European Online Journal of Natural and Social Sciences 2022;
Vol.11, No 2 pp. 387-396
ISSN 1805-3602 www.european-science.com

Economic Scrutiny of Structural Change and Occupational Diversification in India – A Look at Post-Reform Period

Altaf Hussain Padder*, B. Mathavan
Department of Economics, Annamalai University Chidambaram, Tamil Nadu-608002, INDIA
*Email: altaf057@gmail.com

Received for publication: 11 February 2022.
Accepted for publication: 30 April 2022.

Abstract

Expansion and creation of employment opportunities have been the unstated objectives being followed since the early 1990s in India. After the emergence of new economic reforms, economic development has shown a growing trend, but employment growth during the period from 2012 to 2019 has drastically fallen in absolute numbers after the marginal improvement during the commencement of economic reforms. The people are moving towards low-productivity sectors and shoddier the quality of employment. The present study examines the recent trends of structural changes in economic development and occupational diversification in India and tries to identify the outcome and ineptitude of the ongoing vicious pattern of economic development and employment. The paper argues that the structural changes are bounded to output level only, there is no transformation of labours between the sectors that lead to more unemployment. the increasing share of unemployment having the intermediate and advanced education led to the increase of employment in the informal sector for their livelihood. India's inclusive growth will be impossible to achieve unless the informal sector's share of total employment does not reduce.

Keywords: Structural Change, Economic Growth, Employment, Unemployment, Post-Reform Period.

Introduction

Economic development has historically been associated with structural changes in the national economies. It has, in fact, most often, been defined as a process combining economic growth with changing share of different sectors in the national product and labour force. The most common structural changes that have been observed historically have followed a sequence of: (1) as the GDP increases, the share of agriculture in output declines, (2) the share of industry initially increases and subsequently decreases, and (3) the share of services increases steadily. This pattern has not only been observed historically but also holds across countries with different levels of development. Structural shifts and changing sectoral shares are found to hold both for the national and the workforce (Papola, 2012).

Sustained economic growth changes the economic structure and shifts the primary contribution to the GDP from one productive sector to another (Kuznets, 1955). Changes in economic structure with the changes in economic growth, go hand in hand (Soni & Subrahmanya, 2020). Structural changes do not only characterize economic development, they are also necessary for sustaining economic growth. Economists have empirically examined the relationship between economic growth and structural change in countries, and recent cross-country experiences substantiate the pattern of structural change (Gabardo, Adilson, Joao, & Einloft, 2019). As a result of structural changes in the national output, economic growth is inherently, regardless of the primary and secondary factors causing them and structural changes in output are thus likely to be followed by similar changes in employment (Papola, 2012).

Subsequently, with the initiation of the new economic policy, the Indian economy showed an impressive improvement in growth and development, as industrial controls and trade restrictions were lifted, it was adjudicated that this would lead to the creation of more employment opportunities and a drastic fall in poverty and inequality. But the available evidence tends to indicate that post-reform economic policy is conveyed by low employment growth. According to official figures, the annual average growth rate of the economy in the last decade has been between 7-8 per cent, with the growth rate striking almost 9 per cent during the last four years of the 10th plan, contrary to the annual rate of growth of employment has been very low, labels some critics label in its jobless growth (Padder, 2018). It has been revealed that the employment elasticities in sectoral wise categories also show drastic changes, the employment elasticity in the primary sector has declined during the period from 2001 to 2012. In the secondary sector, there is a marginal improvement in employment elasticity, however, the employment growth in the territory sector is quite moderate during the same period. It's disconcerting to see that most of the increase in employment has occurred from either the unorganized or informal sector since 1996. In the case of the organized sector, employment has declined from 3.44 per cent per annum during 1997-98 to 2014-15 (Sankaran, Abraham, & Joseph, 2010). People are moving towards the low productivity and insecure sectors characterized by low subsistence earnings, low per capita income, and insecure social benefits and are deprived by all those beneficiaries who are provided in the formal sector. Between 1999-00 and 2004-05, a high rate of structural transformation has been found from formal to informal sector (Mkhize, 2013). It is a matter of great concern, which JM Keynes had successfully mentioned in his theory of effective demand, which is playing a key role to accelerate the rate of growth of the economy, but here the trend is reverted, as the low production and productivity in informal sectors lead to low investment in other sectors which further leads to decline in economic growth and retards more employment, and hence this is an important issue of research.

