

Indian Youth Unemployment: Factors Driving Its Deepening

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Abstract

India has become the youngest country in an ageing world with its increasing working-age population, a demographic goldmine. India is fortunate that this opportunity is available for the next few decades. But, the Indian economy is passing through a critical phase of mounting youth unemployment in the age group of 15 to 29. This biggest future risk may downturn in the payback of its huge demographic dividend. Understanding the vulnerability of youth unemployment and its determinants in the right perspective is the need of the hour to ensure the golden future of India. This study aims first, to review the status of youth employment and unemployment and to explore the determinants causing the growth of youth unemployment in India. The secondary data is used for understanding the status of youth employment and unemployment in India. The study identifies the key determinants of youth unemployment rate such as Growth Rate, Female Labour Force Participation Rate, Labour Productivity growth and Employment Growth. The multiple linear regression model is used to assess the impact of significant variables on the youth unemployment rate with the help of 'R'. This study has highlighted that 59% of youth is not available for the labour force and Female Labour Force Participation Rate (FLFPR) is 33% of the men's Labour Force Participation Rate (LFPR). Covid-19 has aggravated the female urban unemployment rate and continued even after the economic recovery. This study will help policymakers to plan area and gender-specific policies and arrangements to overcome the challenging issue of the Indian economy.

KEYWORDS: Youth; Labour Force participation Rate; Unemployment Rate; Labour Productivity Growth; Employment Growth.

JEL: J21

1. Introduction

Youth is defined by the Government of India as those between the ages of 15 and 29 as stated in the National Youth Policy (NYP-2014). This age is a transition stage of youth between leaving his/her compulsory education and finding his/her first job/work. The quality of youth of a country is the most important resource in accelerating its future economic growth. According to Lukov and Lapshin (2010), youth is the part of active workforce of the population in an economy. Their quality reflects the future human capital of a country. Many Studies concluded that rapid economic growth is the outcome of 'demographic dividend' across many Asian economies (PepleStrong, Wheebox and CII, 2020; Jafrin et al., 2021).

According to United Nations (UN) population estimates, there are 1.8 billion youths (15-29 years) worldwide. The fact that every fifth of the world's youth (20 percent) lives in India, demonstrates the importance of this segment of the population (Mehta, 2020). India has become the youngest country in an aging world with its increasing working age population (65.2 per cent), a demographic goldmine. According to India Skills Report 2020, India is home of 600 million young population under the age of 25. India is fortunate that this opportunity is available for next four decades, longer phase than any other nation across the world. India has become the powerhouse of global workforce. The demographic changes will more influence nature and creation of future jobs in India than the globalization and cutting-edge technologies (E&Y, 2017).

But, Indian economy is passing through critical phase of mounting youth unemployment of the age group of 15 to 29. This risk is deepening in India dominantly due to less generation of employment opportunities in comparison of entering youth population in labour force, unorganised nature of job, economic slowdown and the absence of potential or low

competitiveness of youth labour force. Generation of employment for youth is the daunting challenge faced by all nations across the world (Matsumoto et al., 2012). The unemployment crisis is acute in young men aged 15 to 29 years, comprises 68.3% of total unemployment in India. This is due to increased gap between labour absorption in non-agriculture sectors and rising supply of young jobseekers during the year 2012-18 in India (Thomas, 2020). A survey conducted by the Centre for Monitoring Indian Economy found that by December 2021, one out of every five graduates is unemployed. Misra (2019) highlighted that there were 8.9 million & 9 million unemployed youth in 2004 and 2011-12 respectively, but it has increased to 25.1 million in 2017-18.

India is ranked at the bottom on the parameter of vulnerable youth unemployment. There is a risk of economic instability due to "widespread youth disillusionment" in India (World Economic Forum, 2022). Thus, understanding the vulnerability of youth unemployment and its' determinants in the right perspective is the need of hour to ensure the golden future of India.

The available literature focuses on various trends, distribution, determinants of overall unemployment and youth unemployment in India. Naraparaju (2017) concluded that shorter unemployment is more prevalent in rural areas and longer in urban areas. Further, longer duration is more prevalent in the eastern region and among females based on unemployment trends from 1993 to 2012.

Time series data analysis revealed that unemployment and output in the Indian economy are related according to Okun's law. It takes 25% of nominal GDP to decrease 1% of unemployment. As a result, growth is jobless, since it cannot solve the problem (Abubakar, J. and Nurudeen, I., 2019). During the period of rapid growth in the Indian economy, the quality of employment has improved significantly but not quantity. Redundant and less educated people are gradually being excluded from employment, while the non-agriculture sector has generated employment at a slower pace for educated people (Ghose et al., 2021).

Education, Gender, caste and religion significantly impact the process of transition in the Indian labour market and major transition is from job to jobless across gender and all age groups (Das, 2023). The cross state panel data analysis for the period 1972-2010 concluded that rural non-farm employment growth is influenced by a variety of factors depending on gender (Kumar et al., 2017). Gender differences, such as women's lower negotiation skills, low preference for risk, competitiveness, and sensitivity to social cues may influence labour market outcomes and group dynamics (Azmat et al., 2014).

While studying the trends, patterns, and quality of women's employment along with the structural changes in the Indian economy over the years 1983-2018, a study found that no qualitative or quantitative changes had occurred in women's employment structure. Even 'U' shaped supply curve of women's labour force is missing with GDP growth and increase in women literacy, due to inadequate generation of employment for women (Sundari, 2020).

Recent decades have seen a decline in female work participation despite fast economic growth, increased women's educational enrolment, and declining fertility rates. Women's participation in the labour force is hindered by status concerns measured by caste and land ownership (Boruah and Das, 2022). Based on available empirical literature, social constraints, upward mobility among lower castes, and household burden are among the major determinants of falling FLFPR (Chattopadhyay and Chowdhury 2022). Menon and Nath (2022) concluded that approximately 18% of employed women leave their jobs and move to non-participation over a year in India. Women have a higher unemployment rate because their chances of finding a job are lower, and their chances of remaining unemployed are higher, despite being more likely to participate in the labour force than men (Singh, 2023).

Nikore et al. (2022) highlighted that women's labour force and workforce participation rates have secularly declined to their lowest levels since Independence on the basis of time series analysis (1950-2018). In rural areas, women have been leading the decline in labour force participation, while in urban areas, female unemployment rates remain higher. COVID-19's lockdown resulted in 15 million women losing their jobs in the first month, and women's workforce shrank by 13 percent compared with men's by 2%.

COVID-19 negatively affected the labour market and caused 11 million jobs to be lost. Salaried people have been suffering from burns for a longer period of time (Vyas, 2020). Jha and Kumar (2020) discussed the impact of Covid-19

on employment and livelihood of the work in India. They analysed the vulnerability of migrant workers due to current crisis against the backdrop of economic reforms and policy responses in India. Sengupta (2020) revealed that there has been a significant decline in income and job losses in nearly all types of employment in India during the first three months of the COVID-19 pandemic period. Chatterjee and Dev (2023) analysed that different educational and gender groups experienced different levels of Covid-19 impact. The probability that men will get a full-time job is higher than that of women, and the coefficient increases as educational qualifications increase

Studies discussed the unemployment issue with the need of the policy framework. Majumder (2023) showed that mass casualization of work force has created condition in the economy that casual workforce is first hit in economic slowdown and calls for employment-income policy framework. While comparing factors, such as employment elasticity, growth semi-elasticity, labour productivity, the proportion of employment in organized sector, and workforce participation rate across states, regions, or countries, effective policies can be developed for enhancing employment conditions and also directing structural changes accordingly (Basole, 2022).

A number of recent studies have examined the trends, nature, and reasons behind youth unemployment. Inclusion in the Indian labour market is maximized for young people aged 25 to 29 years old with a technical diploma above graduation and vocational training. Among female youth, urbanization, general education, and no vocational training contribute to their exclusion from the Indian labour market (Bisht and Pattanaik, 2020).

It is still difficult for the country's younger population to successfully transition from school to work due to enigmatic changes in the labour market, including declining labour force participation, decreasing employment, and increasing unemployment across genders and sectors, even with decent economic growth (Bisht and Pattanaik, 2022). Demographic transition, regional diversity, and changing labour market patterns are discussed as contributing factors to the youth unemployment challenge (Sharma, 2022). Unemployment rates among the better educated are higher due to difficulty in finding work, job loss risks, and a longer period of being unemployed (Singh, 2023).

There are still many unexplored aspects of youth unemployment in literature as many new elements are emerging in the labour market landscape in this resilient world. In India, this age group has become important due to its large share of the working age group and will remain so for a long time but the challenge is a severe unemployment crisis among youth. Thus, this study focuses on the objectives first, to review the unemployment and employment status of Indian youth and second, to identify the primary cause of youth unemployment.

