,539	92.0%
	Karnataka	2,65,827	2,19,708	53,295	5,38,830	27.8	5,06,839	106.3%
WEST	Maharashtra	5,31,060	4,86,518	1,68,034	11,85,612	31.1	8,67,599	136.7%
	Gujarat	2,29,793	1,37,373	50,496	4,17,662	20.1	3,55,305	117.6%
	All India	23,42,998	17,71,705	5,78,759	46,93,462	25.8	89,68,546	52.3%

*Coverage ratio computed by authors. (Odisha's total EPFO number is less than Age 18-28 because data shows a significant number quit in the 35+ age bracket)

Jharkhand and Rajasthan have low GER and low coverage ratios. West Bengal has a higher coverage ratio, 49%, but low GER, 18.7, which must be improved along with formal job creation.

Even in the more industrialised South-West, some states are unable to provide formal employment on par with graduation rates. Tamil Nadu, with India's highest GER at 48.6, has a coverage ratio of 47% while Andhra Pradesh is at 25.8%. Karnataka and Maharashtra have 100%+ coverage ratios, which is a good sign—representative of economies that have a substantial services contribution. It also indicates sizeable migration towards Bengaluru and Mumbai as zones of high employment. The same could account for Telangana at 92% with Hyderabad, Gujarat, remarkably also has a 100%+ coverage ratio. However, GER is 20.1—lower than all-India GER—and can be improved to feed Gujarat's formal job creation engine.

ESI enrolment applies to 10+ employee entities across 90 industries. In 2017-18, ESI showed an increase of 17.97 lakh, with 6.1% growth. There could be some double counting between ESI and EPFO subscribers.

NPS scheme is availed by citizens and government employees alike. Since 2004, new government employees are necessarily added on a defined contribution basis. PFRA data (see graphic) shows that number of new government employees has increased by 21.64 lakh from FY15 to FY19, 52.2% at a CAGR of 11%—indicating employment growth in the government sector as well. In FY19, 5.16 lakh new government employees registered.

Above data clearly shows job creation as new subscribers in EPFO, NPS and ESI—excluding formalisation—invariably equal new jobs. Previous articles by authors Pai and Baid analysed the transportation sector (<https://bit.ly/2PPrSSS>) and tax-paying professionals (<https://bit.ly/2T7pXy7>) to demonstrate creation of jobs from other data sources. Ghosh and Ghosh also demonstrated the use of these databases to estimate job creation.

Amidst employment data, however, it is clear that India needs to fix the following:

1. Not enough high-paying jobs are being created for graduates. It is probable that most jobs recorded in EPFO are low paying in the ₹25-30,000 bracket. Data (<https://bit.ly/2K5gnbD>) shows that number of salaried taxpayers probably with salaries exceeding ₹5 lakh/year has increased from 1.70 crore in AY15 to 2.33 crore in AY18. This could also include existing employees. Correlating ITR data with EPFO subscribers will give an idea of income levels in formal jobs and needs further study.

2. Some states with a significant number of graduates are not providing adequate employment. This results in higher unemployment and emigration towards cities with opportunities. For example, there are 1.5 lakh Bengali IT engineers in Bangalore; significantly higher than those in their home state.

3. Women stand to lose the most as they cannot migrate easily, either due to caregiving duties or conservatism. Our previous article (<https://bit.ly/2WSFKWq>) shows that female GER rose from 19.4 in FY12 to 25.4 in FY18, and continues upward.

PLFS indicates decline in workforce participation of educated women—19.8% unemployment in 2017-18 compared to 10% in FY12. Formal jobs must be created in home states to employ graduates.

Regardless, it is challenging for anyone to make claims of growing unemployment based on thin surveys. Instead, one must assemble large datasets from multiple databases—EPFO, ESI, NPS, vehicle sales, IT returns, Mudra and others—and collate with Aadhar. Using the latest big data analytical tools, an appropriate jobs report reflecting facts and the on-ground reality can be prepared to direct policy decisions.

NEIGHBOURHOOD WATCH

NEXT YEAR WILL MARK the 100th birth anniversary of Bangabandhu Sheikh Mujibur Rahman, whose struggles delivered independence for Bangladesh. It provides an opportunity for us to learn to appreciate that country better. For what that country stands for. For what their aspirations are. For why they are totally deservings and justifiably of India's respect.

The first description that needs correction is the Indian characterisation of the events of 1971 on the eastern front as an India-Pakistan war. It wasn't. Instead, it should be seen as Bangladesh's war of independence. Yes, India fought Pakistan. Yes, we sent our army in. Yes, the air force followed thereafter. But let none forget that while 3,900 Indian soldiers died and another 9,851 were wounded, the loss of Bangladeshi life was far more. Some say that the genocide unleashed by Pakistan caused upwards of 3 million deaths. If the quantum of sacrifice made by its people is any criteria, it was clearly Bangladesh's fight in which India provided substantial assistance with men and material to help the local population capture power.