Globally the economic growth had achieved implausible figures, but on the regional basis, there are many disparities in terms of regional dimensions of growth and employment. The traditional Kuznets-Chenery perspective of structural transformation suggests a reallocation of labour from agriculture to manufacturing and services as per-capita income rises, but the regional disparities in output and employment have widened in the first quinquennium of the 21st century, a continuation of the trend of the 1990s (Ramaswamy, 2007). According to Dr Man Mohan Singh the initiator of the reform operations, “we are creating an innovative dynamic macroeconomic milieu in the economy which gives a high momentum to industrialization with a growth rate 12 per cent or more and high level of productivity through which more jobs will generate with the high level of income and wages”. The economic policy had successfully achieved a high level of growth after the post-reform period, but the regional disparities are still there in terms of economic development and employment growth. The development process focused on the few territories in the economy and others did not receive the reimbursements of such development due to some aspects like market imperfection, political and economic reasons, and geographical constraints. (Nayyar, 2017) exposed that economic liberalization was only for a short period or medium period, and economic policy was mainly shaped for the economic problems faced by the government. Economic liberalization has lagged far behind GDP and employment growth and has nothing to do with long term development progress. It neglects the service sector which contributes a major share of the sectorial workforce and the manufacturing sector shows a drastic fall after the initiation of new economic policies.

Methodology

The economic indicators which are taken under consideration for the study are sectoral output share and employment share in the Indian economy during the period from 1990 to 2020. The present study is purely based on the secondary data collected from the World Development Indicators. Proportional analysis was used to measure the share of economic output and share of employment across the broad sectors in the Indian economy. Multiple nonlinear regression was used to analyze the intensity of sectoral output to the gross domestic product in the Indian economy.

Results and Discussion

This section of the present study deals with the results and discussions of the economic scrutiny of structural change and occupational diversification in India – a look at post-reform period under the following subheadings:

Structural Changes across Economic Sectors

A turning point occurred in 1990-91 when the state-led model of growth was abandoned in favour of a market-led growth strategy and this phase saw a recovery in the GDP growth due to both policy changes and external factors (Aggarwal, 2019). Table 1 shows that the growth rate of gross domestic product (GDP) has increased except for two quinquennial periods between 2000 to 04 and 2010 to 14, since the initiation of economic reforms in India. However, during this period, the growth rate of the GDP of agriculture has declined except for two quinquennial periods between 2005 to 09 and 2010 to 14. Whereas, the total output share of the agriculture sector towards the absolute GDP has hastily decreased from 32.79 per cent to 15.00 per cent between 1990-94 to 2015-18. The share of manufacturing as a whole rose from about 28.99 per cent in 1990-94 to around 31.45 per cent in 2015-18. During the same period, the average annual quinquennial growth rate of the industry has shown marginal improvement between 1990-94 to 2005-09 whereas, it has shown declined growth from 8.74 per cent in 2005-09 to 7.13 per cent in 2015-18 despite impressive economic growth.

Table 1. Average Annual Growth Rate and Contribution of Selected Variables in India

	Share			Growth Rates			
Year	Agriculture	Manufacturing	Services	GDP	Agriculture	Manufacturing	Services
1990-1994	32.79	28.99	38.23	4.82	3.35	5.11	5.93
1995-1999	28.89	29.84	41.27	6.45	3.13	6.25	9.13
2000-2004	24.64	29.72	45.64	5.33	1.73	6.49	6.66
2005-2009	20.25	32.35	47.40	6.98	2.43	8.74	7.83
2010-2014	17.82	32.03	50.14	6.37	4.41	5.12	7.90
2015-2018	15.00	31.45	53.55	7.24	3.70	7.13	8.37
Note: Computed from world bank data (1990-2018)							

On the other hand, the share of services rose from 38 per cent in 1990-94 to around 53.55 per cent in 2015-18 more than the manufacturing sector. In the post-reform period, the services sector maintains its predominance over agriculture and industry in terms of economic structure (Soni & Subrahmanya, 2020). The average quinquennial growth of the services sector has increased from 5.93 per cent to 8.37 per cent since the commencement of the post-reform period. The shift toward more services dominated the pattern of growth and structural change after the 1990s mainly due to the impact of post-reform policies. The rapid growth of privately organized output and the increased share of services in it were the key factors reinforcing the services dominating growth trajectory after the 1990s (Mazumdar S. , 2010).