The study is divided into the following sections. Section 2 analyzed the data sources and methodology. Section 3, part A explained the present status of the youth labour force participation rate, work participation rate, and unemployment rate in India. Section 3, part B described the various perspective for youth unemployment in India, which further helped in identifying the determinants of youth unemployment. It further analyzed the multivariate linear regression to identify the most significant variables contributing to youth unemployment in India. Section 4 covered the conclusion and way forward.

2. Research methodology

The study is conceptual in nature and is based on secondary data. The data on labour status are collected from National Statistics Office's (NSO) labour force surveys, CMIE, statista report on 'Employment in India', World Bank Data and the Annual Report of PLFS (2019-20). To review the unemployment and employment status of Indian youth, the data on various labour force indicators are considered for the year 2017-18, year 2018-19 and 2019-20.

By analysing the various perspective for youth unemployment in India, study has identified the key determinants of youth unemployment rate such as Growth Rate, Female Labour Force Participation Rate, Labour Productivity Growth and Employment Growth. The data of ten years from 2010 to 2020 have been considered for these key determinants. The multiple linear regression model is used to assess the impact of these variables on youth unemployment rate and identify the significant variable with the help of 'R'.

3. Analysis

1. Section A: Youth employment and unemployment status in India

National Sample Survey Office (NSSO), Ministry of Statistics and Program Implementation, Government of India systematized five Yearly employment and unemployment survey till 2011-12. Now, Government of India (GOI) publish data on various indicators of employment and unemployment through Periodic Labour Force Surveys (PLFS). The data of labour force are based on usual activity status on both usual principal activity status (ps) and subsidiary economic activity status (ss). The activity status of a person is considered during the reference time of 365 days going before the date of study under the usual activity status. In usual principal activity status, a person occupied in the significant part of the reference time is considered. Subsidiary economic activity status (ss) of the person is considered when a person is occupied for 30 days or more in an economic activity.

3.1.1 Labour force participation rate

In an economy, the labour force participation rate is the fraction of workers aged 16-64 who are employed or seeking employment.

Table -1 Labour Force Participation Rate (LFPR) in percent acc. to usual states (PS+SS) for diff. age groups in PLFS (2019-20)									
Age Group	Rural			Urban			Rural+Urban		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
15-29	60.8	20.7	41.3	58.3	20.3	40	60	20.6	40.9
15-59	81.5	35.4	58.5	80.6	25.7	53.5	81.2	32.3	56.9
15 years and above	77.9	33	55.5	74.6	23.3	49.3	76.8	30	53.5
All Ages (0+)	56.3	24.7	40.8	57.8	18.5	38.6	56.8	22.8	40.1

Source: Annual Report of PLFS, 2019-20

The table-1 depicts that the youth LFPR is substantially low than the age group of 15-59. And female LFPR is just 22.8 percent than the world average of 51.96 percent. The situation become worst when the youth female rural LFPR has been low than the national average.

Table-2 Youth LFPR (in percent) acc. to usual states (PS+SS) for the person of age 15-29 years during PLFS (2017-18), PLFS (2018-19) and PLFS (2019-20)									
	LLFS (2019-20)			LLFS (2018-19)			PLFS (2017-18)		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
Rural	60.8	20.7	41.3	58.8	15.8	37.8	58.9	15.9	38.1
Urban	58.3	20.3	40	58.6	17.1	38.7	58.5	17.5	38.5
Person	60	20.6	40.9	58.8	16.2	38.1	58.8	16.4	38.2

Source: Annual Report of PLFS, 2019-20

Youth LFPR (in percent) acc. to usual states (PS+SS) for the person of age 15-29 years during PLFS (2017-18), PLFS (2018-19) and PLFS (2019-20)

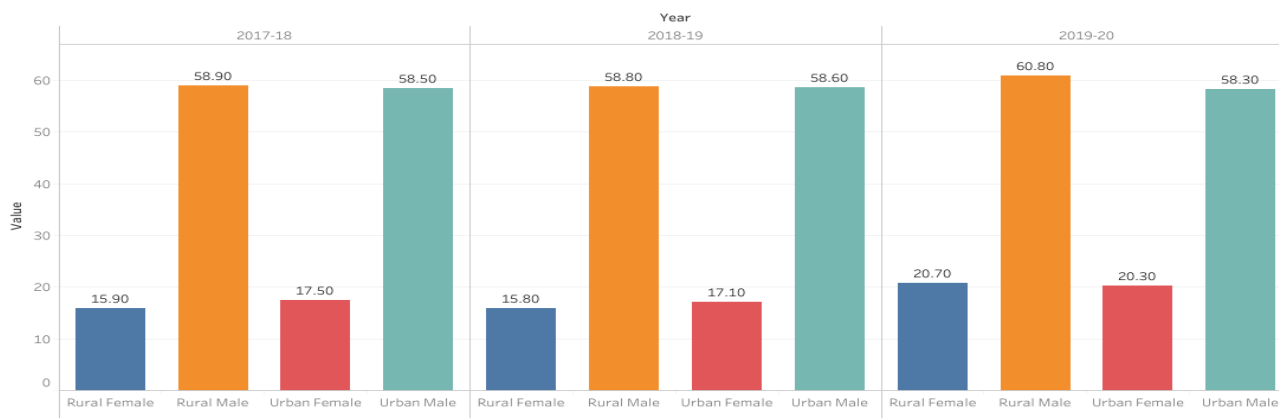


Fig-1

Table-2 and figure-1 portray that 59% (2019-20) youth population is not available to youth labour force. The female LFPR is around 33% of the male LFPR. This situation is prevailing when there is marginal improvement since Year 2017-18. This marginal increase happens against the decline growth rate which is showing growth less employment.

3.1.2 Work participation rate (WPR)

Unemployment is excluded from the labour force participation rate (LFPR) when computing the work participation rate (WPR). According to the NSO's Labour Force Survey 2019, 74 persons are employed out of 100 persons in age bracket of 15 to 64 years/ labour force.

Table-3 Work Participation Rate (WPR) in percent acc. to usual states (PS+SS) for diff. age groups in PLFS (2019-20)									
Age Group	Rural			Urban			Rural+Urban		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
15-29	52.5	18.6	35.9	47.7	15.2	32.1	51	17.6	34.7
15-59	77.5	34.4	55.9	75.1	23.3	49.6	76.7	30.9	53.9
15 Years and Above	74.4	32.2	53.3	69.9	21.3	45.8	73	28.7	50.9
All Age Group	53.8	24	39.2	54.1	16.8	35.9	53.9	21.8	38.2

Source: Annual Report of PLFS, 2019-20

The table-3 highlights that the youth WPR is low than the age group of 15-59 years, same as LFPR. This drift is further contributing in increasing the total unemployment rate. The female WPR is feebly low, lower than female LFPR, highlighting the lack of working opportunities for both rural and urban females. The long term existence of such gap converts the work force into the force not in education and training, and is classified as depressed youth.

Table-4 Youth WPR (in percent) acc. to usual states (PS+SS) for the person of age 15-29 years during PLFS (2017-18) PLFS (2018-19) and PLFS (2019-20)									
	LLFS (2019-20)			LLFS (2018-19)			PLFS (2017-18)		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
Rural	52.5	18.6	35.9	49.1	13.6	31.7	48.6	13.8	31.8
Urban	47.7	15.2	32.1	47.6	12.7	30.9	47.6	12.8	30.6
Person	51	17.6	34.7	48.6	13.3	31.5	48.3	13.5	31.4

Source: Annual Report of PLFS, 2019-20

Youth WPR (in percent) acc. to usual states (PS+SS) for the person of age 15-29 years during PLFS (2017-18) PLFS (2018-19) and PLFS (2019-20)