At the 100th anniversary celebrations that start in March next year, no other country has as much claim to be on the main stage as India. During the 1971 war, only India and Russia were with Bangladesh. China sided with Pakistan, but clearly Bangladesh has mended fences with China, with the latter offering to invest huge sums of money in Bangladesh. Even with Pakistan, Bangladesh's relations are on even keel, as evidenced by the socio-cultural interaction between the two countries from time to time. While it is

A new Bangladesh is emerging

Earlier termed a basket case, terrorist haven, Bangladesh is now aboard the development train

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true that Sheikh Hasina's Awami League has sided with India on issues involving Pakistan, the same cannot be said of the two main opposition parties, namely Begum Zia's BNP or late General Ershad's Jatiya Party, both of whom gave Ershad hell for cosying up to India.

It has been 48 years since independence. For more than half the period, Bangladesh had governments that were not favourably disposed towards having good friendly ties with India even when they may not always been completely inimical. The population of Bangladesh, at the time of its independence in 1971, was 65 million; today, it is 165 million. Which means that most of the population has no recollection of Mujib and his sacrifices or India's contribution. The 100th anniversary is a perfect opportunity to tell them about Bangabandhu, his sacrifices and his contribution to the cre-

ation of Bangladesh. India would do well to showcase its own role without making Bangladesh uncomfortable. It is a perfect opportunity for India to pay homage to the memory of the 3 million Bangladeshis who died during the independence struggle.

It is in India's interests to do so. Bangabandhu, or friend of Bengal, Mujib wore his Bengali identity proudly on his sleeve. Which is how, even today, the Bengali identity trumps the Muslim identity for most Bangladeshis. The anniversary provides an opportunity to reinforce this in the minds of the post-independence generation. From India's point of view, that alone will be enough to provide a bulwark against mass radicalisation of the population. Bangladesh attaches great value to its secular credentials, and the fact that there are more than 100 temples where daily worship takes place is testimony to



this. Equally important, there is the Gurdwara Nanak Shahi, in the memory of Guru Nanak who visited Dhaka in the 16th century. It is important for India to be invested in ensuring that Bangladesh stays secular and does not become a breeding ground for any kind of radicalisation that can hurt India. But to get there, we, in India, need to change.

The Indian mindset on Bangladesh has to change. Take the name in front of anyone and everything you likely hear is negative. Illegal migration. Basket case. Poor country. Terrorist haven. There is no denying that Bangladesh has its share of problems. But today's Bangladeshis are a proud Bangladeshis. And there is much for him to be proud of. And he wants to be appreciated for it. With good reason, too.

The Brookings Institution calls Bangladesh one of Asia's most remarkable and unexpected success stories in

recent years. "Bangladesh defies economic and political gravity," screams the Nikkei Asian Review. They are self-sufficient in food and earned the world's respect when they gave shelter to the Rohingya fleeing persecution in Myanmar, in much the same way India did when millions of Bangladeshis took refuge in India in 1971. Even Pakistan calls Bangladesh a success story, admitting candidly that Bangladesh has done much better than Pakistan itself.

There is more. I did not know until last week that India exports \$10 billion worth of goods and services to Bangladesh and that we run a trade surplus of over \$9 billion with them. It means that Bangladesh buys over Rs 70,000 crore worth of stuff from us. That is a lot of jobs they are helping us create in India. They deserve our gratitude for this alone. But the story does not end

there. In 2017, more than 2.2 lakh Bangladeshis came to India for medical treatment, and that number will be much higher by now. They create jobs, too. With them, come their families. The Indian High Commission issues over 15 lakh visas to Bangladeshis annually. I am not sure if there is any other country that sends as many visitors to India. Many of them come to Kolkata for weekend shopping, some have started going to Guwahati after a direct flight was introduced. The impact of these 15 lakh on the Indian economy cannot be overstated. Thank you, Bangladesh. It is high time we acknowledged their positive impact on the Indian economy, and give them the respect they so rightfully deserve.

If that's not all, Bangladesh trumps India on several indicators. Bangladeshis' average life expectancy is now 72 years, compared to 68 years for Indians, says the World Bank. When it comes to banking, only 10.4% of Bangladeshi bank accounts are dormant, compared to 48% of Indian bank accounts. Dormant accounts are those where there has not been a single transaction for a year. When it comes to ready-made garments, Bangladesh trumps India by a long way.

If none of this resonates with you as being reason enough for Bangladesh to be proud, allow me to remind you of Shakib Al Hasan, whose performance at the recent ICC Cricket World Cup has been nothing short of phenomenal. The success of Shakib has given the young Bangladeshi reason enough to walk with his head held high. It is time we in India recognised this and give them the respect that they deserve.