The services sector is a major contributor to economic structure, and it grew faster with the increased economic growth over the period hauling the output to sophisticated heights fetching a 15.80 per cent change in output level portrayed in table 2. After the 1990s, the pattern of structural change and growth process of the economy as a whole as well as of its non-agriculture sectors was much industrial. It is analysed from the regression results (Table 2), that the industry sector has attributed merely 9.80 per cent change of sectoral output between 1990 to 2018, even as growth accelerated after the 1990s whereas, in contrast to above the agriculture has shown declined trend during the same period.

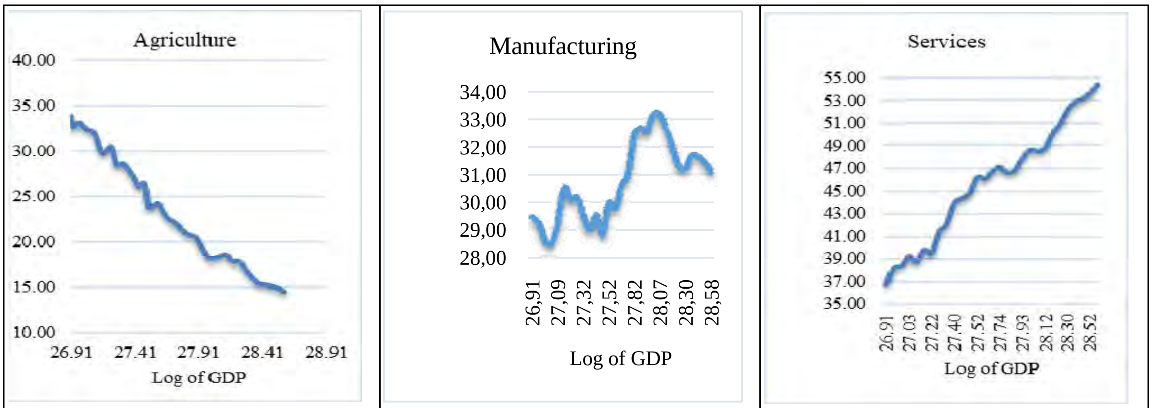
Table 2. Regression Results

	Constant	b	Sig.	AR^2	Std. Error	F- Value
Agriculture	32.975	-13.923	0.000*	0.991	1.584	991.885
Manufacturing	29.159	9.801	0.004*	0.732	3.099	26.431
Services	37.866	15.804	0.000*	0.976	2.104	383.052
* Significant at 5% level of confidence.						
Source: Computed by authors						

The growth pattern of the agricultural and manufacturing sectors decreased significantly, while the services sector showed its emergence as a major contributor to the economy during this period. It indicated the shift of structural transformation has unswervingly from the low-productivity sector to the higher productivity sectors, which gave rise to the phenomenon of the 'missing middle' (Mazumdar D. , 2011). To uplift the rate of growth of GDP, the government should focus on the agricultural and manufacturing sectors also, which are the utmost labour absorbing sectors in the Indian economy. (Roy, 2017) revealed that the high growth of the agricultural sector is crucial for the overall development of the economy. It was contended that doubling the rate of agriculture growth from 2 per cent to 4 per cent with a 9 per cent rate of growth of the economy will condense income discrepancies between agricultural and non-agricultural sectors (Planning Commission 2006). But here it tends quite opposite, the performance of the agricultural and manufacturing sector is fleeting through the abysmal levels after the instigation of the post-reforms in India.

The fitted curves (figure 1) for each sector are obtained by regressing sectoral output shares on the log of GDP as presented in table 2. The sectoral output share of services concerning the increase in GDP has shown an upward trend, and has increased at the same speed at which the sectoral output share of agriculture has been decreased while the manufacturing has increased only between the log GDP was 27.60 to 28.07, with relatively higher instability than the agriculture and services sectors. The degree of the polynomial is determined by the goodness of fit, so adjusted R squared has been taken into consideration instead of R squared. Adjusted R squared is a better model evaluator and can correlate the variables more efficiently than R squared. The manufacturing with lesser $AR^{2,}$ F-value and higher standard error as obtained by the regression sectoral output share reveals wider disparities as compared to the agriculture and services sectors.