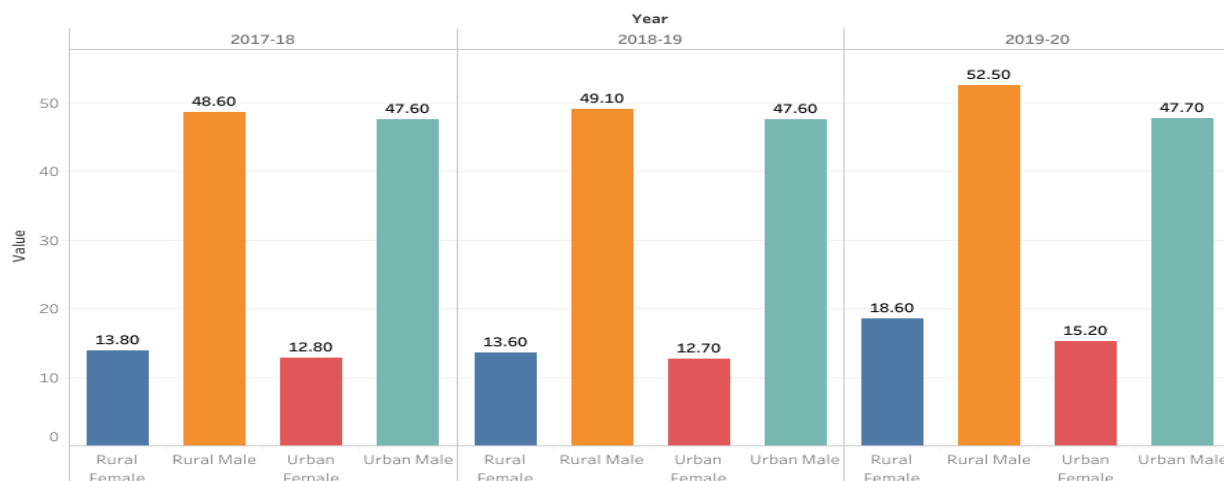


Fig-2

The table-4 and figure-2 depict that the urban male WPR is almost constant during the 2017-20 against the increase in the rural male WPR. The rural household have reported themselves more in self-employment category, 53.2 % increase from 52.2 in the Year 2017-18. The urban survey showed the decline of 30.2% from 32.4% in the year 2017-18. The female WPR has revealed encouraging growth.

The tertiary sector is the major contributor (around 80 percent) in employment generation in the last few years in India. As per the working paper titled, 'India's Employment Crises' at the Centre of Sustainable Employment, estimated that there was fall of 9 million jobs between the 2011-12 and 2017-18 in India with decline of 11.5 per cent of agricultural employment and 5.7 per cent in manufacturing employment. The employment increased only in service sector by 13.4 per cent in the same time period. This is an important concern as it reflects the ineffectiveness of GOI initiatives such as Make in India and Skill India.

Table 5- Distribution of Employment in different sectors in different years

Sector	2005	2010	2019
Employment: Agriculture (per cent of employed)	56	51.5	40.5
Employment: Industry (per cent of employed)	18.8	21.8	24.1
Employment: Service (per cent of employed)	25.2	26.7	35.4

Source: UN Data- Economic Indicators

The table-5 depicts that there is fall of employment in agriculture 15.5 percent in the year 2019 since 2005 and major increase of employment 10.2 percent in service sector during the same period. According to economic survey 2019-20, economy has more formalised as Regular wage/salaried employment has increased 22.8 percent in 2017-18 from 17.9 percent in 2011-12.

This increase has replaced 5 percent decrease in casual workers. On usual status category, 12.1 million and 13.9 million new jobs were created in rural and urban areas respectively, thus creating total new jobs to the tune of 26.2 million in absolute terms. Women share is just 7 million in the total. This is mainly due to urbanisation and shift of workers from farm job to non-farm jobs.

3.1.3 Unemployment rate

Unemployed person, who is looking for and accessible for work under the given conditions of work and remuneration is stated as a percent of the labour force. According to the CMIE (Nov, 2019) report, India's unemployment rate is 8.5 per cent, has hit three years high since 2016. It has worsen during the FY 2020-21 due to Covid-19.

Table -6 Unemployment Rate (UR) in percent acc. to usual states (PS+SS) for diff. age groups in PLFS (2019-20)									
Age Group	Rural			Urban			Rural+Urban		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
15-29	13.8	10.3	12.9	18.2	24.9	19.9	15.1	14.6	15
15-59	5	2.8	4.3	6.8	9.4	7.4	5.5	4.5	5.2
15 years and above	4.5	2.6	3.9	6.4	8.9	6.9	5	4.2	4.8
All Ages (0+)	4.5	2.6	4	6.4	8.9	7	5.1	4.2	4.8

Source: Annual Report of PLFS, 2019-20

Table-6 highlights that eventually youth unemployment rate is thrice than the national average due to the low ratio of youth LFPR and youth WPR.

Table-7 Youth UR (in percent) acc. to usual states (PS+SS) for the person of age 15-29 years during PLFS (2017-18) PLFS (2018-19) and PLFS (2019-20)									
	LLFS (2019-20)			LLFS (2018-19)			PLFS (2017-18)		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
Rural	13.8	10.3	12.9	16.6	13.8	16	17.4	13.6	16.6
Urban	18.2	24.9	19.9	18.7	25.7	20.2	18.7	27.2	20.6
Rural + Urban	15.1	14.6	15	17.2	17.7	17.3	17.8	17.9	17.8

Source: Annual Report of PLFS, 2019-20

Youth UR (in percent) acc. to usual states (PS+SS) for the person of age 15-29 years during PLFS (2017-18) PLFS (2018-19) and PLFS (2019-20)

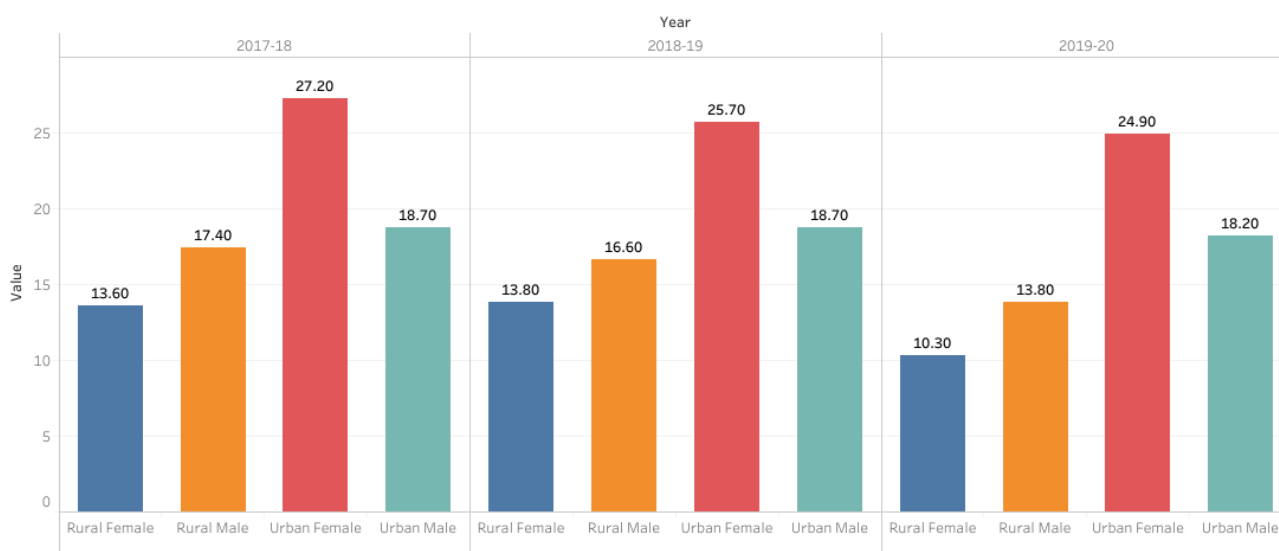


Fig-3

Table-7 and figure-3 show that there is decline of unemployment rate for rural male and both urban and rural female, eventually fall in total unemployment rate in 2019-20 from the last year. The youth unemployment has been increasing since last two decades (Figure-4). Thus, this is just a drop in ocean. The urban female unemployment rate is comparatively high in all the categories. This is a paradox as against the fact that the urban females are more educated and availability of better job opportunities in urban area. Women usually face a bias in job market due to cultural issue,

immobility and her dual role as homemaker. The economic slowdown mainly hit the females. This trend remains continue even in the FY 2020-21 when the female LFPR was the lowest 6.9% in December since the FY 2016. The lockdown was more distressing for urban working women. The urban unemployment has been increasing despite increasing economic activity in the FY 2020-21. This is exhibiting the growth less employment. The economic recovery is least benefitted for women folk.