The rate of growth of the service sector is much higher than the agricultural and manufacturing sectors and where the disparities are least as compared to other sectors. The service sector is the only sector that is hauling the GDP either upward or downward trend. The shift was seen from the agricultural to the service sector and the manufacturing sector is contributing negligibly to economic growth and development.



Agricultural Output	Manufacturing Output	Services Output

Figure 1. The fitted curves are cubic

Economic Development and Occupational Diversification

Since India has an abundant supply of labour together with the shortage of capital and unskilled labour, being the labour supply unlimited India had taken measures to alter labour surplus into employment through pro-pronged strategies around the 1970s. Efforts were initiated to make development more employment-oriented by encouraging the growth of employment-intensive sectors, sectoral policies and special employment programmes, but the beginning of new economic policies retarded the employment generation with the increasing pace of economic development. According to a UN labour report, unemployment is projected to witness a marginal increase between 2015 and 2018, signalling stagnation in job creation in the country (Business Standard News, n.d.). According to official figures, India's GDP had declined sharply from 7.4 per cent in 2015 to 6.3 per cent in 2017 (Economic Survey 2017-18). The declining phase of economic growth trends lagging behind employment needs. In the same duration, two major headwinds held back India's economic growth, Demonetization and GST weighed down India's economic growth (Abraham, 2017). The 2016-17 Economic Survey expressed, "economic growth has been sluggish". The survey includes both formal and informal workers in parts of the economy as well as casual workers.

Economic development creates various types of occupations in an economy. All these various occupations can be broadly classified into three categories, viz., primary, secondary and tertiary. The primary occupations include all those essential activities such as agriculture and allied activities like animal husbandry, forestry, fishery, poultry farming etc. Secondary activities include manufacturing industries composed of both large and small scale and mining. Tertiary activities include all other activities like transport, communication, banking, insurance, trade etc. The occupational structure indicated the distribution as well as absorption of the population into these various types of occupations. In underdeveloped countries, the majority of the population is still engaged in agriculture and other primary activities. In India, a share of 43.21 per cent of the total workforce is still engaged in the agricultural sector. Over the past 10 years from 2009 to 2019, the share of the workforce has marginally decayed from 52.12 per cent to 43.21 per cent whereas, the share of the workforce has slightly amplified in both manufacturing and services sectors over the same period portrayed in Table 3. The share of the workforce in the industry and services sector has risen from 21.61 and 26.27 per cent to around 24.89 and 31.90 per cent, respectively over the period.

It has been observed from the analysis that the structural changes in occupational diversification are attenuated as compared to gross value added across economic sectors and lead to more unemployment. Both manufacturing and service sector are contributing more to GDP than agricultural, but causative less to employment which some economists label jobless growth (Padder, 2018). The growth rate of GDP in the agricultural and manufacturing sectors has declined since the initiation of economic reforms in India. Declining growth and near stagnant employment share in major abandoned sectors lead to more unemployment. India's share of services in GDP has risen rapidly from 48.62 per cent to around 54.45 per cent between 2009 to 2018. However, during the same period, the rise in employment share from 26.27 to 31.45 per cent is marginal. This presents a unique challenge to future economic growth in India and requires the box solution that will help rapidly harness the potential of the service industry in India. Higher-income states will have a greater share of productive services, while the low-income states may end up with low productivity employment which is a spillover of a lack of alternative productive employment opportunities (Ramaswamy, 2007). There has been a sharply declined trend in the annual growth rate of GDP in all the major sectors of the economy between 2015 to 2018 and stuck the employment at abysmal levels, which recorded declining employment elasticity in the organized sector (manufacturing), will not be able to mend the gap between growth and employment (Roy, 2016). We may thus infer those structural changes are only limited by output levels from one sector to another, and not by the structural transformation of labour itself based on these facts.