Youth Unemployment Rate in India

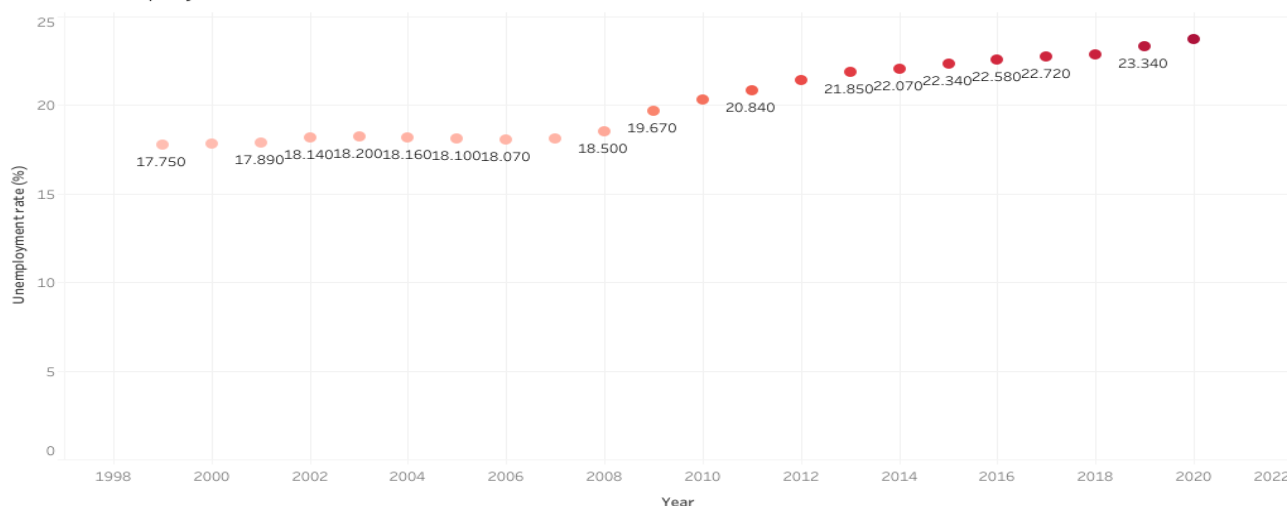


Fig-4

Source: Employment in India, statista, page-12

Share of unemployment across India in 2019, by educational qualification

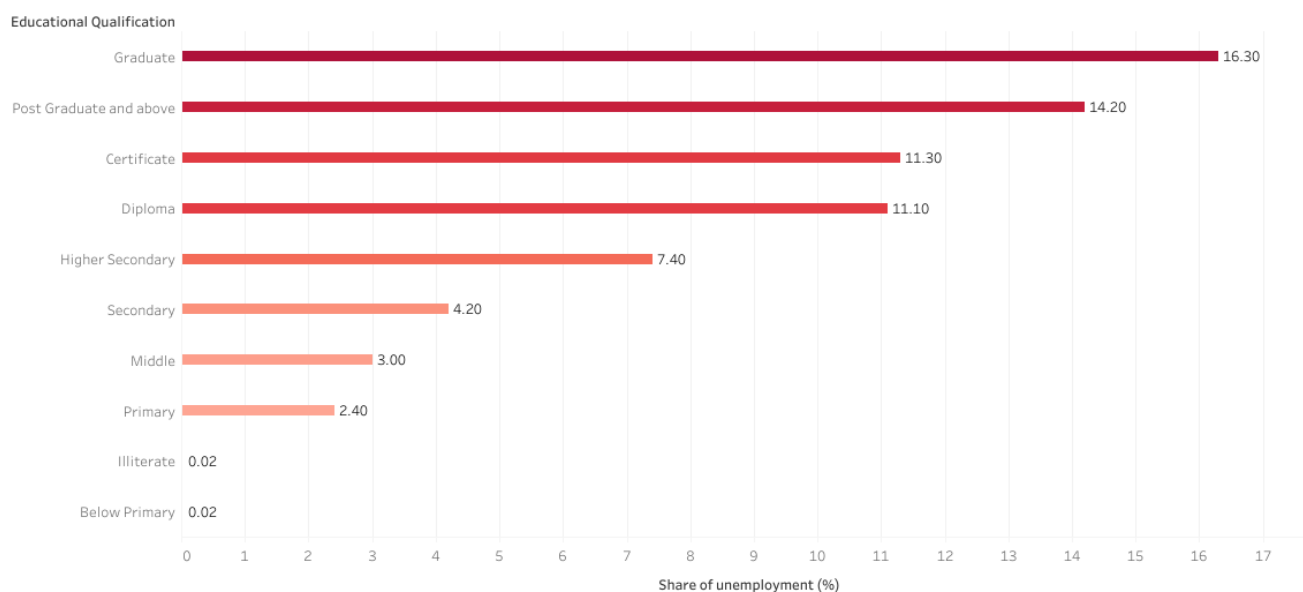


Fig-5

Source: Employment in India, statista, page-14

The above Figure-5 portrays a common tendency of rising unemployment with rising education level. It indicates that the youth is not employable but on the contrary the data on WPR are also revealing that enough jobs are not available in the market. Thus, the crisis is deepening due to both sides of demand and supply of labour market.

The youth labour market statistics depicts the paradox of depressing urban female unemployment rate against the facts of improving economic activities, urban women is more educated and better job availability in urban area. Even female immobility is not giving them opportunities to work in other sectors. It is also reflecting the incapability of labour market to absorb them. Thus there is further need to understand and analysis the various forces working behind the youth unemployment and also evaluate the impact of Covid -19. The study further attempts to review whether the government's efforts pre and post-pandemic are really addressing the root cause or not.

2. Section B: Determinants of youth unemployment in India

Youth unemployment in India is determined by the factors found within demand and supply side of the labour market. The imbalances between these two sides eventually increase unemployment in the countries with a major dependence on human capital in absence of other resources (Gonzalez et al., 2008). Mailti (2015) found Indian employment had been threatened by factors such as mismatch between Academia and industry demand, economic fluctuation and jobless growth on the basis of her study on the variables such as economic growth, education and labour force, using Behaviour over Time Graph (BOT).

3.2.1 Less job creation/ net job loss

According to Economic Survey 2017, 12 million people will be adding to labour force every year till 2030. 26 million are already job seekers in labour market. Thus, creating jobs is the focal problem in India.

Farm jobs were the main source of livelihood of half of Indian population. This sector has been marked with 'Openly Unemployed People' due to family support. But insufficient remuneration and unfavourable monsoon conditions have pushed people now to non-farm jobs. Himanshu (2019) summarized that agrarian crisis due to fall of prices of agricultural commodities and double drought during 2014-15 and curtailed real investment in agriculture, caused the fall in rural economy and real wages. According the report of NITI Aayog (2015), there is the urgent need for disruptive change and bold reforms. 115 million non-farm jobs need to be generated to capitalise its demographic dividend in next ten years in India. But Demonetization, GST and continuous falling growth rate has soaked the jobs even in most absorbing non -farm sector.

CARE Ratings (2019) pointed out in a study that employment growth rate slowed in last two years from 3.9 per cent job creation in 2017-18 to 2.8 per cent in 2018-19. This study also concluded inelastic employment elasticity as employment growth at a CAGR of 3.3 per cent against the CAGR of 7.5 per cent of GDP during the period of 2014 -15 to 2018-19. CMIE and BSE study has projected that there was increase of 12 million workforces a year in India against that only 2 million jobs were created in the Year 2016-17.

Thus, neither gender nor area but education starts playing important role in labour market ever before. Ghosh and Kumar (2021) highlighted that the non-agriculture sector is generating employment at a slower pace only for educated labour and failed to absorb the less educated labour moving out of agriculture during the period of high economic growth in India from 2011-17. Mahesh Vyas (2019), the MD of CMIE stated the job loss of 11 million in the year 2018.

Table -8 Additional Jobs Created/Lost between 2011–12 and 2017–18 (in millions)

	Rural	Urban	Persons
Men	3.67	11.97	15.64
Women	-24.71	2.89	-21.82
Total	-21.04	14.86	-6.18

Source: Kannan and Raveendran (2019)

Table- 8 is depicting the job loss situation in India. The unemployment crisis has been deepening in India due to less job creation, inelastic employment elasticity and now going backward with job loss situation. In such background generating youth employment has been a herculean task for any country.

According to the report of Mckinsey Global Institute (2020), 90 million more non-farm jobs are required in Indian economy to absorb the fresher and backlog workers in between the year 2023 to 2030 (12 million every year). The need of job creation becomes more significant with addition of 55 million women to labour force in India.

3.2.2 Increasing force not transforming into work force and education force

A comparative study between India and European Nations highlighted that German NEET (Not in Employment, Education and Training) rate was corresponds to its unemployment rate but not true with India's NEET rate, which was 28 per cent though highest in the G20 countries (Gunther Schmid, 2015). India's NEET youth increased significantly post-2011/12 and intensity is high among the younger generation with the following characteristics: 20-24 age group female, illiterate, with no vocational training, and living in low-income households (Bisht and Pattanaik 2022).

Kannan and Raveendran (2019) highlighted that the Indian economy was incapable to absorb the increasing adult population into workforce, had declined 15 per cent during the period of 2004-05 and became negative to -4.8 per cent in the next six years, period ending 2017-18 (table-9). Even the combine share of workforce and education force has decreased 17 per cent during 2012-18 from 45 per cent during 2005-12. It indicates that the potential demographic dividend has not been converted into actual demographic dividend. Eventually it has translated into the force not in education, employment and training. The negative growth in work force has pushed backward multiplier effect and decreasing the consumer demand.

Table -9 The addition and distribution of working age group 15 years and above for men and women

Period	Addition to WAP(in million)	LF (per cent)	WF(per cent)	EF(per cent)	Out of WFand EF (per cent)
1983-94	140.68	58.2	56.9	13.0	30.1
1994-2005	152.05	60.2	57.9	12.4	29.7
2005-12	137.63	14.5	14.7	30.3	55.0
2012-18	128.34	10.3	-4.8	22.1	82.7

WAP = working age population, LF = labour force, WF = workforce, EF =educational force.

Source: Kannan and Raveendran (2019)

Scholars used to argue that the main reason of being inactive persons in the young generation is exploring more opportunities of education and training and they join back after accomplishing/ completing a desired level of education. So high rate of youth unemployment has been the reflection more enrolled of youth in education and training. Abraham (2013) stated that the withdrawals of youth from labour market indicated increasing participation of youth in education for enhance their skills. But now no longer this argument can be supported. This increasing disheartened has posed a threat to Indian economy.

The vulnerability of youth unemployment become serious looking at the ratio of open unemployment rate many folds higher than the NLET (Not in Labour Force, Education and Training) ratio across the states of India, which is constantly increasing (table 10).

Table 10: Youth (age 15 to 29 years) unemployment and NLET in Indian states, 2005-2018

Name of the States	Open Unemployed (million)			Not in Labour Force, Education and Training (million)		
	2004-05	2011-12	2017-18	2004-05	2011-12	2017-18

Andhra Pradesh*	0.5	0.7	2.2	4.2	5.3	5.8
Assam	0.3	0.5	0.8	2.0	2.5	2.6
Bihar	0.4	0.8	1.8	6.7	8.9	10.9
Gujarat	0.2	0.1	1.0	3.2	4.2	5.2
Haryana	0.2	0.3	0.8	1.6	2.1	2.4
Himachal Pradesh	0.06	0.04	0.17	0.1	0.2	0.3
Jammu & Kashmir	0.1	0.1	0.2	0.4	0.4	0.5
Karnataka	0.3	0.3	1.2	3.3	4.3	5.0
Kerala	1.3	0.7	1.0	1.7	1.8	1.3
Madhya Pradesh	0.2	0.2	1.3	3.9	4.8	5.9
Maharashtra	0.8	0.6	1.9	5.5	6.6	7.2
Odisha	0.9	0.3	1.1	2.9	3.2	3.8
Punjab	0.4	0.2	0.7	1.6	2.0	2.0
Rajasthan	0.3	0.3	1.2	3.1	4.0	5.6
Tamil Nadu	0.5	0.7	2.2	3.3	4.5	4.1
Uttar Pradesh	0.6	1.0	3.6	13.8	16.2	20.7
West Bengal	0.9	1.0	1.5	7.5	6.9	8.8
Delhi	0.2	0.2	0.5	1.0	1.0	1.6
Chhattisgarh	0.1	0.1	0.4	0.9	1.1	1.5
Jharkhand	0.2	0.3	0.7	1.7	2.4	3.0
Uttarakhand	0.1	0.1	0.2	0.4	0.4	0.7
NE states excl. Assam	0.2	0.3	0.4	0.6	0.6	1.0
All India	8.9	9.0	25.1	69.5	83.7	100.2

Source: CSE working Paper 2019-04

3.2.3 Not employable

Founder Wheebox, Nirmal Singh stated that India's skill landscape situation is alarming as hardly 2 out of 5 fresh entrants in job market satisfy employers on their employability criteria (India Skill Report, 2017). According to the India Skills Report (2018), India's 4.7 per cent workforce is formally trained, which is very low as compared to 75 per cent of Germany and 96 per cent of Korea. The number of Universities raised up 993 and college to 39,931 in the year 2018-19, has built one of largest networks of higher education institution in India and second largest market place for e- learning in the world. Nevertheless there is a big dearth of great talent within the job marketplace on Indian economy.

Share of Employable Talent Available across India

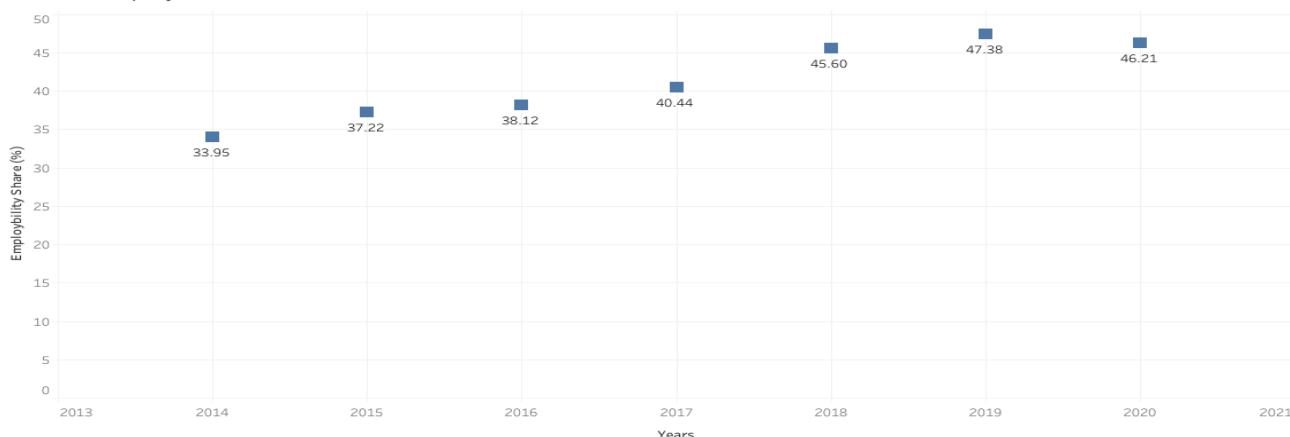


Fig-6

Source: Employment in India, statista, page-36

Youth employability has become more threatening issue than the youth unemployment (Figure-6). The competitive advantage of youth is related with level of education, health, quality of training and development, professional experience, entrepreneurial skills and investment in human capital, underlined a paradoxical situation of labour market (Pukhova et al., 2018), Where employers were rejecting the application due to lack of competitiveness in present youth causing from lack of experience, motivation and professional skills. Unreasonably demand of high salaries and good working condition were making the situation worse. Su and Zhang (2015) summarized that contemporary companies look at five predominant skills to examine the employability levels among youth graduates such as communication and interpersonal skills, private attributes, professionalism, sensible studies and problem fixing ability, and attitude closer to their career. The maximum graduates are lacking in these skills and not ready to enter the world of work. The vital reason is the gap between education system and Industry requirements, resulting in increasing youth unemployment.

3.2.4. Covid-19: pushing economic slowdown and deepening pool of youth unemployment

The tsunami of recent economic slowdown has converted India from Jobless regime to Job loss regime. The real growth rate estimated 5 percent in the year 2019-20, fall from 8.2 percent in the year 2016. The lower output level has failed in creating new jobs, rather translated into job losses. According to NSO the youth (15-29 Age groups) unemployment rate was 22.5 per cent in the month January- March 2019 in current weekly status, higher than the other age groups. The Labour Force participation Rate was 36 per cent during the same period, 15 per cent of women against 56.2 per cent of men. In spite of having low participation rate, the women unemployment rate is 29 per cent higher than the men unemployment rate (20.9 per cent). The slowdown impact was more on youth in both the segment (Figure-7).