Table 3. Percentage Share of The Workforce Across Broad Economic Sectors

Year	Agricultural	Manufacturing	Services
2009	52.12	21.61	26.27
2010	51.06	22.38	26.57
2011	48.96	23.52	25.52
2012	47.00	24.36	28.64
2013	46.6	24.36	29.04
2014	46.07	24.38	29.55
2015	45.56	24.34	30.10
2016	45.12	24.29	30.59
2017	44.52	24.47	31.01
2018	43.86	24.69	31.45
2019	43.21	24.89	31.90
Source: World Development Indicators			

Since 2015, the economy has slowed as a result of a sharp decline in both labour absorption intensity and gross value added across broad sectors of the economy. The National sample survey report (NSSO) for 2017-18 revealed an above 6 per cent unemployment rate, the highest level in 45 years. However, the data was not made public since it had been deemed a draught report by the government (Patel, 2019)**.** Over 60 per cent of young graduates are unemployed and each year our colleges and universities are producing more. This is not a good time to be young as India is slowly turning into the graveyard of its dreams (Pandey, 2020). According to the world bank database (2020), the unemployment rate of the total labour force has enlarged from 2.5 per cent in 1994 to 5.33 per cent in 2018 portrayed in Table 4, which gave the value of the compound growth rate of the total unemployment rate of labour force 3.86 per cent over the 25 years. During the period from 2012 to 2018, the unemployment rate of the total labour force has doubled hopping from 2.13 per cent to 5.33 per cent. According to figures from the International Labour Organization (ILO), the unemployment rate for advanced education has declined from 10.01 per cent in 1994 to around 7.65 per cent in 2012 whereas, it has risen more doubled from 7.65 per cent to around 15.26 per cent between 2012 to 2018 followed by basic and intermediate education (Table 4). There has been an alarming increase in unemployment and a deterioration in the quality of work from 2010 to 2018.

The education system of a country determines the growth of its economy and development. Education produces a perfect and productive batch of youth for a country. However, after the initiation of new economic reforms the Indian economy is incapable to generate additional employment rather and job-loss growth has been found which fetched the employment at abysmal levels (Padder & Mathavan, 2021). It has been found from table 4, with the sudden increase in the overall unemployment rate of the total labour force and particularly, the increasing share of unemployment having the intermediate and advanced education led to the increase of employment in the informal sector for their livelihood. With India's economic growth and development, youth unemployment is at an all-time high, and while unemployment rates are rising, the unemployed are far more educated than the average 15 plus population (Majid, 2021). The process of structural transformation, which had gained momentum post-2004-05, has stalled since 2012 due to a decline in employment in agriculture and manufacturing, as well as slow growth in construction jobs. Unemployment among educated youth is on the rise, and non-farm jobs are of poor quality, resulting in a disillusioned workforce (Mehrotra & Parida, 2019).

Table 4. Percentage Share of Unemployment to Total Labour Force and Informal Employment

Year	Unemployment Rate	Advanced Education	Basic Education	Intermediate Education	Informal Employment
1994	2.50	10.01	3.44	9.42	NA
2000	2.73	10.31	3.94	9.25	NA
2005	2.42	8.72	2.83	7.93	NA
2010	2.11	6.60	2.06	5.99	75.3
2012	2.13	7.65	2.06	5.32	74.8
2018	5.33	15.26	4.18	10.72	80.3
Source: World Development Indicators					

With a median age of around 25 years, India has the world's largest youth bulge, surpassing 500 million, compared to 40 in China and the US, and 50 in Europe. Although this has put the country in a good position to continue growing, it is not guaranteed. It must be accelerated to prevent a youth advantage from turning into a demographic disaster. Investment in human capital has both causes and consequences, such as the transition from farm to factory jobs, homeownership, and economic security (Ghani, 2020). Since the informal economy accounts for such a large proportion of total employment in South Asian countries, it plays an important role in boosting economic development while maintaining a constant GDP growth rate (Islam & Alam, 2019).

Around 81 per cent of all employed people in India earn their livelihood by working in the informal sector, with just 6.5 per cent working in the official sector and only 0.8 per cent working in the home sector in 2018. Among the five South Asian countries, informalisation of labour is the highest in India and Nepal (90.7 per cent), with Bangladesh (48.9 per cent), Sri Lanka (60.6 per cent) and Pakistan (77.6 per cent) doing much better on this front. Formal employment in Bangladesh is the highest in the region at 13.5 per cent, but it also has high household employment at 26.7 per cent, says a new report by the International Labour Organisation (ILO, n.d.). Between 2010 to 2018, the share of total informal workers has risen from 75.3 per cent to around 81 per cent in India.