Covid-19 Impact on Jobs in India 2020, by age group

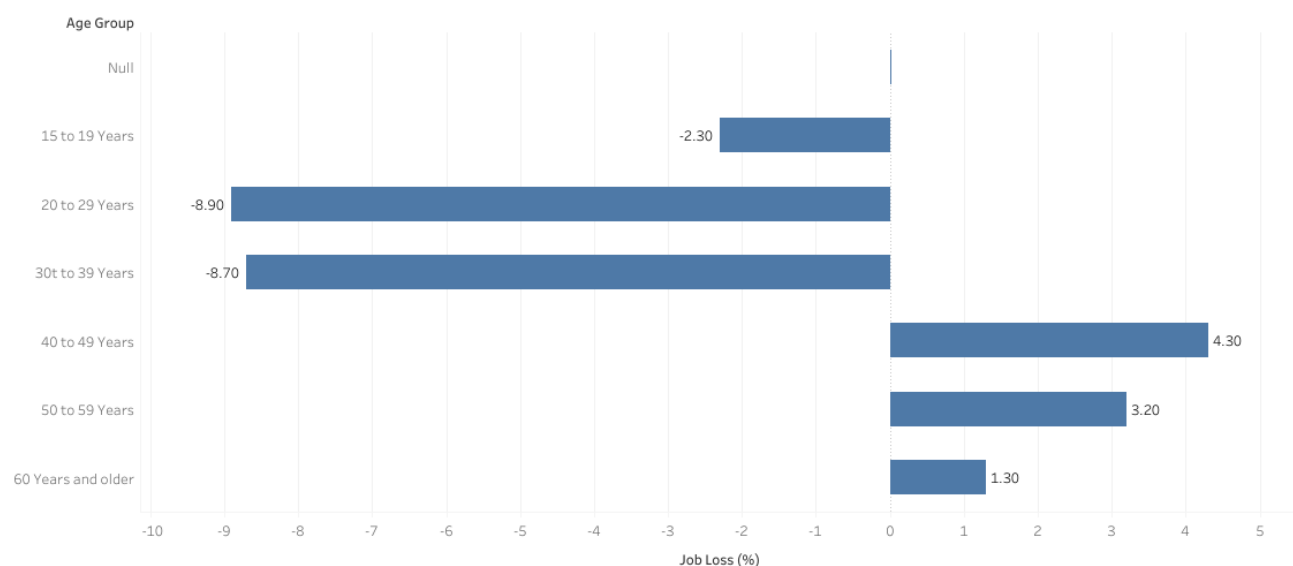


Fig-7

Source: Employment in India, statista, page-41

Estupinan and etl. (2020) estimated the labour supply shock during the Lockdown 1.0 and lockdown 2.0 by employment status, Industry level and occupation, and highlighted that 25% and 17 % of workers were affected during these two lockdowns respectively. Himanshu (2019) summarized that recent slowdown resulted due to missteps of last five years. Agrarian crises, fall in real investment in agriculture, failure of the National Rural Employment Guarantee Scheme (NREGS), demonetization, Goods and Service Tax, fiscal mismanagement and mistrust among stakeholders eventually led the deepening of the crisis.

Many sectors of Indian economy have been witnessing slowdown since the fourth quarter of the calendar year 2019-20. Since February 2020, the outbreak of Covid-19 in India has worsened the labour Market situation. The national shutdown

bottomed the Labour Participation Rate to 41.9 per cent in March 2020 due to 9 million falls in labour force. It remained around 36 percent in next month. This sudden exit happened due to informal nature of employment. The unemployment was estimated to 8.7 percent in the same period, highest in the last three years which has increased three folds in the next month around 23.5 percent. The longevity of this seasonal event turned it into cyclical event. The unemployment rate reduced to 11.1 per cent (12.4 per cent urban and 10.6 per cent rural) in June 2020 after unlocking the economy in different phases in current weekly status.

According the CMIE the employment of young population below 30 years has mainly impacted during this lockdown and faced significant job loss, significantly the rural young women. Four working women out of ten working women have lost their job during lockdown according to a survey. The agriculture sector has already lost its capacity to absorb workforce due to reducing economic activities in the sector and this pandemic has added to this crisis. The jobless growth has been constantly increasing during this period too. A study by Ashwini Deshpande (2020) concluded that even post pandemic the women's specifically rural women's economic recovery is far behind than men.

Conclusion: Identification of youth unemployment determinants

The review of the present status of youth unemployment is reflecting the poor participation of females in labour force. Less job creation and increasing youth ratio in NLET are mainly due to sluggish employment growth. Labour Productivity growth (output per worker) is negatively impacted if the worker is not employable. The long lockdown and halt in economic activities due to Covid-19 are reflected in the economic growth rate. Thus, the study identifies the key determinants of youth unemployment rate such as Growth Rate, Female Labour Force Participation Rate, Labour Productivity growth and Employment Growth.

3.3. Multivariate linear regression

Multivariate regression analysis is applied to examine the impact of Growth Rate, Female Labour Force Participation Rate, Labour Productivity growth and Employment Growth on youth unemployment rate, which is target variable.

The regression equation is:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

$$\text{Unemployment rate} = \alpha + \beta_1 \text{GDP} + \beta_2 \text{Labour Productive growth} + \beta_3 \text{FLFPR} + \beta_4 \text{Employment growth} + \varepsilon$$

This section highlights the results of the multiple linear regression model. First the basic assumptions of the multiple linear regression model are verified such as normality, linearity, multicollinearity and homoscedasticity. The following subsections highlight the results.

The time series data from 2010-2020 of the identified predictors are considered for the analysis. First the data is loaded into R. The numeric summary of data is checked.

summary (data)

Table 11-Summary Table of all Variables

	Unemployment.rate	GDP	Labour.Productive.growth	FLFPR	Employment.growth
Min.	20.3	-7.9	4.5	18	-0.518
1st Qu	21.62	5.4	5.25	20.9	0.365
Median	22.34	6.5	5.5	21.8	1.34
Mean	22.18	5.345	5.882	21.94	1.34
3rd Qu	22.79	7.65	6.05	22.8	2.07
Max.	23.75	8.5	9.7	25.85	3.9
NA's	1	1	1	1	1

To check the various assumption of the multiple regression analysis, first the data is standardized.

```
sdata<-scale(data)
sdata<-data.frame(sdata)
```

3.3.1 Normality

The normal distribution property of explained variable is examined through histogram.

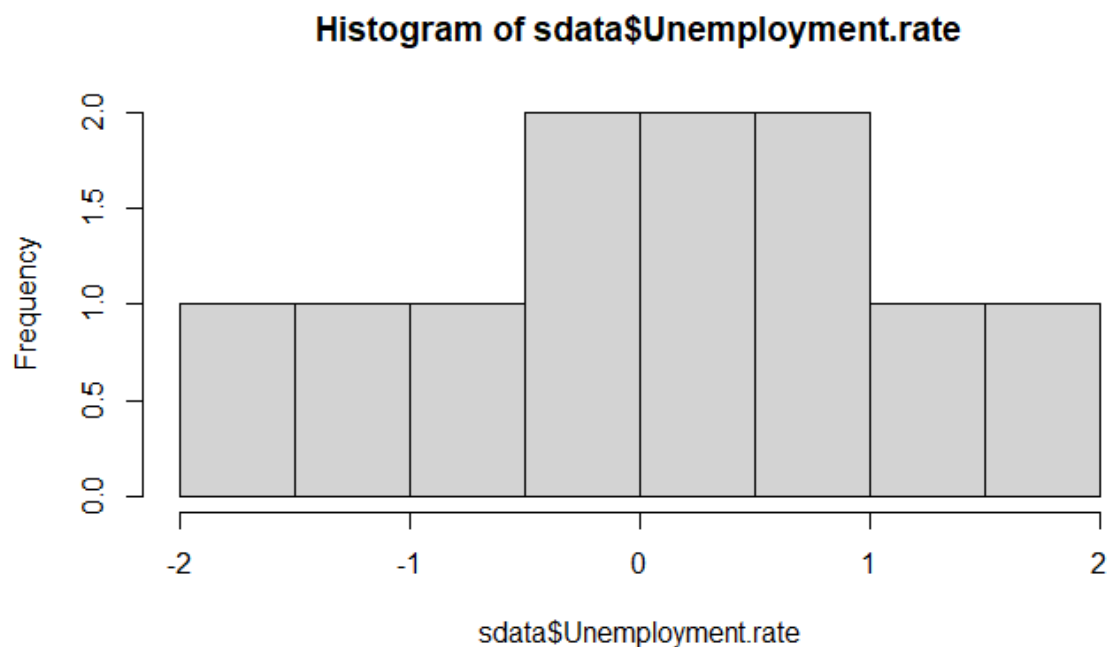


Fig-8

The figure 8 histogram of explained variable is close to bell-shaped. So further multiple linear regression can be proceeded.

3.3.2 Multicollinearity

Multicollinearity refers to the presence of highly inter-correlated independent variables in regression models.

GDP	Labour.Productive.growth	FLFPR	Employment.growth
2.030800	2.094921	3.453235	1.159564

The above analysis confirms the absence of multicollinearity among the predictors as the VIF value less than 5.

3.3.3 Homoscedasticity of residuals

Homoscedasticity means having a constant variance for all of the independent variables. A commonly used graphical method is to plot the residuals versus predictor values.

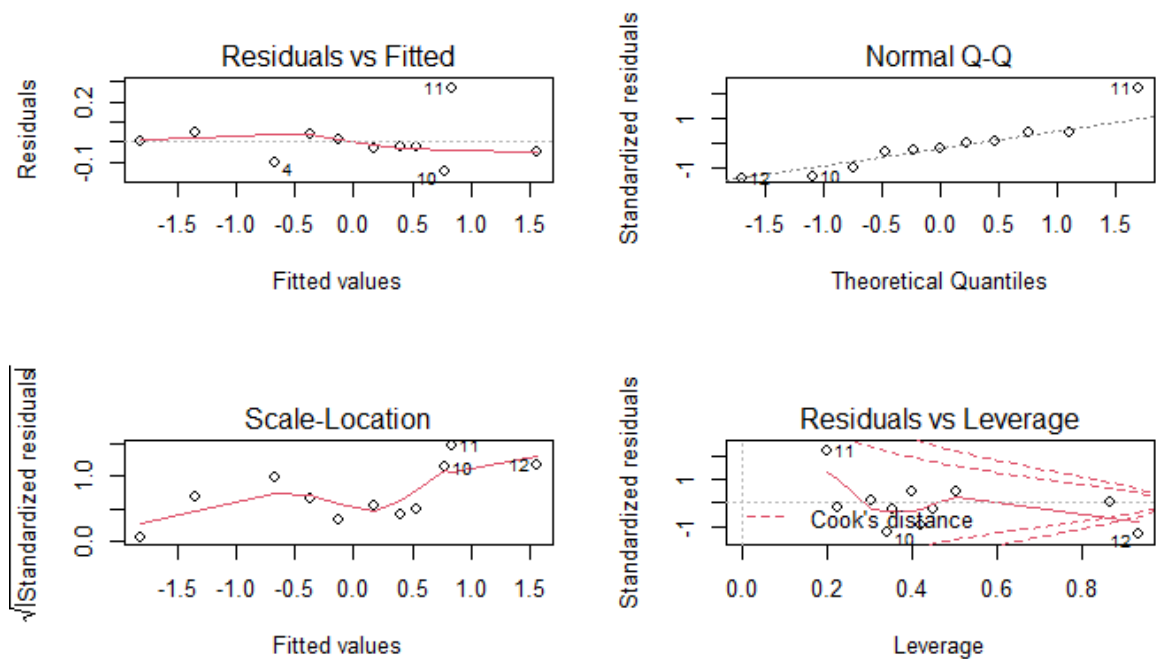


Fig-9

In figure 9, based on the residuals, the model meets the assumption of homoscedasticity as the mean of the residuals are horizontal and close around zero. It means there are no outliers.

3.3.4 Model

Call:

```
lm(formula = Unemployment.rate ~ ., data = sdata)
```

Residuals:

Min	1Q	Median	3Q	Max
-0.14285	-0.04067	-0.02069	0.02792	0.26838

Coefficients:

Estimate	Std. Error	t value	Pr(> t)
(Intercept)	7.781e-16	4.113e-02	0.000 1.0000
GDP	2.110e-01	6.147e-02	3.432 0.0139 *
Labour.Productive .growth	8.986e-02	6.243e-02	1.439 0.2001
FLFPR	-1.170e+00	8.016e-02	-14.598 6.49e-06 ***
Employment.growth	3.878e-02	4.645e-02	0.835 0.4357

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1364 on 6 degrees of freedom

(1 observation deleted due to missingness)

Multiple R-squared: 0.9888,	Adjusted R-squared: 0.9814
F-statistic: 132.9 on 4 and 6 DF, p-value: 5.519e-06	

Approximately 98% of variation in youth unemployment rate is explained by the explanatory variables, so model is good fit. The model depicts that GDP beta value 0.21 (p -value > 0.01), and FLFPR beta value -1.170 (p -value < 0.001), are significant predictors for target variable. Specifically the fall in FLFPR is significantly increasing the youth unemployment rate.

4. Conclusion

4.1 Theoretical contributions

The statistical data indicates that mainly the rural women LFPR and WPR have been shrinking and contributing in raising the youth unemployment rate. The slowdown of economic activities in the agricultural sector, less job creation in formal sector, lack of skills, Job loss growth and increasing NLET ratio have caused increasing unemployment. Further Covid-19 has aggravated the crisis of overall youth unemployment. The study identified FLFPR as the most significant predictor of youth unemployment rate.

4.2 Managerial implications and further research scope

The study further unlocks to find out the social factors contributing to women unemployment and furthermore gives a strategic input to policymaker to plan localized, area-specific policies and arrangements to overcome the issues.

4.3 Limitation of the study

The investigation has its constraints due to non-availability of time series data of the variables. Along these lines, the discoveries of the examination ought to be summed up with caution and extraordinary alert and further required bigger information investigation with a large data size.

4.4 Way forward

This study debunks the myth that jobless growth is the reason of youth unemployment rather the Female Labour Force Participation Rate is a major concern. The recent data has pushed the FLFPR to a historical low at 20.5% (World Bank) just half of the FLFPR in 1990, the lowest in South Asia, further deepening the pool. India also ranked 112th out of 153 countries on Global Gender Gap Index. Even the post Covid -19 the V shape recovery is more applicable for men in getting back their jobs than women.

Thus, the growth is not the cause of job creation rather tactics of encouraging the working population to participate in economic processes, automatically boost growth. It helps in understanding the right perspective of the issue and living behind all the suggested causal reasons to date.

- The fall in employment elasticity from 0.4 to 0.2 is not only the outcome of growth but also the adoption of automation. The focus should be more on built human capital as per the job requirement rather than just skilling people for documentation.
- Estimation of the usual percentage of the net addition in the labour will help strategies the ideal number of job creation.
- In the backdrop of the start-up ecosystem, the government should facilitate women's participation in economic activity. There is a need for schemes inclusive of goodies for women workforce for having an ideal work-life balance.
- Good governance is required in the formulation of schemes, implementation and measuring outcomes. Outcomes should be quantifiable in terms of women's participation in economic activity.
- Women's unpaid household work (9.8 times to men) should be redefined and redistributed to show their contribution in economic activity as they are into the production of goods and services which are marketable.

- MNERGA schemes' effective implementation help in generating work opportunities for rural women.
- There are many barriers at the level of factors of production in India. It becomes more challenging for women, who have already poor access to these inputs. Reform in the labour laws, land reforms and extension of social security and safety benefits need to be reframed to empower women.
- The government should collaborate with the private sector and NGOs for skill mapping and development of the women workforce not only to make them employable and identify job opportunities for them but also to start their own. Undoubtedly, Atmanirbhar Bharat can be enforced at the grassroots level by encouraging them to build the ventures on their traditional skills.
- One-stop solution should be created to extend support to women to start their own. Start-up eco-system should help in identifying potential and women-friendly opportunities to start their venture.
- There is a strong need to connect academia to government policy initiatives. Academia can help in finding out the impact of the government policies and further help in corrective measures, result in achieving the desired goals.

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References

1. Abraham, V. (2017). Stagnant employment growth: last three years may have been the worst. *Economic & Political Weekly*, 52 (38), 13-17.
2. Abubakar, J., Nurudeen, I. (2019). Economic Growth in India, Is It a Jobless Growth? An Empirical Examination Using Okun's Law. *The Indian Journal of Labour Economics*. 62, 307–317. <https://doi.org/10.1007/s41027-019-00165-w>
3. Azmat G., Petrongolo, B. (2014). Gender and the labor market: What have we learned from field and lab experiments? *Labour Economics*. 30, 32-40, ISSN 0927-5371. <https://doi.org/10.1016/j.labeco.2014.06.005>.
4. Basole, A. (2022). Structural Transformation and Employment Generation in India: Past Performance and the Way Forward. *The Indian Journal of Labour Economics*. . <https://doi.org/10.1007/s41027-022-00380-y>
5. Boruah, C. & Das, D. (2022). Female Labour Force Participation Rates in Assam: Trends, Composition and Determinants. *Indian Journal of Human Development*, 16(1). <https://doi.org/10.1177/09737030221074557>
6. Bisht, N. & Pattanaik, F. (2020). Access to and exclusion from labour market for youth in india-role of higher education. *Youth Voice Journal*, 10, 1-29.
7. Bisht, N. & Pattanaik, F. (2022). Revisiting the Shift in Youth Labour Market vis-a-vis the Economic Development in India. *Millennial Asia*, 13(2). <https://doi.org/10.1177/0976399621989013>
8. Bisht, N. & Pattanaik, F. (2022). Antecedents and Consequences of Youth being, 'Not in Employment, Education or Training (NEET)' in India. *Youth Voice Journal*, ISSN (online): 2969
9. Chattopadhyay, S. & Chowdhury, S. (2022). Female Labour Force Participation in India: An Empirical Study. *Indian Journal of Labour Economics*. 65(1), 59-83
10. Chatterjee, P. & Dev, A. (2023). Labour Market Dynamics and Worker Flows in India: Impact of Covid-19. *Indian Journal of Labour Economics*. <https://doi.org/10.1007/s41027-022-00420-7>
11. Das, P. (2023). Creation and Destruction of Jobs in Urban Labour Market: Role of Gender, Caste and Religion in India. *Indian Journal of Labour Economics*. <https://doi.org/10.1007/s41027-022-00425-2>
12. Deshpande, A. (2020). *The Covid-19 Pandemic and Gendered Division of Paid and Unpaid Work: Evidence from India* (IZA DP No. 13815). Ashoka University. Retrieved from <http://ftp.iza.org/dp13815.pdf>
13. Economic Survey 2019-20.
14. Estupinan, X., Gupta, S., Sharma, M., and Birla, B. (2020). Impact of COVID-19 Pandemic on Labour Supply, Wages and Gross Value Added in India. *The Indian Economic Journal*, 68(4) 572-592.
15. Ghose, A. K., & Kumar, A. (2021). India Deepening Employment Crisis in the Time of Rapid Economic Growth. *The Indian Journal of Labour Economics*, 64(2), 247-279. doi:10.1007/s41027-021-00314-0