Informality in India is often viewed within a continuum of an exploitative capitalist system (Breman, 1985). According to this view, informality has intensified because of economic liberalisation and the 'jobless growth' phenomenon in the Indian formal sector (Nagaraj, 2004). It can be inferred that the services sector, which is the engine of structural change and overall economic growth, will not be able to substantially alter economic and occupational structures. The rise in capital intensity and technological change after the post-liberalization in the formal/organized sector led to jobless growth in the Indian manufacturing and services sector (Maiti, 2010). Due to limited employment creation in India's formal economy prominent to more capital intensive and skilled labour force, the only alternative for the people is to seek employment in the informal economy. According to Dipak (2011), the share of the non-agriculture economy in the contribution of GDP is much higher than the agriculture economy, but this growth is absorbing a small proportion of labour in the high wage formal sector than the informal sector and the bulk of jobs are created in the informal sectors are mostly low-productive.

Conclusions

Economic growth and employment generation, particularly in the manufacturing and service sector was one of the core objectives of new economic reforms to overwhelm the economic crises in the 1990s. The reforms have efficaciously accomplished the target of optimum level of economic growth, which created more employment opportunities and structural changes across the economic sectors. The service sector has dominated both the growth rates and economic structure, but it has failed to contribute much to the structural occupation. Both the manufacturing and services have positively influenced the GDP on the overall growth in the Indian economy after the liberalization and significantly, but the impact of services growth on the overall growth of the Indian economy surpassed the manufacturing growth. The reallocation of sectoral output has moved from agriculture towards the services more than the manufacturing over the period with relatively higher disparities in the manufacturing sector.

Between 2010 to 2018, the average annual growth of GDP, agriculture and manufacturing declined rapidly while the services have shown a marginally increased trend in 2018. It can be inferred that the 1990s reforms have positively affected the economy only for a shorter period. On other hand, during the same period, the unemployment level of the Indian economy has increased at an alarming rate. The unemployment rate of the labour force has increased more doubled substantially, affecting the youth with advanced education. People are moving to the informal sectors of the economy, which are low-productive as the rate of return of output is substantially low. "Make-in-India" which was launched in the same period (2014) to enhance manufacturing growth was found conventionally low labour fascinating capability. During the same period, the average annual growth rates of GDP have sharply stumbled and it could be due to the two gales held in the Indian economy, "Demonetization and Goods & Service Taxes", supported the argument of Abraham (2017).

The growth pattern of GDP across the economic broad sectors led to the emergence of an unbalanced economy after the initiation of economic reforms in the 1990s. Among the major sectors, the service sector is the main and highly influential sector towards economic development, with the declined trend of agriculture and manufacturing. We found that the structural changes were meant only for the output levels and the rate of structural transformation of the total workforce was sluggish in the middle, as both the manufacturing and services are not found labour absorbing sectors of the Indian economy which led to the increase in informal employment to around 81 per cent till 2018. The structural transformation in India will likely remain constrained by the slow growth of employment, in-services, and especially in labor-intensive manufacturing by which the educated youth has been found moving towards the informal sector for their subsistence. India's inclusive growth will be impossible to achieve unless the informal sector's share of total employment does not reduce.

References

Abraham, V. (2017). Stagnant Employment Growth; Last Three Years May Have Been Worst. *Economic and Political Weekly,* 13-17.

Aggarwal, A. (2019). Economic Growth, Structural Change and Productive Employment Linkages in India: Did Market Transition Matter? *South Asia Economic Journal*, 64-85.

Ahluwalia, M. S. (2000). Economic Performance of States in Post-Reform Period. *Economic and Political Weekly*, 1637-1647.

Breman. (1985). *Of Peasants, Migrants and Paupers: Rural Labour Circulation and Capitalist Production in West India.* New Delhi: Oxford University Press.

Gabardo, Adilson, F., Joao, B. P., & Einloft, P. (2019). The Incorporation of Structural Change into Growth Theory: A Historical Appraisal. *EconomiA,* 392-410.

Ghani, E. (2020, July 27). *Opinion | Turbocharge India’s youth for a sustainable economic comeback.* Retrieved from Live Mint: https://www.livemint.com/opinion/online-views/turbocharge-india-s-youth-for-a-sustainable-economic-comeback-11595862154140.html

Islam, M. T., & Alam, M. J. (2019). The Relationship between Informal Economy and GDP Growth: A Study on South-Asian Developing Countries. *Canadian Journal of Business and Information Studies*, 1-9.