16. Ghose, A.K., Kumar, A. (2021). India's Deepening Employment Crisis in the Time of Rapid Economic Growth. *The Indian Journal of Labour Economics*. 64, 247–279. <https://doi.org/10.1007/s41027-021-00314-0>
17. Himanshu (2019, Nov. 8). Opinion | A close look at the economic slowdown reveals its origins. *Livemint*, Retrieved from <https://www.livemint.com/opinion/online-views/opinion-a-close-look-at-the-economic-slowdown-reveals-its-origins-11573146079270.html>
18. India Skill Report (2020). *Reimagining India's Talent Landscape for a \$5T Economy*. (Wheebox- 22). Retrieved from https://wheebox.com/assets/pdf/ISR_Report_2020.pdf
19. Jha, P. and Kumar, M. (2020). Labour in India and the COVID-19 Pandemic. *The Indian Economic Journal*, 68(3) 417-437.
20. Jafrin,N., Mahi, M., Masud, M.M. & Ghosh, D. (2021), Demographic Dividend and Economic Growth in Emerging Economies: Fresh Evidence from the SAARC Countries. *International Journal of Social Economics*. DOI: [10.1108/IJSE-08-2020-0588](https://doi.org/10.1108/IJSE-08-2020-0588)
21. Kannan, K P and G Raveendran (2019). From Jobless to Job-loss Growth Gainers and Losers during 2012–18. *Economic and Political Weekly*, 25 (44), 38-44.
22. Kapoor, R (2016). *Technology, Jobs and Inequality - Evidence from India's manufacturing Sector* (Working Paper313). Indian Council for Research on International Economic Relations, New Delhi, India.
23. Khan, M.I. (2021). Consequences of Labour Migration on Wages and Employment: Evidence from India. *The Indian Journal of Labour Economics*, 64:23-47.
24. Kirtika Suneja (2019, Nov. 19). Employment growth in India slowed in last two years: CARE Ratings. *Economic Times*. Retrieved from <https://economictimes.indiatimes.com/news/economy/indicators/employment-growth-in-india-slowed-in-last-two-years-care-ratings/articleshow/72125301.cms>
25. Kumar, A., Shergill, K.(2017).The dynamics of rural non-farm employment in India. *The Indian Journal of Labour Economics*. 60, 613–624. <https://doi.org/10.1007/s41027-018-0112-9>
26. Lukov, V. A., & Lapshin, V. A. (2010). Human potential and everyday life. *Knowledge. Understanding. Skill*, 3, 211–215.
27. Maiti, M. (2015). Understanding the Employment challenges in India. *International Research Journal of SocialSciences*, 4(1), 1-8.
28. Matsumoto, M., Hengge,M., Islam, I. (2012).Tackling the Youth Employment Crisis: A Macroeconomic Perspective (*ILO Employment Working Paper*, No.124). Geneva, ILO.
29. McKinsey Global Institute (2020). *India's turning point: An economic agenda to spur growth and jobs*. Retrieved from <https://www.mckinsey.com/featured-insights/india/indias-turning-point-an-economic-agenda-to-spur-growth-and-jobs>
30. Majumder R. (2023). The Employment Challenge in India: Hundred Years from 'Ten Days that Shook the World'. *Indian Journal of Labour Economics*. <https://doi.org/10.1007/s41027-022-00419-0>
31. Mehrotra, S. & Parida, J. K. (2019). *India's Employment Crisis: Rising Education Levels and Falling Non-agriculture Job Growth* (CSE working paper 2019-04). Centre for Sustainable Employment.
32. Menon, R., & Nath, P. (2022). A Dynamic Analysis of Women's Labour Force Participation in Urban India. *The Economic and Labour Relations Review*, 33(4), 766–785. <https://doi.org/10.1177/10353046221136190>
33. Misra, U. (2019, November 2). Youth unemployment rising with educational qualifications: Study. *The Indian Express*. Retrieved from <https://indianexpress.com/article/india/youth-unemployment-rising-with-educational-qualifications-study-6098754/>
34. Mehta, B.S. (2020, August 13). International Youth Day 2020: The Rise of Unemployed and Idle Youth in India. *Outlook*. Retrieved from <https://www.outlookindia.com/website/story/opinion-international-youth-day-2020-the-rise-of-unemployed-and-idle-youth-in-india/358529>
35. Naraparaju, K. (2017). Unemployment Spells in India: Patterns, Trends, and Covariates. *The Indian Journal of Labour Economics*, 60, 625–646. <https://doi.org/10.1007/s41027-018-0119-2>
36. NASSCOM, FICCI & E&Y (2017). *Future of Jobs in India- a 2022 perspective*. Retrieved from http://ficci.in/spdocument/22951/FICCI-NASSCOM-EY-Report_Future-of-Jobs.pdf

37. National Statistics Office. MALTA. *Labour Force Survey*. Retrieved from [https://nso.gov.mt/en/News_Releases/View by Unit/Unit C2/Labour Market Statistics/Pages/Labour-Force-Survey.aspx](https://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_C2/Labour_Market_Statistics/Pages/Labour-Force-Survey.aspx)
38. Nikore, M., Prabhu, P., Gupta, M., Narang, V., Bhatnagar, K., Talwar, A., Ganesh, C., Singh, U., & Banerjee, S. (2022). India's missing working women: Tracing the journey of women's economic contribution over the last seven decades, and during COVID-19. *Journal of International Women's Studies*, 23(4), 34-70.
39. Pukhova, A. G., Belyaev, T. K., Tolkunova, S. G., & Kurbatova, A. S. (2018). Modern youth labor market: problems and solutions. *State Councilor*, 2(22), 5–10.
40. Sengupta, A. (2023). Effect of COVID-19 Pandemic on Employment and Earning in Urban India during the First Three Months of Pandemic Period: An Analysis with Unit-Level Data of Periodic Labour Force Survey. *Indian Journal of Labour Economics*. <https://doi.org/10.1007/s41027-023-00428-7>
41. Sharma, A.N. (2022). Youth Employment and Unemployment in India: Issues and Challenges. *Indian Journal of Labour Economics*, 65, 237–267. <https://doi.org/10.1007/s41027-022-00387-5>
42. Schmid, G. (2015). Youth Unemployment in India: From a European and Transitional Labour Market Point of View. *IZA Policy Paper*, No. 95, 4-5.
43. Singh, J. (2023). Unemployment Fluctuations in Urban Labour Market in India. *Indian Journal of Labour Economics*. <https://doi.org/10.1007/s41027-022-00417-2>
44. Su, W., & Zhang, M. (2015). An integrative model formeasuring graduates' employability skills- A study in China. *Cogent Business and Management*, 2(1), 1060729.
45. Sundari, S. (2020). Structural Changes and Quality of Women's Labour in India. *The Indian Journal of Labour Economic*. 63, 689–717. <https://doi.org/10.1007/s41027-020-00245-2>
46. Thomas, J.J. (2020). Missing the Demographic Window of Opportunity? Labour Market Changes in India, 2005–18. *Economic and Political Weekly*. 55 (34), 22 Aug , 2020.
47. Vyas M. (2020). Impact of Lockdown on Labour in India. *The Indian Journal of Labour Economic*. **63**, 73–77. DOI: 10.1007/s41027-020-00259-w.
48. World Economic Forum (2022). The Global Risks Report 2022. 17th Edition. Insight Report. Retrieved from [https://www3.weforum.org/docs/WEF The Global Risks Report 2022.pdf](https://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2022.pdf)