Kuznets, S. (1955). Economic Growth and Income Inequality. *American Economic Review*, 1-28.

Maiti, D. (2010). The Informal Sector in India: A Means of Exploitation or Accumulation? *Journal of South Asian Development*, 1-13. doi:10.1177/097317411000500101

Majid, N. (2021). *Young persons not in employment and education in India: 2000-2019.* ILO DWT for South Asia and Country Office for India: International Labour Organization-(ILO). Retrieved from https://www.ilo.org/newdelhi/whatwedo/publications/WCMS_789243/lang--en/index.htm

Mazumdar, D. (2011). The Employment Problem in India. *The Indian Journal of Labour Economics, 54*(1), 145-149.

Mazumdar, S. (2010). *Industry and Services in Growth and Structural Change in India; Some Unexplored Features.* New Delhi: Institute for Studies in Industrial Development.

Mehrotra, S., & Parida, J. (2019). *India’s Employment Crisis: Rising Education Levels and Falling Non-agricultural Job Growth.* Bengaluru: Centre for Sustainable Employment. Retrieved from cse.azimpremjiuniversity.edu.in

Mkhize, H. P. (2013, June 29). The Stunted Structural Transformation of Indian Economy, Agricultural, Manufacturing and Rural Non-Farm Sector. *Economic and Political Weekly, XLVIII*, 5-12.

Nagaraj. (2004). Fall in Organised Manufacturing Employment: A Brief Note. *Economic and Political Weekly,* 3387-90.

Nayyar, D. (2017). Economic Liberalisation in India: Then and Now. *Economic and Political Weekly*, 41-48.

Nearly 81% of the Employed in India Are in the Informal Sector: ILO. (n.d.). Retrieved September 9, 2021, from https://thewire.in/labour/nearly-81-of-the-employed-in-india-are-in-the-informal-sector-ilo

Padder, A. H. (2018). Changing Pattern of Economic Development and Employment in India: An Interstate Analysis. *Social Science and Humanities International*, 1-29.

Padder, A. H., & Mathavan, B. (2021). The Relationship between Unemployment and Economic Growth in India: Granger Causality Approach. *Natural Volatiles & Essential Oils, 8*(4), 1265-71.

Pandey, R. (2020). *Unemployment at 45-year high: India living a jobs nightmare*. New Delhi: https://www.nationalheraldindia.com/opinion/unemployment-at-45-year-high-india-living-a-jobs-nightmare.

Papola, T. (2012). Structural Changes in the Indian Economy: Emerging Patterns and Implications. *Institute for Studies in Industry Development*, 1-29.

Patel, A. (2019). *Cat finally out of the bag: Unemployment at a 45-year high, the government defends data*. New Delhi: www.indiatoday.in.

Ramaswamy, K. V. (2007). Regional Dimension of Growth and Employment. *Economic and Political Weekly*, 47-56.

Roy. (2016). Faltering Manufacturing Growth and Employment: Is 'Making' the Answer? *Economic and Political Weekly*, 35-42.

Roy, S. d. (2017, 3 4). Economic Reforms and Agricultural Growth in India. *Economic and Political Weekly, LII*(9), 67-72.

Sankaran, U., Abraham, V., & Joseph, K. J. (2010). Impact of Trade Liberalisation on Employment: The Experience of India's Manufacturing Industries. *The Indian Journal of Labour Economics*, 587-601.

Soni, S., & Subrahmanya, M. B. (2020). Growth and Structural Change in the Indian Economy: An Analysis of Pattern, Determinants, and Outcomes. *Economic and Political Weekly*, 65-70.

U, S., V, A., & K. J., J. (2010). Impact of Trade Liberalisation on Employment: The Experience of India's Manufacturing Industries. *The Indian Journal of Labour Economics*, 587-601.

Unemployment in India to increase in 2017-18; rate to remain at 3.4%: UN | Business Standard News. (n.d.). Retrieved September 8, 2021, from https://www.business-standard.com/article/economy-policy/unemployment-in-india-to-increase-in-2017-18-rate-to-remain-at-3-4-un-117011300307_1.html